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GROWING JOBS AND ECONOMIC OPPORTUNITY: PERSPECTIVES ON THE 2018 FARM BILL FROM MICHIGAN

FIELD HEARING

BEFORE THE

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GROWING JOBS AND ECONOMIC OPPORTUNITY: PERSPECTIVES ON THE 2018 FARM BILL FROM MICHIGAN

Saturday, May 6, 2017

SAGINAW VALLEY RESEARCH AND EXTENSION CENTER,
MICHIGAN STATE UNIVERSITY,
Frankenmuth, MI

The Committee met, pursuant to notice, at 10:06 a.m., Eastern Time, at the Saginaw Valley Research and Extension Center, Michigan State University, 3775 S. Reese Road, Frankenmuth, Michigan, Hon. Pat Roberts, Chairman of the Committee, presiding.

Present: Senators Roberts and Stabenow.

Chairman ROBERTS. Good morning. I call this hearing of the Senate Committee on Agriculture, Nutrition, and Forestry to order. Senator Stabenow, ladies and gentlemen on the panels, others here in the room, and those watching across the country, welcome to the Committee's second hearing on the next farm bill.

We started the journey to a successful and timely upcoming farm bill in Manhattan, Kansas—the Little Apple, home of the ever optimistic and fighting Wildcats—several weeks ago, and we continue that listening process here in Michigan today.

I am very proud to welcome my partner, Senator and former Chairwoman Debbie Stabenow. We are colleagues, we are friends. I am grateful to her for inviting us back to Michigan, and we will again work together to craft a new farm bill. We have done it before; we can do it again.

Before we offer our opening remarks, we will hear a welcome from the distinguished Dean of Michigan State's College of Agriculture and Natural Resources. I now turn to Senator Stabenow for her introduction, and then we will turn it over to you, Dr. Hendrick, for your remarks.

Senator STABENOW. Well, thank you so much, Mr. Chairman.

First, to everyone here, we need to recognize the fact that Senator Roberts is the only Chair of the Senate Agriculture Committee who has also been Chair of the House Agriculture Committee. So welcome to Michigan. We are glad to have you.

[Applause.]

Senator STABENOW. I am so pleased to introduce the dean of my alma mater's College of Agriculture and Natural Resources, Dr. Ronald Hendrick. Dean Hendrick holds both his bachelor's and doctorate degrees from Michigan State University. Prior to his current role at MSU, he served as interim dean for the College of Food, Ag-

riculture, and Environmental Science at Ohio State. We will not hold that against you.

[Laughter.]

Senator STABENOW. He saw the light and came home. So, again, welcome and thank you so much for sharing your time and your remarks with us today.

STATEMENT OF RONALD L. HENDRICK, PH.D., PROFESSOR AND DEAN, MICHIGAN STATE UNIVERSITY COLLEGE OF AGRICULTURE AND NATURAL RESOURCES, EAST LANSING, MICHIGAN

Mr. HENDRICK. Thank you. Chairman Roberts, Ranking Member Stabenow, members of the Michigan agriculture community, on behalf of Michigan State University, I would like to welcome all of you to the MSU Saginaw Valley Research and Extension Center and today's Senate Agriculture, Nutrition, and Forestry Committee field hearing, where we will highlight growing jobs and economic opportunity. We are all honored that the Committee has chosen to hold this hearing on issues important to Michigan's agricultural community here in Saginaw Valley.

I would like to begin by acknowledging our venue. This center has served farmers in the Saginaw Valley since the early 20th century. Here our MSU researchers and area farmers work on increasing productivity, profitability, and sustainability. With much of Michigan's sugar beet and dry bean production located in this part of the State, it makes sense for MSU to meet growers where they are. We in turn have been generously supported by both industries, as evidenced by this new facility.

I serve as dean of the College of Agriculture and Natural Resources, and while I consider myself relatively new to the university, I am indeed a two-time alumnus, so my return is a bit of a homecoming for me.

Michigan State University was founded in 1855 on the land-grant missions of teaching, research, and outreach. As dean, I oversee the college, MSU Extension, and MSU AgBioResearch, the entities that serve those mission areas.

While that mission, the founding mission, is well over a century old, it is relevant just as much today as it was in 1855. It is our charge to pivot, to adapt, and to provide leadership in areas of food, energy, and environment. It is work we take very seriously, and you will hear today from people who have been impacted by the work that we do.

There are more voices today, though, that you will not hear. I think about those we serve daily, our constituents, as people who woke up this morning with access to nutritious breakfasts and clean water and a clean environment, but also those who did not, and their voices matter in this conversation as well.

There is perhaps no greater time to be involved in research pertaining to sustainable and nutritious food production. The world's population is growing by about 80 million people a year. That is expected to continue for decades into the future. In our country, the USDA estimates that 13.1 million children are living in homes with insufficient food, while at the same time children are being diagnosed with Type 2 diabetes at an ever-increasing rate.

MSU remains committed to discovering practical, adoptable solutions that address these and other serious issues. It is through research and outreach that these answers will continue to be unearthed, shared, and put into practice at home and around the globe. Our research in the areas of food, energy, and environment happens broadly across campus, across the State, and around the world because we do not approach and solve problems in a vacuum.

Solutions to crisis issues like clean water and nutritious and abundant food mean not only providing and growing food and water, but understanding human behavior and the challenges that face people across the country and around the world. We cannot just grow more nutritious food and provide clean water; we also need to find ways to distribute those and understand the importance of both.

As folks in this room are keenly aware, we all need to better communicate about the economics of food and agriculture so that people from all walks of life understand the vitality of the food and agriculture industry. To that end, MSU works hand in hand with community organizations to address issues facing growers and producers throughout the State, focusing on solutions for everything from disease management to food processing.

As you know, MSU researchers received nearly $40 million in USDA grant funding in 2016, which puts us in the top five agricultural research institutions in America. We are very proud of this accomplishment, and we are also very grateful for the Federal investment in that.

The only thing about this kind of work that we can say is that there is always more to do. There is pent-up demand for additional capacity for research, for outreach, and for teaching. MSU and the Nation's other land-grant colleges stand ready to do our part in feeding growing populations with healthy, nutritious food and improving the economic climate for the food and agriculture industry.

Again, I want to thank everyone gathered with us today. We want to wish you a warm welcome to Saginaw Valley, and I look forward to a robust hearing. Thank you.

[The prepared statement of Mr. Hendrick can be found on page 85 in the appendix.]

Senator STABENOW. Thank you, Dr. Hendrick. Thank you.

[Applause.]

Chairman ROBERTS. I now recognize the distinguished Senator from Michigan, Deborah Stabenow, for her opening remarks.

STATEMENT OF HON. DEBBIE STABENOW, U.S. SENATOR FROM THE STATE OF MICHIGAN

Senator STABENOW. Well, thank you so much, Mr. Chairman, and I think we also want to invite our witnesses to come up who will be speaking. We are so glad to have witnesses who have been willing to take their time this weekend to join us for this important hearing, showcasing the breadth and diversity of Michigan in this process. So thank you so much.

I want to thank the Chairman again for once again making the trip to our beautiful State. We did this before for the last farm bill. We were on Michigan State University campus. Now we are out in the middle of farmland, which is only appropriate. I appreciate

very much, Mr. Chairman, your spending time with some of our amazing agriculture, conservation, and local food leaders.

Mr. Chairman, I know that Kansas farmers have had a rough start to the year, with both wildfires and more recently a late-season blizzard that decimated your wheat crop. I am pleased that just a few minutes ago we were able to join some of our very generous Michigan farmers who stepped up to donate their time and resources. We are so very proud of them. These people understand what it is like to care about one another and be part of an extended family called farmers. We had members that delivered hay to Kansas as well as other supplies to help after the devastating wildfires earlier this spring.

I know you heard from our Michigan farmers that we support Kansas farmers. Whether it is a wildfire or a late frost in Kansas, or a warm winter and a hailstorm in Michigan, or what may be happening on the western side of the State this weekend with our fruit growers farmers more than anyone else know the danger that weather changes pose.

We are glad to be part of your extended farm family. In fact, as I already said, agriculture is the riskiest business there is. Nobody else has to depend on the weather report for their success. But farmers also have grit and determination and passion for what they do, and for that we all should be very grateful.

Mr. Chairman, I know that you and I and our Senate Committee will follow the example of these farmers and keep all of agriculture working together so that we can continue building our farm bill coalition and pass a 2018 Farm Bill. Everyone who is here today understands how important the farm bill is to Michigan. But many people outside of agriculture do not understand how critical it is to our economy.

I have always said we do not have an economy unless we make things and grows things, and the farm bill plays an important role in doing that. The food and agriculture economy supports 16 million jobs across our country, and here in Michigan, agriculture is our State's second largest industry supporting one out of every four jobs.

We last passed a farm bill in 2014, signed by President Obama right here in Michigan. I made sure that Michigan was reflected on every page. The bill made responsible, bipartisan reforms to streamline more than 100 programs and save taxpayers billions more than we expected.

The bill goes a long way to support Michigan families who have been growing food for many generations through expanded crop insurance, but also creates new opportunities for beginning farmers to enter the field, including our veterans. It helps our $720 million specialty crop industry access stronger risk management tools to protect their crops from future disasters. It connects our producers to new markets to sell locally to their neighbors or around the world. It invigorates the economies of small towns and rural communities through bio-based manufacturing and upgraded infrastructure. It helps to put food on the table for families who have fallen on hard times.

It brings tourism dollars to our State through significant investments in conservation that protects our Great Lakes and water-

ways. It supports cutting-edge research like we have right here to advance and safeguard our food and agriculture economy. The ground-breaking work that is happening right here at MSU Extension is one important example.

Congress considers the farm bill only once every 5 years, and the 2014 Farm Bill that has done so much for our State is set to expire next fall. Just as in the last bill, Michigan will continue to have a voice in the farm bill process from start to finish.

Going into the 2018 Farm Bill, we know things have changed over the last few years. Low prices have pinched margins and made it tough for many producers to make ends meet. Right off the bat, we know we need to strengthen our farm safety net, particularly for us in Michigan, our dairy farmers.

Throughout the process, I will again be focused on the needs of Michigan producers and our State's small towns and small communities, like my hometown of Clare. The Congressional Budget Office estimates that the farm bill will save $80 billion more than we had expected because of the policies in place and primarily because the economy is getting better and fewer people need temporary food assistance.

We know the farm bill has done more than its fair share to reduce the deficit. Any further cuts would be detrimental to farmers and families. That is why over 500 groups, including some of the groups represented here today, agree we should not be making new cuts to the farm bill.

Writing a farm bill is no simple task, and we certainly cannot do it alone, which is why we are here today. Throughout the hearing, we will hear from a wide variety of witnesses who reflect our State's unique food and farm economy. Believe it or not, many people outside of Michigan do not think of us as a farm State, but we know better. We in Michigan take great pride in our agricultural diversity. If you grew up eating chocolate-covered cherries at the Cherry Festival, or picking from the wide variety of fruits and vegetables our farmers markets have to offer or driving along the highways flanked by sugar beet, corn, dry bean, soybean fields, and so much more, you know what our State is capable of growing.

Michigan is the second most diverse State in the country in terms of what we grow, and the strength of our agriculture economy is rooted in that diversity. We were able to make sure Michigan agriculture was strongly represented in the last farm bill thanks to the support and input we received, and the broad coalition that came together to support our comprehensive, bipartisan bill. In order to ensure Michigan continues to have a strong voice in the process, we will need to continue that tradition of working together to support our jobs, our farmers, and our families. I am confident we can achieve that goal.

Thank you, Mr. Chairman.

Chairman ROBERTS. Thank you, Senator Stabenow, for an excellent statement.

Ladies and gentlemen, it is great to be back in Michigan today. [Laughter.]

Senator STABENOW. Go green.

Chairman ROBERTS. We made her wear purple at K–State.

Senator STABENOW. I did.

[Laughter.]

STATEMENT OF HON. PAT ROBERTS, U.S. SENATOR FROM THE STATE OF KANSAS, CHAIRMAN OF THE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

Chairman ROBERTS. Before we get started, I want to recognize and thank several Michigan farmers, ranchers, and other citizens, as well as the director of the Michigan Department of Agriculture and Rural Development, Jamie Clover Adams. As has been said by Senator Stabenow and many of you, you surely have heard that, in March, Kansas farmers and ranchers were hit by the largest prairie fire on private land in our State's history, and we think perhaps in our country, with over 750,000 acres, and thousands of cattle euthanized.

Folks back home lost their homes, their cattle, their facilities, their fencing, their livelihoods, but they did not lose their future. Many producers in Michigan and elsewhere all throughout the country stepped up to help with recovery efforts, raising private funds, sending hay and materials to rebuild, and other assistance to Kansas. For that, we are extremely, extremely grateful.

These generous activities illustrate the can-do attitude and the bootstrap mentality that makes rural America so special, regardless if you call Kansas or Michigan or any other State home. Just as we did during our recent visit to Kansas, it is important for us to get out of Washington—it is always pleasant to get out of Washington—to hear directly from folks about the farm bill where it matters most: on our farms, ranches, businesses, and communities all across the country.

Our producers, agribusiness, and our rural communities are the ones who signed up for the programs. They comply with all the regulations and feel the pain firsthand of overburdensome or undersupportive policies. Year after year, America's farmers and ranchers overcome drought, disease, floods, fires, freezes, tornadoes, embargoes, and even their own Government to produce the safest, most abundant, affordable food and fiber supply the world has ever known.

Your experience, your story, is what we need to hear before we start writing a new farm bill. I think you know that passing a new bill will not be easy. That is the understatement of the morning. That is why your help in crafting a bill that meets the needs of producers across all regions and all crops is absolutely necessary. Note that I said "all regions and all crops."

All of agriculture today is in a rough patch. We are struggling, not just one or two commodities. During the last farm bill debate, the agriculture sector enjoyed high prices. Now we face multiple years of low prices across the board.

Senator Stabenow and I are working to make Washington understand the differences between the economic conditions then and what we are facing now. You all understand that. Washington needs to as well.

So to those who say passing a farm bill in this environment is a daunting task, I say, okay, but together we can get it done. We have done it before. We will do it again. We must embrace the atti-

tude of our producers: optimism and ingenuity. A farmer plants a seed believing in a good harvest.

At the same time, our Government is spending money it does not have. That is no surprise to anybody in the room. Our national debt exceeds $19 trillion. That is a "T"—trillion. Put 19 and then you put 12 zeroes. My staff and I counted them.

[Laughter.]

Chairman ROBERTS. That is so enormous that it is hard to get your hands around it.

Agriculture, and specifically the farm bill, has consistently answered the call to do more with less. That is what we do. The last farm bill voluntarily cut spending. The previous crop insurance contract for the Agriculture Department cut—I do not even like remembering this—$6 billion from the program. There was going to be another $3 billion in the continuing resolution, but we stopped that. I could go on and on where ag has already given at the store.

Farmers and ranchers and rural families understand fiscal responsibility. That is what we are all about. Therefore, we must be judicious with the scarce resources that we have. We must ensure programs accomplish their fundamental purposes. We must ask tough questions and re-examine programs to determine their effectiveness. Now is the time to examine the core mission of USDA programs to ensure they are operating as intended, and if they are not, then we must refocus. We need bold thinking and new ideas to address today's challenges during these tough economic times.

Now, Dr. Hendrick said it very well. Let us not forget that the global population is rapidly approaching 9 billion people. Agriculture production will need to double in the near future to meet the increased demand over the next couple of decades. Accomplishing this task requires efficiency, not just on the farm and the ranch but certainly, most certainly, in our United States Government.

Feeding an increasing global population is not simply an agriculture challenge. It is a national security challenge. Show me a country that cannot feed itself, and I will show you a nation in chaos. This means we need to grow more and raise more with fewer resources. That is going to take research, new technology, lines of credit, and proper risk management. It takes the Government providing an adequate safety net and then getting out of the producers' way.

So that is why we are here today, to hear from the entire value chain of agriculture on what is working, what is not, and how we can improve. I want to thank all of our witnesses for taking the time out of your valuable schedule to provide your advice and your perspective. Thank you to those in the audience for being here as well.

Now, for those of you who want to provide additional thoughts on the farm bill, we have set up an email address on the Senate Ag Committee's website to collect your input into the farm bill discussion. You are not going to believe that I am up to this task to really get up to speed with technology in that you still claim I use carbon paper.

[Laughter.]

Chairman ROBERTS. But please go to ag.senate.gov. That is very easy to remember, ag.senate.gov. Then you click on the farm bill hearing box—my kids are not going to believe this—on the left-hand side of the screen.

Let me do that again: ag.senate.gov, click on the farm bill hearing box on the left side of the screen. Then you can send us your own input—just be nice, watch the adjectives, watch the adverbs—for the Committee to consider as we write the next farm bill. That link will be open for 5 business days following today's hearing.

I now turn to Senator Stabenow to introduce our first panel of witnesses. We look forward to your testimony. Unfortunately, we are asking you to limit your remarks to 4 minutes. When we get to 4 minutes and 30 seconds, you will hear this [tapping]. That is a very gentle tap. You get to 5 minutes, we will take you to Dodge City, and you will never be——

[Laughter.]

Chairman ROBERTS. You will never be heard of again. Senator Stabenow.

Senator STABENOW. Well, thank you, Mr. Chairman. I am so glad to be able to introduce our witnesses. I should also tell you we are tweeting, and someday I will explain what that is to you.

[Laughter.]

Senator STABENOW. We actually have a Twitter account that we are doing now.

Chairman ROBERTS. I think I know a man that could help me.

[Laughter/applause.]

Senator STABENOW. Okay. He is coming along.

We have a great group of producers today from all across the State representing the diversity that we all know is with us, and so welcome to all of you. I will introduce everybody, and then we will start with the testimony.

To kick off the first panel, we have Mrs. Janna Fritz of JDF Farms in Bad Axe, not too far from here. Alongside her recently, Mrs. Fritz farms—say that three times—1,200 acres of corn, soybeans, and edible dry beans. Off the farm, she is a district sales manager for a seed company. Mrs. Fritz serves on the Board of Directors for the Michigan Corn Growers Association, and she received the Michigan Farm Bureau's Young Agricultural Leader Award in 2015.

Next on our panel is Mr. Chris Alpers. Mr. Alpers is a third-generation apple and cherry grower from Lake Leelanau. He currently serves on the U.S. Apple Board of Directors and Executive Committee as well as the Cherry Growers Processing Board of Directors. Mr. Alpers and his father own Red Path Orchard and Alpers Farms, consisting of 1,000 acres of tart cherries, sweet cherries, and apples.

Along with us today also is Mr. Rick Gerstenberger, a second-generation farmer with his two sons, Gerstenberger Farms in Snover, Michigan, where they farm almost 2,900 acres of sugar beets, corn, soybeans, wheat, alfalfa, and occasionally dry beans. Mr. Gerstenberger serves as chairman of the board of the Michigan Sugar Company and is also the vice president of the American Sugar Beet Growers Association.

Next on our panel is a fourth-generation farmer, Mr. Darrin Siemen of Harbor Beach. Mr. Siemen owns and operates Prime Land Farm along with his wife and three children. Their centennial farm includes 320 dairy cows, 800 beef cattle, as well as corn, sugar beets, alfalfa, and wheat. Mr. Siemen is the past president of the Huron County Farm Bureau, and in 2016, he and his wife were named the Outstanding Young Dairy Cooperatives by the Michigan Milk Producers. I want to also note that both Mr. Siemen and his wife are Spartans. Go green.

Up next is Mr. Andy Snider, owner of Snider Farms in Hart, where he and his family raise turkeys, hogs, corn, and soybeans. Mr. Snider is a co-founder of the Michigan Turkey Producers Cooperative, sits on the Executive Council of Land O'Lakes Cooperative, and serves on the Board of Directors for GreenStone Farm Credit Services.

I would like to welcome Mr. David Williams next. Mr. Williams is a fifth-generation farmer in Elsie, another Spartan. He is an active member of the Shiawassee Conservation District and the Michigan Farm Bureau. Mr. Williams serves as district director and president of the Michigan Soybean Association and also represents Michigan on the United Soybean Board.

Along with us also today is Mr. Adam Ingrao. Mr. Ingrao is a fourth-generation U.S. Army soldier—thank you for your service—who served honorably following the 9/11 attacks as a Patriot missile fire controller. He is a beekeeper in Lansing and serves as the vice president of Michigan Food and Farming Systems, co-director of the Michigan Veterans in Agriculture Network, and is the co-founder of the Michigan Farmer Veteran Coalition. Mr. Ingrao is also a Ph.D. candidate in the Department of Entomology at Michigan State University.

One of the things I am so proud that we did in the last farm bill is add extra support for farmers that are veterans, so thank you so much for organizing the Michigan Coalition.

Concluding our first panel is Mrs. Pam Bouma Miller. Mrs. Miller is the owner and partner of Hopyards of Kent County in Greenville, Michigan. She is a founding board member of Hop Growers of Michigan and has quickly become an expert and a leader in this growing market.

Welcome to all of you, and we look forward to your testimony.

Did I miss someone here?

Chairman ROBERTS. I do not think so.

Senator STABENOW. I got everybody, okay. Good. Great. I am sorry. Mrs. Fritz.

Chairman ROBERTS. Mrs. Fritz, you are recognized.

Senator STABENOW. Mrs. Fritz, yes.

STATEMENT OF JANNA FRITZ, JDF FARMS, LLC, BAD AXE, MICHIGAN, AND SECRETARY/TREASURER, MICHIGAN CORN GROWERS ASSOCIATION

Mrs. FRITZ. Thank you. Good morning, Chairman Roberts, Ranking Member Stabenow. On behalf of my family farm and the Michigan Corn Growers Association, I want to thank you for the opportunity to testify and share a few thoughts on the farm bill.

My name is Janna Fritz. I am married to a fifth-generation farmer. My husband, Joel, and I have two sons, Wesley and Zachary, and we farm 1,200 acres of corn, soybeans, and edible dry beans. I did not grow up on a farm, but I have come to love it because it is a great environment to raise a family. American farmers are some of the most honest, hardworking, compassionate people I have ever had the pleasure to know. Their ability to grow food, fuel, and fiber for the world is truly an inspiration to me. In addition to working on the farm, I also am a sales representative for a seed company that puts me in touch with farmers throughout the Thumb region.

In addition to the family farm, I serve as the Secretary/Treasurer of the Michigan Corn Growers Association. Michigan's corn growers are innovative and efficient at producing corn in a sustainable manner. Corn farmers produce more bushels on fewer acres with fewer inputs than ever before. Farmers are deeply committed to environmental sustainability and are utilizing conservation programs like the Environmental Quality Incentives Program and the Conservation Stewardship Program.

On our own farm, we have implemented a number of sustainability practices. We sample our soils and tailor our nutrient applications and only apply what our crop needs. We also use cover crops and no-till or minimum tillage to protect the soils.

Corn farmers have seen a drastic drop in corn prices over the past several years. Corn prices are at or below their cost of production. Low prices mean lower revenues for farmers, lower net incomes for Michigan farm families, and increasing stress for farm operations, their employees, and our rural communities. In this environment, a strong farm safety net is critical for Michigan farmers.

Fundamentally, the safety net in the 2014 Farm Bill under then-Chairwoman Stabenow worked well for farmers like myself and my neighbors. The combination of crop insurance and the commodity safety net have been helpful in offsetting significant revenue losses in recent years. The county-level agricultural risk coverage, in particular, remains a high priority for our growers. We believe the program has performed as it was intended and is making sure that farmers have assistance when it is needed.

There are, however, like with any new program, some areas where improvements could be made in the new farm bill, and my written testimony has some of those suggestions.

Along with a strong safety net, market development is critical to drive increased demand for corn and corn products. Trade and export development are consistently ranked as a top priority by MCGA members, and exports account for close to 30 percent of U.S. corn farmers' income.

I saw the potential opportunities from trade firsthand as part of an official trade mission to China last year. To continue on trade, USDA's Market Access Program and the Foreign Market Development Program continue to be extremely valuable in growing new overseas markets for agriculture. These private-public partnerships deliver a return on investment of $28 in exports for every dollar that we invest. MCGA supports increasing the funding for these programs to even further boost their effectiveness.

At the same time we are growing markets abroad, there are important policies that support domestic markets such as renewable fuels. Michigan is home to five ethanol plants that produce clean-burning biofuels from Michigan-grown corn. Continued support of the Renewable Fuel Standard and other market access programs for biofuels will be more important than ever before to ever increase our demand.

It is hard to understate the importance of the 2014 Farm Bill to Michigan's farm families as we have weathered tremendous economic challenges over the past few years. Thank you for your work and for this opportunity, and I look forward to answering your questions.

[The prepared statement of Mrs. Fritz can be found on page 56 in the appendix.]

Chairman ROBERTS. Thank you very much. I appreciate your statement.

Mrs. FRITZ. Thank you.

Chairman ROBERTS. We will be asking you questions about your written testimony and how we can improve crop insurance.

Mr. Alpers, you are recognized, sir.

STATEMENT OF CHRIS ALPERS, REDPATH ORCHARDS, LAKE LEELANAU, MICHIGAN

Mr. ALPERS. Good morning, Chairman Roberts, Ranking Member Stabenow. Thank you for the opportunity to speak today. As mentioned before, my father and I manage/own Redpath Orchards and Alpers Farms, consisting of 1,000 acres of tart cherries, sweet cherries, and apples. The business was established in 1959 by my grandfather.

My wife, also a grower, is a sixth-generation tree fruit grower, and she and I hope to leave our family farm, poised for success, for maybe our 4-month-old son, Raymond, should he choose to carry out the family farming legacy. We look forward to planting an apple tree this year with our son, grafted from a Red Delicious tree my wife's great-great-great-great-grandfather planted on their family farm in Sparta, Michigan. That is seven generations.

In addition to farming, my mother and I operate a business selling tree fruit nursery stock. We work with C&O Nursery—owned and operated by the Snyder family since 1906—from Wenatchee, Washington. This is an example of how tree fruit growers across the country work together closely in order to put our industry forward.

Apples are Michigan's largest, most valuable fruit crop and have a farm gate value of $245 million. Building on the success of the 2008 legislation, the current farm bill made a number of important strides toward each of these goals. I would like to touch on a few of them briefly.

Export Programs: A strong export market is critical to the health of the apple industry. Nationally, about 30 percent of the crop is sold overseas. This leads me to this important point. I would like to take a quick second to mention the importance for protecting the provisions for agriculture in NAFTA. Mexico and Canada represent the two largest export markets for apples, totaling more than $450

million in sales last year. Disruption to these important markets would have a devastating impact on our entire industry.

The apple industry also strongly supports the Market Access Program, which has helped level the playing field as it allows us to compete with countries that have a much lower cost of production, such as China and Chile.

The MAP program is a public-private partnership, with growers contributing $2 for every Federal dollar the industry receives. Recent studies have shown a return on investment of 24:1 for MAP.

Crop Insurance: The apple industry is one of a handful of specialty crops that participates in the Federal crop insurance program. In fact, according to the USDA's Risk Management Agency, nearly 75 percent of the apple crop is insured.

A risk management tool such as crop insurance allows producers like me to invest back into our own businesses, creating good jobs for the local community. Modern apple plantings cost upwards of $40,000 an acre before a single apple is harvested, sometimes 3 to 4 years later.

This enormous startup cost scares many talented young entrepreneurs—and lending institutions—away from investing their talents—and capital—into the apple industry. I am thankful many producers and lenders recognize crop insurance as an important risk management tool.

Without the ability to purchase a solid insurance policy and limit my exposure, I would not be able to justify investing my future into the apple business.

I would be remiss to not point out that labor continues to be our number one issue on our farm, and I must say there is no insurance for no labor. A solution to this problem must come sooner than later. I have personally witnessed crops wasting away on trees because the producer was not able to secure a domestic workforce or there had been extreme delays in the H–2A program.

Due to the lack of a viable domestic workforce, our farm is in the process of recruiting foreign guest workers for the upcoming 2017 cherry and apple harvest. Many producers in my area are being forced to do the same thing. My single greatest concern on our farm is having a steady workforce come harvest season.

Again, thank you for allowing me the opportunity to be able to testify before this Committee, and I look forward to any questions you might have.

[The prepared statement of Mr. Alpers can be found on page 50 in the appendix.]

Chairman ROBERTS. We thank you, Mr. Alpers.

Let me get this right. Gestenberger, right?

Mr. GERSTENBERGER. Gerstenberger.

Chairman ROBERTS. Gerstenberger. I am on a slant.

Senator STABENOW. I know. It is hard to see.

Chairman ROBERTS. That helps. That helps a lot, gentlemen. We need the fifth-generation farmer. If you could slant your name, sir. Mr. Williams. All right. You are all in trouble now.

[Laughter.]

Chairman ROBERTS. Mr. Gerstenberger, thank you so much.

STATEMENT OF RICK GERSTENBERGER, GERSTENBERGER FARMS, INC., SNOVER, MICHIGAN, AND CHAIRMAN OF THE BOARD, MICHIGAN SUGAR COMPANY

Mr. GERSTENBERGER. Okay. Thank you, Mr. Chairman and Ranking Member Stabenow. My name is Richard Gerstenberger, and I am testifying today on behalf of the Michigan Sugar Company.

For the last 9 years, I have served as Chairman of the Board of Directors of the Michigan Sugar Company, which is a farmer-owned cooperative. I know the sugar business from the genetics in the seed to when the sugar arrives at the loading docks of our customers.

When Congress looks at the sugar policy in the 2018 Farm Bill, there are seven key elements to consider: Support for U.S. sugar policy is support for our Nation's food security. Sugar is a strategic commodity in our Nation's food system. The Michigan sugar industry is a key supplier to Midwest markets, where 500 food manufacturers and retail businesses depend on reliable supplies of high-quality, safe sugar. A sugar policy's focus must put American beet and cane farmers' interests first.

Support for U.S. sugar policy is support for responding to foreign unfair trade practices. American sugar farmers are among the lowest-cost producers in the world, but we cannot compete against foreign subsidies and predatory dumping practices that terribly distort world sugar markets.

The recent damage to our industry caused by Mexican subsidies and dumping is a sad case in point. Our growers have lost billions in revenue. Some of our younger growers have already gone out of business, and today only 73 percent of our consumption is supplied by domestic production. Twenty years ago, 85 percent was supplied by domestic production. Growing dependence on foreign suppliers is an alarming trend that must be reversed.

Support for U.S. sugar policy is support for fiscal responsibility. U.S. sugar producers have run at zero cost for the last 14 years. The only exception was in 2013 when Mexico dumped massive amounts of sugar in our market. USDA predicts we will be at zero cost for the next 10 years.

Support for U.S. sugar policy is support for innovative and highly efficient American family farmers. U.S. producers are among the most efficient in the world because we have reduced costs by vertically integrating. We have formed cooperatives, and the growers now own all of the Nation's 22 beet factories.

Adoption of modern biotechnology has raised beet sugar yields by 30 percent and dramatically reduced energy, chemical, and water use. Sugar beets are now one of the most sustainable crops in the country, if not the world. We support strong research in the next farm bill.

Support for U.S. sugar policy is support for farming and manufacturing jobs in rural America. I want to thank Senator Stabenow for constantly reminding her colleagues and the Nation that agriculture is about jobs. The farm bill is about jobs. Our cooperative employs 2,400 workers and provides employment for 1,000 farm families and their workers. Nationally, the industry supports

142,000 jobs in 22 States. Many of these good-paying jobs represent the economic lifeblood of small towns throughout the region.

Support for U.S. sugar policy is support for a stronger national economy. Michigan Sugar Company generates $1.5 billion in economic activity in the State of Michigan, and nationally, the sugar industry generates $20 billion in annual economic activity.

Farmers are the original stewards of the land, and sugar farmers in Michigan strongly support voluntary conservation and widely adopt best conservation practices. But we also believe regulations should not overly burden farmers and would welcome the opportunity to work through concerns we have on wetlands and other issues.

The beet sugar industry has been in Michigan for over 120 years, and we plan to be here indefinitely. But our future depends on Congress passing strong sugar provisions in the 2018 Farm Bill and the administration's implementation of that policy. We look forward to working with you in the months ahead to determine the modifications that are needed to ensure sugar growers in Michigan and beet and cane growers across the U.S. continue to survive and prosper.

Thank you.

[The prepared statement of Mr. Gerstenberger can be found on page 59 in the appendix.]

Chairman ROBERTS. Thank you, sir.

Mr. Siemen.

STATEMENT OF DARRIN SIEMEN, PRIME LAND FARM, HARBOR BEACH, MICHIGAN

Mr. SIEMEN. Good morning, Mr. Chairman and Ranking Member Stabenow. My name is Darrin Siemen. My wife and I own and operate Prime Land Farm in Harbor Beach, Michigan.

We are a centennial farm, and I am a proud fourth-generation dairy farmer. We milk 320 cows with LELY Robots. We raise about 800 beef cattle and farm 1,500 acres of sugar beets, alfalfa, corn, and wheat.

I attended Michigan State University, where I met my wife, and we returned to the family farm in 2001. We assumed ownership in 2013. We have three children who are very passionate for our cows and farming.

I am pleased to be delivering testimony on behalf of my cooperative, Michigan Milk Producers Association, and National Milk Producers Federation.

In 2014, Congress passed legislation establishing a new safety net under Title I for dairy farmers known as the Margin Protection Program, MPP. During the legislative process, changes were made by Congress that fundamentally altered the safety net designed by NMPF and other dairy leaders around the country. Unfortunately as a result of these changes, MPP has failed to deliver the protection dairy farmers need and expect.

MPP remains the right model for our future for dairy, but changes are needed if Congress wants to prevent farmers like myself from going out of business.

In 2015, dairy farmers paid more than $70 million into the MPP program and received payments totaling only $730,000; in 2016,

those figures were $20 million and $13 million. I am not asking for a program that guarantees a profit, nor do I want a program that will incentivize excess production. However, MPP has actually made the Government a profit of $130 million in fiscal years 2015 and 2016, according to the Congressional Budget Office.

In determining the margin under MPP, USDA is required to calculate two factors: the "All Milk Price" and feed costs. While the "All Milk Price" remains accurate, the feed price determination remains in question. The feed cost formula was cut by 10 percent in order to address broader budget concerns. These concerns regarding the budget costs that resulted in this 10-percent arbitrary reduction were simply inaccurate, and this 10 percent must be restored.

Other adjustments that should be considered is the feed formula calculation as it relates to corn and alfalfa hay prices.

Due to congressionally mandated restrictions in MPP, a dairy producer must decide at the beginning of the farm bill whether to cover their milk under the Livestock Gross Margin program or MPP, not both. With this restriction in place, dairy farmers are left without the benefit of all possible tools that other farmers have at their disposal regarding risk management for their operations.

In addition, dairy farmers also remain concerned about challenges to our export markets, immigration, tax reform, child nutrition, and the environmental sustainability, and we look forward to working with the Committee to help address these challenges.

I do want to publicly thank Senator Stabenow for her recent efforts to work with other Members of Congress and the administration to seek short-term solutions to help improve the safety net for dairy farmers. Also, a special thanks to both Senator Roberts and Senator Stabenow for their efforts to bring more milk options and flexibility to the School Lunch programs.

Mr. Chairman and Ranking Member Stabenow, the dairy industry is committed to working with you to improve Federal policies that impact farmers like me as well as consumers. I appreciate the opportunity to speak with you today and thank you for your advocacy on behalf of agriculture.

[The prepared statement of Mr. Siemen can be found on page 118 in the appendix.]

Chairman ROBERTS. We thank you very much. Thank you, Mr. Siemen.

Andy Snider, you are up next.

STATEMENT OF ANDY SNIDER, OWNER, SNIDER FARMS, HART, MICHIGAN

Mr. SNIDER. Good morning, Chairman Roberts and Ranking Member Stabenow. Thank you for receiving my testimony as you work to develop the new farm bill. Snider Farms is a multigenerational family farm, currently run by my wife, Beth, and myself, along with our son, Zack, and his wife, Priscilla, and 11 dedicated employees.

As you can see in my introduction, farm cooperatives are very important to us. Like most farm operations, we have run into challenges over the years. We experienced a catastrophic dairy barn

fire in 1996 from which we moved forward with just hogs and turkeys as our focus.

One year after the fire, we and other Michigan turkey contract growers for Sara Lee were informed that they were exiting the live turkey business immediately. Fifteen turkey producers, including myself, banded together to form Michigan Turkey Producers Co-op. We received assistance of the USDA Rural Development Loan Guarantee Program for the facility as well as a value-added producer grant for an expansion which allowed us to enter the ready-to-eat and cooked-product market. Today Michigan Turkey ensures economic viability for its member owners as well as economic well-being for hundreds of farm and plant employees across west-central Michigan.

In serving on the GreenStone board, I see firsthand the benefits that our Farm Credit System provides to rural communities and farmers, such as extending credit and supporting rural infrastructure for ag producers to operate for generations. This farmer-owned credit cooperative is critical to maintain as well as preserving its GSE status.

Growing up in Michigan, surrounded by the State's beautiful lakes, I understand the importance of being a good steward of our natural resources. The conservation ethic runs deep on my farm, and we have enrolled in State and Federal conservation programs like CSP that will help sustain the land and the water for our children and future grandchildren. Snider Farms has also utilized EQIP funding. As you prioritize conservation and with programs made available through the farm bill, we have put into practice many that have allowed us to expand in both environmental and economically sustainable ways.

Since 2015, the poultry industry has made significant strides in recovering from highly pathogenic avian influenza after suffering through the worst animal disease outbreak in U.S. history. The road ahead remains long, and as an industry we will need renewed support from Congress to assist USDA and APHIS to reduce the long-term impacts. High-path AI is not going away overnight. It is a global problem, and the time is now to start an international discussion on eradication strategies for high-path AI, including the use of vaccines.

As the Committee embarks on the reauthorization of the farm bill, the MTF and its turkey farmers will be joining many that rely on the animal agriculture in asking for the inclusion of a forward-looking, mandatory Animal Pest and Disease Disaster Prevention and Response Program to the farm bill.

Additionally, I would like to submit for the record a letter signed by 67 agricultural organizations supporting this initiative.

[The following information can be found on page 180 in the appendix.]

Mr. SNIDER. One final point I would like to raise related to my operation, specifically the organic portion of the recent USDA rule on Organic Livestock Production Practices. The organic program has long been focused on sound organic production from an ingredients standpoint. This new rule dictating outdoor space requirements moves the goalpost in a significant way.

The organic sector has been a bright spot for growth in Michigan. The new rule could put many committed organic producers out of business. Furthermore, this rule is in direct conflict with what producers are currently doing to avoid future high-path AI outbreaks.

Chairman Roberts, Senator Stabenow, I ask you personally to contact Secretary Perdue in the next week and express how imperative it is that he delay the implementation of the rule before May 19th.

I trust you see the passion I have as a farmer for the health of our land, the ability to produce profitable, safe, and abundant food for our country and the world, and for the privilege God has given me to raise my family and continue the proud heritage of farming. I thank you for the invitation to speak about these important issues as you consider reauthorization of the farm bill. I welcome any questions.

[The prepared statement of Mr. Snider can be found on page 128 in the appendix.]

Chairman ROBERTS. Mr. Snider, we just had breakfast with Sonny Perdue here—was that 2 days ago?

Senator STABENOW. Thursday.

Chairman ROBERTS. Thursday. This man knows agriculture, and we have already announced changes in the School Lunch Program—not changes. We just gave the nutritionist a little flexibility there, 1-percent milk—I am still holding out for whole milk—and we will be delighted to ask the Secretary to delay that rule. That was the question I already had written out for you, but I wanted to respond very quickly.

Mr. SNIDER. Thank you.

Chairman ROBERTS. I would just make the observation on behalf of both of us that Sonny Perdue not only knows agriculture, he knows all of the rules around it, so on and so forth. He had enough time to study because of all the time that he had to sit there and wait.

[Laughter.]

Chairman ROBERTS. Mr. Williams, we look forward to your testimony, sir.

STATEMENT OF DAVID WILLIAMS, W FARMS, LLC, ELSIE, MICHIGAN, ON BEHALF OF MICHIGAN SOYBEAN ASSOCIATION AND AMERICAN SOYBEAN ASSOCIATION

Mr. WILLIAMS. Chairman Roberts, Ranking Member Stabenow, and Committee members, thank you for holding this hearing. I am pleased to provide testimony on behalf of both the Michigan and the American Soybean Associations. My nephew and I manage 3,500 acres on our sesquicentennial farm on which we plant soybeans, corn, and winter wheat.

My testimony today focuses on ASA's support for conservation and biobased programs. Conservation programs have been critical to the great strides American farmers have made in land conservation and sustainability. ASA strongly supports working lands conservation programs like the Conservation Stewardship Program, CSP, and the Environmental Quality Incentives Program, EQIP.

I signed my first CSP contract and adopted the practice of seeding cover crops using a combination of oilseed radishes, oats and

peas. Recently, I seeded cereal rye. I have seen firsthand that cover crops prevent soil erosion and improve water quality by reducing drainage rates.

We chose cornstalk nitrate testing in our second contract period. This testing provides a good assessment that the crop is receiving the right amount of nitrogen in our corn crop.

The cost sharing provided under EQIP helped us build a chemical and fertilizer containment facility which assisted in our compliance with Michigan State water quality regulations. This is a good example of how leveraging private investment with farm bill dollars leads to improved water quality for everyone.

I would also like to highlight the importance and benefits of the farm bill Energy Title programs in supporting agriculture's role in the emerging bioeconomy. USDA's 2016 economic impact analysis showed that the U.S. biobased products sector supported 4.2 million jobs, $127 billion in direct sales, and $393 billion in total value to the U.S. economy.

The U.S. soybean industry and the Michigan soybean industry have made significant investments into research, product development, and promotion of biobased products. Michigan is a leader in the world bioeconomy thanks to a long history of innovation by companies like Ford and Lear and their collaboration with U.S. soybean growers. Every Ford car made in North America now contains soy in its seat cushions.

The State of Michigan enacted procurement preference legislation last year that extends to 97 categories of biobased products identified by USDA, ranging from engine oils to carpet and cleaning supplies. Pictured Rocks National Lakeshore in Michigan has set an award-winning example to other State and Federal agencies on the performance and environmental benefits of biobased products.

We appreciate the support of the Senate Agriculture Committee and the leadership of Senator Stabenow especially for three key farm bill Energy Title programs:

The Biobased Market Program encompasses the Federal biobased procurement program and biobased products labeling program.

The Bioenergy Program for Advanced Biofuels supports domestic producers of advanced biofuels and bioenergy derived from dairy farms and forest products.

The Biodiesel Education Program supports technical outreach efforts to engine manufacturers, truckers, and fuel marketers which translates into increased use, more jobs, and more economic value in rural communities.

While these programs do not have budget baselines going forward, we believe that their relatively low cost and the benefits they provide warrant their continuation in the 2018 Farm Bill with an increased level of mandatory funding.

We look forward to working with you on the development of a farm bill that maintains the income safety net for farmers and continues important Conservation and Energy Title programs.

[The prepared statement of Mr. Williams can be found on page 142 in the appendix.]

Chairman ROBERTS. Thank you, sir.

Mr. Ingrao, as a U.S. Marine veteran, let me thank you one veteran to another for your service to this country. Army strong.

Mr. INGRAO. Thank you, sir.

Chairman ROBERTS. As you mention in your testimony—oh, that is a question I have got for you down the road, so we are just going to recognize you for your statement. It might be a good idea to hear your statement first before I ask you questions.

[Laughter.]

Mr. INGRAO. I appreciate that, Mr. Chairman.

Chairman ROBERTS. But get ready.

[Laughter.]

STATEMENT OF ADAM INGRAO, BEE WISE FARMS, LANSING, MICHIGAN

Mr. INGRAO. Thank you. Chairman Roberts and Ranking Member Stabenow, thank you for the opportunity to testify today. I am truly honored to be here.

Within each of the areas that I work in here in Michigan, the programs funded by the 2014 Farm Bill have been instrumental in the success of the organizations I represent, the farmer veterans I work with, and the research I conduct at Michigan State University.

When I returned home from the Army, I experienced a lot of the same challenges that my brothers and sisters face in coming to terms with being a disabled veteran, the sudden loss of camaraderie, the guilt of not being there to have the backs of your battle buddies, and the depression that comes along with all of this.

But I found that a lot of what I was experiencing was alleviated by spending time working in my parents' garden. It was digging into the soil, caring for the plants, and observing and reconnecting the natural cycles of life that allowed me to heal both physically and mentally.

Since this realization, I have dedicated my life to help my fellow veterans realize that farming can address not only the financial but also the personal wellness challenges that many of us face. These careers in agriculture also speak to our veterans who desire to continue to serve their country and community by producing healthy food.

The 2014 Farm Bill has been critical in providing the educational, programmatic, and resource connections necessary for veterans to identify farming as an opportunity and make the transition to this career. For Michigan food and farming systems and the Veterans in Agriculture Network, the beginning farmer/rancher development program and the 2501 Program have been crucial in allowing us to develop the programs necessary to educate farmer veterans and develop a strong and resilient farmer veteran community here in Michigan. This work has allowed us to identify the challenges facing farmer veterans that limit their utilization of USDA resources and services, and we are now working directly with NRCS and FSA staff through cooperative agreements to develop USDA navigation services that include one-on-one, veteran-to-veteran consulting and advocacy in USDA offices.

These connections have resulted in many success stories of veterans transitioning to successful careers here in agriculture in

Michigan, and today I am going to share the story of a Marine, just like yourself, Chairman Roberts.

Sergeant Jeremy Huffman, a U.S. Marine, served in Afghanistan, and he and his wife now run Huffman's Homestead in Swartz Creek. We have been working with them for about the last 2 years in a one-on-one relationship to help develop their 10-acre hobby farm into a farm that now offers a full Community Supported Agriculture Program and direct sales at two farmers markets, including the Flint Farmers Market. After using our USDA navigation services, he was awarded a high tunnel for season extension through the NRCS High Tunnel Program through EQIP. This has allowed him to increase production and develop new markets to sell his products. Additionally, Jeremy is also using the Double Up Food Bucks Program to reach the most vulnerable populations affected by the Flint water crisis by offering high-quality vegetables, fruit, and poultry to the children of Flint.

The farm bill stands as a foundation of the support for American farms and our national prosperity. Through the 2018 Farm Bill, it is my home that Congress realizes the importance of the programs created in the 2014 Farm Bill and builds upon them to invest in the training and success of beginning farmers and those looking to produce agricultural products in new and unconventional venues, like urban farming, all while recognizing the importance of new farmer demographics such as military veterans that have unique training that complements the work ethic, leadership, and commitment necessary to be successful in the agricultural industry.

It is critical for Congress to build upon this progress to include new initiatives that continue to foster the growth and success of the next generation of American farmers by engaging and supporting these communities to feed the world.

Thank you.

[The prepared statement of Mr. Ingrao can be found on page 96 in the appendix.]

Chairman ROBERTS. We thank you for your statement, sir.

Mrs. Miller.

STATEMENT OF PAM BOUMA MILLER, OWNER, HOPYARDS OF KENT COUNTY, GREENVILLE, MICHIGAN

Mrs. MILLER. Thank you, Chairman Roberts and Ranking Member Stabenow, for the opportunity to testify today. My name is Pam Bouma Miller, and I am the owner of Hopyards of Kent County and a founding board member of Hop Growers of Michigan. Hopyards of Kent was established in 2011 and is one of the largest family-owned hops farms in Michigan. We are dedicated to consistently producing the highest-quality hops available, through hard work, teaching, training, and commitment to the hop industry. We also have a harvest center that opened in 2016 for our network of over 30 growers to bring in their yields to be picked, dried, baled, and passed on to the merchant for further processing and sales.

Today Michigan is ranked fourth in the Nation with over 1,000 acres in farm hop production. There are approximately 200 growers supplying 400-plus breweries in our State alone. It is critical that the next farm bill protect and strengthen the Market Access Program, which is the key for specialty crop growers to access new

international markets. Michigan accounts for 5 percent of the $252.6 million hop export market in the U.S. Last year, the Michigan hop industry used a specialty crop block grant to establish hop quality standards, provide education and training to growing and developing a two-level voluntary certification program. Value-added producer grants have been used to help hop farmers pelletize hops for sale and distribution. Specifically, the equipment to process and handle hops is highly specialized and extremely costly. Getting the equipment into the community of growers requires the use of grants.

Continued funding for research, including the Specialty Crop Research Initiative, is critical to the future of the hop industry to control pests and disease like downy mildew. It is also important to recognize the unique opportunity the hop growers of Michigan are pursuing through a farm-to-glass bill to provide tax savings for the use of Michigan hops and Michigan beer.

As the Michigan hop industry continues to expand, growers are looking at new market opportunities through trade expansion. Standardizing regulations for herbicide and pesticide use should be set at the national level. Research funds should also be used to develop new public varieties breeding programs at the university level.

Michigan State University Extension are critical for support in every aspect of the science, planning, and management of this agriculture specialty commodity. In addition, the labor issues center on the lack of a reliable workforce, and this remains a big concern as hops are a very labor-intensive crop. The labor pool is dwindling fast.

As part of the success of my farm is a special relationship and understanding with my financial partner. This is a capital-intensive business, and its specialization demands dollars. GreenStone Farm Credit Services was there for me to the full extent they were able at the outset and remains an intricate part of my success as one of the first major hop farms in Michigan.

The hops industry has grown 148 percent in the last 10 years, and I look forward to being a part of the continued growth and development of this industry and the thousands of jobs that our industry supports in Michigan.

Thank you for taking an interest in Michigan hops, and I am happy to answer any questions that you may have.

[The prepared statement of Mrs. Miller can be found on page 111 in the appendix.]

Chairman ROBERTS. We thank all the witnesses. There are going to be two rounds of questions. Everybody out there just relax.

The distinguished Senator from Michigan has just informed me that the next time I am in Michigan, I am to join her on a microbrewery tour.

[Laughter/applause.]

Chairman ROBERTS. She figures we can last 20.

[Laughter.]

Chairman ROBERTS. Sampling the products.

You started in your statement, Mrs. Miller—I am going in reverse order. I do not want my staff to freak out here. But you stated in your testimony that you support how many breweries now?

Mrs. MILLER. In Michigan alone, 400-plus.

Chairman ROBERTS. Four hundred. No wonder everybody is happy.

[Laughter.]

Mrs. MILLER. We are known as "Beer City, USA," yes.

Chairman ROBERTS. We are going to have a hearing on pesticides, insecticides, fungicides, rodenticides, FIFRA, the Federal Insecticide, Fungicide, and Rodenticide Act, and we have some problems, and so we are going to try to fix them.

Senator STABENOW. Mr. Chairman, I just want to make note that that does not include our wine.

Mrs. MILLER. This is true.

Senator STABENOW. We will keep you going between beer and wine.

[Laughter.]

Chairman ROBERTS. What do you mean by keep me going?

[Laughter.]

Chairman ROBERTS. You can see we get along pretty good here.

Janna, you and Mr. Alpers and Mr. Williams, all of you really, have mentioned crop insurance as a risk management tool that you support and personally utilize. For those of you that have crop insurance policies available—and I am specifically mentioning corn, soy, and apples; I am not trying to leave anybody out—are they largely working for you? In other words, where would we—somebody said in his written testimony—no, I think you said that you have 11 different suggestions or something in your written testimony. Could you sort of just highlight for me—I am the self-declared godfather of crop insurance, along with the distinguished Senator from Nebraska, Bob Kerrey, back in the day. So if anybody would like to go forth, Mrs. Fritz, do you want to take that on?

Mrs. FRITZ. Absolutely. On our farm, we have access to crop insurance for all of our commodities and have utilized it every year that I have been involved with the farm, every year that it has been available to us. It was absolutely critical even as recently as last year. We had an issue with a failure in our dry bean crop last year, so we were able to implement the crop insurance and save some overall revenue that we need on our farm, especially in light of all prices in the commodity market being low and very close to overall margins, the crop insurance was necessary for us to remain viable for future years.

Chairman ROBERTS. Mr. Alpers?

Mr. ALPERS. Yes, we utilize crop insurance in all three of the commodities that we produce. It is a necessary tool for a grower in the apple industry as well as the cherry industry. I just want to give a quick example real quick. The startup cost to put a block of apples into production now has gotten so much higher than it was 5 years ago due to the increased land values in our area. This might sound totally crazy, but the farms in our area in the Leelanau peninsula sometimes go for $20,000 an acre. So you can imagine being a young grower trying to establish a living in the apple business, A, finding a lender that is going to lend you money to purchase the land, to then invest $16,000 to $18,000 worth of trees on that one acre, and then you are going to take care of it for 2 or 3 years before you even start to pick an apple off of it.

Without crop insurance tools, there is no way that a young person could venture down that road with a clear mind. The lenders would laugh at you and turn you away if it was not available.

With that said, there are some issues with it that I think really could benefit younger growers and more established people. Part of that has to do with you have to establish a 150-bushel-per-acre yield before you are able to purchase a crop insurance program. Now with these high-density systems that we are planting, we go from zero bushels per acre in the second year to maybe 400 or 500 in the third year. Well, I was not able to buy insurance going into that third year. Should there have been a disaster or something in that third year, I would not be able to buy it for the fourth year because I did not have a salable crop. That is exactly what happened to me, and that is why I am here. In my third year, I had a hailstorm July 8th in Traverse City. It ruined my first salable crop. I did not have insurance on it because I had not met that minimum 150-bushel-per-acre, which I think needs to be looked at a little bit.

Now, next year I will not be able to purchase insurance because I did not have a salable crop because of the hailstorm, and I hope to be producing 700 to 800 bushels per acre next year, but I will not have the ability to purchase insurance on that. That is an issue for me.

Chairman ROBERTS. That is an excellent suggestion. Thank you so much for that.

Why don't we go back and forth on this? Go ahead.

Senator STABENOW. Well, thank you so much, to each of you, and I want to continue on the topic crop insurance. Senator Roberts really was the founder of the whole effort on crop insurance, and I was pleased to take that to the next step in the last farm bill for specialty crops. Thank you, Mr. Alpers. I was making a note here on this because we want to make sure it is working as well as intended.

Most commodities have the ability to tap into the farm safety net and crop insurance. One exception is milk, let me ask you, Mr. Siemen, as I mentioned before that the concept of the Margin Protection Program as a risk management tool makes sense, however the numbers were not quite right, so there is a problem. We have seen prices drop dramatically, as with other crops, but certainly you and other dairy farmers have seen tight margins. We have some real challenges related to the dairy safety net. My staff and I support the proposal, brought forth by American Farm Bureau, National Farmers Union and National Milk Producers, to offer milk the opportunity to do what other commodities can do, which is purchase crop insurance.

We are working with the Secretary of Agriculture on expanding crop insurance for milk. There is capacity to do that administratively through the Crop Insurance Board, so we are working to be able to do that.

I wonder if you might speak about that or, again, offer some other suggestions. I know we have to look at the issue around feed prices, but you have also said that you believe the Margin Protection Program conceptually works. There are two issues; One is, what can we be doing to make sure the safety net really works for

dairy farmers? Secondly, how do we then convince dairy farmers to give the MPP program another chance and include more people? It works if dairy farmers buy into the program.

