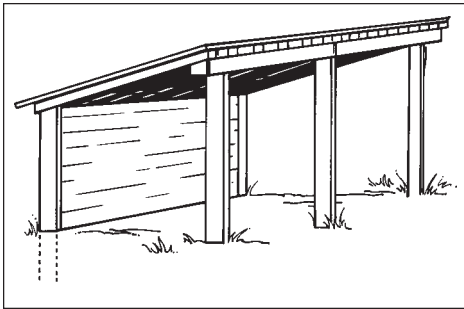


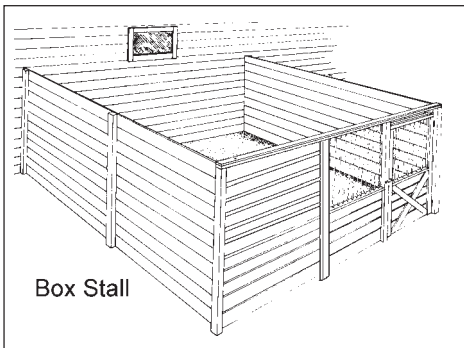
## Facilities

### Housing

Horses are housed in all types of facilities; ranging from pastures and corrals to elaborate stables with individual box stalls. Horses do well in any of these conditions, but there are some important things to look for, no matter where you keep your horse.



Shelter is important to allow your horse protection from the hot sun, wind or stormy weather or from biting insects. It should provide room for your horse, (about 10 feet x 10 feet) and plenty of ventilation but no drafts. If you are keeping more than one horse the shed must be big enough so the “boss” horse won’t keep the others out. Also clean the manure out regularly.

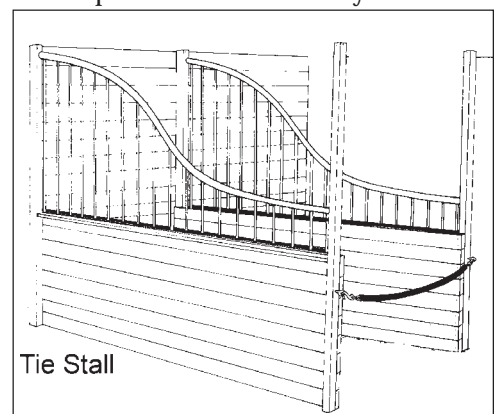


Inspect the area where your horse is kept for loose boards, nails, wire and any projections that may cause injuries. Keep all wire and baler twine picked up. If you keep your horse in a pasture make sure all your fences, barbed, smooth or electric are kept tight and in good repair.

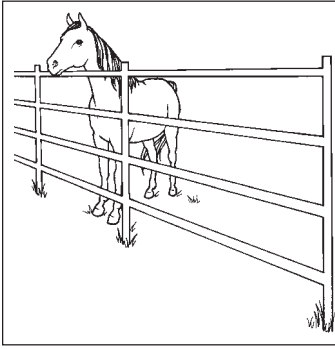
If you use a box stall, it should house your horse comfortably. The size of the stall will depend on the size of your horse, but the standard stall should not be less than 10 feet by 10 feet. Walls should be at least five feet high and the door should be four feet wide.

If a standing stall is used, there are some important considerations to make regarding the well-being of your horse. Each tie stall should be four to five feet wide so that a horse may lie down comfortably and 9 to 11 feet long. Included in the length would be the manger and hay rack. To help prevent horses from fighting, side walls should be seven feet high at the front of the stall where animals are tied and taper down to about four and one-half feet and solid all the way to the floor to prevent a horse from becoming caught.

A horse is tied in a stall with a rope that passes through a ring fastened to the wall with just enough slack in the rope that the horse may lie down. Take care to tuck away the ends of the halter shank to prevent it from hanging in a loop that the horse may get caught in.



