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2012 Arkansas 4-H State Horse Show

Mark Russell, Assistant Professor - Equine

The 2012 4-H State Horse Show took place July 17-19 at White County Fairgrounds. The show was up about 100 entries with a total of approximately 750 entries between the horse show classes, leadership competitions and 4D Barrel Race on Tuesday evening.

The photos are of the saddle winners.



Junior High Point Speed
Megan Howell



Senior High Point Speed
Bailee Burchfield



Junior High Point Performance
Maria Louisa Akey



Senior High Point Performance
Sarah Beth Bates



High Point Dressage
Leila Joy Richardson

Recognizing Stress in Horses

Mark Russell, Assistant Professor - Equine

More often than not, our horses will show signs of stress. And just as often, horse owners can control the amount of stress seen in our horses.

There are many indicators of stress. If stress levels stay low, chances are the ride and overall experience will be a positive one. Further, you will add life to your horse and allow him to be much happier and his overall health will increase as well.

But how do we recognize stress in our horses? Does it increase when we leave home? Chances are, the less frequently you leave home with your horse, the higher the stress level will be when you do leave. Nevertheless, horses can show signs of stress at home on a daily basis in some cases.

Horses experiencing stress may offer many signs to their owners. For example, they may appear to be frightened and/or nervous. We may see this in the form of running or, in some cases, they develop vices, such as cribbing and stall weaving. Abnormal sweating can also signal a stressful situation for your horse. Muscle tone can also provide some clues. If the horse is tense and the muscles are contracted, it may be tying up. If the muscles are flaccid and extremely relaxed and the horse is depressed, the central nervous system may be damaged. If any of these signs are observed, a closer inspection is needed.

In order to fully recognize a horse's change in condition, it is a good idea to keep permanent records for each horse in your care. The file should include:

1. Permanent identification, birth date and registrations
2. Reproductive history, breeding dates and foaling dates
3. Weight and condition scores
4. Normal temperature (T), pulse (P) and respiration (R), or TPR
5. Deworming dates and products used
6. Vaccination dates, diseases and products used

7. Illness dates, diagnoses and treatments
8. Injury dates and treatments
9. Surgery dates and outcomes
10. Allergy causes

Stress can be grouped into four different categories for horses:

1. Behavioral or psychological
2. Mechanical
3. Metabolic
4. Immunological

Behavioral Stress – Horses do not see the world as we do. They have what is known as monocular vision as well as binocular vision. With the monocular vision, they are able to see to each side of their head much better than humans. They also have binocular vision, which allows them to see objects in front of them. However, horses are unable to see approximately 4 feet directly in front of them. Further, horses hear much better than humans. All of these factors can be possible explanations of why they seem to spook easily and without warning on occasion.

When a horse is stressed, he may also show signs of agitation. A horse that is agitated may lay his ears back and swish his tail. This is not to be confused with a horse that is fearful. This horse will clamp its tail down, its body is tense and eyes may be wider than normal.

Horses are known to also feel less stress when around other horses. Even if a horse cannot be in the same pasture as other horses, they will feel more at ease when they are able to see other horses that are in close proximity.

Mechanical Stress – The stress level in horses can also increase greatly when there is some type of structural injury. Examples of this may include lameness, local inflammation, swelling, heat and/or pain. Checking for injury or lameness should be a part of the everyday routine for maintenance of your horse. The best time to do this is while feeding in the morning and again at the evening feeding session.

Nutrition and Metabolic Stress –

The horse's digestive system is designed to handle frequent small meals. Further, when horses are in a grazing environment, they are better able to maintain optimum health. To reduce stress, horses require that a certain proportion of the diet be roughage. Vitamin and mineral requirements must also be met but not exceeded for the stage and condition of the horse.

Three metabolic problems in horses are closely related with nutrition:

1. Colic
2. Laminitis
3. Tying up

Immunological Stress – Stress caused by disease and/or parasites can range from superficial discomfort to death. A good vaccination program is the best defense against infectious diseases. Additionally, an effective deworming program must include good management practices as well as regular use of antiparasitic drugs. Some important guidelines include:

- Treat all horses at the same time.
- Rotate clean horses to clean pastures.
- Design feed and water facilities to prevent fecal contamination.
- Remove manure frequently from stalls and paddocks.
- Clip and harrow pastures regularly.
- Consult with a veterinarian on selection and use of antiparasitic drugs.
- Monitor the effectiveness of the parasite control program by checking egg counts in feces.

As horse owners, we will never completely be able to keep our horses from becoming stressed. However, with routine checks and awareness, we may be able to manage it.

Special thanks to Dr. Rick Parker for his contributions to this article.

