

Fighting Horse Boredom With Special Housing

Practical adaptations and alternatives to traditional stabling methods

As a horse owner, if you find yourself wondering about your stabled companion's happiness, you're not alone. In recent years scientists have likewise pondered and investigated domestic horses' physical and mental welfare. New research highlighting the benefits of accommodating horses' genetically ingrained needs is booming, and we are listening. Equestrians are opening their minds, some even their stall doors, leaving behind traditional single-horse stabling in favor of more natural options such as group housing and track paddocks.

Meeting Your Horse's Needs

To best provide for our horses, we must first understand what they need for optimal health, welfare, and longevity. Some basics—food, water, shelter, veterinary care—apply to all animals. Then, we dive into species-specific needs. Horses evolved over the past 50 million years as foraging herbivores and social herd animals. Therefore, providing ample opportunities to move freely, graze, and browse while forming social bonds allows these innate needs to be met. While each horse is different, and we must be flexible in our management programs to accommodate various situations, providing a lifestyle aligned with the animal's nature offers many physical and mental benefits.

Assessing Your Horse's Welfare

The next step in optimizing your horse's quality of life is evaluating how his living conditions impact his well-being. We can recognize adequate welfare at its most basic level as the absence of pain, discomfort, and stress. In research settings ethologists (animal behaviorists) have at their fingertips an array of cutting-edge technologies to identify and quantify stress and pain levels. Just by



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Track paddocks are fenced networks of paths that offer horses enrichment, foraging, social, and exercise opportunities.

being conscientious observers, we too can take steps to gauge our horses' welfare.

"Monitoring your horse's behavior is one way to assess well-being without the need for expensive, specialized equipment," says Kelly Yarnell, PhD, professor of animal and equine science at Nottingham Trent University, in the U.K. She studies equine physiology and welfare, notably the impact of housing design on well-being. Yarnell and other researchers consider horses' welfare to be less than ideal if they display any of these behaviors:

1. Stereotypies such as cribbing, pacing, or weaving.
2. Aggression toward humans.
3. Unresponsiveness to things going on in the environment.
4. Evasive or undesirable behaviors when handled or ridden.

5. Stress-specific behaviors, including hyperactivity, hypersensitivity, and excessive vocalization.

"Often, when placed in suboptimal environments, horses develop an apathetic state identified by a depressive demeanor, sensory withdrawal, and a flattened posture," Yarnell says. "This can be an indicator of impaired welfare. On the flip side, it's important to also note positive behaviors. For example, increased resting time in sternal or lateral recumbency (lying on one's chest or side) is emerging as an indicator of well-being in the absence of negative behaviors."

The simplest way to catalog your horse's behaviors is to use a purpose-built ethogram. This past February, University of Pennsylvania researchers Sue McDonnell, PhD, and Catherine Torcivia, VMD,



An example of a horse-friendly housing setup at Nottingham Trent University.

COURTESY DR. KELLY YARNELL

published a comprehensive “equine discomfort” ethogram with data compiled from thousands of horses observed over 35 years (TheHorse.com/197801).

With such resources available, how difficult can it be to recognize a stressed, uncomfortable, or unhappy horse? Perhaps more than you might think, scientists have found. And here’s why: Two major pitfalls exist in our current ability to accurately evaluate a stabled horse’s well-being. First, as was brought to light in a 2019 study by Torcivia and McDonnell, horses hide their discomfort-related behaviors by an average of 77% when people (in the case of their study, hospital staff) are observing them. Researchers have concluded this likely stems from an evolutionary survival instinct in prey animals to conceal any disability or injury when predators approach. Second, in a 2020 study the same authors revealed that horses’ displays of discomfort are particularly subtle and easily missed by horse owners and professionals alike. These two factors combined make it harder for us to assess our horses’ welfare, therefore limiting our ability to make changes necessary to help them. But such obstacles shouldn’t stop us from striving to give our animals the happiest, healthiest lives possible. This is where the discussion of enrichment begins.

