

Health Planning Calendar for Horse Herds

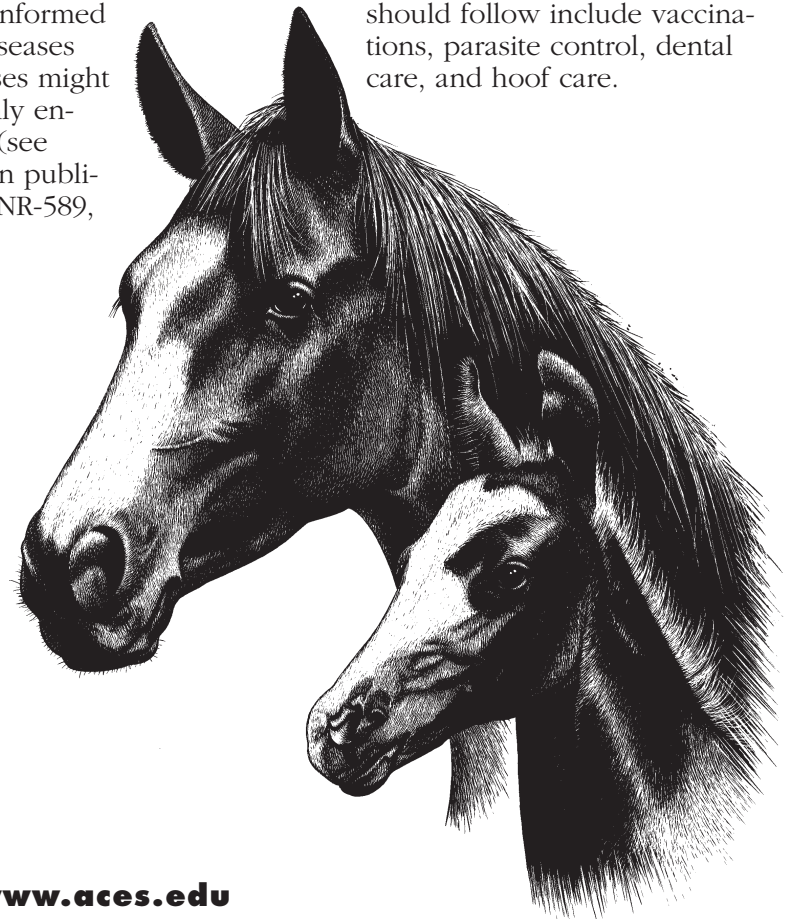
Health management practices for horses vary with the age and uses of the horse and with the changing health challenges introduced to the horse. For example, horses in a closed herd, which is a herd in which horses neither enter the herd nor leave and return to the herd, may need only minimal vaccinations because they are not exposed to a wide variety of diseases. Horses that move on and off the farm frequently, such as show horses and broodmares that travel to breeding farms, as well as these horses' herd mates, need protection from more diseases because their probability of disease exposure is fairly high. There also may be instances in which a specific herd needs additional health care that is not necessary for the average horse farm. For example, most herds do not need protection against equine viral arteritis. However, mares being bred to stallions that are known shedders of this disease, as well as the mares' herd mates, should be vaccinated.

This publication gives general health guidelines and a general health calendar for horses of various ages and uses. Horse owners should consult their veterinarians and county Extension offices about specific conditions in their herds or areas that may make additional health management procedures advisable.

In addition to the following general health management guidelines, horse owners need to be in the habit of carefully checking their horses each day for injuries and signs of illness (see Extension publication ANR-808, "Monitoring Your Horse's Vital Signs"). Owners should also be informed about diseases that horses might commonly encounter (see Extension publication ANR-589,

"Control of Common Infectious Horse Diseases") and should stay informed about new disease challenges and methods of preventing health problems. Disease can be reduced by following the health management practices outlined in this publication and by following good general management practices such as proper nutrition, pasture management, housing, and sanitation. Horses that are well fed, well managed, and not subjected to unnecessary stress usually have more disease resistance than do horses that are poorly managed.

The general health management practices that horse owners should follow include vaccinations, parasite control, dental care, and hoof care.



Vaccinations

Vaccinations can be thought of as risk management. Horse owners must determine the degree of disease exposure for their herd and decide how much risk they are willing to assume. To make an informed risk management decision about vaccinations, horse owners should consider that some equine diseases cause high mortality rates, while others rarely are fatal but may cause the loss of a show season or breeding season.

