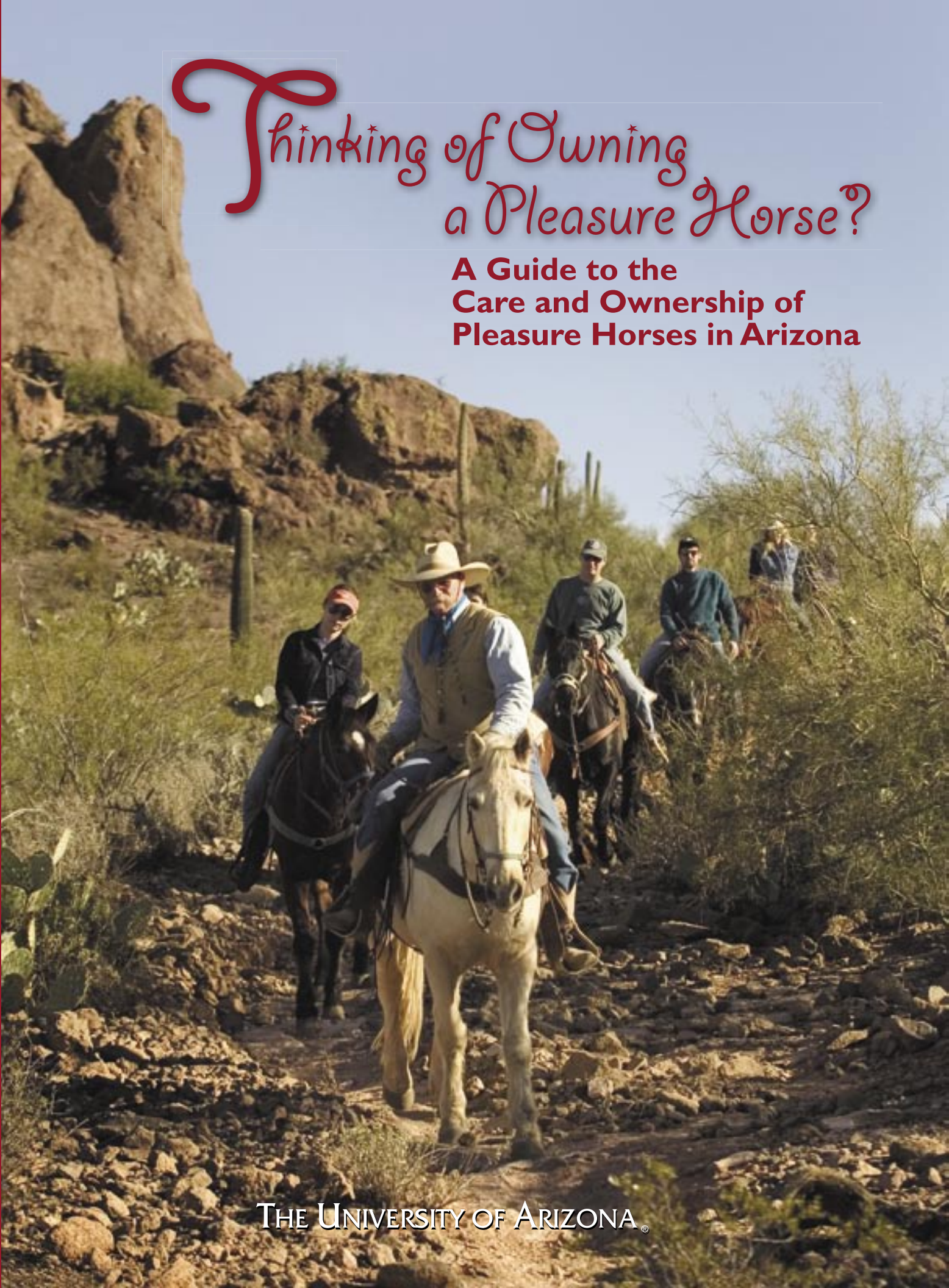


# Thinking of Owning a Pleasure Horse?

**A Guide to the  
Care and Ownership of  
Pleasure Horses in Arizona**





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## A Guide to the Care and Ownership of Pleasure Horses in Arizona

**Trent Teegerstrom**, Research Specialist  
Department of Agricultural and Resource Economics

**Dr. William A. Schurg**, Equine Specialist  
Department of Animal Sciences

**Kelly Block**, Information Services Coordinator  
Extension Programs Office

**Dr. Mark Arns**, Equine Specialist  
Department of Animal Sciences

**The University of Arizona**



**The Cardon Endowment**  
for Agricultural Economics and Policy  
Department of Agricultural and Resource Economics



**Cooperative Extension**

**Publication AZ1343**

The University of Arizona • College of Agriculture and Life Sciences • Tucson, Arizona 85721

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James A. Christenson, Director, Cooperative Extension, College of Agriculture and Life Sciences, The University of Arizona.

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## A Note about This Booklet

Private horse ownership is not for everyone; owning a horse comes with many responsibilities. You must properly house and care for the horse. This care includes the horse's feeding, health care, and hoof care, but these are only part of the equation. You must also provide housing facilities, transportation, and riding equipment.

This booklet is an introductory guide to the proper care and cost of owning and maintaining a pleasure horse in Arizona. We discuss how to feed and care for a horse as well as all of the associated costs to expect whether you board your horse or house and care for it privately. The publication has two major sections: (1) maintaining and caring for a horse, and (2) *budgeting* for the costs of ownership and care. There is also an introduction to getting started and a list of additional resources at the end.

*Budgeting*—the act of developing a written estimate of future income and expenses covering a definite time period.



