



# EQUIFACTS

## Routine Horse Health Maintenance

*Doyle G. Meadows, Professor, Animal Science*

*Fred M. Hopkins, Professor, Large Animal Clinical Sciences, College of Veterinary Medicine and Animal Science*

Health and well being in animals cannot be achieved by use of vaccines and feed additives alone. Healthy horses are well-fed animals kept in facilities in good repair. They are seen by their caregivers often, and small problems are not allowed to become big ones. Healthy horses also receive animal health products that have been properly stored and used according to label directions. The three most frequently treated veterinary problems in horses are colic, lacerations and lameness. Special attention should be paid to preventing these problems and not simply relying on treatments. Horse health maintenance need not be expensive but does need to be comprehensive. Sanitation, disease and parasite control, nutrition and safety are the primary focus for routine horse health maintenance.

Disease control in horses has to be more than a vaccination program. The following items are relevant to a proper disease control program for horses:

- Sanitation means that environmental conditions are compatible with health. Everything the horse comes in contact with is clean and in good repair. Having feed and water containers that can be cleaned on a weekly basis limits the horse's exposure to microorganisms. Also, this promotes water intake by providing a more palatable water source. Regular manure removal from housing or loafing areas reduces parasite and fly populations, particularly

when pasture rotation is practiced. Prompt and safe disposal of agricultural chemicals will prevent accidental poisonings. Regular cleaning of blankets, brushes and halters will help prevent certain skin diseases.

- Disinfection is defined as the killing of microorganisms. Disinfectants do not work well in the presence of dirt or manure so thorough cleaning is necessary before disinfection. Disinfection of a stall before another horse enters is a good way to prevent the spread of microorganisms between horses.
- Isolation of new arrivals on the farm for 30 days allows the new animal time to get over any disease it may bring with it and increases the possibility that any existing problems will be identified. Isolation of sick animals reduces the spread of contagious diseases.
- Careful, regular observation of animals results in disease being noted earlier, which allows for a more successful treatment. Accurate diagnosis allows accurate treatment, and prompt treatment increases the likelihood of a favorable outcome.
- The proper use of animal health products is necessary if they are to be effective. The animal health products should be federally licensed. After purchase, the products should be stored and given only

according to label directions. Following these recommendations will insure that the product will be both safe and effective.

Horse health products can be used as either investments or as insurance. When used as an investment, it is assumed that the cost of the health products is less than the cost of disease. When horse health products are used as insurance, horse owners are trying to minimize the risk of ill health although the chance of one horse getting any given disease is small or unknown. The following is a vaccination protocol for all classes of horses.

1. Vaccinations for the "backyard" horse having little exposure to other horses.

a. Tetanus toxoid vaccine is very effective in protecting against tetanus, a very deadly disease of horses. The first time a horse is vaccinated, it should be given a booster in four to six weeks or as directed. Annual revaccination is required. Revaccination after wounds penetrate the skin is also well advised.

b. Eastern and Western encephalitis are spread by insects and, therefore, are a disease problem in warmer months. Encephalitis vaccine is generally combined with tetanus vaccine and should be given in the spring before insects are a problem. These so called 3-way vaccines are safe for all horses. The first time a horse is vaccinated, it should receive a booster dose about one month later. Annual revaccination is necessary.

2. Vaccines for the show horse exposed to many other horses.

a. Tetanus toxoid

b. Eastern and Western encephalitis

c. Equine influenza produces fever and cough for two to three weeks, and several strains of the virus exist. "Flu" vaccine can be purchased alone or in combination to be given intramuscularly or intranasally. The first year the vaccine is used, a booster vaccination should be given two to four weeks later. To be fully effective in horses that are constantly exposed, revaccination every 60-90 days is recommended.

d. Rhinopneumonitis (EHV) produces neurological problems, abortions and respiratory symptoms in horses. Show horse are

usually vaccinated for only the respiratory form. Symptoms of the respiratory form of this disease parallel those of influenza. Generally, after the initial vaccination series, boosters are given every two to three months. This vaccine is available alone or in combination with other vaccines.

e. Potomac Horse Fever (PHF) vaccines should be used particularly in horses traveling to the eastern seaboard or other areas where the disease is a problem. After initial vaccination, a booster should be given in about one month. This vaccine should be repeated annually. PHF vaccine is also available alone or in combination with other vaccines.

3. Vaccines for the broodmare.

a. A special Rhinopneumonitis vaccine is available to prevent some abortions in mares. These vaccines should be given at the 5th, 7th and 9th month of pregnancy.

b. Eastern and Western encephalitis, tetanus, and influenza vaccines should be given one month before foaling.

4. Vaccinations for the foal.

a. Tetanus toxoid and tetanus antitoxin should be given at birth if the mare was not given tetanus vaccine booster about 1 month prior to foaling.

b. The initial series of Eastern and Western encephalitis, tetanus, flu and rhinopneumonitis should be given at three to four months of age. Since maternal antibodies may interfere with antibody response to vaccines, these vaccines should be given three times starting at six to nine months.

5. Other vaccines are sometimes used in horses in response to special situations.

a. Strangles vaccines are used in a series in young horses exposed to other horses carrying the *Streptococcus equi* bacteria. Newer intranasal vaccines seem to result in fewer side effects.

b. Rabies vaccines are used in areas where this fatal disease of horses occurs.

c. An Equine Protozoal Myelitis vaccine is available for the horse owner today.

d. A West Nile vaccine is conditionally licensed and available from veterinarians for the horse owner.

