

August 2005

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### Dates to Remember

#### August

- 1-4** Beef Cattle Reproduction Management School -
- 1-6** Southern Regional 4-H Horse Championships -  
Montgomery, AL
- 4** Extension Farm Field Day - Jay, FL
- 4** Selection and Management Tools to Improve your  
Calf Crop - LaBelle, FL
- 6** Meat Goat Training Course (Part 3 of 5) - Quincy, FL
- 9-13** NCBA Mid Year Conference - Denver, CO
- 13** North Florida Beef & Forage Group Extension Agents  
Annual Hay Field Day - Gainesville, FL
- 18** NFREC Beef Cattle/Forage Field Day - Marianna, FL
- 27** Meat Goat Training Course (Part 5 of 5) - Quincy, FL

#### September

- 15-17** FCA Fall Quarterly Meeting - Crystal River, FL
- 25** Florida Santa Gertrudis Sale - Bartow, FL

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### 2005 North Florida Beef Cattle/ Forage Field Day

Mark your calendars and plan to attend the 3rd Annual Beef Cattle/Forage Field Day at the University of Florida/Institute of Food and Agricultural Sciences', (UF/IFAS) North Florida Research and Education Center Beef Unit in Marianna, Fla., on Thursday, August 18, 2005. The program will begin at 8:00 a.m. CDT and will end at 3:00 p.m. Lunch and refreshments will be provided.

The field day will include demonstrations along with field tours of ongoing research. Topics covered will include an update and demonstration of the new Feed Efficiency Facility, the integration of cattle grazing into a crop rotation scheme, fertilization of pastures, weed control in pastures, an update on cool season forages, and mineral supplementation of the cow herd.

The NFREC-Beef Unit is located one mile west of Greenwood, Fla. on state highway 162. For additional information call (850) 482-9904 or (850) 482-1243. A registration fee of \$5 will be charged.



## Beef Management Calendar

### August

- ☑ Treat for liver flukes as close to August 15th as possible, if they are in your area.
- ☑ Cut hay.
- ☑ Apply lime for fall and winter crops.
- ☑ Harvest Bahiagrass seed.
- ☑ Check mineral feeder.
- ☑ Update market information and marketing plans.
- ☑ Check for army worms, spittlebugs, and mole crickets, and treat if necessary.
- ☑ Check dust bags.
- ☑ Wean calves and cull cow from herd.
- ☑ Watch for evidence of abortions.
- ☑ Observe animals regularly for signs of disease.
- ☑ If cattle grubs were found on cattle last winter or heel flies were observed in the pasture, treat for cattle grubs this month.
- ☑ Pregnancy test and cull open heifers from replacement herd.

### September

- ☑ Cut hay.
- ☑ Heavily graze pastures to be interplanted to cool season pastures.
- ☑ Check mineral feeder.
- ☑ Check for mole crickets, spittlebugs, and grassloopers, and treat if necessary.
- ☑ Check dust bags.
- ☑ Wean calves and cull cow herd if not already done. Remove open, unsound, or poor producing cows.
- ☑ Train cowboys to observe normal and abnormal behavior and signs of disease.
- ☑ Be sure any replacement purchases are healthy and have been calfhooed vaccinated for brucellosis.
- ☑ September or October is a good time to deworm the cow herd if internal parasites are a problem.
- ☑ When replacement heifers are weaned, give them required vaccinations and teach them to eat from a bunk – then put them on a good nutrition program.
- ☑ Determine bull replacement needs, develop selection criteria, and start checking availability of quality animals.

- ☑ Review winter feed supply and feeding plans so that needed adjustments can be made before supplies tighten and prices rise.

### October

- ☑ Plant cool season legumes.
- ☑ Plant small grain pastures.
- ☑ Check mineral feeder.
- ☑ Check for external parasites, especially lice, and treat if needed.
- ☑ Check for spittlebugs and grassloopers and treat, if needed.
- ☑ Watch condition of cow herd; maintain adequate nutrition.
- ☑ Isolate any additions to the herd for 30 to 60 days and observe for signs of disease; retest for brucellosis and leptospirosis.
- ☑ Be sure you have adequate handling facilities, and they are in good working order.
- ☑ If you are raising bulls for the commercial market, October thru December is the main bull-buying season for cattlemen in south Florida and now is the time to have your promotion program fully activated.