# Introduction

Purchasing a first horse can be one of the most exciting experiences you and your family share. Unfortunately, without planning and preparation, it can also be one of the most heartbreaking as well. When you buy a horse—especially if it's for the novice or youth just getting started—you need to recognize your level of experience or expertise and to seek professional assistance when necessary. Cooperative Extension personnel, veterinarians, and professional horsemen all can provide beginning horse owners with advice that will help make the jump into horse ownership less stressful.

Getting started should include some individual soul searching about the type of horse you seek. You should ask yourself what the horse will be used for. Is the horse going to be a recreational trail horse or will it be your first competition animal? Planning ahead for the animal's use will greatly help in the selection process. The purchase price of the animal will also be reflective of the horse's use. Horses that are competitive in a discipline (western pleasure, reining, cutting, barrel racing, etc.) generally will cost more than animals that are nonshow quality. That does not mean that nonshow animals are inexpensive! Horses that are sound, gentle, and broke will have some "value" or "worth" to them. It is best to spend a little more up front and get a reliable mount than to try to skimp and end up with an animal that will cost more in the long run due to potential training bills and "injury" costs.

The rider's experience is the most important consideration. You must recognize limitations in the rider's abilities and make sure the horse fits those abilities. Buying more horse than the rider can handle will only result in disappointment and could result in serious injury. A common mistake is to match young, green riders with young, green horses so that "they can grow and learn together." This combination will likely result in disaster and should be avoided. An older experienced horse which has been trained and used for the purchaser's intended purpose is always a safer investment than the young unproven prospect.

The best horse for a beginner's first mount is the so-called "retired" or "outgrown" horse. Many families have horses that were used to teach their children how to ride and these become available when their children are ready to move on to a more challenging mount. Novices often overlook these horses because of their age, price, or appearance. In many cases, the "Old Gray Mare" has been passed on from one family to the next and has been used to teach several beginners how to ride. These horses are an excellent investment because if they are taken care of, they will maintain their value.

Finding that first horse may require some investigating, but really should not be that difficult. Although many good horses pass through local sale barns, if you are a beginner you should avoid this avenue in selecting your first horse. Try visiting

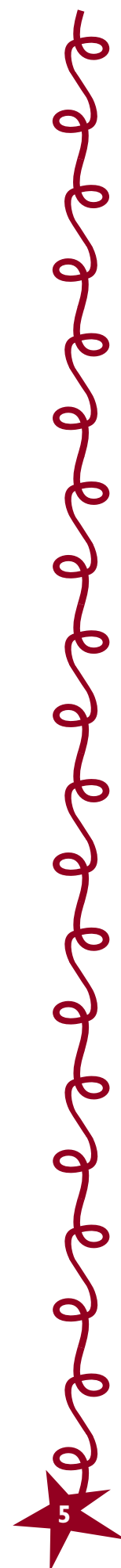


with local 4-H or saddle club members, or check with a local trainer or breeder who has a good reputation in dealing with amateur or youth riders, or who is listed with a representative breed association as a “professional trainer.” Most respected trainers will not overmount a beginning rider because they want to establish a clientele basis for future business. It is not uncommon for trainers to repurchase or trade in these types of mounts once the rider is ready to move up.

No matter where you locate your first horse, if possible, try to take the horse on several rides prior to purchase. You want to make sure that you are comfortable with the horse and that your “personalities match.” If the purchasing situation allows, you—or the person who will be riding—should take several riding lessons on the horse as well. This is especially true for young riders and people who have ridden very little.

When you’ve finally located your first mount, it is not a bad idea to have an equine veterinarian look over the animal in a “prepurchase exam.” The extent of the exam will be determined by the value of the animal, as well as by its intended use. For most beginning-type animals, the exam will not entail lots of expense, but rather is a simple check that will let you understand any current or potential conditions that would limit the animal’s use or dictate his future care. It is important to get a bill of sale that states the horse is guaranteed sound or that lists any existing conditions. This protects you and the seller both.

Taking the time to locate the right mount will pay dividends in the long run as the experience will be positive and will result in a lifelong enjoyment with horses.





*Health Care and Maintenance*



# Health Care & Maintenance

## Feeding a Horse in Arizona

Feeding and general nutritional needs for horses in Arizona are not significantly different from those in other parts of the country; however, most Arizona horse owners are faced with limited space and highly intense nutritional management concerns. We do not have pastures readily available for most of our horses and so horse owners must supply good quality forage daily to their horses. Fortunately, Arizona has some of the highest quality and most nutrition-rich hay in the country. A horse's proper development, maintenance, and reproduction are dependent on an overall good quality and sound nutritional management and feeding program. Furthermore, feed constitutes the greatest single cost item in owning a horse today.

The art of feeding horses is not something to be followed like a recipe in a cookbook. It stems from the experience and knowledge of feeding numerous rations to a variety of animals and is more than just throwing that flake of hay and coffee can of grain to the animal each day. The science of feeding, however, is simply meeting the nutrient needs of your horse with the appropriate combinations of feedstuffs, while using sound principles and good judgment.

To meet the nutritional demands of horses, you must consider the actual nutrients they need rather than the feedstuffs you can use. The nutrients a horse requires are carbohydrates, fats, and protein for energy; combinations of essential amino acids for protein; and minerals, vitamins, and water. These are all necessary nutrient categories for a feeding program.

### Water

For frequent and prolonged physical activity of any kind, the most important nutrient a horse needs is water. It is perhaps the most critical nutrient for our working horses and the one that we tend to take for granted and to overlook. Under severe and sustained exertion, a horse can lose up to half of his body's total protein and virtually all of his fat stores before significant problems happen; however, just a 15 percent loss of his internal water supply can be fatal. Additionally, horses, like all animals, cannot consume adequate dry food without having adequate water intake. At rest during a normal 70-degree temperature day, a horse can be expected to consume about four to ten gallons of water. When temperatures rise above 80 degrees, water consumption can increase to two to three times above maintenance levels. You must keep clean, fresh water available at all times under all environmental conditions.

