



## Horses (Dr. Clint Depew) Behavioral Problems in Horses

Researchers in Italy evaluated the prevalence of behavioral problems in horses, and the relationship of behavioral problems to training and management. Problems such as cribbing, wind sucking, weaving, stall walking, wood chewing, kicking and aggression were evaluated.

The most common problems were cribbing and wind sucking which accounted for 41% of the problems. Weaving (26%), stall kicking (15%) and other problems (17%) were found to be common problems in their study. The factors that significantly affected behavior were the style of riding, the number of people handling the horse, and the regular use of paddocks for turnout.

Researchers suggested that riding a horse western as opposed to English resulted in less stress on the horses, and therefore, fewer behavior problems. English horses tend to be ridden more "on the bit" and are typically maintained in stalls. These two factors were suggested as probable causes of the additional stress and resulting behavioral problems that caused English horses to display more behavioral vices. Additionally, fewer problems were observed in horses that were groomed and ridden by several riders. This finding may indicate the difference in stress levels of horses ridden by a demanding trainer as opposed to several pleasure riders. The use of paddocks or other turnout areas proved useful in reducing the stress on the horse, and resulted in a decrease in behavioral problems.

Stress in horses is closely related to behavioral problems. Therefore, it is critical that horseman make every effort to reduce stress in their training programs and to provide adequate turnout time for the relaxation and comfort of their horses.

### West Nile Virus

In 2002, West Nile Virus (WNV) already has been reported in horses in Louisiana. Horses are affected by WNV more than any other domestic animal. Many infected horses do not develop any illness, but about 40 % of those who become ill ultimately die. The virus is spread by mosquitoes.

To minimize the risk of your horse contracting WNV, mosquito populations need to be controlled, horses need to be vaccinated, and insecticides can be used. Mosquito populations can be reduced by removing sources of stagnant water (the mosquito's breeding ground). In areas where mosquito populations are large, housing animals in screened barns will help reduce exposure, and barns need to be sprayed with appropriate insecticides prior to housing horses. Using insecticides on horses is recommended; however, the duration of the insecticide's effectiveness is limited because of

perspiration of the horse. Insecticides that can be applied daily, such as synthetic pyrethroid compounds, offer the best combination of safety and efficiency. Additionally, many mosquito populations feed at dawn and dusk, so stalling during peak mosquito feeding times may be appropriate.

An experimental vaccine was licensed in August of 2001. Limited research and experience indicate that the vaccine is effective. Therefore, horsemen in areas of high incidence of WNV exposure should consider vaccination as their first line of defense against the disease.

One of the first signs of the presence of the disease, in an area, is dead wild birds. Thus, horseman should be watchful for dead birds and they should report dead birds to health officials. By being vigilant in reducing the mosquito population, vaccinating horses, using insecticides, and watching for dead birds, the risk of WNV can be minimized.

## Poultry (Dr. Theresia Lavergne) Biosecurity

The recent, costly outbreak of Avian Influenza in the Northeastern United States alerts us of how important a biosecurity program is for a poultry farm. A biosecurity program needs to be followed at all times, and growers need to assess their biosecurity programs periodically to determine where improvements can be made to protect the health of their poultry and other livestock.

Recommended biosecurity practices include: keep traffic to a minimum (both onto your farm and within the farm); require visitors to stop at the entrance to the farm and fill out a visitor log (include name, date, time, company affiliation, reason for the visit, and farms visited previously that day); disinfect tires of vehicles before entering the farm; wear rubber or plastic boots at all times on the farm; entry to poultry houses is forbidden unless approved by the grower and/or poultry company; maintenance workers must wear clean coveralls, hairnets, and clean boots and use disinfection stations; and if the farm is involved in a questionable disease situation, call the supervisory personnel before going onto other farms. (Poultry Health Report, Spring 2002)

Biosecurity is designed to prevent the spread of disease onto individual farms. Biosecurity is achieved by maintaining the facility in a way in which there is minimal traffic of biological organisms (viruses, bacteria, rodents, etc.) onto the farm. The most cost effective method of disease control is biosecurity! However, a biosecurity program must be followed at all times in order to ensure disease prevention.