## UF Scientists Detect Soybean Rust, Farmers Brace for Outbreaks

Asian soybean rust, a crop-killing disease first detected in the United States last fall, has been found near Citra on soybeans at a University of Florida “sentinel plot” planted early to detect the fungus. It was one of two findings this week that mark the first appearances of soybean rust on U.S. soybeans during the typical growing season, and UF researchers fear the discovery signals the beginning of outbreaks that may devastate the nation’s \$16 billion soybean industry.

The disease was found Wednesday by Jim Walker, a biological scientist with the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, which has been monitoring the plots in cooperation with UF’s Institute of Food and Agricultural Sciences, or UF/IFAS. On Thursday, a Division of Plant



*Jim Marois, left, and David Wright, professors at the University of Florida's North Florida Research and Education Center in Quincy, check soybean plants for Asian soybean rust – Friday, July 1, 2005. First discovered in the United States in fall 2004, the crop-killing disease was found growing on cultivated soybeans for the first time this week, striking early-planted “sentinel plots” in Florida and Alabama. To help protect the nation’s \$16 billion soybean crop, the researchers are monitoring plants around the state for signs of the disease. (AP photo/University of Florida/IFAS/Thomas Wright)*

Industry laboratory confirmed that the pathogen was Asian soybean rust, said David Wright, a UF/IFAS professor of agronomy in Quincy.

The other discovery was made Tuesday on a sentinel plot in Baldwin County, Ala., Wright said. Previously, soybean rust was found in Florida and other Southern states after the 2004 growing season ended. The crop is typically planted in the spring and produces soybeans in the summer and early fall.

“There’s a lot at stake now, and nobody really knows what will happen,” Wright said. “But if there are major problems, it will affect a lot of people.”

Losses from the disease — which kills up to 95 percent of infected plants — could drive up prices on products ranging from margarine and peanut butter to livestock feed and biodiesel fuel, he said.

UF and state agricultural experts have joined a nationwide effort to help farmers protect this year’s crop, estimated at 74 million acres, Wright said. Soybeans are grown in 31 states, with heaviest production in the Midwest.

By monitoring sentinel plots at 26 Florida sites, Wright and other scientists at UF’s North Florida Research and Education Center in Quincy hope to provide data on the disease’s development, distribution and other factors that could assist farmers in northern areas of the nation, Wright said. The project is funded by the U.S. Department of Agriculture and the North Central Soybean Research Program, a consortium representing higher education institutions in the 31 soybean-producing U.S. states.

Many growers are concerned about being caught off guard by soybean rust, because the fungus, known as *Phakopsora pachyrhizi*, is spread by tiny spores that can travel hundreds of miles on air currents, he said.

“The fungus also matures very quickly,” Wright said. “Once a spore lands on a host plant it can produce new spores in nine days.”

Despite its name, soybean rust attacks more than 30 species of legumes, a plant family that includes beans, peas and clover, he said. On soybeans, it causes infected leaves to develop small brownish spots, then turn yellow and fall off.

Crop protection sprays called fungicides control the disease in South America, where soybean rust arrived in 2001, Wright said. But U.S. farmers fear the sprays could cut profits.

Fungicide treatments for an acre of soybeans would cost \$10 to \$30 per year, he said. Protecting the entire U.S. crop could total more than \$1 billion.

“Soybeans have a low profit margin, probably \$25 to \$50 per acre,” Wright said. “So there’s not much room for new expenses.”

To determine which fungicides work best under Florida’s growing conditions, UF researchers are conducting field trials of about 20 products, said Jim Marois, a UF plant pathologist. The trials, held at the Quincy center, will also investigate application methods.

“Growers prefer the lowest-priced products that work,” Marois said. “We want to help them make informed choices.”

UF researchers will also investigate tilling methods that bury old plant residue, a practice that could prevent dormant spores from starting new outbreaks, he said.

“This method will only work against spores that survive the winter here, and we’re not sure that will happen,” Marois said. “We hope not, because then we’ll only have outbreaks if spores arrive from other countries.”

Native to Asia, soybean rust is believed to have reached the United States in September when winds from Hurricane Ivan transported spores from South America, he said. There, the disease affects Brazil, Bolivia and Paraguay.