Mr. SIEMEN. So, yes, we believe that the MPP program is a very good program if we can just get the feed cost like our portion of our inputs, a level playing field. We would also like the opportunity as other producers to have several options because, again, everybody is high risk, kind of high overhead. There is just no guarantee there that when you input high finances into your operation that there is a level there where you cannot drop underneath. If we could get the MPP program and the LGM program both fixed and working together, I think just with working with the co-ops and National Milk—dairy farmers trust who they work with and the companies they own—that dairy farmers would step right up and participate in the program again.

Senator STABENOW. All right. Thank you. I do not mean to minimize what has happened with all of our commodity prices, but what I am hearing is that the Agriculture Risk Coverage program, which we use the most in Michigan, has relatively worked. That there may be some concerns around programs as well. But, unfortunately, the MPP did not hit the same level of success as the ARC or PLC programs.

Mr. Ingrao, again, I am so pleased that you have chosen to focus on agriculture and farming. I know that the Michigan Farmer Veterans Coalition is one of the most successful organizations in the country for getting veterans involved. So I congratulate you for that, and I am proud that we were able to incorporate veteran farmer priorities with some loan programs and allow veterans and liaison position in the last farm bill.

I am wondering, going forward, if are there any barriers for veterans interested in agriculture that we should be looking at? What are some specific examples of how we could encourage and support our veterans who have served abroad, returned home, many from small towns like where I grew up and around Michigan, and started looking for jobs, to look within the agriculture industry? Are there other things we should be focused on in this next farm bill as they relate to veteran farmers?

Mr. INGRAO. Well, I think, Senator Stabenow, one of the most important things to consider when we are working with the veteran demographic is that they struggle with a lot of the same issues that most beginning farmers do. Farmer veterans tend to be individuals that are not coming from a family farm. A lot of them are discovering farming for the first time. Being that they are in that beginning farmer demographic, I think keeping a lot of the provisions in that assist beginning farmers, like the BFRD Program and the 2501 that really focus on educating those individuals to have them be prepared to be successful farmers, is absolutely critical.

I can just say from the organizations that I work with, the setasides that are there for military veterans within those programs are very important to us, and without those, I really feel like we would be losing a lot of the farmer veteran demographic because we just would not have the tools to reach them individually. Because it is a unique demographic—and we deal with a lot of post traumatic stress disorder, traumatic brain injuries, which are

things that a lot of veterans are dealing with, it creates a sense where oftentimes those individuals are not willing to go in and actually access USDA services simply because their disability is prohibiting them. So going into a USDA office can oftentimes exacerbate the symptoms related to those particular injuries. I think that recognizing those challenges that face beginning farmers, also farmer veterans, is really important.

I would just like to end on when we deal with the farmer veteran demographic and beginning farmers overall, there are usually three big things that come up for those individuals, and it is access to land, it is access to equipment, and it is access to capital. If there are provisions that can be put in to actually incentivize organizations or GreenStone Farm Credit or Farm Credit to actually help those individuals access those types of materials, even at that beginning farmer stage, that would be imperative to the success of the farmer veteran demographic here in Michigan and abroad.

Senator STABENOW. Thank you. Well, we know in general that the average age of American farmers is 58 years old for the principal operator, and fewer farmers are seeing the next generation coming on to the farm. I know many of you are in multigenerational farms, which I love to hear about. But in general we have to keep focused on bringing more folks into agriculture. So thank you for doing your part.

Thank you, Mr. Chairman.

Chairman ROBERTS. I have got a question for all the witnesses. You do not go on a farmstead in Kansas and say, "I am from the Federal Government, and I am here to help."

[Laughter.]

Chairman ROBERTS. We all know about the overly burdensome regs. That is usually the number one issue or it used to be the number one issue in town hall meetings that I have had in the 105 counties that we have in Kansas. Sometimes somebody raises a piece of paper and says, "Pat, what in the heck is this all about?" I do not even know about it. It is very helpful when you give us the real cost and problem that any regulatory thing might add up to.

I think, Mr. Snider, you brought up this poultry rule. We will get in touch with Sonny Perdue.

Senator STABENOW. Yes.

Chairman ROBERTS. He did issue three proclamations about 1 percent in the milk, including strawberry, and chocolate milk that kids will now drink, and he also alleviated the whole grains necessity. I had a nice sweet roll this morning. It was not whole grains. Then he left the salt content criteria the same, which was scheduled to go down again. We had fifth graders who were going into fast-food franchises and picking up little packets of sugar and salt and then coming back and selling them to their fellow students. Sort of an elementary mafia here.

[Laughter.]

Chairman ROBERTS. That is crazy. So we will follow up on the poultry rule.

Anybody on the panel want to mention what would be—and there are probably too many to mention, but can you mention a

regulatory challenge that is really causing you a hard time? Mrs. Fritz, why don't we just go down the line?

Mrs. FRITZ. I believe one of the biggest regulatory challenges that we face is freedom to operate relative to bringing new technologies into the market in the way of seed.

Chairman ROBERTS. I thank you for that.

Mr. Alpers?

Mr. ALPERS. I would echo that same statement. I look at what has happened a lot in the last few years since I came back to the family farm. We have hired a part-time person to manage all the different inspections and all the different paperwork that go along with farming. I never thought there would be a day—and I know my dad definitely did not—where you would have to document all the wildlife that crosses your land in a cherry orchard. That is a true story. It is part of the GAP Program. I think there are a lot of tweaks that could be made to some of these audits, and it is much more detail than we can go into in the amount of time, but we would be happy to pass that along.

Chairman ROBERTS. I would be delighted to get that, and I know that my distinguished partner here would like the same thing.

[The following information can be found on page XX in the appendix.]

Chairman ROBERTS. You have to identify all the wildlife that go across your farmstead?

Mr. ALPERS. You do.

Chairman ROBERTS. What happens if you miss one or two?

[Laughter.]

Chairman ROBERTS. Do you have somebody out there counting with you, or what?

Mr. ALPERS. Well, as long as the auditor at that time feels that you have done an adequate job documenting that, along with many other things, typically they will let it go if you miss a deer here or there. But there are times when you know somebody that——

Chairman ROBERTS. What agency does that auditor come from?

Mr. ALPERS. USDA.

Chairman ROBERTS. Okay. All right. That is utterly ridiculous.

Mr. Gerstenberger, please.

Mr. GERSTENBERGER. In production agriculture and living in Michigan surrounded by the Great Lakes, water is a key for us, so wetland determinations, things like that. I sit on the county committee of the FSA, and I know that growers, when they receive notification that something has been certified as a wetland, we have 30 days to respond. But on that committee, I know that we have asked for second determinations when we have appealed them, and some of them go back as far as 2011.

Chairman ROBERTS. My gosh. Okay.

Mr. GERSTENBERGER. So I would certainly think that the Government should respond——

Chairman ROBERTS. Timely responses, in other words. Good. Thank you.

Mr. Siemen.

Mr. SIEMEN. As far as my operation, we went to robotic milkers, and inspection for robotic dairies is not the same across—nobody

really knows what to do. So one inspector will go to one place and flag you for something——

Chairman ROBERTS. What are you talking about, robotic what? Theories?

Mr. SIEMEN. Robotic dairies. So on our farm people do not actually milk cows. It is just a machine.

Chairman ROBERTS. Oh, I got it. I got it. All right.

Mr. SIEMEN. So as it is growing in popularity——

Chairman ROBERTS. We have that in Kansas as well.

Mr. SIEMEN. Yeah, probably.

Chairman ROBERTS. Big time. Thank you so much. I did not mean to be so ignorant.

Mr. Snider.

Mr. SNIDER. For sure—it was mentioned before—the amount of time spent on documentation and regulation, as a senior partner in an operation, I spend a lot of time doing that. One specific thing on our farm, our turkeys, we raise 170,000 turkeys a year. A small portion of those are organic, about 15 percent. The rest of them we raise as antibiotic-free. Recently, to raise antibiotic-free, a GAP agency was created. I do not need to get into all the details, but it has totally gotten out of hand. It is not about practices of doing a good job of raising birds. To make it short, animal rights came in. The president of HSUS was on the panel, and it was not intended to start out that way. We know how to raise birds and to do it fair and safe and provide a good product. The regulation for to be GAP-certified ABF birds is next to impossible.

Chairman ROBERTS. Mr. Williams.

Mr. WILLIAMS. I, too, would go along with some kind of simplification of regulations for what we are trying to do. We have worked with NRCS and FSA on a number of programs, and it just seems like everything takes a lot longer to do than it really should. Give us some credit for what we are doing, and we know what we are doing. With some guidelines we can implement what needs to be done.

Chairman ROBERTS. Mr. Ingrao.

Mr. INGRAO. Yes, Mr. Chairman, the two areas that really are—well, I would say have not come to fruition as far as struggles for regulations with our farmer veterans but there is a lot of anxiety around is the new Food Safety and Modernization Act. One of the other areas that I think has been touched on here as well is the GAP certification as well. Our organization, Michigan Food and Farming Systems, has piloted a program here in the State of Michigan for group GAP to allow producers, especially small producers, to GAP certify collectively, and we have seen some success there. But, again, there is quite a bit of anxiety around the Food Safety and Modernization Act.

Chairman ROBERTS. Mrs. Miller.

Mrs. MILLER. Yes, I would say one of the regulations that we are dealing with is in the lender side of it. Because our industry here in Michigan is considered relatively new, we are finding that as some of the—especially GreenStone Farm Credit Services, they were allowed to help us as agricultural lending to our farmers. But when it got to the vertical stance of growing and then processing, it stopped at the processing level, and it really tied our hands to

be able to move forward within the agricultural industry, and we had to go outside of them as lenders to find another avenue to help with the equipment and the processing facilities.

So what we are asking is for a more vertical line and understanding that we can grow hops all day long and dry them, but if we do not have the processing centers to pelletize and move them on, it is a stop-gap for us to get it to the brewer.

Chairman ROBERTS. Deborah, I am 3 minutes and 50 seconds over, so I am sentenced to go to Dodge City, it looks like.

Just a couple of things. One of the first things that President Trump did was to hopefully take action on WOTUS, the Waters of the U.S., which seemed to be the number one issue with regards to overregulation. Thank you all for your suggestions. They will be part of the record.

Mr. Williams, I do not know what to say. I did not know that I was sitting on soybeans in terms of my car seat.

[Laughter.]

Mr. WILLIAMS. It is okay.

Chairman ROBERTS. That sort of sounds like a country-western song.

[Laughter.]

Chairman ROBERTS. Anyway, thank you all for that.

Please, Deborah, get me off the hook.

Senator STABENOW. Well, thank you, Senator Roberts. You know, I could talk forever about biobased manufacturing, and we have spent a lot of time on this. But I will say that, as was mentioned, in any Ford product now, you are sitting on soy-based foam rather than petroleum-based foam. So you have soybeans in the seats, and if you get hungry, you know what you can do.

[Laughter.]

Senator STABENOW. There is a lot more being done with corn byproducts, wheat byproducts and so on. These value-added processes are creating jobs in biobased manufacturing, which I think is a very exciting extension of bringing together what we do in Michigan, which is make things and grow things. It is something I am very enthused about and we need to make sure we keep it going in the Energy Title.

Mr. Snider, I wanted to talk about conservation for a moment. I am really impressed with the conservation efforts on your farms, so I wondered if you could talk about how these practices support the long-term health and viability of your farm. Do you think the farm bill should continue to prioritize voluntary working lands conservation programs?

Mr. SNIDER. So I believe they would be CSPs, specifically. We were in the first round of contracts for 7 years, and now we are in the third year of the second 5-year round. Each year or each time, we identified practices that we were either already doing or would like to do, and from a cost standpoint, it kind of took us to the next level. I consider our farm being kind of out front, probably leading in a lot of things. This year, we are doing now less than 20 different cover crop mixes, that many fertilizer combinations, multiple applications of nitrogen and things that we are doing to try to conserve fertilizer. Some of those are supported by CSP; some of them are things that maybe will be in the next CSP, if

there is another one. But they have propelled us forward and taken us to the next level, I guess is how I like to say that.

Senator STABENOW. Great. Thanks.

Mr. Gerstenberger, Rick, let me ask you, your testimony states that Michigan sugar draws supplies from over 150,000 acres of sugar beets grown by farm families and the economic impact beyond the farm. I wonder if you could talk about the different kinds of jobs that sugar production supports in Michigan, How many people in Michigan communities would you estimate are really dependent on our sugar industry for their livelihood?

Mr. GERSTENBERGER. Well, LMC International estimates that just over 5,000 individuals are directly related to farmers and factories in the sugar industry in Michigan in 2011. There are numerous outside contractors that are used all the time through the factories and people—plumbing contractors, builders, steelworkers, electrical contractors, and many more.

Michigan Sugar Company 3 years ago undertook a process of updating some of our over-100-year-old factories and facilities in small towns like Croswell, Caro, and Sebewaing. These factories are the lifeblood of those communities. They are the number one employer in those facilities, and many of these type of contractors work there. Even in Bay City, if Michigan Sugar Company was to go out of business, the loss would be felt in the large town also, large communities.

So those are some of the things, those are some of the people that we rely on to get those jobs done, and it is an industry that we need to keep in this State. Thank you.

Senator STABENOW. Thank you. We need to make sure that Mexico is doing the right thing as well, on the trade front, but we certainly focus on that. We talked with the Secretary of Agriculture about that, as well as dairy in Canada, when we had breakfast with him on Thursday.

Mr. Alpers, I am so glad we have a Specialty Crop Title in the farm bill. We put that in the 2008 Farm Bill, and include the block grants to provide flexibility to states based on commodities, local needs and so on. I wonder if you might describe how these grants have been used from your perspective?

Mr. ALPERS. I am going to go off the farm a little bit and talk about that. It has allowed the Michigan Apple Committee to reach markets in places with social media, things that they never would have been able to do without those programs in place. To piggyback on your question about what that means trickling down, we have been lucky enough to have you in our area a lot of times up in Traverse City, and it is the cherry capital of the world, and we do grow some apples there, too. But when you drive from Traverse City north, you would be hard-pressed going down any one of those roads to not find a home that did not have somebody that was working in agriculture in the household. So money spent on programs like that comes back down to a grassroots level and keeps the economy going in our local area. We are lucky enough to have tourism and agriculture in the Traverse City region, but without ag, we would—there are not enough jobs working at all the restaurants and the hotels and the breweries that you might be coming to visit next year.

[Laughter.]

Senator STABENOW. Well, it really does all fit together, right? That is why when we connect it all in Michigan. We can say one out of four jobs are dependent in some way on the food and agriculture industry in Michigan, and that is a big deal. So thank you again for your testimony. I know we have one more panel of witnesses that will be joining us as well. Again, we are very grateful for all of you being here today.

Thank you, Mr. Chairman.

Chairman ROBERTS. Excellent testimony. Thank you so much. Thanks to the first panel.

I ask the second panel to quickly take their seats.

[Applause.]

[Pause.]

Senator STABENOW. I am going to start introducing folks because we are running a little behind and we are so interested in all the testimony. We promised Senator Roberts he is going to be leaving here to catch a plane to get back home, so I am going to move through quickly with our second panel.

Starting off our second panel is Dr. Oran Hesterman. Dr. Hesterman currently serves as president and CEO of the Fair Food Network, a national nonprofit that pioneers solutions that support farmers, strengthens local economies, and increases access to healthy food. Before launching Fair Food Network, Dr. Hesterman served as a program director in food systems at the W.K. Kellogg Foundation and taught at Michigan State University.

With us today is Ms. Faith Watson. Ms. Watson has lived most of her life in Michigan, holds a degree from Cornerstone University, and she is a mother of two young children, ages 4 and 6. Faith is very active in her local church and community. We are so glad you are here today.

Next on our panel is Mr. Jim Nugent. Mr. Nugent and his wife own Sun Blossom Orchards in Suttons Bay, another beautiful part of Michigan. He holds a bachelor's and master's degree from Michigan State University and retired in 2007 as the MSU district extension horticultural agent and coordinator of the Northwest Michigan Horticulture Research Station. Mr. Nugent currently chairs both the Michigan Tree Fruit Commission and Graceland Fruit's Board of Directors, and is active with the Leelanau Conservancy and Michigan Farm Bureau.

Next I would like to welcome Mr. Kyle Rorah. Mr. Rorah is from southeast Michigan, growing up in Algonac. He is a graduate of the University of Michigan and holds a master's degree from Bard College in New York. He joined Ducks Unlimited in January 2016 where he now works as the Great Lakes and Atlantic Region policy specialist.

Also with us today is Detroit native and urban farmer, Mrs. Jerry Ann Hebron. Mrs. Hebron worked for the Third Judicial Circuit Court for almost 30 years and in real estate for 25 years. She has served as director for both the Detroit Association of Realtors and the State of Michigan Realtor Association. In 2008, Mrs. Hebron became the executive director of the Northend Christian CDC in Detroit and started the Oakland Farm Way in the historic

Northend community. She is the current treasurer of the Detroit Food Policy Council. So glad to have you.

Next on our panel is Mr. Collin Thompson, who serves as the farm manager for Michigan State University's Upper Peninsula Research and Extension Center and USDA Organic Certified North Farm in Chatham, Michigan. He has worked on farms around the world, and his experience has provided him with a global perspective and a local approach when it comes to sustainable food production.

We also want to welcome Mrs. Kristen Matson to our panel. Mrs. Matson received her bachelor's in forestry from MSU and an MBA from Lake Superior State University. She began her career with the U.S. Forest Service in the Panhandle National Forest in Idaho before moving to the Huron-Manistee and Hiawatha National Forests in Michigan. Mrs. Matson currently works as the East Upper Peninsula inventory and planning specialist for the Forest Resources Division of the Michigan Department of Natural Resources in Shingleton. You have the award for the longest title of anyone here.

[Laughter.]

Senator STABENOW. We are so glad to have you.

To round out our last panel, we have Mr. Bob Hance. Mr. Hance began his current role as president and CEO at Midwest Energy Cooperative in 2002. He is currently the board chairman for RESCO and serves on the Board of Directors for the Michigan Electrical Cooperative Association, National World Telecommunications Cooperative, and the Spartan Renewable Energy and Utilities Telecom Council. He is the founding member and current vice chairman of the Rural Broadband Council, an independent operating unit of UTC, and a member of the Rural Broadband Coalition.

We thank you and welcome all of you.

Chairman ROBERTS. Let us start with Dr. Hesterman.

Dr. Hesterman, please.

STATEMENT OF ORAN B. HESTERMAN, PH.D., PRESIDENT AND CHIEF EXECUTIVE OFFICER, FAIR FOOD NETWORK, ANN ARBOR, MICHIGAN

Mr. HESTERMAN. Thank you, Chairman Roberts and Ranking Member Stabenow.

I am the CEO of Fair Food Network. I come to this work as a farmer, business owner, philanthropist, agricultural scientist, and now as a nonprofit executive. I want to provide an update on the Food Insecurity Nutrition Incentive program, or FINI, which was created in the last farm bill. There are two points I would like to make.

First, produce incentives work. They are improving the diets of SNAP participants and increasing farm income, especially when tied to local production.

Secondly, FINI has been a success and warrants reauthorization.

Fair Food Network developed Double Up Food Bucks, which you heard mentioned by Mr. Ingrao in the last panel, in 2009. It is simple. For every SNAP dollar that a shopper spends on fresh produce, they get another dollar to spend on Michigan-grown produce. This

season, Double Up will be in 70 grocery stores and over 150 farm stands and markets across the State of Michigan and in northwest Ohio.

We are also working with partners in more than 20 other States, including Kansas, Missouri, Iowa, Nebraska, Arkansas, and Texas, not traditionally specialty crop States but all successfully integrating regional production into their programs. This progress would not have been possible without Congress' commitment of $100 million to the FINI program in the last farm bill.

Fair Food Network received a $5.1 million FINI grant in 2015, which we matched with private dollars. It is allowing us to expand, evaluate, innovate, and improve the program in Michigan through 2019. For example, in grocery stores, Double Up can operate with coupons, with automatic discount, with store loyalty cards, or through a reloadable Double Up card.

Last year, groups in Kansas and Missouri received a FINI award to expand a Double Up pilot which started at Ball's Price Chopper Stores. By 2019, Double Up will be in 117 grocery stores and 68 farmers markets across those two States, including groceries in small rural communities in Kansas like Humboldt and Pittsburgh.

Incentives have multiple benefits which programs nationwide are documenting. For families, incentives simultaneously alleviate hunger and improve diet. SNAP recipients shop more frequently and buy more produce when Double Up is in place. In fact, last year, our major grocery partner in Michigan found that fresh produce accounted for 17.5 percent of Double Up Food Bucks shoppers' baskets as compared to only 7 percent for non-Double Up shoppers.

Grocers like Double Up. In an Arkansas pilot this spring, produce sales doubled in the month that the incentive program was operating, and grocers appreciate the connection to rural agriculture. As Mike Beal, the COO Ball's Food Stores, noted, "We increased our local produce sales in participating stores 12 to 15 percent in the first year."

Incentives also support farmers and farmers markets. In Iowa last year, 74 percent of the farmers said they earned more money because Double Up Food Bucks was at the market. In Mount Pleasant, Michigan, a new influx of customers are coming to the market because of Double Up.

The FINI program's structure is sound. I am suggesting only minor adjustments. A center could promote best practices and provide technical assistance. We need better technology options for incentive delivery, and I recommend funds be set aside for this. Additional evaluation approaches should be explored. We should also consider adding flexibility to the match requirement. Finally, we should maintain the connection to regional production; it works and makes every dollar go farther and do more.

I know you often hear about what is not working in Federal farm and food programs, and my message today is the opposite.

Produce incentives work. Our experience and that of others nationwide demonstrates the positive impact they are having. FINI is making a difference and should be reauthorized.

Thank you.

[The prepared statement of Mr. Hesterman can be found on page 89 in the appendix.]

Chairman ROBERTS. I thank you, sir.
Faith Watson. Ms. Watson, please.

STATEMENT OF FAITH WATSON, MONTCALM COUNTY SNAP RECIPIENT, GREENVILLE, MICHIGAN

Ms. WATSON. Thank you. Chairman Roberts and Senator Stabenow, thank you for inviting me to testify today. I appreciate the opportunity to tell you about my story and how the Supplemental Nutrition Assistance Program, or SNAP, has helped my family.

My name is Faith Watson. I am from Greenville, Michigan, which is a rural community of about 9,000 people located in western Michigan. Honestly, I never thought that I would be in a position to testify about my experience as a SNAP participant. I have a bachelor's degree from Cornerstone University. I am an adventurous go-getter. I have always cared about other people and have tried to give back to my community through service and through my church. I worked hard throughout my twenties—first at a news radio program in Grand Rapids and then a variety of jobs as I moved around the country with my husband. Even when I took a job at a Starbucks in a new town, I quickly worked my way up to a shift manager. But life does not always work out as you expect.

Almost 2 years ago, I found myself separated from my husband, and I became the sole caregiver to and wage earner for my two young children. I had been a stay-at-home mom for several years and was completely unprepared for this unexpected change in our lives. All at once, I had to find work and sort out how I would manage to raise two small children on my own.

I found a part-time sales job at a large retail chain. It was only minimum wage, but it was a job that helped me get back on my feet. I also applied for help at the local Department of Health and Human Services, and I was approved and qualified for about $300 a month in SNAP benefits. It was a huge weight off my mind to get that help. Because of SNAP, I knew I could put food on the table and still pay my other bills. It also meant that I could afford to give my kids some special treats, like some of their favorite squeezable yogurt snacks. Eating healthy foods has always been important, and SNAP just made that easier to do.

Each day moves us forward, and things today look very different for us. It is still hard to juggle it all, but we are all much better. I have a part-time position as a communications coordinator at a local civic organization, which is in the field my degree. So I also do temporary work at my church. I volunteer at my son's school and my daughter's preschool. I am slowly but steadily growing a home business as part of a health and wellness direct sales company. Now because I am earning more, my SNAP benefit is about $120 a month. It still makes a big difference in our family budget. Knowing that I have this help lets me create an environment for my kids where they are safe, secure, and thriving.

SNAP's benefit to my family has been about more than just groceries. This little bit of security lets me think forward to the future. I do not plan to be in this situation forever. But I do not know how long it will take me to get out of this, but it is something I think about every day. My goal is to be in a place where I am financially independent, to provide for my kids without needing help, and to

be in a place where I can give back to my community both financially and with my time. SNAP has helped me take steps toward that goal of a different kind of future.

I know I am not the only one struggling to make ends meet. My county has one of the highest poverty rates in Michigan. I see many single moms working several part-time jobs and still barely making it. I am always quick to encourage them to apply for SNAP to help them get by and care for their kids.

There is definitely a lot of good the program does, but there is stigma about those who depend on SNAP benefits. There seems to be a pervasive stereotype about what kind of person uses SNAP: they are lazy, they do not care, they do not work. But that is just not me, and it is not the people I know who have needed Government assistance. We are hard workers who want a different future.

Of course, the program is not perfect. The application process and eligibility redetermination are tedious and highly involved, with all the paperwork taking a lot of time to gather and submit. The state needs so much proof of everything that is going on in my life to calculate my benefits—from employer statements, to child care expenses, pay stubs, bank info, utility bills, and a lot more. The State's website technology also leaves much to be desired, repeatedly crashes in the middle of entering required information, is not user friendly, and often fails to deliver uploaded documents. Hopefully, this will get better.

Reducing paperwork would be something participants and case workers would likely both agree could improve the process. Another improvement could be to avoid reducing SNAP benefits immediately after a participant reports an increase in their income, which seems more like a punishment for working more and trying hard to get ahead, instead perhaps allowing a short window of time of stable benefits, which could potentially help participants get back on their feet faster.

I hope that sharing my experience helps you appreciate the importance of this program to families like mine that really do need help, and that my story can help inform your work on writing next year's farm bill. Please know that for many of us, it is a lifeline that we did not know we would need, and it provides stepping stones that are a key to future success. Thank you for providing the benefit. It has made a huge difference to my family.

I welcome any of your questions. Thanks for your time.

[The prepared statement of Ms. Watson can be found on page 138 in the appendix.]

Chairman ROBERTS. Faith, thank you for that most unique and helpful statement. I can only say you have got a great first name.

Senator STABENOW. That is right.

Chairman ROBERTS. Mr. Nugent.

STATEMENT OF JIM NUGENT, FRUIT GROWER AND CHAIR, MICHIGAN TREE FRUIT COMMISSION, SUTTONS BAY, MICHIGAN

Mr. NUGENT. Thank you, Senator Roberts and Senator Stabenow.

Michigan is blessed with a wide range of soils and topography and surrounded by the Great Lakes, creating the natural conditions that foster the second-most diverse agriculture in the Nation.

My wife and I farm on the Leelanau Peninsula in northwest Michigan, an area that is exceptionally well suited for cherry and other fruit production. We are challenged to grow high-quality food in a globally competitive and sustainable manner. Hence, we in agriculture rely extensively on land-grant universities for the research and information to keep our industries viable. I strongly support increased Federal funding for research and extension.

Here is an example of why research is so critical. An Asian insect called "spotted winged drosophila," or SWD, was found in California in 2008. Females lay eggs in thin-skinned fruits where the larvae develop. SWD was found in Michigan in 2010 by the Michigan State University Extension fruit team. Since then the population has exploded and now seriously threatens the Michigan cherry and blueberry industries.

As growers, we turn to MSU researchers and extension for answers on how to manage SWD. Federal research funding is critical to address this type of serious threat. Specialty Crop Research Initiative funding has really helped address major issues like SWD that affect crops across the country. MSU has also applied for SWD research funds from the new Rapid Outcomes from Agriculture Research program which is part of the Foundation for Food and Agriculture Research. The Rapid Outcomes program is a great way to help agriculture quickly address emerging issues through research.

MSU has four research centers strategically placed in major fruit-growing areas which complement research conducted on campus. The apple and cherry industries have grower-funded programs that support research, but falling Federal and State funding was straining MSU's campus and field infrastructure to meet grower needs.

As a result, growers established the Michigan Tree Fruit Commission. It is a grower-funded program created to ensure MSU has adequate facilities and personnel to conduct research and extension programming. The commission has been successful, but works because it has a strong partnership with MSU. For MSU to remain that strong partner requires adequate Federal funding to support the scientists and the facilities needed to address grower issues and to fund projects beyond the scope of industry dollars.

I also wish to express my support for the Agricultural Conservation Easement Program, or ACEP, and the Regional Conservation Partnership Program, RCPP. Production of tree fruits and wine grapes in Michigan is found on the rolling hills close to the shores of Lake Michigan. But these scenic areas are also highly desirable for development. The Leelanau Conservancy has worked with farmers and USDA's NRCS to protect nearly 3,300 acres of prime and unique farmland with conservation easements so it can remain viable for food production. This work is made possible through ACEP.

To expand protection efforts, the conservancy was one of the recipients of a recent RCPP award. This has created a partnership that includes the Grand Traverse Band of Ottawa and Chippewa Indians, Grand Traverse Regional Land Conservancy, and the Conservation Resource Alliance. The program will allow the two conservancies to permanently protect land that is valuable both for agriculture and water resource protection with conservation ease-

ments, while partners implement other practices to protect the area's water resources and improve critical fish habitat.

I strongly encourage your continued support of these and other conservation programs. Sustaining a viable agricultural economy that produces healthy food to feed our country and the world requires an investment in resource protection. We know that much more conservation is implemented when USDA is a strong partner in the effort.

Thank you.

[The prepared statement of Mr. Nugent can be found on page 113 in the appendix.]

Chairman ROBERTS. We thank you for your statement.

Mr. Rorah.

STATEMENT OF KYLE RORAH, GREAT LAKES AND ATLANTIC REGION POLICY SPECIALIST, DUCKS UNLIMITED, ANN ARBOR, MICHIGAN

Mr. RORAH. Good afternoon, Chairman Roberts, Ranking Member Stabenow. It is a tremendous honor and privilege to testify here before you today. I thank you both for the opportunity to express the importance of the farm bill to the conservation community here in Michigan and around the country. The farm bill's conservation programs represent the single largest investment in private landowner conservation that this Nation makes on an annual basis, and it is critical to farmers here in Michigan, Kansas, and around the country to enhance profitable farming operations, maintain healthy soils, produce abundant wildlife, and protect critical wetlands and clean water.

These programs in turn help support Michigan's multi-billion-dollar hunting and recreational fishing economy, that supports 72,000 jobs here in the State alone, and we have some members in the crowd here that represent part of that wearing orange today.

DU appreciates the leadership of you both and your staff in securing a robust Conservation Title in 2014. Our top goal heading into the 2018 Farm Bill is preserving and advancing many of the gains made in conservation. Simply put, there is a lot at stake here, and conservation is a critical part of our Nation's agricultural safety net.

DU supports voluntary, incentive-based conservation programs that are streamlined, efficient, and friendly to both producers and wildlife. We believe this is the best defense against unnecessary regulatory actions.

One such incentive that is paramount is conservation compliance. During the last farm bill, a broad coalition of commodity, crop insurance, and conservation leaders collaborated to support and defend attacks on crop insurance and support conservation compliance. We stand ready to assist in those efforts again today.

The farm bill provides many important voluntary programs that benefit farmers as well as sportsmen and women. They include the Regional Conservation Partnership Program. This innovative new program is currently supporting eight projects here in Michigan totaling more than $55 million. DU wants to maintain this important partnership program in the 2018 Farm Bill while making some changes that will improve program delivery, further spur innova-

tion, and ensure partners have the resources and tools they need to be successful.

The Agricultural Conservation Easement Program, ACEP, is another farm bill program that DU has found to be mission critical. Due to its documented success and high landowner demand, we support efforts to restore baseline funding back to at least $500 million per year, as well as changes to improve management and landowner flexibility on ACEP sites.

The Conservation Reserve Program, CRP, is yet another important component of the farm bill and gives landowners the opportunities to conserve soil, water, and habitat that are critically important to our target game species, like deer, ducks, and pheasants. DU supports a robust increase in the national CRP cap from the current 24 million acres, more working lands options, and an increased CRP grasslands allocation.

The final program I will mention is the Volunteer Public Access-Habitat Incentive Program, which helps advance the sportsmen's heritage by providing financial incentives to landowners who practice conservation and allow the public to hunt their land. This program is critical to continue to ensure that current and future generations of sportsmen and women have places to hunt and enjoy the outdoors.

On behalf of Ducks Unlimited's 1 million supporters across the U.S., including more than 29,000 Michigan members and 15,000 Kansas members, I want to thank you for the opportunity to testify. A strong Conservation Title is essential to the economic prosperity of our Nation's producers and serves as a backbone to conserve our Nation's valuable soils, wetlands, grasslands, and wildlife populations.

Thank you.

[The prepared statement of Mr. Rorah can be found on page 115 in the appendix.]

Chairman ROBERTS. We thank you for your statement.

Jerry Ann Hebron.

STATEMENT OF JERRY ANN HEBRON, FARMER AND EXECUTIVE DIRECTOR, NORTHEND CHRISTIAN CDC, DETROIT, MICHIGAN

Mrs. HEBRON. Good afternoon, Chairman Roberts and Ranking Member Stabenow. Thank you for the opportunity to testify at today's hearing and share my perspective on urban farming.

I am a native Detroiter. Detroit was once the capital of the United States auto industry, which almost single-handedly helped to create the American middle class. But Detroit has been crippled, by closing factories, falling home prices, the exodus of tens of thousands of residents, and now we have a multitude of vacant land.

The Great Recession started early in Detroit and can still be felt in some quarters. When the Nation's unemployment rate was hovering around 9 percent, the jobless rate in the metro Detroit area was over 11.5 percent. In the city proper, the unemployment rate was probably around 20 percent—although, unofficially, that figure was much higher for those of us viewing things on the ground. In fact, a 2009 article in the Detroit News suggested the true unemployment figure might be as high as 50 percent. Couple that with

the estimated 80,000 housing units needing demolition and the city's 20 square miles of vacant land, roughly equal to the size of the city of Manhattan. What you get is the need for creative paths forward like the Oakland Avenue Farm Way.

When we started farming in 2009, the neighborhood was not safe. It was filled with vacant lots and houses and a liquor store on every corner selling greasy food. To respond to this, we started growing a variety of vegetables that were culturally appropriate for the community that we work in.

In 2011, we started adding fruit, opened farmers market on the farm, and started selling at six Chrysler plants throughout the metro tri-county area. In order to meet the demand of these farmers markets, we had to increase our production, so we purchased more land. We also started a value-added production, which included a line of AFRO Jams so we can increase our sales. Over the last 3 years, we purchased over 30 properties surrounding our farms and have created the Oakland Avenue Farm Way, which currently is a 4.8-acre farm. It is an incubator space for food-related businesses and educational programs around food and nutrition. In addition, we have two greenhouses, one funded through USDA Environment Quality Incentive Program. We have purchased and renovated an abandoned house which is now used as our community space for youth programming, meetings, and a shared kitchen.

What is needed now to grow these businesses is access to more USDA funding for crop insurance, low-interest loans for equipment and integrated farm business development, and infrastructure for water.

Urban agriculture is a great environment to work and grow skilled workers who traditionally have been denied employment because of background checks and drug problems. On our farm we work with people where they are, and what we find is our environment is one in which we are able to train people basic employment needs. We have been able to hire people in the community as seasonal workers, and we recently started an initiative to train our farm workers on how to grow fruit trees and manage large-scale farm equipment, giving them specialty skills and machine training.

The Oakland Avenue Farmers Market is one of 16 members operating farmers markets in communities across Detroit. Thanks to the 2014 Farm Bill, all of these markets are able to process transactions for families receiving food assistance and we use Double Up Food Bucks. They also offer a variety of educational programming regarding nutrition, food preparation, and food safety. The Oakland Avenue Farmers Market in partnership with the Detroit Community Markets received funding through the USDA Farmers Market Promotion Grant for 2017 and 2018 to support outreach, growth, vendor support, and programming in our community.

Transitioning into urban farming and working in a community environment has proved to be the best thing I could have done to address basic community needs and to work to increase employment opportunities.

Thank you.

[The prepared statement of Mrs. Hebron can be found on page 81 in the appendix.]

Chairman ROBERTS. Thank you very much for your statement.

Collin Thompson.

STATEMENT OF COLLIN THOMPSON, COMMUNITY FOOD SYSTEMS EDUCATOR, MICHIGAN STATE UNIVERSITY EXTENSION, AND MANAGER, UPPER PENINSULA RESEARCH AND EXTENSION CENTER'S ORGANIC CERTIFIED NORTH FARM, CHATHAM, MICHIGAN

Mr. THOMPSON. Chairman Roberts, Ranking Member Stabenow, thank you for the opportunity to testify today.

My name is Collin Thompson. I am a community food systems educator for Michigan State University Extension housed at the Upper Peninsula Research and Extension Center. Part of my job entails managing the North Farm, which is a USDA-certified organic produce farm, where I work with members of our community to learn the latest techniques for farming in the UP's challenging northern climate.

I am privileged to work with beginning and seasoned growers with the goal of improving their farms through educational programming and on-farm research.

Each year, we invite thousands of visitors to participate in workshops, trainings, school visits, and other learning opportunities. In addition, we host a farm business incubator where we provide resources to farmers as they start their fair enterprises.

We also conduct on-farm research, hoping to better understand the challenges of producing specialty crops and small grains, again, in our unique climate.

My work focuses in two primary areas, that of the local and regional food systems, and organic agriculture. Michigan, and specifically the UP, is fortunate to support incredibly vibrant food systems. However, the central UP economy tends to drain away from the region, resulting in an annual net loss of $540 per farm. In fact, while the rest of the State boasts about Michigan's growing agriculture economy, growers in my region saw a $3.4 million reduction in commodity sales from 1969 to 2011.

Despite these challenges, my region is seeing tremendous growth in specific areas of the food economy. The number of farms pursuing direct-to-consumer sales has increased 22 percent since 2002, boosting those sales figures by 24 percent. Programs funded through the farm bill, such as the Farmers Market Promotion Program and the NRCS High-Tunnel Initiative, have kept food dollars in the region through the expansion of local farmers markets and helped over 100 farmers build more resilient businesses by installing seasoned extension structures on their farms. Simply put, these critical programs are strengthening the UP's economy.

Organic is the fastest growing sector in the U.S. food economy, now representing over $43 billion dollars in sales. Since 2008, the industry has grown by nearly $20 billion, with a 300-percent increase in the number of certified organic farms. Still, domestic production does not come close to matching the demand. The 2014 Farm Bill made critical investments to strengthen the organic sector, but more work needs to be done to support the industry.

Despite the incredible growth of organics, funding for the two primary organic research funds—the OREI and the ORG—has remained steady. Additionally, only two-tenths of a percent of the

funding through the Agriculture and Food Research Initiative, the USDA's premier competitive research program, goes to organics. Funding we received through AFRI in 2014 is the only reason I can do the work I do every day.

Agricultural research is essential for continued growth in the organic sector as every $1 invested in public agricultural research generates $10 to $20 in domestic economic activity. We simply cannot lose this opportunity to help our farmers.

The programs currently supported by the farm bill, such as the OREI, the ORG, and the Organic Cost Share Program, are allowing more farms to certify and are enhancing soil, environmental, community, and farmer health.

I am fortunate to work every day with individuals invested in the local, regional, organic food systems in the Upper Peninsula. Utilizing support through programs funded by the farm bill, they are continuing to lead the agricultural industry.

As both a certified organic producer and a professional in the industry, I urge Congress to support local/regional and organic agriculture by significantly increasing funding that supports these industries in the next farm bill.

Again, thank you for the opportunity to testify, and I look forward to your questions.

[The prepared statement of Mr. Thompson can be found on page 134 in the appendix.]

Chairman ROBERTS. We thank you for your testimony.

Mrs. Matson.

STATEMENT OF KRISTEN MATSON, EUP INVENTORY AND PLANNING SPECIALIST, MICHIGAN DEPARTMENT OF NATURAL RESOURCES, FOREST RESOURCES DIVISION, SHINGLETON, MICHIGAN

Mrs. MATSON. Thank you, Chairman Roberts and Ranking Member Stabenow, for the invitation to testify. Today I hope to give the Committee a summary of how the 2014 Farm Bill is already helping us create more forestry jobs in Michigan and how the 2018 bill can build on that progress. I will also talk about the serious problems caused by a broken Forest Service budget and will conclude by outlining a new opportunity for job creation in the forest products sector.

Michigan has 20 million acres of forest, which is approximately 56 percent of our land. This land supports a $20 billion industry and employs 96,000 people statewide. A recent example of the sector's impact comes by way of the new Arauco Forest Products Mill in Grayling, Michigan, which is a rural community about 115 miles northwest of here. This plant is a $400 million investment which will create 700 construction jobs and 200 full-time jobs in the region. The economic activity from this company and others is often driven in part by smart Federal policy.

Good Neighbor Authority, created in the last farm bill, is a prime example of one of those policies. As you know, the program authorizes State foresters to carry out restoration and logging projects on Federal lands. DNR used this new authority to put up 1,300 acres of Federal land for timber sales in 2016 and 1,800 acres this year.

Good Neighbor sale acres are expected to increase in future years as we gain experience with this new program.

I am happy to report that work began just this week on a Good Neighbor sale on the Hiawatha National Forest where the logging is being done by a small, family-owned, Upper Peninsula company based in Rapid River.

Whether it was assuring Arauco that their mill would have a steady supply of logs or this week's timber sale that gave loggers out of Rapid River a new contract, the farm bill Good Neighbor Authority is creating new and good-paying jobs right here in Michigan.

To help us build on that success, DNR and the National Association of State Foresters recommends that Congress slightly amend the program to allow for repair of existing national forest roads in the 2018 reauthorization. The current program excludes road maintenance from the projects that Good Neighbor allows, thereby limiting the amount of acres that DNR can treat. The flexibility to conduct road maintenance will allow us to restore even more acres and to support increased economic development in forested communities.

Moving on to other policy areas, I would like to draw your attention to a more systemic issue which has the potential to undermine many of our other forest management tools. That issue is the broken Forest Service budget, and it is profoundly hurting not only the national forests but also State agencies like Michigan DNR and private landowners.

During my 8 years working for the Forest Service and my 23 years with the Michigan DNR, I helped suppress several large wildfires in Western States and in Michigan. My experience has taught me that the old Forest Service budget model is not well suited to face the actual costs of modern-day wildfire threats. We strongly encourage Congress to enact a comprehensive fix for the Forest Service budget, either in the context of the 2018 Farm Bill or elsewhere.

Finally, I wanted to conclude my testimony on a positive note by drawing the Committee's attention to a relatively new forestry-based commercial building material referred to as "mass timber." Mass timber panels are different than normal building materials in that they arrange traditional dimensional lumber in a new and stronger fashion using state-of-the-art engineering, a specialized press, and advanced adhesives. We encourage the Committee to enact policies that support mass timber products, like Senator Stabenow's Timber Innovation Act, which will create new jobs in our rural forested communities.

Once again, thank you for the opportunity to share my perspective with you this morning.

[The prepared statement of Mrs. Matson can be found on page 105 in the appendix.]

Chairman ROBERTS. Thank you, Mrs. Matson.

Batting cleanup is Bob Hance.

STATEMENT OF BOB HANCE, PRESIDENT AND CHIEF EXECUTIVE OFFICER, MIDWEST ENERGY AND COMMUNICATIONS, CASSOPOLIS, MICHIGAN

Mr. HANCE. Thank you, Chairman Roberts and Ranking Member Stabenow, for inviting me to testify today. My name is Bob Hance. I am the president and CEO of Midwest Energy & Communications, based in Cassopolis, Michigan.

"Vibrant, relevant, and sustainable rural communities"—that is our vision statement. I suggest it is appropriate for all rural electric cooperatives. While our history is firmly rooted in delivering reliable, affordable electricity to our members, our purpose is much greater. We are the engines that drive economic opportunity across rural America, creating jobs and improving the quality of life for millions. That is why the farm bill is essential. It contains important rural development tools that support our efforts to strengthen our communities.

For over 80 years, loans from the Rural Utilities Service have helped build and improve the infrastructure across rural America necessary to provide power, deliver clean water, and deploy advanced telecommunications technologies. It has been the most successful public-private infrastructure investment program in the history of the country.

In 2015, Midwest was one of the first electric cooperatives in the country to access the RUS Smart Grid loan program. With a $60 million RUS loan, we are constructing more than 2,000 miles of fiber infrastructure that will improve grid security, help consumers manage their energy consumption, improve system reliability and operational performance. Leveraging that investment, Midwest has been able to use other non-RUS financing to deliver fiber speed voice and data solutions to our largely unserved and underserved rural membership.

Geography should not define your scope of personal and professional opportunity in 2017, but there is a pervasive digital divide in the rural space. We are changing that. We now have more than 4,000 members using our fiber Internet solution, and we receive daily affirmations of the importance of this project.

We are changing the landscape of opportunity for rural Michigan, affording the opportunity for members to participate in the digital space just like their urban counterparts. This means access to health care, education, and jobs. The RUS Smart Grid Initiative is providing long-term transformational benefits to your rural Michigan constituents.

Besides the RUS loan program, the farm bill includes other important rural development tools like the Rural Economic Development Loan and Grant Program, or REDL&G, which is an economic tool used by many Michigan electric cooperatives. It has helped create hundreds of new jobs across the State over the last couple of decades.

As an example, Cherryland Electric, our sister co-op in the Grand Traverse region, worked with RUS to secure a $57,000 zero interest loan through REDL&G to Great Lakes Potato Chip to provide additional slicers, scales, conveyers, and other associated equipment to support the organization's continued growth. This loan supported the company's move to a second shift with 10 new

jobs in rural Michigan. I can attest that 10 new jobs in rural Michigan is a meaningful number and that REDL&G was a key component in that growth. There are a dozen other REDL&G stories like that.

Michigan co-ops are actively using Rural Energy for America Program, or REAP, to implement efficiency programs and integrate new renewable sources. Just last year, Spartan Renewable Energy secured a $500,000 REAP grant to help construct Spartan Solar, one of Michigan's largest community solar projects. Several hundred Michigan co-op members have already purchased panels. It is an exciting project.

Senator Stabenow, I know this program was a big priority for you, and you played an important role in securing REAP funds for the project. Thank you very much.

Electric co-ops continue to enjoy a productive partnership with the Federal Government to promote the health of rural America. We look forward to continuing to work with you toward that important goal. Thank you, and I look forward to any of your questions.

[The prepared statement of Mr. Hance can be found on page 77 in the appendix.]

Chairman ROBERTS. Bob, thank you very much.

Debbie and I were just mentioning here—we were paying very close attention to you; do not worry about that—that we could probably have 10 questions for every witness, the first panel and this panel. You all have had excellent testimony. I want to make it very clear that all of this testimony will be part of the written record. I am going to share the testimony we got in Manhattan, Kansas, of 21 witnesses and the testimony we have here in Michigan, and I am going to share it with all the members on my side of the aisle, and I know Deborah will do the same thing with hers. I think that every member will want to go over that very, very carefully.

So in the interest of time, I am going to ask you one question. Somebody has to be the bad news bearer. I do not like being a bad news bearer, but this is for the entire panel, and I am not going to ask each of you to respond, but if anybody feels like it, they can.

You have all given valuable testimony, and you have all supported the various programs across all titles of our farm bill. Some of you have shared recommendations for increased funding. That is natural. You are doing a good job. You would like to have increased funding. I would like for you to have increased funding, and so would Deborah.

This might be a tough question for both you and for us in Congress, but the reality is we are going to have to do more with less. That is just the way it is. I mentioned the number 19, it is soon going to be 20, and then 12 zeroes. We cannot go on like this. We have to do our share. We would like to think that we have done our share. But there are others in the Congress that certainly think otherwise.

Even to merely extend the current farm bill as is, we are in a constrained budget environment, so there are challenges with regards to any increasing program dollars. What we give to some section, some title of the farm bill, we are going to—there is a pay-

for we are going to have to find with efficiencies. We do not like the word "cut," but that is the way it is.

What policy changes should we make that would provide greater administrative flexibilities and efficiencies so we can achieve some budget savings? Anybody raise their hand here? Yes, Mr. Rorah.

Mr. RORAH. Just on the CRP, we believe that increasing flexibility within the program to allow landowners, ranchers and farmers to do more wildlife-friendly haying and grazing, can stretch available CRP dollars out and cover more acres than are covered currently.

Chairman ROBERTS. I appreciate that. We can do that with existing authority, and we have done it in times of need, and we are going to sure look at it in Kansas. Thank you for that.

Anybody else? Yes, sir, Mr. Hance.

Mr. HANCE. To your point on efficiency in the Federal Government and the opportunities that are there that, I would argue, are maybe being misused, we have been trying to gain access to the Connect America Fund for the last 5 years. It is a $2.5 billion fund that would benefit rural America substantially with advanced telecommunications across the country. It seems to be reserved for incumbent providers, and it would be great if somehow it would actually get to rural America.

Chairman ROBERTS. Anybody else? Yes, sir, Dr. Hesterman.

Mr. HESTERMAN. Yes, it seems to me that there could be some efficiencies gained by us figuring out how to combine some of the programs that are focused on local, regional, urban agriculture together, and instead of having many, many different programs, we may be able to combine some and create efficiencies there.

Chairman ROBERTS. That is an excellent suggestion.

Faith, do you have any suggestions?

[No response.]

Chairman ROBERTS. I am not picking on you. I am just sort of picking on you.

[Laughter.]

Senator STABENOW. I think Mrs. Hebron had her hand up.

Chairman ROBERTS. Yes?

Mrs. HEBRON. Yes, thank you. I would just echo what Dr. Hesterman said about the combining of the programming for local and urban ag. You know, being new, a lot of the programming opportunities have not been designed for urban agriculture, and we are growing, and so just being able to access and recognize that our work is a little different in communities, making that combination so that it is more reachable for us.

Chairman ROBERTS. Anyone else?

Ms. WATSON. I think I might have something. I think it would be echoing what has been said, just the collaboration. I think it cannot be left to one sector to handle hunger and all the other issues that are—speaking from food and nutrition, I think addressing poverty, addressing hunger, there has to be collaboration and communication across the board, like churches, nonprofits, Government. Somehow there has got to be that collaboration that everybody does a different part, and if we work together, the funds can go further. There is a lot more than just hunger. There are physical

needs, there are emotional needs, mental needs, spiritual needs, and all the different sectors can work together if they try.

Chairman ROBERTS. Well, thank you, Faith, for that.

My personal favorite is the one that Chris brought up about somebody who is really concerned about the number of wildlife that is crossing his farm. I will volunteer for one week.

[Laughter.]

Chairman ROBERTS. That is just goofy. But, anyway, thank you all for your testimony. Senator?

Senator STABENOW. Well, thank you, Mr. Chairman. We are abbreviating questions on this panel only in the interest of time because of a flight commitment. So let me first start with Ms. Watson. Thank you for being here and sharing your story. I do want to reiterate the fact that with policies we put in the place in the 2014 Farm Bill, the Budget Office has indicated major savings because the economy is improving; more jobs are being created, people are going back to work, so the family safety net, and the Supplemental Nutrition Assistance Program will save $80 billion. SNAP works. We have two safety nets. We have a farm safety net and a family safety net. Because the economy is getting better there are more opportunities and we wish you well as you are working hard, but as the dollars you are receiving to feed your family goes down as your income goes up, that indicates how the program is working. This is a good thing.

We know on the farm safety net side that prices are down. They were high when we wrote 2014 the farm bill. Commodity prices are down now so we have issues to address on that end.

I also know, in listening to all of you, that what you are talking about is creating jobs, whether it is in rural development—and, by the way, if we have more time, Mr. Hance, I would talk about broadband, which ought to be connecting everybody everywhere. Instead of the farmer at the end of the road being connected to the telephone, it is now broadband and Internet. We have work to do to make sure we have kids coming back and staying in small towns. They are going to need to have access to high-speed Internet. Connectivity is a big concern also for hospitals and all other rural businesses.

If we talk about forestry and the jobs streaming from that industry, or if we talk about the growing area of organics, or about urban agriculture, all of these areas are a great opportunity for jobs. Mrs. Hebron, thank you for all that you are doing to take the extra land in Detroit and the need for fresh food, and turn it into a project that creates jobs and grows fresh local food. That is part of the grit in agriculture, and I am so grateful that all of you are doing that. We could talk forever about conservation and research, but I am only going to ask one question. Senator Roberts asked one.

As we conclude, I want to thank everyone here. When the situation in Flint happened with the high lead levels in drinking water and over 100,000 directly exposed to this heavy metal it was Michigan agriculture that came forward first. It was Michigan Milk Producers that stepped up and donated milk. It was fruits and vegetable growers that helped by donating excess food to salad bars in schools. I have learned more about lead exposure than I ever

thought I would in my entire life. We know that for children this exposure is extremely damaging and continues their whole life. The only way you can mitigate and overcome lead exposure is through good nutrition.

I want to thank you, Dr. Hesterman, for coming in and working to expand to grocery stores, farmers markets and so on. I wonder if you might take a minute to talk about how you are integrating SNAP redemption at farmers markets and groceries. This goes to, again highlight, the partnerships built around agriculture, local foods, and access to food.

Mr. HESTERMAN. Thank you, Senator Stabenow. What we were able to do with the support of the State of Michigan, MDARD, as well as USDA and private foundations, is to really expand the Double Up program in Flint. It had been in the farmers markets since 2011, but we have expanded it to now eight sites, all kinds of retail sites around Flint, grocery stores, farmers market, and some mobile markets where you move the produce to where it is needed in the city. We got the program going year round. We know those kids need access to fresh fruits and vegetables all year round, so we made it not a seasonal program but year round. Because Double Up has a uniform design, we were able to create a citywide communications program. So outreach in all kinds of ways, through social media, through on-the-ground outreach, billboards, bus signs, direct mail, really get the word out.

But what we think really made the difference was the technology that got developed for Flint. That is the first in the Nation and now spreading to other places where folks can get this Double Up Food Bucks card. This card can be used at the farmers market, the grocery store, the mobile market. We call it "interoperable," and it makes the customer experience really convenient and easy for Double Up Food Bucks. So somebody can earn their Double Up Food Bucks by purchasing produce at the farmers market, spend the Double Up off those cards at the grocery store, or the other way around.

So the results in just less than a year, over twice as many dollars being used to purchase fresh produce in Flint with Double Up than the year before, and we are now reaching over 25 percent of the SNAP population in Flint with this program.

So we are really proud of all—it took a lot of partnerships to do that. We are proud of that. We are going to keep it going because it is needed there.

Senator STABENOW. Great. Thank you.

Thank you, Mr. Chairman.

Chairman ROBERTS. Well, thank you again to all of our witnesses for joining us here in Michigan. We appreciate you sharing your experiences, your thoughts—good thoughts, good suggestions. Thank you to those in the audience, everybody present, those who have listened from around the country for your interest, especially on a Saturday.

When I took the gavel 2 years ago, I indicated that our Committee is the voice of the producer, and we both declared that we were champions on behalf of agriculture. Our Committee will not only provide folks a platform to spread the word about the value of production agriculture, but also be the forum for our farmers,

our ranchers, and consumers, and rural communities to participate in shaping the next farm bill. This is just another step in doing that.

Today we have continued that important process. We have heard about agricultural research, crop insurance, the diversity of American agriculture, and some of the other policies that we are working on as well. We have heard about the burdens of Government regulation, from Mr. Alpers, and programs where we need to raise more questions and craft solutions, from Faith.