## **Beef (Dr. Ron DelVecchio)**

### **FDA Has Approved CIDR Inserts for Cattle**

The CIDR (pronounced "seeder") has been approved by the FDA for use in estrous cycle synchronization of cattle. The CIDR is a tiny silicon intra-vaginal device that looks like a Y-shaped witching rod with a plastic string attached to its longest leg. The CIDR contains progesterone which is absorbed at a controlled rate into the animal's bloodstream. Progesterone will suppress estrus and the release of other key reproductive hormones, such as follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Using a CIDR along with prostaglandin F2 $\alpha$  (e.g., lutalyse or prostamate) and/or with Gonadotropin-Releasing Hormone (GnRH) can result in improved synchrony of estrus, and can enhance the success of a timed breeding program.

Researchers throughout the country, including LSU AgCenter researchers, have reported good success in the synchronization of estrus in cattle. They have reported conception rates between 30.3% and 58.1% in a timed artificial insemination (AI) regimen. Further, research data indicate that the CIDR, with its active ingredient progesterone, will help jump start some postpartum anestrous cows to begin cycling. Therefore, producers can get a greater number of their cattle synchronized at the start of the breeding season.

CIDRs are being marketed in the USA by Pharmacia Animal Health as the EAZI-BREED™ CIDR® Insert. The product retails for \$8.00 to \$10.00 per CIDR. According to the Pharmacia technical services personnel the EAZI-BREED™ CIDR® Insert is approved for synchronization of beef cows, beef heifers, and dairy heifers; the advancement of postpartum estrus in beef cows; and the advancement of pubertal estrus in beef heifers. These approvals are based upon a single use of each device. However, CIDR inserts are not approved for use in lactating dairy cows.

It is critical to point out that the CIDR insert is just a tool, and the CIDR cannot take the place of good management. Consequently, heifers need to be 65% of their mature body weight to begin cycling, and cows need to be in good body condition (5 to 6) to cycle back from postpartum anestrous and to conceive early in the breeding season.

(Source: Beef, July 2002)

### **Keeping Cattle Cool**

Hot summers always have affected farmers in certain areas of the country; and, heat waves can have a great impact on cattle. Producers should know how to recognize when their cattle are stressed by heat and humidity, and they should plan for relief if a heat wave occurs. A heat wave is defined as three or more consecutive days of extremely hot conditions. Heat waves are most severe from mid-

June to mid-August. Due to cattle deaths and decreased performance, cattle producers lost \$28 million in the heat wave of 1997 and \$40 million in the heat wave of 1999.

Animal performance suffers (e.g., growth rate slows, milk production decreases, etc.) in hot weather, and these effects are amplified if the night-time temperatures remain too warm for the animal to recover from the day's heat. In these extreme situations producers should watch their cattle's respiration rate since heat stressed cattle will exceed the healthy respiration rate of 60 to 80 breaths per minute. There are two general ways to help an animal when it is heat stressed. One way is to wet the animal and allow it to cool through evaporation. The second way is to provide ample shade or shelter for the animals (without crowding). Further, do not work cattle, or any animal, during the heat of the day. Planning ahead and providing relief can be viewed as insurance against death losses in extreme heat waves. (Source: Agricultural Research, July 2002)

## **Animal Health (Dr. Steve Nicholson)**

### **Encephalomyelitis in Horses**

A significant outbreak of West Nile virus (WNV) encephalomyelitis is occurring in Louisiana horses. Literally dozens of suspected cases have been examined by veterinarians. It is very likely that WNV will eventually appear in unvaccinated horses across the state.

The Louisiana Veterinary Medical Diagnostic Laboratory, LSU School of Veterinary Medicine, reports 40+ confirmed equine cases of WNV as of July 22. Many of these are in southeastern parishes. These represent a small portion of actual cases because many owners do not want to pay for laboratory tests. Eastern equine encephalomyelitis (EEE) was diagnosed earlier but WNV is the big story.

The number of WNV cases in horses is increasing because many animals have not been vaccinated. And, the WNV is transmitted by more types of mosquitoes than is EEE. The conditional vaccine, which apparently does work, requires two intramuscular injections 3 to 6 weeks apart. Substantial immunity should be present within seven to ten days following the second dose. Annual boosters will be required to maintain protection. In the future, the vaccine will likely become as readily available to horse owners as EEE vaccine is today.