Enrichment Options in Stalls

Full of good intentions, some of us are quick to provide contraptions intended

to render horses’ otherwise-bland stalls more entertaining. Confined horses often find themselves surrounded by balls, toys, flavored bricks, treat dispensers, hanging ropes, and mirrors, all in the name of enrichment. If they are safely designed, such items do no harm and are popular with some individuals. But in 2019 French researcher Lea Lansade, PhD, shed fresh light on their true role in equine welfare. Her research team observed 187 stalled horses for 50 days and disappointedly concluded that these gadgets seemingly fail to significantly alleviate the boredom and stress of solitary confinement. While ethologists recognize the value of enrichment items as potential complements to horses’ living spaces, these objects cannot replace appropriate living conditions. Lansade reiterates that the essentials—free movement, social contact, and round-the-clock access to forage—must come first. Then we can add toys as perks.

Housing Design

A grumpy horse in the stall is probably also grumpy when ridden, Lansade’s team concluded last year (TheHorse.com/197128). We don’t yet fully understand the cause-effect relationship of this observation, but we can certainly attempt to break what might be a vicious cycle back at the barn, starting with its very design. Yarnell led a 2015 study comparing the stress levels and behavior of 16 horses housed in four arrangements. The

first setup had groups of horses turned out in paddocks. The second consisted of pairs kept together in large bedded indoor enclosures. With the third option, horses were kept in separate box stalls but had visual, auditory, and tactile communication with their neighbors through openings in the walls. The fourth category isolated horses in individual box stalls with solid walls that prevented any social contact—a common setup in many American barns. Yarnell and colleagues found significantly higher stress levels in horses kept in housing situations that prevented contact.

“Housing that limits social interaction and requires the horse to live in semi-isolation has been a reported concern for equine welfare,” she says. “These results indicate that incorporating social contact into housing design could improve the standard of domestic horse welfare.”

In addition to providing much-needed interactions among horses, group housing generally comes with more acreage for the animals. More space translates to more movement, and horses are meant to stay in motion. Their physical and mental health depend on it. Studies by Werhahn et al. (2011, TheHorse.com/120159) and Chaya et al. (2006) showed horses expressed more restlessness and frustration when their turnout access was restricted.

Enrichment Through Foraging

While it’s possible to meet all our horses’ nutritional needs by tossing them hay and grain twice a day, we shouldn’t neglect their behavioral need to graze and browse for forage. “Horses, which, again, have evolved as a social, free-ranging species, spend a significant portion of their day grazing in their natural habitat,” Yarnell says. In the wild they can spend upward of 16 to 18 hours a day eating.

“With this in mind, allowing horses the ability to display natural (foraging) behaviors and providing suitable forage will benefit both their welfare and their digestive systems,” she says. The type, quantity, and location(s) of forage can all be used to provide enrichment. Because the goal is to maximize the amount of time horses have access to fiber-based feed, hanging mixed-grass haynets in different parts of the stall or paddock can help stimulate the horse’s mind while prolonging the supply.

Thinking Outside the Box Stall

A key element of enrichment is mimicking the horse's natural environment. Track paddocks embody that goal and take it to the next level. Gabriele Neurohr manages the Haras Naturel du Plessis, a renowned track-paddock-based boarding facility in France. Ten years ago, unsatisfied with traditional stall/pasture boarding—mainly because her herd was dealing with excessive weight, thrush, and weak hooves prone to abscesses—Neurohr built a track paddock for the farm's 17 horses.

"Within three months we noticed drastic improvements in hoof health, body condition, and muscle development, not to mention behavior changes," she says. "Our horses became calm and pleasant to work with. We now have way fewer incidents involving spooking or energy outbursts from cooped-up horses. And issues such as colic, ulcers, and hoof abscesses are a thing of the past."

Neurohr saw her vet bills plummet after making the switch. Such improvements might make this innovative horse keeping alternative appealing and worth a closer look.