A closed herd typically needs only minimal disease protection; however, very few herds are truly closed. Diseases can be introduced through human clothing or through an occasional trail ride with a neighbor. Minimal disease protection consists of vaccinations against tetanus, eastern equine encephalomyelitis, western equine encephalomyelitis (sleeping sickness), and West Nile virus. Every horse should be protected against these diseases because transmission does not require contact with another horse, and the mortality and loss of use rates from these diseases are high. Vaccination against these diseases is highly effective and inexpensive. Tetanus requires one yearly booster vaccination for effective protection. Two booster vaccinations, one in the spring and one in the fall, are recommended for eastern and western equine encephalomyelitis and West Nile virus because the mosquitos that carry these diseases are year-round pests in Alabama.

Another disease that most horse owners in Alabama should vaccinate against is rabies. Because rabies is endemic to Alabama, vaccination of horses not only protects the horse, but also provides an additional barrier between the human population and the natural carriers of this disease (wildlife). Again, the vaccination for rabies is highly effective and inexpensive.

Most veterinarians also recommend vaccinations against rhinopneumonitis and influenza for the average horse herd. Rhinopneumonitis is a respiratory disease caused by the equine herpes virus. Two different equine herpes viruses (EHV-1 and EHV-4) cause respiratory disease in the horse. In addition, EHV-1 causes a paralytic neurological disease. It also causes contagious abortions in pregnant mares. Respiratory infections from rhinopneumonitis are most common in weanlings, yearlings, and young horses entering training. Most mature horses develop some immunity to the respiratory disease and do not become seriously ill when infected. However, horses do not develop immunity to the form that causes abortion and neurological disorders nor do vaccines against the respiratory disease adequately protect the mare against abortions. A separate vaccination, Pneumabort K, is needed to protect the mare against abortions. Rhinopneumonitis vaccines protect the horse for a relatively short time period; therefore, pregnant mares should be vaccinated at 5, 7, and 9 months of pregnancy. Horses with repeated exposure, such as foals, young horses, and show horses, should be revaccinated every 3 months.

Influenza in horses is highly contagious, and the vaccine, like the rhinopneumonitis vaccine, protects the horse for only a short time period. Horses with a high risk of exposure should be revaccinated for influenza every 2 to 4 months. Pregnant mares and mature horses on farms that have low exposure risks should be revaccinated at least every 6 months.

Foals obtain immunity to influenza and other diseases from the mare's first milk (colostrum). This immunity lasts for several months with most diseases. However, recent research has

shown that immunity to influenza persists until the foal is 6 to 8 months old. This immunity blocks the foal's response to influenza vaccinations administered before 6 months of age; therefore, foals from mares that received influenza vaccines 30 to 40 days before foaling do not need to be vaccinated for influenza until they are 6 months old. If the vaccination status of the mare is unknown or the foal is in a high-risk situation, influenza vaccinations can be given at 2 to 4 months of age, with a booster vaccination every 4 to 6 weeks until the foal is 7 months old.

Vaccinations against other diseases such as *Streptococcus equi* (strangles or distemper) depend on individual conditions. A heavy show schedule, a disease outbreak in the surrounding community, or simply the desire for more protection would warrant vaccination against additional diseases. Vaccinations against other diseases that are not normally considered problems in Alabama, such as Potomac horse fever or botulism, may be considerations if horses are traveling out of the region. Equine viral arteritis vaccination may be a consideration for herds that might be exposed to this disease during the breeding process. Vaccination against equine protozoal myelitis may be a consideration if this disease previously has been a problem in the herd or in the surrounding area. Consulting the herd's regular veterinarian can help a horse owner make informed decisions about protecting against these diseases and revaccinating horses that are repeatedly exposed to disease.

Scheduling of vaccinations is important to ensure year-round protection and continued use of the horse. Although vaccines do not cause the disease they protect against, some vaccines may cause a slight fever or localized sore-

ness or stiffness around the injection site. Therefore, vaccination immediately before a big show or event is not recommended. In addition, vaccines usually take several weeks to fully stimulate the animal's immune system. Therefore, horse owners should vaccinate approximately 1 month before shipping a horse to a new environment, such as a horse show or breeding farm, and should give a broodmare booster vaccinations approximately 1 month before foaling so that she can pass a high level of antibodies to her foal through the colostrum. Pregnant mares that will be shipped to another farm for rebreeding should be shipped 6 to 8 weeks before foaling so that the mares can develop immunity to the new surroundings that can be passed on to their foals through antibodies in the colostrum.

Booster vaccinations are often required for animals being vaccinated for the first time. Boosters usually are given within a specific time after the initial vaccination. Failure to give the booster at the recommended time could result in incomplete protection of the animal even if it receives a yearly booster in the following years. Horse producers should follow label directions carefully when administering vaccines and should consult their veterinarians if they have any questions or concerns.

