

## **Species Considerations for Enclosures: Horses and Cattle**

Our topics for this week are:

- Special considerations for horse fencing
- Proper construction of cattle fencing

### **HORSES**

#### **Fence Materials**

Fencing for horses must be easily visible and high enough to discourage attempts to jump it. It must be strong enough that when horses scratch their rump by pushing and sitting on the fence or leaning into it to get to the “greener grass” on the other side that the gate will not open or the rails will not pop off. Horse fencing should have some flexibility on impact to reduce the risk of injury from horses running into it in play, fear, or attempted escape from a bully. There should be no openings large enough to entrap a hoof (more than 3 inches), and no sharp edges or projections.

The best fence types for horses are electric rope, woven wire, pipe, or plank and post. Each has its advantages and disadvantages. Therefore, a horse containment should have more than one type of fence based on the strengths of a type of fence in a particular situation. For example, electric rope works well for pastures for economy and effectiveness, woven wire for smaller enclosures when wanting to keep children and dogs out of enclosures, and pipe or plank and post for smaller enclosures, particularly those needed for stallions. Three strands of electric fence or three planks can be sufficient for mares and geldings while colts and stallions may need up to five strands or planks.

If horizontal planks are nailed to the outside of a fence, vertical face boards should be nailed over the boards. This extends the connection to the post and significantly increases the strength of the fence to being challenged by horses inside the fencing. The space between horizontal planks should be too small for a horse to put its head through sideways and possibly get stuck.

Quiet mannered adult horses in a closed herd may be contained without incidence in barbed wire, chain link, or high tensile wire pastures, but all these enclosures are very hazardous for young horses, hot-tempered horses, or herds that may occasionally have new members or for any horses that are crowded. It is best to avoid barbed wire, chain link, and high tensile wire in all instances for containing horses since the type of horses that may be enclosed in the future may change. Barbed wire is the leading cause for lacerations in horses. Cattle mesh is unsatisfactory for horses because the openings are too large, 4 inches square or more, which can catch horses hooves. Welded wire comes apart when rubbed on or kicked by horses. Chain link can catch horse shoes and halters, and the top edge of the mesh can cut a horse's neck.

Woven wire mesh, 2 X 4 inch squares or diamond shaped mesh is safe for horses and aids in keeping predators out of enclosures. A sight board or pipe should be used at the top edge of mesh fences to make the fence more visible to horses. Sight boards also deter horses from reaching over and smashing a fence down to graze. The bottom of mesh fencing should be flush

with the ground.

Electric fences are particularly effective for horses. Horses have short hair coats and thin skin. Some wear metal shoes. These factors facilitate the effectiveness of electric shock. Unlike with other fences, electric fences are not used as scratching posts and chewing rails for cribbing by horses. If run into by a panicked horse, electric fences cause few to no injuries that are common with other fences. The introduction of a horse new to an electric fence should be supervised. It takes at least 700 volts to get the respect of horses. Because of the short pulse of the charge, it does not cause burns or abnormal heart rhythms. Typically 4000-5000 volts are used for horses.

### **Layout of Fences**

Horses cannot stand in mud for long periods without developing hoof and leg problems. Horse facilities should have a dry lot (an all-weather or sacrifice paddock) at a well-drained area to allow hooves and pasterns to occasionally dry out in wet weather. There should also be a 12 ft wide, all-weather lane from stables to turnout areas.

Curved corners in pens, paddocks, and pastures aid submissive horses to escape from an attack by another horse. Enclosures with right angle corners can be blocked with one or two diagonal boards as another means to aid the escape from herd bullies.

### **Fence Height**

The height of horse fencing depends on the size of the enclosure and type of horse. Smaller pens or crowded pastures require higher fences. For mares, foals, and geldings most pens should be at least 5 ft high, or more. Most pasture fences should be at least 4½ feet high. Pens should be at least 6 inches above withers height. Stallion pens and gates should be 7 ft high. Horses that are trained or have learned to jump should be kept in 9 foot high pens. Donkeys should be enclosed with at least 5 ft high fencing since they can be able jumpers. A perimeter fence should be as high as the withers of the tallest horse (usually 54 to 60 inches).

### **Stallions**

Mature stallions should not be kept on the other side of a single fence from other horses. The pens for other horses should be separate with a distance of at least 12 feet between the enclosures. To improve stallion behavior when not breeding, stallion pens should have different gates for use when breeding and when being taken out for other reasons. Perimeter fencing is advisable wherever stallions are kept.

