

Oregon 4-H Ranch Horse Manual



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Preserving tradition

The use of horses in North American cattle ranching dates back to the early 1500s, when Hernán Cortés first brought cattle to the grassland plains of Mexico. The cattle herds grew, and the business of ranching was established. The men who tended the cattle were known as **vaqueros**, and their skill and knowledge of horses and horsemanship became legendary.

As the number of cattle grew, the herds moved north into Texas, most of them wild. Many Texas ranches were formed in the 1830s, when people moved in and rounded up the wild herds. The vaquero's skills were important in this task.

Ranching was also very important in California, where cattle were raised for their meat and hides. After the California gold rush brought thousands of new settlers, competition for pasture land pushed cattlemen into Oregon, Nevada, and other western states. The customs and methods of the vaquero traveled with them. In different parts of the country, vaqueros became known as buckaroos, cowboys, or punchers.

Today, managing cattle from horseback is becoming less common. Ranches are more and more automated, using four-wheelers and other machines instead of horses. Many of the skills once learned out of necessity are being lost.

The 4-H Ranch Horse program was established to help preserve these skills and traditions. Its purpose is to teach safe, appropriate techniques for using horses on a ranch or feedlot, including:

- Working and handling cattle
- Riding the trail
- Roping in a pen
- Handling horses from the ground
- Demonstrating equine obedience and horsemanship skill

Members also learn to identify and use ranching equipment and tools, and basic cattle management practices.

4-H Ranch Horse should not be confused with rodeo. Ranch Horse work is not about speed. It is about skill, technique, and horsemanship. The 4-H Ranch Horse events in the Oregon program were designed to promote the skills a person might need on a working ranch.



Photo by John C.H. Grabill, 1887

American cowboy, circa 1887.

The Oregon 4-H Ranch Horse Manual provides information specific to the Ranch Horse project, but you won't find everything you need to know about ranching in these pages. Work with experts throughout our state so they may share their knowledge and experience, and keep tradition alive.

Use this manual along with the following resources: *Oregon 4-H Ranch Horse Contest Guide* (Oregon 4-H 13131)

Oregon 4-H Horse Advancement Program (Oregon 4-H 1302R)

4-H Horse Project, PNW 587 (Oregon 4-H 130)

4-H Beef Resource Handbook, Ohio State University Extension Service, 4-H 117R (Oregon 4-H 1410)

Other resources include:

4-H Horse Contest Guide, PNW 574 (Oregon 4-H 13011)

4-H Colt and Horse Training Manual (Oregon 4-H 1303)

4-H Horse Judging Manual, PNW 575 (Oregon 4-H 1308)

All 4-H horse members can benefit from this program, whether they are “ranch raised” youth or not. Horses, too, can benefit from preparing for Ranch Horse classes. The vaqueros of the past prided themselves on good horsemanship, which meant training a horse to be responsive, willing, supple, trusting, consistent, balanced, and confident. These are desired traits in all types of riding. Participating youth can become better and more diverse horsemen and horsewomen and experience a tradition they might otherwise only read about in a history book.

The Ranch Horse

Top ranch horses are good at many things. They are all-around horses, not specialized for certain events. Perhaps most importantly, they stay calm and relaxed no matter what the situation. They can work quietly around cows, cross bridges, drag objects, open gates, and they don't shy when they encounter a strange obstacle.

More characteristics of a good ranch horse include:

- Good manners
- Soft mouth
- Responds well to a light rein, especially when turning
- Holds head in a natural position
- Stays under control of the rider, even when working at speed

These characteristics would be considered faults:

- Exaggerated opening of the mouth
- Hard or heavy mouth
- Throwing the head
- Pulling on the bit
- Halting or hesitating when approaching cattle or obstacles
- Rearing, bucking, kicking
- Disobedience

Ranch horse maneuvers

A good ranch horse keeps its feet under it at all times. It can stop well and perform rollbacks and turns on the haunches. It does not necessarily need to be able to perform sliding stops and spins, because these are not usually part of everyday ranch work.

Following are descriptions of specific maneuvers that might be required in a Ranch Horse class.

Gaits at various speeds

4-H members may be asked to perform fast or slow circles at the jog or lope. The phrase "with energy" may also be used. Members are expected to demonstrate true and natural gaits and may be asked to lengthen or shorten stride or pace. With all increases in speed, the horse must remain controlled and obedient. The rider's ability to

demonstrate a decrease in speed may also be an important element in scoring.

Back up

The back up should be resistance-free, fluid, and smooth. It should be done with enough energy to appear as if there is somewhere to go, but not fast enough to cause injury. The horse should back freely until the rider tells it to stop.

Circles/Figure eights

Circles should be done on the correct lead and well off the arena wall. In a figure 8, right and left circles should be the same size with a common center line. The horse should lope freely with minimal rein contact.

Haunch turns

Haunch turns are not spins, but they should be done with energy and impulsion. The haunch turn must have forward motion, with the nonpivot hind foot moving around in front of the pivot foot.

Rollback

Rollbacks are the 180-degree reversal of forward motion. From an increased speed, the horse comes to a stop, rolls (turns) the shoulders back to the opposite direction over the hocks, and departs in a lope, all as one continuous motion with no hesitation. A slight pause is acceptable and should not be judged as hesitation. The horse should not step ahead or back up before rolling back.

Stops

Perform a proper, balanced stop with the rear of the horse engaged and ready to carry out the next maneuver. An exhibitor could receive a serious penalty for a horse stopping on the front. Stopping should be done in response to a light rein.

Flying lead changes

Junior members are not required to perform flying lead changes. Senior members may be required to perform a flying lead change. The

change should be done at the point indicated in the pattern, with no change in speed, and the horse should change front and back in one stride.

Open and close a gate “in-hand”

There are many philosophies about the correct and safest way to open and close a gate while leading a horse. First, keep in mind that there could be livestock on the other side of the fence. This would suggest that you push the gate away from you (when possible) so the cows don't get out.

You should not let go of the gate, so lead the horse from the side nearest the latch. Try to stay to the side and not trap yourself between your horse and the gate.

Old-fashioned wire gates are often found on ranches. These use a handle and leverage to pull the wire gate tight. Use special caution with this type of gate so it does not become tangled with you or the horse. If you are building a gate of this type for practicing, do not use wire. Orange barricade safety fence attached to wood posts makes a much safer simulation.

Backing and leading straight/around/through obstacles

When you prepare to negotiate an obstacle, think about a few basic principles. When possible, unless you are told otherwise, lead from the correct side. Think about how your horse may react. For example, if you're going over a narrow bridge next to a fresh hide that is on the right side of the horse, you may want to position yourself on the off side to lead past the hide. This way, if the horse spooks away from the hide, the handler will not be pushed into the “water.”

As you consider where you should position yourself, consider what a real obstacle may entail. For example, if you are to back between logs that simulate two steep banks or large fallen trees, then you must figure out a way to stay with your horse between the logs and be as safe as possible.

Loading in a horse trailer

Trailers should be stock type, have safe flooring, and be in good repair. Of course, you should never load into a trailer that is not securely attached to a tow vehicle.

