



**ANIMAL CARE HOSPITAL, 8565 Hwy 64, Somerville, TN 38068, (901) 466-9224**

## Equine Update

31 July, 2003

**West Niles Virus:** No cases of WNV in horses have been reported to the Tennessee State Veterinarian this year. Last year 103 cases were reported in *West Tennessee* and 48 cases were reported in *North Mississippi*. The vast majority of these cases were seen in September. Although the national mortality rate is @ 33 %, discussions with other Midsouth Veterinarians suggests that the mortality rate in our area is higher. The FDA approved the Fort Dodge Vaccine license this year, and my recommendations for vaccination remain the same. All horses should be vaccinated initially with 2 doses, given 1 month apart, then boosted every 6 months. Since migrating birds carry the virus, the vaccination should (optimally) be given in February and August. A report that the vaccine was causing abortions in mares was recently published in the *Denver Post*. This report, although sensational, was unfounded. No significant side effects from this vaccine have been reported to date, and veterinarians around the country are vaccinating pregnant mares routinely.

**Clover Toxicity:** With all the rain this summer the clover looks great! Clover is a high protein forage for herbivores but should be limited to less than 30% of the total diet. A common clover-associated problem that we have seen numerous cases of this summer is "Slobbering." A fungus that infects clover produces a toxin that can cause horses to drool excessively. Red clover is most often implicated, but white clover (Ladino) can also be infected. All horses are susceptible to the mycotoxin; however, the toxin effects each individual differently. Some show no signs, while others will fill buckets! The drooling will usually stop in 1 to 3 days after the horses are taken off the clover. For long-term prevention, the clover stand must be killed since the fungus infects both the plant and the seeds from the infected plants.

**Hay:** Most horse owners are starting to stockpile their winter forages. In my Equine Update dated 12 December 2002, I strongly recommended that you buy your hay from reputable hay farmer to ensure you are getting a quality product. Again, I encourage you to buy your hay only from producers who have a feed analysis for their hay. Ethical producers will provide a written analysis for each cutting from each pasture. It is the cost of doing business.

This winter I had cases where "quality" hay was being fed, and the animals were still losing weight and dying. Gross inspection of the hay was unremarkable; however, feed analysis revealed that the protein content of the hay was less than 5%. To make a long story short, this owner was feeding his animals to death based on the physical appearance of the hay and the reputations of the hay producers. Herbivores continue to eat until their energy needs are met (This is why feeding a balanced ration is important.) or until their stomach is full. The latter situation is called "Bulk Limiting" since the bulk volume of poor quality forages limits the nutritional intake of the animal. In the first category above the animal will suffer from metabolic diseases and in the second category the animal will suffer from starvation. Yes, even though the animals are being fed, the disease is starvation.

Bermuda hay should have at least 10% Crude Protein. The Digestible Protein will be 1-3% lower than the CP but is often not analyzed because of the expense. Most producers will usually quote the NRC average for their type of hay, which is @ 15%; however, there are far too many variables to bet your horse's health on an average. Also these averages are derived from controlled fields at universities where exact standards are maintained.

Craftsmen say, "Buy the best tools you can afford." Likewise, our animals deserve the best feeds available. You are far better off paying \$4.50 for a bale with a Crude Protein of 10% than paying \$2.50 for a bale with 5% CP. The reality is that some producers in the Midsouth analyze their hay and don't charge a premium.

### Vaccination & Deworming Updates:

I am including an updated vaccination and deworming schedules. Preventative Health Care should be individualized based on disease *risk assessment* and the *intended use* of your horse. Nutrition plays a vital role in maintaining a horse's health, since micro minerals and vitamins are important factors in the immune system. Systemic diseases (e.g., Hypothyroid, Cushing Disease, Chronic Founder) decrease immune function and should be considered when developing the Vaccination and deworming programs. Also, a horse that is physically or mentally stressed (e.g., weaning, training, campaigning) is also at much greater risk of contracting infectious diseases than the pastured weekend pleasure horse. The infectious diseases we currently vaccinate horses against can be divided into 3 categories: Respiratory Disease, Vector Borne Diseases, and Environmental Disease. Most immunizations are initially given as a series of 2 to 3 doses at 2 to 4 week intervals. The purpose of the **initial series** is to stimulate the immune system to recognize (1<sup>st</sup> dose) then remember (2<sup>d</sup> dose) the infectious agent. After the initial series the vaccination is **boosted** at regular intervals to maintain memory against the infectious agent.

