Strategies to Maximize Performance in Your Horse

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Maintaining a performance or pleasure horse represents a substantial investment of time and money. People sometimes put their efforts towards purchase of a nice horse and a lovely truck and trailer, forgetting some of the basics that help to improve horse health and performance. This presentation covers some of the factors that may influence the success of your riding program, be it showing or pleasure riding.

Selection

The feeling of a successful partnership with your horse can be a very rewarding experience. This pathway can be made easier if a horse with the right “credentials” is selected. This may involve consideration of breed, age, gender, size, level and type of training and disposition. If you do not already own a horse, having the help of a professional horseman or knowledgeable equestrian can be very helpful. A prepurchase examination by a veterinarian can help to identify problems that may interfere with performance. Just like humans, horses can be better at certain jobs than others. Try to select a horse that either already knows the discipline of riding you are interested in or has a “family” history of talent in that area. Be cautious about believing unsubstantiated claims about a horse’s skills (buyer beware!).

Vaccination and parasite control

Horses are routinely vaccinated against contagious and infectious diseases that may kill the horse, permanently impair them or cause illness requiring a long convalescence.

· Tetanus: Vaccination against tetanus is performed annually. The vaccine contains tetanus toxoid and stimulates the horse’s immune system to actively make antibodies against Clostridium tetani, a bacterium that lives in the soil. Another tetanus vaccine that is available is tetanus antitoxin. This vaccine provides antibodies against the tetanus organism and can rarely cause fatal liver disease. Always get veterinary advice prior to administering tetanus antitoxin. Horses infected with tetanus often develop a stiff, “sawhorse” stance.

· Rabies: Vaccination against rabies is performed annually. In many states, rabies vaccination must be performed by a licensed veterinarian or state-approved technician. Rabies is spread to horses primarily through bites by wild animals, such as raccoons. Horses infected with rabies often shown signs of dysphagia (trouble eating), ataxia and increased sensitivity to the touch. They may also show signs of colic and lameness.

· Eastern and Western encephalomyelitis (sleeping sickness): Vaccination against this mosquito-borne viral disease is usually performed two times per year. In areas where there are particularly early springs or long, warm falls, this vaccine may be administered three times per year. Horses infected with equine encephalomyelitis often show signs of stupor, compulsive circling, hyperexcitability and, later in the course of the disease, coma and inability to rise.

· West Nile: Vaccination against this mosquito-borne viral disease is usually performed two times per year. Some state veterinarians recommend vaccination three times per year. Horses infected with West Nile virus often show signs of depression, ataxia, weakness and muscle fasiculations.

· Influenza: Vaccination against influenza is usually performed two times per year. Influenza is spread through contact with a sick horse or through dirty hands of humans handling sick and healthy horses. Intramuscular and intranasal vaccines are available. The intranasal influenza vaccine has shown good efficacy in preventing disease for six months after vaccination. Following intramuscular vaccination against influenza, horses may need to be boostered two to four times per year. Horses infected with influenza often develop a fever, runny nose and cough.

· Rhinopneumonitis: Vaccination against rhinopneumonitis (equine herpes virus) is usually performed twice a year, or as often as four times per year. Like infection with influenza, horses infected with rhinopneumonitis may exhibit symptoms similar to those of influenza.

· Strangles: Strangles is caused by the bacterium Streptococcus equi, and is spread by nose to nose contact, by contaminated equipment and human hands or through contaminated water sources. An intramuscular vaccination is available, but this vaccine sometimes causes substantial reactions at the injection sites. An intranasal strangles vaccine is available. This vaccine may rarely cause illness in the horse. Additionally, it is recommended that intranasal strangles vaccines not be administered at the same time as other vaccines administered intramuscularly.

· Equine protzoal encephalomyelitis (EPM, possum disease): This neurological disease is most commonly spread to horses from possums infected with Sarcocystis neurona. A Sarcocystis neurona vaccine is available that appears to be safe. Efficacy studies are in progress. Horses infected with EPM have brain or spinal cord dysfunction that is asymmetrical and may have ataxia and/or muscle weakness.

· Potomac horse fever, Venezualian equine encephalomyelitis, rotavirus: Ask your veterinarian about the risk of these diseases in your area.

Horses are constantly exposed to internal parasites, especially if they graze on green pastures in warm, humid climates. Horses are traditionally dewormed every 8-12 weeks, and a number of effective anthelmintics are available. Many horse owners employ a rotation of ivermectin or moxidectin with fenbendazole and pyrantel. Horses should be dewormed at least once a year with a product effective against tapeworms (double dose pyrantal or ivermectin/praziquantal combination). Horses on a daily pyrantel dewormer should receive ivermectin or moxidectin at least twice a year, and be treated for tapeworms at least once a year. An ideal worm control program includes a fecal egg count at least once a year.