Track Paddock Setup

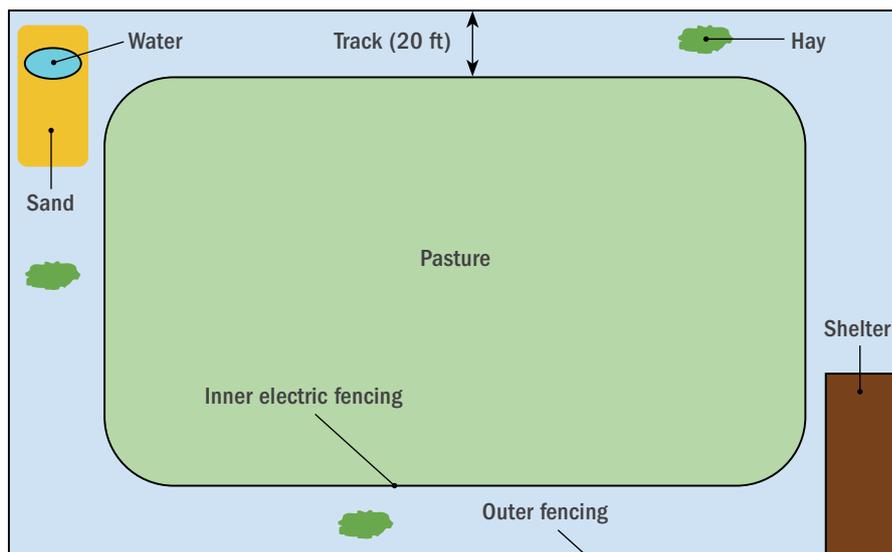
Natural horse keeping guru Jamie Jackson coined the track paddock concept "Paddock Paradise" in 2007. By design, a track paddock is a fenced network of paths. It generally involves creating an approximately 20-foot-wide track, with



LUCILE VIGOUROUX

Gabriele Neurohr designed this track paddock for the 17 horses at her Haras Naturel du Plessis.

TRACK PADDOCK LAYOUT



temporary fencing, that traces the inside perimeter of a paddock's permanent fencing. A track paddock that's too narrow can create crowding and cornering issues among residents. Inside this track horses are channeled to move, both because of the presence of pathways and the strategic placement of resources. At the most basic level, a track paddock contains several hay stations and two enlarged areas to accommodate a watering station and a camping station with shelter.

"The goal is to decentralize resources as much as possible," Neurohr explains. "In our experience, horses won't move if there is no incentive. Separate shelter, water, and resting areas, and provide as many feeding stations as possible."

Dispersing feed is especially important because it encourages foraging behaviors. The horses move as a herd along the track from one interest point to the next, constantly interacting with their environment and each other. Food, water, and shelter are the absolute necessities, but you can get creative with your track paddock design. Neurohr's features rolling areas and wooded sections. Some have scratching posts with brushes, others offer a pond or creek for refreshment. Of course, safety remains paramount when designing your horse's living quarters.

If you're still unsure about the benefits of a track paddock over a 'regular' paddock, consider this experiment Neurohr and her team conducted: "We tracked the daily mileage of a horse in a 12-acre

field and that of a horse in a mile-long track paddock using GPS technology," she explains. Their observations revealed a staggering disparity. The pastured horse only traveled an average of 1.5 miles per day, while the track paddock resident averaged a whopping 9 miles per day. Providing this kind of opportunity for movement without the rich grass that often comes with traditional pasture boarding is ideal for easy keepers and horses prone to metabolic issues. Track paddocks can also serve as more enriching, healthier alternatives to drylots.

Final Thoughts

No turnout solution is perfect. While advantageous in many ways, the track paddock does come with contraindications. For example, truly aggressive horses pose a safety risk, Neurohr cautions.

"Skinny, very old, or low-ranking horses won't thrive in a track paddock either," she says. "They move too much and don't find enough peace to ingest their energy requirements."

Neurohr also predicts disappointment if your goal for building a track paddock is to save time, money, or energy. In her experience the reality of setting up and maintaining a track paddock is expensive and takes just as much time and labor as running a traditional stall barn. But the benefits that arise from providing living conditions aligned with the horse's natural needs for movement, foraging, and social contact are priceless. 🐾