Be patient with your horse, as this is a new and different trailer. Lead your horse from the side and, when leading in, use caution as the horse steps or hops into the trailer. Allow your horse to settle before tying. Or, if you prefer to use a divider without tying, secure the halter rope so it cannot wrap around wheels or be stepped on or pulled by the horse. Depending on the type and style of trailer, use the safety door and/or dividers properly. Work safely and confidently around your horse.

Negotiating challenging terrain

Depending on the challenge, riders will want to vary their seat and leg position. If the horse is going down a steep incline, you may want to lean back slightly with your legs slightly forward. Going up an incline, the opposite may be true: you may want to lean slightly forward without getting your legs behind you.

If the terrain is rocky or filled with obstacles, be patient and work slowly. Challenge your horse to find the best route without letting it wander from the path you want to take. If the terrain is wet or slick, use caution. Be sure your horse remains calm with its feet securely under it. Move slowly and deliberately.

Ground tying

A skillful ranch horse knows how to ground tie. Ground tying is when you drop your lead rope or reins on the ground and the horse stands quietly, without moving, when you leave. There are many times that you might have to dismount to fix a fence, check a cow, move a log, or do some other task, and your horse must stay put until you are done.

It takes time and patience to teach a horse to ground tie. Before you begin working on this skill, be sure the horse knows how to stand still when tied to a solid object. Only when the horse can stand patiently tied to a post for some time should you begin teaching it to ground tie.

Start your training with a halter and lead rope rather than a bridle and reins. (Reins break more easily than a lead rope and are more expensive to replace.) Use a 10- to 12-foot rope, long enough so the horse will step on it if it starts to walk off. When the horse steps on the rope, the rope pulls on the halter, causing the horse to stop.

Practice in an enclosed area. To help you be successful, make sure there is no grass to tempt the horse to graze and wander off. If there are any bothersome insects around, spray your horse with repellent. Flies can distract your horse and cause it to stomp its feet or move to get away from them.

Make sure the horse is standing comfortably and is balanced before you drop the lead to the ground. If your horse doesn't start somewhat square, it will need to move to get itself balanced. You are trying to teach it to stand still, so give it the best chance to succeed.

Drop the lead on the ground directly under the halter. Say "whoa" and walk a few feet away. At first, only leave the horse's side for a few seconds. When it stands still, praise it. When you are starting to train, don't punish the horse if it moves. Instead, return it to the same spot and balance it again.

As the horse learns to stand, slowly increase the amount of time you are away from it and the distance you go. Eventually, you should be able to leave your horse for at least 5 minutes and be out of its sight without it moving. Only then should you try ground tying in an open area.

Be consistent in your training. Be sure you don't let the horse move at all, not even small steps. Correct it each and every time. Remember, it can take a long time to teach a horse to ground tie. Don't expect to do this in a day or even a week. Be patient and do a little bit each day.

Hobbling

Hobbles restrain a horse by fastening its front legs together. Cowboys of the American Old West used hobbles so their horses could graze at night and still be close by in the morning. When a horse is hobbled, it can move short distances but usually can't run too far away.

A horse that is trained to hobble is less likely to panic if its feet get caught in something (like wire or brambles). Instead, since it has been taught to accept pressure on its legs, it will stand quietly until help arrives.

Hobbles can be made of leather, cotton rope, or synthetic materials. They come in many different styles and go by a variety of names. They can be tied, buckled, or wrapped around the front legs of the horse, either on the pasterns or cannon bones.

Before you teach a horse to hobble, be sure you have done the necessary groundwork with it and earned its trust. Most horses do not like having their feet restrained, and some may panic. Work in an enclosed, safe area with soft ground in case the animal falls. It's best to hobble your horse after a workout, when it is tired and less likely to misbehave.

Start by getting the horse used to the feel of a rope around its legs. Put a rope around one leg and make the horse stand still. Repeat with the other leg. Only when the horse is relaxed with this should you attempt to fasten hobbles.

The first time the horse is actually hobbled, it may fight the restraint. In case it rears, kicks, or falls down, be sure you stay alert and out of the danger zone. If you can, let the horse work through the fight by itself. Usually, after a few minutes, it will realize that it's better to stand still than to fight the restraint.

Because some horses can panic, there is potential for injury both to the horse and to you. For this reason, it's best to have an experienced person help you train your horse to hobble.

Working Cattle

On a cattle ranch, the main source of income is beef. So, ranchers work and handle their cattle carefully. When cattle are handled roughly (such as chasing them or running them around), they lose weight. Since beef is usually sold by the pound, this means the rancher loses money.

Handling cattle roughly is bad for several other reasons.

- Running cattle causes them stress, which increases their heart rate. It takes 20 to 30 minutes for their heart rate to return to normal.
- Stress decreases reproductive ability.
- Stress has a negative effect on the immune system, which can lead to illness.
- Cattle handled roughly in the chute or alley can be bruised, which can damage the carcass and diminish cutability.

All of the above are bad for business. That's why in the 4-H Ranch Horse program, members are encouraged to work cattle slowly and quietly. Cutting, reining, team roping, and team penning competitions are fun and exciting, but they are not ranch work. Those competitions are designed to show the speed, agility, and "cow sense" of the horse plus the skill of the cowboy. Ranch work is done to produce a product for market: beef.

Moving cattle

To be successful at working cattle, you must develop an understanding of their nature. They are herd animals, and instinct drives them to stay together. In the wild, they are prey animals; so, like horses, flight is their automatic response to threat. Cows perceive a rider as a threat, so their instinct is to run away.

Vision

A key to handling cattle is the nature of their vision. Cows' eyes are positioned on the sides of their heads, which gives them two blind spots: one directly behind and one directly in front of them. Therefore, when you work cattle, you

need to position yourself off to the side so they can see you.

Not only can the cows see you better if you are off to the side, but it's safer for you, too. If you are too close to the cow and it decides to turn into your path, it could collide with your horse and cause an accident. Keeping some distance between you and the cow also gives you some room to maneuver if the cow suddenly stops or turns away from you.