Dentistry

Horse’s teeth continually erupt, and this, combined with the rotational grinding of the teeth, can cause sharp enamel points to build up on the buccal (cheek) surface of the upper teeth and the lingual (tongue) aspect of the lower teeth. In the old days, it was thought that horses only needed their teeth floated (filed) in their senior years, but this is no longer the case. Sharp enamel points, hooks, wave mouth and incisor malocclusion can cause discomfort with the bit and reduce suppleness in the jaw, poll and topline. Dentistry is optimally performed before the horse is ever asked to carry a bit. Examination for need for dentistry is best accomplished with use of a full mouth speculum which allows for full palpation of every aspect of every tooth. The practice of checking just the lateral aspect of the first cheek tooth to determine need for floating is often very inadequate. This practice leaves many teeth unexamined and abrasions in the cheeks adjacent to sharp points unidentified.

Conditioning

A horse that is improperly conditioned for its intended sport is at risk to develop muscle, tendon and/or ligament injury if overexerted. A horse is said to be fit if it can perform its sport/discipline with minimal effort and low risk of injury. A conditioning program should include efforts to improve cardiovascular fitness, suppleness and muscular strength. Many riders have a tendency to concentrate only on jumping, or dressage, or barrel racing, etc., and therefore confuse “training” with “conditioning.” Concentrating solely on training not only can lead to injuries from poor conditioning, it can also lead to behavior problems and boredom in your horse. A program of long, slow distance (LSD) conditioning can be used that involves lots of walking initially, with increasing trot and slow canter work. Working the horse up small hills can increase muscular and cardiovascular fitness. If hills are not available, walking and trotting over cavaletti can be used. Exercising on different types of footing can stimulate strength in bones and tendons. Conditioning past this basic level will depend on the type of discipline you are concentrating on. Endurance horses may benefit from training with a heart rate monitor to measure achievement of maximal heart rate during exercise and, more importantly, recovery from exercise.

Saddle fit

The saddle you bought 10 years ago to fit your 14.2 hand Quarter Horse mare may not fit your new 16.3 hand Thoroughbred gelding. A poorly fitting tree, broken tree, uneven flocking and misfit of saddle size for rider are just a few problems that can cause a saddle to fit improperly. These problems may cause muscle or vertebral soreness in your horse and lead to lameness (from back soreness, hindlimb or forelimb problems) and/or behavior problems. Some horses are more sensitive to saddle fit than others, and your eye may not be able to detect subtle problems. Saddle fit problems can be worsened if saddle pads are dirty or lumpy or if your horse is dirty when saddled. If you have a saddle fit problem, adding more padding or specialized padding should not be considered a remedy. It is a very good idea to have your saddle examined by a professional saddle fitter whenever you buy a new horse, if there are substantial changes in your horse’s weight or conditioning, or if you start to have lameness, soreness or behavior problems.

Shoeing

A number of problems can arise from a horse that is not shod properly. Probably the biggest problem stems from horses with a natural tendency to have a long toe and low heel conformation. This conformation can predispose heel-based lameness, including navicular syndrome. If you have a horse with less than perfect hoof conformation, you can minimize the impact on soundness by keeping to a regular shoeing frequency (every 5-6 weeks) and working with your farrier and veterinarian to minimize toe length and maximize heel support at every shoeing. Certainly not all horses need shoes, but the same principles apply with regard to shoeing frequency and hoof balance. A lateral radiograph of the feet can help to identify subtle or marked problems with hoof balance and shoe fit. The radiograph can be repeated annually to track improvements or developing problems.

Nutrition

There are a number of factors that are considered in determining an optimal nutrition program for your horse. For the most part, we tend to feed horses so that they are maintained at an optimal weight. Dressage horses and hunters usually carry a little more weight than event and endurance horses. Horses are usually fed a combination of forage (hay and/or pasture) and concentrate (grain). Realize that horses, by nature, are designed to eat for 18 hours per day. The practice of feeding large amounts of grain and small amounts of hay are a recipe for colic, boredom, development of vices (cribbing) and is a predisposing factor for development of gastric ulcers. In some parts of the country, pasture is limited. In these cases, problems can be minimized by feeding good-quality grass hay divided into three or four feedings per day. Horses that tend to be flighty or skittish may benefit from a low-carbohydrate, high-fat feed which is commercially available. Horses that have trouble gaining or maintaining their weight can be fed supplemental fat (corn oil, rice bran, pelleted fat supplements) and/or having beet pulp added to the diet. Obesity should also be addressed, as this condition is considered a risk factor for the development of laminitis.

Supplements

In addition to concentrates and forage, vitamins and minerals are an essential part of equine nutrition. Scrutiny of catalogues or aisles of tack and feed stores would make you think that hay and commercial feeds are devoid of vitamins and minerals, and it is up to you to provide these items for your horse. Realize that all of the name brand commercially-prepared feeds have essential vitamins and minerals added. If you feed home-prepared feeds (or plain grain such as oats) you may need to supplement vitamins and minerals. Joint and muscle supplements containing chondroitin, glucosamine and MSM may be added to the diet of horses with arthritis or muscle soreness. Hoof supplements containing biotin and methionine may improve hoof quality.