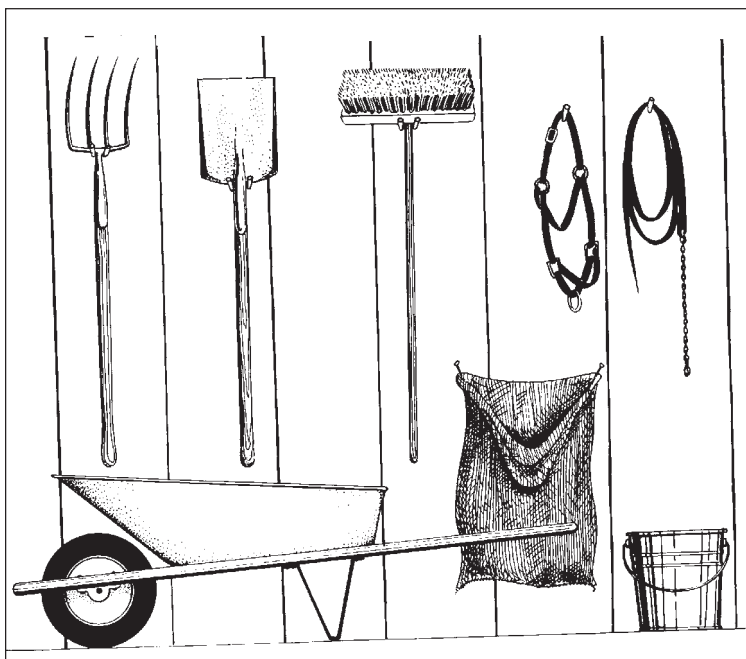
## 4 - H Horse Project Manual - Facilities



If your horse is housed in a stable with little room to roam, it is important that it receives regular exercise.

There are a few basic considerations that must be made when designing and building such facilities. These include:

- U The materials used to build a stable must be strong and durable to withstand the abuse that horses may place on it. Kicking, pushing, pulling and scraping are all forces that horses commonly exert inside a stable. They also may have bad habits like pawing and chewing wood.
- U To help with drainage, a stable should be located on higher ground.
- U Facilities should be easily accessible for transporting hay and manure disposal.
- U The width of the main passage should be wide enough to turn a large horse (minimum of eight feet).
- U Ventilation is very important for supplying fresh clean air and to help keep the humidity down. Windows work well when large enough and well-placed, but in some instances fans may be required.
- U Grains should be stored where horses cannot get access to them.
- U Mangers or hay racks, and grain, salt and mineral holders should be included in each stall.
- U Storage for bedding and hay should not be included in the stable because of the risk of fire.



- U Having a tack room right in the stable for safe and careful storage of equipment is preferred.

Fences constructed of pipe, poles or boards provide maximum safety for your horse. Wire fences, especially barb wire, may cause injuries. A smooth top wire may reduce injuries. A board or pole fastened to the top of the fence may also help reduce injuries and prevent stretching of the wire. If you do use wire fences, be sure they are tight, well attached to posts and no loose wire is lying around. Electric fences need to be checked often to make sure they are maintaining their current.

## 4 - H H o r s e P r o j e c t M a n u a l - F a c i l i t i e s

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### Manure Management

It is your responsibility to provide your horse with a clean place to live. Stalls should provide drainage so that your horse is not standing in urine and spilled water.

Flooring consisting of a layer of gravel, crushed rock, or sand has to be packed yearly. Concrete, wood, or asphalt floors with wood chips or straw as bedding are good. Rubber mats make softer stall footing.

Bacteria and parasites grow and thrive in organic wastes. Flies, insects and vermin also carry disease and thrive in filthy conditions. Keeping the stalls clean removes the source for some diseases to survive and reduces the chance of your horse getting ill. A strong ammonia odor can cause your horse to become ill.

One horse can produce as much as 210 pounds of manure each week. Stalls should be mucked out daily of manure and soiled bedding. The entire stall should be cleaned out periodically (once or twice per week depending on the habits and volume of waste from each horse).

Manure is an excellent environment for stableflies and while feeding on manure, flies can ingest the eggs of some parasitic worms. These can then be deposited by the fly around the muzzle of the horse, in wounds or when it bites the horse. Eggs may be also deposited on the hair of the legs and the body. When the horse scratches itself with its teeth, the eggs enter the mouth.

Harrowing pastures will help break up manure so the elements can destroy the worm eggs and larvae.

Odour is another concern regarding manure disposal. The cleaner a stall is maintained, the less the odour that will develop.

Manure Storage      Some options for manure storage are:

#### Bunker

Pile the manure in a bunker that is disposed of at least once a week. This bunker may be close to the stall but must have a lid to keep flies out. It must be large enough to contain the manure that will pile up between disposals.