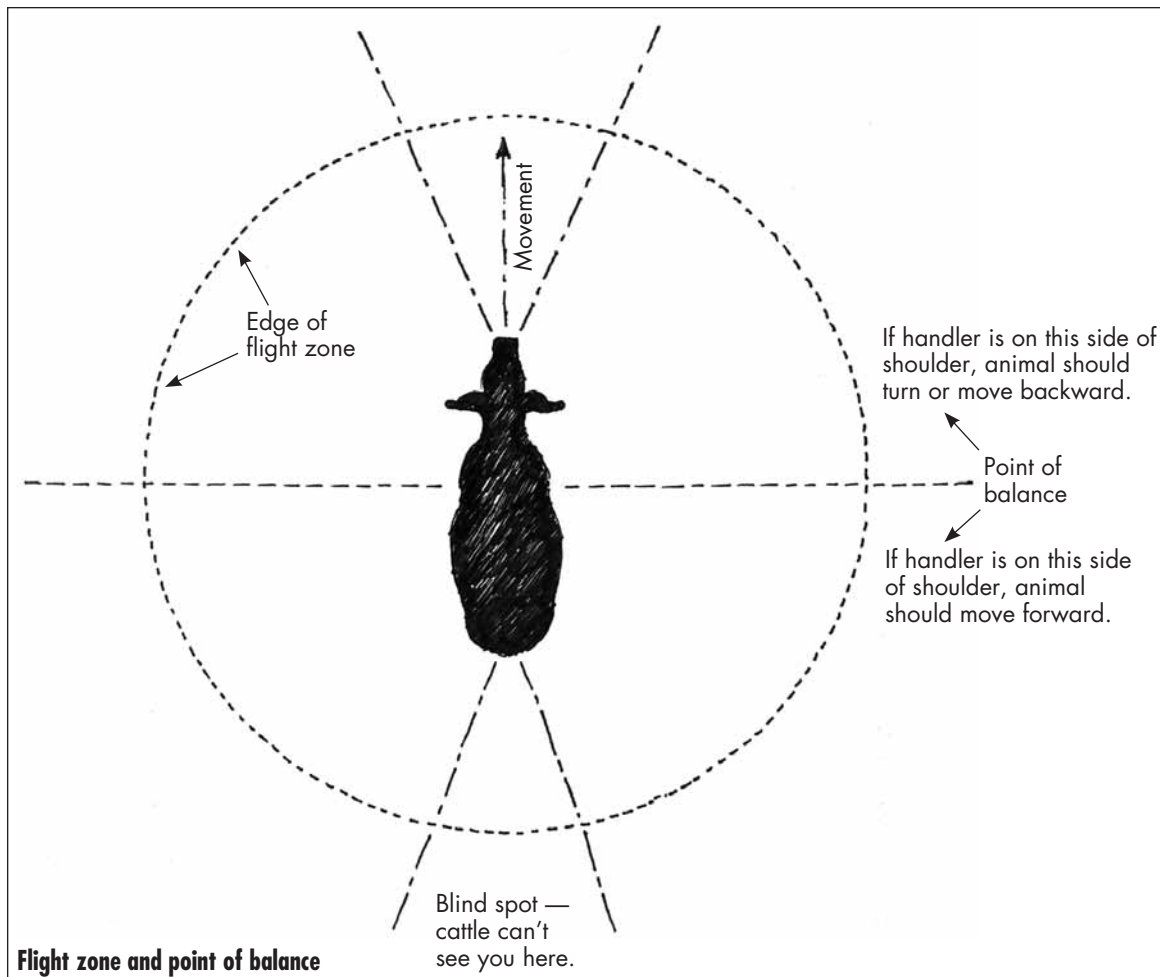
The flight zone

Every animal has its own individual **flight zone**, the personal space or distance at which that animal will move away. The size of an animal's flight zone depends on many things. An animal that is used to people and that has been handled often and gently may have a very small flight zone. An animal that has seldom seen people may have a much larger one. Flight zones tend to get larger when animals are excited and smaller when they are calm. Also, flight zones usually increase when you approach from the head.



It is important to move into the herd slowly to keep the animals as calm as possible.

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If you spend time watching cattle, you will begin to recognize signs that tell you how an animal will react. Quiet animals that look bored, chew their cud, or wander around casually have smaller flight zones. Nervous animals that pace the fence looking for a way out have larger flight zones. They carry their head higher, and they are jumpy and irritable. Very nervous animals drop their heads, twitch their tails, and sometimes come straight at you. It's best to give this type of animal lots of space and let it find the gate — it usually will.

Whether you need to move an individual animal or a small group, your position is important. Cows move in response to **pressure**; that is, they move when you penetrate their flight zone. Moving in and out of the flight zone is more effective than maintaining constant pressure on the cow. And, cattle will stay calmer if you always work on the edge of the flight zone rather than moving deep into it.

In addition to a flight zone, animals also have a **point of balance**. For cattle, the point of balance is the shoulder. To move a cow forward, you need

to enter the flight zone from behind the point of balance. To back the cow up, you need to be in front of the point of balance.

The best way to learn how to move cattle is to watch them and to practice with a fairly quiet animal. Follow it around in a corral. Move toward its shoulder, and notice at what point it begins moving and when it stops. Notice what happens when you get ahead or in front of it. See what happens when you get behind it. With practice, you can anticipate how different cows will react, and you can adjust your movements to get them to quickly do what you want them to do.

Remember, **safety first**. If cattle are agitated or aggressive, it is best to back off for a while and let them quiet down. There is no profit in getting yourself, your horse, or your cattle hurt.

For more in-depth information about handling cattle and facilities for working them, you can download the Cattle Producers Library publication *Cattle Psychology During Handling and Corral Design* (CL792).

Cattle breeds

There are many different breeds of beef cattle and many **composites** (or hybrids) of those breeds. They differ in size, muscling, milking ability, carcass traits, and hardiness. All breeds have strong and weak points. No one breed is ideal for all situations.

“Hybrid vigor” is the positive result of crossing two or three breeds. The cattleman gets the best qualities of the different breeds in one package!

Modern beef cattle breeds are divided into two types: *Bos indicus* and *Bos taurus*. *Bos indicus* are humped cattle that originated in south Central Asia. They are adapted to heat and humidity. Breeds include Brahman, Brangus, Beefmaster and Santa Gertrudis.

Bos taurus cattle are divided into two categories: British breeds and Continental breeds. Continental breeds, also known as Exotics, originated in Europe. They are generally large, lean, muscular and are known for weight gain and cutability. Breeds in this category include Charolais, Limousin, and Simmental. British breeds (also known as English breeds) originated in the British Isles. They are the foundation of beef cattle herds in the United States. British breeds are smaller than Continental breeds, but they have an increased fleshing and marbling ability. British breeds include Angus, Hereford, and Shorthorn.

See the *4-H Beef Resource Handbook* (Ohio 4-H 117R) for more detail, or contact the appropriate breed associations.

Signs of illness and health

A good livestock manager should know the signs of a healthy cow: she looks content, she eats well, and she spends time after eating lying down, chewing her cud. A cow that's not feeling well looks uncomfortable and stands with her head down or her back arched with belly tucked up. Other visible signs of illness are labored, fast, or heavy breathing; heavy mucus discharge from the nose; and blood in manure.

Vital signs are important indicators of health or illness. The three standard vital signs in cattle are **body temperature**, **pulse** (or heart rate), and **respiratory rate** (number of breaths per minute). Normal measurements for cattle at rest are:

- Body temperature of 100.4°F to 103.1°F

- Pulse (heart rate) of 40 to 70 heartbeats per minute
- Respiratory rate of 10 to 30 breaths per minute

Keep in mind that stress of any kind causes changes in the body. Heat, excitement, exercise, age, and pregnancy are all variables that can affect the vital signs of a healthy animal.

After you spend some time around cattle, you will notice when one “just doesn't look right.” Watch her closely for a few days.

Healthy pregnancy and calving

In a cow-calf ranching operation, calving is a big part of business. It is important to know how to spot potential problems, and how to prevent those you can.

Preventing disease

Follow a program of regular vaccinations. A few of the common vaccines are for vibriosis, leptospirosis, trichomoniasis, and clostridial diseases. A brucellosis vaccine is required for all breeding heifers before they are yearlings. Check with a local veterinarian. He or she will know which diseases are a problem in your area.

Routine de-worming at least once per year is also important.

In addition to a vaccination program and regular de-worming, good sanitation, nutrition, and management practices are a must. Many diseases in cows and calves can be prevented by proper nutrition and clean, dry facilities.

Breeding

Producers of breeding stock keep careful records on their animals. Two important tools they use to select bulls for their operation are birth weight and Expected Progeny Difference (EPD).