### Some General Considerations

- \* Feed horses regularly.
- \* Feed with frequency.
- \* Avoid sudden changes in diet.
- \* Avoid feeding directly on the ground.

### Signs of a Well-fed Horse

- \* Contentment
- \* Alertness
- \* Good appetite
- \* Sleek hair coat (even during winter months)
- \* Pink gums and other membranes
- \* Normal feces and urine excretions
- \* Normal temperature (100.5°), heart rate (30 to 40 beats per minute), and respiration (8 to 16 expirations per minute)



### General Feeding Rules

- \* Know the age and weight of your horse.
- \* Estimate the *body condition score* of your horse.
- \* Adjust feed to the horse's type of use or activity.
- \* Know the nature of the feeds available.
- \* Understand your horse's habits and what normal behavior is for him.
- \* Never feed dusty, moldy, or frozen feed.
- \* Inspect the feed box.
- \* Keep clean water and feed containers.
- \* Don't feed grain to a hot horse or let him drink all the water he wants while hot.
- \* Allow for some digestion before exercise.
- \* Feed horses as individuals.
- \* Provide for proper amounts of exercise.
- \* Don't hand feed (may lead to bad habits).

*Body Condition Score*—an objective system of evaluating a horse's level of body condition (amount of stored fat) and assessing a numeric score to facilitate comparisons between horses.

*Stover*—the dried stalks and leaves of a field crop (especially corn).

*Enterolith*—stone formation within the gastrointestinal tract. Enteroliths may contain mineral salts, calcium, and magnesium.

*Palatability*—how well a horse likes the taste, smell, and texture of a food.

### Factors Regulating Nutritional Needs

There are five major factors that regulate the kind and quantity of nutrients an individual horse requires. These factors are maintenance, growth, reproduction, lactation, and exercise. In addition, every animal's nutrient needs are related to the purpose it serves.

It is advisable to know the approximate age, weight, and body condition of your horse since not every horse can be fed in the same fashion. Young growing horses will have very different nutritional requirements from those of an older, mature animal or a lactating mare.

### Feedstuffs

Horse feedstuffs can be divided into two main categories: roughages and concentrates.

Roughages are relatively low energy and high fiber content materials when compared to other feeds. They include dry roughages, pastures, and silages. Dry roughages are harvested forage or hay that may include straw, *stover*, or hulls. They usually contain 30 percent or more fiber and thus are quite bulky. Hay in Arizona can be broken down into either alfalfa or grass types of hay. Evaluation of hay quality is a critical part of good feeding management and should include stage of maturity, color, odor, and freedom from foreign materials such as weeds, dirt, and mold. As a horse owner, you need to be aware of problems such as blister beetles, mineral status, *enterolith* problems, and pesticide contamination. You should inspect all hay and watch your horse's eating and other behaviors. If you see any deviations from normal behavior, quit feeding the hay, call for veterinary assistance, and have blood-biochemical evaluations conducted on both the horse and feed sources.

Concentrates are low fiber, high density, with a highly digestible nutrient content. They are usually less than 15 percent fiber and are heavier per unit volume than roughages. Concentrates may be categorized as energy feeds, protein supplements, and mixed feeds.

Energy feeds contain less than 20 percent protein and are used mainly to supply readily available energy. Cereal grains such as corn, oats, barley, sorghum, and wheat are examples. The level of fiber in these products will help you understand the amount of energy that is available in a particular product. For example, since oats contain about 12 percent fiber as compared to corn with only 2 percent, corn supplies greater amounts of energy per unit than oats.

Protein supplements tend to contain more than 20 percent protein. Examples are soybean meal, cottonseed meal, and flaxseed.

The use of grain and other supplements fed with hay is often necessary to provide a balanced diet for your horse because some products by themselves are deficient in particular nutrients. (Feeding grain is not required for all classes of animals. Check with your vet.) The horse's digestive processing of concentrates suggests that under most conditions adult horses with no palatability problems do not need to have corn or oats processed (crimped, flaked, or cracked); however, mechanical processing of sorghum, barley, and wheat show digestive improvements. Young animals and very old animals where palatability may be of concern seem to show improvements when all grains have undergone a processing method. The average backyard horse owner probably is wise to feed a mixed feed. These are purchased as a balanced diet to be fed with an appropriate quality of hay. The use of adding dietary fat to improve *palatability* by reducing dustiness and increase energy is becoming more commonplace today.

### ★ Nutrition Resources on the Web

[myhorsematters.com](http://myhorsematters.com)

<http://www.xcodesign.com/aaep/displayArticles.cfm?cat=Nutrition>

Oklahoma State University Cooperative Extension

<http://www.ansi.okstate.edu/exten/horses/>

## Health Care & Maintenance

## Horse Parasite and Worm Control

Parasite control is one aspect of horse management that owners often overlook. Internal parasites in your horse can be the root cause of several problems including loss of body condition, reduced performance, poor absorption of nutrients, and *colic*. If a horse is not treated for internal parasites, it is possible that extensive internal damage can occur and result in the horse's death. Therefore, it is as important for you to establish an effective parasite-controlling program as it is to have a sound nutrition program.

Several methods of administering dewormers include feed additives, stomach tubing, and oral drench/paste with a syringe. As long as the medication reaches the stomach of the horse, one method of administration is not more or less effective than the others. The key is making sure the horse really gets the complete and correct dose.

There are many types of *anthelmintics* available for the treatment and prevention of internal parasites of horses. You should become familiar with the active drugs in each product rather than the product's market name. This will allow you optimum parasite control through "rotational" deworming and a reduction of parasite resistance to individual chemical components.