We will continue to listen to farmers, ranchers, and other stakeholders across the country at additional hearings in Washington. We have less than 2 years to pass the next farm bill. We have our work cut out for us.

A lot of my producers out west, way out west in Kansas, I had one old boy come up to me, and he pulled down on his cowboy hat and said, "Pat, I do not care what you do to me. Just let me know."

[Laughter.]

Chairman ROBERTS. That pretty well simplified it under the banner of predictability and stability. To get the farm bill done in the Congress of the United States is a difficult task. It is a tough trail. We are going to try to do this in a manner that could hopefully provide some predictability because of the tough times that we are facing. But we have our task, as I said, that lies before us.

But I know, in working with Senator Stabenow in the past, and other members of the Committee, I know, I have no doubt, that we can craft a bill for producers across the countryside, and we can do it in a timely manner so that you will know and be able to continue the good work that you are doing.

This Committee stands adjourned. I have to get on a plane to get into Dodge, not out of Dodge.

[Laughter.]

Senator STABENOW. Thank you, Mr. Chairman. All right.

[Applause.]

[Whereupon, at 12:40 p.m. Eastern Time, the Committee was adjourned.]

A P P E N D I X

MAY 6, 2017

Testimony of
Chris Alpers
Redpath Orchards
Lake Leelanau, MI

Committee on Agriculture
U.S. Senate

Frankenmuth, Michigan
May 6, 2017

Good morning Chairman Roberts, Ranking Member Stabenow. Thank you for the opportunity to speak today about the impact of the 2014 Farm Bill and priorities for the 2018 legislation.

My name is Chris Alpers of Redpath Orchards and I am a third generation apple and cherry grower from Lake Leelanau, Michigan. I currently serve on the USApple Board of Directors and Executive Committee, as well as Cherry Growers Processing's Board of Directors.

My father and I manage/own and operate Redpath Orchards & Alpers Farms, consisting of 1,000 acres of tart cherries, sweet cherries and apples, which was established in 1959. As one of the largest orchards in the state of Michigan, we take pride in being at the forefront of new agricultural advances. My childhood was spent welcoming Michigan State University researchers into our home as they worked to develop and test the newest forms of agricultural technology on our farm. I have experienced the good fortune of helping to further cultivate our farm in order to prepare for future generations.

My wife, a sixth generation tree fruit grower, and I hope to leave the farm poised for success should our four month old son, Raymond, choose to carry on the family farming legacy. This year, we look forward to planting an apple tree with our son; grafted from a Red Delicious tree my wife's great-great-great-great grandfather planted on her family farm in Sparta, Michigan (7th generation).

In addition to farming, my mother and I operate a business selling tree fruit nursery stock. My grandmother established Alpers Tree Sales in 1954 as a means to streamline nursery stock sales in northern Michigan. We work with C&O Nursery (owned and operated by the Snyder family since 1906) out of Wenatchee, Washington to deliver quality nursery stock to growers in Michigan. Tree fruit growers across the nation work together closely in order to grow and sustain our industry.

Michigan is home to 825 apple growers, many in their 5th or 6th generation on their orchards. Apples are Michigan's largest and most valuable fruit crop, and have a yearly farm gate value of $245.81 million. This value is compounded by the economic impact of input costs, processing, packaging, shipping and sales. With 11.3 million apple trees covering 35,500 acres, apples are geographically, fiscally, and culturally an important aspect of life in Michigan.

From Michigan to Washington, New York to California the apple industry is comprised of independent business owners. We strongly support programs that build long-term competitiveness, drive innovation and further grow demand of our products. Tree fruit growers are not seeking a government farm program to support grower income or market prices. That would not be in the best interest of my business nor our industry. Building on the success of the 2008 legislation, the current Farm Bill made a number of

important strides toward each of these goals. I would like to touch on some of them briefly.

Export Programs

A strong export market is critical to the health of the entire apple industry. Nationally, about 30% of the fresh crop is sold overseas. Most of that fruit is grown in Washington State but a strong export market strengthens and stabilizes the market nationwide.

I would like to take this opportunity to talk about the immense importance of protecting provisions for agriculture in NAFTA. Mexico and Canada represent the two largest export markets for apples, totaling more than $450 million in sales last year. Disruption to these important markets would have a devastating impact on the entire industry. We witnessed a glimpse of the impact of market disruption during the trucking dispute with Mexico in 2010 and the more recently the West Coast ports slowdown in 2015.

The apple industry strongly supports the Market Access Program (MAP), which has helped level the playing field as it allows us to compete with countries that have a much lower cost of production, such as China and Chile.

As a direct result of the MAP program funding, Michigan has shipped apples to new markets such as Brazil, China, and Israel. Representation and market information in these new markets has been extremely beneficial in providing the best Michigan Apples available. These very critical dollars have provided opportunities that our individual states could not achieve alone.

MAP is a public-private partnership; with growers contributing $2 for every federal dollar the industry receives. Recent studies have shown a return on investment of 24:1 for MAP. This important program has been funded at the same level since the 2002 Farm Bill. I would strongly urge the Committee to increase funding for MAP in the 2018 legislation.

The Technical Assistance for Specialty Crops (TASC) is another important Farm Bill program, which provides funds to resolve phytosanitary and technical barriers that prohibit or threaten access to a foreign market. Michigan has utilized TASC dollars to gain access to markets such as Mexico and Israel.

Research

Research and extension activities supported by USDA and Michigan State provide the apple industry with a competitive edge by enabling the introduction of new cultivars, implementation of improved pest management strategies, genomics and plant breeding and science-based improvement of food safety.

One of the most successful programs beginning with the 2008 Farm Bill and renewed in 2014, is the Specialty Crop Research Initiative (SCRI). The SCRI provides funding for a

variety of research programs throughout the specialty crop industry. While the success stories from SCRI research projects are numerous, for apple growers, this program played a critical role in slowing down the damage caused by the newest invasive species, the Brown Marmorated Stink Bug (BMSB). Michigan has seen an increase in BMSB activity including damage to apples from the 2016 crop. As numbers continue to increase, the SCRI research has been critical in providing tools to apple growers in combating this extremely destructive pest.

In 2011, the SCRI funded a 5-year; $5.7 million research grant involving over 50 scientists and 10 research institutions nationwide to develop methods to control BMSB. The initial research effort yielded significant benefits in the development of knowledge and tools to deal with this especially damaging invasive species. Though apples are a major target of the BMSB, it is known to attack more than 300 plant species, many of them specialty crops, and the SCRI research also helped other specialty crop producers fight the BMSB. The U.S. Apple Association estimates that the SCRI research resulted in savings to agriculture in crop value of more than $500 million worth of crops that otherwise would have been lost. Significant research still needs to be done in order to develop a long-term solution to the BMSB problem. Based upon both the success of the first program, and the need for research on controlling the pest long term, a new 5-year project has been funded under the SCRI.

The BMSB research is only one example of the impressive return on investment that the SCRI has provided. Advances made in SCRI research projects focused on mapping the apple genome, mechanizing orchard practices such as pruning and harvesting, and prevention of other disease and insect pest threats promises to result in even greater savings to agriculture, which translates into a direct benefit to the U.S. economy, consumers, and U.S. jobs.

Currently, the cherry industry (and many other fruit industries) is currently facing a similar threat from Spotted Wing Drosophila (SWD). This pest has the ability to cripple our industry if left unchecked. Important research is presently being conducted in order to prevent this pest from destroying more fruit across the state.

I understand there are some who would like to review and potentially restructure many of the research programs funded under the Farm Bill. While there is always room for improvement, I would argue the SCRI program is relatively new and is working quite well. Changes to the fundamental structure of the program could disrupt ongoing projects and impede future efforts.

SCRI projects are reviewed based upon both their scientific merit and relevance of the research to the industry. This enhances the likelihood these valuable dollars are spent on impactful projects. I strongly urge the Committee to maintain and if possible, increase funding for the SCRI.

Another important program is the National Clean Plant Network, which serves as the single nationally certified source of plant material free of potentially devastating diseases and pests. Enabling the nursery industry to produce clean plants is of critical importance as a number of serious diseases can enter into the United States through the import of foreign nursery stock. As we have painfully learned with the recent experience with the BMSB and SWD, once such pests and diseases become established in a region it is extremely difficult to eradicate them.

Marketing Programs

The 2014 Farm Bill includes a number of important marketing programs which have proven beneficial to the apple and cherry industry here in Michigan and nationally. The Specialty Crop Block Grant program focuses on regional and local priorities to improve the competitiveness of specialty crop producers. For several years, Specialty Crop Block Grants have allowed the Michigan Apple Committee (MAC) to engage and connect with consumers in-store, via social media, through advertising and in numerous other ways. Thanks to SCBG funds, intensive programs aimed at specific geographic areas, targeted retailers and key consumer audiences have brought valuable results online and in stores. With these grants, MAC has been able to show increases in engagement on social media, awareness via trade and consumer advertising, and, most importantly, movement of Michigan Apples in targeted regions. These grant funds proved to be critical following the 2012 crop loss when re-building market awareness and retail presence was a significant goal for the industry's recovery.

Crop Insurance

The apple industry is one of a handful of specialty crops that participates in the federal crop insurance program. In fact, according to the USDA's Risk Management Agency (RMA), nearly 75% of the U.S. apple crop is insured. Over the years, the industry has worked closely with RMA and as a result, today's policies have been modernized to reflect production changes in the industry. There is more work to be done to fully address these changing needs. We continue that dialogue with Risk Management Agency.

No crop insurance program will make a grower devastated by a natural disaster financially "whole," but it will allow them to survive a devastating loss and continue to support the economic engine of rural America. Let me be clear, crop insurance enables me to manage risk, but it should never be designed in a way that distorts the market or encourages sub-par production.

A risk management tool such as crop insurance allows producers like me to invest back into our own business, creating good jobs our local community. Modern apple plantings cost upwards of $ 40,000/ac before a single apple is harvested (5-7 years later). This enormous startup cost unfortunately scares many talented young entrepreneurs (and lending institutions) away from investing their talents (and capital) into apple production. I am thankful many producers (and lenders) recognize crop insurance as an

important risk management tool. Without the ability to purchase a solid insurance policy and limit my exposure I would not be able to justify investing my future into the apple business.

Nutrition Programs

Programs like the Fresh Fruit and Vegetable Program (FFVP) are a win-win for the apple industry and the children that are served. This highly successful national program has reached more than 4 million low-income elementary school children, many of them right here in Michigan.

The FFVP has been evaluated by outside experts and found to be highly effective at increasing students' consumption of fresh fruits and vegetables. Anecdotally, we hear many of the students who participate take what they learn home with them and ask their parents to buy the fresh fruits and vegetables they experienced through the FFVP.

There is a bipartisan focus on reducing the rate of childhood obesity and diabetes through improved nutrition and this program accomplishes those goals.

Labor – Our #1 Issue

I would be remiss if I did not raise the issue of agricultural labor and the concerns that apple growers have from coast-to-coast as to whether they will have adequate labor to harvest and care for our crop. Apple and cherry growers like me spend money 10 to 11 months a year in order to create all of our revenue in a very short time sensitive window. **I must point out there is no insurance for no labor.** A solution to this problem must come sooner than later. I have personally witnessed crops wasting away on the trees because the producer wasn't able to secure a (domestic) work force or there were extreme delays in the H2-A program.

Due to the lack of a viable domestic work force, our farm is in the process of recruiting foreign visa guest workers for our 2017 cherry and apple harvest. Many fellow producers in my area are also being forced to seek workers via the H2-A program. My single greatest concern this upcoming season is this program will experience significant delays and workers will not arrive before the crop is ready to be harvested.

Thank you for allowing me the opportunity to testify before this Committee. These discussions and the reauthorization of the Farm Bill offer an exciting opportunity to further improve important specialty crop programs and support increased growth and competiveness of the apple and cherry industry.

Senate Agriculture Committee
Field Hearing

Growing Jobs and Economic Opportunity:
Perspectives on the 2018 Farm Bill from Michigan

Frankenmuth, Michigan
May 6, 2017

Testimony of:

Janna Fritz,
JDF Farms, LLC
and
Secretary/Treasurer,
Michigan Corn Growers Association

Good morning. Chairman Roberts, Ranking Member Stabenow, and all members of the U.S. Senate Committee on Agriculture, Nutrition, & Forestry: on behalf of my family farm and the Michigan Corn Growers Association, I want to thank you for the opportunity to testify today and share a few thoughts on the Farm Bill.

My name is Janna Fritz and I am married to a fifth-generation farmer. Our family's farm is located near Bad Axe, Michigan. My husband, Joel, and I have two sons, Wesley and Zachary, and we farm 1,200 acres of corn, soybeans, and edible dry beans in collaboration with my father-in-law and my husband's cousin. I didn't grow up on a farm, but have come to love it because it's a great environment to be a Mom and raise our family. American farmers are some of the most honest, hard-working, compassionate people I have ever had the pleasure to know. Their ability to grow food, fuel and fiber for the world is truly an inspiration to me. In addition to working on the farm, I also am a sales representative for a seed company that puts me in touch with farmers throughout the Thumb region.

In addition to the family farm, I serve as the Secretary/Treasurer of the Michigan Corn Growers Association. The Michigan Corn Growers Association is a grassroots membership organization that represents more than 1,400 growers statewide. Our mission is to advocate for policies that grow Michigan's agriculture industry and increase the profitability of corn production. I'm a founding member of the Thumbs Up 4-H Club and have served on the board of the Tuscola County Farm Bureau. In 2015, the Michigan Farm Bureau recognized me with the Young Agriculture Leader Award. I currently represent the Michigan Corn Growers Association on the U.S. Grains Council and sit on their Sustainability & Innovation Action Team.

Michigan's corn growers are innovative and efficient at producing corn in a sustainable manner. In addition, new technology and best practices have allowed corn farmers to produce more bushels on fewer acres and with fewer inputs than ever before. We are deeply committed to conservation, both through working lands conservation programs and demand for programs like the Environmental Quality Incentives Program and the Conservation Stewardship Program shows they are working effectively. Our farm is certified by the Michigan Agriculture Environmental Assurance Program (MAEAP). As part of this certification we sample our soils to evaluate the nutrients already available. We then tailor our nutrient applications and only apply what our crop needs at that time. We keep detailed records of all our

nutrient and chemical applications. Additionally, we have utilized cover crops to protect the soils from erosion and use no-till or minimal-tillage practices in our fields.

The efficiency we have today also comes with the challenge of needing to find new markets and expand existing markets for corn. Corn farmers have seen a drastic drop in corn prices over the past several years, and many farmers are now experiencing corn prices that are at or below their cost of production. Of course, low prices mean lower revenues for farmers, lower net incomes for Michigan's farm families and increasing stress for farm operations, their employees and rural communities. It's why our organization is focusing attention on the important role that a strong farm safety net plays for Michigan's family farmers.

Fundamentally, the safety net in the 2014 Farm Bill under then-Chairwoman Stabenow worked for farmers like me and my neighbors. The combination of crop insurance and the commodity safety net through the Agricultural Risk Coverage – County Level and Price Loss Coverage programs have been helpful in offsetting significant revenue losses in recent years. ARC-CO, in particular, remains a high priority for our growers. We believe the program has performed as it was intended, and is making sure that farmers have assistance when it is needed.

There are, however, like any new program, some areas where improvements could be made in the new Farm Bill. For instance, the availability of accurate data sources has been an ongoing issue. In some areas, there were not enough National Agricultural Statistical Service (NASS) surveys returned leading to insufficient data to determine yields. In these areas, Risk Management Agency (RMA) data was used in place of NASS data, which can lead to differences in yields in some cases.

Another issue is that the coverage levels and payment zones under the program were developed under very different economic conditions. These calculations could be updated to reflect more accurate pricing for corn and other commodities so that farmers continue to have a robust safety net for both price and revenue losses.

Along with a strong safety net, we also want to push for market development that will increase demand for corn and corn products. In that vein, trade and export development are consistently ranked as a top priority by MCGA members. As this committee knows, agricultural exports account for close to 30 percent of incomes for U.S. corn farmers.

The importance of trade for farmers, became even clearer after my participation in a USDA-organized trade mission to China last year. The global population continues to rise, most significantly in Asia. As the population rises, so does the desire for high quality, safe food including more protein. American agriculture can supply that high quality, safe product. However, we need to be at the table and vocal for our industry if we are to be allowed to continue to trade with other countries. The trade mission also highlighted the importance of women in agriculture and was led by Deputy Undersecretary Alexis Taylor and made up of women from across U.S. agriculture including Michigan's Agriculture Secretary Jamie Clover Adams.

To continue on trade, USDA's Market Access Program (MAP) and Foreign Market Development Program (FMD) continue to be extremely valuable in growing new overseas markets for agriculture. These public-private partnerships deliver a return on investment of $28 in exports for every dollar that we invest. MCGA supports increasing the funding for these programs to even further boost their effectiveness.

At the same time we are growing markets abroad, there are important policies that support domestic markets through renewable fuels. Michigan is home to five ethanol plants that produce clean-burning

biofuels from Michigan-grown corn. Continued support of the Renewable Fuel Standard and other market access programs for biofuels will be more important than ever for building demand.

To wrap my remarks up, it's hard to overstate the importance of the 2014 Farm Bill to Michigan's farm families weathering tremendous economic challenges over the past few years. We know that crafting farm policy that works for all of U.S. agriculture is no small feat. With that in mind, Michigan's corn farmers thank the committee for the hard work that will go into writing the next Farm Bill, especially in light of tight budget demands and increasing financial challenges experienced by producers.

Thank you again for this opportunity – I am happy to answer any questions you might have.

Senate Agriculture Committee
Field Hearing

Growing Jobs and Economic Opportunity:
Perspectives on the 2018 Farm Bill from Michigan

Frankenmuth, Michigan
May 6, 2017

Testimony by
Rick Gerstenberger,
Gerstenberger Farms, Inc.
and
Chairman of the Board,
Michigan Sugar Company

The Importance of the Sugar Industry to Michigan and
U.S. Sugar Policy to the Michigan and U.S. Sugar Industry

Introduction

My name is Richard Gerstenberger and I am testifying today on behalf of the Michigan Sugar Company. I am a second-generation farmer on the farm that began with my parents. Along with my wife Linda and brother Robert, and our two sons Dan and Mike and their families, we raise sugarbeets, corn, soybeans, wheat, alfalfa, and occasionally dry beans on 2,900 acres of land. For the past 30 years I have also have been a sugarbeet, corn, and soybean seed dealer.

For the past nine years I have served as Chairman of the Board of Directors of the Michigan Sugar Company, which was in bankruptcy in 2002 until 600 growers banded together to save the Michigan industry and convert it to a farmer-owned cooperative. I know the sugar business from the genetics in the seed to when the sugar arrives at the loading docks and shelves of our customers. Every step in that process has an impact on the profitability of our grower-owners.

Brief History of the Industry in Michigan. Sugarbeets have been in continuous production on Michigan family farms for over 120 years. Between 1898 and 1904, 23 sugarbeet factories were constructed across Michigan. Of these, only the four Michigan Sugar Company (MSC) factories exist today.

Transformation to a Farmer-Owned Cooperative. In 2001, Imperial Sugar Company, the owner of Michigan Sugar Company at the time, announced that MSC was for sale. Imperial and its subsidiaries were in bankruptcy and made it very clear that if the company were not

purchased soon, the factories would be shuttered and would no longer operate. With sugarbeets being one of the key rotation crops in the cash-crop region for more than 100 years, the growers formed a cooperative and purchased the Michigan Sugar Company in 2002.

What is unique to the sugarbeet and sugar cane industries, and unlike most other cash crops, is the fact that local growers are tied to a dedicated processing facility. You can't stop and start this industry based on global market forces. Once you are out, you are out.

Just two years later, in 2004, Monitor Sugar Company, the competitor just seven miles to the north, also went up for sale and the same scenario was in play; if Monitor Sugar Company was not purchased soon, the factory would be shuttered and would no longer operate.

Facing that reality, in October 2004 the growers from both Monitor and Michigan combined efforts, purchased Monitor Sugar Company and merged the two companies into what is today the Michigan Sugar Company grower-owned cooperative. Purchasing two companies and all of the operating facilities was a huge risk. Many growers mortgaged their farms to make the cooperative a reaflity and keep the sugarbeet industry in Michigan alive.

This is testimony to the fact that across the U.S. sugarbeet industry all of the beet-processing companies are grower-owned cooperatives and are the last owners of the business. I would note that the majority of the cane milling and refining industry is also owned by cane farmers.

Magnitude of Investments in the Factories. Since buying the companies, the growers of our cooperative have focused on the future and providing opportunities for their sons and daughters, who are the next generation of operators of the family farm. As a result, growers have invested heavily to strengthen the foundation of the Michigan sugarbeet industry and provide an adequate return for their hard work and investment. In addition to purchasing two sugarbeet processing companies, growers have made significant investments on their farms for advanced sugarbeet production and harvesting. The grower-owners of the cooperative have also invested heavily in their factories and beet-pile storage systems, with capital investments of $200 million since 2002. These investments have concentrated on energy savings, environmental stewardship, extraction efficiencies, retail packaging lines, and beet quality in storage piles.

U.S. Sugar Industry and Policy

Nationally, the U.S. sugar-producing industry generates 142,000 jobs in 22 states. I want to thank Senator Stabenow for constantly reminding her colleagues and the nation that agriculture is about jobs. The Farm Bill is about jobs.

Our cooperative employs 2,400 workers, full and part time combined, to operate our four factories, various beet piling sites, and sugar storage and distribution facilities in Ohio. These are good union jobs in small rural towns that have no other manufacturing jobs. Our cooperative also provides employment for 1,000 farm families and their employees who grow beets on 151,000 acres. This industry is the economic lifeblood for many of the small towns throughout our region.

The U.S. sugar industry generates $20 billion in annual economic activity.[1] In Michigan, our industry's contribution to our state's economy is $1.5 billion.

American sugar policy is working well for American consumers, food manufacturers, and taxpayers. It can provide an adequate economic safety net for American sugar producers if it is updated to reflect today's realities and as long as there is an effective response to Mexican subsidizing and dumping.

In 2014 and 2015, the U.S. International Trade Commission agreed unanimously that the Mexican government and sugar industry had injured the U.S. sugar industry. The U.S. Department of Commerce calculated subsidy and dumping margins totaling more than 80%. Rather than imposing those duties, the U.S. and Mexican governments negotiated Suspension Agreements (SAs) to resume duty-free trade, with the objective of eliminating harmful dumping.

These SAs have proven to be ineffective. The dumping continues, and U.S. refined sugar prices are hovering near loan-forfeiture levels. Hawaii has ceased cane sugar production, and a beet factory in Wyoming is about to close. Many other American sugar producers are financially vulnerable.

Today, only 73% of U.S. sugar consumption is supplied by domestic production, with the balance coming from imports. Twenty years ago, 85% was supplied by domestic production (*Figure 1*). Grofwing dependence on foreign suppliers is an alarming trend that must be reversed. Domestic production should not be restricted to accommodate more imports. The sugar policy's focus must be to put American beet and cane farmer interests first.

We are encouraging the U.S. and Mexican governments to correct the shortcomings of the SAs or, failing that, to impose the subsidy and dumping duties.

An adequate response to foreign subsidies and dumping is essential to our survival.

Background

Food security. Sugar is a strategic commodity and plays an important role in the security of our nation's food system. We are already heavily dependent on foreign suppliers for about 30% of our domestic needs. We cannot become more dependent on foreign imports because they have been proven to be unreliable in times of global shortages. The Michigan sugar industry is a key supplier to the Midwest markets, where food manufacturers and retail businesses depend on us to provide them with a high quality, safe, dependable and on-time supply of sugar. Our core market area is Indiana, Michigan and Ohio, where we supply sugar products to 500 manufacturers and businesses.

The U.S. sugar industry is a major player in the world sugar market. The United States is the world's fifth largest sugar-producing country and is among the most efficient.

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[1] LMC International, "*The Economic Importance of the Sugar Industry to the U.S. Economy – Jobs and Revenues*," Oxford, England, August 2011.

The U.S. is the 20th lowest cost among the 95 largest sugar-producing nations. Most of these are developing countries with far lower government-imposed costs for worker, consumer, and environmental protections. U.S. beet sugar producers, mostly in northern-tier states, are the lowest-cost beet producers in the world.[2]

U.S. beet and cane producers are among the most efficient in the world because we have reduced costs by vertically integrating. We have formed cooperatives and growers now own all of the nation's 22 beet factories, and cane growers have purchased most of their refineries.

The United States is also the world's fourth largest sugar-consuming country and the third largest sugar importer. We provide guaranteed and essentially duty-free access to 41 countries. This makes the U.S. one of the world's most open markets to foreign sugar. The amount of duty-free access is determined under the World Trade Organization and other trade agreements to which the United States is a party.

We have reduced costs through research and innovation. The adoption of modern biotechnology has raised beet sugar yields by 30% and provides 26 environmental benefits that include dramatically reduced energy, crop protection products, and water use. The sugar from genetically engineered beets is the same as sugar from conventional beets or cane. Our sugarbeets are now one of the most sustainable sugar crops in the world.

American food manufacturers and consumers depend on a reliable, dynamic, geographically-dispersed domestic sugar-producing industry to provide safe, high-quality, responsibly-produced sugar at a reasonable price. Despite a well-designed sugar policy in the 2014 Farm Bill, the low prices caused by Mexican subsidies and dumping threaten the economic viability of American sugar producers.

Justification for U.S. Sugar Policy

Since U.S. sugar producers are among the lowest cost in the world, one might ask why the industry requires a sugar policy at all. The answer is found in the distorted, dump nature of the world sugar market.

Foreign governments subsidize their producers so egregiously that many of these countries produce far more sugar than their markets demand. Rather than store these surpluses, or close mills and lose jobs, as the United States has done, these countries dump their subsidized sugar onto the world market for whatever price it will bring. This subsidized dumping threatens further harm to American farmers.

As a result of these dumped surpluses, the so-called "world price" for sugar has been rendered essentially meaningless. The world price has rarely reflected the actual cost of producing sugar – a minimal criterion for a meaningful market price.

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[2] LMC International, "*Sugar & HFCS Production Costs: Global Benchmarking*," Oxford, England, August 2011.

The world price is so depressed by subsidies and dumping that, over the past 28 years, the world average cost of producing sugar has averaged nearly 50% more than the world price *(Figure 2)*.[3]

One European market expert noted: "The world market price is a 'dump' price…(it) should never be used as a yardstick to measure what benefits or costs may accrue from free trade in sugar."[4]

Researchers at Texas A&M University's Agricultural and Food Policy Center wrote: "Policymakers in the United States have long recognized that the world sugar market is heavily distorted by foreign subsidies and market manipulations and have provided U.S. sugar farmers with some form of safety net for more than 200 years. Major exporters of sugar do not respond to the signals of the world market but rather to the policies of their governments that enable them to export sugar below their costs of production and their own domestic prices."[5]

How can a world sugar industry exist if the price received for the product is just a fraction of the cost of producing it? The answer is twofold:

1. Only about 20-25% of the sugar produced each year is actually traded at the so-called "world price."

2. The other 75-80% of sugar is consumed in the countries where it is produced, at prices considerably higher than the world price and higher than production costs.

The International Sugar Organization (ISO) surveyed 78 countries to learn actual wholesale prices – the price producers in those countries receive for their sugar. The ISO documents that, globally, actual wholesale refined sugar prices have averaged 46% higher than the world price over the past decade. Prices in developed countries have been nearly double the world dump market price – averaging 94% higher *(Figure 3)*.[6]

This, then, explains how we can have a vast world sugar industry: Governments shield their producers from the world dump market sugar and maintain prices high enough – above the dump market and above production costs – to sustain their subsidized domestic industry and generate and defend jobs.

Further, this explains why we require a U.S. sugar policy – even with American sugar producers among the lowest cost, and most responsible, in the world. Generous domestic pricing encourages over-production in many countries, and governments then seek to export their surplus. Absent U.S. sugar policy, those subsidized and dumped surpluses would wreck the U.S. market and displace efficient American sugar farmers.

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3 LMC International, *"World Sugar Prices vs Costs of Production,"* Oxford, England, March 2017.

4 Patrick Chatenay, *"Government Support and the Brazilian Sugar Industry,"* Canterbury, England, April 2013.

5 Dr. Joe Outlaw and Dr. James Richardson, *"Analysis of the Coalition for Sugar Reform Amendments to U.S. Sugar Policy: Potential Effect on Policy and Industry,"* Agricultural and Food Policy Center, Texas A&M University, May 2016.

6 International Sugar Organization, *"Domestic Sugar Prices - a Survey,"* MECAS (15)06, May 2015.

Recent exposure of the U.S. sugar market to Mexican subsidies and dumping provides a disconcerting case in point. And Mexico is by no means unique. Its behavior is typical of foreign sugar exporters who subsidize their exports and shift the burden of their surpluses from their domestic markets onto the world market.

Damage from Mexican Subsidized Dumping

When the NAFTA went into effect in 1994, the Mexican sugar industry was struggling financially and was an occasional exporter of small volumes of sugar. In 2001, the Mexican government expropriated half of all its country's sugar mills, rather than allowing them to go out of business. With government help, Mexican sugarcane plantings exploded – up about 60% since NAFTA was signed – though Mexican sugar demand was flat or declining *(Figure 4)*.

Mexico became one of the world's largest sugar exporters, with the group of Mexican government mills by far the country's leading sugar producer and exporter. Virtually all those exports have been aimed at the U.S. market, which opened fully to Mexican sugar in 2008 under NAFTA rules.

Though the Mexican government recently "officially" divested itself of its mills, the government remains closely involved in the Mexican sugar industry. In addition to government ownership, Mexican growers and processors have benefitted from federal and state cash infusions, debt restructuring and forgiveness, government grant programs to finance inventory, exports, and inputs, and a cane-grower payment system that effectively subsidizes exports.[7]

In 2013, Mexican sugar production soared to an all-time high – a stunning 38% higher than the previous year's production. Yet despite the huge domestic market surplus, Mexico was able to sustain sugar prices higher in their domestic market than in the United States. How did they manage to balance their market? By dumping their subsidized surplus on the U.S. market. Mexico doubled its exports to the United States, shipping about 1 million more tons than our market could bear (*Figure 5*). Mexican exports to the U.S. in 2013 and 2014, at 2 million tons each year, were about 250 times greater than their pre-NAFTA levels.

The subsidized and dumped Mexican surpluses collapsed the U.S. sugar market and caused the first government cost for U.S. sugar policy in a dozen years, as American farmers struggled to repay loans they normally repay fully – principal plus interest.

The U.S. sugar industry filed antidumping and countervailing duty cases against Mexico in 2014, and won. The ITC ruled unanimously that Mexico had injured the U.S. sugar industry, and the Department of Commerce calculated subsidy margins of 6-44% and dumping margins of 41-42% *(Figure 6)*.[8]

U.S. producer prices plummeted by more than half from 2010 to early 2014, recovered somewhat in late 2014, and have fallen by a fourth since then. Subsidized Mexican imports continue to harm the U.S. sugar industry, despite Suspension Agreements the U.S. and Mexican

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7 https://sugaralliance.org/mexican-export-subsidies-injuring-u-s-sugar-producers/4990

8 U.S. Department of Commerce https://www.usitc.gov/publications/701_731/pub4577.pdf

governments implemented in late 2014 with the intention of preventing further damage. Much of American sugar production cannot survive under current market conditions.

Unfortunately, the SAs are not working as intended. Mexico, basically, has sent too little raw sugar and too much refined sugar to the U.S., relative to market needs. U.S. cane refiners have been starved for raw sugar to process, and refined beet sugar prices are so low that loan forfeitures are a serious threat.

The U.S. and Mexican governments are working on modifications to the SAs, and the U.S. government will need to impose duties on Mexican sugar if the two sides cannot reach a resolution. American sugar producers are committed to working with our government to find a negotiated solution, but it will take a willing Mexican government and industry to correct the flaws in the SAs.

How U.S. Sugar Policy is Working

U.S. sugar policy has had the same structure since the 2002 Farm Bill and certain provisions need to be updated to reflect today's costs and realities. With these updates and elimination of Mexican dumping, it can continue to be a successful policy.

- American consumers and food manufacturers continue to have access to high-quality, safe, affordable, and responsibly-produced sugar supplies.

- American taxpayers benefit from a policy than has run at zero cost in all but one of the past 15 years and is projected to remain zero cost for years to come if the Mexican dumping problem is resolved.

- American sugar farmers have retained an economic safety net that has helped many, though not all, to survive an extended period of low prices and the catastrophic effects of Mexican dumping. An enhanced safety net is needed.

American Consumer Benefits. With U.S. wholesale prices at or below world average levels, one would expect American consumer prices, too, to be low. They are. World average retail sugar prices are 20% higher than U.S. prices; developed-country prices are 29% higher *(Figure 7)*. With a stable U.S. sugar policy and industry, American consumers get a great deal on high-quality, safe, and responsibly-produced sugar.

American Taxpayer Benefits. Farm Bills have long instructed the USDA to operate sugar policy at no cost to taxpayers by avoiding sugar loan forfeitures. Sugar policy requires USDA to administer U.S. sugar policy to ensure sugar processors can repay their operating loans at principle plus interest.

USDA has consistently met this no-cost requirement, except in 2013, when Mexico dumped subsidized sugar into the U.S. market. USDA took action, as directed by law, to minimize loan forfeitures, taxpayer costs, and long-term harm to American sugar producers.

With Suspension Agreements in effect, the Congressional Budget Office projects zero cost as long as the agreements are in place, with modest costs in the unlikely event the SAs, and/or duties, are terminated in five years and Mexican dumping resumes. USDA and FAPRI project zero cost over the next 10 years *(Figure 8)*.

Sugar policy opponents, led by major sugar-containing product manufacturers, have urged opening the U.S. market to greater quantities of subsidized foreign sugar. Additional, unneeded sugar, however, would threaten USDA's ability to administer a zero-cost policy. The Texas A&M researchers wrote:

> Our analysis leads us to conclude that food manufacturers' reforms would undermine the no cost requirement of the law, resulting in taxpayer costs, jeopardizing the viability of U.S. sugar farmers and processors, and leading to higher sugar costs for consumers as domestic suppliers are lost and the volatile world sugar market is increasingly relied upon to meet domestic demand. Meanwhile, food manufacturers may benefit in the short term from depressed domestic sugar prices but, in the long-run, they would suffer from the loss of what they say they need: a viable, healthy, and geographically diverse supply of domestic sugar.[9]

Sugar Producer Safety Net; Low Sugar Market Prices. With the exception of the year of excessive Mexican dumping, when prices fell below loan forfeiture levels, U.S. sugar policy has provided an economic safety net for American sugar producers. But not for all producers, and there have been numerous casualties.

Since the loan support price was established in 1985 at 18 cents per pound of raw cane sugar, the loan rate has risen only 4%, to 18.75 cents. General price inflation since 1985 has been 123%. Real producer prices, corrected for inflation, have fallen 43% since the 1980s.

Producers who could not reduce production costs enough to keep pace with falling real prices for their product have gone out of business. We have lost 57 beet and cane operations – more than half of all those operating in 1985. Hawaii has ceased growing sugarcane after nearly two centuries of high-yielding production that was at the core of Hawaii's economic and social development. Another beet factory, in Wyoming, is expected to close permanently this year *(Figures 9-12)*.

More closures would certainly have occurred over time if not for vertical integration by beet and cane growers and investment in biotechnology and other breeding and processing advancements.

With current low sugar market prices, payments to growers have dropped significantly, essentially putting some of our young growers out of business and jeopardizing the ability of established farms to acquire operating loans for the coming crop year.

Current low market prices are also reducing our cooperative's financial resources for maintenance and efficiency updates in our factories. Significant sugar yield improvement –

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[9] Outlaw and Richardson, op. cit.

through advanced technology combined with high beet yields, high sugar content, improved storage techniques and minimal factory interruptions – is the only way we are surviving. When we are already right on the economic "edge," problems in any of these areas would make it hard for the industry to survive.

The price safety net in the current statute is inadequate to cover growers' costs. We can survive under the current policy if market supply and demand are in balance, but we cannot survive if prices drop to the safety net levels. Our current safety net is not really a safety net.

Biotechnology Advances

Currently one of the key elements in our ability to survive low market prices is biotechnology. Advances in seed varieties have allowed growers to benefit from significant yield increases. The technology has eliminated the need for hand labor, reduced the amount of chemicals used to address crop protection issues, and raised environmental stewardship to unprecedented levels. The introduction of biotechnology traits has made our beet sugar producers the most efficient and, more importantly, the most sustainable beet sugar industry in the world.

Tied to the benefits of biotechnology traits is the responsibility to educate legislators and consumers about the safety and commonality of natural sugars. Beet and cane sugar are identical. Any attempt to differentiate between beet and cane only creates misunderstanding, inefficiencies and higher costs for consumers.

Crop Insurance

Crop insurance is an essential risk management tool for beet growers and is usually a requirement by their bankers. With a higher investment in growing sugarbeets than most other commodities, agricultural lenders are evaluating their lending risk and basing their loan approvals on the availability of an adequate safety net, which most crop insurance coverage provides.

Historically, crop insurance has served beet growers with minimal but adequate coverage. This past year, however, many beet growers were plagued by low sugar contents in their beets that insurance needed to cover, but did not. Beet growers are assessing the problem and will work with the Risk Management Agency (RMA) to find a solution. RMA has always worked well with our growers, and we appreciate their attention to our concerns. Beet growers will brief the Committee in the weeks and months ahead to achieve an effective solution.

Research

The Michigan sugar industry and the entire U.S. sugarbeet industry is dependent on ARS research funding for staffing of USDA research scientists at the Lansing ARS Facility and others across the country. The advances in yields and disease control that we have seen in recent years are the direct result of ARS research shared with industry seed development specialists. Even with these advances, we continue to be challenged with disease, insect and parasite issues which,

if left unaddressed, would seriously threaten the future of our industry. Continued adequate funding of ARS research is, therefore, critically important.

Regulations

Our farmers need relief from over-regulation and burdensome costs that provide few benefits to society. Waters of the U.S. and other wetland regulations top the list. Under the CREP program, we are required to block off or dig up our subterranean tile lines on acreage signed up in the "long term" program even though it may only last 10 years.

U.S. Sugar Policy in the Next Farm Bill

As long as there is an adequate response to Mexican subsidies and dumping, and the U.S. sugar policy is updated to reflect current grower and factory production costs and realities, it can continue to be effective for American consumers, food manufacturers, taxpayers, and sugar producers.

The response to Mexican dumping is most likely to take either of two forms:

1. Anti-dumping and countervailing duties, as calculated by the Department of Commerce, that would severely limit sugar imports from Mexico; or,
2. Effective Suspension Agreements that would permit continued duty-free sugar imports from Mexico, but limit those imports to the amount, and type, of sugar the U.S. market needs, and at minimum reference prices designed to prevent further dumping.

The U.S. and Mexican governments are attempting to negotiate modifications to the Suspension Agreements that have been in place since late 2014 but that have proven ineffective. We support these government efforts.

Zero-for-Zero

U.S. sugar producers recognize that subsidies and other market-distorting polices must be addressed in order for the world dump market to recover and better reflect free market principles. Therefore, American producers have publicly pledged to give up U.S. sugar policy when foreign producers agree to eliminate their subsidies.

The American Sugar Alliance has endorsed a congressional resolution (H.Con.Res. 40) [10] that was introduced by a member of the House Agriculture Committee, Representative Ted Yoho of Florida. This "zero-for-zero" resolution explicitly calls for the U.S. to surrender its sugar policy when other major producers have done the same.

To weaken or surrender sugar policy without any foreign concessions, as some critics of U.S. sugar policy have called for, would amount to foolish unilateral disarmament. We would sacrifice good American jobs in a dynamic, efficient industry in favor of foreign jobs in the countries that continue to subsidize.

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10 https://www.congress.gov/115/bills/hconres40/BILLS-115hconres40ih.pdf

Conclusion

U.S. sugar policy has worked well for American consumers, food manufacturers, and taxpayers. U.S. sugar policy can continue to operate at zero cost to taxpayers, and provide a genuine economic safety net for American sugar farmers if it is updated to reflect today's realities and as long as Mexican dumping on the U.S. market does not continue.

Sugar producers in Michigan and across the country will work hard for an effective 2018 Farm Bill for all American farmers. We strongly support U.S. government efforts to put an end to Mexican dumping of subsidized sugar on the U.S. market.

The beet sugar industry has been in Michigan for over 120 years, and we plan to be here indefinitely. But our future depends on the Congress passing strong sugar provisions in the 2018 Farm Bill that allows our growers to make an adequate return and on the Administration's implementation of that policy, including trade policy that complements our domestic sugar provisions. We look forward to working with you in the months ahead to determine what modifications are needed.

Thank you.

Figure 1

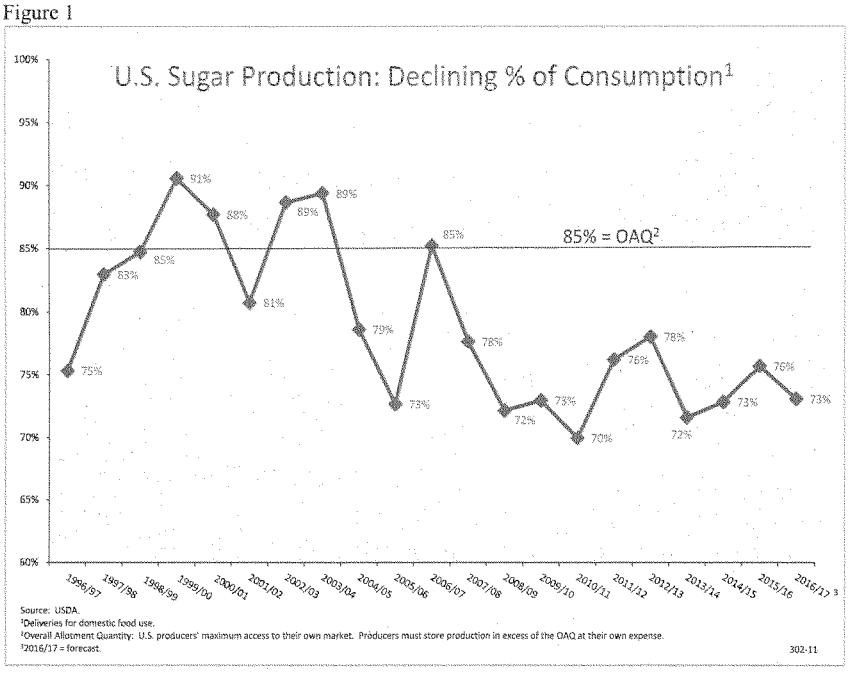

U.S. Sugar Production: Declining % of Consumption[1]
100%
95%
90%
85%
80%
75%
70%
65%
60%
85% = OAQ[2]
75%
83%
85%
91%
88%
81%
89%
89%
79%
73%
85%
78%
72%
73%
70%
76%
78%
72%
73%
76%
73%
1996/97
1997/98
1998/99
1999/00
2000/01
2001/02
2002/03
2003/04
2004/05
2005/06
2006/07
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17 [3]
Source: USDA.
[1]Deliveries for domestic food use.
[2]Overall Allotment Quantity: U.S. producers' maximum access to their own market. Producers must store production in excess of the OAQ at their own expense.
[3]2016/17 = forecast.
302-11

Figure 2

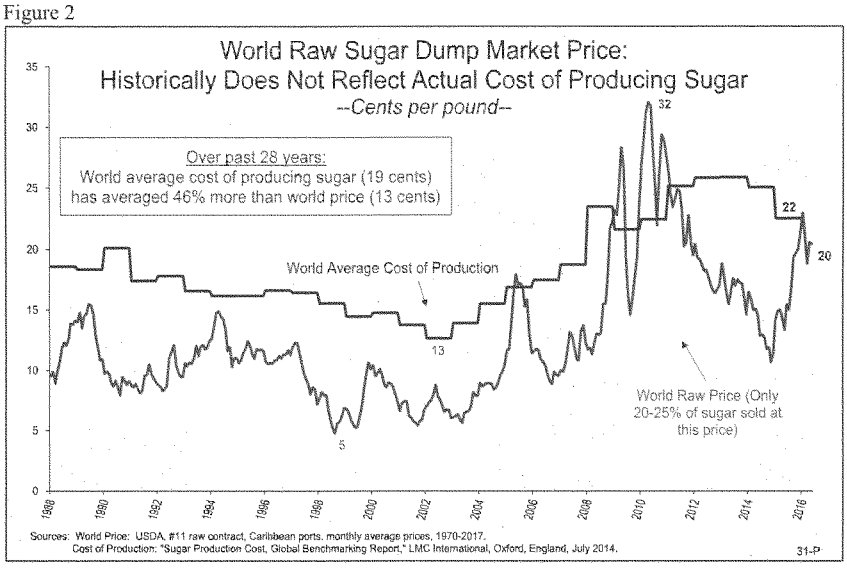


Figure 3

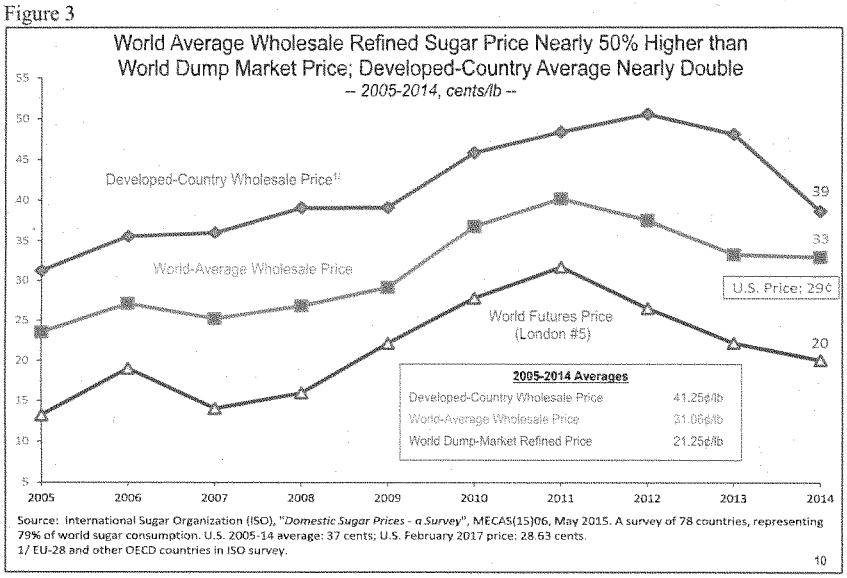


Figure 4

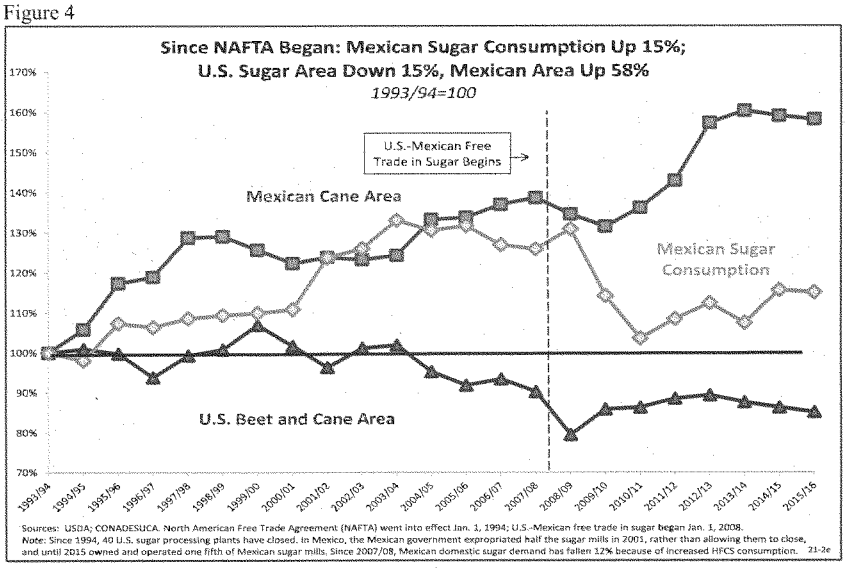


Figure 5

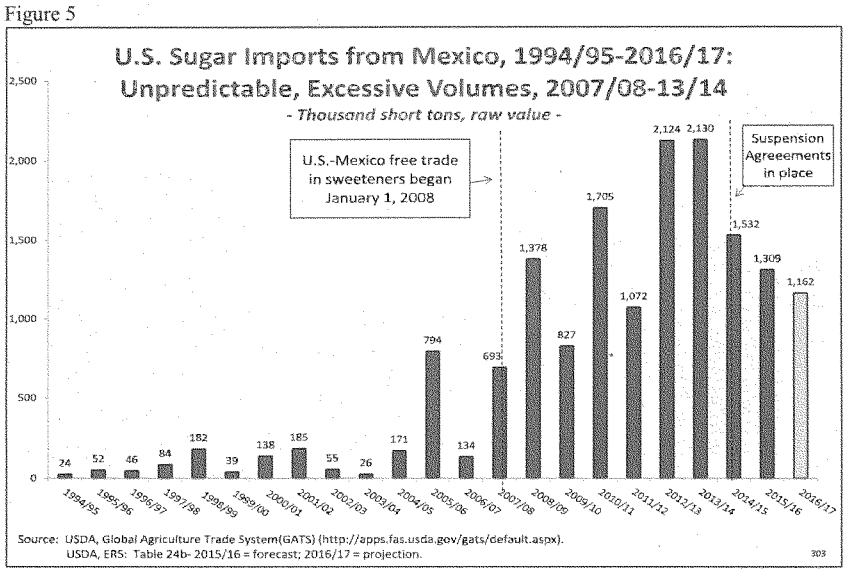


Figure 6

	U.S. Anti-Dumping (AD) and Countervailing-Duty (CVD) Cases vs. Mexican Sugar
2012/13	Mexican sugar production rises by 38%; Mexican sugar exports to the U.S. double (to 2 million tons); U.S. sugar price collapses.
2014	
March	U.S. files AD/CVD cases vs. Mexican sugar.
May	U.S. International Trade Commission (ITC) preliminary finding, by 5-0 vote, that Mexico has injured the U.S. sugar industry.
August	U.S. Department of Commerce (DOC) finds that Mexico has been subsidizing and imposes preliminary CVDs at 3-17%.
October	DOC finds that Mexico has been dumping (selling below domestic cost of production or prices) and imposes preliminary ADs at 40-47%. U.S. & Mexican governments announce draft Suspension Agreements (SAs) to suspend duties and resume duty-free sugar trade, with Mexican exports to the U.S. no longer to exceed U.S. needs.
December	U.S. & Mexican governments sign the SAs. Mexico may fulfill 100% of U.S. import needs above trade commitments; reference prices and limit on refined share of imports set.
2015	
March	ITC finds, by 6-0 vote, that the SAs eliminate the injurious effect of Mexican dumping on the U.S. industry.
September	DOC finds final dumping margins of 41-42%.
October	DOC finds final subsidy margins of 6-44%. Combined final subsidy and dumping margins total 48-84%. ITC final finding, by 6-0 vote, that Mexico injured U.S. sugar industry.
2016	
October	U.S. Court of International Trade (CIT) denies the Imperial Sugar appeal of the ITC determination that SAs eliminate the injurious effect of Mexican dumping and subsidies.
December	DOC preliminarily determines in an administrative review of the SAs, covering 2015, that some companies may not be in compliance with the SAs and that not all statutory requirements for the SAs are still being met. Imperial Sugar appeals the CIT decision to the U.S. Court of Appeals for the Federal Circuit.

