



# Polk Rancher

## Beef and Forage Newsletter

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### **Note to Polk County Livestock Producers**

At this time we don't have a Livestock Agent for Polk County. The position is now vacant and, because of budget cuts, the position is being held open. Even though we don't have a Livestock Agent, a number of educational opportunities will continue to be available to you through the South Florida Beef-Forage Program and other sources. Youth livestock programs will continue under the leadership of Mr. Bill Hill. I will try to keep you informed of educational opportunities and other information periodically through this newsletter. If you have questions or comments please give me a call.

### **Coming Events**

**Cattle and Forage Field Day, Range Cattle Research and Education Center, Ona, October 11, 2001**

**Hay Forage and Grazing Tour, October 30-31, 2001**

**Florida Farm Bureau is sponsoring a Beef Producers Educational Marketing Tour to Oklahoma, November 27 to December 2, 2001. Enrollment will be limited to 30 people. If interested call the Polk County Extension Office for a brochure.**

### **West Nile Virus Infection in Horses**

**West Nile Virus**

Each year hundreds of Americans are reported with Mosquito and tick-borne diseases such as Lyme disease and Eastern and Western equine, Lacrosse and St. Louis encephalitis. These diseases are endemic in the United States which means they have a low-level of occurrence but consistent presence in human and animal populations. West Nile virus (WNV) has emerged in recent years in North America and presents a threat to public and animal health. The most serious manifestation of WNV infection is fatal encephalitis (inflammation of the brain) in humans and horses, as well as mortality in certain domestic and wild birds, especially crows. Center for Disease Control, Division of Vector Borne Infectious Diseases (DVBID)

It is not certain where the U.S. virus originated but it is most closely related genetically to strains found in the Middle East. The virus was not detected in the Western Hemisphere until an outbreak occurred in New York City during the summer and fall of 1999. The virus survived in mosquito populations through the winter in the New York City area and was responsible for the widespread transmission of WNV in the summer of 2000. Re-emergence of the virus this spring and widespread transmission of to additional states during the summer of 2000, have experts predicting that the virus will continue to spread throughout the United States, especially along the eastern coast.

## Transmission

The only vectors found to be associated with WNV outbreaks were mosquitoes. Mosquitoes become infected when they feed on infected birds, which may circulate the virus in their blood for a few days. This is known as the mosquito/bird/transmission cycle. Occasionally the virus will spill over into the human and animal population when infected mosquitoes bite them. The virus is located in the mosquito's salivary glands. During blood feeding, the virus may be injected into the animal, where it may multiply, possibly causing illness. The virus primarily causes disease in birds but it occasionally causes disease in horses. Infection does not always cause clinical disease in horses, but when illness does occur, the disease can be very serious and result in death or euthanasia. Experimental studies conducted by USDA/APHIS Veterinary Services have concluded that horses are not involved in the transmission cycle of WNV. This is to say that horses are dead-end or incidental hosts because they do not maintain a sufficient level of the virus in their system to infect mosquitoes or other mammals. Jonathan Plamer, DVM, DACVIM, University of Pennsylvania, School of Veterinary Medicine Infected horses are not considered a threat to other horses in contact with them and people will not contract the virus by caring for infected horses. However, universal precautions should be taken when handling blood, spinal fluid, brain or spinal tissue from suspected animals since these may contain the virus.

## Signs

Horses with WNV fever can have a variety of clinical signs. They may have a mild flu-like syndrome with fever, depression and listlessness or more serious neurologic signs such as muzzle twitching, incoordination, stumbling, circling, aimless wandering, head pressing and hyper-excitability followed by convulsions, coma and death. Death may occur within five to ten days of development of serious signs in half of the cases. The other half will recover with the most dramatic improvement within three weeks. WNV infection in horses does not always cause clinical disease in horses. In the 1999 outbreak in New York City as many as a third of the horses in the affected area may have been infected but only 23 developed disease and 13 died or were euthanized. In 2000, there were 59 horses infected and 23 died or were euthanized in 7 states.

## Treatment

A vaccine against WNV in horses is now in the preclinical phase and might be available by late summer, 2001. Until then, treatment of affected animals is symptomatic and aimed at lessening the

severity of the infection. Routine vaccination of horses against Eastern and Western equine encephalitis will not provide protection against the virus, however, continued vaccination of horses for these diseases are strongly encouraged.

