

The Drylot Life

Things to consider when housing horses in pastureless regions

Be it due to space restrictions, climate, or geography, not every owner has the luxury of turning horses out on expansive, nutrient-rich pastures. The devil is in the many details when it comes to keeping horses in good condition even without access to grass. Still, many horses live happy and healthy lives on drylots.

This type of living arrangement does pose some basic challenges: dust, the potential for sand colic, balancing nutrient intake, insect control, herd health, and lack of free exercise, to name a few. Let's take a look at how to handle such hurdles.

Doing Battle Against Dust

Horses in dry locations stir up a lot of dust, particularly when stamping flies during insect season. Running horses at play often appear shrouded in a haze of sand and dirt as their hooves churn bone-dry ground. Dust not only makes keeping horses and facilities clean difficult

but also poses respiratory risks for both horses and humans. Logan Potts, DVM, of Clovis Veterinary Hospital, in Clovis, New Mexico, sees this as a growing concern and recommends wetting down paddocks, corrals, and stalls as often as possible.

"Dust irritation can cause horses to develop signs of nasal discharge, eye irritation, and subsequent decreased nasolacrimal duct (tear duct) drainage," he says. "Some may develop inflammatory airway disease (IAD), which is often initiated by inhalation of dust particles and environmental irritants. IAD contributes as much as 20-50% to poor performance in equine athletes."

Jason Turner, PhD, professor and extension horse specialist at New Mexico State University, in Las Cruces, also encourages wetting the ground to manage dust: "If water resources allow, every-other-day watering of the drylot area with a sprinkler helps keep dust down," he says. "If water is not available, then

consider a more permanent alternative such as using plant oils (such as soybean or sunflower) to hold down the dust. Although used in riding arenas, it can be messy if horses are allowed free use of the area where they can lie down and roll. Therefore, carefully consider this option before deciding to use it, as once applied, it cannot be easily undone."

Dealing With Mud and Wet Ground

Not all pastureless properties are arid; some see their fair share of rain and mud. "In wet climates detour standing water away from stalls and runs," says Potts. "Proper barn design uses gutters and drainage lines to avert water from animal and human traffic.

"In dry regions horse owners often soak their horses' feet in 'mud holes' or water to help the farrier trim hard hooves," he adds. "However, in one study (Hampson et al.), hoof wall moisture remained unchanged following soak-



In areas with few turnout and grazing options, spacious runs attached to stalls get your horses out of the barn, help reduce boredom, and improve respiratory health.

ALAYNE BUCKLE

ing, although sole moisture did increase significantly. Horse hooves subjected to periods immersed in mud or standing water are predisposed to thrush, skin infection, and subsolar abscesses.”

Minimizing Sand Ingestion

Horses fed hay on the ground invariably consume dirt, especially when seeking tiny pieces of alfalfa leaves. Bored horses without access to free-choice hay might eat dirt intentionally.

“To minimize sand ingestion, feed hay from large plastic or metal water tanks rather than from hanging feeders, where horses pull hay onto the ground as they eat,” says Turner. “Another aid is to place rubber mats in the feeding areas. The mats can be swept or hosed off prior to feeding to minimize contamination of hay with sand.” You might also use tractor tires that have been turned inside out as feeding stations.

Even with these practices, for horses in drylot living situations, Turner encourages using a psyllium-based supplement according to manufacturers’ directions to help move sand through the digestive tract. Consuming hay offered free-choice can also help move sand and dirt through the intestines, while giving the horse something with which to occupy his time and satisfy his need to chew.

Relieving Boredom

In a natural setting horses spend intermittent periods throughout the day grazing. Without that option, and for horses not allowed access to free-choice hay due to obesity, boredom can create significant management issues. For this reason Turner uses slow feeder haynets or mangers for feeding hay. Not all horses are interested in playing with toys, he notes, but they all like to eat. “Slow feeders are good for making horses ‘work a little harder’ for their forage, while keeping them occupied for a good while longer than if fed loose hay,” he says.

A practical solution for feeding a herd in a drylot is to spread hay piles around the area. This helps prevent dominant horses from interfering with subordinate herd members’ mealtime. It also encourages horses to exercise, moving from pile to pile.

Bored horses might also chew paddock fences. While edging wood planks with

Horses without grass access need plenty of good-quality hay or forage substitutes to meet their 2% body weight daily forage requirements.



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metal helps limit this habit, Turner warns that worn metal can introduce other problems or dangers, so he suggests using wood plank substitutes when possible. Alternatives include metal pipe, channel iron, PVC rails, or composite decking materials.

Ensuring Proper Nutrient Intake

“In general, feeding a mature adult horse 2% of its body weight in long-stem good-quality forage each day comes close to meeting most of a horse’s energy and protein requirements for maintenance and a desirable body condition score,” says Turner.

For horses that are still growing, in regular training, or need more nutrients to maintain body condition, he suggests following manufacturers’ feeding directions on the feed bag of your choice. Also, consult your veterinarian and/or equine nutritionist to tailor a feeding program to each horse and his particular needs.

“A hay analysis lets you know exactly what nutrients are available to your horse from a specific batch of forage,” he says. “If there are changes in type of hay

(legume vs. cool-season grass vs. warm-season grass vs. cereal grain hay) offered, the cutting of hay, or source of forage, then you’ll want to get a new analysis to enable appropriate adjustments to the feeding program. Hay analysis is relatively inexpensive and can save much more on feed costs, especially when feeding hay year-round.”