Tips for Feeding Horses During a Drought

Mark Russell, Assistant Professor - Equine

Drought can propose challenges to horse owners, even when they foresee the conditions and have a plan in place. The rule of thumb to follow in this particular region is one adult horse per 2 acres or 1 acre for a yearling or two-year-old. One of the most important factors in feeding a horse is keep any changes in feed gradual – this includes both forages and concentrates (grains, pellets, oats, etc.). Horses do not accept a change in forage very well, and the shortage of hay and increase in expense of concentrates has caused many horse owners to evaluate current feeding programs and seek alternatives. Here are some facts and helpful suggestions for feeding horses during a drought or during dry season conditions.

1. Roughage is the most important facet of a horse's diet. The owner should strive for approximately 50 percent of the horse's daily intake to be forage based (should be 1 to 2 percent of total body weight).
2. Roughages provide essential sources of digestible energy, protein and some vitamins and minerals.
3. Employ rotational grazing. During months when rain is more prevalent, use a fencing system that will allow for sections of the pasture to not be grazed.
4. Plant winter annuals – such as rye, ryegrass or wheat. While the initial cost may be high, this option could possibly be less expensive than hay purchased over the course of a winter and early spring.
 - a. Ryegrass can be planted as early as late August. Typical planting times for planting on a tilled seedbed begin in early September through early November. The typical planting period for sod-seeding, either by no-till or broadcast methods, begins in late September through early November. Early-planted ryegrass (September) can provide grazing in late fall. Late-planted ryegrass (November) will not provide significant grazing until late winter (March) except during warm winters, such as the winter of 2011-12. (See University of Arkansas Division of Agriculture fact sheets FSA3051, *Baled Silage for Livestock*; FSA3064, *Using Cereal Grain Forages and Mixtures With Annual Ryegrass for Grazing*; FSA3063, *Using Cereal Grain Forages and Mixtures With Annual Ryegrass for Hay and Silage*; and FSA3066, *Winter Annual Grasses for Livestock in Arkansas*, for more details on winter grazing or consult Dr. John Jennings, U of A forage specialist.)
5. Only feed hay when the previous feeding has been “cleaned up” completely.
6. Weigh each hay feeding to prevent over-distribution.
7. Foaling mares should be kept away from fescue because of concerns over foal death at time of birth and the complete absence of milk production in some mares provided access to fescue.
8. Horse owners who have access to round bales (or the equipment to handle them) can save costs over the course of a dry season.
 - a. Keep the bale covered and out of access to horses.
 - b. Limit each feeding by:
 - i. limiting access to the bale to 2 hours each day.
 - ii. using a pitchfork to pull each daily feeding off the bale.

The loss of crude fiber in not feeding hay can be found in other sources. Some common feedstuffs that can replace a portion of the roughage in the diet or can be given in a supplement form (crude fiber = 11-15 percent, usually approximately 1 cup per feeding is sufficient – starting with a small handful on the first feeding):

 1. Rice bran (high in fat and phosphorus, may need to supplement calcium if not balanced by manufacturer).
 2. Wheat bran (high in phosphorus, may need to supplement calcium if not balanced by manufacturer).
 3. Oats (considered safe to feed, contains more fiber than other grains). Can be mixed with other concentrates in a higher volume than others listed above. Crimped oats are more easily digested.

Some common alternative roughage that can be a replacement or a partial replacement for hay (high-fiber feeds, greater than 15 percent crude fiber):

 - Other hay sources
 - Alfalfa
 - Oat hay
 - Straw (oat straw is more palatable than wheat or barley straw and should serve as last resort)
 - Alfalfa hay cubes (may require soaking to make more palatable)
 - Alfalfa pellets
 - Beet pulp (may also require soaking to make more palatable)

It is tempting during a drought to increase what is most available, and many times that is concentrates (grains, oats, pellets, etc.). These types of increases should be limited or avoided completely. However, if they are increased, keep in mind:

 1. Feed smaller meals more frequently – for example, once in the morning, noon and late evening.
 2. Concentrates should consist of between 0.5 to 1 percent of body weight (1,000-pound horse would receive between 5 and 10 pounds of concentrate per day).
 - a. This amount should be divided up into three equal feedings per day.
 3. When increasing concentrates, it becomes more and more important to check feed for insects.

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Evaluating the Costs of Doing Business

Mark Russell, Assistant Professor – Equine

There are a variety of career paths for those interested in working in the Equine Industry. One of the best qualities of working in the Equine Industry is the fact that any person of any age can find some type of work associated within our industry. With these options, decisions should be made regarding what level of commitment one is willing to invest in a certain opportunity. For example, being a horse trainer or owning a boarding facility isn't a 9-5 job Monday – Friday. For most folks in those occupations, it's more than just a job or even a career; it's a way of life and most wouldn't trade what they do for anything. However, there are many other options for those that may not want to go into training or boarding. But no matter the occupation, one should consider the following questions outlined by Dr. Rick Parker from the College of Southern Idaho.