Figure 7

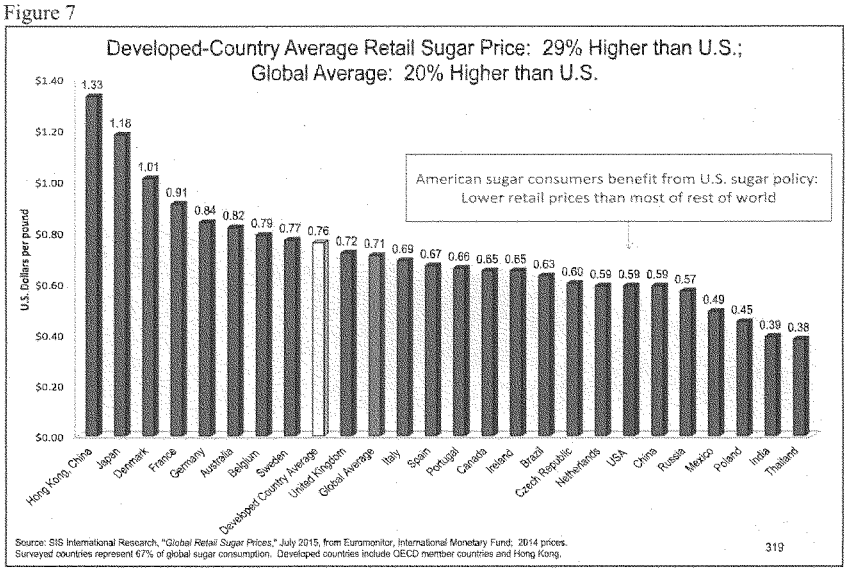


Figure 8

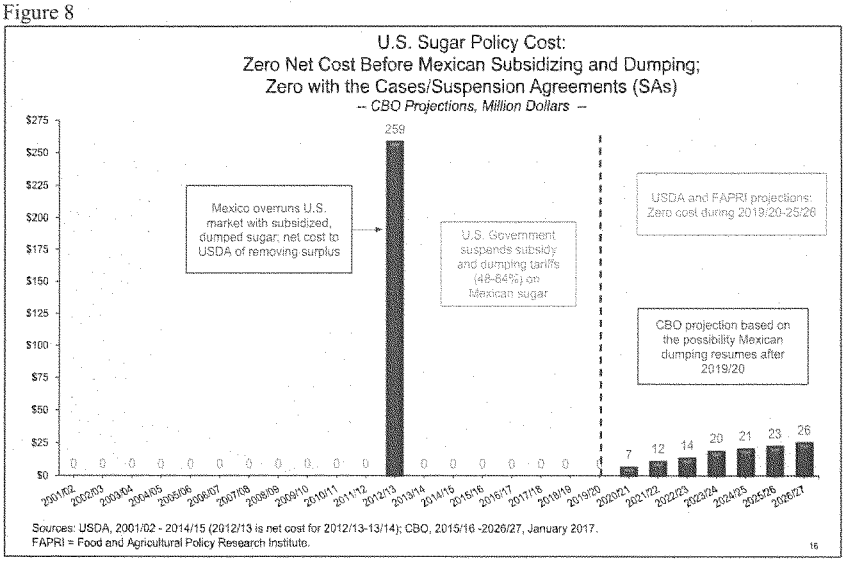


Figure 9

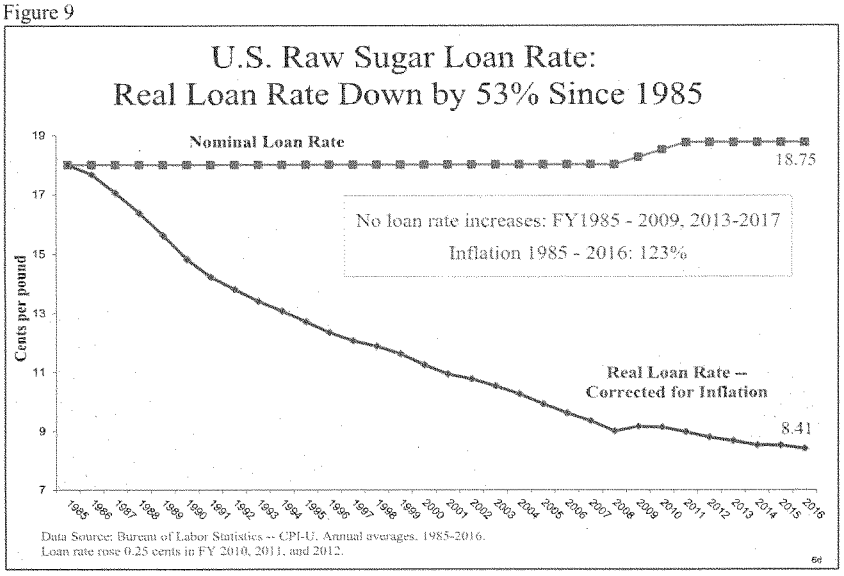


Figure 10

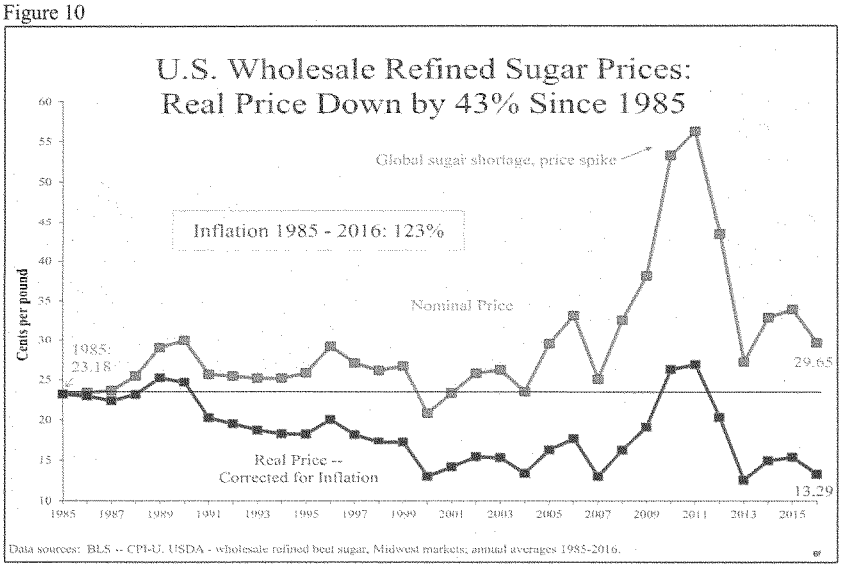


Figure 11

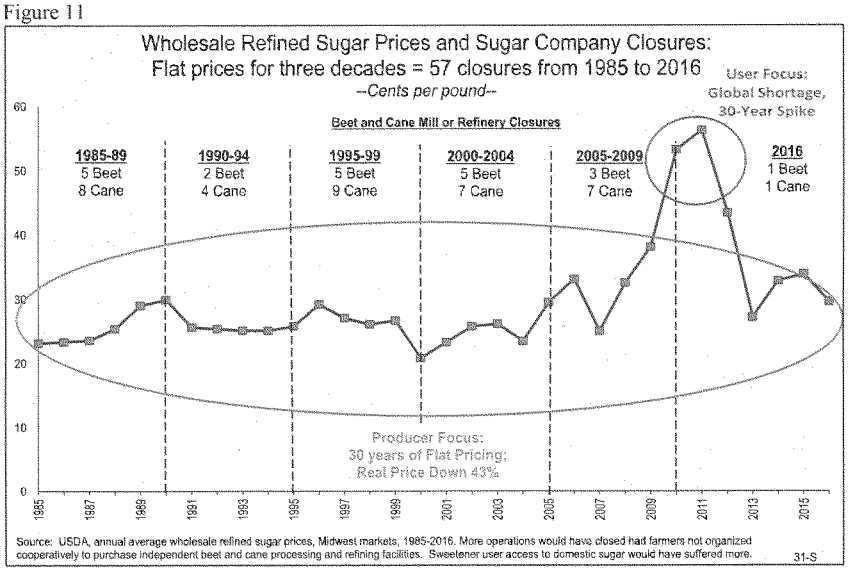
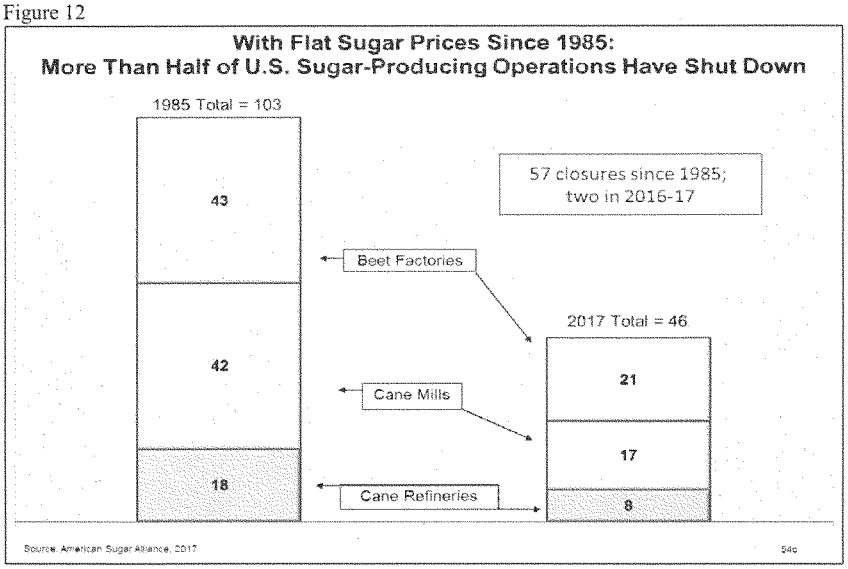


Figure 12



Testimony of Bob Hance, President and CEO of Midwest Energy Cooperative
Michigan Field Hearing
US Senate Agriculture Committee
May 6, 2017

Thank you, Chairman Roberts and Ranking Member Stabenow, for inviting me to testify today. My name is Bob Hance. I am the President and CEO of Midwest Energy & Communications ("Midwest") headquartered in Cassopolis, Michigan.

Midwest is a member-owned electric cooperative serving more than 35,000 residential, agricultural, commercial and industrial customers in southwestern and southeastern Michigan, northern Indiana and Ohio. Our service territory covers 12 counties. Though our core service is, and always will be, the distribution of electricity, today's organization also provides service to 6,200 propane, and 4,000 telecommunications customers.

I am proud to say that Midwest is a trusted partner in rural Michigan. For Michigan to be strong, rural areas must thrive. For America to prosper, all must participate equally. To help ensure that happens, we rely on agencies like the Rural Utilities Service (RUS), which is a part of the United States Department of Agriculture. RUS is a critical factor in our ability to reliably and competitively serve our member-consumers in rural Michigan.

While our first business priority is to deliver reliable, affordable electricity to our members, our mission and vision demands more of Midwest. We exist to benefit the communities we serve. Stated another way, our mission is "To bring first-in-class innovations and solutions where others won't". If we're successful in doing that, we help realize our vision of "Vibrant, relevant and sustainable rural communities". Midwest is more than just a poles, wires, and electrons company. Our broader purpose is to provide the services and support that empower our communities to thrive. Rural electric cooperatives are much more than just electric utilities - we are the engines that drive economic opportunity across the heartland and to rural areas everywhere.

Rural areas still grow most of the food, generate most of the power, and manufacture most of the goods that this country consumes. When rural areas suffer, electric cooperatives suffer and, more importantly, the country as a whole suffers. That's why the Farm Bill is essential for co-ops, for Michigan, and for the country. The Farm Bill contains important rural development tools that support our efforts to strengthen our communities. I want to talk about just a few.

Rural Utilities Service (RUS)

In the early 1900's, as urban areas began to electrify, rural areas lagged behind. Eventually, farmers and ranchers in remote areas took the initiative to form electric cooperatives and did it themselves. In the past 80 years, a lot has changed, but the same fundamental challenge still exists – how to affordably connect those few customers in high cost rural areas. What was then called the Rural Electrification

Administration is now the Rural Utilities Service and it is as relevant today as it was back then. REA and RUS loans have helped build, expand, and improve the infrastructure across rural America necessary to provide power, deliver clean water, and deploy advanced telecommunications technologies to rural areas.

Today, RUS loans help electric co-ops reduce costs and improve reliability for our members by financing basic maintenance like replacing poles and wires. But it also helps us fund projects to make our systems more modern, efficient, and secure.

Midwest is one of the larger electric cooperatives in Michigan. By year-end, we will hold roughly $110 million in loan funds from RUS for both traditional electric and telecommunications infrastructure, including smart grid applications and high-speed broadband service to homes and businesses throughout our rural footprint. In the aggregate, Michigan's electric cooperatives currently have more than $500 million in RUS loans for the specific purpose of building utility infrastructure in some of the most remote areas of our Great Lakes State.

RUS depends on a yearly appropriation from the Agriculture Appropriations bill. We have historically enjoyed strong support for robust RUS funding in large part because we're such a good investment for the federal government. We ask that you help us maintain that support.

We also ask that you support policies that allow us to use RUS loans to address a broad set of co-op needs – whether for advanced utility communications, renewable generation, baseload generation, or for making environmental upgrades to existing generation. Just as the times have changed and the needs of rural America have changed, so too has the RUS loan program. We have appreciated working with the Committee over the years to help make the program more streamlined and efficient, and we look forward to exploring new ways to continue to improve the program. Modernizing the RUS loan program is good for both electric cooperative borrowers and taxpayers. The RUS annually reviews and approves billions of dollars of loans, and finding ways to more efficiently process those loans reduces burdens on taxpayers while meeting borrowers' needs more efficiently as well.

Guaranteed Underwriter Program

Another important financing option available to electric cooperatives is loans from cooperative banks. Co-op banks add healthy competition to the marketplace. The Farm Bill contains a provision that allows those loans to be guaranteed by RUS for cooperative business purposes. We encourage you to continue that policy.

In addition to investing in the electric cooperative network, the fees paid on Guaranteed Underwriter Loans can be used to fund Rural Economic Development Loans and Grants – known as the REDL&G program.

Rural Economic Development Loans and Grants (REDL&G)

Under the REDL&G program, USDA provides zero-interest loans to utilities (including electric co-ops), which, in turn, pass the funds through to local businesses and other groups that create jobs in rural areas. This positive cycle of business development can strengthen both the co-op and the local community by helping stabilize populations and the co-op's customer base.

REDL&G programs have been the catalyst for hundreds of new jobs being developed across the Great Lakes State over the past decade and has been consistently used by both Midwest and our fellow Michigan electric cooperatives as a key economic development tool in rural Michigan. Kilwin's, Boyne USA, Great Lakes Potato Chip, Crystal Mountain Resort, and Right Brain Brewery are just a few examples of Michigan organizations that have benefitted from this program in conjunction with their local electric cooperative.

Let's look at Great Lakes Potato Chip in Traverse City for a great example of how this program supports economic development in rural Michigan. Cherryland Electric Cooperative, our sister cooperative in the Grand Traverse region, worked with RUS to provide a $57,000 zero interest loan through REDL&G to Great Lakes Potato Chip to provide additional slicers, scales, conveyers and other associated equipment to support the organization's continued growth. This loan supported the company's move to a second shift with up to 10 new jobs in rural Michigan. I can attest that 10 new jobs in rural Michigan is a meaningful number and REDL&G was a key component in that growth.

Innovation and Energy Efficiency

For years, electric co-ops across the country have provided information and advice to consumers to help them use electricity more efficiently and cost-effectively. The wide range of assistance includes rebates for energy-efficient appliances, switching to more energy efficient light bulbs, and time of day rates to encourage off-peak usage. We encourage you to maintain the Rural Energy Savings Program, the Energy Efficiency and Conservation Loan Program, and the Rural Energy for America Program (REAP). We believe these are all important tools that can help replicate Michigan's successes around the country.

I serve on the Board of Directors of Spartan Renewable Energy here in Michigan who just last year was successful in securing a $500,000 REAP grant award from USDA rural development which helped in the construction of Spartan Solar, one of Michigan's largest community solar projects located near Cadillac Michigan. The Spartan Solar project is offering consumers from five Michigan electric cooperatives throughout the Lower Peninsula the ability to competitively participate in a large community solar project. I am happy to report that several hundred rural Michigan consumers have already purchased "solar shares" in this exciting project.

Broadband

Just as with other types of infrastructure, rural America can't be competitive without access to high speed broadband service. Many comparisons are drawn between the lack of access to robust broadband service today and the need for electrification in rural areas 80 years ago - with the urban areas of the country well-served, and rural areas being left behind. Some electric co-ops around the country are leading the way in connecting rural customers to high speed broadband. As Congress contemplates telecommunication and infrastructure policies in the farm bill and in other legislative packages, we believe that all potential providers including electric cooperatives should be eligible for programs designed to bridge the digital divide.

Midwest's partnership with RUS through the Smart Grid loan program is the latest success story of how the partnership between electric cooperatives and RUS is benefitting consumers in rural Michigan. In 2015, Midwest became the first electric cooperative in the country to access the RUS Smart Grid loan program with the successful approval of an approximately $60 million facility. Midwest is currently building out more than 2,000 miles of fiber over five years to improve grid security, help consumers manage their energy consumption, while also improving network reliability and operational performance.

Perhaps of greatest importance, Midwest's efforts are narrowing the rural/urban "digital divide" that exists in this country today by offering voice, data and, ultimately, a video option that affords access to meaningful healthcare, education and job opportunities. To date, Midwest has completed installations to more than 4,000 homes and businesses in our rural Michigan footprint. We continue to add 50 new customers every week to plans that scale up to a gigabit symmetrical in speed. The response from our rural consumers has been overwhelmingly positive as demonstrated by the notes, cards and "thank you" emails we continue to receive on a daily basis[1]. This RUS Smart Grid initiative has been transformative both for Midwest and those rural consumers we serve.

Conclusion

We are a healthy nation because we have vibrant, bustling urban cities AND because we have verdant, productive rural areas. Unfortunately, whether it's infrastructure or jobs or access to health care, it seems that too often rural America gets the short end of the stick. The Farm Bill is important legislation that helps to address some of those disparities.

Electric cooperatives enjoy a productive partnership with the federal government and with the communities we serve to promote the health of rural America. We look forward to continuing to work with you toward that important goal. Thank you again for the opportunity to testify here today. I'm happy to answer any of your questions.

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1 Attached is a small sampling of testimonials received by Midwest Energy & Communications.

Jerry Ann Hebron
The Oakland Farm Way
9227 Goodwin Street
Detroit, Michigan 48211

Chairman Roberts and Ranking Member Stabenow, thank you for the opportunity to testify at today's 2018 Farm Bill field hearing and share my perspective on urban farming.

I am a native Detroiter, product of the Detroit Public School System and have two years at Wayne State University. Detroit was once the capitol of the U.S. auto industry, which almost single handedly helped to create the American middle-class but Detroit has been crippled, by closing factories, falling home prices, the exodus of tens of thousands of residents, and lots of vacant land.

The great recession started early in Detroit and can still be felt in some quarters. When the nation's unemployment rate was hovering around 9.0 percent in '09, '10, or '11, the jobless rate in the metro Detroit metropolitan area was over 11.5 percent. In the city proper the unemployment rate was 20 percent – although, unofficially, that figure was much higher for those of us viewing things on the ground floor. In fact a December 2009, article in the Detroit News suggested the true unemployment figure in the city might be as high as an astounding 50 percent. Couple that with the estimated 80,000 residential housing units needing demolition, and the city's 20 square miles of total vacant land (roughly equal to the size of Manhattan). What you get is the need for creative paths forward like Oakland Farm Way.

This is how I started our farm, the Oakland Avenue Urban Farm which is located in the Historical North End Community and a commitment to growing food, educating our community, and creating opportunities for economic development. At one point in history we had businesses owned by African Americans, a dense population with quality housing and great schools.

After the housing market crash in 2008, I left my job in real estate because it became financially difficult to keep my office open. Rev. Bertha Carter, Senior, Pastor of the St. John Evangelist Temple of Truth and School of Wisdom asked me to be the Executive Director for the Northend Christian CDC. My initial instructions were to figure out how the CDC can engage people in the community and find out the needs of the community. I was familiar with the neighborhood since I lived there as a child so my approach was to go where the people are. I talked to people in stores, on the street, door to door, food pantry, etc. I heard the same thing over and over again, we need jobs, quality homes and good food.

I made it a point to attend as many community meetings on various subjects as possible and it was through these meetings that I learned about the Greening of Detroit's work in the east side of Oakland. The Greening of Detroit was helping groups/people with gardens, landscaping and technical assistance. I reached out to them immediately to help us address the need for quality food in the Oakland community. Together, we planted a new garden on one of the 10 vacant lots adjacent to the church. We worked with a designed landscape artist, forestry specialist, soil specialist and residents to plan what

the garden would look like, what we would grow and who would do the work breaking ground the next year in 2009.

When we started farming in 2009 the neighborhood was not safe. It was filled with vacant lots and houses, poor quality grocery stores, a liquor store on every corner selling greasy food and pizza slices. These bridge card SNAP eligible stores offered poor quality and limited amounts of fruit, bread, milk, and some canned goods, which were often on the shelf with expired date labels. People in our community were shopping at the liquor stores for the unhealthy food choices because there was no other options. To respond to this, we started growing a variety of vegetables that were culturally appropriate for our community (green beans, collards, tomatoes, peas, spinach, squash, cabbage, cucumbers, mustard greens, turnip greens, sweet potatoes, okra, onions, garlic and a variety of herbs.

In 2011, we started adding fruit: strawberries, raspberries and pears. In the same year, we opened our farmers market on the farm and started selling at six Chrysler Plants. In order to meet the demand of these farmers market, we had to increase our production so we purchased more land for production. We are now planting more fruit trees to increase our fruit production. We have included apple, peach, more pears and cherry. This fruit production will add to our food consumption and increase the opportunities for value-added production, including our line of AFRO Jams, so we can increase sales. We can use USDA Value-Added Producer grants but need additional access to other financing tools to help us get these products to the shelf.

In 2013, Detroit passed the Urban Agriculture Ordinance, making it legal to purchase vacant land for food production. The passing of the ordinance created an opportunity for urban farmers to sustain their work in food production through land ownership. Over the last three years, we purchased over 30 properties surrounding our farm and have created the Oakland Farm Way which includes a working farm, incubator space for food related businesses, educational programming around food and nutrition and green spaces that improve the environment.

Six years after starting as a community garden, we are growing food at the Oakland Avenue Urban Farm on over 4.8 acres of land. In addition, we have two green houses, one funded through USDA's Environmental Quality Incentive Program, have purchased and renovated an abandoned house which is now used as our community house for meetings, food preparation, youth meeting space and a shared kitchen.

What is needed now to grow these businesses is access to more USDA funding for crop insurance, low interest loans for equipment and integrated farm business development, and infrastructure improvements for water.

Urban Agriculture is a great environment to work and grow skilled workers who traditionally have been denied employment because of a background check or drug problem. On our farm we work with people where they are and what we find is our environment is one in which we are able to train people basic employment skills. We have been able use our production sales to hire people in the community as seasonal workers at minimum wage and we recently started a tree fruit growing initiative to train our farm workers on how to grow fruit trees and manage largescale farm equipment, giving them specialty

skills and machine training. The farm work is transformative spiritually, environmentally and skillfully. People are learning how to plan, how to grow food which results in them eating better, how to deal with plant pests using organic practices and professional development opportunities.

On our farm, we have also partnered with the "Grow Detroit Talent" program in Detroit which is targeted to hire 8000 kids across the city. We are employing 25 youth this summer, teaching them how to grow food, business and marketing skills at the farmers market, and getting them in the kitchen to learn how to cook and safely prepare food. For the past three years, I have been working on the MI State Fair Steering Committee as the Urban Agriculture Scholarship coordinator to help award continuing education scholarships for urban kids who are interested in pursuing career opportunities in farming and agriculture.

Urban agriculture creates new opportunities to get kids and communities interested in food and farming and helps strengthen relationships between urban and rural communities.

Urban Agriculture in Detroit involves approximately 1,500 urban gardens, farms, community gardens, school gardens, church gardens and family gardens. Of these there are about 100 growers who are selling fruits and vegetables at farmers markets, restaurants and chefs earning minimally over $1,000,000 in Detroit. This money is sustaining families, communities and employment opportunities. The growers in this network are growing food where the soil is tested and is free of chemicals. Only one or two are certified organic, however, all are growing according to organic standards and methods.

The 2018 Farm Bill is important to Urban Agriculture because it could create opportunities for urban growers that we currently do not have. For example, 2016 we experienced a drought which resulted in crop loss, but urban growers do not currently have crop insurance to cover that loss. When we lose crop, it results not only in loss of food but income and jobs.

The 2018 Farm Bill is also important to USDA Programs like the Farmers Market Promotion, Environmental Quality Incentive Program, SNAP, WIC, the Senior's Farmers Market Nutrition Program and the Food Insecurity Nutrition Incentive program – in Michigan we call it "Double Up Food Bucks".

I am a member of the Detroit Community Markets which operates under the Detroit Eastern Market. The Oakland Avenue Farmers Market is one of 16 members operating farmers markets in communities across Detroit. All of these markets are able to process transactions for families receiving food assistance and use "Double Up Food Bucks". They also offer a variety of educational programming regarding nutrition, food preparation and food safety. The Oakland Avenue Farmers Market in partnership with the Detroit Community Markets received funding through the USDA Farmers Market Promotion Grant for two years 2017-2018 to support outreach, growth, vendor support and programming in community. The community markets are located in neighborhoods which are experiencing high unemployment, transportation issues, health issues and are food deserts. The farmers market promotion grant funding will make it possible to continue increasing food access, education, opportunities for farmers and employment opportunities.

Transitioning into urban farming and working in a community environment has proved to be the best thing I could have done in that I look at basic needs in community differently. When I started my work in the North End Community in Detroit I came in direct contact with people living in poverty without basis needs like quality food, water, heat, etc. I much happier and healthier working in an environment that choose me to do something to help others. I have been able to do that by our food production working to increase employment opportunities through our farm through Urban Agriculture.

MICHIGAN STATE UNIVERSITY

Statement of Ronald L. Hendrick, PhD, Professor & Dean
Michigan State University College of Agriculture and Natural Resources

Before the

United States Senate Committee on Agriculture, Nutrition and Forestry

May 6, 2017

Chairman Roberts, Ranking Member Stabenow, and other members of the committee, on behalf of Michigan State University (MSU) thank you for the opportunity to host today's hearing to highlight growing jobs and economic opportunity.

I serve as Dean in the College of Agriculture and Natural Resources, I consider myself relatively new to the university, having arrived last summer. I am an alumnus of MSU and the College of Agriculture and Natural Resources and so my return is a bit of a homecoming.

As dean, I oversee the college, MSU Extension and MSU AgBioResearch. Michigan State University was founded in 1855 on the land-grant mission of teaching, outreach and research.

MSU was the first agricultural college of its kind in the nation. It also served as a prototype for land-grant institutions under the Morrill Act, enacted by President Abraham Lincoln. In 1888, MSU also became one of the first U.S. institutions under the 1887 Hatch Act to create a network of agricultural experiment stations where research trials and field studies are conducted on behalf of farmers. In 1914, Congress passed the Smith-Lever Act, which created the Cooperative Extension System and directed the nation's land grant universities to oversee the outreach work.

And while all of that may seem like ancient history, I assure you that the relevance of teaching, research and outreach never wanes. It is our charge to pivot, adapt and provide leadership in the areas of food, energy and environment and we take that charge very seriously. Today, you will hear from people whose lives have been impacted by or impact the work we all do. There are more voices, though, that you won't hear. And, when I think about who we serve daily – I count all of those people who woke up this morning with access to a healthy breakfast and a clean environment, and all of those who didn't – as people whose voices matter in this conversation too.

There is perhaps no greater time to be in involved in research pertaining to sustainable and nutritious food production. Today, the world population is growing by about 80 million people each year and is expected to continue this upward pace for the next several decades. This presents immense challenges to food supplies and our natural resource base. In our country, the United States Department of Agriculture (USDA) estimates that 13.1 million children are living in homes with insufficient food, at the same time, children here are being diagnosed with Type 2 diabetes at a clip faster than we have ever seen in history.

We need solutions that will keep our food supply healthy, safe and secure, while protecting our natural resources. Since our need is constant, the food and agriculture industry provides great opportunity for growth and increased employment.

MSU remains committed to discovering practical, adoptable solutions that address these serious issues. And it is through research and outreach that these answers will continue to be unearthed, shared and put into practice at home and around the globe. Our research in the areas of food, energy and environment happens broadly across campus, the state and the world because we do not approach solutions to problems in a vacuum.

Solutions to crisis issues like clean water and nutritious food mean not only providing and growing food and water but understanding human behavior and the challenges that face people across the country and around the world. We cannot just grow more nutritious food and provide clean water, we need to find ways to distribute and understand the importance of both. We also need to better communicate the economics of food and agriculture, so that more people understand the vitality of the food and agriculture industry.

The MSU College of Agriculture and Natural Resources, MSU AgBioResearch and MSU Extension work hand-in-hand with commodity organizations to address the issues facing growers and producers throughout the state – solutions on everything from disease management to food processing.

Recent Highlights

- With funding from USDA, NIH, USAID and other sources, **Felicia Wu** heads up a new center aimed at studying the overall implications agricultural practices have on human health. The **Center for Health Impacts of Agriculture (CHIA)** focuses on three pathways by which agriculture affects human health: nutrition, which includes the quality, macro- and micronutrient content, and diversity of food; economics also play a pivotal role, particularly in underdeveloped areas where resources are at a premium; and the unintended negative consequences of agriculture on human health and the environment. Wu, a John A. Hannah Distinguished Professor in the departments of Food Science and Human Nutrition and Agricultural, Food and Resource Economics, came to MSU in 2013 because of its robust agricultural research coupled with strong medical programs — a rare combination for a land grant university.
- The MSU Lake City Research Center is the first accredited **Savory Institute hub** to be affiliated with a university. The Savory Institute, which has 30 global hubs and plans to expand to 100 by 2025, was co-founded by Allan Savory in 2003. Savory founded the non-governmental organization to encourage a comprehensive systems-approach in agriculture to manage resources, particularly grassland degradation. The approach has become known as holistic management. Savory's method takes into consideration several factors impacting ecosystem health and is said to mimic nature's way of regenerating overgrazed land, increasing its biodiversity, improving water retention and soil health, and sequestering carbon. The hubs provide holistic management training and implementation support for farmers, ranchers and land managers. The specific charge of the new Savory hub in Lake City is to examine soil health and carbon sequestration in pasturelands.
- **Entomologist Rufus Isaacs** is another example of an MSU researcher who is leading work that transcends barriers – this time of the geographical sort. He is leading a multi-state, multi-institutional project that impacts crops from apples to pickling cucumbers. As honey bee populations decline, Isaacs is looking at alternative pollinators to help maintain the vitality of U.S. crops that are pollinated every spring and valued at more than $14 billion annually. Major funding from Isaacs program comes from USDA, MSU Project GREEEN and industry organizations.

- Isaacs and several colleagues are also addressing ways to control the Spotted Wing Drosophila (SWD), an invasive species that seriously threatens fruit crops such as apples and cherries. Unlike most pests, the SWD mandible is so strong it is able to burrow its way into unripe fruit, leaving irreparable damage to the fruit and unavoidable economic loss to the grower. The Asian insect is believed to have come to the U.S. via food crates and has become one of our region's greatest fruit production threats.

- The **potato** is intrinsically linked to the history of America. Today, Michigan boasts a vibrant potato industry. Michigan is the No. 1 producer of potatoes for the chipping industry and eighth overall in potato production. The Michigan potato industry annually generates approximately $1.24 billion, accounts for more than 3,200 jobs, and involves 70 farms and nearly 50,000 acres. And, we are not just keeping this work to ourselves. Professor **Dave Douches**, who mapped the potato genome, is working with the United States Agency for International Development (USAID) in Bangladesh and Indonesia to grow potatoes there.
- The fungal pathogen *Puccinia striiformis f. sp. tritici*, more commonly known as **wheat yellow or stripe rust**, is often a passenger of spring wind gusts. This year, the parasitic disease reached epidemic proportions, exceeding historic levels to become the most significant yield-reducer on Michigan's 500,000 acres of wheat. Wheat, the third largest cereal grain in Michigan, contributes more than $388 million to the state economy annually, according to the **Michigan Wheat Program**. This makes the threat of stripe rust a significant problem. MSUr esearchers are developing new tools and tactics that can be applied in the field to mitigate the effects of stripe rust and keep the wheat supply healthy and secure.
- **Antibiotic resistance**, declared a major public health threat by both the Food and Drug Administration and the World Health Organization, is a high priority topic within CHIA research as well as other laboratories at MSU. Increasing and occasionally inappropriate prescription of antibiotics has led to significant bacterial resistance in humans. In animals, the use of antibiotics to promote growth, in addition to fighting bacterial infections, decreases the drug's ability to efficiently eradicate illness when needed. When used in excess, antibiotics end up in the environment — in the air, water and soil — and humans can become exposed not just to the antibiotics but to antibiotic-resistant bacteria. A goal is to illuminate these pathways of exposure by studying the transportation and fate of antibiotics and antibiotic-resistance genes in the environment.
- Fisheries and Wildlife Professor **Joan Rose** is the 2016 recipient of the Stockholm Water Prize, the world's most-prestigious water award. She is a global water science expert and the MSU Homer Nowlin Chair in Water Research. She was recognized by the Stockholm International Water Institute (SIWI) for her research on microbial risk to human health in water, her successful translation of the science to policy makers, and for her leadership in developing the tools and guidelines required to give policy and regulatory life to the science. The Stockholm Water Prize is awarded to recognize outstanding water achievements and encourage interest in water and sustainability issues.
- A $1.65 million National Institutes of Health and USDA grant that looks to bring a better understanding about fertility treatments in women by studying the effect of hormones on ovulation and reproduction in cows.
- In 2015, Michigan State University (MSU) unveiled **The Global Impact Initiative**, a strategic plan to tackle some of the world's most pressing challenges. The plan calls for the addition of 100 new faculty members in education, energy, the environment, food and health, and encourages current faculty to submit proposals to enhance research that builds upon MSU's strengths.
    - Michael Thomashow, a University Distinguished Professor in the Department of Plant, Soil and Microbial Sciences, saw this as an opportunity. He solicited the assistance of fellow MSU plant science experts Gregg Howe, Brad Day and Sheng Yang He to develop a project that addresses the growing world population's need for more food

produced with fewer resources under increasingly difficult conditions.
Together, they drafted a plan for the **Plant Resilience Institute** (PRI), where scientists will use basic research to pinpoint the biological mechanisms that stimulate plant resilience

Maintaining the Momentum

Michigan's food and agriculture industry supports nearly one million jobs in the state. Successful partnerships between the federal government, industry, the Michigan Department of Agriculture and Rural Development and Michigan State University can grow the sector.

We know that in order to meet the growing needs of Michigan's food and agriculture system—a system with a combined economic impact of more than $101 billion—we will need to do more. We are working with state government and industry partners on creating a food processing certificate program. A full 47 percent of the agriculture jobs in Michigan involve food processing. Additionally, we are working with those partners, and community college partners, to build three mobile food processing labs - staffed with highly qualified teaching faculty - so that we can offer hands-on experience to students throughout the state. This will complement our offerings in the Institute of Agricultural Technology and prepare students, both on campus and at partner community colleges, for jobs with any of the hundreds of food processors who call Michigan home.

While Michigan's agriculture production has expanded - facilities, workforce development and nimble research dollars have not kept pace. Targeted investments in workforce development, facilities, and research can enhance Michigan's agricultural success and retain talent.

Like other land grant universities, we look forward to continuing to generate and disseminate new knowledge and educate young people to work in the food and agriculture industry. As the world population is expected to reach 9 billion within the next few decades, our work is more important than ever.

While we have been incredibly successful for many decades, the system faces major challenges. The declining buying power of appropriations makes it difficult to maintain the long-term programs essential to addressing many agricultural and natural resource issues. The cost of research is rising and funding limitations not only slows progress of scientists in traditional areas of agricultural research, but it also impedes our ability to bring a broader array of scientists to address agricultural problems. The current levels of funding in competitive grants programs has resulted in extremely low funding rates, leaving meritorious projects undone and discouraging young scientists from entering the field. In short, it is creating a system that is not welcoming to the best and brightest young scientists. If this continues, it will erode our ability to respond to the challenge of feeding the world while protecting our environment.

We look forward to continuing our tradition as a strong land-grant university – educating future generations to meet the growing demands and discovering and sharing advancements that will benefit our state, the nation and the world. Agriculture is America's oldest career, and today it is arguably one of the most complex, technology-driven, knowledge-based industries in the world. We've come a long way, but there continues to be so much more to do.

Thank you for this opportunity and your support.

TESTIMONY BEFORE THE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY OF THE UNITED STATES SENATE

Field hearing: Growing Jobs and Economic Opportunity:

Perspectives on the 2018 Farm Bill from Michigan

By Oran B. Hesterman, PhD

President & CEO | Fair Food Network

May 6, 2017

Saginaw Valley Research and Extension Center

Michigan State University

Frankenmuth, Michigan

I. Introduction

Good morning Chairman Roberts and Ranking Member Stabenow. Welcome to Michigan, Senator Roberts.

My name is Oran Hesterman. I am the President and CEO of Fair Food Network, a national nonprofit headquartered in Michigan and founded on the belief that vibrant local food systems can create health and economic opportunity. I come to this work as farmer, small business owner, philanthropist, and agricultural scientist having spent more than 12 years doing research and teaching at Michigan State University.

I have been asked to provide an update on the progress of the Food Insecurity Nutrition Incentive grant program created by the last Farm Bill and better known as FINI. There are two main points I would like to leave you with today:

Produce incentives work. They are succeeding at improving the diets of SNAP participants and in the many projects where incentives are tied to regional production we are seeing significant boosts in demand and increased farm income.

FINI has been a success and warrants reauthorization in the next Farm Bill. We are ready to move beyond the preliminary phase of the nationwide program and build on the solid framework FINI has established across the country.

II. Fair Food Network & Double Up Food Bucks

Fair Food Network's experience with SNAP incentive programs goes back to 2009 when we piloted a Double Up Food Bucks program in five Detroit farmers markets. We were in the depth of the Great Recession and decided to test the simple idea that by doubling SNAP purchases of Michigan produce we could simultaneously reduce hunger, improve nutrition, and stimulate economic activity.

Senator Stabenow kept a close eye on the program as it expanded from Detroit to urban, suburban, and rural communities throughout the state. It also evolved from being offered only in farmers markets to diverse retail settings, including conventional grocery stores of all sizes.

By the time work began on the last Farm Bill there were enough programs like Double Up nationwide, and enough data indicating their positive impact, that Congress decided to invest $100 million to test the concept more broadly.

III. Food Insecurity Nutrition Incentive Program Impact

Briefly, FINI is a competitive grants program managed by the National Institute for Food and Agriculture (NIFA) in coordination with the Food and Nutrition Service (FNS). USDA has done a

stellar job of implementing the program. NIFA has already rolled out two rounds of grants and we expect Secretary Perdue to announce the third round any day. There will be one final cycle and then the $90 million allocated for grants will have been committed. The remaining $10 million of FINI's $100 million budget is being used for evaluation.

Fair Food Network received a $5.1 million grant in 2015, which we matched with privately raised funds for a total of nearly $10.4 million. This funding is allowing us to expand Double Up to approximately 70 grocery stores and 158 farm stands and community farmers markets in 58 counties throughout Michigan and Northwest Ohio this coming season. Today, 92 percent of Michiganders live in a county with the Double Up program.

Just as importantly, FINI has permitted us to evaluate, innovate, and adapt and improve the program to best serve SNAP recipients and the markets that serve them.

For example, Double Up incentives in grocery stores can operate as a coupon-based program, an automatic price discount, stored on the grocer's loyalty cards, or, in the newest innovation, live on a reloadable Double Up card that shoppers use alongside their EBT card. We piloted this approach last year in Flint in response to the acute health needs there. The card works in all participating sites in the community, allowing SNAP shoppers to earn and spend their Double Up bucks at the centrally located farmers market, two mobile markets, or any of the five participating grocery stores across the city.

In addition to our work in Michigan, Fair Food Network is now supporting local partners in bringing Double Up to their communities. This season, Double Up programs will be active in more than 20 states including Iowa, Nebraska, New Mexico, Arkansas, and Texas—which are not traditional specialty crop states, but are still successfully making the connection to regional production of fruits and vegetables.

For example, in 2015 we started working with Kansas City-based Ball's Food Stores who did a spectacular job launching Double Up in five Price Chopper stores that year. You may have met with Mike Beal, Ball's COO, when he testified about the program before the House Agriculture Committee last fall. USDA awarded the Mid-America Regional Council almost $3 million in FINI funding last year to expand Double Up across Kansas and Missouri in one of the first multi-state programs. Local partners aim to have Double Up in 117 grocery stores and 68 farmers markets by 2019, reaching more than 316,000 SNAP recipients across the two states.

This year, public-private funding is enabling Double Up to expand to grocers in more rural communities such as Moon's Hometown Market in Humboldt and Ron's Supermarket in Pittsburg, Kansas. As word has spread, interest is also coming from grocers in Ulysses in Southeast Kansas. These are small towns where family-owned groceries are working hard to survive against the spread of big box and dollar stores. And in many cases, they may be one of the few convenient options for families to use their SNAP benefits to buy a full set of groceries, including produce.

IV. Lessons Learned from Double Up Experience

FINI funding has allowed us, and organizations like Fair Food Network across the country, to demonstrate that produce incentives work: Low income shoppers use the incentives and eat more produce, grocers sell more fruits and vegetables, farmers markets expand, and when linked to local production, area farmers make more money.

Families: For low-income families, produce incentives simultaneously alleviate hunger and improve diet. In thousands of surveys done by FINI grantees across the country, SNAP participants overwhelmingly report that they like incentives and that they are using the additional dollars to eat more nutritious fruits and vegetables.

Our experience bears this out: SNAP recipients shop more frequently and buy more produce when Double Up is in place, evidence that this program is changing shopping and purchasing patterns of low-income consumers.

We also know that Double Up is reaching those most in need with 63 percent of shoppers reporting low or very low food security. Further, redemption rates are high: 85 percent of Double Up dollars earned are redeemed for nutritious fruits and vegetables; this number rises to 92 percent at farmers markets.

What's more, shoppers consistently share an appreciation that their food dollars are supporting area growers and the local economy. As one shopper from Michigan said, "You mean I get that much food and the farmer gets all that money? I like this. It feels like we're helping each other."

Grocers: FINI and Double Up also have important corollary benefits. Many communities and small businesses are still struggling economically and we know that SNAP and incentive dollars are helping.

Grocery is a famously tough industry with profit margins of one percent or less. Grocers like Double Up and are willing to go the extra mile to make it work in their stores because they see its benefits for their customers and their bottom line.

In a grocery pilot in Fort Smith, Arkansas, produce sales doubled in the month that Double Up was initiated.

Grocers also appreciate the connection to regional agriculture. As Mike Beal of Ball's Foods noted, "There's a movement in the country for local foods. Produce that's grown in the area is fresher. Double Up is great from a business perspective. We increased our local produce sales in participating stores 12 to 15 percent in the first year."

Farmers Markets: Produce incentives also support farmers markets—anchors of healthy food access in many communities—and area farmers.

Farmers market managers report that having Double Up at their markets has had a positive impact on their market—increasing sales, bringing in more new and repeat customers, and strengthening their market and the overall community.

As Carol Moody, the Mt. Pleasant, Michigan farmers market manager shared, "We're seeing a new influx of people coming to shop at the market because of Double Up." And the benefits endure. "When people are no longer on Double Up," Carol notes, "they still continue to shop at the farmers market."

We have been working with economists from Michigan State University's Center for Regional Food Systems to better understand the economic impact of incentives at Michigan farmers markets. As distinct from the well-documented multiplier effect of SNAP spending, early findings from this study show that every $1 in Double Up spent in farmers markets generates an additional $5.76 in subsequent spending at the market, in cash and other nutrition assistance programs.

Farmers: Farmers also appreciate Double Up, with SNAP shoppers representing a new customer sector that positively impacts their business. In Iowa last year, 74 percent of participating producers said they earned more money because of Double Up.

Our Michigan program benefits around 1,000 farmers annually. Each year, participating farmers report making more money and selling more produce. They also report other significant impacts including diversifying what they grow, purchasing new equipment, putting more land into production, and hiring more staff. The benefits are felt most deeply by beginning farmers for whom farmers markets provide an important gateway for sales.

Robert Bylstra, a farmer from West Michigan's farm belt noted: "It's a win-win situation because the customer is getting $20 worth of free food...and we're getting paid for our fruits and vegetables.... It's one of the best programs I've ever seen."

Partnerships: A final point on the Michigan Double Up experience, our success would not be possible without the tremendous support of our partners. SNAP plus SNAP Education plus Double Up's incentive dollars provide a powerful combination that we see changing people's knowledge, attitudes, and behavior. Double Up is genuinely a public–private effort—the State Departments of Health and Human Services and Agriculture and Rural Development alongside Michigan State University, the network of food banks, farm groups, our farmers market association, and AFPD, our grocery association, all play critical roles in making this program the statewide success story it is today.

V. Future Opportunities

As you consider policies for the next Farm Bill, I strongly encourage you to reauthorize the Food Insecurity Nutrition Incentive program. We know that it is doing what you hoped it would and

are ready to move beyond this preliminary phase, building on the solid framework FINI established around the country.

Overall FINI's structure is sound and I would suggest only the following minor adjustments, which represent feedback from our national Double Up network as well as from other FINI grantees (see FINI 2015 Program Results report in Appendix):

1) We now know what the best practices are for incentive programs and there is no reason for the same mistakes to be made over and over again. A Center of Excellence could provide training, technical assistance, and problem solving for projects around the country. This could include planning, capacity assessment, retail preparation, evaluation, templates for record keeping, and support for small retailers serving high need communities.

2) There is a need for better technology options for incentive programs, especially technology that works for the variety of primarily small retailers that serve high-need urban and rural communities. It would be most efficient and cost-effective if there were funds set aside for the development, testing, adapting, and sharing of appropriate, low-cost technologies for transactions and incentives.

3) Evaluation is important, but the current process is burdensome—especially for smaller recipients. We ask that other methods of evaluation be explored, including using existing NIFA evaluation models rather than an external evaluation firm.

4) Consider adding some flexibility to the match requirement.

5) Finally, maintain the FINI program's strong connection to regional production—it works and makes every federal dollar go farther and do more.

VI. Conclusion

I know that you often hear about what's not working, my message is the opposite.

Produce incentives work. Our experience with Double Up and that of our colleagues nationwide demonstrates the real and serious positive impacts incentives are having for low-income families, grocers, farmers markets and American farmers, and local communities nationwide.

FINI is making a difference and should be reauthorized. I appreciate your willingness to take a chance on the idea of incentives in the last Farm Bill and I am here to report that it is paying off and ready to be scaled.

Thank you for this opportunity. I would be glad to answer any questions.

Appendix

Voices of Double Up in America Stories
https://fairfoodnetwork.org/from-the-field/voices-of-double-up-in-america/

FINI Grant Program: 2015 Program Results
https://fairfoodnetwork.org/resources/fini-grant-program-2015-program-results/

Oran B. Hesterman, PhD Bio
https://fairfoodnetwork.egnyte.com/dl/hkpvGwT8zz

Statement of Adam Ingrao
Before the
US Senate Agriculture Committee
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017

Chairman Roberts, Ranking Member Stabenow and members of the Senate Agriculture Committee, thank you for the opportunity to testify on behalf of beginning farmers, farmer veterans and urban farmers from the great state of Michigan. As an urban beginning farmer, Army veteran, farmer veteran advocate, and agricultural researcher, I have had the great privilege to serve my community through healthy food, my country through military service, my farmer veteran community through programming and resource connections, and the global asparagus industry through my research at Michigan State University. It is through this multifaceted lens of agricultural experience that I approach the challenges and opportunities facing America's farmers and veterans. My testimony outlines areas of success I have seen through the actions of Congress in the 2014 Farm Bill and challenges that still exist within the communities I work that can be addressed in the 2018 Farm Bill. I highlight my personal experiences and those of successful farmer veterans I have worked with and the USDA programs they have taken advantage of to illustrate the impact the 2014 Farm Bill has had on beginning and farmer veteran communities in Michigan. I hope that my testimony can serve as a point of reference and a source of novel ideas for you and your colleagues to consider as you draft the 2018 Farm Bill.

Background

American agriculture faces a looming crisis. Production and long-term industry growth is challenged by an aging farmer demographic and a lack of qualified young farmers. As demand for food increases with a growing global population, the United States is one of the few countries capable of meeting this growing demand, capturing market share that will increase domestic GDP and offer a good paying jobs that cannot be outsourced. In order to ensure the United States is prepared to meet the global rise in the demand of food and other agricultural products, we must invest into the training and success of beginning farmers and those looking to produce food and agricultural products in new and unconventional venues (urban farmers), while recognizing the importance of new farmer demographics, such as military veterans, that have unique training that compliments the work ethic, leadership and commitment necessary to be successful in the agricultural industry.

2014 Farm Bill Programs Impacting Beginning, Veteran and Socially Disadvantaged Farmers

Provisions in the 2014 Farm Bill have been critical to the work I conduct in Michigan connecting veterans, beginning and historically underserved farmers to education, resource and programmatic opportunities to increase the success of individual farmers and develop a strong and resilient Michigan farmer community. Within this section I outline the importance of programs implemented by the 2014 Farm Bill and demonstrate their use by organizations and individuals I am affiliated with to improve the personal and financial wellness of Michigan's farmers and our communities.

- **Beginning Farmer Rancher Development Program (BFRDP):** Michigan Food and Farming Systems, Michigan State University Center for Regional Food Systems and Michigan State University Student Organic Farmer Training Program (awarded 2014).
  - **Goal:** To create a vibrant network of beginning farmer training across Michigan that can cater to different perspectives and needs while moving everyone desiring to farm along the path of business viability.
    - **Objectives:**
      - Create training and development programs that span the necessary strategies meeting various lifestyle restrictions and demographic needs for people to enter and sustain farming.
      - Create a vibrant network of beginning, new-entry farmers and trainees to provide peer support and guidance as a statewide community of practice that also engages the knowledge of farmers operating more than 10 years.
      - Create a suite of services required to optimize the chance that new-entry farmers will still be in business and be expanding over five years.
      - Create strategies for a pathway to scaling up production and marketing so that new and beginning farmers can reach the apparent $100,000 viability plateau in sales annually.
  - This program has been focused on the short and long term viability of beginning farmers which has included educational programs, access to resources and support services as well as tackling bigger issues like access to land, capital and equipment. Without funding to support these services through BFRDP, programs like this would not have funding that allows for the large collaborative efforts necessary to take on these issues. Additionally, BFRDP set asides for socially disadvantaged and veteran producers are critical to ensuring new farmer demographics are reached and that the unique needs of these producers are met.

- **2501 Program:** Michigan Food and Farming Systems (MIFFS) and the Veterans in Agriculture Network (VIAN) (awarded 2016):
  - **Goal:** MIFFS and VIAN experience has shown that small-scale socially disadvantaged and veteran farmers develop and enhance their farming enterprises when they are part of a rooted network that supports each other to get past the barriers, such as:

        - Lack of relationships with USDA staff.
        - Discomfort with the language and paperwork expected of producers.
        - Physical or mental challenges that make entering unfamiliar buildings or being presented with paperwork overwhelming and challenging (this is very common among our farmer veterans clients).
        - The lack of the "luxury of time and experience" that most privileged populations have to plan for long-term results.
    - Our goal is to intentionally build consistent supportive working groups that aid individuals in crossing these barriers and help them see progress.
- **Objectives:**
    - Provide group transportation to the network members in order for them to connect with each other through community engagement and to expand involvement into other regions.
    - Develop USDA Program Application Guides in language appropriate for beginning, socially disadvantaged and veteran farmers that explain how to fill out USDA paperwork and forms at USDA Farm Services Agency. Many county FSA offices lack experience working with socially disadvantaged and veteran farmers that are producing nontraditional goods or specialty crops which can lead to confusion about how to offer these producers assistance. Having an unfavorable or frustrating experiences at FSA offices will often prevent these producers from attempting to work with other USDA agencies.
    - Many of our farmer veterans suffer from service related post-traumatic stress disorder (PTSD) or traumatic brain injuries (TBI). For them, walking into unfamiliar buildings or being presented with paperwork and multiple pieces of information can be extremely challenging and trigger negative symptoms. Worrying about exacerbating PTSD or TBI symptoms can often prevent veterans from walking in the door of USDA Service Centers.
        - Four MIFFS Field Specialists (two Multicultural/SD and two Farmer Veteran) have been trained to work one-on-one with socially disadvantaged and veteran producers to be available to accompany producers to individuals to USDA Service Centers. Field Specialists help monitor application progress and provide additional support necessary to successfully submit paperwork. Many of our socially disadvantaged and veteran producer farms fall outside of the normal clientele USDA agencies typically work with which can cause confusion about program eligibility. MIFFS Field Specialists (some with past careers associated with USDA) also function as liaisons between customers and USDA staff to help minimize confusion assisting these producers in applying for programs with operations that are unfamiliar to local USDA staff.

- Support stronger relationships with USDA by having local staff participate in MIFFS network meetings, collaborating with MIFFS Field Specialists, MIFFS events and all the other MIFFS activities/workshops (both through this grant and other grants).
- Expand MIFFS website to create a USDA Resources page. This page will be linked to through our Multicultural and Veteran in Agriculture Network pages and will host USDA Program Guides and the new USDA Application Guides (created during this project). We will also provide information about various USDA Agencies and their programs that may be of interest to our producers.

- The 2501 Program has been critical to MIFFS and VIAN in addressing challenges for USDA to engage socially disadvantaged and veteran producers at USDA Service Centers. Without the funding provided by this program many of our producers would likely never engage with USDA because of the inherent challenges they face. Through 2501 funding we are facilitating interactions and connections with USDA staff and providing services needed to engage producers in positive experiences that lead to results that aid both producers and the USDA.

Federal Programs Used by Farmer Veterans (Stories and Perspectives)

- **Natural Resources Conservation Service Environmental Quality Incentives Program, Seasonal High Tunnel Initiative:**
  - VIAN has worked closely with several farmer veterans to navigate USDA programs including FSA registration for a Farm Number and NRCS programs. The most extensively used program by veterans in Michigan has been the Seasonal High Tunnel Initiative which allows for season extension that increases productivity and offers new seasonal markets for products. An example of utilization of this program by one of our veteran families is outlined below:
    - Chief Warrant Officer Rick Stone and Specialist Katy Stone (US Army): Owners of Laetus Pullus Farm in Perry, Michigan, Rick and Katy run a diversified livestock and vegetable farm on 30 acres that provides their family and community with healthy food. However, their production was limited due to the short growing season in northern latitudes and MIFFS and the VIAN provided assistance to extend their production through applying for a NRCS high tunnel. Since being awarded a tunnel in 2016, the Stones have been able to grow vegetables throughout the winter which has increased their productivity and available markets.

- **Supplemental Nutrition Assistance Program Double Up Food Bucks**
  - VIAN has worked with farmer veterans that seek to protect vulnerable populations in Michigan through production of healthy and nutritious foods. An excellent example of this is outlined below:
    - Sergeant Jeremy (US Marines) and Valarie Huffman: Owners and operators of Huffman's Homestead in Swartz Creek, Michigan, Jeremy and Valarie run a

diversified livestock and vegetable farm on 10 acres. The Huffman's have taken advantage of VIAN's USDA navigation services and have received a high tunnel through NRCS to increase production, which has allowed them to create a Community Supported Agriculture (CSA) program for their community, and has also allowed them to reach capacity to support direct marketing at two of their local farmer's markets. One of these markets is the Flint Farmers Market where the Huffman's participate in the Double Up Food Bucks program. This program has allowed them to focus on delivering healthy food to those affected by the Flint water crisis. The Huffman's mission through the Double Up Food Bucks program is to participate directly in the healing process of Flint by offering healthy food at a price that allows all residents equal access to quality nutrition.

Cooperative Agreements

Organizations I work with have taken advantage of cooperative agreements with federal agencies to increase utilization of Natural Resource Conservation Service programs. I highlight our current agreement below and recommend actions that could be taken by Congress in the 2018 Farm Bill to increase public-private relationships to increase farmer enrollment in USDA programs.

Natural Resources Conservation Service: Cooperative agreement between NRCS and Michigan Food and Farming Systems/Veterans in Agriculture Network provides funding to promote whole farm Conservation Plans to socially disadvantaged and/or underserved producers. The objectives of this agreement are outlined below:

- **Objectives:**
  - Identify and promote optimal times/seasons for farmers to request whole farm Conservation Plans from NRCS Field office staff.
  - Aid in navigating technical assistance services that are available through NRCS Field Staff.
  - Promote Conservation Plans as a precursor to exploring NRCS program participation.
  - Targeted promotion of Forest Management Plan cost share opportunities and benefits of participation in NRCS habitat programs.
  - Targeted promotion of pollinator habitat installation and expected return on investment.
  - Promotion of pollinator crops as an option for crop diversification for specialty crop producers with demonstration sites at two of MIFFS Farm Development Centers.
  - Offer technical expertise or training to NRCS field staff and technical service providers tailored to working with unfamiliar farm systems or with novel producers.

- Identify common resource concerns related to specific farm systems (small scale diversified, specialty crops, organic, aquaculture, high tunnels, urban etc.).
- Identify existing NRCS Conservation Practices to address unique resource concerns.
- Promote NRCS services through MIFFS Multicultural Farmer, Beginning Farmer, Multicultural Women and Veteran Networks.
- Identify current barriers to NRCS technical service access and program participation for socially disadvantaged farmers.
- Provide one on one NRCS program navigation and enrollment services for farmer veterans suffering from post-traumatic stress disorder and traumatic brain injuries.

- **Results:** This agreement has allowed for MIFFS personnel to train with USDA staff on the specifics around farmer enrollment with USDA programs. This has resulted in the creation of simplified guides to USDA program navigation written from a farmer perspective (translated into Spanish for immigrant producers), in addition to webinar and on ground events focused on walking individuals through the paperwork required to take advantage of USDA programs. Early on we identified that farmer veterans suffering from post-traumatic stress disorder and traumatic brain injuries were unlikely to visit USDA field offices and pursue USDA programs alone because of the challenges of entering unfamiliar spaces and the frustration associated with USDA terminology, forms and staff that is untrained to understand the needs of a veteran dealing with these injuries. In response to this, the Veterans in Agriculture Network provides one-on-one services to all veterans that include assistance in filling out USDA forms and accompanying veterans during visits to USDA offices to aid the veteran and the service provider, ensuring the needs of both are met.
- **2018 Farm Bill Action:** To support work outlined above, USDA needs to expand its efforts to meet the needs of beginning and veteran producers. In the 2014 Farm Bill, Congress created the Military and Veterans Agriculture Liaison (MVAL) position to focus on initiatives and create support for farmer veterans. Through my work with farmer veterans across Michigan and their utilization of USDA services and programs, MIFFS and VIAN urge Congress to support the expansion of the MVAL's office to increase staff and capacity to allow them to work directly with on-ground organizations to better ensure USDA programs meet the needs of veteran producers and encourage the growth of the farmer veteran demographic. Additionally, MIFFS urges Congress to expand efforts such as MVAL to include offices focused solely on beginning farmer initiatives. An office of Beginning Farmer Agricultural Liaison with a dedicated staff focused on developing and implementing coordinated efforts to recruit and support the next generation of farmers, would aid in ensuring the long-term stability of the US agricultural industry.

