

Backyard poultry most likely affected by outbreaks of pandemic avian flu



Should highly pathogenic avian influenza reach the Midwest, backyard poultry such as ducks, chickens and these free-range heritage turkeys may be the first to come in contact with wild birds carrying the virus.

Backyard poultry producers will face the first round of tough decisions should highly pathogenic H5N1 avian influenza make its way to the Midwest, an MU poultry scientist said.

"There's no reason to panic until it gets here," said Jeffre Firman, who recently traveled across Asia and Eastern Europe studying H5N1 avian flu impacts on poultry production. "But from what we've seen in other countries, the chief way H5N1 avian flu will get into domestic animals such as ducks, chickens and turkeys is through contact with wild birds."

If the disease does arrive, Firman said domestic birds must be completely housed. "You can't just pen your backyard flock in with a fence and think that is enough protection. You would have to prevent all contact with wild birds and wild bird feces."

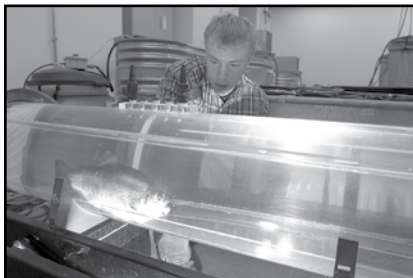
Domestic ducks and geese are Firman's highest concern because they could be swimming and drinking from the same ponds as wild fowl.

He said the unwarranted fear spread by misinformation and by television movies may be the most dangerous issue regarding the highly pathogenic H5N1 strain.

"My advice to poultry producers is to keep an eye on the issue and educate yourself about the disease. If and when it gets here, be prepared to make some of those decisions," he said.

For more information, including health risks and poultry care issues, see the official U.S. government information Web site at www.pandemicflu.gov.

Fish food supplemented with creatine may enhance swimming endurance



Kyle Winders, an MU fisheries and wildlife major from Gower, Mo., monitors a rainbow trout as it swims within a special double-walled Plexiglas tube designed to measure the fish's endurance. Winders is an undergraduate student working with MU researchers Rob Hayward and Eric Berg, who are studying the effects of creatine on fish growth and endurance.

Creatine, the performance-enhancing supplement made famous by Mark McGwire when he broke Roger Maris' single-season homerun record in 1998, may also enhance the growth and endurance of some fish species, MU researchers said.

In a recently completed preliminary study, fisheries professor Rob Hayward and meat scientist Eric Berg found that some rainbow trout, when fed a diet with 5 percent creatine, showed a dramatic increase in the time they were able to swim against a controlled current.

"While this study is by no means definitive, there is some indication that swimming stamina was enhanced," Hayward said. "The difference was striking, as some fish fed creatine swam eight to 10 times longer than those in the control."

Should the dietary supplement prove effective, it could have implications for both owners of lease-fishing operations and for open ocean aquaculture, he said.

"Sportsmen would likely pay a premium for a fishing experience where the fish struck the bait harder and fought longer," Hayward said. "And as the aquaculture industry continues its move into the open ocean, creatine might provide a means of improving growth rates and survivorship in stronger ocean currents."

To test the trout's swimming stamina, the researchers used a unique apparatus: a double-walled, Plexiglas swim tube. "In essence, it's a water treadmill," Hayward said.

"Our next step is to conduct tissue analysis, and if we find favorable results, we might pursue another study," he said.

Select the right rose varieties for Missouri's climate and soil



Mary Kroening, right, Missouri Master Gardener program coordinator, discusses caring for roses in Missouri's wild and rapidly changing weather during an April 27 workshop at the Bradford Research and Extension Center. Kroening recommends choosing rose varieties that perform well in Missouri climate and soils.

Roses are blooming, but it's not too late to plant more in home gardens throughout the summer. Start by choosing the right varieties and pay close attention to watering during hot weather, said Mary Kroening, Missouri Master Gardener program coordinator.

Missouri is one of the toughest places to successfully grow roses. Warmer winter temperatures cause roses to break dormancy early, leaving them susceptible to freezing injury. Other stressors include black spot disease and poor clay soils.

When planting during the summer, Kroening recommends watering with one gallon of water per plant every two to three days for the first 10 days. Gradually water less frequently until reaching a summer watering schedule of once every 10 days for established plants.

Kroening recommends planting potted roses rather than bareroot plants during the summer. This results in less disturbance to the roots, causing less transplant stress. Kroening has compiled a list of her favorite varieties that are easy to care for, stand up to Missouri's rapidly changing climate and grow in poor soils. To see her favorites, go online to agebb.missouri.edu/hort/meg/archives/v7n13/meg2.htm.

CAFNR spring graduation ceremony a mix of smiles, tears



UM President Elson Floyd, left, congratulates Andrea Loyd during the College's spring commencement ceremony, May 13. Loyd graduated with a bachelor's degree in animal sciences; Floyd gave the keynote address during the ceremony.

The College of Agriculture, Food and Natural Resources said goodbye to another class of graduates at the spring commencement ceremony, May 13, at the Hearnes Center on campus. The ceremony was an especially emotional event as the College honored Bruce Bullock, chairman of the Department of Agricultural Economics, who passed away unexpectedly May 10. An empty chair on stage, draped in doctoral regalia and adorned with yellow roses, symbolically marked Bullock's absence.

Gretchen Stiefel, daughter of Tony and Beth Stiefel from Shelbyville, Mo., was named Outstanding Senior by the CAFNR Student Council. She was one of nearly 300 CAFNR undergraduates to receive degrees during the ceremony. Elson S. Floyd, president of the University of Missouri, delivered the keynote address.

The MU School of Natural Resources also conducted its graduation ceremony May 13, presenting degrees to about 80 graduates. Doyle Childers, director of the Missouri Department of Natural Resources, delivered the keynote address.

Eleven Missouri farms granted cash for sustainable agriculture projects



José Garcia, coordinator of the MU Community Food Systems and Sustainable Agriculture Program, has been leading the charge to increase the state's applications to the Sustainable Agriculture Research and Education (SARE) grant program.

Missouri farmers dominated the farmer and rancher category of the Sustainable Agriculture Research and Education (SARE) grant program this year. Eleven of the 47 grant recipients in the 12-state North Central Region hailed from the Show-Me State. Ohio was second with eight grants awarded.

José Garcia, coordinator of the MU Community Food Systems and Sustainable Agriculture Program, has been leading the charge to increase the number of grant proposals coming out of Missouri.

"We have put an extra effort into making farmers more aware of the grant program, and we offer assistance in teaching how to prepare applications," he said. "A grant gives them enough money for an idea they want to try out on their farm."

SARE grants are funded through the U.S. Department of Agriculture. A call for new grant proposals is expected in early fall, Garcia said, with applications due in late November or early December. Anyone interested in attending an upcoming grant writing workshop or applying for a SARE grant may contact Garcia by phone at (573) 884-3794 or by e-mail at garciajl@missouri.edu.

Discover&Enlighten Vol. 8, No. 6

Published monthly by the Office of the Vice Chancellor and Dean for Agriculture, Food and Natural Resources, University of Missouri-Columbia, 2-69 Agriculture Building, Columbia, MO 65211, to inform its stakeholders about important events, research findings and teaching advances. Vice Chancellor and Dean: Thomas L. Payne. Production staff: Extension and Agricultural Information.