Regardless of the deworming program you follow, you should create a program that is regionally appropriate to combat internal parasite infestation. This is one phase of health care considerations that should not be taken lightly. Consult with your local veterinarian to establish a program for your geographical area.

### Parasite Management Control Program

- \* An interval, seasonal, or continual chemical (dewormer) control program as recommended by your equine veterinarian,
- \* A rigorous environmental control plan which includes reducing feed ingestion off the ground; consistent manure removal from stables, paddocks, and pastures; composting manure; and appropriate harrowing of pastures to break up fecal masses so that the hot Arizona sun may help in the destruction of parasite larvae,
- \* An effective monitoring program to evaluate the results of your deworming efforts.

## Horse Dental Care

*The following information has been adapted with permission from the American Association of Equine Practitioners. For further information, please read the full article ("The Importance of Maintaining the Health of Your Horse's Mouth") located at [www.myHorseMatters.com](http://www.myHorseMatters.com).*

Routine dental care is essential to your horse's health. Periodic examinations and regular maintenance, such as floating, should be a part of the annual physical examination by a veterinarian. Every dental exam provides the opportunity to perform routine preventative dental maintenance resulting in a healthier, more comfortable horse.

### Recognizing Dental Problems

A horse with dental problems may show obvious signs, such as pain or irritation, or it may show no noticeable signs at all. That is because some horses simply adapt to their discomfort.

### Chemical/Pharmacological Classes of Dewormers

- \* avermectin and milbemycins (ivermectin and moxidectin, respectively)
- \* benzimidazoles
- \* organophosphates
- \* piperazine (combination of phenothiazine and benzimidazoles)
- \* tetrahydropyrimidines (pyrantel)

*Colic*—spasmodic pain in the horse, usually caused by spasm of the intestine and generally resulting in any of the following symptoms: abdominal pain, kicking, rolling, and sweating.

*Anthelmintics*—a group of drugs that are selectively toxic to parasites. The drugs can achieve this by either inhibiting the metabolic processes vital to the parasite, or by causing the parasite to be exposed to higher concentrations of the drug than are the host's cells.

★ **Dental Health**  
[myhorsematters.com](http://www.myhorsematters.com)  
<http://www.xcodesign.com/aaep/displayArticlescfm?cat=Dentistry>

### Common Dental Problems

- \* Sharp enamel points forming on cheek teeth, causing lacerations of cheeks and tongue
- \* Retained caps (baby teeth that are not shed)
- \* Discomfort caused by bit contact with the wolf teeth
- \* Hooks forming on the upper and lower cheek teeth
- \* Long and/or sharp canine (bridle) teeth
- \* Lost and/or broken teeth
- \* Abnormal or uneven bite planes
- \* Excessively worn teeth
- \* Abnormally long teeth
- \* Infected teeth and/or gums
- \* Misalignment/poor appositions
- \* Periodontal (gum) disease

### Key Indicators of Dental Problems

- \* Loss of feed from mouth while eating, difficulty with chewing, or excessive salivation
- \* Loss of body condition
- \* Large or undigested feed particles (long stems or whole grain) in manure
- \* Head tilting or tossing, bit chewing, tongue lolling, fighting the bit, or resisting bridling
- \* Poor performance, such as tugging on the bridle, failing to turn or stop, even bucking
- \* Foul odor from mouth or nostrils, or traces of blood from the mouth
- \* Nasal discharge or swelling of the face, jaw, or mouth tissues

*Soundness*—a state of health or fitness to carry out a particular function, for example, sound for racing, breeding.

### Floating and Preventative Maintenance

Floating is the common terminology for the rasping or filing of a horse's teeth. This is the most common dental procedure veterinarians perform on horses. Floating removes sharp enamel points and can create a more even bite plane. It also helps keep incisors and cheek teeth at a desirable length.

When turned out on pasture, horses browse almost continuously, picking up dirt and grit in the process. This, plus the silicate in grass, wears down the teeth. Stabled horses, however, may not give their teeth the same workout. Feedings are more apt to be scheduled, not continuous, and to include processed grains and hays. Softer feeds require less chewing. This may allow the horse's teeth to become excessively long or to wear unevenly. An adult horse's teeth erupt throughout its life and are worn off by chewing.

Floating is especially important in horses who have lost a tooth, or whose teeth are in poor apposition and do not fit together well. Normal contact with the opposing tooth keeps biting surfaces equal. When cheek teeth are out of alignment, hooks can form. If left unchecked, these hooks can become long enough to penetrate the hard or soft palate. Small hooks can be removed by floating. Longer hooks are usually removed with molar cutters or a dental chisel.

Wolf teeth are very small teeth that are located in front of the second premolar and that do not have long roots that set them firmly in the jawbone. They rarely appear in the lower jaw. A horse may have one, two, or no wolf teeth. While not all wolf teeth are troublesome, veterinarians routinely remove them to prevent pain or interference from a bit.

Depending on the condition of your horse's teeth, more than one visit from your equine practitioner may be required to get the mouth in prime working order. It is important to catch dental problems early. Waiting too long may increase the difficulty of remedying certain conditions or may even make remedy impossible. Older horses should have their teeth cleaned at least twice yearly.

## Horse Hoof Care

Horses need a regular hoof care program throughout the year to maintain *soundness* and longevity. The horse's hoof is a complex structure made up of bone, cartilage, joint surfaces, and sensitive and insensitive laminae. The hoof and its structures work together to absorb concussion and to provide support, traction, and rebound to help the horse move. Horseshoes protect the hoof from additional wear caused by everyday and excessive activity and they help to enhance some of the horse's physical activity. Because all horses do not grow the same kind of hoof or perform the same kind of work, shoes and shoeing schedules will vary from animal to animal. For most normal working horses, shoeing and re-setting should occur every six to eight weeks. This allows maintenance of normal angles, and prevents hooves from growing too long and becoming unbalanced.