Concerns about international terrorism spurred U.S. preparations for soybean rust, Marois said. In the aftermath of the Sept. 11 disaster, it was identified as a possible bioterrorism agent, which led to the development of federal programs to identify and respond to the disease.

“We’ve had a very coordinated effort,” Marois said. “Although nobody’s happy soybean rust is here, the silver lining is that we’re learning more about how we can take a nationwide approach to crop diseases.”

Florida will be a critical state in the fight against soybean rust, said X.B. Yang, a professor of plant pathology at Iowa State University in Ames.

“What happens in Florida may well determine the risk level for Midwest states,” said Yang, who is part of an Iowa group collaborating with UF researchers. “Information generated by UF scientists is essential for colleagues in the north.”

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Release - July 1, 2005



## NCBA Chooses Provider for Animal ID Program

The National Cattlemen’s Beef Association has chosen BearingPoint Inc. as the lead technology provider for its proposed national animal identification program, which it is developing because of the long gestation of USDA’s planned mandatory National Animal Identification Service (NAIS). Other technology providers selected include Microsoft, ViaTrace and S&H Marketing.

BearingPoint was selected, NCBA said, both for its experience in large-scale technology solutions and its ability to focus on the identification system. NCBA expects a program to be beta tested by October and fully operational by January 2006. USDA’s plan, by comparison, isn’t set to become fully operational until January 2009.

“The Commission feels that having an identification program in place by fall 2005 is essential,” said Allen Bright, a Nebraska cattleman and head of NCBA’s Animal Identification Commission. “Many of our domestic and international customers are requesting identification already, and we believe a market-driven solution is quicker and better protected than a bureaucratic, government solution.”

NCBA’s program will be totally voluntary, but it will meet USDA’s goal of 48-hour traceability from any point in the production process. Eventually, NCBA plans to turn over its program to a producer-run, multi-species consortium of food producers that will fund and operate the program and, most importantly, safeguard data that many ranchers and producers consider to be proprietary, competitive information.

**SOURCE:** Pete Hisey  
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Release - July 8, 2005

## Anthrax Confirmed in Sutton County, Texas

Two ranches in Sutton County, Texas have laboratory-confirmed cases of anthrax in horses, deer and cattle, and laboratory results are pending for several other sites in the county, where livestock and deer losses have been reported. Although this bacterial disease occurs almost yearly in this region of the state, cases have not been confirmed within Sutton County for more than 20 years. Typically, outbreaks are in Val Verde, Edwards, Kinney and Uvalde counties, but on rare occasions, cases have been confirmed as far south as Starr County, reports Dr. Thurman Fancher, director of Area 6 (West Texas) for the Texas Animal Health Commission (TAHC).

“Anthrax is under-reported, because many ranchers in this area automatically dispose of carcasses and vaccinate livestock when they find dead animals that are bloated or bloody—common signs of the disease,” said Dr. Fancher. “Anthrax is a reportable disease, however, and it’s important to know when an outbreak occurs, so other ranchers can be notified to vaccinate.

Dr. Fancher explained that it is common to see death losses in one pasture, but not across the fence. However, all livestock in an infected area should be vaccinated, to prevent potential losses. There is no effective, approved manner to deliver anthrax vaccine to grazing wildlife that cannot be captured and confined.

Dr. Fancher said that, during the anthrax outbreak, deer owners enrolled in the chronic wasting disease (CWD) surveillance program are to report death losses, but they should check with their private veterinary practitioner before collecting brain tissue from the animal for CWD testing. “If a dead deer has clinical signs of anthrax, we may need to avoid opening the carcass,” he said. CWD has not been detected in Texas.

“Anthrax is an ancient disease that occurs worldwide. The first reports in livestock date back to 1500 BC,” noted Dr. Fancher. “When an infected animal dies, the ground becomes contaminated with the spores of *Bacillus anthracis* bacteria, unless the carcass and soil are purified with a very hot fire. Even though spores do not multiply or spread underground, they can lie dormant

in soil for decades, awaiting the perfect combination of weather and soil conditions to become vegetative. Animals then are exposed to the disease when they eat grass contaminated with the bacteria.”

TAHC regulations require that the affected animal’s bedding, its carcass, and nearby manure be burned with wood, diesel or gasoline (tires and oil create too much pollution), to cleanse the ground. Do not open carcasses. If there is a burn ban in the area, contact the TAHC Area 6 office in Lampasas at 1-800-658-6642 for disposal information.