A “calving ease” bull is one who was a light calf himself, and genetic information about his ancestors indicates he should produce light calves. Many commercial cattle ranches use a low birth-weight EPD bull for their first-calf heifers.

Expected Progeny Difference is calculated by each breed association. EPDs are available on both registered males and females. The numbers represent the expected difference of an individual

animal's offspring when compared to the average calf from that animal's breed. (EPDs are not used to compare animals from different breeds.)

EPDs compare information about birth weights, weaning weights, yearling weights, and maternal values such as milk and maternal weaning weight (weaning weight of the animal's daughter's calves). In many associations, carcass data (such as marbling, rib-eye area, and back-fat) are also evaluated by EPDs.

Gestation and birth

A first-calf heifer should be bred to a "calving ease" bull for her first calf. Most cows have their first calf when they are 2 years old.

The gestation period for cattle is 9 months. Most healthy, mature cows have no problems calving. You need to watch first-calf heifers more closely, as they are often smaller and may need assistance.

In a normal presentation, the front feet and nose of a calf appear first. The soles of the feet face down and the fetlock joint bends down.

Branding

Branding cattle is the most common way to identify ownership. It is very difficult to prove that an unbranded animal (called a **slick**) belongs to you.

The practice of branding animals is very old. Ancient Egyptian hieroglyphics from around 2700 BCE show people branding oxen. In the American Old West, many ranchers grazed their cattle together on the open range. Brands were needed during roundups to separate out each individual rancher's stock. Even though open range is not as common today, branding is still the most practical, cost-effective way to identify cattle and deter theft.

Most states require that brands be registered. A registered brand includes both the design of the brand and the location of the brand on the animal.

Cattle are usually branded on the hip or shoulder. Branding on the ribs is not as common as it used to be, because it damages too much of the hide.

Reading a brand

Brands are made up of capital letters, numerals, symbols, pictures, or a combination of these.

Common symbols are:



Common terms are:



When reading or "calling" the brand, there are three simple guidelines to follow:

1. Read left to right
2. Read top to bottom
3. Read from outside in

Examples:



Branding techniques

Hot iron

The most common type of branding is done with a hot iron. The iron is heated in a wood or gas fire. For branding a few animals in a chute, electric hot irons are also available.

Heat the iron until it is the color of ashes. A red iron is too hot and can cause a hair fire and



Hot iron branding.

Amy Derby, © Oregon State University

poor brand. An iron that is too cool will not burn a permanent scar.

Restrain the cow, so it cannot make any sudden moves. Apply the hot iron to the proper place on the cow using firm pressure and a rolling motion. Apply for the amount of time it takes to burn the hair and create a permanent mark, usually around 5 seconds.

Burn only the outer layer of skin. If you apply the iron for too long, you will damage the skin's underlayers. This injury takes a long time to heal and can cause infection.

Never attempt to brand a wet animal. The iron will scald, causing a sore and a blotched or useless brand.

Freeze branding

Another method of branding uses a freeze iron. The iron is super-cooled, usually by keeping it in liquid nitrogen.

Shave the animal's hair at the brand site, and apply the iron to the bare skin. Freeze branding damages the hair cells that produce pigment, so the hair grows back white.



Amy Derby, © Oregon State University

Applying a freeze brand.



Amy Derby, © Oregon State University

A freeze brand after 1 year.

Freeze branding does less damage to the hide and can be more visible. On the other hand, it is slower, more expensive, and is not always considered a legal cattle brand. Freeze branding is more often done on horses than on cattle.

Other owner identification methods

Earmarks are also used for ownership identification. They are made by cutting a notch or slit in the animal's ear with a knife. The type and location of the mark is registered in most states.

Dewlaps or waddles are also ownership marks, though they are less common today. A waddle is formed by cutting a piece of skin so that it will grow as a distinctive hanging mark on a certain part of the animal's body (typically the nose, jaw, neck, or shoulder). Waddles also are registered in most states.

Identifying individual animals

Successful ranchers need records on individual animals so they can make informed management decisions. These records range from a simple list of the cattle they own to complete breeding, calving, or performance data. Ranchers gather data on production, calving history, age, and genetic information such as bloodlines or pedigree.

The most common way to identify individual animals is with plastic or metal ear tags. Each tag has an identifying number or code for that animal, using a system determined by the owner.

There are several different types of applicators or **taggers** you can use to apply ear tags. In general,



Amy Derby, © Oregon State University

Ear tag.

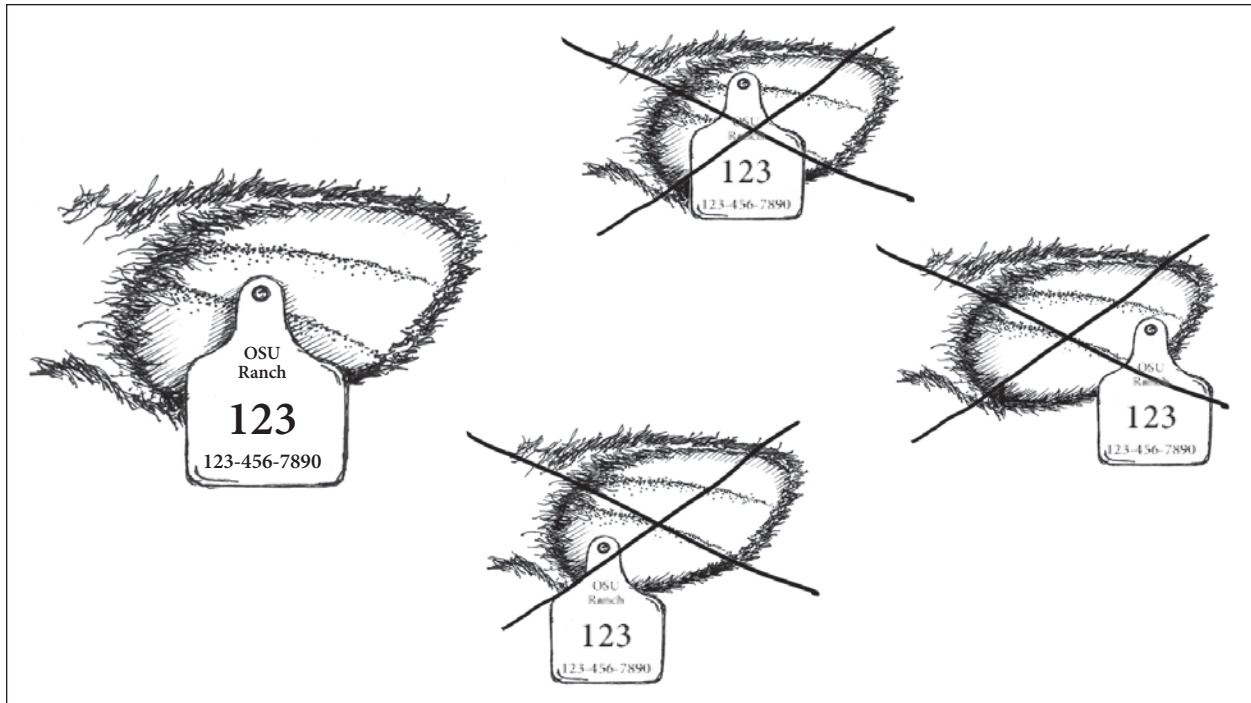
you load one part of the tag on one side of the applicator and the second part on the other side. Place the applicator over the animal's ear and press quickly and firmly together.