Some high performance horses will need to have their shoes reset more frequently. Many nonshow or nonrace horses may not need shoes. In fact, if your

horse is not routinely ridden, trimming on a regular basis may be all that is needed. Check with your local veterinarian and/or farrier for your horse's recommended schedule.

You should regularly clean out the bottom of your horse's hooves to prevent or detect possible hoof care problems. Equally important for good hoof care is keeping the pen clean and well bedded. Removing excess urine and feces will help in reducing the possible onset of *thrush*.

Serious hoof and leg defects need immediate attention. If abnormalities are allowed to persist, it may not be possible to correct them. Neglecting a horse's hooves will only prolong the potential recovery period and lessen the chances of total success. It's easier to follow a regular hoof care program than to try to bring an unsound animal back into condition.

## Arizona Tests Needed for Transportation

If traveling out of Arizona with your horse, you will be required to have a health certificate issued by a federally accredited veterinarian. The health certificate will be valid for 30 days from the date issued. Along with the health certificate, proof of a negative "*Coggins test*" or equine infectious anemia will also be required. The test must be taken within 6 to 12 months prior to travel, depending on the state you are entering.

## Arizona Horse Vaccinations

Vaccinations should be a vital part of proper equine management. In Arizona, your horse's normal vaccination schedule should be created with the aid of your local/regional veterinarian. This is because not all types of vaccinations are needed in every location of our state.

If you follow an appropriate vaccination program for your area of the state, you will have the best and most cost-effective weapon to combat common infectious diseases of the horse.

In general, the vaccination schedule shown in the box to the right is recommended by veterinarians for horses in our state.

*Thrush*—a moist, exudative dermatitis that specifically involves the central and lateral *sulci* of the *frog*.

*Sulci*—the grooves on either side of the frog.

*Frog*—the triangular or V-shaped area on the underside of the horse's hoof.

### Typical Vaccination Schedule

- \* Spring Vaccinations: Tetanus, Eastern/Western Encephalomyelitis, Equine Influenza (these are often given as a 4-way vaccination); additionally, West Nile Virus, *Strangles*, Rhinopneumonitis, and Rabies may be recommended.
- \* Fall Vaccinations: Rhinopneumonitis, Equine Influenza and Strangles are routinely recommended.
- \* Horses that travel frequently (rope horses, show horses, etc.) should be given influenza boosters more than 2 times per year. Also, many veterinarians recommend these frequent traveler horses be given Potomac Horse Fever vaccine in the spring and fall as well.

**Note:** Horses with a high exposure to young horses or to horses new to the area or facilities have an increased chance of contracting Equine Influenza, West Nile Virus, and—particularly—Strangles.

★ **Hauling Permit Information for Arizona**  
Arizona Department of Agriculture  
[http://agriculture.state.az.us/ASD/hauling\\_permits\\_unit.htm](http://agriculture.state.az.us/ASD/hauling_permits_unit.htm)

*Coggins test*—a test for Equine Infectious Anemia, a contagious disease that affects horse worldwide.

*Strangles*—also known as distemper. A disease caused by the bacteria *Streptococcus equi*. Characterized by fever, depression, nasal discharge, cough, and swollen lymph glands.



*Toxicosis*—a pathological condition caused by the action of a poison or toxin.

*Photodermatitis*—an itchy, scaly, blistering, reddening of the skin caused by an increase of the skin's normal sensitivity to the effects of sunlight or ultraviolet rays A or B (UVA or UVB).

#### Reactions to Toxic Plants

- \* *Salivation-inducing plants* include thistles, foxtail barley, prickly pear cactus/cholla, and cockle burrs. All of these types of plants can cause excessive salivation due to traumatic, chemical, or infectious injury to the mouth or esophageal choke. Any plant that has thorns, bristles, or stinging hairs can cause similar symptoms.
- \* *Colic- and diarrhea-inducing plants* include oleander, greasewood, gambel or shinnery oak, laurels, azaleas, privets, buttercup, castor beans and rosary peas, nightshade and potato, mesquite, avocado, and tomato.
- \* *Photodermatitis-inducing plants* include St. John's wort, buckwheat, and bishop's weed.
- \* *Neurologic disease-inducing plants* include sagebrush, locoweed, milkvetch, yellow star thistle, bracken fern, horsetail or snake grass, burrow weed, jimmy weed or rayless goldenrod, Johnson grass, and sudan grass.
- \* *Cyanide-inducing-sudden-death plants* include Johnson grass, sudan grass, milkweed, oleander and yellow oleander, lily of the valley, larkspur, poison hemlock, water hemlock, yew, and avocado (not Mexican smooth skin fruit variety).

## Arizona Horses and Poisonous Plant Concerns

Good pasture and animal management will prevent nearly all cases of poisoning by plants because in a pasture with a proper stocking rate, the grasses grow vigorously and keep out many poisonous plants. In a well-maintained pasture, poisonous plants are rarely eaten because most are quite unpalatable. However, what might look like a luscious green, leafy, and desirable foodstuff to a hungry horse may cause *toxicosis* and ultimately death when eaten.

Poisonous plants include common weeds such as sneeze weed, horse nettle, pokeweed, buttercup, and Johnson grass. Ornamental plants and trees such as oleander, laurels, and black cherry are all toxic to horses and may cause death when consumed. Common toxic plants here in Arizona would include foxtail barley, Johnson grass, locoweed, milkweeds, jimsonweed, and yellow star thistle. Most of the problems among horses afflicted by a toxic plant are not the acute or fatal types and actual horse loss due to toxic plants is rare, but the effects on production (i.e., poor reproduction, poor milk production, and general unthriftiness) are more common. Typically, horses will be at greatest risk when pastures are overgrazed and noxious weeds are able to proliferate. Horses that are in dry lots or stalls may become poisoned when garden prunings are tossed into their pens so the horse can have something green to eat or when pens are too close to plants that are potentially toxic. Mesquite beans are another common source of intestinal problems and should be cleaned up from around pens and other holding areas. As always, toxic plants can sometimes turn up in baled hay, which could lead to poisoning.