### **Foals**

The lowest panel, board, or wire should be 12 inches or less from the ground if foals are present to prevent them from rolling underneath a fence. Otherwise, the space from ground to the bottom of the lowest horizontal part should be more than 12 inches to aid in mowing, trimming, and reduction of the risk for adult leg injuries. When electric fence is used, a strand of electrified wire, rope, or tape should be at foal nose level.

### **Gates**

Gates should be 2 inch 14 gauge, or stronger, tubular steel. Aluminum gates are not strong enough to withstand the pressures exerted from horses. Gates with diagonal or Z-bars can leave

narrow corners that can trap heads and legs and therefore should not be used for horses, nor should support cables. Gate rests, a block of wood to rest the end of the gate on when fully open and fully closed, reduces the strain on hinge posts. Gates that open and close with one hand are safer when leading horses and only one hand is free.

Slinky-type spring gates are not appropriate for horse gates because they will catch horse tails. Bungee-type retractable rope gates are safer.

If on a major road or a residential area, a small (24 X 24 ft) catch pen should be built to go through to the pasture gate to prevent other horses from escaping when moving horses in or out. When an alleyway exists between pastures and gates opposite each other and both open into the alleyway, they can become a channel between pastures.

### **Introduction to New Pen or Pasture**

Handlers should always walk a horse around a new pen's or pasture's inside perimeter both directions before turning it loose for the first time in that enclosure. If the fence is electric, it should be turned off and fladry should be tied to the top fence strands for increased visibility until the new horse is accustomed to its new surroundings. Water troughs should not be located close to electric fences. If the current reaches the water by mishap, the horse may get shocked and avoid ever drinking from that trough afterwards. Hay should not be tossed over electric fences. Horses may try to pick pieces off the fence. Pastures for horses should be checked routinely for rocks and animal burrows that could injure horse hoofs or legs. Farm or ranch equipment should not be stored or discarded in horse pastures. Pastures should be inspected for potentially poisonous plants. State Agricultural extension offices can provide information on the identification of poisonous plants common to the region.

## **CATTLE**

Pens for cattle should be made of dense wood or metal and high enough to discourage animal attempts to jump over the fencing. For cattle, handling pens should be at least 5½ feet high and the lowest board should be close enough to the ground to prevent attempted escape underneath. Pressure treated pine fence posts in pens should be 6 to 8 inches in diameter. Osage orange or black locust fence posts may be 4 to 6 inches in diameter. A pasture fence should be at least 4 feet high with the lowest clearance no more than 1 foot from the ground to keep calves in and still allow mowing or trimming underneath.

Barbed wire was developed specifically for cattle and is commonly used. At least 4 strands should be used to contain cattle. Wire mesh is better than barbed wire, but more expensive. Wire mesh with square or rectangular openings of four inches or more should be used only for cattle. High tensile smooth wire that is not electrified is inadequate since cattle do not respect it and reach through for vegetation on the other side eventually breaking the fence down.

Electric wire can be used as temporary barrier for another type of fence that needs repair or to subdivide pastures for rotational grazing. Electric boundary fence should be 5 to 6 strands. This will ensure that cattle touching the fence will be shocked on the nose or ears since these areas are sensitive enough to cause cattle to be deterred in challenging the fence.

Cattle panels are welded mesh wire prefabricated fencing modules that are 52 inches high and 16 feet long. Horizontal wires are closer together at the bottom to prevent calves from catching their head in the fence. Utility panels are 4 X 4 inch, extra heavy gauge rod mesh 4 or 6

feet high and 20 feet long.

Bulls, especially during breeding seasons, are the most likely to challenge a fence. Some will learn to push down posts. In this case, electric fence or exceptionally stout fence must be used or bull must be sold for slaughter. Electric fences are adequate to contain bulls for large isolated pastures. At least 2 X 6 inch plank fence with 6 X 6 inch posts every 4 feet or welded pipe rail fence should be used for bulls contained in small pens or near populated areas and busy roads.

Now, let's recap the key points to remember from today's episode:

- **Horses are hardest of domestic large animals on the maintenance of fencing, and poor fencing can be a significant danger to horses.**
- **Special fencing is needed for stallions and for foals.**
- **Barbed wire was developed specifically for cattle.**

More information on animal handling is available in my book, *Animal Handling and Physical Restraint* published by CRC Press. It is also available on Amazon and from many other fine book supply sources.

Additional information is available at [www.betteranimalhandling.com](http://www.betteranimalhandling.com)

Don't forget serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.