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Guidelines for Vaccinating Your Horse

Dr. Jeremy Powell, Associate Professor and Veterinarian

Recommended Vaccines

It's time to start thinking about your yearly vaccinations for your horse. Developing a vaccination plan for your farm may be confusing at times because there are so many recommendations out there. A vaccination program will be variable from farm to farm depending on many factors such as where you live, the age of your horse, how often your horse travels and your horse's vaccination history.

Even though vaccination needs will vary between operations, there are a few standard

vaccines that should be included every year to ensure good health. The essential annual vaccines would include a "4-way" vaccine (which contains tetanus, flu and two types of encephalomyelitis), a rabies vaccine, a West Nile vaccine and a rhino vaccine. For performance horses or horses that have increased exposure, the flu and rhino could be repeated every 3 to 4 months. Pregnant mares should also receive rhino during the fifth, seventh and ninth month of pregnancy. In the table below are some general guidelines to refer to.

Vaccination Guidelines for Horses in Arkansas

Disease	Common Signs of illness	Vaccination Guidelines
Tetanus	Clostridium tetani is a common organism that enters a wound and releases toxin that causes neurologic disease. Can be fatal.	Vaccinate annually.
Encephalomyelitis (EEE, WEE)	Viral disease spread by insects from birds reservoirs. Causes neurologic disease. Can be fatal.	Vaccinate annually, spring.
West Nile Virus	Viral disease spread by mosquitoes from birds to horses. Neurologic symptoms occur. Can be fatal.	Vaccinate annually. Semi-annually depending on risk.
Rabies	Viral disease commonly spread by skunks. Neurologic symptoms occur. 100% fatal.	Vaccinate annually.
Equine Influenza	Nasal discharge, poor appetite, fever and sneezing. May be mild to severe.	Vaccinate every 3-4 months up to annually.
Rhinopneumonitis	Respiratory illness and abortion in pregnant mares.	Vaccinate every 3-4 months up to annually. Pregnant mare at 5, 7 and 9 months of gestation.
Potomac Horse Fever	Caused by Ehrlichia risticii, and leads to severe diarrhea and can be fatal.	Optional, vaccinate if horse will be travelling to endemic area in eastern U.S.
Strangles	Respiratory infection caused by Strep. equi. Signs include fever, nasal discharge, and enlarged lymph nodes under jaw.	Optional, vaccinate if risk of exposure is high.

Preventing Vaccine Failure

There is a difference between vaccination and immunization. Vaccination is the act of administering the vaccine to the animal, but true immunization is when that animal has a positive immune response to the vaccine that was administered. There are factors that can occur that cause a vaccine to fail, and no immunization takes place.

Causes of vaccine failure can be due to several factors. One of the most common causes of vaccination failure is human error. Failure to read the manufacturer's label and give the product via the recommended route of administration and at the correct dosage can lead to vaccine failure. Also remember that most killed vaccines require a booster dose 2 to 4 weeks after the original dose when the vaccine is initially introduced into a vaccination program.

Mishandling of vaccine can also lead to vaccine failure. Improper storage is damaging to vaccines. Allowing vaccines to get too hot can leave the vaccine ineffective. Vaccines should be stored in a cool, dry space or refrigerated. Keep a

working thermometer in the refrigerator that you use to store vaccine and monitor it daily. Also, remember to use a new, clean needle each time you administer a vaccine.

Summary

Avoiding a potential health disaster for your horse easily validates the cost of annual vaccines. Keep in mind the old adage, "An ounce of prevention is worth a pound of cure." In other words, the cost of a disease outbreak will far exceed the price of disease prevention.

A vaccination program by itself shouldn't be considered the complete herd health program. It should be viewed as an important part of an effective health management plan that would also include proper nutrition, parasite control and a simple biosecurity plan for your operation. For more information about horse health management, contact your county Extension office and ask for University of Arkansas Cooperative Extension fact sheet 3059, *Horse Health, Diseases and Vaccinations*.

Summer Horse Care

Steven M. Jones, Associate Professor – Equine

Horses are unique among large domestic animals. They are not raised to produce meat, milk or wool for human consumption. Instead, horses are raised to be athletes, with work as their principal productive function. During the hot and humid Arkansas weather, horses generate a significant amount of metabolic heat during exercise that must be dissipated to prevent thermal injury.

