COLORADO
Department of Agriculture

Statement of Kate Greenberg, Commissioner
Colorado Department of Agriculture
Broomfield, Colorado

Hearing on the High Plains:
Combating Drought with Innovation

Hearing of Subcommittee on
Conservation, Climate, Forestry, and Natural Resources
United States Senate

Chairman Bennet and Ranking Member Marshall, thank you for the opportunity to speak with you today about the impacts drought is having in Colorado and how our farmers and ranchers are responding to this challenge.

My name is Kate Greenberg and I serve as Colorado's Commissioner of Agriculture. The mission of the Colorado Department of Agriculture is to strengthen and advance agriculture in our state; promote a safe and high-quality food supply; protect consumers; and foster responsible stewardship of the environment and natural resources. Our vision is that Colorado agriculture continues to be strong and vibrant, a key driver of the state's economy, and recognized worldwide for its safe and abundant supply of high-quality food and agriculture products.

The Department serves as a partner with our agricultural producers in meeting current and future challenges to food and fiber production. In my time as Commissioner, our focus has been on implementing producer-led, voluntary, and incentive-based approaches to meeting shared challenges. Our work has included the creation of the Agricultural Drought and Climate Resilience Office (ADCRO) to identify and focus resources to mitigate the impacts of drought and a warming climate. The ADCRO now houses our renewable energy programs, technical assistance for USDA Rural Energy for America Program (REAP) grants, our Soil Health Program, and our climate policy and planning efforts.

Direct benefit of conservation and climate resilience resources to agricultural communities

CDA was able to leverage state stimulus funding that was a response to the impacts of the COVID-19 pandemic to invest $3,000,000 in 130 drought and climate resilience projects throughout Colorado, an additional $3,000,000 in 27 on farm and ranch renewable energy and energy efficiency projects, and $2,000,000 to support the enrollment of 125 producers and

24,473 acres in Colorado's STAR Soil Health program.[1] Much of the additional investments made by the state of Colorado were leveraged with federal funding.

Since 2015, the Department's renewable energy and energy efficiency (ACRE3) program has produced three technical guides, 59 feasibility studies, and awarded funding to 140 on-farm energy projects in 27 Colorado counties. These projects represent $11.3 million in total estimated project value, including $4.8 million in state-funded awards, $1.9 million in USDA EQIP funding, and $150,000 from other grant sources.

In 2022 and 2023, the ACRE3 program provided direct technical assistance and $2.6 million in funding for 31 infrastructure projects representing $5.5 million in project value. Combined, these projects are delivering 3,900 tons per year in CO2e emissions reductions, $231,000 in annual energy cost savings for Colorado producers, and the equivalent of 9.7 million kilowatt-hours in annual energy savings. These projects modernize outmoded infrastructure and increase profit margins through reductions in operating costs for dairies and other operations, improving their economic resilience.

Starting in 2023, the Department has been investing an additional $500,000 per year to advance the use of agrivoltaics in Colorado. Projects funded through this initiative include: test converting a conventional solar array into an agrivoltaics system that supports grazing and growing crops underneath solar panels, installing new bifacial vertical panels on an existing demonstration site and testing an agrivoltaic "shelterbelt" on the edge-of-farm to measure soil, water, and energy production benefits.[2]

The Colorado Soil Health Program supports farmers and ranchers in improving their soil quality. CDA partners with conservation districts and local eligible entities to provide financial and technical assistance to producers. Farmers can enroll at any stage of their soil health journey and receive support to experiment with healthy soil practices on a portion of their operation.

From 2021-2024, CDA enrolled more than 500 farmers and ranchers in the Colorado Soil Health Program, leading to new soil health practices on over 65,500 acres.

The Colorado Soil Health program is focused on the five principles of soil health: Soil armor; Minimizing soil disturbance; Plant diversity; Continuous live plant/root; and Livestock integration. The program encourages producers to evaluate the specific context of their operation and field, decide what resources or practices they want to focus on, and then

[1] CDA Stimulus Report 2020-2022
https://docs.google.com/presentation/d/1HR3od75gixpfLZlR3l-b1o4FEecYtVx297MVwHkppSs/edit#slide=id.g1ce42661044_0_142

[2] Governor Polis Announces Funding for Agrivoltaics Grants to Help Colorado's Agriculture Industry Benefit from Solar Technology
https://ag.colorado.gov/press-release/governor-polis-announces-funding-for-agrivoltaics-grants-to-help-colorados

provides up to $5000/year matching funds to implement the producer's chosen practices. Participants gain familiarity and expertise with new practices and an increased understanding of the environmental and economic outcomes associated with them.