Livestock on the premises must then be vaccinated and held under quarantine for a short time, to ensure any anthrax-exposed animals are not moved from the premises. Laboratory tests, conducted by the Texas Veterinary Medical Diagnostic Laboratory in College Station, are needed to confirm infection, and suspected cases should be reported to private veterinary practitioners or the TAHC’s headquarters in Austin at 1-800-550-8242.”

Anyone handling or burning carcasses, or vaccinating livestock against anthrax should wear long sleeves and gloves. Exposure can cause a nasty, black sore that requires medical attention and antibiotics. General sanitation procedures should be followed after handling livestock, and equipment used on the animals should be disinfected. Pets should be kept from dead carcasses or bones of dead animals, which may pose a disease risk. Healthy animals should be moved from anthrax-contaminated areas.

“Visitors to the area should not be alarmed by anthrax,” said Dr. Fancher. “Just leave dead animals alone, and don’t pick up shed antlers or old animal bones. By the time the area’s hunting season begins, the cooler weather brings an outbreak to a close. If, after an outing, you develop an unusual sore, see your physician for treatment.”

Actions that should be taken during an anthrax outbreak:

1. Properly dispose of animal carcasses by burning to prevent exposure to other animals, such as predators or dogs. Remove healthy livestock from the area.
2. Vaccinate livestock if cases occur in the surrounding

areas. Because the anthrax vaccine is a “live” vaccine, it should not be administered concurrently with antibiotics. Vaccinated animals are to be withheld from slaughter for two months.

3. Restrict movement of livestock from an affected premise until animals can develop immunity through vaccination.

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## Bronson Urges Residents to Keep Safety and Pets in Mind With Hurricane Season Under Way

Florida Commissioner of Agriculture and Consumer Services Charles H. Bronson is reminding residents to take steps to protect their homes, pets and livestock now that the 2005 hurricane season is under way.

“After last year’s horrific hurricane season, people are taking storm preparations very seriously,” Bronson said. “But while people are stocking up on batteries, food and water, we want to be sure other critical issues are also addressed, including their animals.”

The Florida Department of Agriculture and Consumer Services includes the Division of Animal Industry, which assists citizens in evacuating livestock, provides assistance to farmers after a storm, and helps people find pet-friendly shelters and hotels. The Department also oversees food safety as well as the safe sale, use, storage, handling and transportation of propane gas.

Bronson is providing some tips for residents to use

to prepare for the hurricane season:

### **Propane Gas**

- If forced to evacuate, turn off the propane tank service valve and the shut-off valve on all propane appliances.
- Appliance and equipment controls that have been under water should be inspected by the gas company and the controls replaced prior to being put back into service.

### **Food Safety**

- Stock up with foods that require no refrigeration, preparation or cooking.
- All food contaminated by flood water (except undamaged metal cans) should be discarded.
- Undamaged cans as well as refrigerators, counters, cookware dishes and glassware contaminated by flood water should be washed, rinsed and sanitized in a solution of 2 teaspoons of unscented household bleach per gallon of room-temperature potable water.
- Keep several gallons of bottled water available. If under a boil-water notice, do not use tap water or make ice without bringing the water to a rolling boil for at least one minute.

### **Environmental**

- Store lawn chemicals and fertilizers off the ground in a location that is not subject to flooding.

### **Pets and Small Animal Safety**

- Keep ID tags and vaccinations up to date.
- Prepare a pet survival kit, including food for two weeks, a manual can opener, medications, a pet carrier, bedding, and vaccination records.
- If you plan to board a pet, make written arrangements in advance, well before a storm threatens.
- Contact hotels and motels along your evacuation route to check policies on accepting pets and keep the

list handy.

■ The Humane Society of the United States (HSUS) has prepared a helpful brochure “Disaster Preparedness for Pets,” which can be accessed on the web at <http://www.hsus.org/ace/18732>.

### **Horses and Livestock**

■ Keep vaccinations and other health requirements up to date.

■ If possible, make arrangements in advance for evacuation of horses. Know where you can take your horses for shelter along your evacuation route. Make sure your horse trailer is “ready to go” or other transport arrangements are prepared well in advance. Carry your vaccination record and health papers with you.

■ If not evacuating, make sure animals have access to high ground in case of flooding.