### **Sheep and Goat Parasite Warning**

The return of green grass and frequent showers this summer increases the risk of severe parasitism caused by *Haemonchus contortus*, the large stomach worm of small ruminants. Immature stages of the parasite have accumulated in pastures this summer. August and September are the months when severe anemia, weakness and death from

blood loss become apparent. Owners should be checking the eyelids of their animals for signs of anemia. Deworming with an effective drug followed by moving the animals to a pasture that has not been grazed in recent months is recommended. Moving the animals to a pasture used only by cattle or horses is acceptable.

### **Entry of Disease into Beef and Dairy Herds**

Field investigations in recent weeks revealed some of the ways disease enters a herd.

Herd A: Heifers purchased from a breeder were introduced directly into the home cow herd. Two weeks later an outbreak of pneumonia began in the home herd. Could this costly incident been prevented? The answer is it probably could have been. The recommended management practice of isolating the new animals at least "two fences" away from the home herd for three to four weeks may have prevented the outbreak. Also, the impact may have been less costly had the home herd been protected by vaccination against respiratory diseases.

Herd B: A dairy cow bought weeks earlier developed diarrhea but continued to eat well. The cow was diagnosed as having Johne's disease, a bacterial infection of the intestinal tract. Unfortunately this cow was in the milking herd and, therefore, exposed many home herd cows to this disease.

Herd C: Cows developed severe anemia, jaundice and died. The diagnosis was anaplasmosis, the first time the disease was recognized in the herd. The herd shares fence line shade with another herd. One month earlier anaplasmosis was diagnosed in the adjacent herd. Large biting flies apparently carried the infection across the fence from one herd to the other. Cattle that share fence line shade often share diseases.

### **Cattle Inventory (Dr. Ken Wegenhoft)**

#### **July 2002 Cattle Inventory**

The USDA July 19, 2002, Cattle Report estimates 105.2 million head of all cattle and calves in the US as of July 1, 2002, down about .5% from 2001 and about 1% from 2000.

Beef cows and heifers that have calved are estimated at 33.75 million head, down very slightly from 2001 and about .5% below 2000.

Heifers 500 pounds and over for beef cow replacements for 2002 are estimated at 4.6 million head, the same as 2001 and slightly below 2000.

The 2002 calf crop is projected to be 38.4 million head, up slightly from 2001, but down .6% from 2000.

This report indicates that no expansion in the beef cow herd has occurred and that the prospects for expansion later in 2002 are limited.

The heifer calves that would ordinarily go into herd expansion may now be available for feedlot placement. Thus, with a calf crop the same as 2001

plus the potential for continued heavy slaughter weights, reductions in future beef production may be delayed.

The Cattle report is available at the USDA Economics and Statistics System website <http://usda.mannlib.cornell.edu/> under Livestock, Dairy and Poultry.

### **Swine (Dr. Tim Page)**

#### **Reducing Stress in Heavily Muscled Hogs**

Recent research from the Prairie Swine Center in Saskatchewan, Canada, indicates that heavily muscled hogs should be moved and transported by gentle methods to eliminate the incidence of downer hogs. Two groups of heavily muscled hogs were used in their study. One group was moved aggressively and the other gently. Aggressive movement was defined as the multiple use of an electric prod and yelling; and gentle movement was defined as the use of a hollow, plastic tube and quiet talking. To simulate what could be experienced by hogs in a commercial setting, researchers moved hogs up and down an aisle repeatedly while measuring physical responses to each method. Researchers were sure that using electric prods, bunching pigs up, and using a steep loading ramp would create stress in the aggressively handled group. They were interested in knowing what percentage of hogs would become downers.

As the test began, hogs in the aggressive group began to show signs of stress very quickly: blotchy skin, panting, vocalization and shaking. Within five minutes the hogs became very hot and showed clear signs of distress. The hogs experienced the 'fight or flight' syndrome. Gender and halothane/stress-gene status did not have an impact on the study's outcome, but handling did. In the aggressively handled group, 20.4 % of the hogs were classified as downers. None of the gently handled hogs became downers.