Apply the ear tag in the center of the ear between the two veins.

Ear tags do have drawbacks: they are easily lost, and they tend to fade after several years, which makes them hard to read.

State and national agencies as well as veterinarians prefer that owners place ear tags in the animal's left ear. Federal ID numbers and veterinary tattoos are done in the right ear, and these numbers must not be blotched with an ear tag.

Study the *4-H Beef Resource Handbook* (Ohio 4-H 117R) for detailed information about tagging beef cattle.



Ear tag placement with veins

Ranch Horse Roping

A rancher uses a rope mainly to handle cattle, so a cowboy or cowgirl's ability to handle a rope with skill is important for working cattle on a ranch. Ranch horse roping is generally done in a slow, deliberate manner, often from a standstill or at a walk, in order to keep the animals as calm as possible.

Traditionally, one person throws a loop around the head of an animal (called **heading**) and another person ropes the two hind feet (called **heeling**) to temporarily immobilize the animal between the two ropes. This gives the cowboys a chance to effectively doctor, brand, or do whatever needs to be done in the daily routine of ranch work.



Dana Martin, © Oregon State University

Calves are immobilized between the head and heel ropes to make it easier for cowboys to doctor and brand them.

It takes hours of practice to become a proficient roper. Learning starts with basic handling of a rope. Basic steps include building a loop, swinging, throwing, and capturing the target. It is essential that you perfect these skills on the ground before trying to rope on horseback.

In the 4-H Ranch Horse project, 4-H members learn the roping skills they need in order to be helpful, effective, and safe workers on a ranch. Members learn proper techniques of handling a rope and rules of safety to limit risks when roping, particularly when on horseback.

Choosing and using a rope

Rope features

Ropes originally were made of rawhide or leather. Now, they are often made of nylon or nylon-poly blends.

Ropes come in various lengths, lays, sizes, and colors. As ropers become more experienced, the **feel** of the rope becomes the deciding factor for which type of rope they choose. A rope with the right feel is the one that coils and swings in a way that feels most natural to the individual.

Many features affect the feel of a rope, including:

- **Length.** Choice of length depends on use and preference. Rope lengths for young ropers generally start at 30 feet. A head rope is 30 to 32 feet; a heel rope is 35 feet. Ranch ropes are available in 40- to 70-foot lengths and can also be ordered to meet specific requests.
- **Lay.** Lay refers to the amount of twist in the strands of a rope. It affects how stiff or soft a rope feels and may range from extra-soft to hard. A person's body type, strength, and style determine how soft or stiff a rope should be.
- **Size.** A rope is sized according to its diameter. Sizes include $\frac{5}{16}$ -inch, $\frac{3}{8}$ -inch scant, $\frac{3}{8}$ -inch true, $\frac{7}{16}$ -inch scant, and $\frac{7}{16}$ -inch true. For example, a $\frac{3}{8}$ -inch true rope has a diameter of $\frac{3}{8}$ inch; a $\frac{3}{8}$ -inch scant rope has a diameter just slightly less than $\frac{3}{8}$ inch.

Although an individual's strength determines which length, lay, and size of a rope to use, it is generally recommended that young and less strong ropers start out with a 30-foot, soft, $\frac{3}{8}$ -inch scant rope because it is easier to swing. Again, the feel of the rope is the determining factor in choosing the rope that works best for each individual.

It is also important to "break in" your rope. Some methods include dragging a new rope around the arena to remove some of the waxy finish, and stretching it to give it a better feel.



Dana Martin, © Oregon State University

Parts of a rope

The small, reinforced loop at the end of the rope is called a **hondo** or **honda**. The **tail** of the rope passes through the honda to create a loop that slides easily and tightens quickly to catch an animal.

Coiling a rope

Start with the tail of the rope in your left hand. Run your right hand about 3 feet down the rope and shape a coil, and hold the coil in your left hand. Repeat this process with the next coil and continue on, making sure the coils are the same size. If you make the coils too small, there will be more for you to hold. Practice with a professional to learn proper technique. (Left-handed ropers should reverse the hands in the above instructions.)

Building the loop

When your rope is coiled, hold the rope near the honda with your thumb underneath and flip the rope back over to form a larger loop. Be sure to shape it the same way the rope was coiled so it won't kink.

The **spoke** is the distance between the honda and your hand that's holding the loop, which is made up of both the loop and the slack. When you hold your loop, the length of spoke varies depending on preference. Beginning ropers usually

do better with less spoke, because it is easier to swing the rope. A general rule for determining your spoke is to make the distance between your hand and the honda be about an arm's length.

There are techniques you can practice that can help you be more proficient in building a loop, making it larger, and avoiding kinks. It is important to work with a professional who can help you learn proper technique and avoid creating bad habits.

Hints for swinging a rope

- Swing the loop overhead (not too high), rotating your hand and leading the front part of the rope into the swing with your index finger.
- To avoid creating a figure eight in your loop, do not swing a rope with the heel of your hand up.
- Develop a rhythm in the swing of your rope.
- Practice on a dummy by positioning yourself and keeping your shoulders parallel to the dummy.



Dana Martin, © Oregon State University

This picture shows this cowboy's preferred **length of spoke** (the distance between the honda and the hand holding the loop).

- Look at your target and use a strong, forceful throw, releasing your rope and following through with your whole arm.
- When your loop has encircled its target, pull up the slack in the rope.

Roping from your horse

Roping cattle from horseback is a skill that can take months of professional training and years of experience to achieve. As with other equestrian disciplines, new ropers will benefit most by working with an experienced cattle and rope horse. New ropers without experienced horses will want to consider getting knowledgeable instruction to be safe and proficient.

If you begin with a horse new to roping, it's important that it first be completely comfortable with cattle. This means that the horse is comfortable surrounded by cattle that are running, walking, or kicking. Spend many hours in and around cattle with your horse. Learn how cows move and react (review the "Working Cattle" section in this manual).

Remember, 4-H Ranch Horse roping is designed to give members a good start toward being helpful in a ranch setting. Members learn basic techniques by working on basic roping in a competitive arena. It is **not** team roping or breakaway roping for speed.

Getting your horse used to the rope

As with anything new, this takes time, effort, and practice. Show your horse the rope from the ground first. Throw it, drag it, and pull it around the horse's feet and under its body (see the *4-H Colt and Horse Training Manual*, 4-H 1303).

When you're sure the horse is completely comfortable with the rope, then mount up and do the same thing. Throw the rope, drag it off both sides, and have it lay against the horse on both sides, front and back.

Once your horse is completely comfortable dragging just a rope, begin dragging objects (such as stumps or logs).

Then, try roping a **simulator** (a roping dummy). Roping a simulator gives your horse a chance to follow and you a chance to learn positioning without the complication of cattle. Simulators vary in type, style, and design (for example, some are pulled by horse, some by ATV). You can use

any kind of simulator to teach your horse to **track** (follow) and catch, tighten the slack, and other skills. Be very sure both you and your horse are proficient with the roping dummy before you move on to live targets. Work with an experienced instructor to be sure you learn safety and proficiency.

Safety is important when roping from your horse.