The **respiratory diseases** include *Equine Rhinopneumonitis* (Equine Herpes Virus), *Equine Influenza Virus*, and *Strangles* (*Streptococcus equi*). These diseases are common throughout the U.S., are transmitted from horse to horse, and the carrier horse may show no clinical signs. These diseases are life threatening to foals and usually severely debilitating to adults. The protection from respiratory vaccines is short lived (2 to 4 months), and the goal of vaccination is to alleviate severity of

disease, *not to prevent disease*. Since the risk of respiratory disease increases anytime unfamiliar horses are congregated (e.g., public stables, shows), vaccination frequency should also increase with the addition of risk factors. Broodmares are also boosted during mid-gestation to prevent abortion from Equine Herpes Virus.

The **vector borne diseases** include Eastern and Western Encephalomyelitis, West Nile Virus, and Rabies Virus. All of these viruses attack the nervous system and have high fatality rates. Survivors rarely have a functional recovery. The first 3 viruses above are transmitted from *birds* by *mosquitoes* to horses. Although most EWT vaccines are labeled for annual boosting, independent studies support biannual vaccination. Since birds also migrate through the Midsouth biannually, I recommend vaccinating before the migrations in February and August. Rabies Virus can infect any bird or mammal, and the primary vectors in the Midsouth are skunks and raccoons. Bats are not included as vectors since most animals, excluding humans, have enough sense to leave them alone. I am often questioned about vaccinating horses against Rabies. Personally, I have seen cases of Rabies in 1 horse and 2 cows and have never seen a case in a dog or cat.

The **environmental diseases**, which I recommend vaccinating against, are Tetanus and Botulism. Both diseases are caused by Clostridial bacteria, both are endemic in the Midsouth, and both are fatal. These bacteria are soil inhabitants that release fatal neurological toxins. Tetanus usually infects unvaccinated horse through wounds, while botulism toxin, not the bacteria itself, is usually eaten. Moldy round bails are a local source of botulism toxin. Most horse owners are familiar with tetanus as part of the EWT vaccination. The Botulism Vaccine is sold separately by specific manufacturers.

The **deworming schedule** included outlines the differences between Continuous and Interval Deworming strategies. I believe we are starting to see limited resistance to Ivermectin and now recommend rotating all paste dewormers. Note that the biannual boticidal requirement has not changed. I also recommend routine fecal testing to ensure that you are not using resistant products. Now is the time to run survey fecal testing. Several new products are on the market which include tapeworm deworming additives. I have not diagnosed a case of tapeworms in horses since I returned to the Midsouth. I would factor that into your risk assessment and remember that a double dose of *Strongid* will kill equine tapeworm.

## **Equine Dentistry:**

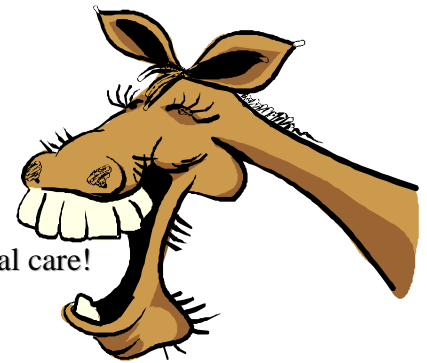
### ***It's not just cosmetic!***

A recent study revealed that

♥Over 85% of Stables with 20 or more horses provide annual dental care!

♥82% of Race Horses & National Level Event Horses receive annual dental care!

⊗Over 70% of stables with 3 or less horse provide no dental care at all!



### ***Why should horses be floated?***

Comfort, Feed Efficiency, Disease Prevention, Longevity,  
Performance, Behavior.

I have included an outline of Dental recommendations. If you have any questions please call!

## **ATTENTION CLUB!**

If your group needs a speaker, literature, materials, or other support for an event or activity, please contact Joan at ACH! We can probably help!