6. Coggins Test: A Coggins Test is a blood test used to detect the disease, Equine Infectious Anemia (EIA).

a. EIA is a viral disease that affects less than 1 percent of the horse population in Tennessee, thanks to the state testing program. The recognized test for EIA is the agar-gel immunodiffusion (AGID) test developed by Dr. Lee Roy Coggins. The test is not actually for the EIA virus, but for antibodies developed to fight the disease. A horse that reacts positively to the test is classified as a carrier. The test is simple and accurate.

b. This viral disease has some unique characteristics. It is specific for the equine family (horse, ponies, mules), the infection is permanent and there is no known cure. Furthermore, there is no preventive vaccine available to horse owners. However, all horses in the state of Tennessee that are co-mingled (shows, trail rides, stables, etc.) are required to have an annual negative Coggins test. All horses should have blood drawn annually (in the early spring) for a Coggins test.

### Parasite Control

There is no deworming schedule that fits all horses. Climate, humidity, rainfall, season, concentration of horses on pastures and age of horses are all factors that influence deworming programs. However, some basic guidelines exist in the industry. Most veterinarians feel that horses should be dewormed at least four times per year. Two of these dewormings should use a product that would control bots (ivermectin or moxidectin). One recommended schedule that is working well for many horse owners is deworming at the beginning of each season (December, March, June, September). Many veterinarians recommend starting at one month of age and deworming foals and weanlings every 30 to 60 days for the first year of life.

It is very important to establish a control program with your own veterinarian. It is also common practice to alternate among chemical families to prevent parasite resistance. It then becomes necessary to know the chemical relationships of dewormers and the difference between trade names and generic names.

Several dewormers contain exactly the same chemically active ingredient but are packaged and sold under different trade names.

There are three basic chemical classes of dewormers available for use in horses today. In order to truly rotate, the horse owner must rotate among classes, not just brand names. The following is a partial list of the chemical classes of dewormers available from veterinarians and over the counter:

Class	Brand Names
Benzimidazoles	Equicide Benzelmin Safeguard Panacur Anthelcide Cutter Paste
Macrocylic Lactones Avermectin	Phoenectrin Eqvalan Rotectin I Equimectrin Zimecterin Quest
Pyrantels	Strongid-T or P Rotectin II Strongid-C Strongid-C2x

### Nutrition

The basic nutrients needed by any horse, regardless of the stage of production or level of activity, are energy, protein, minerals and vitamins. These nutrients, in combination with water, provide for the nutritional well being of the horse. A balanced diet is one in which all nutrients are supplied in adequate amounts. However, it is just as important for all nutrients to be supplied in correct amounts relative to each other. A horse ration, the total amount of feed a horse eats in a day, is balanced to meet energy and protein needs of the horse. Minerals and vitamins are then added to complement and balance the ration. A related fact-sheet, TN-0004 **Nutritional Needs of Horses**, is available from county Extension offices.

Feeding a palatable, balanced diet is important to horses' health. Horses on a poor plane of nutrition are less able to build immunity and more susceptible to disease.

Additionally, many cases of colic can be traced to feeding management errors such as overfeeding grain, underfeeding forage, abrupt feed changes and failure to maintain a consistent feeding schedule.

Horses are grazing animals whose digestive tracts were designed to take in small amounts of feed (forage) at frequent intervals. Horses can be maintained on good quality hay or pasture and a vitamin-mineral supplement. However, young growing horses, lactating mares and working horses will be unable to maintain energy needs with forage alone. Subsequently, a mixed grain diet should be provided to meet additional nutrient demands. However, the mixed grain diet should be used only after adequate and perhaps maximal forage intake has been achieved. The amount and quality of the grain or concentrate portion of the horse's ration will be determined by the type, quality and amount of the forage.

In situations where a grain mix is necessary to improve or increase a horse's body condition, feed should be added gradually to the existing ration. As the desired body weight is obtained, the amount of grain should be closely monitored. The more grain the horse owner feeds a horse, the more subject this horse is to a feed-oriented colic.

In order to maintain moderate body condition, the following chart is a good guide for expected feed consumption for a 1,000 pound horse:

**Expected Feed Consumption for A 1,000 Pound Horse to Maintain Moderate Body Condition\***

Stage of Production	Hay or Pasture	Grain	Total %
Maintenance	1.25	0.50	1.75
Mares (early lactation)	1.50	1.50	3.00
Moderate work	1.50	1.25	2.75

\*Expressed as a percent of the horse's body weight.

Using the table above, a 1,000 pound horse would consume 17.5 pounds of feed daily. Of the total feed, 5 pounds could be grain with at least 12.5 pounds of forage from pasture or hay. In many cases, mares producing large quantities of milk and intensely worked horses may not consume enough feed to maintain energy balance (weight). In those instances, alternative diets with high caloric content may be used to obtain energy balance.

### **Additional Routine Horse Care**

- Horses should have their teeth checked annually for abnormal wear. Some horses develop sharp edges on their jaw teeth which can make eating uncomfortable. A special file called a dental float is used to remove these sharp points.
- Horses require regular foot care. Find a farrier and allow that person to use their knowledge and skills. Most horses have foot care every six to 12 weeks.
- Good animal housing should provide uncrowded shade and shelter while retaining adequate ventilation. Generally, horses are healthier if allowed free access to shelter, as compared to being forcibly confined. Horses stabled for more than 12 hours per day tend to have more problems with respiratory disease and colic.

The health of the equine population is of primary concern for horse owners because of its relationship to reproduction, growth, performance and the overall well-being of the horse. A rigid herd health protocol will never fit every individual situation; however, there are certain guidelines that all good horse owners can follow in establishing a health management program. It is necessary to review the problems of a particular farm or locality and make the herd health program fit the individual situation.

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