- Be confident in your roping skills on the ground before you try to rope on horseback.
- It takes time and training before a horse is comfortable around livestock and a rope. Beginning ropers should use a seasoned horse that has roping experience.

Dallying and dragging

A **dally** is several wraps of the tail of the rope around the saddle horn after an animal is caught. A dally is used to help hold or stop an animal or to drag obstacles.

The safest saddle horns for dallying are wrapped with a non-slip substance. Many use rawhide or a piece of rubber tubing.

Dallying for dragging should be done with the hand on the same side as the rope. The rope comes through the bottom of the hand; then, with the thumb up, make one or two wraps around the horn, then toward the front pocket on the same side. Hold the coils, tail of the rope, and the reins in the opposite hand. If you need to change direction (drag backward after dragging forward), then un-dally, reposition, and re-dally to drag.

The length of rope between the horse and the dragged item should not be so short that the item could interfere with the rear legs of the horse, nor so long that it would be difficult to drag the item through obstacles. When backing and dragging something toward the horse, be sure the rope is long enough so you can see what you are dragging out in front.

Important dally safety rules:

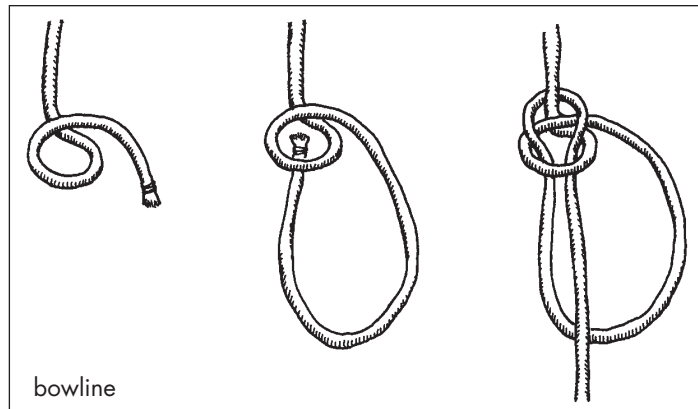
- Keep your dallying thumb up while dallying. If your thumb is not up and out of the way, it can get caught in your dally and be cut off as the rope tightens.
- Keep your eyes on the animal you are roping. If you look down at your dally, you may not be able to react to any sudden movements from the animal at the end of your rope.
- If something happens and you sense danger, undally immediately.

Tying knots

There are several important knots you need to know how to use when working with horses and cattle.

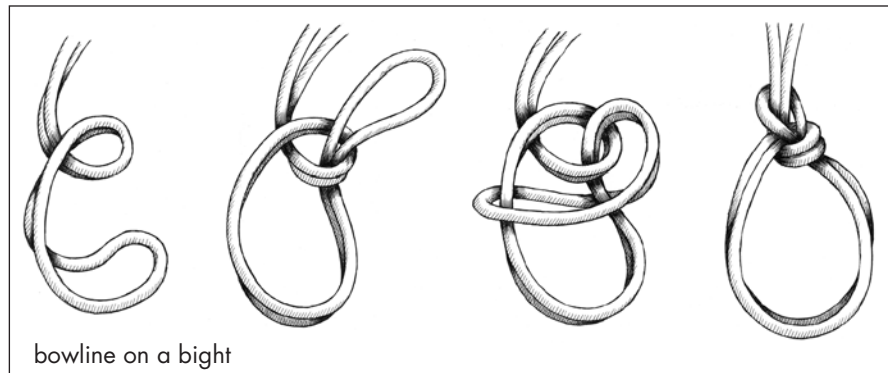
Bowline knot

Use this when a knot should not tighten, such as when you tie a neck rope for extra safety or a heart girth rope for security.



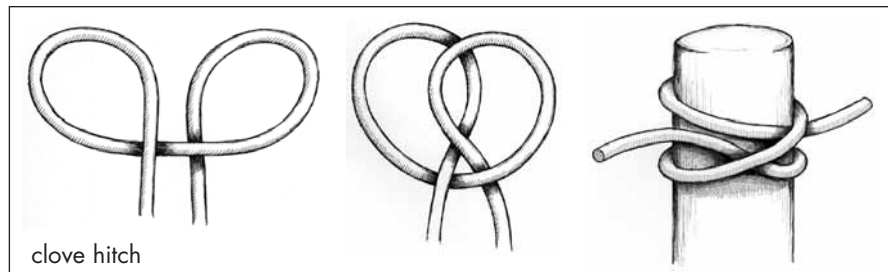
Bowline on a bight knot

This is very similar in use to the bowline knot, but this form of the knot does not require a free end to tie in the loop. This knot has many uses around the home, farm, or ranch and is very useful for putting secure loops in a highline.



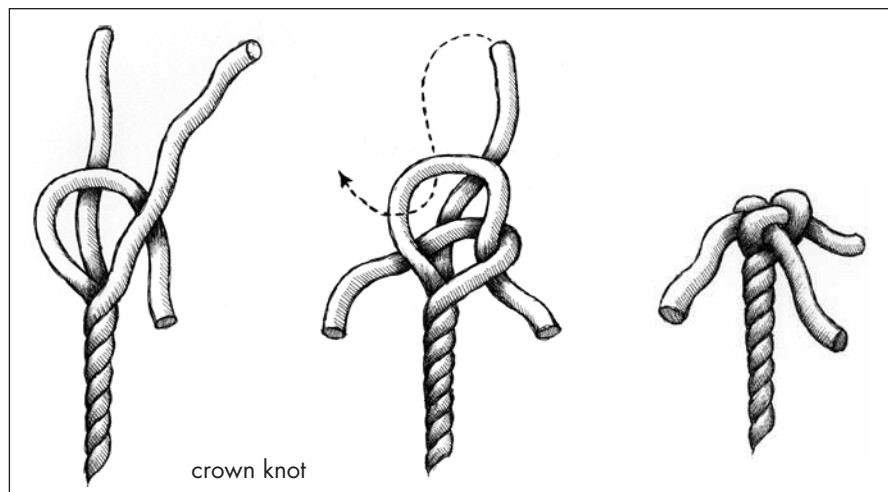
Clove hitch

This hitch is used to attach one item to another. It requires the use of a half hitch or other knot to hold. It both slips when needed and binds.



Crown knot

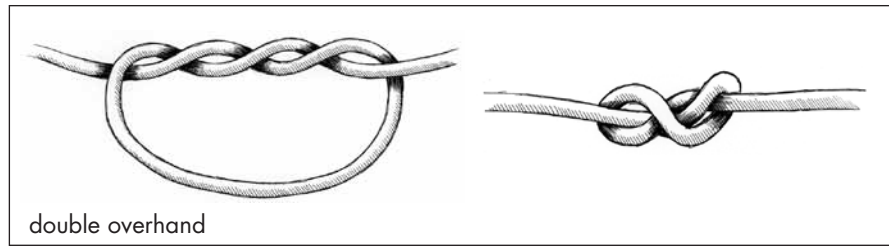
This is used as a finishing knot on the end of a rope. It creates a button on the end, forming a stop or anti-fray knot. A crown knot is commonly used with a honda knot to secure the end.