Urban Farmer Issues

As a beekeeper and urban farmer in Lansing, I personally experience the challenges and limitations of farming within an urban setting. My farm occupies nearly two acres of land leased from the Ingham County Land Bank that was once a track of eight blighted houses on the east side of Lansing. This part of the city was developed in the early 1900's as a residential zoned area but has subsequently been classified as a flood plain which makes purchasing and rebuilding homes in this area difficult. The combination of the foreclosures from the 2008 financial meltdown, aging homes and the flood plain location have resulted in the conversion of this area to urban farms. The result has been that this area of Lansing has become a desirable location for urban farmers and has developed a community supply chain for fresh produce within an urban food desert. Below I outline the challenges facing urban farmers and present potential avenues of improvement that could be addressed by the 2018 Farm Bill.

- **Access to Water**: Water is shut off at the street to all properties in Lansing that have homes that are demolished by the Ingham County Land Bank. This results in urban farmers accessing water through water storage tanks that must be purchased and are filled periodically by Land Bank staff. On several occasions, I have run out of water on our farm despite having two 250-gallon storage tanks. In 2016, this resulted in a total vegetable crop failure because of an unusually long dry spell during crop establishment which cost me thousands of dollars in lost product. Over the last year, we have worked with Land Bank staff to get reconnected to city water. Despite having Land Bank staff support, this process has taken months and currently is projected to cost over $2,000, a cost that is prohibitive to most beginning farmers on Land Bank property.
    - **Solution:** New policies that work to ensure water delivery to urban land slated for agricultural use would increase productivity and reduce economic losses of urban farmers.

- **Consistent Policy:** Perhaps the most frustrating part of being an urban farmer is the lack of consistent policy between municipalities to guide our business planning and allow us to coordinate regional efforts to produce fresh produce within urban settings. Lack of clear guidance on areas of infrastructure, like high tunnels, has created uncertainty within urban producers which puts constraints on production and limits our ability to produce food for our communities.
    - **Solution:** A federal office to coordinate urban agriculture activities and advise counties and municipalities on urban agriculture policies to provide consistency to the urban agriculture industry and allow farmers to better plan, implement and coordinate their business models.

- **Avenue to Ownership:** Urban farmers in Lansing primarily lease land through the Ingham County Land Bank. This county-owned land is leased at a very reasonable rate but there is no long-term strategy by the county regarding the ownership of the land. Farmers spend large

amounts of capital improving urban lands which includes removal of construction debris, rehabilitating highly disturbed or polluted soils, planting cover crops or adding compost to increase soil organic matter content, maintaining lands and building infrastructure to farm the land. Currently, these farmers care for, rehabilitate and invest in these lands without any possibility for ownership.

- **Solution:** Innovative land tenure contracts and improved land ownership opportunities for urban farmers that would provide stable access to land, allowing them to invest into infrastructure and increase production capacity without the fear of losing this investment over time due to changes in policy by land holders. This uncertainty puts direct constraints of food production, development and profitability of urban farm businesses.

Additional Comments

- **Vocational Rehabilitation Services (Veterans Administration)**
  - I have worked closely with serval veterans interested in accessing vocational rehabilitation benefits to become farmers. Short programs that appeal to veterans and are appropriate for farmer training are not acceptable for Voc Rehab benefits because they do not meet the stringent requirements currently in place for the utilization of these benefits. Recognition of the unique educational circumstances surrounding farmer training and the legitimacy of farming as a career for disabled veterans by the VA could provide a new source of trained farmers to enter the agriculture sector with the support of the VA.

- **BFRDP and VA Educational Benefits:**
  - BFRDP awardee programs focused on the education of farmer veterans to enter careers in agricultural should be eligible for VA benefit utilization by veterans following successful demonstration of educational models during the grant funding cycle. By allowing these programs to receive these education benefits, it not only provides funding for the individual veteran to allow them to participate in the program but also offers a consistent and reliable funding to ensure the long-term sustainability of the BFRDP funded program.

- **Farm Succession Incentives:**
  - Many farms are being lost across America. As producers retire, often their children are not interested in taking over the farm operation. This results in farms being sold off and often developed into non-farm operations. Tax incentives to create succession plans for farmers that allow producers to work with farmer veterans would create a possible scenario in which producers can be appropriately compensated for their property while offering a pathway to land acquisition for farmer veterans. This program could be supported by changes to the VA Home Loan Program to allow for purchase of farms, or

the FSA Loan Program to give priority funding to veterans working specifically with land owners through a succession process.

- **VA Medical Center Farmers Market Initiative:**
  - To promote healthy eating and access to nutritious food, an initiative to fund VA Medical Center Farmers Markets should be included in the 2018 Farm Bill. Funding could provide subsidies to VA patients to purchase food from vendors at the market and incentives could be offered to farmer veterans sell products at the market. Building relationships between veterans and healthy food would offer a pathway to improved health outcomes for patients at VA Health Centers and develop a sense of community and support, with high visibility, that is desperately needed to rebuild trust between veterans and the VA Health System.

Conclusion:

The Farm Bill stands as a foundation of support for American farmers, our agricultural livelihood and national prosperity. As the cornerstone of every civilization, agriculture is a single factor that can lead to the rise and fall of nations. Therefore, we must recognize the importance of this sector and prioritize its growth and health. Through the 2018 Farm Bill, it is my hope, and the hope of the organizations and programs I represent, that Congress realizes the importance of the programs created in the 2014 Farm Bill. It is critical to continue funding programs focused on supporting beginning farmers, those entering farming from new demographics and those farming in both rural and urban communities, and build upon this progress to include new initiatives that continue to foster the growth and success of the next generation of American farmers. It is only by engaging and supporting these communities of farmers that we will be able to feed the world and ensure the principles and core values of the United States continue to be the guiding light for freedom and equality.

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

KEITH CREAGH
DIRECTOR

Testimony before the U.S. Senate Committee on Agriculture, Nutrition & Forestry

"Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan"

May 6, 2017

Kristen Matson

EUP Inventory and Planning Specialist

Michigan DNR, Forest Resources Division

Mr. Chairman and Committee Members:

Thank you Chairman Roberts and Ranking Member Stabenow for this opportunity to speak on behalf of forestry in Michigan and the Michigan Department of Natural Resources (DNR), Forest Resource Division. My name is Kristen Matson and I am the East Upper Peninsula (EUP) Inventory and Planning Specialist for the Forest Resources Division. In that capacity, I am responsible for training other DNR staff in forest inventory procedures, ensuring the accuracy of the state's forest inventory, and for writing forest planning documents in the EUP. Additionally, I serve as the Good Neighbor Authority (GNA) liaison to the Hiawatha National Forest.

In my testimony today, I hope to give the committee a brief summary of the economic growth and jobs derived from Michigan's forests and the state's forest products industry. I will also outline some successes, as well as some challenges, that the Forest Resources Division has recently seen in its relationship with the U.S. Forest Service (USFS). Finally, I'd like to conclude by discussing a unique win-win opportunity that Michigan DNR and others have identified related to innovation and market creation in the forest products industry.

I am very excited to discuss Michigan forestry. We are a highly forested state, with 20 million acres of forest, approximately 56% of our land, making Michigan one of the top 10 forested states in the nation. In fact, in the Upper Peninsula (UP) where I live, it is about 88% forested. Michigan has a $20 billion forest economy, with some 96,000 people employed in the sector. Our forests also help drive a $22 billion tourism industry and are an integral part of our $4.5 billion hunting and fishing economy.

To give just one recent example of the local impact of the industry, the Arauco Corporation is in the process of building the largest pressed board forest products mill in North America in Grayling, Michigan, a very rural community about 115 miles NW of here. This plant is a $400 million investment, will create 200 full-time jobs and over 700 construction jobs in the region, and is scheduled to process about 700,000 cords of pulpwood per year. The groundbreaking for the facility happened just last month, and is just one illustration of the economic significance of the forest products industry in our state.

The Arauco project is also a great case study to highlight one of the recent successes we've seen in our relationship with the USFS because the company's investment was driven, in part, by smart public policy created by Congress and carried out by the agency.

The Good Neighbor Authority, created by your committee in the Forestry Title of the 2014 Farm Bill, has been working well in Michigan. As you know, the new program authorizes state forestry professionals to carry out restoration and logging projects on federal lands – work that would otherwise go undone because of budget constraints. Michigan was the second state in the nation, right behind our neighbors in Wisconsin, to sign a so-called "Good Neighbor Master Agreement" with the USFS to get the program up and running. This new authority has already helped the USFS be more successful and efficient in providing timber to the forest products industry in Michigan and accomplishing restoration goals on federal lands. The wood harvested on the GNA timber sales that are in progress in Michigan is of a volume that the USFS would not

have been able to do themselves, and is in addition to the amount that the DNR provides annually to industry. The DNR would like to thank this Committee for providing this authority in the last Farm Bill and would like to thank the Forest Supervisors of the three National Forests in Michigan for partnering with us to make this program a success.

The creation of the new GNA authority in the Farm Bill was part of Michigan's discussions with Arauco about investing in our state. Thanks to the new program, the DNR was able to confidently tell the company that there would be a steady supply of fiber from the federal, state, and private lands in the area to feed their mill. Simply put – the Arauco story is just one example of how the new GNA program in the Forestry Title of the 2014 Farm Bill is having a real impact on jobs and economic development right here in Michigan.

In 2016, our first year of the GNA agreement, the DNR was able to put 1,362 acres of USFS timber land on the market statewide. This accounts for over 20,000 cords of wood, which is valued at over $1 million. Just over half of this, 775 acres at $559,000, was in the Upper Peninsula (UP), where the timber industry is an important part of our economy. In fact, one third of all manufacturing jobs in the UP are forest products related. The 11 GNA timber sale contracts for 2016 were awarded to 6 different private timber companies.

For 2017, we plan to set up 1,811 acres of GNA timber statewide (845 in the UP). More is being planned for 2018. I am happy to report that work began this week on a GNA sale on the Hiawatha National Forest. The work is being done by a small family-owned UP logging company based in Rapid River. This is a perfect example of how GNA sales are helping support jobs in local businesses. By putting this extra fiber on the market, we are relieving market pressure in Michigan.

And while GNA has been a great success, we feel we can do even more. The Farm Bill provision that allows GNA work by the state on USFS land does not currently

allow for the reconstruction of existing roads already included in the national forest road inventory. This limits the timber harvest and restoration project opportunities that the USFS can partner with DNR on. Many of Michigan's federal forest stands that are well-suited for timber harvest or restoration, all of which have already gone through the required environmental analysis under the National Environmental Policy Act (NEPA) and other applicable statutes, are currently inaccessible to DNR because of the stipulations on road repair in the current program. Repair of existing roads is needed to conduct restoration projects and timber harvests in a safe and environmentally friendly way and such repairs would make these NEPA-approved acres accessible to the DNR and our partners in the private sector.

To address this issue, Michigan DNR and the National Association of State Foresters recommend that the Senate Agriculture Committee, working through a bipartisan and consensus-based process, slightly amend the GNA program to allow for modest repair of existing roads on the national forests, thus increasing the number of projects available through GNA.

In addition to outlining the success of GNA with the Forest Service, the DNR also wants to draw this Committee's attention a challenge with the agency that we hope you can help us address. The issues of fire borrowing and the steady erosion of the USFS' non-fire resources, stemming from a broken and antiquated agency budget, is profoundly hurting not only the national forests, but also state agencies like Michigan DNR and private landowners. As this committee knows, a dramatically increasing portion of the overall USFS budget has been spent to suppress wildfires in recent years, largely in the western US. Part of my duties in the eight years I worked for the USFS involved working on wildfires, including several large project fires in various states out West and in Michigan. I know how challenging and expensive fighting wildfire can be. And I believe 100% that we ought to invest in fighting these blazes when they threaten lives, property, and critical infrastructure; but my experience has also taught me that a Forest Service budget model developed in the beginning of the last century is not well suited to face the wildfire threats of 2017.

Science tells us that these mega-blazes, sometimes called "uncharacteristic wildfire" are just going to get larger and more unpredictable. These fires are truly natural disasters, and the federal budget should treat them as such, but right now they are just treated as another day-to-day function of the Forest Service – just like marking a timber sale. That situation is unsustainable. Because the Forest Service now spends over half their annual budget fighting fires – up from 16% in 1996 – there are far fewer resources for other agency functions like the ones that are important to Michiganders.

For example, normally there is a portion of the USFS budget that is awarded to states to do forest restoration work. Recently, a grant funded by the State and Private Forestry mission area of the USFS was awarded to the Michigan DNR for rapid response detection of an invasive pest species called the Hemlock Woolly Adelgid (HWA). The grant, which was vitally important to our early response efforts to stem the bug's spread was unfortunately pulled back by the agency so the money could be sent West to fight wildfires. When the Michigan DNR finally received the grant, we had largely missed our prime window for rapid response to the infestation. Rapid response to this species is very important, as HWA can kill trees within a few years of becoming infested, and Michigan lost valuable trees and our early foothold in the battle against HWA because of the delay in the USFS grant.

I would strongly encourage this Committee to work with your colleagues in Congress to enact a comprehensive fix for the USFS budget, either in the context of the 2018 Farm Bill or elsewhere. The National Association of State Foresters supports the bipartisan Wildfire Disaster Funding Act to address this issue, and Michigan DNR is asking for your help enacting that bill, or any other measure, that addresses the full scope of the problem, as soon as possible. New USFS programs like GNA, along with other management tools, will only go so far in an agency that is hamstrung by a broken budget; a problem that is only going to get worse as climate change and increased development in the wildland urban interface (WUI) drives larger and more expensive wildfires.

Finally, I wanted to conclude with a brief discussion of an exciting technological innovation in the forest products sector that has already garnered a lot of attention in Michigan, including your attention, Senator Stabenow, as evidenced by your introduction of the bipartisan Timber Innovation Act.

Mass timber, the type of wood product that your legislation with Senator Crapo from Idaho supports, is technology that arranges traditional lumber in a new and stronger fashion using state-of-the-art engineering, a specialized press, and advanced adhesives. The resulting mass timber panels can serve as a commercial building material that many characterize as a more sustainable alternative to the traditional steel and cement, which are very energy-intensive to produce and result in significant quantities of harmful pollution like mercury during the manufacturing process. In contrast, wood is a renewable resource that actually pulls carbon and other pollutants out of the air as trees grow. Once the panels are manufactured, that carbon stays trapped in the wood for the life of the building. This new mass timber technology is already providing new markets for wood products in certain regions of the world and has the potential to do much more. While Europe and American cities like Portland and Minneapolis have been pioneers in this space, Michigan State University - my alma mater and yours, Senator Stabenow - is considering a project to build a new STEM education building on campus using mass timber technology.

We would encourage the Committee to swiftly pass the Timber Innovation Act and look for opportunities to advance mass timber research and development so we can see more of these buildings – doing so will help the environment and create new jobs in rural communities.

Once again, thank you Chairman Roberts and Senator Stabenow for the opportunity to share my perspective with you this morning. With that I will conclude my testimony and look forward to your questions.

Testimony (written) of Pam Bouma Miller, Owner, Hopyards of Kent County before the United States Senate Committee on Agriculture, Nutrition and Forestry May 6, 2017

Thank you, Chairman Roberts and Ranking Member Stabenow for the opportunity to testify today. My name is Pam Bouma Miller and I am owner of Hopyards of Kent County and a founding board member of Hop Growers of Michigan. Hopyards of Kent Co. was established in 2011, and is one of the largest family- owned farms of hops in Michigan. We are dedicated to consistently producing the highest quality hops available, through hard work, teaching, training, and commitment to the hop industry. We also have a harvest center that opened in 2016 for our network of over 30 growers to bring in their yields to be picked, dried, baled, and passed on to the merchant for final sale.

Our family interest in growing hops and getting involved in the industry sprung from my personal passion of growing roses, lots of roses. In addition, my husband John's technical gifts, and my son-in-law Ian, who is from the state of Washington and carries a solid knowledge of the industry served to inspire this new farming experience for our family. I started in floriculture as a hobby and learned how to grow plants well. We had some family strengths, and the demand for local hops was apparent and growing.

The Michigan craft brewing movement has fast become nationally recognized as a leader in the industry. The economic impact of Michigan's craft beer industry is significant contributing to over 7,000 jobs with wages over $232,000,000 and economic output of over $600,000,000 as early as 2014 published by the Michigan Brewers Guild. It has only grown since, and the demand for local hops in a region with ideal attributes for hop growth exists due to climate exploded. The Michigan Brewers Guild exists to promote and protect the craft beer industry in Michigan and actively tracks the economic impact, public policy, legislation and regulations. Overall, the craft beer market grew 6.2% in 2016, and is the primary source of the increasing demand for Michigan hops throughout the country. The craft beer market is 12.3% of the overall market. The relationship between the hops growers, processors and brewers is important to the overall success of each other's interests, and each take a specialized set of skills, but in many ways they are all integrated.

Today Michigan is ranked 4th in the nation with over 1,000 acres in hop production. We have 200 growers supplying 200+ breweries in Michigan alone, and some additional purchasers which are international countries, including Thailand and Denmark for example. Michigan hops account for 5% of the $252.6 million hop export market. It is also important to recognize the unique opportunity the Hop Growers of Michigan are pursuing through a Farm to Glass Bill to provide tax savings for the use of Michigan hops in Michigan beer.

In order for the Michigan hops industry to thrive and grow, the next Farm Bill will need to continue support for specialty crop programs. Last year, the Michigan hop industry used a Specialty Crop Block Grant to establish hop quality standards, provide education and training to growers and develop a two-level voluntary verification program. In considering the issues of specialty crops, the hops industry will need support in order to grow and these block grants have served the economic interests of the growing industry very well.

Value Added Producer Grants have been used to help hop farmers pelletize fresh hops for sale and distribution. Specifically, the equipment to process and handle hops is highly specialized and extremely costly. Getting the equipment into the community of growers required the use of these grants as no

one grower could otherwise support this cost. These grants also let farmers minimally process their products to supply *Pure Michigan* locally grown foods to cities and communities across the state, which allows farmers to seize the opportunity to provide a locally grown specialty crops, and translates into a diversity of jobs and other opportunities.

Continued funding for research, including the Specialty Crop Research Initiative, is critical to the future of the hops industry to control for pests and disease like powdery mildew. Research funds should also be used to focus on the development of a new public varieties breeding program at the university level. The hops industry is not without its challenges, regulations for herbicide and pesticide use should be standardized at the national level. Additionally, the labor issues the lack of a reliable work force remains a big concern as hops are a very labor intense crop and the labor pool is dwindling fast.

As the Michigan hop industry continues to expand, growers are looking at new market opportunities through trade expansion. It is critical that the next Farm Bill protect and strengthen the Market Access Program, which is key for specialty crop growers to access new international markets.

Supporting Michigan's new hop industry the emerging new and specialty agriculture industry has taken a team of specialized and focused professionals who constantly strive to understand the challenges of an inclusive vertical supply chain from field, to processing and storage. This has included growers from other states, equipment manufacturers from Germany, Michigan State University, and many local individuals throughout the state of Michigan.

Michigan State University Extension services are critical for support in every aspect of the science, planning, maintenance and management of this agriculture specialty commodity. Presently they are assisting me in understanding why some of my most valuable hops plants appear to be struggling in their growth from one year to the next. MSU scientists may be able to keep another grower from suffering a similar loss, and they have taken a keen interest in our industries future prosperity.

Also, as part of this team, it takes a special relationship and understanding with a financial partner. This is a capital intensive business and its specialization demands dollars. GreenStone Farm Credit Services was there for me to the full extent they were able at the outset, and remains an intricate part of my success as one of the first major hop farms. I did learn that my principal financial partner was only able to provide some of financing needs for my operation due to limitations of their lending charter. GreenStone helps many other hop farms large and small, and it would be helpful if they could be inclusive of the vertical chain from field, processing, storage and glass as this created real complications for me and my business.

The hops industry has grown 148% in the last ten years, and I look forward to being a part of the continued growth and development of the hops industry and the thousands of jobs that our industry supports in Michigan.

I have attached some related documents to this report for your consideration, along with some pictures of the product and the operation to help make the agriculture industry surrounding hops come to life.

Thank you for taking an interest in Michigan hops and I will be happy to answer any questions you might have regarding this report.

Statement of Jim Nugent
Fruit grower and Chair, Michigan Tree Fruit Commission
Suttons Bay, Michigan
Before the
U.S. Senate Agriculture, Nutrition and Forestry Committee
May 6, 2017

Michigan agriculture has the distinction of being the second most diverse in the nation. Our state is blessed with a wide range of soils and topography and surrounded by the Great Lakes. This creates the natural diversity that allows for the production of many different crops, including a wide variety of fruits and vegetables.

My wife and I farm on the Leelanau Peninsula in northwest lower Michigan, an area that is exceptionally well-suited for the production of cherries and other fruit crops. Growing food has its challenges to remain globally competitive and sustainable. Hence, agriculture relies extensively on land grant universities for the research and information to keep our industries viable. I strongly support increased federal funding for research and Extension.

Let me give you an example of why research is so critical to Michigan agriculture. In 2008, an insect called the spotted winged drosophila, or SWD, made its way from Asia to California. It lays its eggs in thin skinned fruits resulting in larvae developing in the fruit. In 2010, a Michigan State University (MSU) Extension educator found evidence of this pest in Michigan. Since then the population has exploded and now it seriously threatens both the cherry and blueberry industries.

As growers, we turn to MSU researchers and Extension for answers on how to manage SWD. Federal research funding is critical to address this type of serious threat. The Specialty Crop Research Initiative (SCRI) funding is essential to address major issues like SWD that affect crops throughout the country. I am also very pleased that MSU has applied for SWD matching research funds from the new Rapid Outcomes from Agriculture Research program which is part of the Foundation for Food and Agriculture Research. The Foundation was created in the 2014 Farm Bill to increase the investment in agricultural research through innovative public-private partnerships. The newly created Rapid Outcomes program, modeled after Project GREEEN at MSU, has the potential to greatly help industries address new and emerging issues in agriculture by obligating funding for research in an expedited time frame.

In Michigan, MSU has four research centers strategically placed in major fruit-growing areas. This field research is imperative to complement the research conducted in labs, greenhouses and growth chambers on campus. Both apple and cherry growers have established programs that for many years have provided grower funding for research, but falling federal and state

funding was straining the ability of the infrastructure at MSU to meet the needs. As a result, the tree fruit industries worked together to establish the Michigan Tree Fruit Commission.

The Michigan Tree Fruit Commission is a grower funded state research program that was created to make sure that MSU has adequate facilities and the people necessary in research and Extension to help growers solve the critical problems that challenge our ability to produce food. The program has already proven to be successful, but will only work if we maintain a partnership with MSU. For MSU to be that strong partner requires adequate federal funding that helps support the scientists and facilities needed to address the issues and to fund research beyond the scope of our industry's ability to fund.

I also wish to express my support for the Agricultural Conservation Easement Program (ACEP) and the Regional Conservation Partnership Program (RCPP) within the conservation title of the Farm Bill. Production of tree fruits and wine grapes in Michigan is found on the rolling hills close to the shores of Lake Michigan. It has the right combination of soils and micro-climate to produce the healthy and tasty fruit that consumers crave. This area's beautiful views also make it desirable for residential development. The Farm Bill's conservation title has been crucial to protecting the farmland in Leelanau County so it can remain viable for food production.

As a member of the Board of the Leelanau Conservancy, I have seen firsthand how the Conservancy has worked with farmers and with the USDA's Natural Resources Conservation Service to protect nearly 3,300 acres of prime and unique farmland with conservation easements since 2001. This work is made possible through ACEP. In order to expand farmland protection efforts, in 2016, the Leelanau Conservancy was one of the recipients of a RCPP award titled "Tribal Streams and Michigan Fruit Belt Collaborative." This award has created an excellent new partnership that also includes the Grand Traverse Band of Ottawa and Chippewa Indians, Grand Traverse Regional Land Conservancy and Conservation Resource Alliance. The program will allow the Leelanau and Grand Traverse conservancies to permanently protect land with conservation easements that are valuable both for agriculture and water resource protection, while partners implement other practices to protect the area's water resources, improving critical fish habitat.

I strongly encourage your continued support of these and other conservation programs within the Farm Bill. Sustaining a viable agricultural economy that can produce healthy food to feed our country and the world requires an investment in resource protection. As a grower, I am willing and committed to doing what I can to protect and conserve the land and water resources for future generations while producing healthy food. However, we know that much more conservation is implemented when USDA is a strong partner in the effort. This assistance is particularly critical for the small to medium size family farms that dominate our industry and are so important to the fabric and economy of our rural communities.

Testimony of Kyle Rorah

Great Lakes and Atlantic Region Policy Specialist, Ducks Unlimited

before the

U.S. Senate Committee on Agriculture, Nutrition, and Forestry

Field Hearing in Frankenmuth, Michigan

May 6, 2017

Chairman Roberts, Ranking Member Stabenow, it is an honor to testify before you today. I thank you both for the opportunity to express the importance of the Farm Bill to the conservation community here in Michigan and across the country. Ducks Unlimited (DU) has been a proud member of that community for 80 years and our commitment to conserving, restoring, and managing wetlands and associated habitats for North America's waterfowl has led to the conservation of 13.9 million acres across the continent. 80,000 acres have been conserved right here in Michigan. This work not only supports the environment - benefiting more than 900 wildlife species, improving water quality, and conserving soils that are vital to farming – it also supports both jobs and the economy. In fact, in Michigan hunting and fishing support over 74,000 jobs and contribute over $6 billion to the state's economy.[1]

Conservation delivery at this scale does not happen without strong partnerships with other conservation organizations like Pheasants Forever and National Wild Turkey Federation, state fish and wildlife agencies, federal agency partners like the U.S. Department of Agriculture, and most importantly private landowners.

North America's nearly 50 million waterfowl rely on the food, shelter, and nesting habitat on private lands across this country. The Farm Bill's conservation programs represent the single largest investment in private land conservation that this nation makes on an annual basis. More than 60 percent of the U.S. and 70 percent of Michigan's land base is privately-owned. The conservation title is a critical tool for landowners in Michigan, Kansas, and across the country to enhance profitable farming operations, while benefiting healthy soil, clean water, and abundant wildlife.

DU appreciates Senator Stabenow's leadership in securing a robust conservation title in the 2014 Farm Bill. Our top goal heading into the 2018 Farm Bill is preserving many of the gains made in conservation – from the new Regional Conservation Partnership Program to working lands programs to conservation compliance. There is a lot at stake.

An innovative new program created during the last Farm Bill and one that is proving to be an extremely valuable tool here in Michigan, and across the country, is the Regional Conservation

[1] https://www.census.gov/prod/2013pubs/fhw11-mi.pdf

Partnership Program (RCPP). RCPP leverages federal funds with private partner investments to promote the sustainable use of soil, water, and wildlife in critical conservation areas, like the Great Lakes. Here in Michigan, eight RCPP projects totaling more than $55 million are addressing issues like algae blooms in Lake Erie, water quality improvements in Saginaw Bay, restoration of the Grand River, and enhancing the Huron River watershed. DU is currently involved in two different RCPP projects here in the state and 9 different RCPP projects nationwide. An example of the type of partnerships facilitated by RCPP is that between USA Rice and Ducks Unlimited. Through this partnership we have worked with many producers and other partners to harness this tremendously powerful and innovative program. The implementation of our 2015 RCPP rice projects across the country and the success of two RCPP proposals in 2016 demonstrate the importance of the program to rice growers. DU wants to maintain this important partnership program in the 2018 Farm Bill, while making some changes that will improve program delivery, further spur innovation, and ensure partners have the resources and tools they need to be successful.

Another Farm Bill program that DU has found mission critical is the Agricultural Conservation Easement Program (ACEP). ACEP provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. Many of Michigan's breeding waterfowl migrate up and down the Mississippi River every year, and so they rely heavily on habitat work done in the states to our south. Currently there are over 151,000 acres in Missouri alone that are enrolled in Wetland Reserve Program (WRP) that is part of ACEP. Most of these acres are located within DU wetland emphasis areas across the state and nicely compliment all the wetland work we have been doing across Missouri. Currently the enrollment demand for this program nationwide far outpaces what current baseline funding levels will allow. Due to its documented success and high landowner demand, we support efforts to restore baseline funding back to at least $500 million per year, as well as changes to improve management and landowner flexibility on ACEP sites.

The Conservation Reserve Program (CRP), is yet another important component of the Farm Bill and gives landowners the opportunity to conserve lands and habitat that are critical to economically important game species like pheasants and ducks. Hunters spend $4.8 billion a year in Michigan to pursue many of the species that rely on the type of habitat conserved by the CRP. , Lands enrolled in CRP help absorb farm field run-off before it hits the ditch or stream, help recharge groundwater resources, and help keeps the soil on the landscape. For these reasons DU is advocating for an increase to the current national CRP cap of 24 million acres, an increased allocation to CRP grasslands, and finally a robust voluntary incentive based working lands program, one that works hand-in-hand with private landowners.

As previously mentioned, hunting and fishing are extremely important to Michigan's economy. Nearly 2 million Michiganders hit the woods and waters every year to hunt and fish, and these individuals spend big money that supports our State's communities. My hometown of Algonac, MI is one such community whose economy is largely recreation based. During the fall, the parking lots of all the small family-owned diners along the St. Clair River and Lake St. Clair are packed at 5 A.M. with waterfowl hunters and the gas stations are full of people fueling up there

fishing boats in the summer. This scene plays out every season in communities across the state. As noted earlier, these activities support over 72,000 jobs statewide. Protecting and enhancing these outdoor pastimes is therefore both culturally and economically important to the state. A Farm Bill program called the Volunteer Public Access – Habitat Incentive Program (VPA-HIP) aims to protect and enhance private lands for recreation by providing financial incentives to landowners who allow the public to hunt their land. Michigan has received $1,973,000 in grants through this program, helping grow the number of acres enrolled from 7,000 in 2011 to 22,000 in 2016. It is estimated that over $2.4 million will be spent by Hunter Access Program (HAP) hunters using the expanded program, and these dollars will help support rural local economies. It is important to continue this program so that current and future generations of sportsmen and women have places to hunt and enjoy the outdoors.

A key factor in the success of the programs mentioned thus far is properly aligning conservation incentives for farmers with federal farm program supports. One such incentive that is paramount to this is conservation compliance. A strong and reliable safety net for our nation's farmers and ranchers, as well as our soil and wetlands, is a critical component of the Farm Bill and the future of agricultural sustainability. For more than 30 years, conservation compliance has been a central part of federal farm programs and this has been renewed by both Congress and bipartisan Administrations over the past five farm bills. In exchange for federal farm program supports, American taxpayers deserve common-sense assurances that farming and risk management practices are done in a way that minimizes impacts to our nation's highly erodible lands and wetlands. This balance is key as we move forward together in the development of the 2018 Farm Bill. A broad coalition of commodity, crop insurance and conservation leaders formed in 2014 to support and defend attacks on crop insurance and support conservation compliance during the last Farm Bill and we stand ready to assist in these efforts again today.

In closing, I want to thank you for the opportunity to testify. DU stands ready to continue working with you to achieve a strong conservation title in the 2018 Farm Bill, which is essential to the economic prosperity and vitality of our nation's landowners, producers, and rural communities and serves as a backbone to conserve our nation's valuable soils, wetlands, grasslands and wildlife populations.

Testimony of Mr. Darrin Siemen

Saginaw Valley Research & Extension Center - Michigan State University

Field hearing in Frankenmuth, Michigan

On behalf of the

National Milk Producers Federation and Michigan Milk Producers Association

May 6, 2017

Mr. Chairman, Ranking Member Stabenow, members of the Committee, my name is Darrin Siemen. My wife, Barbara, and I own and operate Prime Land Farm, located in Harbor Beach, Michigan.

Prime Land Farm is a centennial farm and I'm a proud fourth-generation dairy farmer. We milk 320 cows, with 5 LELY Robots. We also raise about 800 beef cattle and farm 1,500 acres of sugar beets, alfalfa, corn and wheat.

I attended Michigan State University and majored in food industry management and agribusiness. I met my wife at MSU, we returned to the family farm after graduation in 2001 and assumed ownership in January 2013. We have 3 children who have a passion for the cows and farming. In December 2014, we retrofitted our existing freestall barn, transitioned from our old parlor, and installed 4 LELY robots. One year later a fifth robot was added to meet our milking needs. Within the next couple of weeks our 6th robot will be installed, adding to the enhancements on our farm this year. We are proud of the advancements and use of technology on our farm and look forward to future improvements.

I am also proud to be a spokesperson for the dairy industry and modern agriculture. Throughout my career, I served as Huron County Farm Bureau president for nine years. Barbara and I are currently serving as the Michigan Milk Producers Association 2016 Outstanding Young Dairy Cooperators.

We are proud of the dairy industry in Michigan. At nearly 11 billion pounds, Michigan currently ranks 5th nationally in terms of annual milk production and ranks 2nd in production per cow – the only state East of the Mississippi in the top ten.

I am pleased to be delivering testimony on behalf of myself; my cooperative, Michigan Milk Producers Association, and National Milk Producers Federation.

Introduction and Margin Protection Program

In recent years, dairy farmers like me have ridden a rollercoaster. We have seen the lowest of the lows and the highest of the highs. In 2014, Congress passed legislation establishing a new safety net under Title I for dairy farmers known as the Margin Protection Program (MPP). This program was envisioned as a way to ensure that dairy farmers had a stable safety net to protect them during extended downturns in the ever-volatile dairy market. During the legislative process, changes were made to the original dairy program by Congress that fundamentally altered the safety net designed by NMPF and other dairy leaders around the country. Unfortunately as a direct result of these changes, the MPP safety net has failed to deliver the protection farmers need and expect.

Like many farmers, I was supportive of the MPP and thought it would finally give our farm a risk management tool to cope with the volatility dairy farmers experience on a daily basis. In the first year I signed up for the program and enrolled in the minimal $4 margin level and did not

purchase supplemental coverage. Following that initial year, many other dairy farmers only enrolled at the minimal $4 margin level, which to be perfectly honest, has provided no benefit to my farm. While MPP remains the right model for the future of our industry, changes are needed if Congress wants to prevent dairy farmers like me from going out of business.

Understandably, many producers have lost faith in MPP after only two years. In calendar year 2015, dairy farmers paid more than $70 million into the MPP program and received payments totaling only $730,000; in 2016, those figures were $20 million and $13 million. This was particularly hard in a period in which program support was needed. Let me be clear, I am not asking for a program that guarantees a profit, nor do I want a program that will incentivize excess production. However, when Congress made changes to the program rendering it ineffective, dairy farmers like me lost faith in the idea that MPP could serve as a viable risk management tool under its current formulation. We know that if Congress makes changes to ensure that MPP more accurately reflects the actual costs of production for businesses like mine, participation in the program will increase.

I do want to be clear that I am not looking for a handout from the government. In fact, MPP has actually made the government a profit, equal to $66 million in fiscal year 2015 and $37 million in fiscal year 2016, according to the Congressional Budget Office. Mr. Chairman, I have enough challenges making ends meet with the costs associated with running my business and the regulations that we have to comply with. All we are seeking is a program that provides a meaningful safety net for dairy farmers when we need it most. If we are to provide dairy farmers with a real safety net, it will require this committee to make significant and necessary improvements to the program.

Understanding the challenges that producers have endured with MPP, the National Milk Producers Federation (NMPF) began an exhaustive review of the program in early 2016. This review was conducted by a committee that included dairy farmers, dairy cooperative leadership, as well as industry experts, academia and others to ensure proposed changes to MPP.

As you consider ways to improve MPP, one issue in particular continues to rise to the surface. In determining the margin under MPP, USDA is required to calculate two factors, the "All milk Price" and feed costs. While the "All Milk Price" remains an accurate input tool for this formula, the feed price determination remains in question. During the lead-up to the 2014 Farm Bill, NMPF worked closely with economists, veterinarians, nutritionists and farmers to develop a model for the average feed costs for dairy cows. This exhaustive process was meant to ensure that producers participating in the process had confidence in the validity of the calculation that would determine their risks. However, when NMPF presented our proposal, the feed cost formula, while respected as being accurate, was cut by 10 percent in order to address broader budget concerns. I think it is important to note this given that the government has made money off of dairy farmers under MPP. Concerns regarding the budget costs that resulted in this 10% arbitrary reduction were simply inaccurate and this 10% must be restored in order to ensure that the program functions as intended and that producers participate in the program. A safety net is not a safety net if no one participates.

There are also other adjustments that should be considered regarding MPP. These include, but are not limited to, the feed formula calculations as it relates to corn and alfalfa hay prices. Additionally, dairy farmers also want to have access to as many risk management tools as possible. Unlike other sectors in agriculture, Congress limited the ability of dairy producers to use Risk Management Agency (RMA) products as well as Title I programs. Although almost

every other commodity can utilize both RMA and Title I programs without restrictions, dairy farmers cannot participate in the Livestock Gross Margin for Dairy Cattle (LGM) program as well as MPP. Due to Congressionally mandated restrictions in MPP, a producer must decide at the beginning of each Farm Bill whether to cover their milk under LGM or MPP. With this restriction in place, dairy farmers are left without the benefit of all possible tools that other farmers have at their disposal regarding risk management for their operations.

In addition to the challenges dairy farmers are facing in MPP, we also remain concerned about challenges to our export markets and other aspects of our industry. In particular, challenges with Canada's dairy trade policies have heightened concerns among dairy farmers in the U. S. Combined with uncertainty about a potential disruption in our trading relationship with Mexico, the current trade situation is only adding additional stress to producers and our industry as a whole. Other issues including immigration, tax reform, child nutrition and environmental sustainability continue to remain a focus for our industry and we look forward to working with the committee to help us address these challenges.

Dairy farmers are facing a variety challenges today and many will take long term solutions to address properly so that our industry will remain viable. I do want to publicly thank Senator Stabenow for her recent efforts to work with other members of Congress and the Administration to seek a short-term solution to help improve the safety net for dairy farmers. Her understanding and leadership on this issue is greatly appreciated. And a special thanks to both Senator Roberts and Senator Stabenow for their recent efforts to bring more milk options and flexibility to the School Lunch and School Breakfast programs. We appreciate your strong support of enhancing the milk options available to school kids.

Dairy Market Situation

For the past decade, times have been generally tough for America's dairy farms. In 2009, following several years of expanding U.S. dairy exports, world dairy markets collapsed in the worldwide recession, taking domestic milk prices with them. Farm income over feed costs, as measured by the MPP margin formula, fell to $2.25 per hundredweight of milk in June of that year, well below the $4.00 minimum margin coverage level, which is commonly referred to as "catastrophic" under the current program. The MPP margin formula averaged $3.87 per hundredweight during the first ten months of the year. Three years later, widespread drought drove feed prices to historic highs in 2012 and sent the MPP margin back into catastrophic territory.

The margin bottomed out at $2.67 per hundredweight that year and averaged $3.63 during the six months of March through August. Many dairy farms did not survive this one-two knockout punch, and the many that did are still struggling to recover. Although 2014 was a record year for milk prices and margins, world markets again collapsed in 2015 and most of 2016, which had a large effect on U.S. milk prices and gross dairy farm income. Revenue from milk sales dropped from $49.4 billion dollars in 2014 to $35.7 billion in 2015. U.S. Department of Agriculture (USDA) data indicates that it was down again in 2016 to $34.4 billion dollars.

The value of the fresh milk America's dairy farmers produced in 2016 was worth 19 percent less than it averaged over the five previous years. The difficult economic conditions and tighter operating margins over the last 10 years have resulted in the loss of more than 18,500 dairy farms in the United States. The present environment of depressed market prices could result in even more farm closures. While USDA is projecting that milk prices and margins will be better

in 2017 than last year, milk production is showing signs of expansion following an extended period of almost static production. U.S. milk production grew by 1.3 percent from 2014 to 2015. This annual growth rate expanded to 1.6 percent from 2015 to 2016, but averaged 2.4 percent during the fourth quarter. USDA is currently projecting that milk production will grow again this year at an annual rate of 2.3 percent. During 2015 and 2016, total commercial use of milk, in both the domestic and export markets, increased at an annual rate of 1.8 percent. The recent and projected expansion of milk production has a real possibility of outpacing demand, which will weigh heavily on milk prices again.

We need Congress to act swiftly this year and make the necessary changes in order for our industry to be able to protect ourselves from the bad year that could arrive at any time, even in years where experts are predicting higher margins. We dairy farmers are doing our job. We are producing safe, nutritious milk for the market. If that market goes sour or our costs soar because of drought or another type of weather event, we must have the ability to protect our equity and our investment.

Farm Labor

I am lucky that the majority of my farm's labor needs are met with robotic milkers. While a significant investment, these milkers have helped me and my family address issues related to farm labor. The issue of farm labor is important to all dairy farmers, regardless of farm size. Dairy farmers try in vain to find interest by American workers, but there has been decreasing interest in careers on a farm. Dairy farmers, like others in agriculture, have had to look to qualified foreign-born workers to meet our labor needs.

According to a University of Texas A&M report, released in August 2015 (and conducted in coordination with NMPF), 51 percent of all dairy farm workers are foreign born, and the farms that employ them account for 79 percent of the milk produced in the United States. Having a stable, reliable workforce is critical to the continued viability of the dairy industry. In dairy, we cannot turn the cows off when there are not enough employees to do the job, we have to milk them. This is the reason that NMPF and my cooperative, Michigan Milk Producers Association, have continually urged Congress to act immediately to reform our immigration system in a manner that addresses agriculture's needs for a legal and stable workforce.

In Michigan, milk production has grown by 90% over since 2000 and contributes nearly $16 billion to our state's economy. Since 2008, MMPA members have invested over $100 million to expand processing capacity within Michigan to accommodate the additional production. MMPA, along with other milk marketing organizations in our region, are in discussions to further expand processing capacity in our state. As future investments are made in processing facilities, we will need to maintain the growth in milk production. Addressing the labor issue will be a key component in this process.

Trade

The dairy industry has come a long way on trade in the past several years. Our nation has gone from exporting dairy products valued at less than $1 billion in 2000 to exporting a record $7.1 billion in 2014, an increase of 625 percent. Although low prices brought that number closer to 5 billion last year, we remain the largest exporter of skim milk powder, whey products and, depending of the month, the number one exporter of cheese in the world. That reflects not just a tremendous jump on a value basis, but also a dramatic increase in the proportion of U.S. milk production that's finding a home overseas.

Fifteen years ago we were exporting roughly five percent of our milk production, now we are at three times that level, even as overall U.S. milk production has continued to grow. That means the equivalent of one day's milk production each week from the entire U.S. dairy industry ultimately ends up overseas, making exports integral to the health of my farm and our dairy industry at large. It is critical that Congress protects the progress we have made as the Administration updates trade agreements like the North American Free Trade Agreement (NAFTA). Mexico is our largest buyer of dairy products, representing a quarter of our total exports and represented approximately 30,000 American jobs. We urge that NAFTA modernization discussion preserve what is working well and already agreed in the Free Trade Agreement such as trade with Mexico, while focusing energies on the unfinished work that remains such as with Canada where there is a need to secure Canada's compliance with its trade commitments and to reassert the importance of dependable two-way trade.

I also urge a strong rejection by Congress of the European Union's (EU) aggressive stance on confiscating common food names. Names like Parmesan and Feta belong to everyone, not just a handful of producers in Italy and Greece. Our industry has built markets here and overseas. We need to protect those markets. We can be competitive and increase sales in markets as diverse as Latin America, the Middle East and Asia. What we need are well-negotiated agreements and the necessary tools to achieve and implement them.

The Market Access Program (MAP) and Foreign Market Development (FMD) program are some of those tools. I urge the Committee to maintain those programs, but allow for USDA to review the distribution of monies so those like dairy, that have expanded exports significantly in the last

10 years and are matching with funds and efforts, are awarded by providing enough funds to continue the work.

Environmental Sustainability

Farmers are the original environmentalists. As a dairy farmer, I care deeply about the land, air and water that I raise my herd and my family on. In recent years, however, federal and state regulators have applied significant pressure on the dairy sector to reduce nutrient output to improve water quality in dairy-producing regions across the country. We, as an industry, have invested significant resources to proactively respond to this challenge, and we continue to work to embrace the best possible environmental practices. Dairy producers in Michigan have great awareness and responsibility to the environment in the practices that we follow. Common sense environmental regulations make sense.

Mr. Chairman, Ranking Member Stabenow, the dairy industry is committed to working with you to improve federal policies that impact farmers like me as well as consumers. I appreciate the opportunity to speak with you today and thank you for your advocacy on behalf of agriculture.

Testimony of

Andy Snider, Owner, Snider Farms

before the United States Senate Committee on Agriculture, Nutrition and Forestry

May 6, 2017

Frankenmuth, Michigan

Good afternoon, Chairman Roberts and Ranking Member Stabenow. Thank you for receiving my testimony today as you work to develop the new Farm Bill. My name is Andy Snider and I am the senior partner/owner of Snider Farms. Snider Farms is a multigenerational family farm, we raise turkeys, hogs, corn and soybeans in the center of beautiful Oceana County in Western Michigan. My wife Beth and I run the day to day operations at the farm along with my son Zack and his wife, Priscilla and a dedicated team of eleven employees comprise Snider Farms.

We farm 2,700 acres, 85% of the acreage is corn with the remaining balance in soybeans and some wheat/ rye. We expanded our turkey operation in 2012 with an entirely new farm 1.5 miles from the home farm and we are currently doubling that facility. Snider Farms produces about 170,000 turkeys Raised Without Antibiotics (RWA) and a portion of those we raise as certified Organic as a member/owner of Michigan Turkey Producers Cooperative, located in Grand Rapids, Michigan. We have a hog operation that hosts 560 breeder sows and we sell roughly 325 weaned pigs weekly to Michiana Agra, another cooperative business in southern Michigan.

Finally, I serve in several leadership roles for local farm cooperatives. I am one of fourteen farmers that serves on the board of Greenstone Farm Credit Services which is a farmer owned cooperative. I also serve on the Land O'Lakes, Inc. Cooperative Region IV Executive Council and am a founding member of the Michigan Turkey Producers Cooperative.

Farmer Owned Cooperatives

My wife and I farmed in partnership with my parents from 1982 through 1994. My involvement in farmer owned cooperatives began early in my career. We were dairy and hog farmers and in 1994 we added turkey barns, raising turkeys as contract growers for Bil-Mar Foods, a division of Sara Lee. In 1996, my wife and I woke up to a fire blazing through our dairy barns. Only one cow survived the blaze and we were left with difficult decisions. We decided to get out of the dairy business and focus on the turkey and pork enterprises, expanding our hog facilities to grow more weaner pigs. One year after the catastrophic fire, we and the other Michigan growers for Sara Lee were informed that they were exiting the live turkey business immediately. Michigan turkey producers only option was to transport live birds to Indiana and Iowa which eroded margins and would have eventually drove all the production out of the state. Fifteen turkey producers including myself banded together to form what is currently the Michigan Turkey Producers Co-op. We raised $30 million in capital from co-op members and other industry investors. We acquired a shuttered potato processing facility in Wyoming, Michigan, and the facility was ready for slaughter operations in 2000. A small group of producers took our fates

into our owns hands and saved the turkey industry in the state which is now an industry that produces 6 million birds annually with an economic impact of $250 million to the Michigan economy. Additionally, we have created good paying jobs in that facility which had taken a hit after the potato process facility had left. We received assistance through the USDA rural development loan guarantee program for the facility as well as a Value Added Producer Grant (VAPG) for a later expansion which allowed us to expand into ready to eat products such as deli meats. This cooperative ensured economic viability for its member owners as well as economic well-being for the entire community.

I serve on Greenstone Farm Credit Service's board and see firsthand the benefits that our Farm Credit system provides to rural communities and farmers. I would like to call to attention a couple of the extraordinary benefits from the Farm Credit System.

First, Farm Credit made 64,000 loans to young producers (under the age of 36). Having already heard my story, you can appreciate that with both my son going into farming and my need for credit to expand the business, this is a critical service.

Second, Farm Credit finances more than $27 billion in rural infrastructure including rural electric coops, rural water systems, rural telecommunications and broadband.

Third, given the increasing volatility of farm income, we would encourage Congress to ensure adequate funding for all risk management programs and tools. Programs like crop insurance, livestock gross margin insurance, and FSA guarantees, are essential to maintain a stable and secure food system. Overall, net farm income was down nearly 50% from 2013 to 2016, and if net farm income continues to fall, the risk management programs may be the only remaining safeguard.

In particular, FSA loan guarantees are a critical risk management tool and are used extensively by the Farm Credit System as well as other agriculture lenders. This assists borrowers to gain credit during tough times. The FSA program frequently runs out of funding even in the good times of agriculture and has encountered a shortfall in funding over the last two years that harms farmers that need access to operating capital. Further, the loan limit is merely $1.4 million which is woefully inadequate in today's farm economy which is extremely capital intensive. For example, one new four wheel tractor can easily cost in excess of $500,000. The limit of $1.4 million puts large farms, as well as mid-sized farms at a disadvantage from receiving any benefit in mitigating enterprise risk, but this limit should not be increased without a proportional increase in annual appropriations.

When you consider our aging farmer population, the farm economy and crumbling infrastructure, it's easy to see why it's critical that the Farm Credit system maintains its Government Supported Entity (GSE) status.

In conclusion, farmer owned cooperatives promote the kind of long term economic sustainability that will allow future generations to stay/return to these farms and communities.

Conservation

Growing up in Michigan, surrounded by the state's beautiful lakes, I understand the importance of being a good steward of our natural resources. The conservation ethic runs deep on my farm, with a firm understanding that our land is our capital and legacy. We are committed to do right by it. Through my involvement on Land O'Lakes Inc. Executive Council , my view of on-farm conservation and sustainability has been deepened as Land O'Lakes has developed their Sustain Program. I now view sustainability and profitability on our farm as symbiotic – you can't have one without the other. I commend Land O'Lakes Sustain for their efforts to combine good stewardship, and precision ag tech tools, grounded with data and science, with a view towards on farm productivity and viability. Because legacy and lifestyle matter to all farm families, our farm has enrolled in several state and federal conservation programs that we hope will sustain the land and water for my children and future grandchildren.

The working lands programs within the conservation title of the Farm Bill help support these efforts. Snider Farms has participated in the signature working lands program, the Environmental Quality Incentives Program (EQIP),to help make our farming operation more environmentally sound.. Our first EQIP project in 2007 was for an Ag/Chem Building. This facility allows us to store and mix all of our crop protection materials inside a containment area that eliminates risk of ground contamination. Our next EQIP project was a Litter Storage Facility since raising turkeys produces a large amounts of waste. This EQIP cost share allowed us to construct a litter storage facility on our original farm without impacting our bottom line. Now, with the help of EQIP funding we have been able to utilize all of our turkey litter as a natural fertilizer for our fields as well as selling natural fertilizer to non-livestock farming neighbors and prevent leaching and run-off from outdoor stacking on the ground of manure. On our new farm, we received another EQIP cost share two years ago that allowed us to create another litter storage facility without hurting our ability to be profitable.

We also take part in the Conservation Stewardship Program (CSP), the largest working lands program at USDA, to help us ensure our operation supports important water quality efforts. Our farm is close to numerous lakes, streams and rivers in Western Michigan that all end up in beautiful Lake Michigan. We take our nutrient management as well as our extensive use of cover crops very seriously. These practices, along with using the latest technologies, allow us to excel in this area of conservation and are supported by CSP.

At the state level both locations of Snider Farms are verified in all three systems of the Michigan Agriculture Environmental Assurance Program (MAEAP). MAEAP is an innovative, proactive program that helps farms of all sizes and all commodities voluntarily prevent or minimize agricultural pollution risks. Each system or phase of MAEAP works to reduce our farm's environmental risk by utilizing a three system process of education, a farm-specific risk assessment and practice implementation, and an on-farm verification of our environmentally sound practices. For example, MAEAP verified farms in the Livestock and Cropping systems are

required to have a CNMP (Comprehensive Nutrient Management Plan) that tracks all nutrient applications, whether commercial fertilizer or manure. Non-MAEAP verified farms are not required to practice this most important, long term, environmentally sound practice that is of the utmost importance toward sustainability. At Snider Farms, we have CNMP plans for both of our farms and have recently received our county's Conservationist of the Year Award.

Overall, Snider Farms has been able to prioritize conservation because of our convictions and programs made available through the Farm Bill. These programs have allowed our farming operation to continue with each new generation and allowed us to expand in a way that is both environmentally and economically sustainable.

Animal Pest and Disease Disaster Prevention and Response Program

Since 2015, the turkey industry has made significant strides in recovering from highly pathogenic avian influenza (HPAI), after suffering through the worst animal disease outbreak in U.S. history. The losses from HPAI were personal and weighed heavily upon farmers, rural communities, and companies from the West coast to the Midwest. As an industry, we learned many lessons from the outbreak, and the way we quickly contained a similar case of HPAI in Indiana last year indicates the industry, with assistance from USDA, the states, and other key stakeholders are applying those lessons to reduce the chances and severity of a future outbreak. However, the road ahead remains long and as an industry we will need renewed support from Congress to assist USDA/Animal Plant Health Inspection Service (APHIS) to reduce the long-term impacts. HPAI is not going away overnight; it is a global problem and the time is now to start an international discussion on eradication strategies for HPAI including the use of vaccines. The global spread of HPAI illustrates that no country is immune and the U.S. must be a leader to begin this discussion. Additionally, we are reminded by the recent HPAI outbreak in Tennessee that this disease is still very much a danger and can strike at any time.

As the Committee embarks on the reauthorization of the Farm Bill, the National Turkey Federation and its turkey farmers will be joining many that rely on the animal agriculture community in asking for the inclusion of a forward-looking, mandatory Animal Pest and Disease Prevention Program to the Farm Bill. This program will be designed to limit the impacts of foreign diseases on U.S. livestock and poultry producers both before and during an outbreak. We have all heard that "an ounce of prevention is worth a pound of cure" and this program will use that mantra to focus federal dollars on targeted efforts that reduces foreign diseases ability to gain a foothold here in the first place.

Animal agriculture is a major economic driver for our nation and this program will have a huge impact on protecting the industry from future foreign disease exposures. According to the Farm Income Atlas administered by USDA's Economic Research Service, total cash receipts for animals and animal products was over $212.2 billion in 2014. This represents over fifty percent

of all farm cash receipts. In addition, a recent study commissioned by the United Soybean Board found that the total economic impact of the livestock and poultry industry in the United States was $440.7 billion in 2014. In order to protect our investment in the vital sector of the economy, we will be asking Congress to support our request for this new program.