The Colorado Soil Health Program (CSHP) also provides equipment grants, peer-to-peer learning opportunities, field day support, and funds CSU Extension and CSU Ag Experiment Station staff to provide additional technical support. Participants also do a STAR Field Evaluation, receive two soil tests, and a soil moisture monitoring system for their enrolled field.

The CSHP has been made possible through financial support from Colorado state stimulus funds, NRCS Conservation Innovation Grant, USDA Climate Smart Commodities (CSC) Grant, Colorado Water Conservation Board (CWCB), Colorado Department of Public Health and the Environment (CDPHE), the Wallace Foundation and National Fish and Wildlife Foundation. Further, the CSC Grant provided $25M to not only expand the CSHP, but also to build the STAR framework into a functional national non-profit and help 6 other western states adapt it to further their own soil health priorities and programs. One of the key components of the CSC Grant is to build market rewards to build better profitability into better land stewardship. The flexibility offered by the CSC grant compared to other USDA funding sources was vital to bringing the partnerships together.

Collaboration at the producer, local, state, tribal, and federal levels has been key to the success of our drought and climate resilience programs. This continued partnership, especially with funding support from the USDA, is vital to continuing the innovative responses our producers are implementing to continue agricultural production in the face of mounting drought and climate challenges.

Advancing state and federal partnerships for rural and agricultural opportunity

Federal programs need to be flexible to allow for innovation at the state, local, and producer levels. One way of doing this is by partnering with states to support the programs that they are implementing. Colorado's Soil Health and renewable energy programs are examples of how federal funding can leverage the existing partnerships of state and local organizations to achieve significant outcomes. Leveraging the financial strength of the federal government with local knowledge and support is an approach that benefits everyone.

Federal programs that support Colorado's drought and climate resilience efforts could be better funded and tailored to meet the needs of the West, or at a minimum, allow greater flexibility to meet the varied needs of every part of our country.

Specifically, Colorado has been a leader in utilizing conservation easements to protect agricultural lands. Increasing funding for the Agricultural Conservation Easement Program and allowing the program to cover project costs for landowners would allow for greater use of this

tool. The Environmental Quality Incentive Program is a vital partner in our renewable energy efforts, with additional funding as well as increasing in the program's federal matching contribution percentage, we could complete additional projects.

With increased funding and the complexities of applying for and expending grant funding, an increased focus on providing technical assistance is needed. Landowners need more technical assistance, whether delivered by USDA or partner employees provided through contribution agreements with state agencies.

The Regional Conservation Partnership Program (RCPP) is at a point now where changes need to be made to ensure its continued success. It's a cumbersome program that requires extensive administrative oversight. The lack of administrative funding in RCPP creates a significant hurdle for conservation partners wanting to address regional conservation issues. The extensive oversight required, combined with the lack of administrative funding, has resulted in a program that is no longer an option for funding some regional conservation projects.

Successes we have had implementing the CSHP with a CSC grant provide an example of what can be accomplished without the restrictions that RCPP has. Additionally the administrative funding and technical assistance that was available through the CSC grant is what has made the state and local partnerships possible. To accomplish what we have through the CSC grant required funding at the state and local level to administer the program, provide technical assistance, and direct producer payments.

The 2018 Farm Bill provided that dryland agricultural uses may be permitted under the Conservation Reserve Enhancement Program (CREP) with the adoption of best management practices on enrolled land. While there have been challenges with implementing this provision, the ability to allow dryland crop production on enrolled lands is key to Colorado enrolling the necessary acres in CREP to meet interstate compact requirements. This is another example of the type of flexibility that is needed in USDA programs so they are successful at meeting both federal objectives and local needs.

Disaster relief programs need to be fully funded to address the losses that producers face due to the increasing frequency and severity of natural disasters, including drought, resulting from a changing climate. The increase in severity and frequency of these events is predictable, yet relief programs remain focused on maintaining the status quo in terms of agricultural production and practices. In order to both encourage building drought and climate resilience and maintain the long-term financial stability of disaster relief programs, there needs to be a change in focus from incentivizing a return to pre-disaster practices to incentivizing practices that will be more resilient in the future, resulting in less disruption to agricultural production and a lesser need for disaster assistance.

Finally, we need to continue to make investments in research, incentive programs for voluntary practices, and technical assistance that equip more farmers and ranchers with additional options to protect and conserve natural resources through on-farm practices that reduce greenhouse gas emissions, increase carbon sequestration and adjust to a changing climate. Colorado State University and our other land grant universities are critical partners in researching and developing practices that will be necessary to continue agricultural production in an increasingly arid climate. This is an investment that must be made at the federal level to ensure continued food and economic security for the country.

I appreciate the opportunity to discuss how Colorado is working to meet the drought and climate challenges facing our agricultural producers and how federal programs can be better tailored to work cooperatively with states in achieving shared goals. My team and I are available to provide additional information and assist you in this work. Thank you for your time and consideration.