As you can see, there are numerous plants that can be toxic to your horse. However, you can keep your horse healthier by practicing good pasture management and by reducing the availability of "green" things that look good to an investigating horse.

★ For more in-depth information about horse health care and maintenance, please check the Additional References and Resource Section (pages 19–21) for books and links to sites on the Internet.

# The Costs of Keeping a Pleasure Horse

This section describes the development and structure of a typical horse ownership budget. The budget details 1) variable costs of horse maintenance (e.g., feed, boarding, fence repair, machinery, and interest on variable costs) and 2) ownership costs derived from Table 3. All cost estimates in Table 1 (for horses housed by their owners) and in Table 2 (for horses boarded elsewhere by their owners) are presented with high and low cost ranges representing different levels of handling horse care and maintenance.

Investment and ownership costs are shown in Table 3. The table contains a description of the assets owned by each representative household and is common to all three of the budgets. All values represent replacement values. The cost estimates should serve as a guide or starting point only. It is important to use your own estimates for your specific situation. Costs vary according to location, boarding availability, health programs, and other local factors.

## Variable Costs

Variable costs represent expenses that vary annually depending on *input prices* and the number of horses. For the budgets shown here, variable costs represent cost on a per horse basis and are outlined under two subcategories: a) feed costs and b) other variable costs.

Feed costs include hay, grain, and salt & minerals. All feed costs are calculated on the total amount of product consumed per year by a light duty horse averaging 1200 pounds.

Other variable costs include items such as boarding, bedding, horse care products, farrier service, miscellaneous, veterinary services and medicine, and operating costs for buildings, improvements, machinery, equipment, and vehicles.

*Input Prices*—the actual prices paid for items such as hay, grain, boarding, etc.

## Annual Ownership Costs

Ownership or fixed costs are those costs that do not change in any given year. Ownership costs are calculated using the *annual capital recovery method* from the list of assets presented in Table 3.

*Annual Capital Recovery Method*—the way of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

**Table 1. Average Annual Costs (2004) for Horses Housed by Owner**

<b>VARIABLE COSTS<sup>1</sup></b>							
<b>FEED COSTS</b>	<b>Quantity</b>	<b>Unit</b>	<b>High Price</b>	<b>Low Price</b>	<b>High<sup>2</sup> Cost</b>	<b>Low Cost</b>	<b>Your Value</b>
Alfalfa Hay <sup>3</sup>	67	Bales	\$10.50	\$8.50	\$704	\$570	
Grass Hay	0	Bales	—	—	—	—	
Pellets	0	Pounds	—	—	—	—	
Grain Mix	730	Pounds	\$0.22	\$0.18	\$161	\$131	
Salt & Mineral <sup>4</sup>	30	Pounds	\$0.70	\$0.50	\$21	\$15	
Pasture Rent	0	Months	—	—	—	—	
Protein Supplement	0	Pounds	—	—	—	—	
<b>Subtotal Feed Costs</b>					<b>\$885</b>	<b>\$716</b>	
<b>OTHER VARIABLE ASSETS</b>	<b>Quantity</b>	<b>Unit</b>	<b>High Price</b>	<b>Low Price</b>	<b>High Cost</b>	<b>Low Cost</b>	<b>Your Value</b>
Bedding	1	Head	\$68.00	\$35.00	\$68	\$35	
Horse Care Products		Dollars	\$100.00	\$50.00	\$100	\$50	
Entry and/or Trail Fees		Dollars	—	—	—	—	
Paid Labor		Hours	—	—	—	—	
Farrier Service	6	Times	\$65.00	\$35.00	\$390	\$210	
Veterinary and Medicine <sup>5</sup>	1	Times	\$350.00	\$150.00	\$350	\$150	
Horse Training	0	Lessons	—	—	—	—	
Rider Training	0	Lessons	—	—	—	—	
Operating Costs: Buildings & Improvements		Dollars	\$50.00	\$35.00	\$50	\$35	
Operating Costs: Machinery & Equipment		Dollars	\$65.00	\$55.00	\$65	\$50	
Operating Costs: Vehicles		Dollars	\$200.00	\$100.00	\$200	\$100	
Miscellaneous <sup>6</sup>	1	Times	\$300.00	\$100.00	\$300	\$100	
<b>Subtotal Other Costs</b>					<b>\$1,523</b>	<b>\$735</b>	
<b>Total Variable Costs</b>					<b>\$2,408</b>	<b>\$1,451</b>	
<b>ANNUAL OWNERSHIP COSTS (using annual capital recovery method<sup>7</sup>)</b>							
					<b>High</b>	<b>90% of High</b>	<b>Your Value</b>
Buildings & Improvements (per household)					\$1,847	\$1,662	
Machinery & Vehicles (per household)					\$942	\$848	
Horse & Tack (per horse)					\$551	\$496	
Taxes & Insurance (per household)					\$914	\$823	
<b>Total Ownership Costs</b>					<b>\$4,254</b>	<b>\$3,829</b>	
<b>TOTAL COSTS</b>					<b>\$6,663</b>	<b>\$5,280</b>	

1 All numbers are on a per horse basis.

2 All numbers in the high and low columns are rounded to the nearest dollar except where noted.

3 Hay amount assumes one horse will eat 2% of body weight for 365 days using 120 lb. bales.

4 The salt and mineral needs assume the consumption of approximately 39 grams per day.

5 High cost veterinarian and medicine includes all recommended vaccinations, worming, dental, and an estimated one emergency visit per year. Low cost veterinarian and medicine includes vaccinations and worming administered by the owner, no dental but at least one emergency visit per year.

