



# Equine News



Department of Animal Science  
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## Body Condition Scoring, Activities and Thin Horses

David Freeman

OSU Extension Equine Specialist

Horse activities are in full swing. While traveling to many local events this year, several show managers have commented an increase in the number of 'marginally acceptable' thin horses showing up. No doubt, this increase is due to lack of pasture forages this spring, horses entering the spring in thinner than normal conditions and the cost of processed feedstuffs. Several questions are included in discussions addressing body condition, performance and thin horses.

How thin is too thin?

That's a question that will bring many different answers, as it is riddled with opinions not directly related to health of the horse. The universally accepted visual method to define body condition in horses uses a scale of 1 to 9, with emaciated horses (boney, no visible fat, no body tissue over vertebra, ribs and protruding boney structures) being a score of 1. While scores in the lower end are generally considered unacceptable for exhibition and moreover health of horses, scores of 3 or 4 enter into the range of body condition scores that are more acceptable and more frequently seen at activities.



Body Condition 3 on a 1 to 9



Body Condition 2 on a 1 to 9

Whether or not horses in these body condition scores are acceptable to be exhibited is questionable, as some horses may be healthy in thin conditions or thin for reasons other than 'nutrient neglect'. Those horses that are naturally or preferably thin should have veterinary checkups like other horses, including occasional blood tests and other general diagnostics similarly done with pre-purchase exams. Body type, level and intensity of exercise, physical conditioning and the individualism of 'ideal performance weight' affect optimal body condition. Feeding and conditioning to a thin condition is much different than restriction of ration to maintain a thin condition.

Is performance related to body condition?

Anyone that enjoys watching the Olympics can easily answer this question. Different activities draw with them different body conditions (fat cover). Long distance runners, cyclists and the like carry very little body fat. Weight lifters, hockey players, generally more. While general trends may be noted within sports, Olympic caliber athletes have determined the ideal weight for to maximize their performance potential. The same can be said for equine athletes; although less intensive and less accurate measurements are routine. Addressing the answer a different way, those traveling long distances and competing at frequent intervals, e.g. a competitive barrel racer, know the importance of monitoring their horses body condition and body weight. Slight drops from the ideal body condition shows up as fatigue, depressed attitudes and increases in minor injuries. While many activities are not as intense as a competitive barrel racer's season, even movement quality such as collection in rail horses is affected by fatigue. And, fatigue is hastened by low energy stores, which in turn are dependent on adequate nutrient supplies and physical conditioning. Again, there is a big difference between thin resulting from dietary restriction and thin resulting from ample nutrition and intense physical training.

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## Body Condition Scoring, Activities and Thin Horses *continued*

So, while all would agree that it is obvious that body condition affects performance, there is less agreement on what level body condition is ideal for performance, or what condition, thin or fat, restricts performance. The answer to that question has to be derived from the individual horse and conditions that surround the performance. Questions to ask oneself:

*Do I know how to objectively estimate body condition?* If not I'd suggest a starting place is reading OSU Facts ANSI-3920, available in the list of fact sheets on the web at [www.ansi.okstate.edu/e-equine](http://www.ansi.okstate.edu/e-equine).

*Do I make routine efforts to evaluate body condition of my horses?* If not, it is easy to become 'stable blind' as trends result from small daily differences. These daily differences are easy to overlook.

*If a horse is one that is on the lower end of condition relative to its peer group of performers, why?* Does the horse consume enough ration to maintain adequate minimal body weight? If not, you are likely restricting the performance of the horse, and more over, limiting the horse's health status to below optimum. Many times, owners are surprised at how much energy requirements go up when horses are performing repetitive exercise. Especially those who rely strictly on all forage diets (refer to Facts ANSI-3970 Nutritional Concerns for Exercising Horses, available from [www.ansi.okstate.edu/e-equine](http://www.ansi.okstate.edu/e-equine)). While consumption of ration may go up with activity, the nutrient density of the all grass diet simply can't keep up with the increase in need. Or, if diet isn't an issue, is the horse generally a 'high stress' athlete? Is stress restricting voluntary intake or is the horse burning off uncharacteristically high amounts of energy when not being exercised? Or, is stress causing changes in digestion, intake, or quantity or consistency of manure?

*Do I know the health and physical conditioning status of my horse, and can I relate it to differences in body condition?* If not, it is difficult to target the ideal body condition for performance (refer to Facts ANSI-3983 Physical conditioning of Horses, available from [www.ansi.okstate.edu/e-equine](http://www.ansi.okstate.edu/e-equine)). Assessing physical condition and health status of a horse may require 'nonroutine' veterinary exams. While blood tests and physical exams have limits, both can be helpful in detecting abnormal levels of metabolites, or restrictions in flexibility, lung performance or cardiac responses.

