



Exploring integrated solutions from the land for addressing food and energy production, economic development, biological diversity and climate change challenges.



## **Florida Ag Producers, Foresters Share Ideas to Deal with Climate Change**

(AUGUST 13, 2019) – Florida Rep. Kathy Castor told a group of farmers, ranchers and timber producers in her state Monday that responding to a changing climate must be a collaborative effort, drawing together producers, government agencies and academics to develop the steps needed for the agriculture sector to adapt to – and mitigate – worsening climate conditions.

"None of us have all of the answers," Castor told a [forum](#) held in Gainesville and co-sponsored by [Solutions from the Land](#) and the University of Florida's [Institute of Food and Agricultural Sciences](#) (UF/IFAS). "It is important for all of us to work together."

The forum highlighted the climate challenges now pressing Florida's farms, ranches, and forests, as well as steps producers and others are taking in response to the growing threat.

Castor, a Democrat who chairs the House Select Committee on the Climate Crisis, said a report issued last week by the Intergovernmental Panel on Climate Change (IPCC) underscores the role of working lands in both contributing to and mitigating conditions and reinforces the need for all parties to collaborate.

Castor, who said the steps to be considered by her committee "cannot be theoretical," reported that "all members" of her panel are engaged in the process, noting that recommendations on legislation dealing with the climate crisis are expected from both Democrats and Republicans on the panel by next spring.

A bipartisan approach to legislation is crucial because lawmakers must "think about a paradigm shift" to give growers the tools to deal with the changing climate, she said, indicating the possibility of a financial incentive for agriculture and forestry operators to build carbon stores in their soils and woodlands.

Dr. Jack Payne, UF senior vice president for agriculture and natural resources and the leader of UF/IFAS, indicated that compensation should be provided to producers who make the additional outlays to retain soil carbon and stem climate change.

"If we're going to be sustainable, we have to keep these operations profitable," he told the audience.

Bill Hohenstein, the director of energy and environmental policy in the USDA's Office of the Chief Economist, said he was glad to see improving productivity was cited in the IPCC report as critical to dealing with climate change. He noted that while global figures attribute some 21-23

percent of net greenhouse gas emissions (GHGs) to agriculture and land use, different countries face different challenges.

"In the United States, we have quite a different story," the USDA official said. "Agriculture is just under 9 percent of U.S. greenhouse gases. Managed forests offset about 11 percent of U.S. GHGs, meaning that, in the aggregate, the land system in the United States is a net (carbon) sink relative to other sources."

Dr. Carolyn Mutter, with the Columbia University Earth Institute Center for Climate Systems Research, provided an overview of the IPCC Climate and Land report. In summing up some of the IPCC report's key findings, Mutter said the world is already seeing impacts from climate change on food security, including yield declines, increased prices, reduced nutrient levels and quality, and supply chain disruptions. But she also underscored agriculture's restorative role in a time of changing conditions, citing the report's assertions that "governance, policies and practices that support sustainable land management, ensure a supply of food for vulnerable populations and keep carbon in the ground while reducing greenhouse gases" are critical.

Mutter echoed Castor's call for cooperation, noting that "tackling the challenge of climate change requires a coordinated response."

A producer panel evoked stories like those from one southwest Florida grower who has experienced unprecedented rainfalls in the past 6-8 years. Another grower, who farms in the state's Panhandle, noted that rainfall is 12 inches behind average for this time of year. A South Florida grower said the winter season has virtually disappeared in his part of the state, noting that no temperatures below freezing have been recorded in 2019. A North Florida grower said his operation seems to be challenged annually with "a new bug or a new disease."

Dr. Senthold Asseng, director of the Florida Climate Institute, said efforts are underway there to develop a Florida climate vulnerability assessment, a formal evaluation that will lead to the tools needed for agricultural production. It will also establish the standards, data, analyses and thresholds that will shape planning decision-making and set research agendas, as well as for use in promulgating public policy and legislation.

Resilience decisions must be informed by the best available science through an iterative, stakeholder-driven process that is easily updated and user-focused, Asseng said. He added that the best science must be presented in a manner that is responsive, supportive, and critical, focusing on systems and not separate sectors.

That means relationships between knowledge producers and users are critical to making better yield decisions that will drive outcomes that can both yield better decisions and outcomes to build capacity and overcome performance barriers. The evaluation, which is expected to take 18-24 months to complete, could result in strategic tools that growers can use to adapt to and mitigate the changes that are hitting their operations.

"The ultimate goal is to develop strategies and plans to adapt ag operations to climate change and mitigate its impact," Asseng said.

SfL Co-chair Fred Yoder closed the forum, noting that Florida "is a powerhouse for agriculture... with diverse crops and systems," and adding that the state's "Climate Smart Agriculture Work Group is a national pioneer for agricultural solutions."

He warned producers that while SfL and the state agencies heard from during the forum "hope to give you everything you need to help you" to prosper under a changing climate, they "have a significant job ahead."

Yoder noted that agriculture must feed some 9.9 billion people by 2050 – 2.2 billion more than the current global population. He said agriculture must double production over the next several decades while growing on less land than is now in use.

"We all have to have each other's backs," Yoder said. "Meeting the challenge will require a systems approach, not [single-interest] silos."

He argued that if agriculture does not lead the discussion with its own proposals for policy development to address the changing climate, others will try to impose their own perspective on the debate and divert funding toward services that may provide less protection against climate change than would investments in climate-smart agriculture.

Prior to the forum, several participants joined in a UF/IFAS tour of local cattle and timber operations and observed steps being taken there to adapt to and mitigate climate change.

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***Solutions from the Land (SfL)** is a not-for-profit corporation focused on land-based solutions to global challenges. SfL's mission is to identify and facilitate the implementation of policies, practices and projects at a landscape scale that will result in land being sustainably managed to produce food, feed, fiber and energy while protecting and improving critical environmental resources and delivering high value solutions to combat climate change. For more on **Solutions from the Land**, click [HERE](#).*

*The mission of the **University of Florida Institute of Food and Agricultural Sciences** is to develop knowledge relevant to agricultural, human and natural resources and to make that knowledge available to sustain and enhance the quality of human life. With more than a dozen research facilities, 67 county Extension offices, and award-winning students and faculty in the UF College of Agricultural and Life Sciences, UF/IFAS works to bring science-based solutions to the state's agricultural and natural resources industries, and all Florida residents. Visit the UF/IFAS web site at [ifas.ufl.edu](http://ifas.ufl.edu) and follow us on social media at [@UF\\_IFAS](#).*