6 Miscellaneous fees include items such as breeding fees and registration.

7 Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.



**Table 2. Average Annual Costs (2004) for Boarded Horses**

<b>VARIABLE COSTS<sup>1</sup></b>							
<b>FEED COSTS</b>	<b>Quantity</b>	<b>Unit</b>	<b>High Price</b>	<b>Low Price</b>	<b>High<sup>2</sup> Cost</b>	<b>Low Cost</b>	<b>Your Value</b>
Alfalfa Hay	0	Bales	—	—	—	—	
Grass Hay	0	Bales	—	—	—	—	
Pellets	0	Pounds	—	—	—	—	
Grain Mix	730	Pounds	\$0.22	\$0.18	\$161	\$131	
Salt & Mineral <sup>3</sup>	30	Pounds	\$0.70	\$0.50	\$21	\$15	
Pasture Rent	0	Months	—	—	—	—	
Protein Supplement	0	Pounds	—	—	—	—	
<b>Subtotal Feed Costs</b>					<b>\$182</b>	<b>\$146</b>	
<b>OTHER VARIABLE COSTS</b>	<b>Quantity</b>	<b>Unit</b>	<b>High Price</b>	<b>Low Price</b>	<b>High Cost</b>	<b>Low Cost</b>	<b>Your Value</b>
Boarding <sup>4</sup>	12	Months	\$450.00	\$150.00	\$5,400	\$1,800	
Horse Care Products		Dollars	\$60.00	\$30.00	\$60	\$30	
Farrier Service	6	Times	\$75.00	\$35.00	\$450	\$210	
Veterinary and Medicine <sup>5</sup>	1	Times	\$600.00	\$150.00	\$600	\$150	
Operating Costs: Vehicles		Dollars	\$1,000.00	\$100.00	\$1,000	\$100	
Miscellaneous <sup>6</sup>	1	Times	\$150.00	\$75.00	\$150	\$75	
<b>Subtotal Other Costs</b>					<b>\$7,660</b>	<b>\$2,365</b>	
<b>Total Variable Costs</b>					<b>\$7,842</b>	<b>\$2,511</b>	
<b>ANNUAL OWNERSHIP COSTS</b> (using annual capital recovery method <sup>7</sup> )							
					<b>High</b>	<b>90% of High</b>	<b>Your Value</b>
Machinery & Vehicles (per household)					\$917	\$825	
Horse & Tack (per horse)					\$551	\$496	
Taxes & Insurance (per household)					\$304	\$273	
<b>Total Ownership Costs</b>					<b>\$1,772</b>	<b>\$1,595</b>	
<b>TOTAL COSTS</b>					<b>\$9,613</b>	<b>\$4,106</b>	

1 All numbers are on a per horse basis.

2 All numbers in the high and low columns are rounded to the nearest dollar except where noted.

3 The salt and mineral needs assume the consumption of approximately 39 grams per day.

4 High cost boarding includes feeding hay and grain, bedding, exercising, indoor stall, etc.

5 High cost veterinarian and medicine includes all recommended vaccinations, worming, dental, and an estimated one emergency visit per year. Low cost veterinarian and medicine includes vaccinations and worming administered by the owner, no dental but at least one emergency visit per year.

6 Miscellaneous fees include items such as trail access fees, training, riding lessons, and breed registration.

7 Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.



## *I*nvestment and Ownership Costs

Table 3 defines all of the typical assets associated with horse ownership. It is divided into the following three sections: 1) land, buildings, and improvements, 2) machinery and vehicles, and 3) horse and tack. All asset values reflect current replacement values.

### *Land, Buildings, and Improvement Values*

This category refers to the amount of privately owned acreage associated with the representative horse property. The value of the owner's house is not included in the land value. Facilities and fencing values represent the average investment needed to provide shelter, feeding area, and pen space.

**Table 3.** *Investment and Ownership Costs for Arizona Pleasure Horses*

	Opportunity <sup>1</sup> Cost Rate	Purchase Price	Salvage Value	Useful Life	Annual Taxes & Insurance	Annual Capital Recovery
<b>Land, Buildings, and Improvements</b>						
Land <sup>2</sup>	4.0%	\$60,000	\$60,000	–	\$528	\$1,200
Facilities	4.0%	\$5,500	\$275	20 years	\$48	\$395
Fencing	4.0%	\$3,500	\$175	20 years	\$31	\$252
	Subtotal	\$69,000			\$607	\$1,847
<b>Machinery and Vehicles</b>						
Tow Vehicle	4.0%	\$23,169	\$2,317	10 years	\$204	\$400
Horse Trailers	4.0%	\$4,500	\$450	10 years	\$40	\$517
Equipment	4.0%	\$350	\$18	20 years	\$3	\$25
	Subtotal	\$28,019			\$247	\$942
<b>Horse and Tack</b>						
Horses	4.0%	\$4,500	\$450	15 years	\$40	\$382
Tack <sup>3</sup>	4.0%	\$2,350	\$118	20 years	\$21	\$169
	Subtotal	\$6,850			\$60	\$551
	<b>TOTAL</b>	<b>\$103,869</b>			<b>\$914</b>	<b>\$3,340</b>

1 The Opportunity Cost Rate is the rate recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

2 All costs are rounded to the nearest dollar.

3 Tack includes items such as bridles, blankets, chaps, spurs, saddle, brushes, and combs.

### *Machinery and Vehicles*

Machinery and vehicles include the replacement value of a typical truck and horse trailer needed to transport horses safely. The equipment value consists of items such as wheelbarrows, rakes, pitchforks, fencing pliers, and other odds and ends needed to maintain good horse housing facilities. The full cost of a tow vehicle (i.e., a truck) is adjusted to reflect horse-related activities an estimated 15 percent of its total usage.