Aggressive handling practices can result in significant stress to hogs. Not only does this represent significant animal welfare concerns, it also results in direct losses through declining meat quality and downer hogs that cannot be marketed. The researchers suggested that heavily muscled hogs seem to be more prone to a severe reaction to stress, since more muscle mass can create more lactic acid and generate more heat. These variables can lead to greater incidences of hogs becoming downers. Using an electric prod to hurry hogs along and crowding them can have a severe effect. Producers should know how their hogs are being handled on their operation, on the trucks, and at the plants to ensure proper care.

The following are good management practices for moving and transporting hogs:

- A) Handlers walk slowly within each pen for 1-minute each day or for 5-minutes once per week during the finishing period to help hogs become accustomed to human contact, as well as to teach them to move quieter around the handler.
- B) Rely on the natural tendency of hogs to follow “leaders” into strange areas rather than forcing the entire group to move along together.
- C) Ensure that lighting over and ahead of moving hogs is bright and evenly distributed, so there are no distracting shadows.
- D) Use panels, paddles, or large flags to move pigs. Avoid caning, clubbing, kicking and slapping, which can cause injury. Minimal electroshock is used only as a last resort.
- E) Open building curtains 15-minutes before loading to equalize temperature and lighting.

- Limit farm entry points and develop a system to identify visitors to gain control of biosecurity.
- Follow a vaccination program recommended by your veterinarian for all animals.
- Determine the health history of livestock and their source farm before you purchase them.
- Have animals tested by your veterinarian for potential health problems before purchasing them.
- Segregate purchased or outside animals as well as returning animals (show animals, custom raised heifers, etc.) for 21-30 days before returning them to contact with other animals in the herd. Carefully monitor the health of segregated animals.
- Prevent contact with other livestock through fences, transport vehicles, sales, shows, fairs, etc.
- Make sure fences are in good repair to prevent animals from entering unsafe areas and/or coming into contact with unsecured animals from neighboring farms.
- Secure any hazardous materials, energy and water sources.
- Control animal contact with stray cats and dogs and wildlife, including deer and waterfowl.
- Implement control measures for mosquitoes, flies, birds and rodents.
- Eliminate unsanitary conditions such as spilled feed, uncovered manure piles, stagnant, standing water, etc. Unsanitary conditions can become breeding grounds for pests which can spread disease causing organisms. Any type of unsanitary conditions, even if farm animals do not have direct access to them, can become biosecurity hazards.
- Purchased feeds can be a potential source of disease causing organisms and contaminants. Purchase feeds from sources using quality control measures to minimize the risk of fecal, organic and/or chemical contamination.
- Make sure any delivery vehicles arriving on the farm are relatively clean.
- Park and unload delivery vehicles as far away from animals as possible.

### **Dairy (Dr. Gary Hay)** **Biosecurity on a Dairy Farm**

Biosecurity refers to protecting the health of livestock by preventing the transmission of diseases or contaminants that could jeopardize the health of your animals. Any disease, chemical, poison or other contaminant that could jeopardize the health of animals is a threat to the economic viability of the farm and the welfare of the owner/operators. Some of the best investments you can make are taking common sense precautions to protect the health of your animals.

How can I minimize the risk of spreading disease throughout my herd?

- Anticipate risks to your operation and minimize them. Don't wait for something unfortunate to happen.
- Identify areas or activities where problems might occur. Do a visual inspection of your operation and determine potential problem areas or activities.
- Train your employees, suppliers and customers on the importance of biosecurity. Screen potential employees for past training and experience with biosecurity.
- Routinely monitor employee activities to make sure they are following safe and sanitary procedures.
- Have suppliers and other persons entering the farm routinely disinfect their shoes or provide plastic disposal boots to those whose shoes cannot be disinfected.
- Limit access to critical areas by outside visitors; especially direct contact with animals.

These are just a few suggestions to help improve the biosecurity on your farm. Most of the suggestions outlined are inexpensive, common sense practices that are relatively easy to implement and will greatly reduce the biosecurity risk on your farm. Biosecurity is one of the best investments you can make to protect the health of your animals and the welfare of your family.