### Piled

Piling the manure in a pile as far away from the stable and house as is practical. For manure piled in this way, consider composting techniques to produce a more useful product once this pile is disposed of. Composting involves regular turning of the pile, with a front end loader or other equipment, to control the amount of moisture and oxygen in the pile. Composting techniques can provide a superior, weed free product for spreading on fields or selling for gardens, and so on.

These stored volumes of manure will ultimately need to be disposed of by spreading it out on a field. Do not spread on pastures which are currently being grazed by horses.

For additional information contact Alberta Agriculture Food and Rural Development for their publication on manure management.

### Settling a New Horse in a New Home

Introduce a horse to its new environment by leading it around the perimeter. Separate strange horses until they have a chance to become accustomed to each other. It is advisable to introduce a horse to its new surroundings in the daylight. Take your cues from the horse. If it is very nervous, go slowly.

Never turn a new horse out with an established group of horses, even if it is an old friend of the herd that has been separated for some time. The settled horses may gang up on the newcomer and injuries are possible. Put the new horse into a small paddock or corral in sight of the group. Gradually move the new horse closer to the pasture until it is next to the group of horses. Permit the new horse to sniff and nuzzle the members of the herd with a non-wire fence barrier between them. When all the preliminary kicks and squeals are done, put the horse into the group situation, in a pen with no tight corners with enough room that they can get away from each other if necessary. Stand by and watch the proceedings. Check your horse daily.

Feed a light ration until the horse is comfortable with its new surroundings and different feed. The change in feed needs to be made *gradually* to avoid colic or other gastric upsets.



# 4 - H Horse Project Manual - Facilities

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Spend time with the new horse. Don't jump on and ride immediately. Catching, brushing and handling the horse in the new territory will help it feel more comfortable. You will start to develop trust between you and your horse that will help keep things more relaxed and safer on your first ride.

## Housing Horses Together

When horses are housed in pairs or in groups, they develop bonds and a pecking order. This order is established based on dominance and affects how the herd operates. Dominant horses will often be the first to the feed and will fight other horses off. Therefore, it is important to provide feed in two or three places so that all members of the herd have equal opportunity to eat.

The amount of space that is provided for a group of horses is the most critical. If the horses are getting into a lot of trouble, they may not have enough space where you are keeping them.

Horses can get into trouble in a herd because they have a tendency to want to improve their position within the herd. Some horses also think it is fun to constantly peck at other horses. Consequently horses in herds can wear a lot of scars.

## Transportation Equipment

Every horse owner needs reliable horse transportation of some kind. Some important attention must be made to the type and quality of the equipment you use for transporting your horse. In the chapter on "Safety", safe transportation equipment and driving requirements are discussed. Refer to this information to help ensure that you will transport your horse safely and without injury.

## Potential Hazards

Hazards are anything that can hurt a horse. We find them in any yard and it is important to watch out for them and avoid them with your horse. Some common ones are mentioned below, along with a description of what problems may arise from the hazard and how to avoid it.



# 4 - H H o r s e P r o j e c t M a n u a l - F a c i l i t i e s

## Yard Hazards and Prevention

Potential Hazards around the yard	Problem	How to Prevent
<b>Broken Planks</b>	<ul style="list-style-type: none"> <li>➤ tears</li> <li>➤ puncture <i>(with or without wood left in the horse)</i></li> </ul>	Keep fences in good repair
<b>Barbed Wire</b>	<ul style="list-style-type: none"> <li>➤ deep cuts or skin cuts</li> </ul>	Maintain fence. Use where horse population is low. Use tight high tensile or electric fence as an alternative. Don't have horses across from each other separated by wire.
<b>Smooth Wire (Barbless High Tensile or Electrical)</b>	<ul style="list-style-type: none"> <li>➤ strangulation</li> <li>➤ wrapping around legs</li> </ul>	Often used for electric fencing - maintain carefully to ensure it is well secured to the fence and very tight.
<b>Loose Wire</b>	<ul style="list-style-type: none"> <li>➤ wrapping around legs</li> <li>➤ deep cuts</li> </ul>	Tighten the wire.
<b>Hog Wire</b>	<ul style="list-style-type: none"> <li>➤ feet will go through and get caught</li> <li>➤ cuts</li> <li>➤ strains</li> </ul>	Use a size too small for a foot to fit through or very large (shoes may still get caught). Use 30 cm off of the ground.
<b>Hinges, latches, bolts</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ punctures</li> </ul>	Should not stick out from a wall or around the edges.
<b>Roof Overhangs</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> </ul>	Protect any sharp edges. Should be high enough so doesn't cause a problem.
<b>Metal scraps, glass, wire nails</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ punctures</li> <li>➤ ingestion</li> </ul>	Pick up garbage around the yard.
<b>Gates:</b> - metal gate - open gates	<ul style="list-style-type: none"> <li>➤ cuts, bruises and broken bones</li> <li>➤ cuts</li> <li>➤ bruises</li> </ul>	Cover sharp edges. Set high enough that if the horse falls under, it can get legs free. Gates should open against a fence so an animal cannot be caught behind, pinned in a corner, or run into it when it is open.