Tying knots, continued

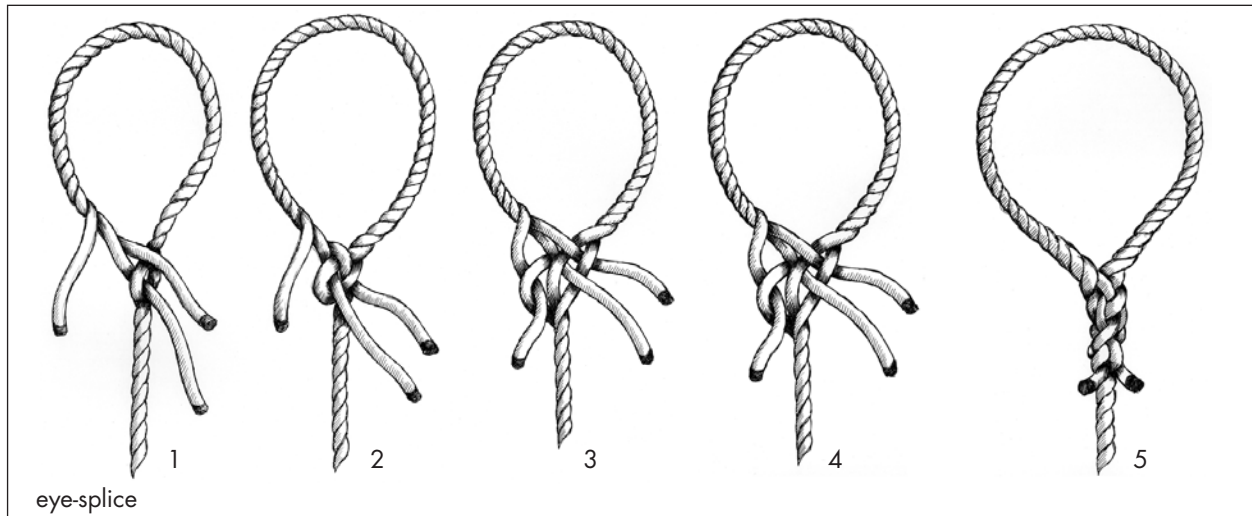
Double overhand knot

This is used primarily as a “stopper” knot on the end of a rope, because it is fairly large and bulky.



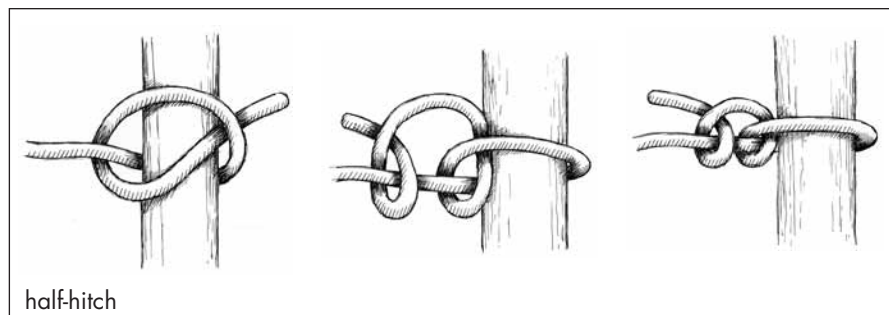
Eye-splice

This knot is most commonly used to make halters or attach ropes without snaps.



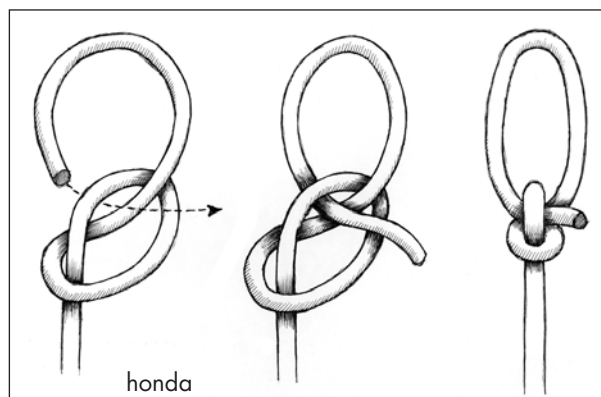
Half hitch

This is a very simple, fast hitch used to add strength to other knots. It is sometimes used as a primary fastener.



Honda knot

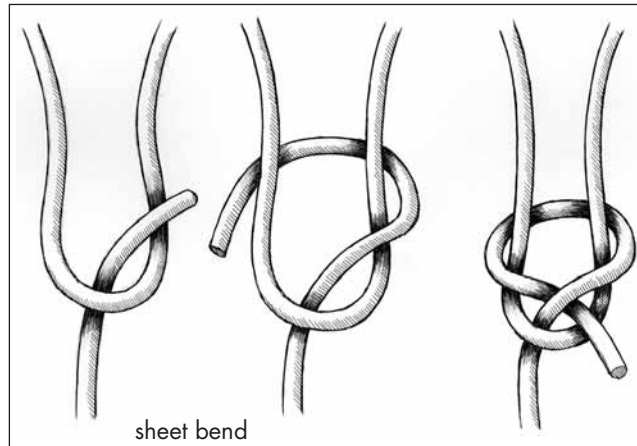
Tie this knot if you find yourself needing a lariat rope.



Tying knots, continued

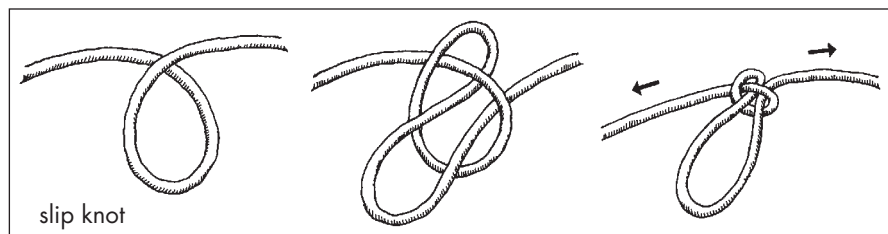
Sheet bend

This knot is used to join two ends of unequal size to form one joined rope that can then be pulled or loaded. When the sizes are very different, you can simply double the wrap to make it more secure.



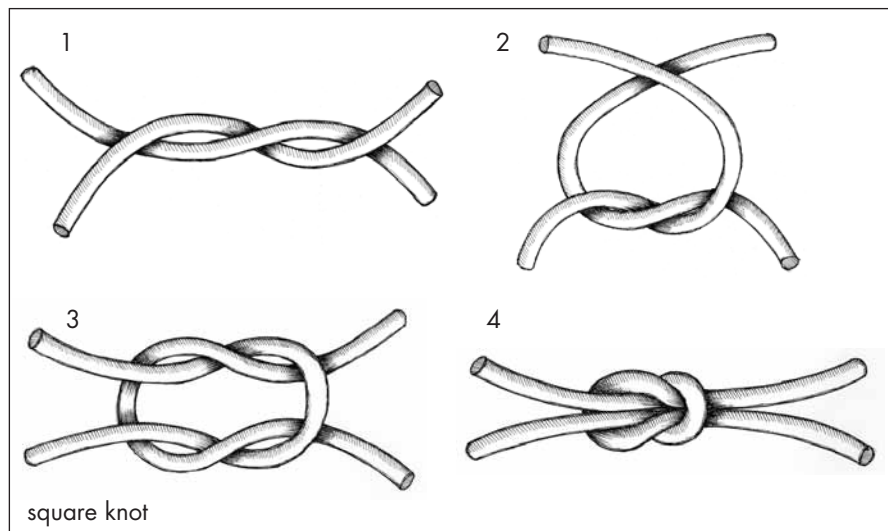
Slip knot

Use this knot when a quick release is necessary, especially when tying to a stationary object. In order for the knot to be truly a quick release, the tail may not be passed through the loop. (That step helps keep horses from releasing the knot on their own, but it cancels the quick release function.)