In recent years, disease outbreaks have cost billions in production losses and response costs. According to APHIS, the 2015 avian influenza outbreak cost taxpayers $1 billion in response, clean up, and indemnity costs. That doesn't include lost export markets, temporary shortages, or price increases for certain poultry products.

There are two key pillars of our proposal:

First, the Animal Pest and Disease Disaster Prevention and Response Program, administered by APHIS, would build upon the 2014 Farm Bill's authorization of the National Animal Health Laboratory Network (NAHLN) that provides crucial resources to prepare and prevent a crisis and brings together the federal government, states, industry and universities to:

- Provide rapid detection and response capabilities
- Develop mitigation and stamp-out technologies including vaccines
- Identify and support critical research needs.

Second, it would provide for the development of a block grant system that allows states and other key players to strategically target areas of concern where we are more vulnerable. Finally, it is envisioned that this program would be structured to take full advantage, through support and collaboration, of the science generated by the National Institute of Food and Agriculture (NIFA) program. As an industry, we look forward to working with the committee to establishing this critical program needed to support our nation's livestock and poultry industry.

One final point I'd like raise related to my turkey operation, specifically the organic portion is the recent USDA rule on Organic Livestock Production Practices. I and many of the other organic poultry producers in the state are concerned about the impacts of some of the new requirements in the National Organic Program. The organic program has long been focused on sound organic production from an ingredients standpoint. This new rule dictating outdoor space requirements moves the goalpost in a significant way. Producers including myself have made significant investments into our operations to comply with the rules including securing feed sources and marketing our product.

The organic sector has been a bright spot for growth in Michigan. I have concerns about the potential impacts of the organic livestock rule and unintended consequences that could negatively impact our producers. The new rule could put many committed organic producers out of business

Furthermore, this rule is in direct conflict with what producers are currently doing to avoid future HPAI outbreaks.

So today, I call on Secretary Perdue to delay the implementation of the rule before May 19th and take a hard look at the impact these rules will have on famers, local supply chains and consumers. Chairman Roberts and Ranking Member Stabenow, thank you for the invitation today to speak about these important issues as you consider reauthorization of the Farm Bill.

MICHIGAN STATE UNIVERSITY

Collin Thompson

Testimony before the U.S. Senate Committee on Agriculture, Nutrition and Forestry
MSU Saginaw Valley Research and Extension Center
Frankenmuth, Mich.
May 6, 2017

Chairman Roberts, Ranking Member Stabenow and members of the Senate Agriculture Committee, thank you for the opportunity to testify at today's 2018 Farm Bill field hearing focused on exploring the strengths, challenges, and economic importance of Michigan's unique agriculture industry.

My name is Collin Thompson and I am a Community Food Systems Educator for Michigan State University (MSU) Extension. I work from the MSU Upper Peninsula Research and Extension Center (UPREC). Part of my job entails managing UPREC's USDA Organic Certified North Farm where I help members of our community learn the latest techniques for farming in the Upper Peninsula's challenging climate.

I am privileged to work with beginning and seasoned growers with the goal of improving their farms through educational programming and on-farm research. Each year, we invite thousands of visitors to participate in workshops, trainings, school visits and other learning opportunities. We also host a farm business incubator that gives participating farmers access to crucial support as they work to establish their own farm businesses. In addition, we conduct on-farm research, hoping to better understand the challenges of producing specialty crops and small grains in our unique climatic conditions. **We could not offer this support to growers without the critical funding we received through the USDA's Agriculture and Food Research Initiative (AFRI) in 2014.**

Through the years, my work has become focused in two primary areas – local and regional food systems, and organic agriculture.

Local and Regional Food Systems

Michigan, and specifically the Upper Peninsula, is fortunate to support incredibly vibrant food systems. The Upper Peninsula is defined by its rural realities—we are home to 29 percent of Michigan's land mass, but only 3.2 percent of its population. Naturally, agriculture is a large part of the region's economy. Farmers in the central Upper Peninsula (which includes Alger, Delta, Dickinson,

Marquette, Menominee, and Schoolcraft counties) farm 281,000 acres of land and sell $61.6 million of food products per year.[1] However, due to limited support in terms of agricultural infrastructure and processing facilities, the Central Upper Peninsula food economy tends to drain away from the region, resulting in an annual net loss of $540 per farm.[1] In fact, while the rest of the state boasts about Michigan's growing agriculture economy, growers in my region saw a $3.4 million reduction in commodity sales from 1969 to 2011.[1]

Despite these challenges, the region is seeing tremendous growth in specific areas of the food economy. Direct-to-consumer sales have increased 24 percent since 2002.[1] There has been a 22 percent increase in the number of farms pursuing direct sales channels, realizing the benefits of connecting directly with customers and earning the highest dollar per unit for their goods.[1]

The work being done to promote local and regional food systems has allowed this region to support such an impressive local food economy. Continued efforts by organizations like MSU Extension, the U.P. Food Exchange food hub, the Michigan Farmers Market Association, and local farmers markets have worked to develop a culture supporting local growers, effectively enhancing the local economy.

Funds granted to the Downtown Marquette Farmers Market (DMFM) through the USDA Farmers Market Promotion Program (FMPP) have greatly increased the circulation of dollars through the local economy. Marquette, home to 21,441 residents (nearly 7 percent of the UP's population), is in many ways defined by its food culture. Throughout the production season, the DMFM supports an average of 32 vendors and 1,643 visitors each week.[2] Visitors spent an average of $22.10 at the market, resulting in a total of $1,502,998.70 in sales.[2] Furthermore, the presence of the market in the downtown district had noteworthy impacts on the downtown economy as a whole. Shoppers at the DMFM reported spending an average of $59.30 each week at other downtown businesses.[2] The growth of the market would not have been as drastic or sustained without funding from the USDA to support promotional campaigns.

Before harvesting a product, growers are faced with challenging climatic conditions in the Upper Peninsula. A short growing season, highly variable weather, and extreme cold can make the business of farming a challenging one. The Natural Resources Conservation Service (NRCS) High Tunnel System Initiative, through the Environmental Quality Incentives Program (EQIP), has

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[1] Meter, Ken. *Central U.P. Farm & Food Economy*. Crossroads Resource Center, Minneapolis: U.P. Food Exchange, 2013.

[2] Michigan Farmers Market Association. *Marquette Downtown Farmers Market Impact Summary*. East Lansing, MI, April 5, 2017.

helped numerous growers overcome these challenges and build more resilient businesses. These funds, allocated through the Farm Bill, give growers the financial resources they need to extend their growing season and strengthen their bottom line by installing high tunnel structures. The Upper Peninsula has seen tremendous participation in this program, as 104 high tunnel projects have been funded across the region. The support offered to these growers varies with the scope of the project, but producers can access cost-share funding of about $3.50-$4.75 per square foot, up to 2,178 square feet.[3] Without the funding provided through the EQIP High Tunnel Initiative, many of these growers would struggle to reach profitability.

Conservation and local/regional food programs provide the Upper Peninsula with essential funding that supports, promotes, and enhances the food system. A continuation and expansion of these programs would positively impact the Upper Peninsula and its food economy.

Organic Agriculture

Organic is the fastest growing sector of the U.S. food economy, now representing $43.3 billion dollars in sales. This presents incredible economic opportunities for farmers.[3] However, despite rapid growth and a seemingly unending consumer demand, farmers in the United States are unable to keep up, which means we are losing potential profits to imports from beyond our borders. The 2014 Farm Bill made critical investments to strengthen the organic sector, including modernization and technology upgrades and organic data collections to support new risk management tools for organic farmers.

According to the Agricultural Marketing Service's National Organic Program, the American organic industry has grown by nearly $20 billion since 2008. The number of certified organic producers attempting to keep up with rampant demand has increased nearly 300 percent since 2002.[4] Despite this incredible growth, funding for the USDA's primary organic research program, the Organic Agriculture Research and Extension Program (OREI) has held steady around $20 million annually since 2008. In addition, the Organic Transitions Program (ORG) has remained at $4 million annually since 2008.[5]

The critical initial funding we received at UPREC through the Agriculture and Food Research Initiative is essential to the work I do

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[3] Organic Trade Association. "2016 State of Organic Industry Fact Sheet." 2016. https://ota.com/sites/default/files/indexed_files/OTA_StateofIndustry_2016.pdf.

[4] U.S. Department of Agriculture. "USDA Reports Record Growth In U.S. Organic Producers." *Release No. 0084.16*. Washington D.C., April 4, 2016.

[5] Schonbeck, Mark, Diana Jerkins, and Joanna Ory. *Taking Stock: Analyzing and Reporting Organic Research Investments, 2002-2014*. Organic Farming Research Foundation, 2016.

every day. Simply put, I could not help growers without this support. However, less than 0.2% of AFRI funding, USDA's premier competitive grant research program, currently goes toward organic research.[6] Agricultural research is essential for continued growth and success in the organic sector. Every $1 invested in public agricultural research generates $10-$20 in domestic economic activity.[5] **We cannot lose this opportunity to help our farmers.**

Since 2002, the USDA has provided a total of approximately $180 million in organic research programs.[6] While this is a small percentage of total agricultural research funding, the results of this funding are widespread and big impact. Organic research has resulted in improved production practices related to soil health, water quality and nutrient management practices used by both organic and conventional producers. With additional funding, this research could continue to shape and improve agricultural practices around the country, yielding healthier soils, crops, and farmers.

In addition to research support, funding through the Farm Bill has made it possible for growers in the Upper Peninsula, including The North Farm, to certify their farms. The Organic Cost Share Program has been critical in lessening the financial burden of certification and inspection fees for small farms. While many growers have ethical, environmental, and market drivers for certification, the financial commitment can often be overwhelming when producing on a small scale. The cost share dollars have provided an incentive for many of these growers to pursue certification.

I am fortunate enough to work every day with individuals invested in the local, regional, and organic food systems in the Upper Peninsula. These growers and industry professionals are dedicated to promoting and sustaining a vibrant local economy through the production, sale, and consumption of sustainably produced foods. With increased and sustained support in the next Farm Bill, the local/regional and organic food sectors can continue leading the agricultural industry and ensure a prosperous future.

As both a certified organic producer and a professional in the industry, I urge Congress to support organic agriculture by significantly increasing funding of OREI and ORG in the next Farm Bill, and through encouraging the Agriculture Food and Research Initiative to address the needs of the organic sector.

Again, thank you for the opportunity to testify today and I look forward to your questions.

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[6] "USDA Fact Sheet. Release No. 0031.16." February 3, 2016. https://www.usda.gov/media/press-releases/2016/02/03/fact-sheet-presidents-fy2017-budget-invest-700-million-usdas.

Chairman Roberts and Senator Stabenow, thank you for inviting me to testify. I appreciate the opportunity to tell you about my story and how the Supplemental Nutrition Assistance Program or SNAP has helped my family.

My name is Faith Watson. I'm from Greenville, Michigan, a rural community of about 9,000 people located in western Michigan. Honestly, I never thought that I would be in a position to be testifying about my experience as a SNAP participant. I have a bachelor's degree from Cornerstone University. I'm an adventurous go-getter. I have always cared about other people and have tried to give back to my community through service and through my church. I worked hard throughout my twenties -- first at a news radio program in Grand Rapids and then a variety of jobs as I moved around the country with my husband. Even when I took a job at a Starbucks in a new town, I quickly worked my way up to a shift manager. But, life doesn't always work out as you expect.

Almost two years ago, I found myself separated from my husband and I became the sole caregiver to and wage earner for my two young children. I had been a stay at home mom for several years and was completely unprepared for this unexpected change in our lives. All at once, I had to find work and sort out how I would manage to raise two small children on my own.

I found a part-time sales position at a large retail chain. It was only minimum wage, but it was a job that helped me get back on my feet. I also applied for help at the local Department of Health and Human Services. I was approved and qualified for about $300 a month in SNAP benefits. It was a huge weight off my mind to get that help. Because of SNAP, I knew I could put food on the table and still pay my other bills. It also meant that I could afford to give my kids some special treats, like their favorite squeezable yogurt snack. Eating healthy foods has always been important, and SNAP just made that easier to do.

Each day moves us forward. Today things look very different for us. It's still hard to juggle it all, but we are much better. I have a part time position as a communications coordinator at a local civic organization, which is the field my degree is in! I also do some temporary work for my church. I volunteer at my son's school and my daughter's pre-school. And, I am slowly but steadily growing a home business as part of a health and wellness direct sales company. Because I'm earning more, my SNAP benefit is now about $120 a month. It still makes a big difference in our family budget. Knowing that I have this help lets me create an environment for my kids where they are safe, secure, and thriving.

SNAP's benefit to my family has been about more than just groceries. This

little bit of security lets me think forward to the future. I don't plan to be in this situation forever. And, I don't know how long it will take me to get out of this, but it's something I think about every day. My goal is to be in a place where I'm financially independent, to provide for my kids without needing help, and to be in a place where I can give back to my community both financially and with my time. SNAP has helped me take steps toward that goal of a different kind of future.

I know that I'm not the only one who is struggling to make ends meet. My county has one of the highest poverty rates in Michigan. I see many single moms working several part-time jobs and barely making it. I'm always quick to encourage them to apply for SNAP to help them get by and care for their kids.

There is definitely a lot of good the program does, but there is stigma about those who depend on SNAP benefits. There seems to be a pervasive stereotype about what kind of person uses SNAP – they're lazy, don't care, don't work. But that's just not me and it's not the people that I know who have needed government assistance. We are hard workers who want a different future.

Of course, the program is not perfect. The application process and eligibility redetermination are tedious and highly involved, with all the paperwork taking a lot of time to gather and submit. The state needs so much proof of

everything that's going on in my life to calculate my benefits--from employer statements, to child care expenses, paystubs, bank info, utility bills, and more! The state's website technology also leaves much to be desired, repeatedly crashes in the middle of entering required information, is not user friendly, and often fails to deliver uploaded documents. Hopefully this will get better over time.

Reducing paperwork would be something participants and case workers would likely both agree could improve the process. Another improvement could be to avoid reducing SNAP benefits immediately after a participant reports an increase in their income, which seems more like a punishment for working more and trying hard to get ahead. Instead, allowing a short window of time of stable benefits, which could potentially help participants get back on their feet faster.

I hope that sharing my experience helps you appreciate the importance of this program to families like mine that really do need help, and that my story can help inform your work on writing next year's Farm Bill. Please know that for many of us, it's a lifeline that we didn't know we would need, and it provides stepping stones that are a key to future success. Thank you for providing the benefit. It's made a huge difference to my family.

I welcome any questions that you might have. Thank you for your time.

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Statement of the American Soybean Association to the Senate Agriculture Committee Farm Bill Field Hearing

"Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan"

May 6, 2017

Chairman Roberts, Ranking Member Stabenow, and Members of the Committee: Thank you for holding this hearing and for the opportunity for me and others in the Michigan agricultural industry to provide our input. My name is David Williams and on behalf of the Michigan Soybean Association and the American Soybean Association, I am pleased to provide this testimony with our perspectives on Farm Bill programs and their role in the economy of Michigan, rural communities, and the nation as a whole.

I serve as the President of the Michigan Soybean Association. Our original farm of 160 acres is over 150 years old, founded by my great-great grandfather who emigrated from Devonshire, England. I'm the fifth generation in my family to farm the land. My nephew, who also is my business partner, and I operate and manage W Farms LLC which is over 3500 acres where we grow soybeans, corn and soft red winter wheat.

Much of the focus of the farm bill discussion has been and will be on the importance of the income safety net provided by Title 1 programs and the risk management tools made available through crop insurance. This is appropriate, and soybean producers stated their positions on these issues clearly at your Committee's previous hearing in March in Manhattan, Kansas. Rather than repeat these positions today, I will discuss our interest in and support for other Farm Bill priorities, including conservation and biobased programs.

Before I do, however, I would like to compliment your leadership in developing and preserving perhaps the most important principle in farm policy: the separation of farm program payments from crops planted in the same year, known as "decoupling." Chairman Roberts, you established this principle in the 1996 Farm Bill, or "Freedom to Farm," and it remains the reason why producers make their planting decisions based on market demand rather than on prospects for receiving government payments. This has fueled the significant rise in U.S. farm income and exports over the last 20 years. Ranking Member Stabenow, you played an indispensable role in defending decoupling in the 2014 Farm Bill. We hope your bipartisan support for this important farm policy principle continues as the Committee continues its work on the next version of farm legislation.

Turning to Title II, the Committee knows well that conservation programs have been critical to the great strides American farmers have made in land conservation and sustainability, even in my lifetime.

The 2016 Field to Market national indicators report provides insight into how much change has occurred.[1] Their analysis of sustainability metrics for soybeans between 1980 and 2015 shows that during the 35-year time period:

1. Soil conservation improved 47 percent
2. Irrigation water use improved, even as irrigated soybean acreage increased from 4 percent to 9 percent
3. Energy use decreased 35 percent, and
4. Greenhouse gas emissions also improved over the study period. Like with energy use, emission increases associated with crop chemicals and irrigation has been offset by reduced energy use and associated emissions from fewer tillage operations.

Yet there is more work to be done, which we know because demand for conservation program enrollment outstrips the supply of dollars for every program, every year.
ASA strongly supports working lands conservation programs like the **Conservation Stewardship Program (CSP) and Environmental Quality Incentives Program (EQIP).** I have personal experience with both and can attest that these programs give farmers the chance to try out new practices and ultimately adopt those that work for our farms on a long-term basis.

Through CSP, let me highlight how that program has helped me to begin adoption of cover crops. When I renewed my CSP contract, I agreed to seed cover crops. I tried oilseed radishes and oats as one combination, and also tried peas. Last winter I seeded cereal rye. I have seen first-hand that cover crops prevent soil erosion, improve water quality by reducing drainage rates, and increase soil fertility by providing habitat for soil microbial action.

CSP also led me to begin stalk nitrate testing. Nitrogen use is one of the most difficult decisions on our corn acres. We know that the key to improving nitrogen management over time is having reliable feedback on how well nitrogen management is working. Stalk nitrate testing provides a good assessment of whether the crop had the right amount of nitrogen, too much or too little. Through testing, I have been able to determine that our variable rate nitrogen program has been providing the most efficient usage of nitrogen to our corn crop.

Under EQIP, the cost-sharing helped us build a chemical and fertilizer containment facility in order to comply with Michigan state water regulations. This is a good example of how leveraging private investment with farm bill dollars leads to improved water quality for everyone.

Much of the discussion in farm policy circles right now centers on whether **Conservation Reserve Program (CRP)** acres should be increased and, if so, by how much? And should the parameters of the CRP program be changed by Congress? ASA voting

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[1] Environmental and Socioeconomic Indicators for Measuring Outcomes of On-Farm Agricultural Production in the United States, Third Edition. (December 2016). Retrieved from http://fieldtomarket.org/media/2016/12/Field-to-Market_2016-National-Indicators-Report.pdf

delegates supported a new resolution at this year's Commodity Classic to increase CRP acreage, though we did not take a position on how much, what kind, or how to pay for it.

I would also like to take this opportunity to highlight the importance and benefits of the Farm Bill Energy Title programs in supporting the emerging bioeconomy and agriculture's role and opportunities in these markets.

The USDA economic impact analysis updated in 2016 showed that the U.S. biobased products sector supported 4.2 million jobs, $127 billion in direct sales, and provided $393 billion in total value to the U.S. economy.[2] Market research reports also indicate tremendous future growth opportunities for biobased chemicals and products.

The U.S. soybean industry and the Michigan soybean industry have made significant investments into research, product development, and promotion of biobased products. The soybean industry continues to partner with companies and invest resources into biobased product development. Many of the biobased economic benefits and growth opportunities are evident here in Michigan.

Michigan is a leader in the world bioeconomy thanks to a long history of innovation by companies like Ford and Lear and their collaboration with U.S. soybean growers through their investments in research and promotion to build soybean demand through new industrial uses. Every Ford car made in North America now contains soy in its seat cushions. Michigan also benefits from the sales of our soy, including high-oleic soybean oil, purchased by biobased manufacturers in other states. Additional soy-biobased product uses are under development to expand future uses of Michigan soy in our state and around the world.

I would add that the state of Michigan enacted procurement preference legislation last year that is modeled on the Biobased Market Program established under the Farm Bill and administered by USDA. USDA has identified 97 categories of biobased products, ranging from engine oils to carpet and cleaning supplies, and these products are referenced to receive state procurement preference under Michigan's legislation. Pictured Rocks National Lakeshore in Michigan was an early adopter of soy-biobased products and has set an award-winning example to other state and federal agencies on the performance and environmental benefits of biobased products.

The various Farm Bill Energy Title programs support different aspects of the bioeconomy chain, including advanced biofuels, bioenergy from farms and forests, and biobased chemicals and products. We appreciate the support of the Senate Agriculture Committee, and particularly Sen. Stabenow for your leadership, for the Energy Title in previous farm bills. There are three Energy Title programs in particular in which soybean producers have a strong interest: the Biobased Market Program, the Bioenergy Program for Advanced Biofuels, and the Biodiesel Fuel Education Program.

The Biobased Market Program, established and expanded in previous farm bills, encompasses the federal biobased procurement program and biobased products labeling program. This is an effective and important program that uses the federal government's purchasing power to pull products into the market and encourages investment and development of biobased products.

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[2] An Economic Impact Analysis of the U.S. Biobased Products Industry. (2016). Retrieved from https://www.biopreferred.gov/BPResources/files/BiobasedProductsEconomicAnalysis2016.pdf

ASA supports increased mandatory funding in the next farm bill to expand implementation of the Biobased Market Program and further promote biobased markets.

The Bioenergy Program for Advanced Biofuels plays a beneficial role supporting domestic producers of advanced biofuels and bioenergy derived from dairy farms and forest products. The direct support provided through this program is a bridge to market viability and helps producers preserve investments and jobs when facing market fluctuations and other challenges.

Many of the biodiesel production facilities in the U.S. are located in rural areas. Approximately half of the annual biodiesel production is from soybean oil and all of the feedstocks used to produce biodiesel are surplus co-products, by-products, and waste products that are grown or originate in rural areas.

The Biodiesel Education Program plays a vital role in helping expand marketplace acceptance and use of biodiesel. It supports technical outreach efforts to engine manufacturers, truckers, and fuel marketers. This translates into increased use, higher production, more jobs, and more economic value, especially in rural communities. Specifically, the biodiesel education program had a large part to play in building automakers trust in, and support for, biodiesel blends and growing the number of terminals, distributors, and retail outlets carrying biodiesel. ASA urges the continuation of this modest program that has achieved great success in expanding biodiesel acceptance and availability.

ASA recognizes that these Energy Title programs do not have budget baselines going forward, which increases the challenge to extend these programs and build on the benefits they have provided. However, these programs remain priorities for ASA and we believe that their relatively low cost and the benefits they provide warrant their continuation with an increased level of mandatory funding.

We appreciate the Committee holding this hearing in Michigan and providing the opportunity for soybean farmers to have input. We look forward to working with you on the development of a farm bill that maintains the income safety net for farmers and continues important Conservation and Energy Title programs.

DOCUMENTS SUBMITTED FOR THE RECORD

MAY 6, 2017

United States Department of Agriculture

Agricultural Marketing Service

Fruit and Vegetable Programs

Fresh Products Branch

Good Agricultural Practices and Good Handling Practices Audit Verification Program

User's Guide

April 2011

Audit User's Guide for GAP & GHP

This User's Guide is specifically developed and designed by the United States Department of Agriculture, Agricultural Marketing Service, Fresh Products Branch to provide information about the USDA Good Agricultural Practices & Good Handling Practices (GAP&GHP) Audit Verification Program.

This User's Guide does not establish any substantial rule not legally authorized by official Branch Policy.

Questions about this User's Guide can be directed to the Fresh Products Branch's Audit Management Section in Washington DC.

April 2011

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GENERAL INFORMATION

This User's Guide is intended to provide guidance to the fresh fruit and vegetable industry on the requirements of the USDA Good Agricultural Practices and Good Handling Practices Audit Verification Program (GAP&GHP) and prepare for a successful audit. This Guide does not address every specific question on the USDA GAP&GHP audit checklist, but covers all the major topic areas of the audit.

USDA AMS and state departments of agriculture who work with USDA AMS through cooperative agreements also conduct commodity specific audits for the leafy greens, tomato and mushroom industries. These audits fall under the general guidelines of the USDA GAP&GHP program. Each commodity specific audit has its own set of specific requirements and audit checklists. Please refer to the USDA GAP&GHP website at www.ams.usda.gov\gapghp for links to these commodity specific audit programs.

BACKGROUND

In October 1998, the U.S. Food and Drug Administration (FDA) issued a guidance document for the fresh fruit and vegetable industry which provided general guidelines for reducing the risk of contamination of fresh produce by microbial organisms. The document, *"Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables,"* (The FDA Guide) provides information about high risk areas for contamination and how to avoid or minimize such contamination. Shortly after the release of The FDA Guide, many wholesale and foodservice buyers of fresh fruits and vegetables began requiring their suppliers to undergo 3rd party audits which provided assurances they were following good agricultural practices (GAP) and good handling practices (GHP).

In response to numerous requests from the fruit and vegetable industry, the USDA Agricultural Marketing Service (AMS) in cooperation with the Association of Fruit and Vegetable Inspection and Standardization Agencies (AFVISA) developed an audit based program to verify conformance to The FDA Guide. In August 2001, USDA AMS approved and conducted a pilot project for the GAP&GHP audit, and in January 2002, USDA AMS formally implemented the USDA Good Agricultural Practices & Good Handling Practices (GAP&GHP) audit verification program. It is offered to the fruit and vegetable industry and assesses an operation's efforts to minimize the risk of contamination of fresh fruits, vegetables and nuts by microbial pathogens. The program does not guarantee the product is free from microbial contamination, but verifies the participant has taken proactive measures to reduce the risk of contamination by adhering to generally recognized best practices. The responsibility for product safety and the continued observance of best practices rests with the operation producing and handling the fresh product.

Additional information and a copy of the current checklist can be found at www.ams.usda.gov/gapghp.

The USDA GAP&GHP audit verification program is a voluntary, user fee funded program. The USDA Agricultural Marketing Service operates under the Agricultural Marketing Act of 1946 [7 U.S.C. 1621], and offers voluntary, user fee funded programs which assists in the strategic marketing of agricultural commodities. The U.S. Food and Drug Administration is the federal agency with regulatory authority for fresh fruits and vegetables.

AUDITORS

All auditors used to perform the USDA GAP&GHP audit are either federal employees of USDA AMS, or state department of agriculture employees who are specifically trained and licensed to perform audits on behalf of USDA AMS. Most auditors are fruit and vegetable inspectors who inspect and grade produce on a daily basis as well as perform audits.

USDA AMS sets the minimum criteria for all AMS personnel used to conduct audits. The following bullets highlight the auditor requirements for the GAP&GHP program:

- Auditors must have a minimum of three years work experience in the area of fruit and vegetable production, handling or marketing; or a Bachelors Degree in an agricultural related field; or a combination of work experience and education.
- Auditors must demonstrate knowledge of the production, handling, distribution and marketing of fresh fruits and vegetables.
- Auditors must undergo formal classroom training as well as on the job training.
- Auditors are evaluated by program management before being licensed as an auditor.
- Auditors must take yearly refresher training specific to the audit program they are licensed.
- Auditors must take yearly ethics training.
- Auditors must complete 80 hours of continual professional development every three years.
- Auditors are evaluated on a yearly basis.

USDA licensed auditors provide impartial, prompt third party services to the fruit and vegetable industry and have no financial interest in the products and services they are auditing. In order to remain impartial, auditors are prohibited from providing specific recommendations to operations on the development of their food safety plan or actions which need to be taken by the operation in order to be compliant with the USDA GAP&GHP program requirements. Auditors may answer general inquiries and refer inquiries to food safety experts such as cooperative extension specialists.

DEVELOPMENT OF A FOOD SAFETY PROGRAM

The development of a food safety program is recommended for any operation which produces or handles fresh fruits and vegetables, not just for operations who wish to participate in the USDA GAP&GHP audit verification program.

A food safety plan is a written document that covers all aspects of the growing and handling processes, and evaluates the potential sources of risk. The plan indicates what steps and procedures the operation will take to reduce the risks of contamination by chemical, physical, or microbial hazards.

To assist operations in the development of a food safety plan the FDA and the fruit and vegetable industry have developed commodity specific guidance documents which outline the best practices of the specific commodity. The FDA has released four commodity specific guidance documents for leafy greens, melons, tomatoes and fresh cut fruits and vegetables. Trade and commodity associations have developed their own set of guidance documents including watermelons, strawberries, mushrooms, leafy greens, tomatoes, and green onions. Other guidance documents are currently in development.

Many university Cooperative Extension programs across the country have developed templates or examples of produce specific food safety plans to assist their constituents develop food safety plans. Operations should contact their state Extension Service program or visit the National GAPs Program website for further information at http://www.gaps.cornell.edu.

For operations wishing to participate in the USDA GAP&GHP program, the first step in preparing for an audit should be the development and implementation of a food safety program. The produce food safety program should be written by the operation and shall define specific, measurable steps taken by the operation to reduce the risk of microbial, physical and chemical hazards from contaminating the product. A well-written plan will detail all aspects of the growing and handing processes and shall also outline the corrective actions the operation will take if it is suspected or known product has become contaminated. Typically the food safety program takes the form of a manual to facilitate the easy dissemination and recording of the operations food safety plan. The food safety plan needs to incorporate the USDA GAP&GHP audit verification program requirements and applicable policies. The following points are key items to consider:

- The operation must create a food safety program that accurately reflects their operation.
- The operation shall develop Standard Operating Procedures (SOPs) which outline the policies and procedures for the operation.
- The operation must designate a person that oversees the food safety program.
- The produce food safety program must be implemented and followed.
- The operation must determine what to document and keep records for. The operation must also keep all documents and records current.
- The operation shall document corrective actions taken which verifies adherence to their food safety plan.

PREPARING FOR AN AUDIT

For farming operations/packinghouses wishing to participate in the USDA GAP&GHP program, the operation should implement their produce food safety program

as close to the beginning of the growing season as possible. Starting early in the season allows the operation to make any necessary changes to their policies and procedures, as well as accumulate documents and records verifying their food safety program. Additionally, once the growing season starts, operations may not have the time and/or resources available to develop and implement a viable food safety program.

Wholesale distribution centers/terminal warehouses/commercial storage facilities may implement their food safety program at any point during the year. These operations should take into consideration the time it will take to accumulate documents and records verifying their food safety program before scheduling an audit.

INTERNAL AUDIT

Although not a requirement of the program, it is recommended that the operation conduct a self or internal audit prior to scheduling an official USDA audit. A self or internal audit allows the operation to find areas of improvement and take corrective actions before the actual audit. Some Cooperative Extension programs will work with their growers and assist in performing an internal audit of the operation.

Operations can utilize the USDA GAP&GHP audit checklist to perform the internal audit which is available on the USDA GAP&GHP website or by contacting the local inspection office.

DOCUMENTATION

An important component of any audit based program is the review of documents and records. Since the auditor is not at the operation on a daily basis, documents and records are necessary to verify policies and procedures are in place, and certain tasks have been completed throughout the year.

The operation shall keep records as necessary to document adherence to their food safety program, USDA GAP&GHP program requirements, and local, state and federal regulations. The operation's food safety plan shall address what documents and records shall be maintained and the policies and procedures for managing the documents.

For the purposes of the USDA GAP&GHP program, the audit checklist defines when documents are required and what type of documentation is necessary. These are defined in the last column of the audit checklist as a D, P, or an R. Operations may decide to keep additional documentation than is required by the USDA GAP&GHP program, but at a minimum, those questions on the audit checklist which are identified with a D, P or R require documentation.

D=Document

Any question designated with a D requires a combination of written standard operating procedures outlining company policies and procedures, records of actions taken, and/or other documents which may be necessary to support the food safety plan.

P=Policy

Any question designated with a P requires a written policy or procedure to appear in the operation's food safety plan.

R=Records

Any question designated with a R requires a record which shows a process has been completed or record an action taken.

SCHEDULING AN AUDIT

An operation shall initiate the scheduling of the audit at least two weeks in advance of their anticipated audit date by contacting the local USDA inspection office. The USDA does not automatically contact operations who have participated in previous years to schedule its yearly announced audit. It is the operation's responsibility to schedule the audit.

A list of USDA inspection offices is available on the USDA GAP&GHP website or by calling the Fresh Products Branch at 800-560-7956, Extension 5. In addition, audits may be requested using the FV-237A form, located in the appendix of this User's Guide, and faxing to the local USDA inspection office. When contacting the local inspection office, be prepared with a list of anticipated dates the operation is available for an audit. All services are offered on a first come, first served basis. Once an auditor is assigned, he/she will contact you to make arrangements for the audit. Be prepared to provide the auditor with a point of contact, the contact's information, physical location/address of the audit site and other information necessary for the audit. If the operation has a large non-English speaking workforce, the auditor may ask the operation to provide a translator in order to communicate with the workers during the audit if he/she does not speak the language of the workforce.

PARTICIPATION AGREEMENT

The auditor will provide the operation with USDA form FV-651, the Participation Agreement. An example of the FV-651 form is in the appendix of this guide. The Participation Agreement outlines the expectations of the operation and the USDA in performing the GAP&GHP audit. Form FV-651 must be signed by a management representative of the operation and submitted to the auditor prior to the start of any audit. Without the form, no audit services can be provided.

THE AUDIT

The actual audit is broken down into four main areas:

- Opening Meeting - The lead auditor introduces the audit team, communicates the agenda of the audit, answers questions from the auditee, and explains the audit process so everyone knows what to expect during the audit.
- Conducting the audit - The audit team will review documents and records, interview employees, witness processes and observe the operation to determine compliance to the operations food safety plan and the USDA GAP&GHP program requirements.
- Team Caucus - After the audit team has finished evaluating the operation, the team will meet and discuss any findings, address any concerns among the team members, and finalize the audit.
- Closing Meeting - The lead auditor will meet with the operation's representatives and review the findings of the audit. The audit team will also answer any questions from the auditee and explain any observations.

There are distinct types of audits which may be applicable to the operation during the year; the initial audit, the follow-up audit and the unannounced verification visit.

INITIAL AUDIT

The initial audit is the annual announced audit that verifies the farm/facilities compliance with the requirements of the USDA GAP&GHP audit verification program. A USDA GAP&GHP audit is valid for one year from the date of the initial audit.

FOLLOW-UP AUDIT

A follow-up audit is performed when either the farm/facility's initial audit or unannounced verification visit does not meet the program requirements. If an operation does not meet program requirements, the auditor will create a corrective action report and the operation must address the non-conformities prior to the scheduling of a follow-up audit. For specific instructions, refer to the non-conformity and corrective policy section.

- If the operation fails to meet program requirements due to an "automatic unsatisfactory" condition, the follow-up audit must consist of all scopes originally requested on the initial audit.
- If the operation fails to meet program requirements because of a low score for one or more scopes, only those scopes which failed and the General Section must be completed on the follow-up audit.

UNANNOUNCED VERIFICATION VISIT

An important component of the USDA GAP&GHP audit is the use of unannounced verification visits. Unannounced verification visits are conducted at some point during the season after the operation has successfully passed an initial or follow-up audit. It is used to verify that a farm/facility is in consistent conformance with the requirements of its food safety plan and the USDA GAP&GHP program requirements.

The unannounced verification visit differs from the initial audit in that the auditee does not know specifically when the auditor will be on site to perform the audit. The unannounced review will generally verify conformance through observation but may also require a further review of documentation.

USDA policy sets the following conditions for when and how many unannounced verification visits shall be conducted:

Part 1- Farm Review

For operation which only grow one commodity in a production area during a growing season such perennial crops, potatoes, onions, etc., no unannounced verification visits for the production area are required.* For those operations that grow multiple commodities during the growing season using the same crop production area, unannounced verification visits of the farm are required.

Parts 2 through 6 of the GAP&GHP audit

- For an operation which is in operation for 30 days or less, no unannounced verification visits are required.*
- For an operation which is in operation for 31-90 days, a minimum of one unannounced verification visit shall be conducted.*
- For an operation which is in operation for 90 days or more, a minimum of two unannounced verification visits shall be conducted.*

*Note In all cases, the USDA reserves the right to conduct additional unannounced verification visits if there is specific reason to suspect the operation is not in compliance with the GAP&GHP program requirements or their own food safety program.

PEFORMING AN AUDIT FOR A DIVERSIFIED FARMING OPERATION

It is not a requirement to perform a separate audit for every separate commodity grown on the farm, however operations may choose to do so if they so desire. USDA AMS policy allows diversified farming operations to cover all the commodities grown on the farm under the same audit subject to the following conditions:

- All commodities covered by the audit must be declared during the initial audit and cannot be added later in the season. The food safety plan must address the various risks associated with all the commodities being audited. For instance if a berry grower hand picks strawberries but mechanically harvests blueberries, the food safety plan shall address the potential risks and corrective actions associated with each of these activities.
- The auditor must have the opportunity to observe the crop(s) being grown and harvested during the initial audit or subsequent unannounced verification visits. As an example, if the operation schedules an audit for August 1st, any crops which have been completely harvested prior to August 1st cannot be listed on the

audit. The auditor may not actually witness every commodity listed being harvested, but needs to have to opportunity to observe.

- Operation would be subject to the appropriate number of unannounced verification visits determined by the length of the growing season for all the commodities produced.

The following is an example of how performing a GAP&GHP audit for a diversified operation would work. ABC Fruit and Vegetable Growers Inc. produces a wide variety of fruits and vegetable including asparagus, strawberries, sweet peas, tomatoes, peppers, peaches, nectarines, apples, pears, potatoes, broccoli and cauliflower and wants a USDA GAP&GHP audit. The operation is in production from the start of the growing season on April 1st to approximately October 31st.

- ABC Fruit and Vegetable Growers Inc would call and schedule their initial audit when the spring crops (asparagus, strawberries and sweet peas) are being harvested. However, they would declare all twelve of the commodities grown when scheduling the audit.
- The auditor would perform the initial audit and cover the General Section and Part 1 Farm Review of the entire farming operation. The auditor would also perform Part 2 Field Harvesting and Field Packing Activities on the asparagus, strawberries and sweet peas. In addition because the operation is in production for more than 90 days, the auditor would inform the operation there will be two unannounced verification visits sometime during the rest of the growing season. The auditor would then schedule the first unannounced visit to coincide with the harvest of the tomatoes, peppers, and stone fruit, and the second unannounced visit to coincide with the harvest of the remaining commodities.

NON-CONFORMITY AND CORRECTIVE ACTION POLICY

A Corrective Action Report (CAR) is required for any GAP&GHP audit which fails due to non-conformities from a specific "automatic unsatisfactory" or because a particular scope fails to meet the minimum program requirements.

The auditor will document the non-conformity(s) observed during the audit on the CAR form and submit it with the audit report at the closing meeting. If the operation wishes to continue in the GAP&GHP program, it must review the non-conformity(s) listed on the Corrective Action Report form and develop a plan to fix or address them. Corrective actions are typically taken in two steps, a short term corrective action and a long term corrective action (sometimes referred to as a root cause analysis). Short term corrective actions are taken to immediately address a deficiency. For example, if an auditor observes a restroom without any soap, toilet paper and paper towels, the operation's short term corrective action is to stock the restroom with the appropriate supplies. A root cause analysis reviews the deficiency if it occurs frequently or requires long term investment. In the example above, if the auditor investigated why the restrooms were always out of supplies and found their food safety program didn't designate someone to check the bathrooms on a regular basis and restock as needed.

Designating someone to handle the bathroom supplies would be a long term or root cause corrective action.

Once the operation has reviewed and developed a corrective action for the non-conformities listed on the audit, it will submit the corrective actions to the auditor for review. The auditor will review the corrective actions and sign off on the Corrective Action Report if he/she feels the corrective actions listed will reasonably address the non-conformity. Ultimately the corrective actions will be verified during a follow-up audit or unannounced verification visit.

AUDIT SCOPES

The USDA GAP&GHP audit is divided into seven sections or scopes, each which covers a specific portion of the supply chain. The scopes of the audit are:

- General Questions
- Part 1 – Farm Review
- Part 2 – Field Harvesting & Field Packing Activities
- Part 3 – House Packing Facility
- Part 4 – Storage & Transportation
- Part 5 – (No Longer Used)
- Part 6 – Wholesale Distribution Center/Terminal Warehouse
- Part 7 – Preventative Food Defense Procedures

USDA considers a good agricultural practices audit to consist of Part 1 Farm Review and Part 2 Field Harvest & Field Packing Activities and a good handling practices audit to consist of Part 3 House Packing Facility and Part 4 Storage & Transportation for pre farm gate operations or Part 6 Wholesale Distribution Center/Terminal Warehouse for post farm-gate operations. Part 7 Preventative Food Defense Procedures is an optional scope for those operations which need verification of food defense.

The operation shall designate which scopes of the audit the auditor will perform when requesting the audit.

GENERAL QUESTIONS

The General Questions are a mandatory scope of every audit (except for a Part 7 Food Security only audit) and cover overarching food safety issues which are applicable to any audit. In order to successfully pass the USDA GAP&GHP audit, the operation must meet the requirements of the General Questions portion of the audit. The following sections outline the major topics covered by the General Questions.

FOOD SAFETY PLAN

USDA policy requires that an operation develop and implement a documented food safety program. The program must include a food safety manual which includes standard operating procedures (SOP's), and/or documentation which outline the operation's policies and work instructions for adhering to the food safety program. It may also contain information or references pertaining to self audits of the program or management reviews of the program. Other similar documentation may also be applicable and acceptable if it indicates that an established food safety program is in place.

In addition, it is required that the operation has identified a specific person(s) to implement and oversee the food safety program. The person(s) need to be formally identified in the food safety plan, organizational chart, or similar documentation.

TRACEABILITY

The food safety program shall include a documented traceability program. A traceability program in its simplest form is the ability to know where product was received from (one step back) and where product was sent to (one step forward). The operation needs to develop and implement policies and procedures for a traceability program. There are commercially available traceability programs for the produce industry which can assist operations in implementing a traceability program. For further guidance operations can contact their trade/commodity associations, state horticultural associations or county extension agent.

The Bioterrorism Act of 2002 requires certain handlers of foods to keep records which allow the handler to keep track of produce "one step forward" and "one step back" within the food chain. For producers, keeping records and uniquely identifying product moving out of the field to its next destination (packing house, storage cellars, end user, etc.) is an important component of a traceability program. For product moving in bulk from the field to a packing house or storage facility, records such as load tickets, field harvest records that move with the load or other similar records that identify where the product originated are examples of identification. For products that are field packed, the individual cartons or master containers should be clearly identified with the company information including company name and address and other identifying marks as outlined in the company's traceability program.

RECALL PROGRAM

A recall program is defined as the ability to pull product from the marketplace once it has left the operation's control. The operation needs to develop policies and procedures which allow it to recall product by working with their suppliers and customers to track the path the product takes from the farm to the consumer. A recall is a means to return marketed product to its origin or to remove it from the market place and have verifiable evidence that all product being recalled is accounted for. A "mock recall" is a practice exercise that is used to determine where product is shipped and whether or not it can be returned to the origin or removed from the marketing chain.

Operations must have some documented evidence of completing at least one mock recall prior to the audit. Documents must indicate the customers contacted, the amount of product remaining from the original shipment, and the disposition of product which could not be effectively recalled.

The following is an example of a mock recall:

- A packinghouse generated 5,000 cases of apples on January 15th from grower X lot 1234. The packinghouse labeled the apples with their name, address and a lot code of 11511.
- The 5,000 cases of apples were shipped to five different retailers, each receiving 1,000 cases.
- The packinghouse initiates a recall of lot 11511. The individual(s) responsible for performing the mock recall contacts the five retailers who received apples from lot 11511 and informs them they are performing a mock recall. The packinghouse forwards a form to each retailer asking to supply an accounting of the number of cartons from lot 11511 still in their possession and the number of cartons sold. The form will contain instructions on where to send the form when completed and the timeframe when it must be sent back. The recall plan should outline the timeframe required to complete the mock audit.
- The packinghouse summarizes the forms from the five retailers and determines the number of cartons still in the retailers control and the number that are not.

In the event of an actual recall, the operation shall develop a procedure on how they want the product being recalled to be handled. Does the operation want it returned? Will the operation allow the buyer to dispose of it and submit proof the product has been dumped?, etc. This needs to be communicated to the buyer so they can effectively manage their inventory as well.

WORKER HEALTH AND HYGIENE

One of the primary risks associated with fruits and vegetables is the potential introduction of pathogens through poor worker health and hygienic practices. The General Questions section of the USDA audit covers, in great detail, areas which need to be addressed regarding worker health and hygiene. In addition, other scopes of the audit address worker health and hygiene issues related to those scopes such as an operation's glove and jewelry policies, or location of portable sanitation units in the field.

The operation's food safety plan shall address worker health and hygiene issues and develop SOPs which address them. This should include a training program to educate workers on the operation's SOPs. A solid training program is an essential component of a food safety program. Examples of SOPs include:

- Ensuring potable water is available to all workers;
- Ensuring all workers and visitors to the location are required to follow proper sanitation and hygiene practices;
- Providing training on proper sanitation and hygiene practices to all staff;
- Verifying employees and visitors are following good hygiene/sanitation practices;

- Confirming employees are washing their hands before beginning or returning to work;
- Posting readily understandable signs that instruct employees to wash their hands before beginning or returning to work;
- Servicing and cleaning all toilet/restroom/field sanitation facilities; and
- Confining smoking and eating to designated areas separate from where product is handled.

The General Questions section also requires the operation to develop a blood and bodily fluid policy, and a policy which addresses workers who report to work with symptoms of forborne illness.

The USDA GAP&GHP audit requires that all sanitation facilities must be properly supplied with single use towels, toilet paper, and hand soap or anti-bacterial soap and potable water for hand washing. Hand sanitizers are not an acceptable substitute for hand washing and are not to be used as the sole method for hand cleaning. The number and placement of sanitation facilities must comply with all applicable local, state and federal regulations. At a minimum the Occupational Safety and Health Administration (OSHA) requires one bathroom per 20 employees.

PESTICIDE/CHEMICAL USE

The operation shall use all pesticides and other pre or post harvest materials in a manner consistent with prevailing regulations and the labeled instructions. This includes following state licensing requirements for pesticide applicators.

FARM REVIEW

The Farm Review scope of the USDA audit mainly addresses the crop production areas and adjacent lands, domestic and wild animals, as well as the inputs used to produce the crop such as water and soil amendments.

WATER USE

For the purposes of the USDA GAP&GHP program, water use is defined as either agricultural water used for irrigation, frost protection, fertigation, chemical application or other pre-harvest purposes, and post harvest water used on the product after it has been harvested. An example of post harvest water use is water used to wash the product, transport the product through the grading and packing line (dump tanks, flumes, etc.) or apply post harvest chemicals. Operations must have knowledge of the water quality used in order to determine whether or not the product is reasonably likely to become contaminated through the application of or submersion into water.

For agricultural water, the USDA GAP&GHP program requires the operation perform a water quality risk assessment to determine if the water quality is appropriate for the crop(s) it's being used on. The risk assessment should include the water quality, the type of irrigation method, and the crop being irrigated. The results of the risk

assessment shall be used to determine an action level where the operation determines water quality is not suitable for use without taking a corrective action. Water tests are required to be conducted on a scheduled frequency to verify water quality is meeting the operation's action threshold as outlined in their SOPs.

The USDA GAP&GHP program sets the following testing frequency:

- **Municipal water:** Test results are acquired from the local water authority annually or tested by the operation at least annually.
- **Well water:** Water is tested one time during the growing season. If fecal coliforms are present, the well is treated with a sanitizer to reduce pathogen levels and is retested. Wells are monitored to make sure casings are secure and well-maintained and that livestock and manure storage areas are excluded from the well recharge and pumping area.
- **Surface water:** Water is tested three (3) times during the growing season – first at planting, second at peak use, third at or near harvest.

There is not a national irrigation water standard which sets the minimum microbial levels allowable for irrigation water. However, there are many commodity specific guidelines available which give recommendations for water quality. These can serve as a reference source for an operation when determining specific thresholds for their irrigation water. For instance the CA & AZ Leafy Greens Marketing Agreements and the Food Safety Standard for the Tomato Supply Chain identify the microbial requirements of the EPA Recreational Water Standard as the threshold for irrigation water.

For post harvest water applications, the USDA GAP&GHP program requires that the water used meet the microbial requirements of the US EPA Drinking Water Standard. Any post harvest water use which does not meet this standard will result in an "automatic unsatisfactory" assessment on the audit.

SOIL AMENDMENTS

Animal manure and biosolids represent a significant source of potential contamination. However, properly treated manure or biosolids can be an effective and safe fertilizer. Raw animal manure or raw biosolids used as a fertilizer or enters water sources through runoff may contain pathogens of public health significance that can contaminate produce.

The operation shall conduct a risk assessment to determine if and when raw manure or biosolids are appropriate to use. The type of crop and growing conditions are all factors in the risk assessment. For example, raw manure applied to a newly planted orchard is less of a risk than raw manure applied to a vegetable crop grown on the ground. The USDA GAP&GHP Program requirements state that if raw manure is used, it must be applied at least 2 weeks prior to planting and a minimum of 120 days prior to harvest. There are also several commodity specific guidance documents which are more restrictive than the USDA GAP&GHP program and either do not allow the use of raw manure or have a one year restriction on the application of raw manure. Operations shall check to see what the commodity specific recommendations and

prevailing regulations are for their commodities regarding the use of manure and biosolids.

Animal manure or biosolids which are composted require a documented composting process be developed and available for review. If purchasing composed manure, has documentation from the composter listing the process used and test results showing the process effectively controlled the pathogens of concern should be maintained. If an operation has questions regarding proper composting procedures, contact the Cooperative Extension Service in your state. Most all Extension Services have developed proper composting procedures and have this type of information readily available.

ANIMALS/WILDLIFE/LIVESTOCK

Animals pose a potential source of contamination for fruit and vegetable crops. Domestic animals which can be controlled such as livestock or pets need to be excluded from entering crop production areas in order to reduce the potential for contamination. However, when farm service animals (horses, oxen, and mules) are used, an operation shall address potential sources of contamination through a risk assessment and documented SOP's to control hazards caused by these animals and remediation steps which will be taken if they cause contamination.

The USDA GAP&GHP program requires operations to monitor for the presence or signs of animals. Based on the results of the monitoring, if necessary take measures to reduce the opportunity for animals from entering the crop production areas. This does not mean total exclusion; farming operations are never going to be able to completely exclude wild animals from entering crop production areas. However, every effort should be made to limit the access to the production areas. When needed, measures should be taken to reduce the entry into crop production areas by wild animals. This can be accomplished many ways, including such items as noise cannons or scare balloons to scare away birds and migratory water fowl, or fencing /other barriers or deterrents which limit wildlife access.

Operations shall also consider any local, state or federal regulations when developing mitigation strategies for wild animals. Regulations may limit the options for controlling wild animals. Co-management strategies which balance food safety concerns with wildlife control and not just remove riparian areas, grass buffer strips and other conservation practices should also be considered. Operations can contact the local Natural Resources & Conservation Service or their local county extension agent for more information on co-management.

LAND USE & LAND USE HISTORY

The operation must consider the crop production areas and adjacent land use through a documented land use risk assessment. Any risks reasonably likely to cause chemical, physical or microbiological contamination of the produce which are identified by the risk assessment must be addressed and the crop production area tested to validate the hazard has been addressed. While adjacent lands may not be the property

of the operation, the effects they have on the crop production areas needs to be evaluated and mitigation strategies put in place to minimize the impact of the hazard on the ground. For example, if the adjacent ground is uphill houses a concentrated animal feeding operation, proactive steps to minimize the opportunity for runoff to flow through the crop production area must be taken.

Flooding which is caused by the overflow of a body of water shall be documented and if it occurs in season, an assessment is performed to determine if the flooding contaminated the product. The operation should consider testing the product and/or soils before harvesting if sources of contamination are located in the general vicinity of the crop production areas.

The land use risk assessment shall also consider the location of the operation's sewage treatment/septic system or nearby municipal/commercial sewage treatment facilities. The operation shall also verify their sewage treatment/septic system is functioning properly and does not lead to a contamination risk.

FIELD HARVEST & FIELD PACKING ACTIVITIES

The Field Harvest and Field Packing Activities section of the audit covers the harvesting of commodities in either the field or greenhouse operations. It also covers the packing of such commodities for shipment when it occurs directly in the field or greenhouse and is not sent to a packinghouse for further sorting or grading. The emphasis on this scope is the harvesting activities, and the containers and equipment which are used to pack the product. Employee health and hygiene are also an important component of field harvest and field packing and are covered in the General Questions section of the audit.

USDA policy only allows an auditor to perform this scope of the audit when commodities are actively being harvested and there is activity in the crop production area. It is not a requirement that the auditor observe every commodity listed on the audit being harvested, however the food safety plan shall address all the commodities being harvested, and the different risks associated with different harvesting methods. (i.e. mechanically harvested vs. hand harvested). Records for all commodities harvested are maintained for traceability.

PRE-HARVEST ASSESSMENT

The farm operation must have completed a pre-harvest assessment on each production area prior to harvesting any crop being certified by the audit. The assessment may include statements which address known risk that are applicable to the operation such as:

- Are toilet and wash facilities properly located?
- Is potable water available for workers?
- Are harvest containers available, clean, well located and protected?
- Is harvest equipment available and in good condition?

- Is there evidence of unauthorized entry in the crop area and if so, has it been investigated?
- Is there evidence of domestic or wild animal crop damage?
- Is there evidence of physical contamination in the crop area?
- Are fuel and chemicals which might contaminate crop areas isolated?
- If areas are contaminated are they isolated for "no-harvest"?
- Are there any other notable sources of biological or physical contamination such as dump sites, manure, burning debris, water that may affect food safety?
- Is transportation equipment clean and available?

The assessment may include other information as determined by the operation.

FIELD SANITATION UNITS

The number and placement of sanitation facilities must comply with all applicable local, state and federal regulations. Operations shall also have a documented emergency clean-up procedure in case contamination occurs. The procedure should include what will be done to contain the spill and to prevent additional contamination, what will be done to clean up the spill and what will be done with contaminated product.

HARVESTING CONTAINERS & EQUIPMENT

The farming operation shall keep harvest containers (picking buckets, baskets, bulk bins, etc.) as clean as practicable to prevent cross-contamination of fresh produce. These are some key areas to consider which are covered in the GAP&GHP audit:

- Harvest containers used repeatedly during a harvest should be cleaned on a scheduled basis as outlined in the food safety plan.
- If the farming operation stores harvest containers outside, proactive steps shall be taken to minimize harboring rodents and other pests in the harvesting containers.
- Harvesting containers stored outside should be cleaned and sanitized before being used to haul fresh produce.
- Operations shall also instruct workers to only use harvesting containers for their intended purpose, and not to use them for collecting trash or transporting personal items unless they are designated for that use.
- Final packing containers used in field pack operations shall be protected from sources of contamination.
- Only new or sanitized containers are used for packing the product.
- Operation shall repair or discard damaged harvesting containers.
- Harvesting equipment and machinery which comes in contact with the product is in good repair.

- Light bulbs and glass on harvesting equipment are protected and the operation has an SOP in place to address glass or plastic breakage on the equipment during harvest.

WATER USE

See the water use discussion in the Farm Review section.