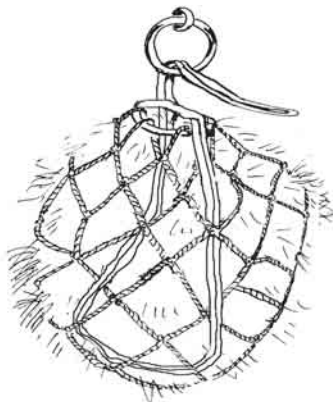
# 4 - H Horse Project Manual - Facilities

## Yard Hazards and Prevention

Potential Hazards around the yard	Problem	How to Prevent
<b>Stored equipment</b> -wheelbarrow -pitch forks, rakes, shovels	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ strains</li> <li>➤ broken bones</li> <li>➤ punctures</li> <li>➤ cuts</li> </ul>	Put all equipment away when it isn't being used. Be sure it is stored safely and away from the animals.
<b>Metal feeders or water tubs</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> </ul>	Cover sharp edges. Keep in good repair.
<b>Hay feeders</b>	<ul style="list-style-type: none"> <li>➤ suffocation</li> <li>➤ strains</li> <li>➤ cuts</li> <li>➤ broken bones</li> <li>➤ strangulation</li> </ul>	Place high up or on the ground with an open top and sides so it can not cut the horse.
<b>Stall walls</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ tears</li> <li>➤ broken bone</li> <li>➤ suffocation</li> <li>➤ horse becoming cast</li> </ul>	Remove or flatten nails. Cover holes. Level bottom of the stall so the horse cannot get caught in a depression. Stall walls should be so that a hoof cannot fit through, to prevent casting.
<b>Hay nets</b>	<ul style="list-style-type: none"> <li>➤ strangulation</li> <li>➤ injury from legs being tangled</li> </ul>	Hang high and thread back up through itself. Remove at night or when you are away for long periods of time. Suggest not using.
<b>Tying improperly</b>	<ul style="list-style-type: none"> <li>➤ horse spooks and pulls object loose then runs into other objects</li> <li>➤ tying by reins hurts the mouth and will break the reins or bridle</li> <li>➤ tying too long, rope can get over the head or wrap around the leg and break or rope burn</li> <li>➤ tying too low, horse can step over rope and get tangled</li> <li>➤ tying with the wrong knot makes it difficult to untie in an emergency situation</li> </ul>	Tie to a solid object that cannot be pulled loose. Tie with a bowline or quick release knot so the horse can be freed easily. Tie with a halter and strong shank. Don't tie too long or short. Horse should have enough rope that it can reach its feed ( if in a tie stall ) but not paw (legs over) the rope. Horse should be tied high (wither height or higher). Tie horse with a quick release knot.

Hay Net

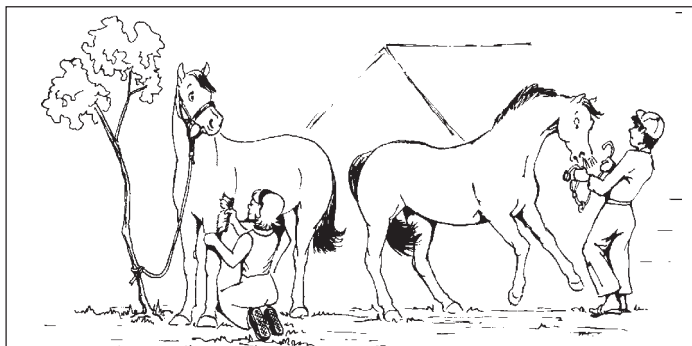
Bring excess ties through bottom of hay net before tying in position.