### *Horse and Tack*

The value of a horse was estimated at approximately \$4,500. The typical horse assumed in this study is defined as a horse which is well broke and used for pleasure activities such as trail riding, jackpot roping, and 4-H activities. Tack includes, but is not limited to, items such as bridles, blankets, chaps, spurs, saddles, brushes, and combs needed for riding and caring for the horse.



# Additional References and Resources

We've provided you with a basic overview of what you need to know about horse ownership in Arizona. But this is just an introduction. Once you have purchased your horse, you may want to learn more. Perhaps you'd like additional information about keeping your horse healthy, or maybe you're interested in groups or associations of horse owners and lovers. There is a wealth of information available to you, both in print and online on the net. We've made a list of a few recommended resources for you to check out.

## Books

### *The Horse*

J. Warren Evans, A. Borton, H. Hintz, and L.D. Van Vleck  
W.H. Freeman and Co.  
41 Madison Ave.  
New York, NY 10010  
ISBN 0-7167-1811-1

### *Hands-On Horse Care From Horse and Rider*

Karen E.N. Hayes, DVM, MS.  
Trafalgar Square Publishing, Hoe Hill Road  
North Pomfret, VT 05053  
ISBN 0-8657-3861-0

### *Feeding and Care of the Horse*

L.D. Lewis  
Williams & Wilkins  
Rose Tree Corporate Center  
1400 North Providence Road  
Building II, Suite 5025  
Media, PA 19063-2043  
Toll Free: 1-800-358-3583  
ISBN 0-6830-4967-4

### *Manual of Equine Reproduction*

T.L. Blanchard, D.D. Varner, J. Schumacher, et al.  
Mosby, Incorporated  
6277 Sea Harbor Dr.  
Orlando, FL 32887  
Phone: 800-545-2522  
ISBN 0-323-01713-4



### *Horses and Horsemanship*

M.E. Ensminger  
Interstate Publishers, Inc.  
PO Box 50  
Danville, IL 61834  
Toll Free: 1-800-843-4774  
ISBN 0-8134-3115-8

### *AYHC Horse Industry Handbook*

American Youth Horse Council  
Available through the AYHC website  
<http://www.ayhc.com/>

### *Commodity Costs and Returns Estimation Handbook*

A Report of the American Agricultural Economics Association Task Force on Commodity Costs and Returns. July 20, 1998, Ames, Iowa State University Press.  
Online version available from <http://waterhome.brc.tamus.edu/care/Aaea/>

### *2000-2001 Arizona Farm Machinery Costs*

T. Teegerstrom  
The University of Arizona Cooperative Extension Bulletin No. AZ1163  
<http://ag.arizona.edu/pubs/pubsindex.html>

## Websites

### **American Horse Council**

<http://www.horsecouncil.org/>

### **Arizona Department of Agriculture Animal Services Division**

<http://agriculture.state.az.us/ASD/asd.htm>

### **Arizona Horse Resources**

<http://www.horses-arizona.com/>

<http://www.az-ehorse.com/>

<http://www.horseweb.com/>

### **Arizona State Veterinarian**

Arizona Department of Agriculture Animal Services Division

[http://agriculture.state.az.us/ASD/state\\_vet.htm](http://agriculture.state.az.us/ASD/state_vet.htm)

### **Arizona Veterinary Diagnostic Lab**

<http://microvet.arizona.edu/AzVDL/index.shtml>

### **Body Condition Scores**

<http://www.ansi.okstate.edu/exten/horses/>

### **Breeds of Horses**

Oklahoma State University Department of Animal Sciences

<http://www.ansi.okstate.edu/breeds/horses/>



**Common Questions and Answers about Horses**  
University of Georgia Cooperative Extension  
<http://www.ces.uga.edu/pubcd/B1113-W.HTML>

**Cornell University Poisonous Plants Database**  
<http://www.ansci.cornell.edu/plants/>

**Extensive Resources and Articles on All Aspects of Horses**  
myHorseMatters.com (health matters)  
American Association of Equine Practitioners  
<http://www.myhorsematters.com/>

Oklahoma State University Cooperative Extension  
<http://www.ansi.okstate.edu/exten/horses/>

Oklahoma State University Department of Animal Science  
<http://www.ansi.okstate.edu/library/equine.htm>

University of Arizona Cooperative Extension  
<http://cals.arizona.edu/extension/needinfo/animals-resources.html#horses>

**Farriery and Hoof Care**  
horseshoes.com  
<http://www.horseshoes.com/>

**Hauling Permit Information for Arizona**  
Arizona Department of Agriculture  
[http://agriculture.state.az.us/ASD/hauling\\_permits\\_unit.htm](http://agriculture.state.az.us/ASD/hauling_permits_unit.htm)

**Health Alerts and Information Sheets**  
<http://microvet.arizona.edu/AzVDL/info.html>

**MyHorseMatters.com (health matters)**  
American Association of Equine Practitioners  
<http://www.xcodesign.com/aaep/horsehealth.cfm>

**Nutrition**  
myHorseMatters.com  
<http://www.xcodesign.com/aaep/displayArticles.cfm?cat=Nutrition>

Oklahoma State University Cooperative Extension  
<http://www.ansi.okstate.edu/exten/horses/>

**Thrush**  
The Horse Gazette  
<http://www.horsegazette.com/farrier.html>

**USDA Animal Health—Horses**  
<http://www.aphis.usda.gov/vs/horses.htm>



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