As a final note, horse owners should have their horses tested for equine infectious anemia (EIA or swamp fever) yearly. There is no vaccine nor cure for this disease, so control of the disease depends on identifying carriers of the disease and isolating them from healthy horses. A yearly test (Coggins test) for each horse in the herd identifies horses that have the disease. Testing serves to reduce the spread of the disease between herds, ensures

owners that they do not have one horse that could infect their whole herd, and is part of a responsible horse health management program.

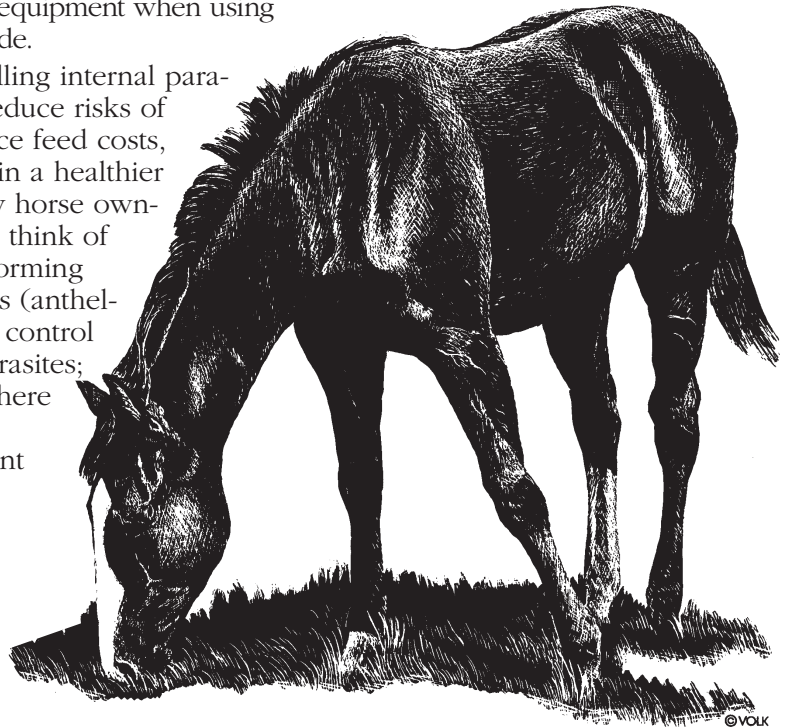
Parasite Control

Both internal and external parasites can have a negative influence on a horse's health. External parasite control should be an essential part of a horse health management program. Biting insects not only make horses uncomfortable, they also spread disease and result in unthriftiness in horses. Controlling external parasites is a continuous process and cannot be outlined specifically in a herd health calendar because insect populations fluctuate with changing weather conditions and management practices. Therefore, horse managers should monitor insect populations, adopt management practices to reduce insect populations, and use topical insecticides when necessary. Always read and follow label directions, observe proper safety precautions, and avoid contaminating feed, water, and equipment when using an insecticide.

Controlling internal parasites can reduce risks of colic, reduce feed costs, and result in a healthier herd. Many horse owners initially think of using deworming compounds (anthelmintics) to control internal parasites; however, there are many management

practices that can reduce parasite levels. One way is to keep weanling and yearling horses in separate pastures from older horses. Older horses develop some immunity to parasites and may harbor some parasites in their bodies although they have no visible signs of parasite infestation. Therefore, separating younger horses from older ones can reduce parasite exposure in young animals that have not yet developed immunity.

To control parasites, maintain a clean water supply, clean up manure and debris daily, and compost manure thoroughly to kill parasite eggs and larvae before spreading it on horse pastures. Avoid overcrowding horses because the amount of manure increases as the number of horses in a given area increases, therefore exposing horses to a greater number of parasite eggs and larvae. Rotate pastures if possible. A rotational grazing system moves horses to new pastures at regular intervals,



giving old pastures a rest period before horses are introduced again. This rest period allows viable parasite eggs and larvae to decrease (especially in hot, dry conditions) and also allows forage to regrow. Rotating horses with cattle or sheep is also an effective parasite control measure. Parasites that are specific to horses do not affect cattle or sheep and are destroyed when ingested by them.

Probably the best way to reduce parasite infection in horses is to perform fecal egg counts to monitor the number of parasite eggs in the manure. Perform these counts on all the horses at regular intervals. When the egg counts reach a significant level for a particular horse, deworm that animal. In most management situations, however, a more practical approach is to deworm all horses on the farm at the same time at regular intervals. This prevents horses from immediately reinfesting one another with parasites. For all deworming compounds except moxidectin, the recommended deworming interval is 8 weeks, which is the usual time span between deworming and the reappearance of parasite eggs in the horse's manure. Moxidectin-based dewormers have a longer interval between deworming and the reappearance of parasite eggs and can be used at 12-week intervals. A daily anthelmintic, pyrantel tartrate, is also available for horses. Daily-use dewormers usually target several specific worm species, so a broad-spectrum dewormer should be given to the horse before the daily dewormer is given and at yearly intervals (most commonly late fall or early winter) to kill worm species not targeted by the daily dewormer.