### *Final Thoughts:*

Likely, horse events will have horse's in attendance in less than desired body condition as a result of ration restriction. These horses will be more prone to stress, and perform at levels much less than their capability simply because they don't have the energy stores in their systems to fuel the demands of the activity. These horses will also be more prone to fatigue related injuries, usually showing up in the joints and bones of the legs. Alternatively, some horses that are in very fit levels of physical conditioning may be healthy in thin body condition scores of 3 or 4. Most however, are at their best in minimal body conditions of 4 or 5. So, the answer to how thin is too thin has to be answered considering nutrient intake, physical condition, body type, age and individual nature and stress level of the horse.

When it comes to exhibitions, horse owners must realize that event management has responsibilities to monitor body condition of horses, as the appearance of health status of the horse is paramount for the acceptance of these activities to spectators and other participants alike. Even horses in thin condition that are receiving as good as care as possible may be restricted from participation regardless of reason.

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### Can you name the compounds in feed that supply energy?

Energy is derived from the breakdown of certain substances that are provided through the horse's ration. Most will answer the above question with protein. Understandable as protein level is readily available on the feed tag and feeds are marketed by different levels of protein. Protein can, and is to some degree, broken down for energy use. But protein has an added, more preferred function of providing amino acids. If a feed is 14% crude protein, 86% of the feed is something else. Only a small percentage of weight is taken up by minerals and vitamins, so what is the majority of feed? The compounds left are either carbohydrates or fat. While fat supplies large amounts of energy on a comparative weight basis compared to other compounds that supply energy, fat content of rations are generally limited to 10% or less. That leaves carbohydrates to be the largest portion of feed, and carbohydrates the largest source of energy. Carbohydrates are structured in two forms: Those digested by enzymes in the small intestine and by microbes in the large intestine (e.g. sugars, starches), or those (fiber) which are restricted in digestion by microbes in the large intestine. The horse's digestive system is uniquely arranged to efficiently gather energy from both forms of carbohydrates, as long as supplies are presented in amounts that promote digestion. *Confused or interested? Need more info? Go to [www.ansi.okstate.edu/e-equine](http://www.ansi.okstate.edu/e-equine) and look over the many ANSI facts on feeds and feeding of horses.*

## **Youth Program Update!**

The most recently held 4-H youth activity in the horse project, the State 4-H Horse Show, attracted 210 contestants from 46 counties. These youth qualified from district level shows held prior to the state show at four different areas of the state. Participation levels at district shows were down in one, level in two and up in another! Numbers at the state show were once again level with recent year's participation. The future of the project looks bright as there were many, many 'first timers' at State this year.

So many people are responsible for pulling off this annual event. Those who handle equine event management are in awe at the number and quality of volunteers that give resources, time and talents to make the District and State Shows so successful. It is amazing that class entry fees at State haven't been increased for over 5 years. It is amazing that over 40% of the financial budget for State is derived from donations through the State 4-H Foundation. It is amazing to see the youth development that takes place on-site: youth taking care of their horses; families working together preparing horses and exhibitors alike; contestants and their families taking time out to 'work the gate' and so forth. Hot temperatures, long days, and cramped 'quarters' seem less of an issue because of all the above. Congratulations go out to all the exhibitors, regardless of show ring success, all the Extension Educators who go above and beyond simply because of their belief in youth, and the volunteers who do what they do simply because they see the value in what is accomplished.

Complete results of the State 4-H Horse Show have been forwarded to County Cooperative Extension Offices. If you would like a copy, you can send a request to me at [david.freeman@okstate.edu](mailto:david.freeman@okstate.edu) .

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## **OSU Horse Owners Day Scheduled for August 25th!**

Many of you have attended this annual OSU Veterinary School and Division of Agriculture and Natural Resources sponsored educational event in the past. Once again, the agenda that is being formed will include an array of morning presentations by OSU Veterinary faculty and staff followed by an afternoon of small group discussions, demonstrations and presentations on health care and management. Dr.Carolynn MacAllister, OSU Veterinary Medicine outreach, is currently finalizing the list of presentations and preparing the associated brochures and registration materials. You can request information to be forwarded to you by contacting her via email: [carolynn.macallister@okstate.edu](mailto:carolynn.macallister@okstate.edu) .

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## **Vaccinations up to date?**

Now is a great time to check on annual vaccination needs for your horse. Warm temperatures bring on increased transport and group interaction with horses as well as increases in all the vectors that carry those 'pesky' infectious diseases. What program you follow is best directed by a combination of research on the web from organizations such as the American Association of Equine Practitioners and your veterinarian. Vaccinations are costly, and as such, there will be variations of use from one operation to the next. Most programs are similar with two or three core vaccines, including tetanus and encephalomyelitis. Recommendations from the AAEP add West Nile virus and rabies to the core list of needed vaccines. Rabies vaccine is not something many horse owners think about as frequency of cases in horses is low. It is becoming more and more commonplace to include rabies vaccine within the core group as more owners are considering the human-horse interaction and the consequences of humans being exposed to a 'positive' horse. Other vaccinations are identified by the AAEP as risk-based, which are driven by risk of contact, i.e. regional prevalence of disease, transport and interaction of horses, etc. These factors increase the importance of consultation with attending veterinarians when making decisions for vaccination programs.

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