

## Horse Care on Small Acreages in Colorado

**Dr. Ann Swinker**  
**Cooperative Extension Horse Specialist**  
**Colorado State University**

Owning a horse is a large and expensive responsibility. Horses require time and money for proper upkeep. The following is designed to help the new or inexperienced horse owner understand how to properly care, feed and manage a horse. This paper will identify some of the key issues you should consider as you decide if you want the responsibility of owning a horse. Space and facilities will be one of the important factors to think about for keeping a horse.

### Feeding and Nutrition

An average saddle horse (1000 lbs. body weight) will consume approximately 1.5-2% of its body weight in feed each day. This is approximately 15 to 20 pounds of hay, pasture and grain a day (total ration). The majority of a horse's diet consists of good alfalfa, grass hay or pasture (forage). No more than one-half of the diet should be grain. A mature horse that is not being ridden or worked can be fed a diet consisting of only forage (hay or pasture). Grain mix (generally oats and corn) should be added to the ration as the training, work and activity is increased (Table 1).

**Table 1. Daily Feed Required by the Average 1,000- pound Horse**

	Approximate Amounts	
1,000-pound horse	Hay	Grain
No Work	15-25 lbs.	-----
Light (1-2 hrs/day)	15-20 lbs.	1-3 lbs.
	(1-1.5 lbs grain/hr of work)	
Medium (2-4 hrs/day)	15-20 lbs	3-8 lbs
	1.5-2 lbs grain/hr of work)	
Heavy (4 or more hrs/day)	15-20 lbs	5-10 lbs
	1.5-2.5 lbs grain/hr of work)	

Only a horse that is worked extremely hard should receive half of its ration in grain. A race horse is an example of a horse in heavy training.

---

If the grain mix does not contain salt and necessary minerals, these should be provided to the horse in the form of a salt block or balanced into the diet. If you want to review a balanced ration see the 4-H Horse Project Manual available at your County CSU Cooperative Extension

Office.

Some horses can get their total daily nutritional requirements from grazing in a pasture. If you plan on using a pasture as the total ration for the horses, there are several variables you must consider. Is there enough pasture to meet the needs of the animal? Is your pasture irrigated or are you in a part of the country that is dryland? What species of grasses are in the pasture? What is the soil depth and type? Does the horse receive supplemental hay or grain in addition to the pasture?

### **Calculating Stocking Rates for Horses**

Generally, a horse weighing 1,000 pounds consumes 600 pounds of dry matter forage each month. Pastures produce 500 to 2,000 pounds of forage per acre, depending on rain fall, soil type and species of plants. In high rain fall areas of the country (or irrigated pastures) you would graze your pasture down to 3-4 inches. But if you live in an arid climate, Range Scientists recommend using the following rule of thumb, “the take-half, leave-half principle,” to make sure your pasture stays healthy. So in some parts of the country, your horse may require 28.8 acres of dry land pasture a year to supply the needed forage, using the take half, leave half principal.

### **Dryland Pastures**

As previously outlined, the 1,000 pound horse will require 600 lbs of forage per month. This will calculate to 7200 lbs of available forage per year (600 lbs/mo x 12 mos). Figuring 500 lbs of forage production per acre and using the take half, leave half principal, it will require 28.8 acres of pasture to meet the needs of the horse. Depending on the productivity of the pasture land, supplemental feeding may be required. Limit grazing (several hours per day) combined with supplemental feeding on smaller acreage will extend the length of the grazing seasons. Horses will need to be housed in a box stall or a dry lot for the period of time they are not on pasture.

Continuous grazing of pastures of limited acreage may require a recovery period of no grazing to maintain forage health and vigor. During periods of snow cover and when no forage is available, supplemental hay must be provided.

### **Irrigated Pastures (Areas of the country that have adequate rain fall)**

Irrigated pastures that receive adequate moisture will grow more forage than dryland pasture. Therefore, less acreage is needed to meet the grazing needs of the horse. Again, the soil type, species of plants, amount of water, fertilization and management are factors that can increase irrigated pastures production yields of 3 to 5 tons per acre. Only a portion of the total yield produced will be eaten by the horse. Grass that is trampled and defecated on will not be consumed. Also, a certain amount of residue must be left to maintain good quality regrowth. This portion varies from about 50% for dryland pastures to about 30% for irrigated pastures. Using the same assumptions, stocking rates for irrigated pasture range from 0.7 to 1.2 acres/horse. Again you must supplement with hay during periods of snow cover or when feed is not available.

You must manage your pasture as a crop. Each year fertilize according to the recommendation of a soil test. Drag manure, clip weeds and monitor the pasture for over and under-grazing. Contact your county agent for information on soil testing and management.