1. Are you willing to work long, hard and irregular hours – 16 hours a day, 7 days a week?
2. Do you get along well and communicate effectively with people?
3. Are you comfortable with problem solving and troubleshooting?
4. Will you seek help when needed?
5. Do you have the technical expertise to manage the operation?
6. Can you afford to hire qualified help?
7. Do you know others in the business who will provide help or information?
8. What related associations or organizations can you join or do you need to join?
9. Are you willing to learn of current practices and new development?
10. Are you familiar with the legal issues of marketing your product?
11. Do you have the resources to construct and operate a facility?
12. Do you have the right location for the business you wish to conduct?
13. Is the prospective business site located near your markets?
14. Do you live close enough to the business site to visit and monitor it as needed and to ensure security?
15. What utilities are available at the site of the business?
16. Are the available water resources adequate?
17. Can you effectively manage any waste produced by your operation?
18. Will your neighbors and others accept your business operation?
19. Have you discussed your planned operation with the appropriate local, state and federal agencies?
20. Have you identified the permits and insurance required to construct and operate the business?
21. Do you have the resources – financial, technical and special – needed?
22. Are support services and industries available?
23. Do you have access to a dependable workforce for physical labor?

The equine industry can be a very enjoyable and rewarding career path. A keen eye for business and a well laid plan cannot be overstated. This article is not meant to discourage the prospective employee, but rather give him or her some aspects to consider when looking into potential careers and opportunities.

For more information regarding equine education in Arkansas, please contact Mark Russell at 501-671-2190. Good luck in your equine ventures!

Tips for Feeding Horses During a Drought (cont.)

4. Feed concentrates by weight, not volume. Weigh the feed and determine the amount to be fed by the weight of the horse.
5. Concentrates should not exceed 50 percent of the horse's total diet.

Others items to consider: There is hay available to the south and east of Arkansas. Group up with other horse owners to split the costs of having the hay transported by someone

else or go and purchase hay as a group to reduce costs. Also, if your horse is chewing on trees, fence posts or eating weeds, this may be an indication you are not meeting your horse's nutritional needs.

Sources: Clemson University, Colorado State University, University of Arkansas, and Texas A&M University. Dr. Paul Sciliano, Dr. Lori Warren (2010), Dr. John Jennings (2012) and Dr. Pete Gibbs (2006).

Controlling External Parasites

Mark Russell, Assistant Professor – Equine

As I talk to folks around the state, I get questions and have conversations quite often regarding parasite control. About 95 percent of the time it concerns internal parasites and proper methods of worming. Horse owners also have external parasites to worry about. According to Dr. Floron Faries, external parasites of horses include stable flies, horseflies, deerflies, gnats, mosquitoes, hornflies, houseflies, blowflies, fleas and ticks.

There are two preventive types of management practices to control external parasites – chemical and non-chemical. The control of population of external parasites focuses on reducing the offspring or future generations, that is, breaking the life cycles of external parasites by killing immature and adult stages in the animal's environment and the parasites that infest animals.

- Stable flies reproduce in decayed stall bedding, hay, horse manure, lawn clippings and aquatic vegetation.
- Horseflies, gnats and mosquitoes reproduce in or near water.
- Hornflies reproduce in fresh cattle manure.
- Houseflies and blowflies reproduce in decayed garbage and animal carcasses.
- Fleas and ticks reproduce in animals' bedding and moist, shaded soil.

The best way to prevent external parasites is to practice proper sanitation in your animals' pens and barns. For example, properly dispose of decayed wood shavings, vegetation, manure, garbage and dead animals. Routinely drag pastures to scatter manure – this will dry out the matter and discourage larval development. Proper drainage can also go a long way in reducing the production of gnats, mosquitoes, horseflies and deerflies. It is also helpful to apply a periodic insecticide application around the premises.

Sprays, fogs, powders, granules and baits introduce insecticides into the animal's environment to kill immature and adult stages of arthropods, especially fleas and ticks.

Environmental control is more effective in controlling fleas and one species of tick than applying insecticides on animals.

Proper stocking rates of animals prevent overcrowding and accumulation of manure and filth. You should observe animals daily. Healthy animals tend to have fewer external parasites and are better able to withstand the effects of parasites.

Strategic administration of insecticides (using the right chemical at the right time) on animals assists in the control of external parasites. When necessary, proper use of chemicals can aid in breaking the life cycles of external parasites. Animal chemical control of the parasites that live on animals, such as mange mites, ear mites and lice, is necessary because these parasites breed on the animals and not in the environment.

Insecticides are applied to animals either by hand-application or self-treatment methods. Hand-application methods include dip, spray, dust, pour-on, spot-on, injection and oral. While many of these methods are seen less often in horse care, it is important to be aware of them. Devices used for self-treatment are back rubbers, dust bags and tubes, liquid wicks, neck collars and ankle collars. Self-treatment devices, when properly used, are more efficient at controlling hornflies than hand-application methods.

As a horse owner, it is important to find the method of control that best fits your program or situation. Like many cases, what works for your horse may not work for others.

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