TRANSPORTATION OF PRODUCE

Products that are transported in bulk from the field or from storage for further packing may be contaminated during this time. Steps should be taken to reduce the possible contamination by other vehicles on the roads, overhead contamination from overpasses, from birds or other means. Using tarps, enclosed trailers or other means to cover loads are examples of good practices. Products being moved in enclosed containers (boxes, cartons, etc.) would be considered covered if they are completely enclosed.

EMERGENCY CLEAN-UP PROCEDURES

The operation shall have a documented emergency clean-up procedure in the event accidental contamination occurs from glass/plastic breakage, chemicals, petroleum, or pesticides contaminating the crop. The procedure should include what will be done to contain the spill and to prevent additional contamination. As well as what will be done to clean it up and what will be done with contaminated product.

HOUSE PACKING FACILITY

This scope covers packinghouses located on or near crop production areas. This scope is not intended for repack operations or distribution operations which may custom pack product for retail or foodservice customers. These types of operations should use the Part 6 Wholesale Distribution Center/Terminal Warehouse section of the USDA GAP&GHP audit.

The main focuses of the House Packing Facility section of the audit are, water, the packing equipment, general housekeeping, worker health and personal hygiene, containers used for packing, and pest control. This scope of the audit can only be performed when the packinghouse is actively handling product. If the audit covers more than one commodity, it is not necessary to see every commodity being packed unless there are major differences in the packing process such as dry run product vs. product which uses a water flume, etc.

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WATER USE IN PACKING FACILITY

Source water used in the packing of fresh fruits and vegetables must meet the requirements of the EPA Drinking Water Standard. Also water used to make ice used in the packinghouse must meet these requirements.

Municipal water supplies are regulated by law and are required to meet these requirements. However well water and surface water is subject to various uncontrollable influences and may or may not meet these requirements. The operation must provide documentation verifying the source water meets the EPA Drinking Water Standard requirements.

For commodities which are susceptible to water infiltration such as product with a stem scar; special attention needs to be given to the water temperature in the dump tank and flumes vs. the temperature of the product. Research has shown that a susceptible commodity which is placed in water colder than the pulp temperature of the commodity have a greater chance of internalizing the water and thus carrying any contamination into the product. Operations should refer to commodity specific recommendations or their state extension food safety specialist for more information regarding water infiltration.

TREATMENT OF PROCESSING WATER

Water used during the post-harvest handling of fruits and vegetables often involves a high degree of water-to-produce contact, and if untreated, may serve as a source of contamination or cross-contamination. Re-use of processing water may result in the build-up of microbial loads, including undesirable pathogens. Operations shall consider practices which will ensure and maintain water quality. Such practices may include:

- Monitoring of sanitation chemicals used to prevent cross contamination (i.e. chlorine and pH).
- Perform periodic water sampling and microbial testing.
- Change water as necessary to maintain sanitary conditions.
- Consider developing SOPs (standard operating procedures or sanitary operating plans), including water change schedules.
- For all processes that use water: clean and sanitize water contact surfaces, such as dump tanks, flumes, wash tanks, and hydro coolers, as often as necessary to ensure appropriate water quality.
- Install backflow devices and legal air gaps, as needed, to prevent contamination of clean water with potentially contaminated water (such as between potable water fill lines and dump tank drain lines).
- Routinely inspect and maintain equipment designed to assist in maintaining water quality, such as chlorine injectors, filtration systems, and backflow devices, to ensure efficient operation.

SANITATION PROGRAM/GENERAL HOUSEKEEPING

Operations with poor sanitation in the packing environment may significantly increase the risk of contaminating fresh produce and water used on produce. Pathogenic microorganisms may be found on the floors and in the drains in the packing facility and on the surfaces of sorting, grading, and packing equipment. Any of these surfaces could be a potential source of microbial contamination.

Operations shall employ good sanitation practices as a standard operating procedure to maintain control throughout the packing operation. Packing areas should be cleaned minimally at the end of each day. As necessary, clean and sanitize the washing, grading, sorting, and the packing lines to reduce the potential for microbial contamination of fresh produce. The operation shall develop and implement a general sanitation schedule which addresses the cleaning and sanitizing of the packinghouse operation including:

- Food contact surfaces
- Pipes, ducts, fans, and ceilings which are over product flow zones
- Catwalks over food contact surfaces

Ice making facilities may be located on the site of the operation or may be contracted out and supplied by another operation. In either case, the facility must provide records that indicate there is a regular schedule to sanitize the ice production and storage facility and any means of transportation to reduce the microbial population. This would include augers, conveyors and shovels used to transport the ice from one part of the facility to another.

The operation shall use food grade approved lubricants in areas where lubricating agents may come into contact with produce.

The operation shall have a procedure which identifies how product that spilled or comes in contact with the floor is handled. Spilled product that comes in contact with the floor can become contaminated and should not be used without considering a corrective action such as washing /sanitizing or disposing of the product. Commodity specific guidelines offer recommendations regarding the handling of spilled product and should be incorporated into the operation's food safety program.

WORKER HEALTH AND HYGEINE

The questions in the General Section portion of the audit related to health and hygiene are applicable to the House Packing Facility section of the audit as well. In addition, the House Packing Facility has several questions related to worker health and hygiene which are specific to these types of operations.

The operation shall evaluate and develop a hair/beard net policy which is appropriate for the facility. Hair nets and beard nets are worn in order to keep stray hair from entering the food and food containers being packed. In addition, wearing of hairnets when the hair is very long reduces the risk of catching hair in machinery.

The operation shall evaluate and develop a jewelry policy. Jewelry can be both a physical safety and a food safety hazard. Jewelry may fall into the food item or the container or may get caught on machinery and injure the worker.

The operation shall state the hairnet and jewelry policy in the food safety plan even if the policy states that no hairnets or restrictions on jewelry are required.

CONTAINERS

Operations should develop policies and procedures outlining only the use of new or sanitized containers which are clean and in good condition when packing the product. Policies and procedures shall require pallets and packing containers are properly stored to reduce the risk of contamination from pests, rodents, dirt, water, etc. Operation shall outline a sanitation schedule for reusable plastic containers used to pack product.

PEST CONTROL

All packing and storage facilities shall establish a pest control program to reduce the risk of contamination by rodents and other animals, including pets. This program shall include regular and frequent monitoring to accurately assess the program's effectiveness. The pest control program can be either performed by an employee trained to perform pest control or a contracted pest control company.

The operation must maintain a pest control log which records inspection dates, inspection reports, and procedures implemented to eliminate pest infestations. If using a contracted company, they generally supply the records of activity. All traps and bait stations will be marked and flagged by numbers or some type of coding system and recorded on a map which shows the location of such bait stations and traps.

All bait stations containing poison attractants must be located outside the facility. Traps or other non-poison methods should be the only control program located within a structure.

STORAGE AND TRANSPORTATION

This scope covers storage and transportation facilities located on or near crop production areas. This would include storage and transportation areas co-located with a packinghouse or stand alone storage facilities used on or near farms such as potato storage sheds or controlled atmosphere facilities. This scope is not intended for repack operations or distribution operations which may custom pack product for retail or foodservice customers. These types of operations should use the Part 6 Wholesale Distribution Center/Terminal Warehouse section of the USDA GAP&GHP audit.

The topics of worker health and hygiene, water quality, general sanitation & housekeeping and pest control are addressed in the House Packing section of this User's Guide (pages 17-20) and are applicable to this section of the audit as well.

MECHANICAL EQUIPMENT

Any equipment used in the storage facility shall be clean and properly maintained to prevent leaking fluids that could potentially contaminate the product. Loose or broken parts must be repaired to prevent foreign objects from contaminating the product. Any equipment or portions of equipment that directly touches raw product must be maintained so as to not contaminate the product.

ICE AND REFRIGERATION

The operation shall use water which meets the EPA Drinking Water Standards when making ice used for cooling or which comes in contact with the product. Ice or cold water (hydro-cooling) is often used by some commodity packers to reduce product temperature. The operation shall provide records which verify the source water used to make ice meets these requirements, including any ice which is purchased from an outside vendor.

The operation shall develop and implement a procedure for monitoring climate controlled rooms for temperature and keeping a record of temperatures. Climate control systems must be working and thermometers used in cold storage areas and for determining product temperatures should be regularly checked for accuracy and operators must maintain records to validate this procedure.

TRANSPORTATION AND LOADING

The operation shall develop an SOP which outlines the procedures for inspecting transportation conveyances for cleanliness, odors, and debris before the loading with product. The SOP should also include policies for not loading produce with potentially contaminating products such as raw meat or chemicals and policies to ensure adequate transport temperatures and should develop a written policy for transporters and conveyances to maintain specified transit temperatures. Records documenting adherence to the SOPs shall be maintained.

WHOLESALE DISTRIBUTION CENTER/ TERMINAL WAREHOUSE

Even though the *"Guide to Minimize Microbial Food Safety Hazards for Fresh Fruit and Vegetables"* is typically applied to farming operations, it is applicable throughout the marketing chain. Organizations and personnel within the wholesale distribution chain are just as responsible for food safety as organizations and personnel at the farm level. Part 6 of the USDA GAP&GHP audit focuses specifically on the wholesale end of the food distribution chain, and utilizes many of the same principles applied to packinghouses and storage & transportation facilities.

RECEIVING

Operations shall develop a formally approved supplier program for all incoming products which includes verification the supplier has undergone a 3rd party GAP&GHP audit.

The operation shall develop an SOP which outlines the procedures to verify incoming conveyances are checked for cleanliness, objectionable odors, and other potentially contaminating factors prior to accepting a load. The SOP shall also address procedures for monitoring the temperature of incoming loads and verify they meet any temperature requirements specified on the bill of lading or other requirements. The operation shall also have a policy on how to handle loads which do not meet the temperature requirements.

SANITATION PROGRAM/GENERAL HOUSEKEEPING

Operations with poor sanitation in the packing environment may significantly increase the risk of contaminating fresh produce and water used on produce. Pathogenic microorganisms may be found on the floors and in the drains in the packing facility and on the surfaces of sorting, grading, and packing equipment. Without good sanitation practices, any of these surfaces could be a potential source of microbial contamination.

Operations shall employ good sanitation practices as a standard operating procedure to maintain control throughout the packing operation. Packing areas should be cleaned at the end of each day. As necessary, clean and sanitize the washing, grading, sorting, and the packing lines to reduce the potential for microbial contamination of fresh produce. The operation shall develop and implement a general sanitation schedule which addresses the cleaning and sanitizing of the packinghouse operation including:

- Food contact surfaces
- Pipes, ducts, fans, and ceilings which are over product flow zones
- Catwalks over food contact surfaces

Ice making facilities may be located on the site of the operation or may be contracted out and supplied by another operation. In either case, the facility must provide records that indicate there is a regular schedule to sanitize the ice production and storage facility as well as any means of transportation to reduce the microbial population. This would include augers, conveyors and shovels used to transport the ice from one part of the facility to another.

The operation shall use food grade approved lubricants in areas where lubricating agents may come into contact with produce.

The operation shall have a procedure which identifies how product that spilled or comes in contact with the floor is handled. Spilled product that comes in contact with the floor can become contaminated and should not be used without considering a corrective action such as washing/sanitizing or disposing of the product.

WATER USE IN PACKING FACILITY

Source water used in the packing of fresh fruits and vegetables must meet the requirements of the EPA Drinking Water Standard. Water used to make ice used in the packinghouse must also meet these requirements.

Municipal water supplies are regulated by law and are required to meet these requirements. However, well water and surface water is subject to various uncontrollable influences and may or may not meet these requirements. The operation must provide documentation verifying the source water meets the EPA Drinking Water Standard requirements.

For commodities which are susceptible to water infiltration such as produce with a stem scar, special attention needs to be given to the water temperature in the dump tank and flumes vs. the temperature of the product. Research has shown that a susceptible commodity which is placed in water colder than the pulp temperature of the commodity have a greater chance of internalizing the water and thus carrying any contamination into the product. Operations should refer to commodity specific recommendations or their state extension food safety specialist for more information regarding water infiltration.

TREATMENT OF PROCESSING WATER

If applicable to the facility the operation shall verify that water used for processing is treated and monitored including:

- Monitoring of sanitation chemicals used to prevent cross contamination (i.e. chlorine and pH).
- Perform periodic water sampling and microbial testing.
- Change water as necessary to maintain sanitary conditions.
- Consider developing SOPs (standard operating procedures or sanitary operating plans), including water change schedules.
- For all processes that use water: clean and sanitize water contact surfaces, such as dump tanks, flumes, wash tanks, and hydro coolers, as often as necessary to ensure the safety of produce.
- Install backflow devices and legal air gaps, as needed, to prevent contamination of clean water with potentially contaminated water (such as between potable water fill lines and dump tank drain lines).
- Routinely inspect and maintain equipment designed to assist in maintaining water quality, such as chlorine injectors, filtration systems, and backflow devices, to ensure efficient operation.

STORAGE FACILITY/TEMPERATURE CONTROL

The operation shall have procedures in place to verify the refrigeration systems are working properly and are monitoring the temperatures of climate controlled rooms. The operation must have temperature recording logs available for review. Thermometers used in cold storage areas and for determining product temperatures

should be regularly checked for accuracy and operators must maintain records to validate this procedure.

CONTAINERS

Operations should develop policies and procedures outlining only the use of new or sanitized containers which are clean and in good condition when packing the product. Policies and procedures shall require pallets and packing containers are properly stored to reduce the risk of contamination from pests, rodents, dirt, water, etc. Operation shall outline a sanitation schedule for reusable plastic containers used to pack product.

MECHANICAL EQUIPMENT

Any equipment used in the storage facility shall be clean and properly maintained to prevent leaking fluids that could potentially contaminate the product. Also loose or broken parts must be repaired to prevent foreign objects from contaminating the product. Any equipment or portions of equipment that directly touches raw product must be maintained so as to not contaminate the product.

PREVENTIVE FOOD DEFENSE PROCEDURES

This section of the USDA GAP&GHP audit covers an operations food defense program. Food Defense is the protection of the food supply by ***intentional contamination*** by biological, chemical, or physical means by an aggressor. In contrast, the previous sections of the USDA GAP&GHP audit dealt with food safety which is the protection of food products from ***unintentional*** contamination from biological, chemical, or physical means.

FOOD DEFENSE PLAN

The operation shall develop and implement a documented food defense plan. Similar to a food safety plan, a food defense plan includes a company Food Defense Manual, containing the company's published SOP's and/or documentation. It will also contain information or references pertaining to internal or self audits of the program. Other similar documentation may also be applicable and acceptable if it indicates that a formally established program is in place.

The Food Defense plan shall indicate that there is a person in the operation that has implemented and will oversee the food defense program.

PERSONNEL

Each company should designate a contact person who is responsible for overseeing the plan. This person should be the point of contact for employees to point out potential security problems or issues. This person can also designate another person (for example, a shift supervisor) who can be the contact person for employees.

Food defense training shall be provided for all employees and should cover potential threats and vulnerabilities of the food supply and how they apply to the produce industry. Training should include who employees should contact if they observe a potential food defense issue. Records showing training instructions and training documents that each employee has signed should be available.

The food security plan should address access procedures to identify who has admittance to sensitive areas of the facility. This includes verifying the identity of visitors to the facility and the purpose for the visit. Check in procedures can vary from a formal sign in/sign out procedure in enclosed facilities to visitors checking in with the owner/manager (or designated person) of a small operation.

The operation should determine if any staff should have limited access to certain areas of the operation. The food security plan should address those jobs and the details of how staff will be limited to areas of the operation that are related to their job function, and to general access areas (break rooms, locker rooms, etc.). This type of scenario usually applies to larger packing house facilities or wholesale warehouses. In the case of small operations that only have a limited number of employees who perform all functions, this may not apply. Limiting access to packing/storage areas by unauthorized personnel is one of the most important procedures that can be implemented to reduce the risk of intentional contamination.

Visitors should be accompanied by an employee. A facility may designate exceptions to this for frequent visitors to the facility such as USDA inspectors, health department inspectors, the pest control contractor, etc., provided a documented list of exempted people is maintained.

All vehicles should be subject to inspection to look for any obvious sources of contamination. Documentation that vehicles entering the facility are being searched or that vehicles are subject to search should be available for review.

A policy should be in place that prohibits workers from bringing personal items into the production, handling, or storage areas. This reduces the possibility of an insider from contaminating product. Many packing facilities will allow workers to bring water to the packing line. This is an acceptable practice as long as the water is supplied by the facility and is not brought from outside sources.

Employees should not be allowed to loiter around the grounds and facility after their work hours, especially in sensitive areas of the operation. A work schedule outlining employee's hours and area the employee is assigned to work should be available to all management.

FACILITY PROCEDURES

The Operation shall develop procedures for the following areas:

- Procedure for controlling all items which identify a person as an employee of the company and requiring those items to be returned to the company upon completion of employment. If an employee does not turn over these items, there

is a procedure in place for management/security to be notified that the employee is not allowed access to the facility.

- Policy or Procedure to limit access to the company's computer network so that sensitive information is only accessed by authorized personnel.
- Policy or procedure for verifying the employment eligibility of all new hires in accordance with the Immigration and Nationality Act. In addition, the operation should outline what level of background checks will be performed. This can be a procedure as simple as a reference check, or more detailed such as a credit check for financial personnel. Operations that employ farm workers through an outside contractor should stipulate in their contract that the contractor perform a minimum level of background checks as well.
- Procedure for scheduled checks of the operation. On a farm, critical areas such as the storage barns, pesticide storage areas, and any product storage areas should be checked routinely. For packing sheds and wholesale warehouses that have a more permanent structure, the entire facility should be routinely checked. Including development of a checklist to verify the points of entry into buildings, either on the farm or packing house/wholesale warehouse.

KEY/ENTRANCE ACCOUNTABILITY

There shall be an accountability log showing who is in possession of any keys to enter the facility. Lost keys are documented on the accountability log, and steps are taken if keys to sensitive areas such as chemical storage areas are reported lost or stolen. These steps may include changing the lock or adding additional security measures.

DELIVERIES

The operation shall develop a policy which outlines delivery schedules and the policy for rejecting loads. The policy should include a list of criteria for why the product doesn't meet specified requirements as well as food safety requirements such as evidence of container tampering, evidence of suspicious foreign objects, etc. The receiving department/facility shall never accept incoming product that is from an unknown source. All deliveries should be listed on the delivery schedule, and only deliveries from that schedule should be accepted. The policy should address returned product and outline the returned product should be inspected for obvious signs of tampering or intentional contamination.

SEPARATION OF PRODUCTS

USDA Commodity Procurement purchases require that all domestic products be segregated from any foreign product. Additionally, because foreign product has the potential to be targeted for intentional contamination and shipped to the United States, it should be kept segregated from domestic product.

ALLERGENS

Products that are known allergens, such as peanuts should be segregated for several reasons. First to avoid inadvertent cross contamination with other products, and secondly to minimize the potential for an insider to simply "reach across the aisle" and purposely contaminate other product stored in the same area.

USDA GAP&GHP PROGRAM AUDIT SCORING

The USDA GAP&GHP audit utilizes a scoring system. Each question is given a score of 5, 10 or 15 points and is weighted depending on the relative risk associated with the question. There are no partial points given for any question, each question is either given the total points assigned to the question or zero points.

The USDA GAP&GHP Program requirements state that a minimum of 80% must be scored on each scope of the audit conducted in order to "pass" the audit. In addition no "automatic unsatisfactory" conditions can be present.

AUTOMATIC UNSATISFACTORY CONDTION

In addition to the scoring guideline shown above, there are a set of overarching conditions, which if observed, will result in the issuance of an "automatic unsatisfactory" score on the audit. These conditions are:

- An immediate food safety risk is present when produce is grown, processed, packed or held under conditions that promote or cause the produce to become contaminated.
- The presence or evidence of rodents, an excessive amount of insects or other pests in the production area during packing, processing or storage.
- Observation of employee practices (personal or hygienic) that jeopardize or may jeopardize the safety of the produce.
- Falsification of records.
- Answering of Questions P1 or P2 as "NO".

Commodity specific audits performed by USDA auditors follow the same general guidelines as outlined above for automatic unsatisfactory conditions; however, they may refer to them in different terms such as "major deficiency" or "flagrant violation". Refer to the commodity specific audit programs for the policies regarding these conditions.

In addition, if an immediate food safety risk which results in product contamination, the auditor may be required to report the operation to the applicable state Public Health Agency or the Food and Drug Administration.

POST AUDIT ACTIVITIES

Once an operation has successfully met the requirements of the USDA GAP&GHP program, it will receive a USDA certificate and have their information listed on the USDA website. The certificate is good for one year from the date of the initial audit, and the operations information will remain on the USDA website for one year unless the operation fails an unannounced verification audit.

APPEALS, COMPLAINTS & DISPUTES

Operations have the ability to appeal, dispute or lodge a complaint if they so desire. Operations with issues regarding an audit or auditor(s), should refer to the following list for assistance with the process.

- APPEAL: A formal complaint contesting the results or findings of the audit brought before the Branch by applicants or other parties.
- COMPLAINT: Discontent or unhappiness about a situation, interpretation, or performance of an audit, auditor(s), and/or policy brought before the Branch by applicants or other parties.
- DISPUTE: Disagreement or argument about a situation, interpretation or performance of an audit, auditor(s), and/or policy brought before the Branch by applicants or other parties.

If an operation decides to appeal or dispute an audit, there are certain steps that must be followed. The formal request for an appeal must be in writing on company letterhead from the company or person requesting the appeal. Information included in the request should be the date of the audit, location (if different from corporate office), sections on the original audit being appealed, and the specific item(s) being under dispute. Appeals, complaints and Disputes must be submitted to the Fresh Products Branch within three calendar days from the date the audit was performed.

All GAP/GHP audit appeals are performed by the Audit Review Board (ARB), who meet as needed to review all GAP&GHP audit appeals. The ARB has the authority to sustain or reverse the appeal. The results of the appeal will be provided by the ARB to all parties in the appeal process within 14 calendar days. Copies of the appeal results become part of the audit record.

Complaints regarding auditors shall be directed to the auditor's supervisor. Complaints regarding Branch policies and procedures shall be directed to the Audit Management Section.

Additional Resources

Establishing, implementing, and maintaining an effective food safety plan involves the evaluation of many processes. The USDA GAP&GHP website www.ams.usda.gov\gapghp provides links to many resources. State and Federal Agencies, University and Cooperative Extension Programs, Trade and Commodity Associations offer additional guidance for food safety planning.

APPENDIX I – FV-237A AUDIT REQUEST

FORM APPROVED BY OMB No. 0581-0125

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Fruit and Vegetable Programs
Fresh Products Branch

REQUEST FOR AUDIT SERVICES

(This is the only acceptable form for fax or electronic submission to USDA for audit requests)

NOTE: Fill in all appropriate blocks. Requested services may be delayed because of incomplete information. Type of service requested must be selected below.

DATE OF REQUEST:		**ANTICIPATED DATE OF AUDIT:**	

AUDITEE INFORMATION		**FARM / FACILITY INFORMATION**	
Company Name:		Location:	
Street Address:			
City, State & Zip:		Total Acres / Total Sq Feet to be audited:	
Phone Number:			
Contact Person:			

APPLICANT INFORMATION		**COMMODITIES TO BE COVERED BY AUDIT** (Please List)
Company Name:		
Phone Number:		
Fax Number:		
E-mail:		
Contact Person:		

TYPE OF AUDIT SERVICES REQUESTED

Type of Audit(s) Requested (Please choose at least one)	**Scope of GAP&GHP Audit** (Please choose all that apply)
☐ Good Agricultural Practices & Good Handling Practices (GAP&GHP) (Select Audit Scopes)	☐ Part 1 – Farm Review
☐ Mushroom Specific GAP Audit (M-GAP)	☐ Part 2 – Field Harvest & Field Packing Activities
☐ Tomato Audit Protocol (T-GAP)	☐ Part 3 – House Packing Facility
☐ Leafy Greens Audit (LGMA)	☐ Part 4 – Storage & Transportation
☐ Identity Preservation Audit (IP)	☐ Part 6 – Wholesale Distribution Center / Terminal Warehouse
☐ Other, Specify: _____	☐ Part 7 – Preventative Food Defense Procedures

ADDITIONAL REMARKS	

To download a copy of the USDA Good Agricultural Practices & Good Handling Practices audit checklist, please visit the USDA website at http://www.ams.usda.gov/gapghp.

Once a request has been received, a USDA representative will make contact within 48 hours of receipt to schedule the audit.

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APPENDIX II – FV-651 PARTICIPANT AGREEMENT

FORM APPROVED BY OMB No. 0581-0125

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Fruit and Vegetable Programs
Fresh Products Branch

Good Agricultural Practice & Good Handling Practices Audit Program (GAP&GHP)
Identity Preservation Program (IP)
Partners in Quality Audit Program (PIQ)
& Other Audit Programs

AGREEMENT FOR PARTICIPATION IN AUDIT VERIFICATION PROGRAMS

Company Information

I _____ a duly authorized representative of
(Insert Name)

_____ _____
(Name of Company) *(Street Address, City, State, and Zip Code)*

hereinafter referred to as the applicant, do hereby agree to be audited under the a voluntary USDA, AMS, Fresh Products Branch audit program. The audit shall include verification of the company's farm(s), packing facilities, storage facilities, wholesale distribution centers or other locations as applicable to the audit scope(s).

1. The applicant agrees that with respect to:

a. **Laws, Regulation, Statutes** - To conform with all applicable Federal, State, and local government laws, regulations, or statutes, including, but not limited to: Regulations Governing Inspection and Certification of Fruits and Vegetables and Related Products (7 CFR, Part 52), any other pertinent regulations, and any such instructions covering inspection and certification of the products and verification of the processes as may be issued by AMS.

b. **Audit Request** - To contact and schedule the audit with the appropriate federal or federal-state inspection office (using the FV-237A form). The request for the initial audit will be made no later than two (2) weeks prior to the end of the growing/harvesting/packing season.

c. **Records** - To maintain all records required by the specific audit program including, but not limited to, quality manual, food safety manual, water test results, employee training records, manure use records, laboratory testing results and other records as required by the quality manual, food safety manual or specific audit program requirements. The applicant shall make these records available to USDA federal and/or federal-state auditors.

d. **Access to Facilities** - To grant permission for AMS authorized personnel to enter any and all farms and/or facilities covered by the specific audit program for the purposes of conducting the audit. This includes the initial audit and any unannounced audits as may be required by the program.

e. **Payment** - To pay by credit card, check, draft, or money order drawn to the order of the appropriate federal or federal-state agency for the services covered herein on or before the due date specified on the billing statement. Charges for GAP&GHP audits include, but are not limited to, the audit fee as listed in the fee schedule or Federal Register and travel expenses for the initial audit and any unannounced audits as may be required by the program.

2. AMS agrees that with respect to:

a. **Perform Audit** – To provide objective third-party verification of the applicant's specific audit program using internationally recognized audit principles.

b. **Opening & Exit Interviews** - To discuss the audit prior to and report the results and observations with the applicant after each audit and provide a copy of the completed audit report or checklist.

c. **Reports** - To issue to the applicant reports of all audits and evaluations of the applicant's specific audit program and provide written notification of any deficiencies found, if any.

d. **Confidentiality** - To consider and treat any trade secrets or confidential information as proprietary and confidential. To consider any records and related information provided to AMS as information that is voluntarily submitted to AMS because of their participation in the specific audit program.

e. **Issuance of Certificate, Posting and Sharing Audit Results** - To issue a certificate to the applicant and to post audit results to the USDA website, (with the exception of the Preventative Food Defense Procedures scope), only when the applicant receives at least the minimum passing score for each scope being audited. To provide the specific applicant checklist and results of individual questions to other parties only at the written request of the applicant. NOTE: Reports containing a compilation of generic audit information may be shared with the Food and Drug Administration. Any personal information linking the audit results to the auditee shall be redacted prior to issuance.

FV-651 (10-10)

FORM APPROVED BY OMB No. 0581-0125

3. It is mutually agreed that with respect to:

a. **Length of Service -** That the audit results for GAP&GHP audits are valid for one year from the date of the initial audit, provided that at least the minimum score is achieved on both the initial audit and any unannounced audits that may be required by the program. For all other audit programs, the length of service is outlined in the specific audit program policy guide. This agreement shall remain in effect for the length of time the auditee remains a participant in the specific audit program.

b. **Maintaining Certification -** That a company's information will only remain on the USDA website if any and all unannounced audits show satisfactory adherence to the program. If the minimum passing score is not achieved, the company's information will be removed from the website until a follow-up audit is conducted by AMS verifying that effective corrective actions have been taken and the company attains the minimum score on all appropriate scopes of the audit.

Approved By:

Should AMS personnel be at a facility for other purposes and notice issues that would jeopardize the company's standing on the specific audit program, AMS has the obligation to bring this to the attention of the company representative and, depending on the severity, withdraw certification.

Name of Applicant (Print):_____ **Title:**_____

Signature:_____ **Date:**_____

USDA Agricultural Marketing Service, Fruit & Vegetable Programs/ Federal or Federal-State Inspection Program Supervisor

Name of Representative (Print):_____ **Title:**_____

Signature:_____ **Date:**_____

APPENDIX III – CORRECTIVE ACTION REPORT

USDA Fruit and Vegetable Programs **Good Agricultural Practice & Good Handling Practices** **CORRECTIVE ACTION REPORT**	Report #: _____ of _____
Company Name/Farm:	Date:
Lead Auditor:	Crop:
Description of Non-Conformity: Notified company staff at time of finding non-conformity: YES or NO	
Checklist question number and/or section of auditee food safety plan non-conformity is associated with:	
Company Representative Signature: SIGNATURE AFFIRMS FACTS CONCERNING NON-CONFORMITY ARE CORRECT	
Corrective Action Proposed and Time Frame for Implementation: (Attach separate sheet if necessary)	
Auditor Signature for Acceptance of Proposed Corrective Action and Timetable for Implementation:	

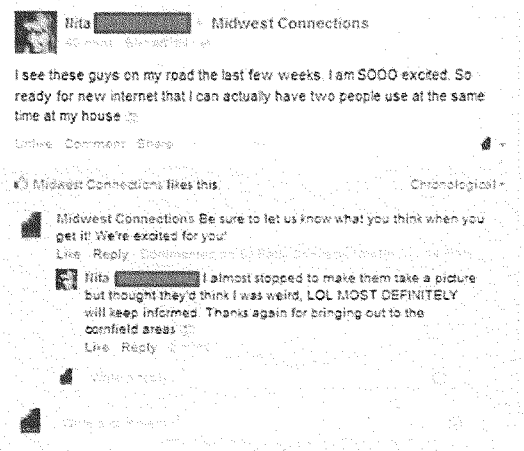
Top portion for AUDITOR USE ONLY; bottom portion for Company and Auditor use.

Midwest ENERGY COOPERATIVE

The Need for Better Broadband in Rural America

Midwest Energy (Midwest) is a pioneer in the utilization of smart grid technologies. To improve our suite of programs and services designed to help members manage their energy use better, Midwest embarked on an effort to deploy fiber for utility communications in 2012. Through a loan graciously provided by the United States Department of Agriculture – Rural Utilities Service, Midwest is constructing nearly 250 miles of fiber through substations and facilities as well as another 1,800 miles to member homes and businesses. This positions us nicely to provide a high-speed broadband solution for rural America – a solution, as you will see below, that is of great interest to our members. Note – testimonials have not been edited and thus are grammatically inaccurate at times. Note - this represents only two pages of well-over 100 pages on file.

WE LOVE MIDWEST!



We are so pleased (w/ Midwest), as we thought this service would never come down our dirt lane off of a dirt road! **Susan – Edwardsburg**

Just got hooked up with broad band service (Midwest). Thank you Midwest Energy!!! It is amazingly fast. Thank you for bringing internet to rural communities. Wish more companies would follow your lead. **Michelle J.**

Using Midwest for our internet needs has allowed us to catch up with Internet speeds that are normally only available in larger cities. Having this option in a rural market is very exciting and opens up many opportunities for our family. **Chad – Cassopolis**

Great news today we were moved into a one of the new zones (w/ Midwest) and will get real high speed internet this year thank you Midwest energy for looking out for us country folks. **Tony F.**

Laura [redacted] Midwest Connections

When you live out in the country, you learn that not all things are easy, not all things are accessible at a moments notice. The country teaches you patience and understanding. Today, with a blink of an eye, something that was told would never happen to the rural people. We have internet, not by a tether of a phone, or an air card with an astronomical price tag on it. Thank you Midwest Connections, for being the stand-up people that you said you were. I can not tell you thank you enough.

We are so grateful that Midwest decided to forward action on this project! SW Michigan has been sorely overlooked for so many years; and I truly believe access to high-speed internet will have a positive economic impact! It makes it easier for us to do business...and I have no doubt, it will help others as well! Thank You! **Bernie – Cassopolis**

"For small town, they are big city tech. The internet is stupid cheap and crazy fast. If you live in Cass, Team Fiber is a must have." – **Paul W.**

"Love the service!!! My adult children can take college classes online now instead of making the 30 min drive every day!! This service was such a blessing.... You never realize how much easier life is when your not so limited!! Have a great day". **Hubert & Brenda M.**

This service has changed our lives, no joke. We went from paralyzed to functional in the flip of a switch. We are thrilled to be connected. Thank you so much. **Susan – Vicksburg**

I live in a rural area where it is extremely difficult to get any type of internet unless you pay high prices for [redacted] internet and have data usage which if you home school like we do then you run out of data and have to purchase tokens at high prices also. We've run out of data all the time and can not afford the tokens so we must wait until our due date is here and we get the data we need. I am so grateful to Midwest Energy for bringing broadband to the rural areas now we can home school and surf the web for the information we need to help our kids succeed in school and life. **Cheryl S.**

MICHIGAN RESTAURANT ASSOCIATION – 2010 Specialty Crop Block Grant - $74,000
Growth and Sustainability for Michigan Specialty Crop Hops

The purpose of the grant was two-fold: to research, strengthen, and promote production of specialty crop hops utilization to stimulate Michigan's lagging economy and to conduct an analysis of experts' project values and develop a strategic plan to promote the growth of Michigan specialty crop hops.

Through a variety of information gathering methods, data was collected and used to identify the key elements required to grow the hops specialty crop industry in Michigan. Information collected also helped define the most useful delivery systems to disseminate information to both growers and consumers.

Based on the research conducted, a strategic plan (Appendix B) was developed to guide the further development of hops specialty crop in Michigan. The website michiganhops.org (Appendix C) was another outcome of this grant. Developed in collaboration with field experts it was built to support and enhance an additional website hops.msu.edu. The authors of the two sites provided support and expertise to one another to deliver the most comprehensive information and guidance to those interested in growing, processing and/or utilizing hops.

There were two major goals of this project: to research, strengthen and promote production of specialty crop hops to stimulate Michigan's lagging economy and to conduct an analysis of experts' project values and develop a strategic plan to promote the growth of Michigan specialty crop hops.

The principle project goals were met with the development of the strategic plan and website. Additional project outcomes included several educational events and promotional activities. The strategic plan can be found in the Appendices and the website can be found at www.Michiganhops.org.

Anecdotal information gathered indicates that Michigan acreage dedicated to hops production increased from approximately 40 acres in 2011 to an anticipated 70 acres in 2012. The grant activities have laid the foundation for further expansion of the hops industry in Michigan, generating input and creating awareness of the opportunities that exist. There has been a marked increase in interest in hops in Michigan and significant activity to promote and build the industry.

WESTERN MICHIGAN UNIVERSITY - 2012 – Specialty Crop Block Grant - $75,000
Analytical testing for Michigan hops and metabolome driven breeding program

Seven activities were proposed to achieve three expected outcomes in the proposed project. The responsibilities of activities 1,2,3,7 were allocated to the Venter laboratory while responsibilities for activities 5 and 6 were shared with the Barkman laboratory. The actions completed for each proposed activity are summarized below. A more detailed discussion for Activities 1, and 7 are also provided in subsequent pages.

An analytical quality testing facility for the testing of hops from Michigan farmers was established at Western Michigan University. Official methods for the analysis of the α- and β-acid content in hops for high pressure liquid chromatography (HPLC), ultraviolet/visible spectrophotometry (UV/VIS), steam distillation of hop essential oils, and the analysis of the essential oil profile by gas chromatography coupled with a mass spectrometer (GC/MS) were used to develop standard operating procedures for the standardized chemical testing of hop samples. A high throughput method for the analysis of the α- and β-acid content in hops using direct analysis electrospray

ionization mass spectrometry has been developed and is currently being validated. A novel, high throughput method for the analysis of the α- and β-acid content in hops by paper spray ionization mass spectrometry is currently in development.

The following is a breakdown of the actions for each activity that occurred during the initial phase of the grant:

I. Activity 1: Set-up and validate experimental procedures for standard chemical testing of hops
   a. Official methods for the analysis of the α- and β-acid content in hops for high pressure liquid chromatography (HPLC), ultraviolet/visible spectrophotometry (UV/VIS), steam distillation of hop essential oils, and the analysis of the essential oil profile by gas chromatography coupled with a mass spectrometer (GC/MS) have been used to develop standard operating procedures for the standard chemical testing of hops samples.

II. Activity 2: Create website
   a. A website was developed to provide a means of hops sample submission for local farmers, coops, and brewers which includes a description of all testing methods, instructions regarding hops sample transportation, as well as sample logging and payment option pages.

III. Activity 4: Provide quality testing of Hops based on American society of Brewing Chemists specified methods
   a. A standard operating procedure was developed to analyze the α- and β-acid content in hops using HPLC by modifying the procedure for the ASBC official method of analysis Hops-14 entitled "α-Acids and β-Acids in Hops and Hop Extracts by HPLC".
   b. A standard operating procedure was developed to analyze the α- and β-acid content in hops using UV/VIS but instead following the procedure for the ASBC official method of analysis Hops-6a entitled "α- and β-Acids by Spectrophotometry".
   c. A standard operating procedure for the analysis of the essential oil profile utilizing GC/MS was developed following the procedures of Hops-13 and Hops-17 entitled "Total Essential Oils in Hops and Hop Pellets by Steam Distillation" and "Hop Essential Oils by Capillary Gas Chromatography-Flame Ionization Detection", respectively.

IIII. Activity 6: Development of methods to detect powdery mildew
   a. Methods to detect powdery mildew and downy mildew were developed utilizing polymerase chain reaction (PCR) primers. These methods have not yet been validated by analyzing infected hops samples.

V. Activity 7: Development of new analysis methods to improve sample throughput and quality
   a. A novel, high throughput method for the analysis of the α- and β-acid content in hops utilizing paper spray ionization mass spectrometry is currently in development as stated above.

There were a few lessons learned as a result of undertaking this project. When running an analysis for a farmer, a control sample, such as the month's prior ASBC Check Sample, should be analyzed on the same day to ensure chemical quality and to validate the functionality of all equipment and instruments. If the ASBC Check Sample analysis does not correlate with the national average for that ASBC method of analysis, then we could take immediate action and reanalyze the farmer's sample. It has been determined that the results for the UV-Vis of hops is far too variable and can have a large fluctuation between instruments. The hop acid extraction method for Hops-6a (UV-Vis) does not seem to be nearly as reliable as the Hops-14 (HPLC) extraction method.

For the ITS molecular screening of pathogens, a significant delay arose from the application process required in order to possess the pathogens and work with them. Although we were eventually granted permission in June 2013, we were never approved to work with live pathogens for experimental inoculations. Such permission will really need to be attained to carry out this process on living plants infected with living pathogens.

KEWEENAW ECONOMIC DEVELOPMENT ALLIANCE 2015 – Value Added/Regional Food Systems – CURRENT $47,287

Cost Effective Harvesting and Drying Solutions for Small Scale Hops

Project Goals:

1. Design a novel harvesting container that reduces harvest cycle time and complexity, while maintaining or improving hops quality. The container will:
   a. Connect to commercially available, small-scale harvesting equipment
   b. Serve as a modular oast drying system, eliminating the need for a dedicated oast house/building
   c. Promote drying without the addition of heat, which negatively impacts hops quality
   d. Provide/include the controls and measures necessary to achieve proper drying and desired quality of the hops
   e. Serve as the shipping container once dried
2. Cost analysis of the proposed design and system
3. Prototype evaluation at Worham Acres, LLC in Chassell MI.

It is anticipated that this project will identify practical solutions that promote the growth of Michigan's economy in rural areas where hops, a high-value product with strong demand, can be harvested.

Summary of Activities Performed
The goal was to develop a multi-function container and drying system design.
The goal was achieved. MTU provided a report with documentation detailing 10 concept designs and several that will be followed up on in the next phase of the project. A hops harvesting machine was purchased which will allow the R&D team to test final designs in conjunction with harvesting process.

Accomplishments by the R&D team have met the established goal.
The project is on track.
It is too early to determine if there will be any new outcomes.

Institute for Sustainable Living - 2014 Specialty Crop Block Grant - $27,527
SC Education in Hops, Soil Fertility for Fruit and Vegetable Crops, and Agroforestry Systems at the 2015 Northern MI Small Farm Conference and Pre-Conference

Objectives: ISLAND has recognized the need for bringing deep expertise on specific, technical agronomy subjects through its nine years of programming for the growing small farm audience. Planned and committed topics and speakers include:

- Hops School (hops production preconference intensive), featuring: Lau Ackerman*, Farm Manager, Sierra Nevada Brewing Company; J Robert Sirrine, Ph.D., Community Food Systems Educator, Greening Michigan Institute, Affiliate, MSU Center for Regional Food Systems; Brian Tennis, New Mission Organics, Michigan Hop Alliance; Scott Graham*, Michigan Brewers Guild; additional speaker(s) to be determined. Planned topics include:
  - Financials and Marketing
  - Pest Management
  - Michigan Markets for Hops
  - Soil Fertility for Hops Production
- Agroforestry School (agroforestry preconference intensive), featuring: Peter Bane*, Patterns for Abundance; Jim McDonald*, Herb Craft; Michael Phillips*, Holistic Orchard Network; additional speaker(s) to be determined. Planned topics include:
  - Orchard Design, Management and Restoration
  - Growing Specialty Mushrooms in an Agroforestry Practice
  - Medicinal and Culinary Herbs for High Value Markets
  - Intercropping Specialty Crops for Greater Yield
  - Beyond Companion Planting: Guild Building for Fruit and Nut Tree Health and Production
  - Organic Orcharding
- Soil Fertility for Fruit and Vegetable Crops Preconference Intensive, featuring:

Brad Morgan*, Morgan Composting; Gary Zimmer*, Midwestern Bio Ag; additional speaker(s) to be determined. Planned topics include:

- Compost for Diversified Crops
- Using Manure in Compliance with Organic Standards and Food Safety/FSMA Standards
- Creating a Soil Quality Management Program for Diverse Vegetable Farms

- Northern Michigan Small Farm Conference sessions for specialty crop growers. Funds from this grant will only benefit specialty crop producers through these planned topics:
  - Introduction to Agroforestry Systems
  - Soil Fertility for Fruit and Vegetable Growers
  - Preparing Soil for Long-Term Plantings of Vineyards, Fruit and Nut Trees
  - Getting Started with Organic Hops

Objectives: ISLAND has recognized the need for bringing deep expertise on specific, technical agronomy subjects through its nine years of programming for the growing small farm audience. Planned and committed topics and speakers include:

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  - Michigan Markets for Hops
  - Soil Fertility for Hops Production
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  - Orchard Design, Management and Restoration
  - Growing Specialty Mushrooms in an Agroforestry Practice
  - Medicinal and Culinary Herbs for High Value Markets
  - Intercropping Specialty Crops for Greater Yield
  - Beyond Companion Planting: Guild Building for Fruit and Nut Tree Health and Production
  - Organic Orcharding
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  - Getting Started with Organic Hops

MSU Upper Peninsula Research and Extension Center – Strategic Growth Initiative 2015 $84,512

Developing Quality Analysis Infrastructure to Support Local Malting Barley Production and Use in Michigan Craft Beer

The primary outcome of this proposal will be the establishment of a quality analysis lab at the MSU UPREC – operational in time for the 2015 malting barley harvest. Having these testing capabilities within the state will lessen the burden on both farmers and maltsters when determining quality and price. It is a risk to both parties to not fully understand the quality of the grain, and can potentially be a roadblock to further growth as that information may be demanded by the end user in the future. Craft brewers seek a consistent product coming into their breweries, and being able to understand the quality of the grain being malted will allow them to better control that. Having these capabilities within the state will set Michigan apart and further solidify the investment in the industry that has had such a tremendous impact to the economy.

The desired achieved impact will be improved access to quality analysis by those in the malting barley industry – primarily for small to mid-scale operations (farms, malthouses, and breweries) that do not have access to analysis facilities. By removing barriers for entry into this market, it is desired that more farmers would consider growing grains for brewing, and that malthouses and breweries would consider using available local ingredients.

This project has not been submitted to another federal or state grant program, but it was awarded $26,000 from the Brewers Association in 2015, and this funding is contingent on securing the additional funds needed for the lab (requested in this proposal.

Goal 1: Establish a malting barley quality analysis lab at the MSU Upper Peninsula Research and Extension Center

Target 1: Process 100 malting barley grain samples in the initial year, servicing MSU research, Michigan farmers and maltsters

Benchmark 1: N/A, no lab currently exists in the state; our potential clientele predominantly sends their samples to North Dakota State University

Goal 2: Develop a "state of the malting barley industry" report to better guide industry support and growth

Target 2: Publish report to be shared online, distributed at the Great Lakes Hop and Barley Conference, at the Michigan Brewers Guild Winter Meeting, and other invited venues; reach at least 300 individuals with the data

Benchmark 2: N/A, no such report currently exists

Fenn Valley Vineyards – 2015 Value Added/Regional Food Systems $75,000

Fermentation Capacity Enhancement - The request is for funds to enhance the red wine fermentation capacity and to add apple cider processing at Fenn Valley Vineyards. Michigan is now recognized as a premium winegrowing state, and recently has become known for the production of world-class red wines. In addition, the cider industry has blossomed in the last five years, and is now the fastest growing segment of the adult beverage business nationally. Because we are operating at 40% above design capacity, we are now turning away fruit farmers who want to add wine grapes to their repertoire and apple processors who want to sell excess apple production. There is a surplus of raw materials available in the state, and there is a demand for the finished products, both of which are restricted by limited processing capacity.

The goal is to install 23,800 gallons of fermentation capacity by September of 2015, all of which will have multipurpose capabilities – both red wine and cider production. The proposed expansion will benefit local grape and apple farmers, retailers, distributors, client wineries, and related tourist operations throughout the state resulting in a potential addition of 39.8 FTE positions.

Purity Foods – 2015 Value Added/Regional Food Systems $75,000 *Purity cancelled this grant* Sprouting and Malting Specialty Grains

Expand our existing facility to add the capability to sprout, dry and malt specialty grains such as barley, spelt, emmer, einkorn and soft wheat for the purpose of supplying the beverage, brewing, and baking industries. Once built our goal is to partner and contract with Michigan farmers, clean the grain and store the grain. Then process the grain using sprouting and malting techniques, and supply the finished product to Michigan craft brewers and bakers as well as produce some consumer packaged goods products.

Michigan State University – 2016 Value Added Grant - $29,300 Michigan Craft Beer: An Economic Impact Assessment of the Locally-Sourced Supply Chain

Project objectives include:

1. Supply chain analysis of the Michigan craft beer industry emphasizing utilization of local ingredients.
2. Economic impact analysis using IMPLAN to determine the contribution to Michigan's economy if 50% of Michigan craft beer raw ingredients were purchased in-state.
3. Published report findings through appropriate channels including MSU publications, conference presentations (in-state and national industry events, local food networks, etc.), and to regional hop and barley networks throughout the eastern US. Report findings will also be communicated through professionally developed infographics.
4. Building capacity for repeated future data collection to ensure report relevancy as the hop and barley industries evolve.
5. An advisory committee composed of diverse partners representing each industry that can inform and direct project work. Their involvement will ensure comprehensive and sustained data collection, interpretation and dissemination.

Hop Growers of Michigan – 2016 Specialty Crop Block Grant - $76,415 - Hop Quality Improvement, Training and Verification Program

This project will establish for the first time in Michigan a quality system specific to hops that includes:

- Recommended Operating Procedures to insure food quality and safety, broken down into three areas: a) field (IPM and spray records), b) harvest (pick-dry-bale-storage), and c) processing (pelletize-package-storage)
- An education program that will train farm owners and employees to use the recommended operating procedures and help prepare them for the verification program.
- A two level voluntary verification program, level 1) a self-audit, and level 2) an HGM sanctioned third party verification.

After the development of the procedures, the project includes a pilot program in 2017, followed by implementation in 2018. Hop farms, having met all the standards, will be able to promote their product as having met the level of quality that the craft brewing market demands.

Objective 1 Increase Quality and Food Safety of Michigan grown hops by establishing a Hop Quality Program to be overseen by the Hop Growers of Michigan association.

Objective 2 Increase Michigan hop sales and market share by increasing customer confidence in hop quality and safety.

Objective 3 Provide a Recommended Operating Procedures document specific to Michigan hops. This starts with compiling an outline/framework using several already existing documents (hop standards from other regions of the world, food safety standards from like crops, etc.) and then customizing them for this Hop Quality Program specific to the Michigan production region.

Objective 4 Train the farmer. Train the processor. These will be conducted on site, face to face, getting them ready for a self-audit.

Objective 5 Establish an audit system, both self-audit and third party (similar to MAEAP program Food Safe-A-Syst). This is to be a perpetual program sanctioned by Hop Growers of Michigan and will include a "Quality Verified" designation that would be meaningful to breweries and add value to the Michigan grown and processed product.

Objective 6 Get the word out to the breweries. Like the "Good Housekeeping Seal of Approval" the Hop Growers of Michigan working via the Michigan Brewers Guild will advertise the value of this Hop Quality Program and who in the State of Michigan has obtained either self-verified or third party verified levels.

Objective 7 Measure the results. Both at the start and at the conclusion we will assess the customer's perception of quality and food safety. We will also measure the increase of the percent of hops purchased from Michigan grown sources with a target of a 10% increase in market share.

EUROMONITOR INTERNATIONAL

EXPORT OPPORTUNITY ANALYSIS

A custom report compiled by Euromonitor International
for the State of Michigan Department of Agriculture and Rural Development
March 2016

HOPS

The hops report will consist of seven sections, including:

1. **Hops Overview**
   - Hop definitions
   - Key trends and market developments
   - Top exporting countries for U.S. hop products
2. **Consumption Hot-Zone Mapping**
   - Top 10 export opportunity countries
   - Historic (2009–2014) and forecast (2014–2019) volume consumption CAGR
3. **Global Hop Trade**
   - Total hop exports (2010–2014)
   - Year-on-year hop export growth (2010–2014)
4. **Top Hop Export Countries for Total U.S.**
   - Top 10 countries receiving U.S. hop exports by volume (2014)
5. **Export Opportunity Matrix**
   - Top 10 export countries for U.S. hops, and Michigan's value share
   - Qualitative insights
6. **Consumption Trends in Focus Countries**
   - Qualitative macro trends, hop consumption trends, and U.S. role/export opportunity prospects
7. **Focus Country Analysis**
   - Total hop exports from the U.S.
   - Michigan's share of total U.S. hop exports
   - Key consumption statistics

Hops overview

KEY TRENDS

- **Nearly all of the hops grown around the world are used to brew beer**; a very small amount goes to the production of herbal teas and soft drinks
- **The increasing popularity of craft beer** in many markets **will increase demand for hops**, as the craft beer segment consumes a disproportionately large share of hops relative to its market share

MARKET DEVELOPMENTS

- The **United Kingdom** is among the top hop-consuming countries, but **projected consumption growth is not as high as in other markets**
- Though the U.S. exports a large value of hops to the country, **Mexico is not among the top hop-consuming countries**
- Projected **consumption growth in Brazil, Vietnam, Colombia, and Australia presents strong export opportunities** for U.S. hop growers

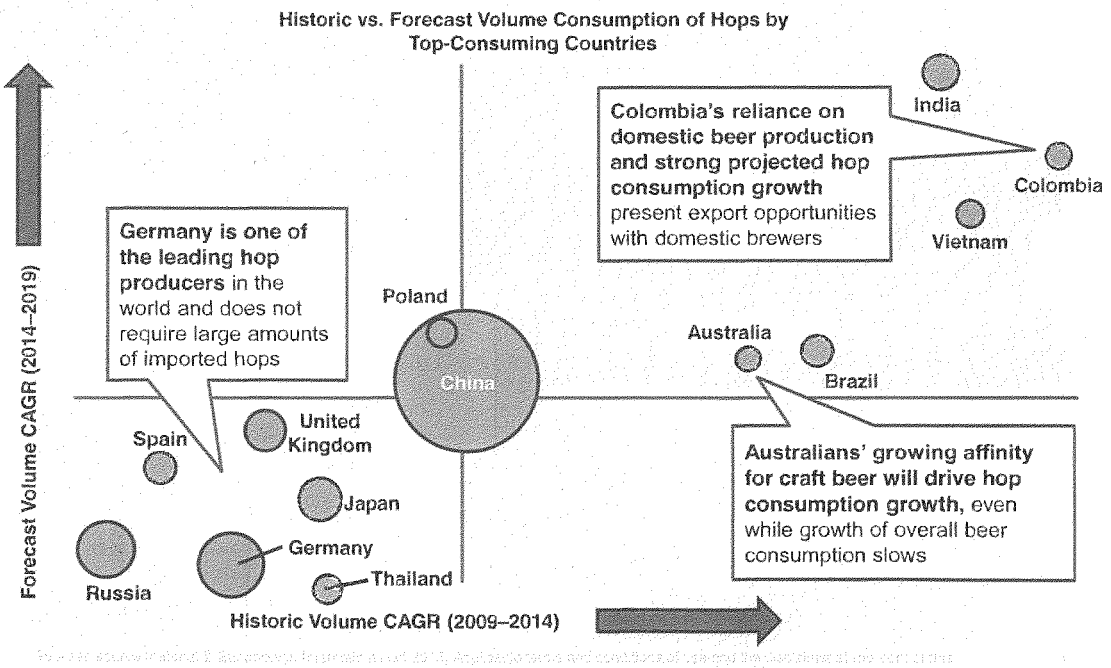
Top Countries Receiving Hop Exports from Total U.S.