## Prevention

How can horses be protected from WNV? The key is mosquito control to stop the bird-mosquito infection cycle. The most effective method is to destroy the mosquito larval habitat by removing all potential sources of stagnant water in which mosquitoes might breed. Mosquitoes can breed in any puddle that lasts more than four days. Water buckets, water troughs, wading pools, bird baths, wheel barrows, clogged roof gutters, discarded tires, plastic containers or any water-holding container should be cleaned or emptied on a weekly basis. Drill holes in the bottom of containers that are left out of doors, turn over wheelbarrows, aerate ornamental pools and stock them with fish or chlorinate them. In addition to reducing mosquito populations, preventing animals from being exposed to adult mosquitoes is important. Horses should be stabled inside during peak mosquito feeding times which are dawn and dusk. Use of mosquito resistant structures such as well maintained insect screening and fans may reduce potential access of mosquitoes to equine and other livestock hosts. Insect repellants approved for use on horses may be of some value in decreasing exposure, however there are limitations to the coverage area that may be achieved on any given horse due to limited duration of effectiveness of some formulations under certain conditions (e.g. rain, perspiration). Remember to always follow label instructions. Horse owners are encouraged to contact their veterinarian immediately should they notice any signs or symptoms of WNV infection in their horses, especially those exhibiting neurological signs.

## Florida West Nile Virus Surveillance and Response Plan

On July 6, 2001, the presence of WNV in Florida was confirmed when a dead crow was found to be positive for the virus in Jefferson County. Since then, an extensive surveillance program has been implemented in Florida. This program involves the monitoring of mosquito pools, sentinel flocks of chickens and sentinel horses. The Florida Department of Agriculture and Consumer Services (FDACS), in conjunction with the Florida Fish and Wildlife Conservation Commission (FWCC) and local health and mosquito control agencies have developed a WNV Surveillance Plan which outlines surveillance for humans, birds, mammals and mosquitos. The plan also provides a tiered prevention, control and response program for WNV depending on the location and type of evidence indicating an outbreak has occurred. Based on experience from previous years, one of the first indications that WNV might be present in an area is the unusually high death rate of birds, particularly crows or blue jays. The appearance of dead birds in an area might be an early warning that the virus is present. Dead birds should be reported to the FWCC website: <http://wld.fwc.state.fl.us/bird/>, the local county health department or the Florida Department of Health (DOH). For complete updates and information on the WNV Surveillance and Response Plan, please contact: The Florida Department of Agriculture and Consumer Services, Division of Animal Industry, 407 South Calhoun Street, Mayo Building, Tallahassee FL, 32399-0800. The Decision's website can be accessed at: <http://doacs.state.fl.us/ai/westnile.htm> or Division personnel can be contacted at 850-410-0900.

**This information is from a brochure developed by the Florida Department of Agriculture and Consumer Services, Commissioner Charles H. Bronson.**

**Letter from Commissioner of Agriculture**

**Dear Sir or Madam:**

**In the wake of the recent attacks on the World Trade Center and the Pentagon, our nation, and this**

state, are on a heightened security alert for potential follow-up acts of terrorism. As you know, President Bush has indicated that this is not a short term concern, but one which will extend over a considerable period of time. Both the President and many experts outside his administration have indicated that should a second attack occur, it may be in the form of chemical or biological weapons.

Our live animals, animal feed, human food and water supply are acknowledged potential vehicles for biological attack. Some of the products used for animal health, plant growth, pest control and public health protection can be misused as potential agents to attack people or places. Equally threatening is introduction of disease to our animal herds which can be devastating. For that reason, I am asking that your operation be particularly diligent in establishing and maintaining appropriate security measures to ensure that all people, products and animals flowing into and out of your operation remain as safe as possible from contamination.

Again, exercise due diligence in closely tracing product inventories, shipments and facility security measures. Conduct a security review of your farm or facility including your structures, parking areas, personnel who have access to your properties, alarm systems, emergency power systems, employee/visitor identifications, communications, perimeter security, and contingency plans. The following suggestions will aid you in you security plans.

1. Make certain you have a list of all emergency contacts and numbers and ensure appropriate posting and notification in your firm.
2. Review your internal security, safety procedures, and provide training to personnel. Ensure plans and procedures are in compliance with local, state, and federal requirements.
3. Report all suspicious activities, vehicles, or persons.
4. Report all threats on personnel and facilities.
5. Report all thefts, inventory shortages, or missing products that could pose a public health or safety risk.
6. Report all burglaries, sabotage to facilities or equipment, and all vandalism or activities that may pose a safety or security risk.

Should you suspect any problems, or discover evidence of tampering, trespassing, etc., please immediately contact my Department at 1-800-342-5869. Our Agricultural Law Enforcement Office will assist you immediately and notify other Department personnel. My Department is working closely with the Florida Department of Law Enforcement in assisting with their efforts to insure the State of Florida is as safe as possible from terrorism. Local law enforcement agencies should also always be notified immediately about any of the above information.

By working together we can better ensure the safety and well being of the citizens of Florida and this great nation. We must be diligent to protect our livelihood. I know I can count on our many partners and industry members to pitch in and unite in this crucial effort. Than you very much for your cooperation.

Sincerely,  
Charles H. Bronson, Commissioner of Agriculture

For questions or comments regarding this publication

contact 

[James A. Stricker, Acting County Extension Director](#)



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