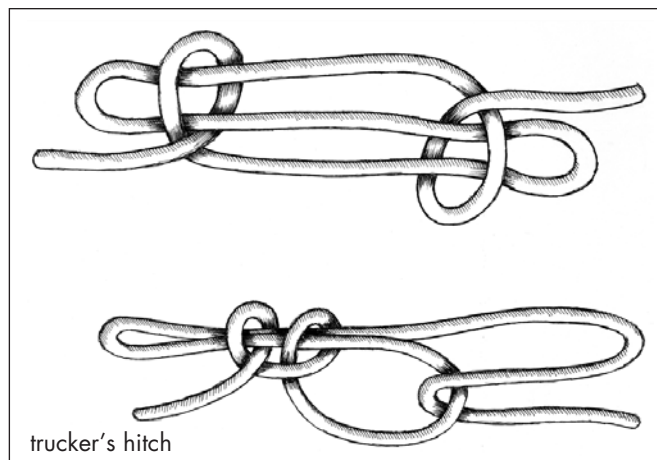
Square knot

This one is similar to a "granny" knot, the knot commonly used to tie shoelaces or ends of ropes or strings. The square knot's advantage is that it is very easy to untie after use. It can be strengthened by adding half hitches.



Trucker's hitch

This "hitch" or combination of knots and purchase points is used to secure loads (for example, on a hay trailer). The trucker's hitch gives you a three-to-one purchase on the bite, thus securing the load very well. This hitch also can be used as an anchor point for other hitches.



Equipment

Safe, usable equipment is important for handling cattle easily.

Good fences are a must. Well designed corrals are an asset. A squeeze chute with an alley is necessary if you will be handling many cattle for vaccinations, tagging, or checking cows to see if they are pregnant.

Veterinary supplies to keep on hand include syringes, balling guns, and medicines such as antibiotics and blood stopping powders. You may also want a livestock thermometer, surgical scissors, and needles.

You may need dehorning equipment. You can use caustic paste when the calf is 1 to 4 weeks old, but it can make calves sick if they lick each other. Horn irons work well when the nubs are small. You also can use scoops or spoons. Larger dehorners are also available. Dehorn animals as young as possible to reduce stress. Horn saws are helpful on an older

animal if the horn is starting to grow into the head or cause other problems.

Castrate calves when they are small. A pocket knife may be all that you need, but other tools are also available. Emasculators crush the tissues above the testicles and stop the blood supply, causing the testicles to drop off. Elastrators do the same thing by placing a tiny rubber ring above the testicles.

Nose tongs can be useful to hold an animal's head immobile in the chute when necessary.

When used correctly, hot shot prods, sorting sticks, and stock whips can be good tools for working cattle, sorting them, or pushing them up an alley. However, these tools must be used sparingly. The goal is to keep cattle calm and relaxed.

You'll need branding irons, either hot or freeze, for ownership identification; tagging guns for ear tags; and a good, sharp pocket knife for ear marking, castration, or ear tag removal.

Ranch Horse equipment list

Become familiar with all of the following items. You should be able to identify them, know what they are used for, and know how to use them.

Branding or other marking

- Branding iron
- Ear tag pliers

Cowboy and cowgirl

- All tack and equipment in the *4-H Horse Project* (PNW 587)
- Batwing chaps
- Chinks
- Hay chaps

Dehorning

- Dehorning iron
- Dehorning saw
- Dehorning spoon
- Electric dehorner

Feed and fences

- Baling wire
- Fence stretcher
- Fencing pliers
- Hay hooks
- Wire cutters

Horses*

- Clinch cutter
- Clinchers
- Crease Nail puller
- Driving hammer
- Easy boot
- Hoof knife
- Hoof nipper
- Medicine boot
- Nail nippers
- Pull offs
- Rasp
- Tongs

Ropes and restraints

- Cow hobbles
- Heading and heeling ropes
- Nose tongs
- Rope for casting cow
- Twitches
- Various types of hobbles

Veterinary

- Calf puller, OB chains and hooks
- Cow magnet
- Duct tape
- Emasculators
- Forcep scissors
- Horn weights
- Implant gun
- Mouth speculum
- Multiple dose vaccine gun
- Needles and syringes
- Paint stick
- Pill balling gun (big and small)
- Scalpel
- Sewing awl for leather work
- Sharpening stone
- Stethoscope
- Stomach pump
- Tattoo set
- Thermometer
- Tooth floating file
- Trocar and cannula
- Tube feeder
- Wire saw (for dehorning or dead calf removal)

*See the *Horse Industry Handbook* published by the American Youth Horse Council.

Ranch Horse Terms

Bad eye: A condition of the eye in beef cattle caused by injury or cancer.

Black Baldy: A cross in cattle, derived from the Hereford and Angus breeds. A Black Baldy is hornless with a black body and white face.

Brand: A mark on an animal to identify and prove ownership, made with a hot or freeze iron. Or, the act of placing a brand on an animal.

Breechy cow: A cow that won't stay in the fence.

Broken mouth: Refers to cows who have lost teeth from age or feed conditions.

Calvey cow: A cow that is pregnant and close to giving birth.

Castrate: To neuter a male animal. Also referred to as "cutting" or "marking."

Cavvy: A herd of saddle horses; or, the saddle string. Also called a remuda, depending on geographical location.

Cinchy horse: A horse that is super-sensitive about having its cinch tightened. It may be prone to bucking, rearing, or sudden, violent shows of temper during the cinching process.

Composite: A new breed or new lines of breeding in which two or more breeds are crossed, with the intention of obtaining genetic superiority not found in any one breed. Used interchangeably with "hybrid."

Dally: Several wraps of the tail of the rope around the saddle horn.

Drag: Riders at the rear of a cattle drive.

Dry cow: A non-lactating cow.

Earmark: An identifying mark cut into an animal's ear.

Estrus: The reproductive phase in a female animal when she is ready to breed.

Foot rot: An anaerobic bacterial infection in the foot that causes lameness.

Hard and fast: Tying the rope to the saddle horn in a way that it cannot come undone.

Hardware disease: A condition created when a cow or horse swallows a metal object.

Leppy: A motherless calf; from the Spanish "la pepita" or little one.

Lumpjaw: A bacterial infection that causes the jaw to swell.

Mastitis: Inflammation of the mammary glands.

Muley: A cow without horns.

Point: The lead position taken by a rider when moving cattle.

Remuda: A herd of horses from which ranch hands select their mounts.

Rock jack: A brace or fence made from wire (usually woven wire) and filled with rocks.

Rodear: Spanish for "to surround." The art of using riders to hold cattle so that they may be sorted or worked without the aid of fences.

Slick: An unbranded animal.

Spoiled quarter: That portion of a cow's bag that has been ruined by infection or injury.

Swing: Riders who position themselves on the outside of the herd while moving cattle.

Wet cow: A cow that is producing milk (lactating).

All drawings of knots on pages 15–17 are © Oregon State University.

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