Rank	Country	Value of exports (2014, US$, mn)
1	United Kingdom	34.1
2	Mexico	29.4
3	Brazil	16.9
4	Belgium	16.4
5	Canada	14.1

INCLUDED IN CATEGORY DEFINITION:

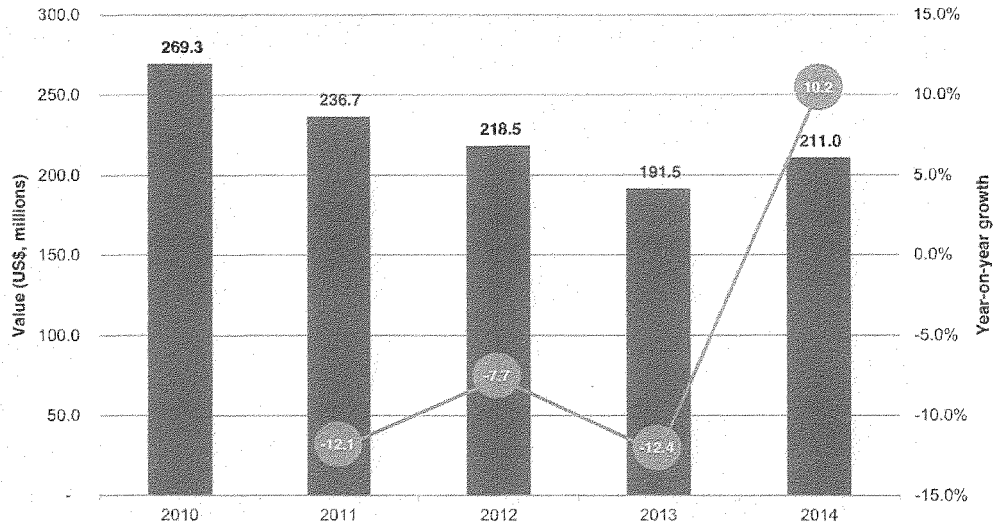
- **Hops** *(used for production in beer, tea, and other soft drink beverages)*

Top hop-consuming countries with forecast growth



Bubble size represents 2014 market size in volume in comparison to other countries. CAGR = Compound Annual Growth Rate

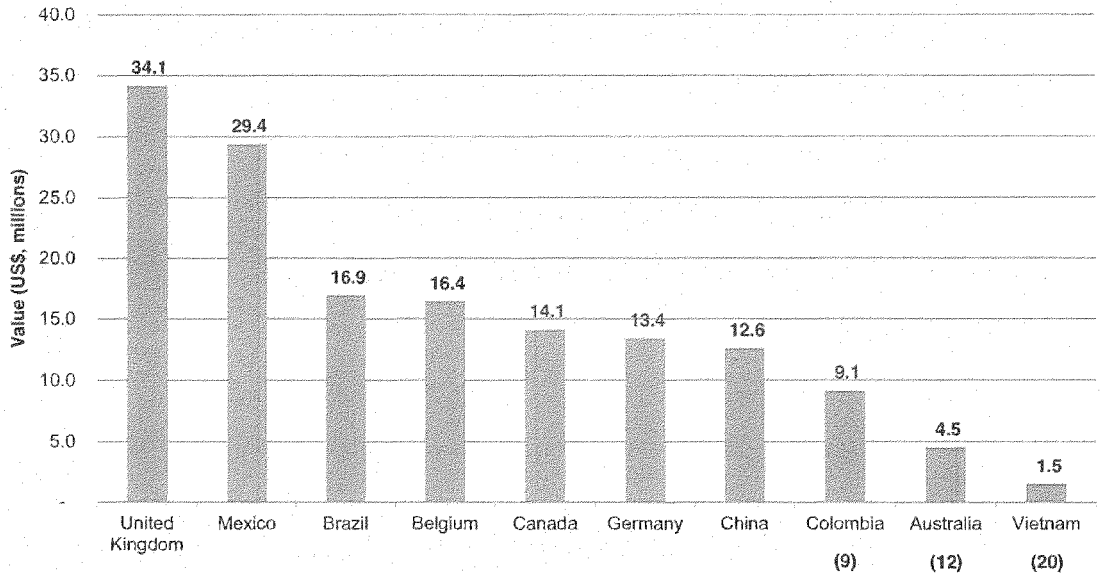
Total U.S. exports of hops



- The value of U.S. hop exports declined through 2013 **due to increasing domestic demand from the growing domestic craft beer market** and the prevalence of lower priced hop varieties grown in the U.S.
- According to the 2014 International Hop Growers Convention, U.S. hop export value increased in 2014 over 2013 as global demand remained strong and **many U.S. growers harvested varieties that yield higher prices per acre**

HOPS – TOP CATEGORY EXPORT COUNTRIES FOR TOTAL U.S.

Top export countries for U.S. hops (2014)



- While the U.S. exports large quantities of hops to both the **United Kingdom and Mexico**, these two countries are not projected to see as much consumption growth as other markets
- Projected consumption growth, along with current U.S. export levels, **in Brazil, Vietnam, Colombia, and Australia present strong export opportunities**

Export opportunities for U.S. hops in top export countries

Rank	Country	Value of U.S. exports*	Michigan's share of U.S. exports		Export opportunity
1	United Kingdom	34.1	4%		-
2	Mexico	29.4	0%		-
3	Brazil	16.9	19%	●	**Emerging export opportunity:** Increasing demand for craft beer drives growth of hop consumption
4	Belgium	16.4	0%		-
5	Canada	14.1	0.4%		-
6	Germany	13.4	0%		-
7	China	12.6	41%		-
9	Colombia	9.1	0%	●	**Emerging export opportunity:** The continuing premiumization of the beer market and large domestic production both drive demand for hops
12	Australia	4.5	16%	●	**Emerging export opportunity:** The growing craft beer trend fuels hop consumption growth
20	Vietnam	1.5	12%	●	**Emerging export opportunity:** Growth in domestic beer consumption and need for hop imports both drive demand for hops

*Value of U.S. exports are 2014 figures in US$, mn ● = Emerging export opportunity, focus country

Key hop consumption trends

BRAZIL

INCREASING DEMAND FOR CRAFT BEER DRIVES HOP CONSUMPTION

As Brazilians become increasingly urban and have higher disposable incomes than in years past, **consumers are increasingly demanding unique, premium products, such as craft beer.**

The craft beer segment continues to grow despite increasing costs of raw materials and rising costs at points of sale, **which presents a strong export opportunity.**

VIETNAM

GROWTH IN DOMESTIC BEER CONSUMPTION BOOSTS DEMAND FOR HOPS

The growing population of Vietnamese with higher disposable incomes than in years past are consuming more beer, **especially domestically produced brands.**

Additionally, as Western cultural influences are becoming more pervasive, especially among young adults, **the demand for beer—especially premium beer—is growing, which opens the door to new hop exporters.**

AUSTRALIA

THE GROWING CRAFT BEER TREND FUELS DEMAND FOR HOPS

Despite Australians' declining overall beer consumption, consumers are **increasingly opting for premium, domestically produced craft beers.**

Ales dominate the Australian craft beer market, and **consumers are increasingly opting to try new varieties and flavors,** which presents a strong hop export opportunity.

COLOMBIA

PREMIUMIZATION OF THE BEER MARKET DRIVES HOP DEMAND

Domestic producers dominate the Colombian beer market, with imported beer accounting for a very small share of consumption.

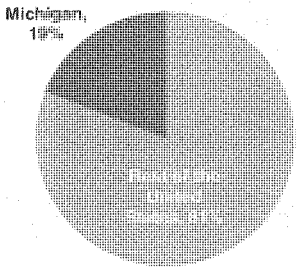
As the demand for premium and craft beers grows in the market, new **hop exporters have an opportunity to establish footholds in the market with new and existing Colombian craft breweries.**

Brazil

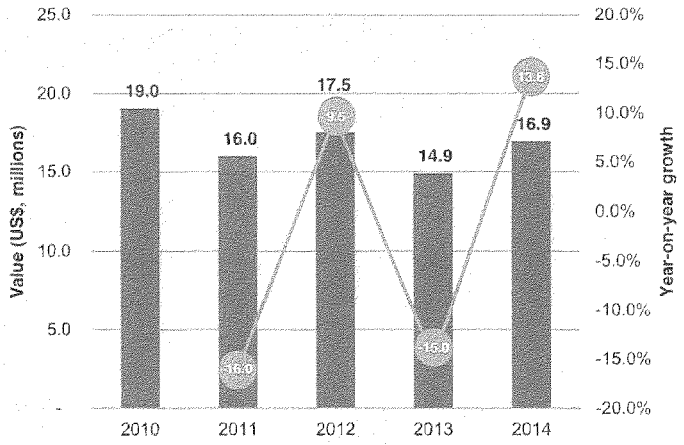
KEY CONSUMPTION STATISTICS

Total volume consumption (2014, thousands of tonnes):	1,260.0
Volume consumption historic CAGR (2009–2014):	8.7%
Volume consumption forecast CAGR (2014–2019):	3.2%

Value Share of Total U.S. Hop Exports to Brazil by State



Total Hop Exports to Brazil from the U.S.



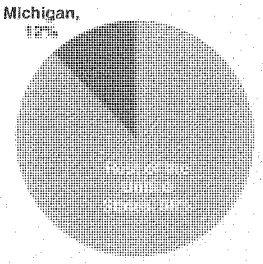
- The top national branded beer companies in Brazil (by volume) in 2014—**Cia Brasileira de Bebidas (AmBev), Brasil Kirin, and Cervejaria Petrópolis**—enjoy 89% of total beer volume. These players represent the greatest export partners for foreign hop producers
- Popular craft beer brands include **Dado Bier and Karavelle**, and their **growth presents export opportunities** for foreign hop growers

Vietnam

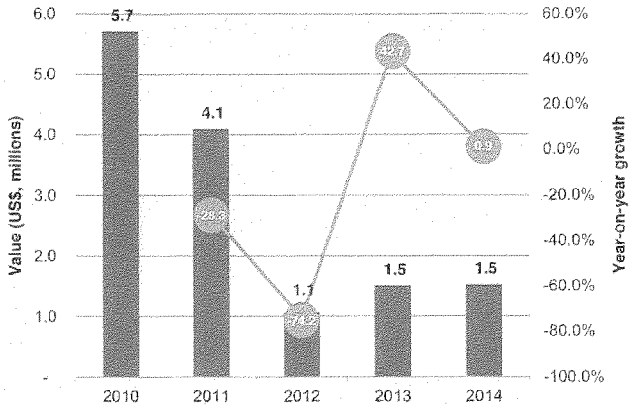
KEY CONSUMPTION STATISTICS

Total volume consumption (2014, thousands of tonnes):	928.3
Volume consumption historic CAGR (2009–2014):	11.2%
Volume consumption forecast CAGR (2014–2019):	6.1%

Value Share of Total U.S. Hop Exports to Vietnam by State



Total Hop Exports to Vietnam from the U.S.



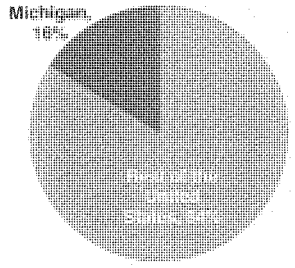
- The leading beer producers in Vietnam are **Saigon Alcohol Beer & Beverages Corp (Sabeco), Vietnam Brewery Ltd., and Hanoi Alcohol Beer & Beverages Corp (Habeco)**; consequently, these are the leading consumers of hops
- As incomes in Vietnam continue to rise and exposure to Western cultural trends increases, **consumers increasingly demand Western-style products, including premium and craft beers, which presents a strong hop export opportunity**

Australia

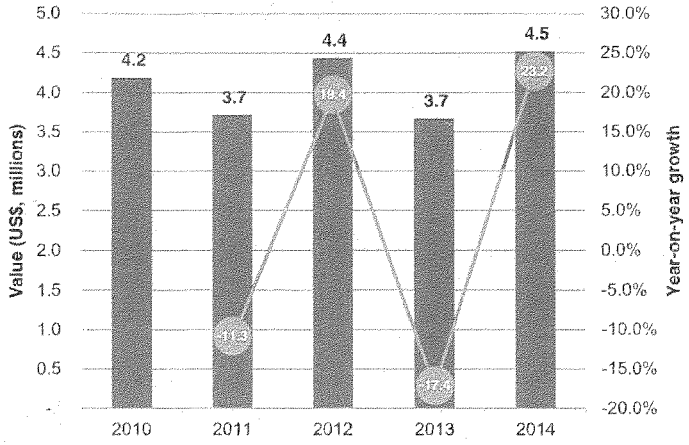
KEY CONSUMPTION STATISTICS

Total volume consumption (2014, thousands of tonnes):	**777.4**
Volume consumption historic CAGR (2009–2014):	**7.6%**
Volume consumption forecast CAGR (2014–2019):	**3.1%**

Value Share of Total U.S. Hop Exports to Australia by State



Total Hop Exports to Australia from the U.S.



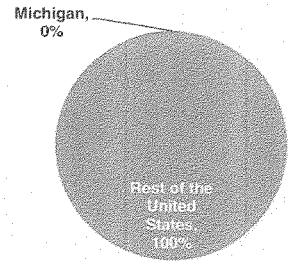
- **Lion Pty Ltd. and Fosters Group Pty Ltd.** are the dominant beer producers in Australia, and, thus, are large hop consumers, but **smaller players such as Coopers Brewery are riding the recent popularity of craft brews** and are gaining market share
- In general, high production costs make **Australian agricultural products less competitive with imports**, and the agriculture sector often has to contend with **unfavorable weather conditions that limit production**; these factors **leave the door open to new hop exporters**

Colombia

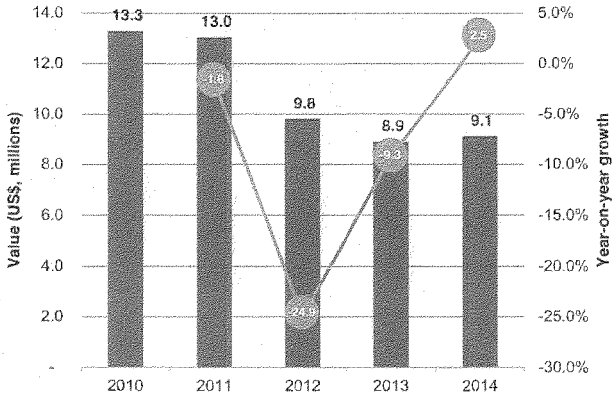
KEY CONSUMPTION STATISTICS

Total volume consumption (2014, thousands of tonnes):	171.4
Volume consumption historic CAGR (2009–2014):	14.7%
Volume consumption forecast CAGR (2014–2019):	7.3%

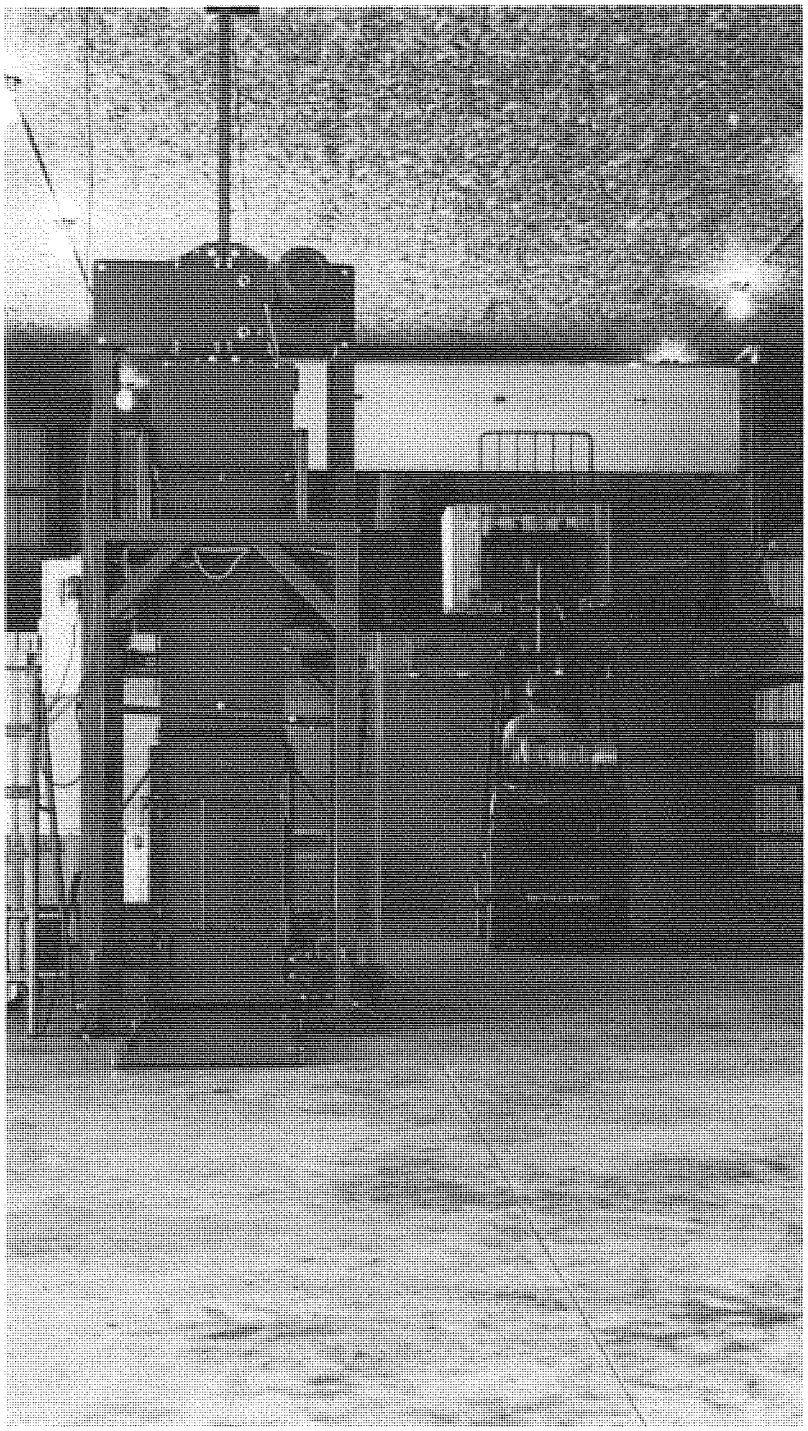
Value Share of Total U.S. Hop Exports to Colombia by State



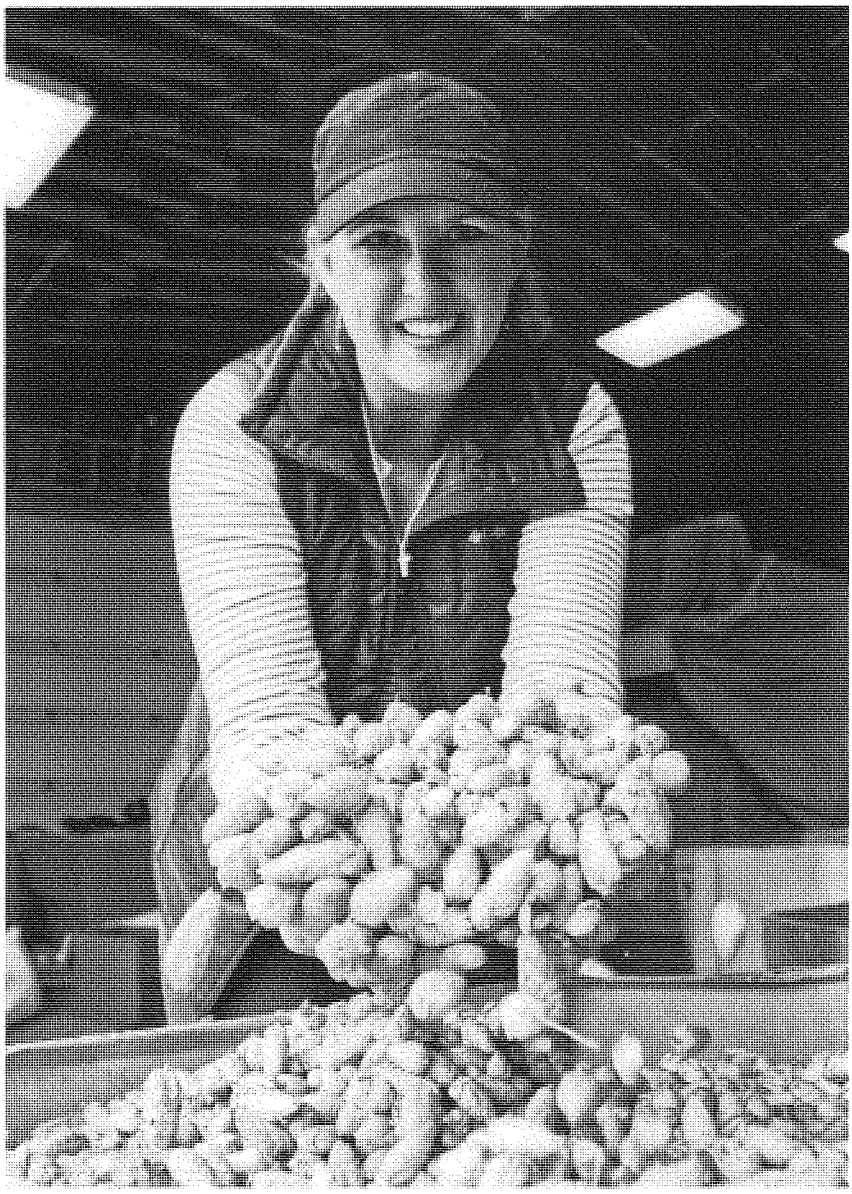
Total Hop Exports to Colombia from the U.S.

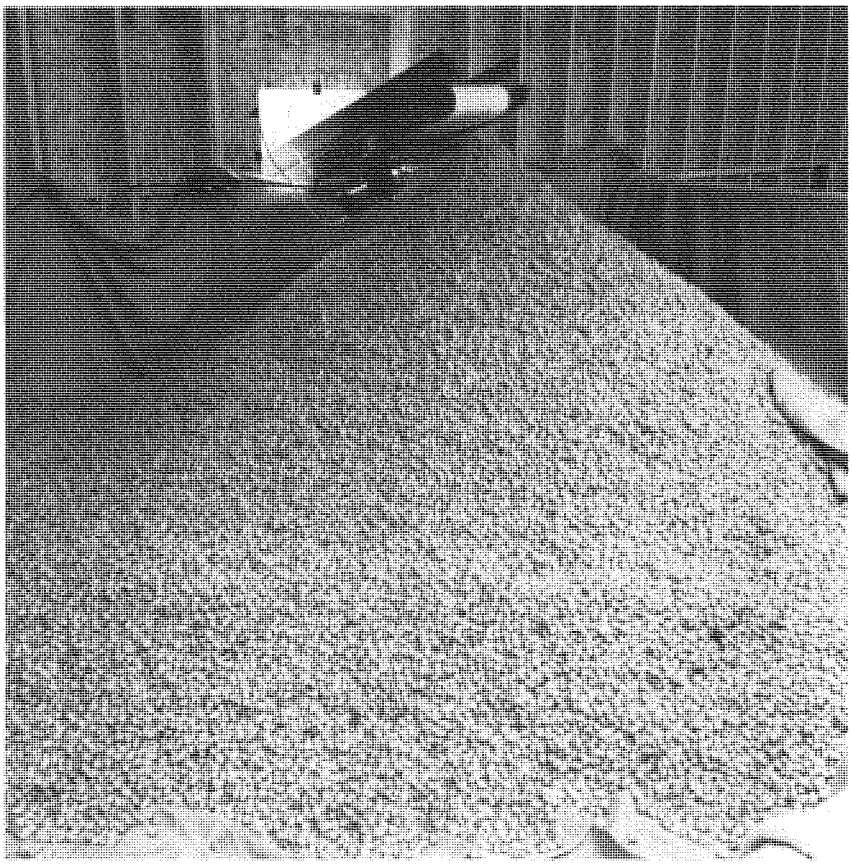


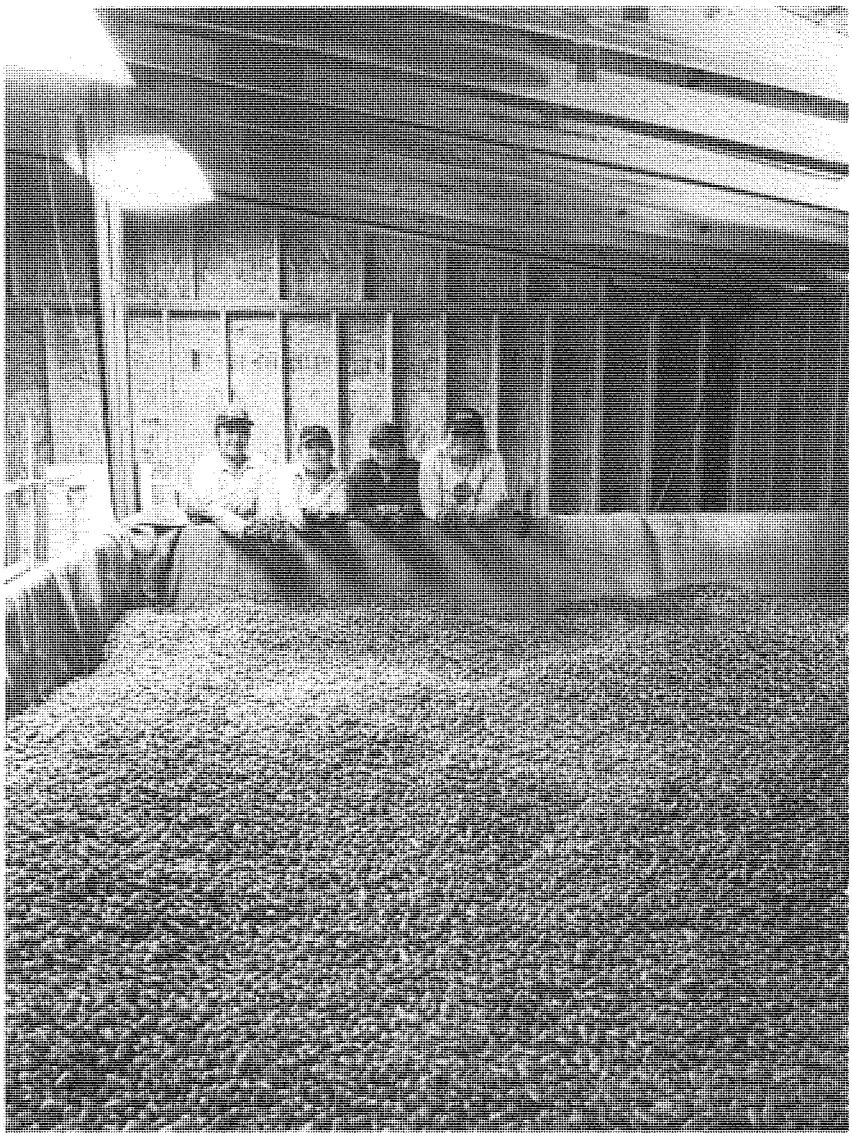
- **Bavaria SA**, a domestic producer, **dominates the Colombian beer market**, with a 93% share in 2014, and is therefore **a major hop consumer**
- **Central Cervecera de Colombia**, a new joint venture between Colombian and Chilean companies, is projected to be a major player in the beer market and **another big potential consumer of imported hops**
- Notable craft beer brands include **Bogota Beer Co., Apostol, and Tres Cordilleras**, all of which **present growing hop export opportunities**

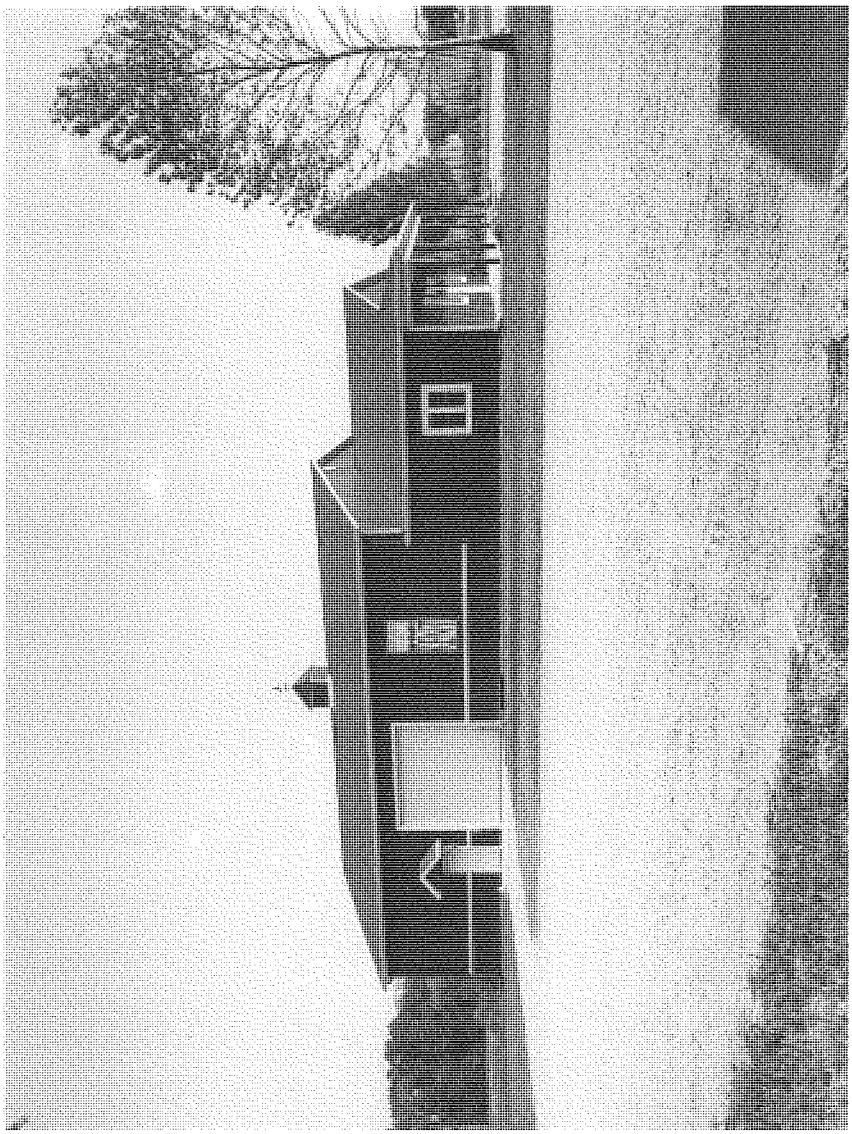


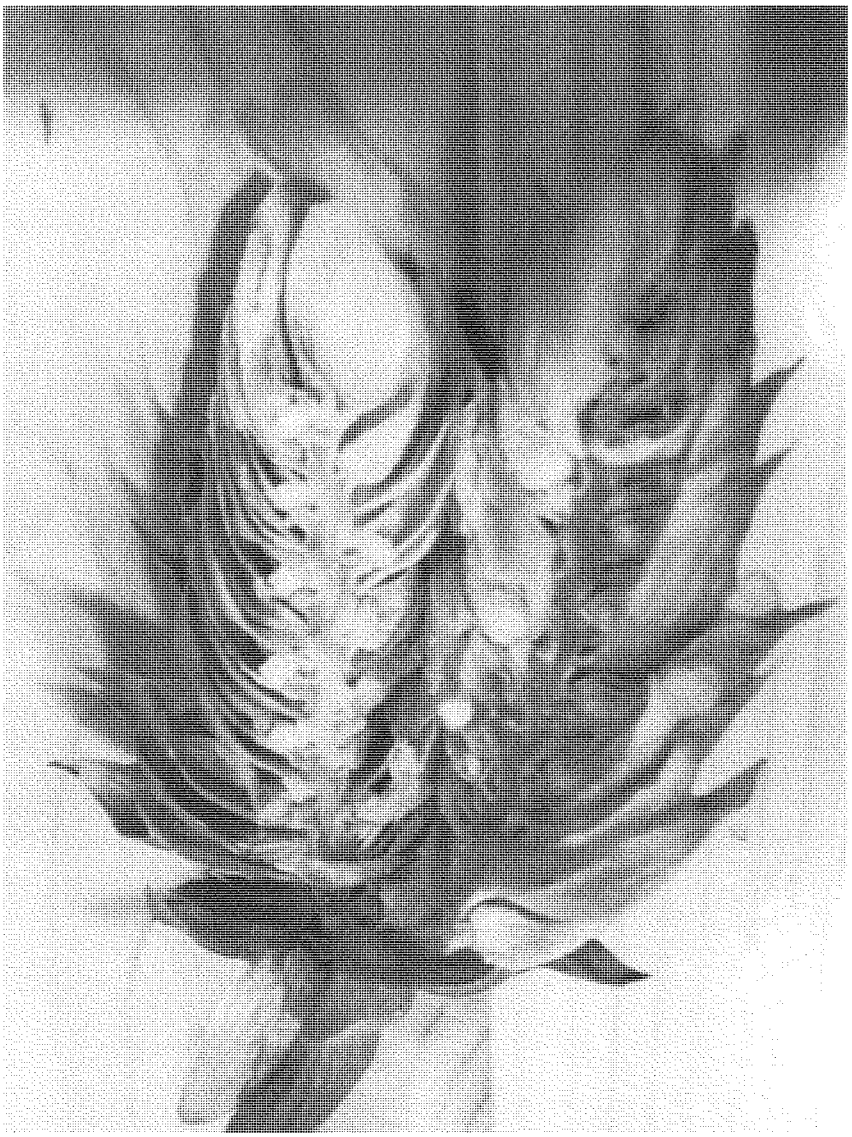
HOPYARDS
OF
KENT
Locally Grown.
Organically Grown.











May 4, 2017

The Honorable Pat Roberts
Chairman
Senate Committee on Agriculture, Nutrition & Forestry

The Honorable Mike Conaway
Chairman
House Committee on Agriculture

The Honorable Debbie Stabenow
Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry

The Honorable Collin Peterson
Ranking Member
House Committee on Agriculture

Dear Chairman Roberts, Chairman Conaway, Ranking Member Stabenow, and Ranking Member Peterson:

As you begin your work to pass a new bipartisan five-year Farm Bill, members of the Animal Agriculture Coalition (AAC), which is comprised of most major animal and animal related commodity organizations as well as allied organizations representing veterinary medicine, animal science, state regulatory agencies and various livestock species sectors or animal agriculture interests in the United States look forward to working with you to ensure that farm policy benefits all agriculture interests. An outbreak of a foreign animal disease has the ability to cripple the entire agricultural sector and have long-lasting ramifications for the economic viability of U.S. livestock production. It is critical that the new Farm Bill address these risks to animal health while likewise bolstering the long-term ability of U.S. animal agriculture to be competitive in the global marketplace and provide consumers around the world safe, wholesome, affordable food produced in a sustainable manner.

We call on Congress, in the 2018 Farm Bill, to establish a two-tiered program to deliver the sufficient development and timely deployment of all measures necessary to prevent, identify and mitigate the potential catastrophic impacts that an animal disease outbreak would have on our country's food security, export markets, and overall economic stability.

It is essential that the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) and state animal health officials have: (1) forward looking disease prevention and rapid response activities; and (2) robust laboratory capacity for surveillance. We cannot wait, we have seen the implications of these diseases, both financially and from an animal welfare standpoint and it is devastating. The two-tiered program is outlined in greater detail below.

PREVENTION: ANIMAL PEST AND DISEASE DISASTER PREVENTION AND RESPONSE PROGRAM
(Requests CCC funding of $70M per year)

Modelled after the highly successful plant pest and disease management and disaster prevention programs, a new **Animal Pest and Disease Disaster Prevention and Response Program**, administered by APHIS, would be established to provide a proactive and concerted preventative "boots on the ground" effort focusing on early detection and rapid response to protect the nation's animal agriculture industry. It is envisioned that this program would be structured to take full advantage, through support and collaboration, of the science generated by the National Institute of Food and Agriculture (NIFA) program established under section 1433 of the National Agricultural Research, Extension and Teaching Policy Act of 1977, the Continuing Animal Health and Disease Research Program.

SURVEILLANCE: NATIONAL ANIMAL HEALTH LABORATORY NETWORK
(Requests CCC funding of ($30M per year)

Building upon the 2014 Farm Bill's authorization of the **National Animal Health Laboratory Network (NAHLN)**, the Animal Disease and Disaster Prevention Program will help support NAHLN and bring together the federal government with states, industry, universities, and other interested groups to reduce the impact of high-consequence animal diseases, provide rapid detection and response capabilities to

respond to animal diseases, develop disease prevention and mitigation technologies including vaccines, prevent the entrance and spread of foreign animal diseases into the United States, and identify and support critical research needs.

The coalition is eager to work with you to pass a 2018 Farm Bill as expeditiously as possible. Thank you for your consideration of our priorities. If you would like to discuss the this proposal further please contact Damon Wells, AAC Vice Chairman, (dwells@turkeyfed.org and 202-730-9636) or Ashley Morgan, AAC Vice Chairman (AMorgan@avma.org and (202) 289-3210).

Sincerely,

American Association of Avian Pathologists
American Association of Bovine Practitioners
American Association of Mycobacterial Diseases
American Association of Small Ruminant Practitioners
American Association of Veterinary Laboratory Diagnosticians
American Dairy Goat Association
American Dairy Science Association
American Feed Industry Association
American Goat Federation
American Horse Council
American Sheep Industry
American Society of Animal Science
American Veterinary Medical Association
Animal Ag Alliance
Animal Health Institute
Arizona Cattlemen's Association
Arizona Cattle Feeders' Association
Association of American Veterinary Medical Colleges
Association of Veterinary Biologics Companies
Biotechnology Innovation Organization (BIO)
California Pork Producers Association
California Poultry Federation
California Wool Growers Association
Chicken and Egg Association of Minnesota
Colorado Cattlemen's Association
Colorado Livestock Association
FASS
Fats and Proteins Research Foundation
Florida Cattlemen's Association
Georgia Cattlemen's Association
Georgia Poultry Federation
Indiana State Poultry Association
Iowa Turkey Federation
Kentucky Poultry Federation
Michigan Agri-Business Association
Michigan Allied Poultry Industries
Michigan Cattlemen's Association
Michigan Pork Producers Association
Minnesota Turkey Growers Association
Mississippi Poultry Association
Mycobacterial Diseases of Animals Multistate Initiative
National Grain and Feed Association
National Milk Producers Federation

National Turkey Federation
National Assembly of State Animal Health Officials
National Association for the Advancement of Animal Science
National Association of Federal Veterinarians
National Association of State Departments of Agriculture
National Aquaculture Association
National Renderers Association
North Carolina Poultry Federation
North Dakota Turkey Federation
Ohio Poultry Association
Oklahoma State University Department of Animal Science
Poultry Science Association
South Carolina Poultry Federation
South Dakota Pork Producers Council
South Dakota Poultry Industry Association
Texas Poultry Federation
Texas Turkey Federation
The Poultry Federation – Arkansas, Missouri, Oklahoma
United Egg Producers
University of Florida, College of Veterinary Medicine
University of Florida, Department of Animal Sciences
U.S. Animal Health Association
U.S. Dairy Forage Research Center Research and Industry Committee
U.S. Poultry & Egg Association
Virginia Poultry Federation
Wisconsin Poultry and Egg Industry Association

QUESTIONS AND ANSWERS

MAY 6, 2017

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Chris Alpers

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

   No I have not, so I can't share any experiences other than it will not fit my operation.

2. I'm glad to hear that apple growers support crop insurance and have worked with the Risk Management Agency to provide products that reflect the needs of producers. I know that Senator Stabenow was focused on Michigan cherries and the Noninsured Crop Disaster Assistance Program after a freeze in 2012. What are your experiences with NAP and do Michigan cherry growers have better insurance options today than in 2012?

   Yes, hands down the program has helped stabilize the industry and the program is absolutely vital too the industry's growers. Also everyone down the economic stream benefits from the sense of stability it helps provide. With out the program it would be very hard to invest back into the industry in many ways. Sure the program is new and tweaks can be made. . With out the program it would be very hard to invest back into the industry in many ways. Sure the program is new and tweaks can be made.

3. During our discussion of over-regulation, you mentioned having to track all wildlife that comes through your orchards. I understand this is related to Good Agriculture Practices, a voluntary auditing program run through USDA's Agriculture Marketing Service. Can you describe your motivation for joining the program, and whether or not the benefits outweigh the regulatory burden? Are there other required regulatory activities that are standing in the way of your business or causing undue burden?

   While you mention the program is not required to grow cherries it is a must for almost any processor to handle them. So in a way I must participate in the program to sell my crop. It is my understanding that many other crops the situation is similarly set up. I can only speak to apples. I must participate per packer and shipper requirements. I am not aware of any buyer who would allow a grower to wave that inspection. I would also like to add a bit more by saying I would encourage the EPA to make science based decisions when looking at crop protection compound. Further more, the H2A program has many issues that make

it very hard for the producer to participate. I would suggest the program be moved to the USDA and taken out of the hands of the Dept of Labor.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mrs. Janna Fritz

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

We have not purchased the Whole Farm Revenue Protection program.

2. With the low commodity prices many of growers have been struggling with the past three and a half years, access to affordable credit is as important as ever. Are you or anyone that you know experiencing difficulties in accessing loans, either commercially or through FSA, and is there anything USDA should be doing, or that we can do in the next Farm Bill from a credit perspective to help growers weather the current economic storm?

There are a few farmers in the area experiencing difficulties in accessing credit. Thankfully, our farm is not experiencing those issues at this time. Low commodity prices do make this issue concerning for the future. If there is an opportunity for FSA to offer credit in situations where another financial institution may not lend, it is the responsibility of USDA and FSA to ensure the retention of our American farmers during these difficult economic times.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Rick Gerstenberger

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

Our farm did not use the whole farm policy as some of the revenue caps are too low and the cost is prohibitive.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Bob Hance

Chairman Pat Roberts (R-KS)

1. In your written testimony, you mention an award Midwest Energy received through the Smart Grid loan program. Recently, RUS announced a loan for Twin Valley Electric Cooperative in Kansas for a similar project. Can you explain more about these types of projects that upgrade transmission systems using broadband, and how they are good for both cooperatives and their customers?

The electric grid is one of the engineering marvels of the world. Cooperatives generate electricity from many different types of power sources, transmit those electrons over long distances into rural communities, and then distribute that power into millions of homes - each with unique demands. Despite that incredibly complicated web of connections, we take for granted that when we "flip the switch" the lights always come on.

While the grid has changed a lot during the last century, it is evolving right now at an unprecedented rate. Our customers are using more interactive appliances and devices. Many people are demanding electricity from renewable sources, which can be intermittent. And we face new, sophisticated cyber threats. Despite those challenges we must continue to provide electricity as reliably, safely, and inexpensively as possible. One essential tool for meeting this challenge is broadband. Fiber-speed connectivity helps us better manage generation to meet demand. It helps us defend against real time cyber threats. And it helps us respond quicker when there is an outage. Just as the RUS electric loan program financed many decades of basic electric infrastructure build-out, today's RUS Smart Grid electric loans are financing the transition to a broadband-connected modern grid which will keep rural America competitive and comfortable.

At Midwest, we've gone an extra step. Our RUS Smart Grid loan financed fiber to our consumers' meters. That gives us the most advanced, real-time monitoring capabilities. But, we have also have secured additional financing from private sources to run the fiber that last few feet into our members' homes for their personal use. So, in addition to better management of our electric systems, these upgrades bring a better quality of life to our member-consumers.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Adam Ingrao

Chairman Pat Roberts (R-KS)

1. As you mention in your testimony, the transition for veterans to civilian jobs and businesses can be difficult, and farmer veterans are no exception. I want veterans to succeed in whatever path they so choose after their time of service. Do the programs you reference provide for support, such as technical assistance, for business planning that includes critical information like financial projections that help guide decision-making in a business and that indicates up-front whether there is the possibility of long term financial sustainability for that owner?

Chairman Roberts, thank you for your interest in ensuring business planning is a component of veteran programs funded through the Farm Bill. The organizations I represent do consider this a priority when delivering programming to farmer veterans. We typically hold at least one workshop focused on financial health and farm sustainability per year. The content focus has varied year to year but consistent themes we have covered include; development of business plans, financial planning, risk management and assessments, and capital acquisition. We have not worked specifically in providing financial projections that help guide decision making for several reasons. The most challenging aspect of developing financial projections for our farmers is that most of the farmer veterans we work with are small farm owners (under 50 acres) producing diversified livestock and specialty crops (sometimes up to 200 varieties of crops). The diversity of our producers creates unique challenges for developing financial projections because there is not reliable market value data available on most specialty crops, and variety of the crop often has a large impact on market price (e.g. a red delicious apple market price may be $0.79/lb while honey crisp apples may be $1.50/lb). This lack of specialty crop data that recognizes the variability in market price for specific varieties of crops creates a situation in which accurate market projections are difficult to establish. We have seen this challenge with our producers trying to use the Noninsured Crop Disaster Assistance Program (NAP). The lack of data that USDA has on specialty crops (and specific varieties of specialty crops) has made utilization of NAP difficult for our producers because without accurate data USDA cannot appropriately value the crop of a specialty crop producer. In order to address this lack of good data, it would be highly beneficial if USDA developed a large data set focused on specialty crop market values (and their varieties). If such a data set were available it would allow organizations like the Vets in Ag Network the ability to add relevant financial projections to our business planning workshops, which I firmly believe would add value to our work and aid our farmer veterans in ensuring that the business models they are developing are financially sustainable in the long-term. I would encourage your committee to consider the importance of good and thorough data collected on specialty crop market value by USDA and recognize that without

this data it makes it more difficult for organizations to serve specialty crop growers appropriately from a federal, state and local perspective. Funding to support such a data collection effort within the USDA should be included in the 2018 Farm Bill. I welcome any additional questions and appreciate the opportunity to share this information.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mrs. Kristen Matson

Chairman Pat Roberts (R-KS)

1. I'm pleased to hear about the use of the Farm Bill's Good Neighbor Authority in Michigan. Can you elaborate on the policy changes you are recommending with regard to repair of existing roads?

The Farm Bill provision that allows GNA work by the state on USFS land does not currently allow for the reconstruction of existing roads already included in the national forest road inventory. This limits the timber harvest and restoration project opportunities that the USFS can partner with DNR on. Repair of existing roads is needed to conduct timber harvest in a safe and environmentally friendly way.

To address this issue, Michigan DNR and the National Association of State Foresters recommend that the Senate Agriculture Committee, working through a bipartisan and consensus-based process, amend the GNA program to allow for modest repair of existing roads on the national forests, thus increasing the number of projects available through GNA.

2. How would a policy change like this benefit the Michigan Department of Natural Resources and other stakeholders in the state?

This suggested policy change, allowing some road repair, would result in a significant increase in acres available under the Good Neighbor Authority, which would place more timber on the market. All three national forests in Michigan had additional acres that would qualify for the Good Neighbor Authority if the DNR were allowed to do some road repair. This would also result in road improvements across the forest that would have both increased public satisfaction and environmental benefits, especially with regard to water quality issues.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mrs. Pam Bouma Miller

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

Thank you, Chairman Roberts for the opportunity to respond to your question.

To date Hopyards of Kent has not purchased Whole Farm Insurance. Due to starting our farm in 2011 our yields were not mature enough in 2014, when the bill took effect, to warrant the program. Therefore, Whole Farm Insurance has not been applicable to our farm. We are in support of the program for the hop industry, as a whole, and look forward to the benefits it will bring to us as well as our industry partners.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Kyle Rorah

Chairman Pat Roberts (R-KS)

1. The Committee hears a rather constant and reoccurring message from commodity and conservation groups about the importance of working lands programs, like the Environmental Quality Incentives Program. How do those within the agriculture and conservation community suggest balancing the Federal investment in working lands conservation programs and land retirement programs?

Thank you, Mr. Chairman, and distinguished members of the Committee.

Ducks Unlimited (DU) and many of our partners' approach to voluntary conservation programs in the Farm Bill is quite simple. We support and promote a variety of options (e.g., both short- and long-term, working land and retirement programs, etc.) and let landowners decide what works best for them and their operations.

This philosophy has worked well for many decades and is supported by the high demand and oversubscribed backlog among landowners for these programs. We'd respectfully encourage members of the Committee to adopt a similar approach in the next Farm Bill. By striking a healthy balance between working land and retirement programs, we can provide a strong safety net for our nation's agricultural producers, natural resources, wildlife populations and economy. This balance is also good fiscal and land use policy. For example, a one-time easement payment, like the Agricultural Conservation Easement Program (ACEP), can protect valuable wildlife habitat, while saving limited budget resources and reducing future taxpayer liabilities. Alternatively, programs, like EQIP, for rice and grass-based livestock production can benefit both wildlife and working farms and ranches.

We know based on many years of experience helping promote and deliver these popular programs that landowners prefer options. We shouldn't limit or take away any conservation options. We also believe there's great opportunity in the next Farm Bill to develop new and innovative working land options for traditional programs, like the Conservation Reserve Program (CRP) and Wetland Reserve Easements (WRE). For example, DU strongly supports new working land CRP options that allow increased use and flexibility for moderate livestock grazing and haying outside of the primary waterfowl nesting season. We also support more true Reserved Grazing Rights on WREs that maintain livestock production and wildlife habitat values. Obviously, a "one-size fits all"

approach won't work in all states or all situations. However, more working land options, like these two examples, can be tailored for specific regions/states by local stakeholders, while saving taxpayer resources through reduced rental or easement payments. We support making programs more cost-efficient and targeting limited funding to maximize resource benefits.

Lastly, we'd strongly encourage members to support robust funding for working land initiatives, like the Regional Conservation Partnership Program (RCPP). Our RCPP efforts with rice growers across the U.S. is a testament to how working lands programs can benefit both agriculture and wildlife. In closing, we look forward to working with the Committee and your staff to promote a healthy balance of new and innovative approaches, while providing well-funded traditional conservation options for our nation's farmers and ranchers.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Darrin Siemen

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?
   I have not purchased Whole Farm Revenue Protection. The 2014 Farm Bill provides many segments of agriculture the opportunity to access a range of risk management tools without restriction; however, dairy producers have limited risk management options under the current Farm Bill. Dairy producers must decide at the beginning of each Farm Bill whether to cover their milk under Livestock Gross Margin or the Margin Protection Program, limiting the benefit of utilizing all possible tools to protect their farm operation.

2. What factors do you consider when looking at your businesses' financial statement? Do you look at the feed costs, any costs from environmental regulation, and crop values? How does the Margin Protection Program affect these calculations?
   I look at several factors when analyzing my farm's financial statement including feed cots, labor costs, milk value and crop value. I do not currently consider the Margin Protection Program when reviewing my farm's financial statements since the program has basically been ineffective in accurately reflecting the true costs of production and has failed to serve as a viable risk management tool under its current formulation.

1. With the low commodity prices many of growers have been struggling with the past three and a half years, access to affordable credit is as important as ever. Are you or anyone that you know experiencing difficulties in accessing loans, either commercially or through FSA, and is there anything USDA should be doing, or that we can do in the next Farm Bill from a credit perspective to help growers weather the current economic storm?
   Like any business, credit is key to our ability to plan for tomorrow and plan for the next 10 years. Given the strain on credit availability throughout rural America, many dairy farmers are concerned about the challenges that lay ahead. This is particularly concerning for the next generation of farmers we so desperately need. A working safety net is vital to all farmers, particularly dairy farmers. Key to that safety net is confidence by the banking and finance communities that we have the risk management tools we need to sustain. Without fundamental changes to existing dairy programs, it will be difficult for many farmers to continue, let alone grow.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. Andy Snider

Chairman Pat Roberts (R-KS)

1. Mr. Snider, your testimony mentions a new Animal Disease Prevention Program that could be created in the Farm Bill. How do you envision individual states being involved in this program? Can you describe some of the activities this program would allow states to pursue that would fit their unique needs, given the diversity of the livestock and poultry sector across the country?

   Answer: Legislation to create an Animal Pest and Disease Disaster Prevention and Response Program within the Animal Health Protection Act would be modelled after the highly successful Plant Pest and Disease Management and Disaster Prevention Program which was added to the Plant Protection Act in the 2008 farm bill.

   In December of last year, USDA released a FY 2017 Spending Plan for the Plant Pest and Disease Management and Disaster Prevention Program which serves to illustrate the types of programs that the companion program for animal health protection would support, as well as how the program would support national, tribal and state animal health objectives. Much like the program for plant protection, APHIS will develop future spending plans for animal health in consultation with State Departments of Agriculture, state animal health officials, colleges and universities including veterinary colleges, as well as veterinary and livestock producer associations.

   If enacted, the Animal Pest and Disease Disaster Prevention and Response Program will support activities designed to enhance animal pest and disease analysis and surveillance; target domestic inspection activities at vulnerable points in the safeguarding continuum; enhance and strengthen threat identification and technology; improve biosecurity; enhance emergency response time and mitigation capacity by hiring and training additional emergency response personnel; conduct technology development, enhancing electronic sharing of animal health data for risk analysis between State and federal animal health officials, outreach and education about these issues; and enhance the availability and effectiveness of animal vaccines and minor use drugs.

   Example 1: Prevention starts with continued education of the growers. A project that uses funds for grower education is critical providing seminars, video, or an interactive website are just a few options as well as potentially having a bio-security officer that continues to assist and reaffirm the critical nature of remaining active in process of

preventing these issues. Having a government official helping assess risks and identify gaps in bio-security plans through audits would also be a benefit to producers.

Example 2: One other idea that would be critical is expanding upon the great work done at many of the labs around the country such as the NVSL lab in Ames, IA, or the Southeast Poultry lab in Athens, GA. They are under staffed and ultimately cannot get to all the areas need or be as proactive as they might want to be due to funding restraints. When it comes to prevention techniques, interventions, or control measures there is still a lot of anecdotal information about how the disease spreads, what methods worked and lowering the severity of an outbreak. All legitimate questions that need research and the smart minds to help limit economic impacts to the poultry sector of our economy which many people depend for their livelihoods.

2. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

   Answer: I have not purchased Whole Farm insurance.

Senate Committee on Agriculture, Nutrition, & Forestry
Growing Jobs and Economic Opportunity: Perspectives on the 2018 Farm Bill from Michigan
May 6, 2017
Questions for the Record
Mr. David Williams

Chairman Pat Roberts (R-KS)

1. The 2014 Farm Bill created a new crop insurance program, Whole Farm Revenue Protection, to help insure diverse farms with specialty or organic commodities. Have you purchased Whole Farm insurance? If so, can you share your experiences with it?

I do not have experience with whole farm insurance. We purchase crop-specific policies for our soybeans, corn, and wheat.

2. Mr. Williams, you mention in your testimony that the American Soybean Association supports increasing the acreage enrollment cap for the Conservation Reserve Program (CRP), though do not take a position on how much to increase the acreage cap or suggest how to pay for the costs associated with such an increase. The Committee hears a rather constant and reoccurring message from commodity and conservation groups about the importance of working lands programs. How do those within the agriculture and conservation community suggest balancing the Federal investment in working lands conservation programs and land retirement programs in light of the budgetary environment?

ASA supports the value of the Conservation Reserve Program (CRP) in protecting soil, air and water quality. We recognize that millions of acres came out of CRP during recent years when prices were higher, and that some of that land should be re-enrolled in CRP. Unfortunately, additional acres are not currently being enrolled through general sign-up or even through the continuous enrollment for high-priority tracts. ASA continues to strongly support conservation programs for working lands, including CSP, EQIP and RCPP. We look forward to engaging with the Committee as decisions about funding and program specifics are developed in the next farm bill.

3. With the low commodity prices many of growers have been struggling with the past three and a half years, access to affordable credit is as important as ever. Are you or anyone that you know experiencing difficulties in accessing loans, either commercially or through FSA, and is there anything USDA should be doing, or that we can do in the next Farm Bill from a credit perspective to help growers weather the current economic storm?

I am not personally experiencing difficulty accessing credit. However, anecdotal reports of struggling farmers abound. The "Federal Reserve Bank of Chicago Fourth Quarter Report",

which covers Michigan, revealed that "since their 2013 peaks, Illinois, Indiana, and Michigan farmland values have experienced real declines of 11 percent, 7 percent, and 12 percent, respectively." ASA looks forward to working with the Committee to expand credit programs, if necessary.

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