Researchers: Information flow can help farmers cope with climate change

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The instant communications technology that nurtured grassroots revolutions in the Arab world could also help farmers cope with climate change, according to Iowa State University researchers.

And so the researchers – Steven Fales, a professor of agronomy; and Gene Takle, director of Iowa State's Climate Science Program, a professor of agronomy and of geological and atmospheric sciences – are organizing a symposium to explore that idea during the annual meeting of the American Association for the Advancement of Science Feb. 16-20 in Vancouver, British Columbia, Canada. The theme of this year's meeting is "Flattening the World: Building a Global Knowledge Society."

The Iowa State researchers are working on the symposium with Mannava Sivakumar, director of climate prediction and adaptation for the World Meteorological Organization based in Geneva, Switzerland.

They're calling their session "Enhancing Information Flow for Global Food Security in the Face of Climate Change."

"This whole climate change debate has gotten to be monotonous," Fales said. "Many of us are saying it's time to forget about the naysayers and go into action, which will require adaptation and resilience."

The symposium will consider an action plan that calls for developing global systems that distribute information about crops and climate

change through local networks and cell phones. Fales figures such a system would move information far more quickly than the current system of studying, discovering, publishing and then communicating to farmers via extension systems.

"In these unstable climate conditions, the situation can change rapidly from season to season," Fales said.

And when the latest climate model indicates a change in growing conditions, Fales said there should be a way to quickly notify a region's farmers that wheat, for example, may be the best crop for the year.

The researchers also see information flowing back from the farmers: "The farmers' observations could be transferred back to a database so we could see trends emerging," Fales said. "And that could actually happen in the upper Midwest of the U.S. or in Uganda."

Takle, who studies climate change on a regional scale, said the symposium will consider strategies and technologies that would work around the globe. Speakers will also consider how research can be organized to encourage the timely flow of data to and from farms.

The ultimate goal, he said, is "getting knowledge to the people who need it."

Speaking during the symposium will be Augustine Langyintuo, officer in charge of policy and partnerships for the Alliance for a Green Revolution in Africa based in Nairobi, Kenya; L.S. Rathore, the head of Agro-Meteorological Advisory Service of the India Meteorological Department based in New Delhi; Bruce Campbell, program director of the Research Program on Climate Change, Agriculture and Food Security of the Consultative Group on International Agricultural Research and the University of Copenhagen; and William Easterling,

dean of the College of Earth and Mineral Sciences at Penn State University.

Fales said he and other symposium organizers are serious about moving beyond ideas and talk.

"We're focusing on action," he said. "We hope to come out of the symposium with a set of specific recommendations for the policy and scientific communities."

Provided by Iowa State University