During some times of year or seasons, local hay can be in short supply. Turner says you can purchase byproduct feedstuffs (e.g., cottonseed hulls, soybean hulls, distiller’s dried grains, oats, etc.) to provide bulk roughage in the diet, as well as other nutrients.

“Use of these substitutes is mostly recommended for mature adult horses rather than young, growing horses,” he says. “Due to wide variations between different byproducts, as well as between batches of the same feedstuff, test the feed for specific nutritional values.” Consult your veterinarian and nutritionist to help fine-tune your use of these substitute feed products.

Other forage substitutes are available in the form of hay cubes, haylage, alfalfa pellets, beet pulp, and compressed hay.

Neurologic or muscle disease and immune deficiency problems can occur when horses don’t consume adequate vitamin E, a nutrient normally found in green grass.

“Most modern commercially available equine-formulated feeds contain vitamin E on the guaranteed analysis label,” says Turner. “If such commercial products are fed, there may be no need to supplement further.”

Potts recommends supplying vitamin E (either with a supplement or commercial feed) when horses have no pasture access and/or are growing, breeding, lactating, or in heavy exercise. If you have con-



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Without the ability to graze all day, horses might develop boredom issues such as wood-chewing.

cerns about vitamin deficiencies, consult your veterinarian and/or an equine nutritionist.

“Be sure to provide plenty of fresh, clean water and salt, as these are always important to good horse health in all environments,” Turner adds.

Designing Turnout and Confinement Areas

Giving horses time and space to exercise and play can help minimize the boredom behaviors confined horses often exhibit. “While exercise and muscle toning may be accomplished on a longe line, treadmill, or hot walker, it is important to provide a horse with a minimum of an hour or two of free turnout time, ideally in at least a half-acre area where he can run and play,” says Turner.

Even though green grass isn’t available for grazing, the ability to self-exercise is good for both mental and physical health. Regular turnout time also helps keep joints moving and, therefore, healthy, especially in young, growing horses, says Potts.

“Bone density of the growing horse increases with turnout with proven benefits of systemic fitness and joint metabolism,” he says.

With regard to paddock size for providing horses a place to move around, “the bigger, the better,” says Turner. He suggests connecting a run to a stall at



Pick manure from runs at least twice weekly to reduce internal parasite and insect proliferation.

ALAYNE BLICKLE

least as wide as the horse’s stall. In some situations, you might have to reduce this width so there can be space between adjacent runs so horses can’t tussle or have nose-to-nose contact. Turner prefers runs to be at least 24 feet long, so caretakers have room to feed, water, groom, and perform other chores safely.

“A good, spacious run normally means that the horse spends more time out of the stall; this makes it easier for daily manure removal,” he says. In addition, the fresh air is better for the horse’s respiratory health.

Controlling Parasites

Most equine internal parasites spend part of their life cycle developing on

forage plants, where they get ingested by grazing horses. “Horses kept in stalls and drylots experience less exposure to these infective stages and, therefore, likely require less frequent deworming,” says Turner. “Based on regular fecal egg counts, your veterinarian can recommend deworming protocols for your specific drylot environment.”

On top of at least twice weekly manure pickup and a tailored deworming schedule, Turner recommends manure management to kill insect and internal parasite larvae. “A good composting program is the best method to deal with manure and shaving waste and to cut down on insect proliferation,” he says. “Your local county extension agent can

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offer ideas for systems that work well in your area, as well as provide information about local regulations that might influence your manure management plan.”

Managing Urine

“Once horses create a latrine area, they tend to continue to use it unless you change your horse’s location, he alters behavior, or there is some other underlying medical factor,” says Turner. “It is not all bad for a horse to use one general area for urination, as it often makes stall cleaning faster and easier.”

He recommends using a pelleted bedding product alone or in combination with flaked shavings to soak up urine. Turner cautions that bored horses might be inclined to eat shavings, which can create digestive problems, even impactions. He suggests using slow feeders and turnout to minimize this tendency.

If strong urine odors and ammonia levels become an issue, you can apply a commercial product to help neutralize them.



PAM MACKENZIE

A pelleted bedding product can help soak up urine in stalls and runs.

Thwarting Insects

In any environment insects are nuisances to horses and people alike. “The best approach to insect control is good sanitation as the foundational strategy,” says Turner. “Minimize the presence of standing water and moist organic matter (e.g., soiled bedding, wet waste, and feed) where insects like to breed. At least every three days remove and compost manure to break the life cycle of fly reproduction. Apply insecticide per manufacturers’ directions.”

Preserving Herd Health

In areas such as California it’s common to find boarding facilities that don’t have available pasture. “Many of these facilities are drylot confinement operations, which create a new scenario of health concerns for owners, trainers, and veterinarians,” says Potts. “Confinement of horses in a drylot environment amplifies possibilities for infectious disease outbreaks, simply due to the close-quarters living arrangements within these facilities.”

With that in mind, caretakers should adhere to routine vaccination schedules for all horses on the property.

Take-Home Message

Tending for horses that don’t have pasture access requires sound management practices similar to those used with any other horse. Care and chores associated with drylot confinement, however, can be more labor-intensive for the owner. Pay attention to environmental challenges and herd health to make your job easier and help your horses to thrive physically and mentally. 🐾

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