Most dewormers are more effective against adult parasites living in the intestinal tract and

less effective against the more severe problem of parasite larvae which migrate through the horse's internal organs. This means that deworming relieves the horse of the burden of the adult parasites but does not repair the damage that the larvae have already done to the horse's organs. However, by killing the adult worms, a regular deworming program reduces the number of parasite eggs and larvae in the environment. This reduces the degree of reinfection and the transmission of infection to young, highly susceptible horses.

When selecting a deworming compound, read the label carefully. Select an anthelmintic that is effective against a broad variety of parasites and against a number of life stages of these parasites. Make sure the anthelmintic is labeled safe for the class of horse on which it will be used. Young foals are particularly sensitive to some dewormers.

Parasite experts recommend that horse managers rotate deworming compounds so that parasites do not develop resistance to the compounds. The current theory is that a slow rotation is most effective at decreasing parasite resistance to anthelmintics. In this type of rotation, one chemical class of anthelmintic is used for a year or more, and then a chemically unrelated dewormer is used for another year. Depending on the deworming compound selected, a dewormer that kills bots or tapeworms may also have to be administered once a year. It is important to distinguish between chemical classes and brand names of dewormers when planning a rotation system. Several different brand names may use the same general class of chemical compound. Rotating between these brands will not give a true

rotation because they all have the same basic chemical structure. The different classes of dewormers are as follows:

- Avermectins (ivermectin)
- Pyrimidines (pyrantel pamoate and pyrantel tartrate)
- Benzimidazoles (These compounds end in "endazole," such as fenbendazole or oxbendazole; phenylguanidines are also in this class.)
- Milbemycin (moxidectin)
- Organophosphates (triclorfon, dichlorvos)
- Piperazine

Dental Care

Dental problems in the horse may cause a variety of problems. Sloppy eating habits, weight loss, holding the head tilted to one side, head-tossing, foul breath odor, excessive salivation, fighting the bit, tongue-lolling, and tail-wringing are just a few of the possible indicators of dental problems in the horse. Because the horse's top jaw is wider than its lower jaw, the grinding, side-to-side action of the jaws causes sharp, rough edges ("points") to form on the outside of the horse's upper cheek teeth (molars) and the inside of the lower cheek teeth. These sharp points can cut the horse's cheek and tongue. This problem can be corrected by filing the points smooth, using a "dental float." Other problems caused by misaligned teeth, missing teeth, and infected teeth are usually corrected at the same time.

All horses should have their teeth checked on a yearly basis for the presence of sharp edges and any other dental problems. Older horses and horses with known dental problems may need to have their teeth checked more frequently. As with many

other health concerns, preventing severe dental problems is easier than correcting them.

Hoof Care

Problems with a horse's feet can limit its usefulness as either a performance animal or as a breeding animal. Ideally, horse's hooves should be inspected and cleaned daily. However, with large horse herds, it may be more practical to visually scan the herd for obvious foot or lameness problems on a daily basis and perform a thorough foot inspection less frequently. Horse hooves should be trimmed or reshod at least every 8 weeks, although 6 weeks is the more common length of time between trimming or resetting shoes. When trimming or reshoeing, ensure that the hoof is balanced so that the horse's body weight is evenly distributed over the hoof.

Newborn foals do not need to have their hooves trimmed for the first month of age unless a problem is evident. Monthly trims thereafter usually keep the feet in balance.

Health Management Calendar

The timing of specific health management practices may vary according to individual situations and herds. Therefore, the following management calendar uses general time periods rather than specific months of the year. Consulting veterinarians can help horse herd managers adjust the following calendar to their individual needs.