### **Hay**

If you are purchasing hay, a rectangle bale of hay can range between 45 and 85 pounds per bale. Hay purchase and feeding must be based on weight and nutrient value. Younger horses and high performance horses do well on alfalfa (legume) hays or grass/legume mixes. Idle mature horses do well on grass or grass/legume mixes. Feeding only straight alfalfa to the idle mature horse will cause obesity and possibly digestive disorders. Younger horses, lactating brood mares and high performance horses will require higher nutrients than idle mature horses (See Table 3 for Nutrients of Common Feeds and Table 4 for Nutrient Requirement of Horses). If you calculate the amount of additional feed required you can determine the number of bales needed. A few extra bales should be purchased for snow covered days, colder weather and miscalculated feeding.

### **Quick Facts About Hay**

- \* Legume (alfalfa and clover) hay is higher in protein than grass hay; therefore, you can feed more (weight) grass hay than legumes. This will keep the horse busy eating longer, preventing boredom.
- \* Second and third cutting hays are higher in protein than first cutting. However, horses only need 10-12% protein in their feed; second and third cutting alfalfa hay averages 18-24% protein. This hay is also more expensive.
- \* Have your hay analyzed to determine its nutrient values; for protein, energy, M Cal, vitamins and minerals. Feed accordingly.
- \* Weeds have limited nutritional value, therefore buy hay that does not contain many weeds.
- \* Hay must be mold/dust free.

A horse must have clean, fresh water available at all times. A horse will drink 5 to 12 gallons of water a day depending on temperature, humidity levels and ration content. In the winter months, stock tank heaters will help prevent ice build-up.

### **Health Care (Minimum Requirements)**

**First Aid:** Contact a veterinarian any time the horse appears sick, disoriented or has been

injured.

**Foot Care:** Hoofs should be trimmed every six to eight weeks. Contact a qualified farrier. Clean out hoofs every time before and after you ride and examine them regularly for problems.

**Dental Care:** Consult a veterinarian or horse dentist at least once a year to check and float teeth.

**Vaccinations:** Age, intended use, individual health and time of year influence the incidence of disease and vaccination program. All horses should be vaccinated against:

- \* Eastern encephalomyelitis
- \* Western encephalomyelitis
- \* West Niles
- \* Tetanus
- \* Influenza
- \* In some instances, rhinopneumonitis and strangles should be considered.

for vaccination schedules. Contact your veterinarian for help.

**De-Worming:** Deworm 3-6 times a year. The frequency of treatment varies with use, and concentration of horses. You can paste worm your horse or contact your veterinarian for help.

### **Shelter and Fencing**

**Shelter:** Horses should have some protection from the hot sun, wind and precipitation. This can vary from a good shelter belt, a three-sided shed in the corner of a pasture to a complete stable with box stalls. Horses without shelter will require more feed and water to maintain their health.

**Required Space:** Box stall 10' x 10' to 12' x 12'; tie stalls 5' x 12' including manger, ceiling height 8' minimum (depending on the size of the animal), door 4' wide x 8' high. Stable flooring preference is clay dirt.

**Fencing:** Fencing for horses can be the traditional board or rail fence to electric wire. The important thing is that it be visible to the horse to keep them from running through it or entangling themselves in it. If using electric fence use the wide ribbon wire; this is visible to the horse. If using plane wire, it should be smooth. Barbed wire can result in injuries to the horse.

Your facility should be kept clean and in good repair. Make sure the stable is well ventilated with no drafts. Regardless of where you keep your horse, always be alert for loose boards, nails and any projections that could cause injury. Keep all wire and hay-bale twine picked up. This will prevent health problems and injuries.

**Disposal or Composting of Manure:** You must have a plan for manure disposal or use.

Develop a composting project on your small acreage. Convert horse manure and yard waste into a product that will return its nutrients to the soil. This composted organic matter can be used in the garden, landscape, on crop fields or pasture. Compost piles that reach 140-160 degrees F for over a week is enough to kill weed seeds, pathogenic organisms and parasite eggs in the manure. It may be necessary to add water to the compost pile to enhance decomposition. Contact your Cooperative Extension Agent for composting information.

**Annual Cost of Keeping a Horse (Costs vary by location)**

**The following is a list of annual expenses usually required for the upkeep of a horse.**

<b>Average Feed Costs</b> .....	\$400.00
Hay (\$80-\$120/ton or \$2 to \$4/bale)	
Grain (\$10 to\$20/50 lb bag)	
Supplements	
<b>Health Supplies</b> .....	\$200.00
Worming	
Vaccinations	
Shoeing	
Veterinary Care	
<b>Fixed Costs</b> .....	\$400.00
Shelter	
Boarding	
Bedding	
<b>Tack, Equipment and Repairs</b> .....	\$125.00
<b>Other Miscellaneous Direct Costs</b> .....	<u>\$400.00</u>
<b>Total</b> .....	\$1,525.00*

\* These costs vary depending on management and location. If you plan to show or have your horse trained, add \$500-\$1,500/month.

For more information about horses and their care, contact your veterinarian or county Extension Agent.