

MISSOURI NEWS SCENE

WHAT'S HAPPENING IN MISSOURI

APRIL

14-15: Missouri FFA Convention, Columbia

30: Goat and Sheep Conference, Kirksville. Call 573-751-2539.

JUNE

1-3: State 4-H Congress, University of Missouri, Columbia. Visit 4h.missouri.edu.

6-10: Missouri Agribusiness Academy, Kansas City. Call 573-751-5618.

7: Clover Classic Golf Tournament, A.L. Gustin Golf Course, Columbia. Major fundraising event for Missouri 4-H programs. For more information and to sign up a golf team, call 800-642-8041 or visit the website, 4h.missouri.edu/foundation/news.

8-10: World Pork Expo, Iowa State Fairgrounds, Des Moines, Iowa

10-11: Missouri Chapter of the Walnut Council Field Day, Nussbaum and Martin Tree Farms, Cape Girardeau. Tour demonstrations will cover tree planting; a managed timber sale; managing selected cultivars of quality black walnut for nut production; and an update on the threat of thousand cankers disease, which affects Missouri black walnut. For pre-registration and more details of the tour, contact palmh@missouri.edu; or Dennis Potter, 573-808-0837, after May 1.

10-12: Missouri Cattlemen's Association All Breeds Junior Show, State Fairgrounds, Sedalia. Call 573-499-9162.

13-15: Youth Pork Institute, Columbia. Sponsored by the Missouri Pork Association and the University of Missouri. For more information, visit the website, www.mopork.com/youth_youthporkinstitute.asp.

28: Pork Classic Golf Tournament, Columbia. Call the Missouri Pork Association office at 573-445-8375, or visit www.mopork.com.

23-25: Show-Me Beef Leadership Conference, Columbia. Call the Missouri Cattlemen's Association office at 573-499-9162.

JULY

6-8: Missouri Dairy Grazing Conference, Joplin. For details and registration information, contact Ryan Milhollin, MU Extension Commercial Agriculture Program, Columbia, at 573-882-0668, or visit the website agebb.missouri.edu/dairy/grazing/conference.

20-22: MO-AG Summer Meeting, Lake Ozark. Call the Missouri Agribusiness Association at 573-636-6130.

29-Aug. 7: 75th Anniversary Ozark Empire Fair, Springfield. Call 417-833-2660, or visit www.ozarkempirefair.com.

AUGUST

11-21: Missouri State Fair, Sedalia. Visit www.mostatefair.com.



NEW FOCUS: MU plant scientist Peter Scharf is involved in a Midwest study to find innovative soil nitrogen and carbon management strategies to reduce the greenhouse gas footprint of corn production.

By **CURT WOHLER**

THE University of Missouri is one of nine land-grant universities participating in a five-year research program focused on keeping Midwest corn-based cropping systems resilient in the face of future climate uncertainties.

Peter Scharf, professor of plant sciences in the University of Missouri College of Agriculture, Food and Natural Resources, will join a team of 42 scientists from universities and two USDA Agricultural Research Service institutions in an eight-state region. This region produces 8 billion bushels of corn, which is 64% of the annual harvest in the United States.

Researchers will begin collecting data on carbon, nitrogen and water movement this spring from 21 research sites in eight states. Special equipment will monitor greenhouse gas emissions at many of the sites. The project is funded by a \$20 million grant from USDA's National Institute of Food and Agriculture, or NIFA.

The researchers will integrate field and climate data to create models and evaluate crop management practices, Scharf reports. The project will help researchers, educators, producers and industries identify and define corn-based cropping systems that are productive and resilient in the face of weather uncertainties and risks.

Scharf will study innovative soil nitrogen and carbon management strategies to reduce the greenhouse gas footprint of corn production, and simultaneously optimize the adaptation of corn production to climate change.

"One example would be the need to adapt nitrogen fertilizer management to wet spring conditions, which can cause nitrogen loss and nitrogen deficiency," Scharf says. "I estimate that nitrogen deficiency has caused the loss of 1.5 billion bushels of corn, worth about \$6 billion,

over the past three years, due to unusually wet spring weather."

Real-world data

The goal is to create a database of plot, field, farm and watershed data that can be combined with climate data to develop scenarios based on different practices, says Lois Wright Morton, project director and Iowa State University professor of sociology. "Farmers in the region will have opportunities to participate in on-farm research, and evaluate research models. The project will also offer training for teachers and the next generation of scientists to better understand the relationships among climate shifts and agriculture."

The project's transdisciplinary approach will enable researchers to integrate and coordinate research, Extension and education, says Joe Colletti, associate dean at Iowa State's College of Agriculture

and Life Sciences. "As we gather data for future weather and cropping models, we'll also be talking to producers and asking if the results are economically viable, socially acceptable and environmentally sensible."

The grant is part of the USDA-NIFA Coordinated Agricultural Program. The program focuses on decreasing greenhouse gas emissions and increasing carbon sequestration. The long-term national goal is to reduce the use of energy, nitrogen and water by 10%, and increase carbon sequestration by 15% through resilient agriculture and forest production systems.

This project's researchers include agronomists, agricultural engineers, environmental scientists, hydrologists, soil scientists, sociologists, watershed engineers and natural resource scientists.

Wohleber is a senior information specialist for MU Cooperative Media Group.

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