Broodmares

Late summer/early fall

- ◇ Vaccinate for eastern and western equine encephalomyelitis, West Nile virus, and equine influenza.
 - ◇ Vaccinate for rhinopneumonitis at 5 and 7 months of pregnancy (use Pneumabort K for strain EVH-1.)
 - ◇ Deworm at 8- to 12-week intervals, depending on deworming compound used.
 - ◇ Check teeth.
 - ◇ Trim feet or reset shoes every 6 to 8 weeks.
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Early winter

- ◇ Deworm with a product that kills bots (*Gasterophilus* species).
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60 to 90 days before expected foaling date

- ◇ Feed a balanced ration formulated for broodmares as needed to maintain mare's body condition.
 - ◇ Vaccinate for rhinopneumonitis at 9 months of pregnancy (use Pneumabort K for strain EHV-1).
 - ◇ Deworm at 8- to 12-week intervals, depending on deworming compound used.
 - ◇ Remove mare from fungus-infected fescue pasture and hay to prevent foaling problems. Early removal is recommended; however, remove by at least 30 days prior to foaling.
 - ◇ Continue to trim feet or reset shoes every 6 to 8 weeks.
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30 to 40 days before expected foaling date

- ◇ Vaccinate for tetanus, eastern equine encephalomyelitis, western equine encephalomyelitis, West Nile virus, equine influenza, and rhinopneumonitis (respiratory form, strains EHV-1 and EHV-4).
 - ◇ Perform Coggins test.
 - ◇ Deworm.
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After foaling

- ◇ Continue feeding balanced ration formulated for lactating mares as needed to maintain mare's body condition.
 - ◇ Keep mare off fungus-infected fescue for at least 30 days after foaling—longer if possible.
 - ◇ Vaccinate for rabies, equine influenza, and rhinopneumonitis (strains EHV-1 and EHV-4) as recommended by veterinarian.
 - ◇ Deworm at 8- to 12-week intervals, depending on deworming compound used.
 - ◇ Continue to trim feet or reset shoes every 6 to 8 weeks.
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At weaning

- ◇ Decrease or omit concentrate feeds until milk production stops.
 - ◇ Deworm at 8- to 12-week intervals, depending on deworming compound used.
 - ◇ Continue to trim feet or reset shoes every 6 to 8 weeks.
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Foals

1 month of age

- ◇ Deworm with a dewormer labeled safe for young foals.
 - ◇ Trim feet if needed to maintain hoof balance.
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2 months of age

- ◇ Offer a creep ration balanced for nursing foals (offer at 1 month if foal is sampling the mare's concentrate feed at this age).
 - ◇ Trim feet if needed to maintain hoof balance.
-

3 to 4 months of age

- ✧ Vaccinate for tetanus, eastern and western equine encephalomyelitis, West Nile virus, rabies, and rhinopneumonitis (strains EHV-1 and EHV-4). Remember booster vaccinations 4 to 8 weeks later. Foals shown as weanlings may need vaccinations against strangles and revaccination for rhinopneumonitis at 2- to 3-month intervals and will need a Coggins test.
- ✧ Trim feet as needed to maintain hoof balance.
- ✧ Continue feeding a balanced creep ration.
- ✧ Deworm at 8-week intervals with a dewormer labeled safe for young foals.

7 to 9 months of age

- ✧ Vaccinate for equine influenza; remember booster vaccination 4 to 8 weeks later.
- ✧ Vaccinate for eastern and western equine encephalomyelitis if 6 months has passed since initial vaccination. Foals born later in the summer will not need this booster vaccination.
- ✧ Trim feet as needed to maintain hoof balance.
- ✧ Continue feeding a balanced creep ration until the foal is approximately 1 year old.
- ✧ Continue deworming at 8- to 12-week intervals, depending on deworming compound used; deworm with a product that kills bots in early winter.

Yearlings and Mature Horses

Early spring

- ✧ Administer booster vaccinations for tetanus, eastern and western equine encephalomyelitis, West Nile virus, rhinopneumonitis (strains EHV-1 and EHV-4), rabies, and equine influenza. Vaccinate for strangles if horses have high exposure to strangles.
- ✧ Perform Coggins test.
- ✧ Perform breeding soundness evaluation on breeding stallions.
- ✧ Deworm at 8- to 12-week intervals, depending on deworming compound used.
- ✧ Trim feet or reset shoes every 6 to 8 weeks.

Summer

- ✧ Revaccinate horses with high exposure to equine influenza and rhinopneumonitis (strains EHV-1 and EHV-4) at 60- to 90-day intervals.
- ✧ Continue deworming at 8- to 12-week intervals, depending on deworming compound used.
- ✧ Continue to trim feet or reset shoes every 6 to 8 weeks.

Early fall

- ✧ Vaccinate for eastern and western equine encephalomyelitis and West Nile virus.
- ✧ Check teeth.
- ✧ Continue deworming at 8- to 12-week intervals, depending on deworming compound used.
- ✧ Continue to trim feet or reset shoes every 6 to 8 weeks.

Early winter

- ✧ Deworm with a product that kills bots.
 - ✧ Continue to trim feet or reset shoes every 6 to 8 weeks.
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