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## Yard Hazards and Prevention

Potential Hazards around the yard	Problem	How to Prevent
<b>Barn wiring, lights, electric stockwater</b>	<ul style="list-style-type: none"> <li>➤ electrocution</li> <li>➤ cuts</li> <li>➤ strangulation</li> </ul>	Wiring should be enclosed and out of reach where it is free from moisture accumulation. Cover lights or recess them into the ceiling. Use only CSA approved equipment.
<b>Machinery</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ punctures</li> <li>➤ broken bones</li> <li>➤ strains</li> </ul>	Do not leave where horses are kept.
<b>Batteries, used oil</b>	<ul style="list-style-type: none"> <li>➤ horses may lick or drink acid from batteries</li> <li>➤ skin corrosion</li> <li>➤ death</li> </ul>	Keep them stored away from horses. Dispose of old batteries and oil at Hazardous Waste sites.
<b>Grain bins, grain piles</b>	<ul style="list-style-type: none"> <li>➤ laminitis</li> <li>➤ colic</li> <li>➤ possible death, gorging, grain founder</li> </ul>	Close bins. Securely fence grain piles and do not allow horses into the field with them.
<b>Paint and wood preservatives</b>	<ul style="list-style-type: none"> <li>➤ poisoning</li> </ul>	Do not use where the horses are kept.
<b>Black walnut wood shavings</b>	<ul style="list-style-type: none"> <li>➤ death on a very small amount</li> </ul>	Only use wood shavings sold for bedding; do not use leftovers from a lumberyard or carpenter.



These kids need to learn safety. How many things can you find them doing wrong?

**Answers:** (8) Horse tied too low; horse tied too long; horse not tied to strong, solid, object; horse tied in pasture with a loose horse; approaching horse from front; putting halters on wrong; wearing thongs; girl kneeling; not tied with a quick release knot.

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## Yard Hazards and Prevention

Potential Hazards around the trailer	Problem	How to Prevent
<b>Tying (inside)</b>	<ul style="list-style-type: none"> <li>➤ horse rears and gets its front legs caught in the rope or feed box</li> <li>➤ cannot untie in case of an accident</li> </ul>	<p>Tie short enough that the horse cannot turn its head more than a few inches past the edge of the feed box.</p> <p>Use a quick release knot. Use a trailer tie with a breakaway snap or carry a sharp knife.</p>
<b>Tying ( outside)</b>	<ul style="list-style-type: none"> <li>➤ cuts from trailer fenders, license plates, frame light supports, lights, trailer hitches, latches, escape hatch</li> </ul>	<p>There are a lot of hazards around a trailer and tying your horse to a trailer should be avoided. If you need to, be sure your horse is quiet and give horses space (only one horse to each side of a two horse trailer).</p>
<b>Escape hatch</b>	<ul style="list-style-type: none"> <li>➤ cuts to the head</li> <li>➤ leg injuries from trying to jump through the space</li> <li>➤ major injuries or death of young horse from falling or jumping out of moving vehicles</li> </ul>	<p>Keep the escape hatch closed unless you are using it to feed or tie and untie horses in the trailer. Check that all doors are properly latched each time you leave a location.</p>

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## Yard Hazards and Prevention

