

Feeding the Miniature Horse

Regardless of their size, all equines have the same basic nutritional needs. **Each animal must consume enough water, forage, and (possibly) grain to meet the requirements of growth, tissue repair, reproduction, exercise, and maintenance of all body systems.** Factors such as body size, age, breed, work, climate, health status, and metabolism affect the type and amount of hay, pasture, and grain a particular horse should be given. Because **very little research has been done on the specific requirements of Miniature horses**, feeding recommendations must be based on standards for other equines tempered by experience with Minis and careful observation of individual animals.

Deciding how much hay, grass, and grain to provide a mature Miniature horse involves, as a first step, an estimation of body condition. This is most easily determined not by looking at the belly, which may appear large even in an underweight horse, but by **observing the ribs, spine, and fat deposits.** For a horse in **moderate condition**, the ribs should be easily felt with moderate pressure, but should not be seen. The back should be flat, with the spine neither sticking up nor paralleled by raised ridges of flesh, and a light layer of fat should provide a smooth appearance to the shoulders, neck, and withers. If the ribs are easily seen and the bones of the spine stand up from the body, the animal is in **thin or poor condition**, and the aim of a feeding program should be to allow this horse to pick up some additional weight. At the other end of the condition scale is an animal with spongy fat deposits on the shoulders, croup, ribs, and thighs. These horses usually have rounded ridges of flesh along their backs so that the spine appears to lie in a depression, and ribs cannot be felt even with firm pressure. Because colic, laminitis, and bone and joint problems commonly affect **overweight horses**, the owner's goal should be to reduce the body weight of animals in this condition. **Miniature horses tend to be easy keepers**, meaning that they seem to maintain or increase their weight on limited forage and little or no grain. **The challenge for the owner is to provide complete nutrition while keeping the horse within an acceptable weight range.**

After looking at body condition, **the next step in working out a feeding program is finding out how much the animal weighs.** In a study conducted by Kentucky Equine Research (KER), 49 Miniature horses (mares, geldings, and stallions between the ages of 1 and 12) had an **average weight of 213 pounds, and fewer than 15% of these animals weighed as much as 250 pounds.** The study found that owners of Miniature horses commonly over- or underestimated the weight of their animals by up to 20%, an error that could lead not only to inaccurate feeding programs but also to possibly dangerous dewormer or drug dosages. If a scale is available, this is the most accurate way to determine weight. **Because weight tapes designed for standard horses are not accurate for Minis, KER designed equations using measurements of girth, height, and length to yield a number very close to the Miniature's correct weight.**

To measure girth, place the tape just behind the front legs and over the withers. Pull the tape snug but not tight enough to depress the flesh. For height, stand the horse squarely on level ground or pavement and measure the vertical distance from the ground to the top of the withers. If there is a question as to the exact location of the withers, allow the horse to lower his head and neck as if to graze and measure to the highest point in front of the saddle area. The tape should be kept perpendicular to the ground, not

laid against the horse. Length is measured from the middle of the horse's chest, along the side, and around to a point under the center of the tail. Use the measurements (in inches) in one or more of the following equations:

1. **(Girth x 9.36) + (length x 5.01) - 348.53 = body weight in pounds.**
2. **(Girth x 11.68) + (height x 2.85) - 357.26 = body weight in pounds.**
3. **(Girth x 13.18) - 326.07 = body weight in pounds.**

After an owner has figured body condition and weight, the final step is to work out individual nutrition plans. Grazing is the natural feeding pattern of horses, and **pasture or hay can often supply the majority of a horse's nutritional requirement.** As a general rule, a full-sized horse should be given hay or grass at a rate of about 1 to 1.5% of body weight per day. **Scaling down for Miniatures would point to about 3.5 to 4 pounds of hay. Easy-keeping Miniatures may get along well on even smaller amounts of hay, and should never be given unlimited access to grass.** If the horse gains weight, increase exercise and reduce intake. Use a grazing muzzle, drylot, or stall for part of the day, and consider changing to hay that provides fewer calories (grass instead of alfalfa or clover). For a horse that is too thin or is losing weight, gradually increase grazing time, or feed more and better hay.

Because of their extremely efficient metabolism, **Miniatures do not need a lot of grain. Many Miniature owners, who measure feed by the cup or half-cup, would agree that a full-grown Mini's grain ration should not exceed 1 pound per day, and as little as half a pound per day is often adequate.** To help ensure adequate fortification at this low volume, owners may want to use a feed with a **protein level of at least 14%.** Protein levels of up to 16% may be required during periods of highest demand (breeding stallions, extremely heavy exercise).

Equine nutritionists suggest that a **different way to approach grain feeding** is to look at what a commercial feed actually provides. Protein, calories, and fortification (vitamins and minerals) are the dietary benefits of a grain ration. With the possible exceptions of lactating broodmares and very heavily worked animals, mature Miniature horses derive sufficient energy and protein from forage. **To ensure sufficient intake of key vitamins and minerals without the danger of grain overload, a supplement such as All-Phase, Forti-Phase, or Micro-Phase may offer a safe alternative to a textured or pelleted concentrate.** Miniatures should be given about 1/4 the amount recommended for a mature horse, and caution should be exercised so as not to oversupplement.

Other supplements may be added to the diet if a horse has special requirements. Products to enhance hoof quality or prevent musculoskeletal problems can be fed to Miniature horses at a level based on body weight. Package directions are usually related to supplementing the diets of full-sized horses (1000-1200 pounds), and **reductions can be made in proportion to a Miniature horse's smaller size.** Because oversupplementation has the potential of harming the horse, the diet should be evaluated carefully before additional nutrients are included.

Remember these points:

- **Know the horse's body condition and weight. Make feeding choices based on whether the horse should reduce, maintain, or increase weight.**
- **Monitor changes in weight and modify intakes accordingly.**
- **Base the diet on forage (grass or hay) and add grain and supplements only as necessary. Water and salt should always be available.**
- **Keep a regular schedule for dental examinations and deworming.**
- **Feed each horse as an individual, taking into account size, weight, state of growth, metabolism, and work. Based on body condition, feed a small horse proportionally less than a full-sized horse.**