Water

Water is top of the list for a very good reason, namely that a horse's body is made up of 70 percent water. One of the first things you probably learned as a horse owner is that horses need access to fresh, clean water at all times, and this is especially important during summer. The starting place for a summer management program is to provide clean, fresh water at all times. Horses normally drink 8 to 12 gallons of water a day, but high temperatures may cause this amount to double.

Thermal injury is caused by animal dehydration. With prolonged exercise, water intake may increase 300 percent. Research in humans and a recent series of equine studies show a positive correlation between fluid losses, inability to maintain temperature and onset of

fatigue during endurance exercise. The consequence of excess dehydration can be severe: electrolyte and pH disturbances. The results are fatigue, gait in-coordination, increased risk of orthopedic injury and death. Under normal conditions, dehydration can be minimized through the provision of adequate water, salt and mineral supplementation and a balanced diet. Horses hydrate within a 24-hour recovery period between exercise programs.

Another measure used in the prevention of thermal injury is monitoring of weather conditions to determine the potential risk to the horse. Several inexpensive devices are available for quick measurement of temperature and humidity. These are used to calculate the comfort index (the sum of the temperature in degrees Fahrenheit and the relative humidity as a percentage). For example, if the temperature is 80°F and the relative humidity is 40 percent, then the comfort index is 120 (80 + 40 = 120). If the sum is below 130, thermoregulation should not be a concern. When the comfort index is between 130 and 150, horses will sweat, but they should be able to exercise without major problems if normal fluid replacement is allowed. When the comfort index exceeds 150 and the humidity

is greater than 75 percent, heat dissipation can be a problem. Horsemen should monitor their horses very carefully during strenuous workouts under these conditions. When the comfort index exceeds 180, normal routes of heat dissipation fail to work and workouts should be discontinued.

Sun

Most horses are well equipped to deal with the elements, and many enjoy dozing in the sunshine. However, a horse should have access to some form of shade, particularly in the middle of the day so they can choose whether they want to be in or out of the sun.

Flies and Insects

Horses may use shade to get away from flies as much as to escape direct sunlight. Flies can also be a real problem if the horse sustains even small cuts and grazes. The irritation caused by the flies will hamper the healing process and may even lead to a secondary infection.

Hoof Care

Prolonged periods of turn out on very dry ground can affect the hooves of horses, causing them to become brittle

and prone to cracking. Being vigilant with trimming and shoeing will help reduce breakages and rough edges, but owners can also help to reduce dryness by having a good general hoof care routine in place. Keep the hooves moisturized with hoof care products. Reacting once a problem has appeared is too late.

General Nutrition

Remember to monitor a horse's weight and diet throughout the summer. Supplemental feeds (grain) will usually need to be reduced, depending on how much grass is available. Most healthy

horses should be able to manage without supplementary feeding if they have the right quantity and quality of pasture. Under normal conditions, a balanced ration and a salt and mineral supplementation program should be sufficient to maintain electrolyte balance. However, with intensive exercises, substantial sweating occurs, leading to water and electrolyte deficiency. The results are weakness, muscle cramps, acid-base imbalance and decreased performance. Mechanisms for the conservation of sodium and potassium improve with the horse's acclimation

to temperature and humidity. It is critical to monitor and, when appropriate, to provide electrolyte supplementation to horses beginning a vigorous training schedule or who are adjusting to elevated environmental temperatures.

Thermal stress resulting from exercise-induced dehydration can affect performance, causing serious problems for your horse or death. However, this is preventable with provision of adequate water, salt, minerals, monitoring of environmental conditions and use of some common sense.

Get Your Horse Involved in the Training Process

Steven M. Jones, Associate Professor

I have several horses that I use in my clinics. Their level of training varies through the age classes – 12, 8 and 4. I was observing them recently as they gathered around the hay rack. I started reflecting on their different personalities. Each of them had been trained with the same philosophy I teach in my clinics. Yet, each of them responded in a different manner in the training progression. This was evident by the variation in time to learn certain maneuvers and different reactions to specific cues. I know I made some errors in communication, judgment and patience that created some tense moments and frustration for me and the horses. Over time, we worked through the issues, and for the most part, I am pleased with each of them. I started reflecting on the qualities of each and what they excel at. I choose one or two for individual clinics based on their strengths or weaknesses, techniques I want to emphasize or maybe they just need a job that day. Still, I kept thinking about the differences I had in my herd. Why? The answer is: all are individuals! No matter how well you plan your training program, how consistent your cues are or what you think the correct reaction should be, each individual horse will respond in a slightly different manner. Horses develop their personality from their dams, herd interaction and human interaction. You add in life experiences (good or bad), genetic predisposition and athletic ability – you have an individual that is unique.