Potential Hazards in and around the trailer	Problem	How to Prevent
<b>Loading</b>	<ul style="list-style-type: none"> <li>➤ hits head on roof</li> <li>➤ leg cuts</li> <li>➤ broken legs from falling under the back bumper of the trailer (usually horses not trained to load in a trailer)</li> </ul>	<p>To avoid rearing, do not pull hard on the halter shank or try to hold onto the horse if it spooks. Let the horse back.</p> <p>Use shipping boots</p> <p>Rubber bumper at the back of the trailer</p> <p>Teach horse to load properly.</p> <p>Place a log under the trailer bumper to fill the gap from the edge to the ground, or back into a low spot.</p>
<b>Doors</b>	<ul style="list-style-type: none"> <li>➤ the horse can fall out and be dragged while the trailer is moving</li> <li>➤ cuts when horses are tied outside the trailer</li> </ul>	<p>Use a rump chain or bar. Check that the latches are properly closed before you start travelling.</p> <p>Close all doors when horses are tied outside of the trailer and tie far enough from latch that they can't get halter or lead hooked on latch.</p>
<b>License plate</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> </ul>	<p>Relocate the license plate so it is against a flat surface with no space above or below. Do not tie the horse to that side of the trailer.</p>
<b>Flooring</b>	<ul style="list-style-type: none"> <li>➤ damaged foot from going through floorboards with the foot being dragged on the road</li> <li>➤ slips or falls and gets down in the trailers</li> <li>➤ eye injuries from bedding blowing around</li> </ul>	<p>Check floor boards regularly for damage. If using rubber mats, remove manure after every use and lift mats so that the floor boards can dry.</p> <p>Use rubber floor mats or sand to prevent slipping. Some types of straw are very slippery and should not be used (especially oat straw). It also blows up into the horse's eyes.</p>
<b>Window</b>	<ul style="list-style-type: none"> <li>➤ cuts</li> <li>➤ strangulation</li> <li>➤ neck strains</li> <li>➤ bruises</li> </ul>	<p>Tie the horse so it cannot put its head out the window when travelling. If windows are wide or large, use heavy metal screening or metal bars over the window so it can be opened safely.</p>



## 4 - H H o r s e P r o j e c t M a n u a l - F a c i l i t i e s

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### Riding Surfaces

When working your horse, be aware of the footing. Problems occur when the footing is too hard, rocky, uneven, frozen or sunbaked. Depending on the condition of your horse's hooves, do not ride an unshod horse for any great distance on hard or rocky ground. Even some grassy surfaces can be surprisingly hard and slippery. If riding an unshod horse on hard ground, pay close attention to the way your horse travels and how the hooves are being affected by the surface. Slowing down reduces impact.

Riding surfaces can also be too soft and deep. This occurs when hard rain reduces riding areas to mud, the base becomes too soft and the weight of the horse causes the foot to be sucked down, making it more difficult for the horse to lift its foot. This is particularly hard on tendons and ligaments. Deep sand can cause leg strain and deep wet snow can also be hard on tendons. At some temperatures snow will ball on the sole of the foot, causing a very icy, dangerous situation.

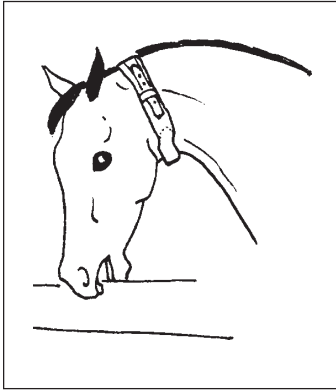
Slippery surfaces such as snow, ice, pavement and wet grass should be avoided.

Pleasure riding in pastures and on the trail can be fun, but be very cautious of holes. If a pasture has a lot of holes and rocks, you should avoid riding at fast speeds.

Most riding arenas have a dirt base with sand and fine shavings mixed in. It is important that the arena does not get dusty, as this may lead to respiratory problems in the horse. Keeping the surface damp and mixing some fine wood shavings into the dirt may help to reduce dust.



### Stable Vices



Cribbing Strap

### Cribbing

Cribbing is a bad habit that some horses develop because of stress. This is also called windsucking. The horse grabs a projecting object (top of a door, manger, fence, etc.) with its incisor teeth, arches its neck and gulps. Besides wearing down the teeth, the horse may be hard to keep weight on. To try to control a horse from cribbing, put a cribbing strap on your horse. The strap goes around the neck just behind the jowl and poll. This strap tightens when the horse tries to crib and makes the cribbing action uncomfortable.

The habit of chewing wood is hard on your facilities. Smearing a commercial anti-cribbing mixture on possible cribbing spots may also help. These mixtures are flavoured with something that makes them undesirable to the horse. Some home remedies that some people use include Vaseline mixed with either hot-peppers, cayenne pepper or Tabasco sauce. Fences can be reinforced with metal edging, or made of plastic or metal to keep horses from chewing.



### Weaving

Weaving is another stable vice which is extremely hard to cure. This condition is when a horse swings its head from side to side. The horse may lose condition rapidly.

Boredom in a box stall seems to be the major cause of weaving. Give the horse lots of exercise and pasture time.