■ Check all gates, fences and enclosures for loose parts and overall sturdiness.

■ Secure equipment, small sheds and other items that may become flying debris and injure animals.

### **Price-gouging**

■ It is illegal in Florida to charge excessive prices for essential items such as gas, food, ice, lumber and lodging following a declaration of emergency by the governor. Residents should report any price-gouging by calling 1-800-HELPFLA.

### **Post-disaster Scams**

■ Con artists may prey on residents who suffer home damage by offering to repair the damage with materials leftover from a previous job. Citizens can protect themselves by checking with the local building department or with the Florida Department of Business and Professional Regulation to make sure the contractor is licensed. They should also ask for and verify local references.

■ Charity scams often surface following a disaster. Before you give, ensure that the charity is registered with the Florida Department of Agriculture and Consumer

Services by calling 1-800-HELPFLA. Never give cash and always write checks payable to the organization, not an individual.

Bronson says consumers who are educated about the potential dangers a natural disaster presents to health, home and pocketbook are more likely to avoid being harmed or victimized by scam artists. Consumers can find out more about food safety tips and animal welfare information by logging on to the Department’s web site at <http://www.doacs.state.fl.us> and checking out the Division of Food Safety, and the Division of Animal Industry which lists pet-friendly shelters.

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Release - June 3, 2005

## **Bacteria Propel Gains in Ammonia Removal**

Using an innovative bacterial process, Agricultural Research Service (ARS) scientists are paving the way for new, cost-efficient and large-scale methods of removing ammonia from livestock wastewater.

In tests with anammox--a technology that uses rare anaerobic bacteria to convert nitrite and ammonium to harmless dinitrogen gas--soil scientists Matias Vanotti and Ariel Szogi at ARS' Coastal Plains Soil, Water and Plant Research Center in Florence, S.C., have scored noteworthy results.

They're the first researchers to isolate from animal wastewater the planctomycetes bacteria used in the anammox process. They've also highlighted anammox's commercial potential by removing nitrogen from wastewater at rates similar to those obtained using



Soil scientists Ariel Szogi (left) and Matias Vanotti examine a packed-bed bench reactor containing the anammox bacteria immobilized in polymer gel beads. Image courtesy Matias Vanotti.

conventional methods.

Short for "anaerobic ammonium oxidation," anammox was discovered in the Netherlands during the 1990s. The process is more energy-efficient than traditional biological nitrogen-removal systems because only part of the ammonium in wastewater needs to be nitrified, and it removes ammonium without needing costly aeration or additives.

In tests in Florence and at a swine farm near Kenansville, N.C., Vanotti and Szogi achieved the high nitrogen-removal rates by improving the bacteria's environment for reproduction. The bacteria's slow multiplication makes their cultivation difficult. The scientists' isolation of the bacteria from wastewater during these tests may make possible economical treatments for high-ammonia effluents, because it shows that it may not be necessary to cultivate the bacteria off-site. Vanotti added that although the researchers have used anammox to remove up to 500 grams of nitrogen per cubic meter daily from wastewater, their goal is to triple this rate within the next year.

The scientists have also launched a cooperative three-year project with EMBRAPA, Brazil's agricultural research agency, to develop a new-generation, cost-effective anammox-based treatment of livestock wastewater. Vanotti said this treatment may reduce nitrogen-treatment costs four-fold.

He discussed the anammox results earlier this week at the annual international meeting of the American Society of Agricultural Engineers, in Tampa, Fla.

ARS is the U.S. Department of Agriculture's chief scientific research agency.

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Release - July 22, 2005

## South Korea to Support Research into BSE-resistant Cattle

The South Korean government plans to fully support research efforts to develop a new breed of cattle resistant to bovine spongiform encephalopathy, said Minister of Agriculture and Forestry Park Hong-Soo.

The Minister made the remarks after recently observing the artificial insemination of a specially fertilized egg into a cow by South Korean stem cell researcher Hwang Woo-Suk. The fertilized egg transplant is part of ongoing research by Hwang to develop specific genetic strands immune to BSE infection.

No case of BSE has been detected in South Korea, but the growing volume of global trade has raised concern that an outbreak could occur there.

Hwang made international headlines last year by cloning the world's first human embryos. He said that it could take four to five years to develop BSE-resistant cattle.

Hwang's research is being performed in conjunction with the National Livestock Research Institute.

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