Successful training results from the human understanding how to see life from the horse's point of view. A horse's motivation in life is to be safe and comfortable. A human motivation may be success, praise, recognition, money, etc. These things have no value to the horse. Horsemanship is a partnership between human and horse. This partnership must be based on communication and trust, not fear and intimidation. We must be able to trust our horse to the degree we want our horse to trust us. I see trust starting with communication. Communicating with the horse is getting them to respond to a cue in a manner that results in the correct response providing comfort and safety for the horse, at least from the horse's point of view. To accomplish anything, there must be someone in charge, the leader. It is

important for the human to establish himself as the leader. Quality leadership demands emotional, mental and physical stability and consistency in communication from the human. The horse will be more willing to try hard for you if you have demonstrated this leadership style over time.

If we consider horsemanship as a partnership between human and horse, then both parties have responsibility. If we have established the human as the leader, then what is the horse's responsibility? The horse's role is then to follow the leader. The horse also has a vested interest because he is the one that is expending the energy! The horse needs to be part of the training process. They are capable of many things athletically, but you must include them in the mental part of things as well. The horse must be rewarded for any success. This reward is comfort and safety. This principle results in the horse being willing to keep trying and, ultimately, searching for that particular movement (or lack of movement, in the case of stop) of feet and legs that results in release of pressure (stimuli).

Here is how we include the horse in the training process:

1. Listen to him. The horse will tell you what he's thinking. He can communicate confusion, fear, understanding, excitement or level of effort through his body language.
2. Build a basis for communication. Ray Hunt always said, "Reward the smallest change and the slightest try."
3. Always be consistent in your cues. Start from the ground and then progress to the saddle with lateral and vertical flexion, control of the feet and control the movement of the body. This will build a supple, willing horse and give consistency to communication.
4. Expect and accept failure. Each cue is not going to be understood and executed. Therefore, failure becomes a "teachable moment" in which we can reevaluate our communication. It is also an opportunity to back up and make sure the fundamental training steps have been learned.

5. Build a foundation for success. Everything we ask a horse to do, he already knows how to do. We are just asking him to do them exactly when we want him to. All a horse can do is move forward, backward, sideways, left, right and stop. Everything we ask is a combination of these maneuvers or change in speed. Start slow and build momentum. Allow the horse to buy into our system.
6. Wait on the horse. Sometimes the horse knows what we are asking him to do, but he is not confident of himself or natural instincts say there is potential danger. If we wait, let the horse try and have success, then that builds confidence in the horse. Success will build success and give the horse confidence to try new challenges. He will also learn to trust you more in the process.
7. Challenge you and your horse. How do you know your horse is ready for a new challenge? Ask for it, and see what happens. Make sure your insecurities are not hindering your horse's educational progress. Progress cannot be measured by always executing the past lessons. Add challenges to your routine that cause the horse to think. Horses become bored from monotonous routines.

Having clear communication and a horse that wants to work with you can only improve your performances. To gain and maintain top performances you need to regularly review your communication and the quality of your partnership by allowing the horse to think and participate in the process. Mistakes will be made, but this creates an opportunity to evaluate the process.

Calendar of Events

DATE	EVENT	LOCATION
May 14-16	Annual Horsemanship School	Pauline Whitaker Arena, Fayetteville
May 21	Horse and Pasture Management Field Day, 6:00 p.m.	Saline County Fairgrounds, Benton
June 27	4-H Horsemanship Clinic	Stone County, Mountain View
June 18	Colt Starting Clinic, 6:00 p.m.	Black Rock (Randolph County)
June 22	Area 4-H Horse Camp, 9:00 a.m.	Fox (McElroy Farm)
June 23	4-H Horsemanship Clinic, 9:00 a.m.	Melbourne
July 6-9	Arkansas 4-H Horse Show	State Fairgrounds, Little Rock
July 28 - August 2	Southern Regional 4-H Horse Championships	State Fairgrounds, Little Rock