## CATTLE CARE

## Physiology of Cattle

The average lifespan for cattle is 18 to 22 years, although they can live in excess of 25 years. Because many rescued animals have come from abusive conditions, however, these cattle may have more health problems and a shorter life span than other cattle.

On the average, adult male cattle ("bulls" if not castrated; "steers" if castrated) of breeds such as Angus, Jersey, and Hereford weigh between 1,200 and 1,800 pounds, and adult females ("cows") of the same breeds weigh between 1,100 and 1,500 pounds. Males and females of larger breeds, such as Brahman, Brangus, Charolaise, and Holstein, can weigh 2000 to 2800 pounds and around 2000 pounds, respectively. Many of the larger cattle, such as Holsteins, rarely reach their full weight and height before they are slaughtered, so animals in a sanctuary setting can grow very large as compared to those seen in industry.

The normal body temperature for cattle is between $101^{\circ} \mathrm{F}$ and $102^{\circ} \mathrm{F}$.

## Nutritional Needs of Cattle

Water. Clean, fresh water must always be available to your cattle. Generally, a mature animal consumes between 10 and 20 gallons of water a day, so be sure to use a container large enough to hold that quantity. Consumption is based on weather, so more water should be available in hot weather. We recommend investing in an automatic watering system (available through farm supply stores or the catalogs below) because it will greatly reduce water waste. If you have animals who have difficulty walking, you must create an area to allow them to get to water easily. Dehydration in cattle can be fatal.

Salt and Minerals. Salt and mineral licks should always be available to your cattle. Salt blocks and specially designed holders for them can be purchased at most feed stores. If you are in an area that has selenium-deficient soil, a salt block with selenium is recommended. Trace mineral blocks are also available and, depending upon the soil in the region where you live, may be advisable.

Feed. As ruminants (animals with stomachs that have four chambers), cattle rely mainly on hay or pasture (fiber) to fulfill their dietary needs. Grain is very high in energy and fat, and therefore we do not recommend its use for healthy cattle. If you are caring for older animals who have difficulty keeping weight on due to bad teeth or health issues, however, you may need to supplement their hay or pasture with grain. Altered males can develop bladder and kidney stones when fed grain so other options include hay stretcher pellets, which can be made into a mash for older, thinner animals who have difficulty consuming hay.

Pasture. Pasture should be of a good quality and plentiful because it provides the bulk of the cattle's dietary needs in the seasons it is available. Before giving your cattle access to a pasture, be sure to remove all plants that are poisonous to them. Contact your County Agricultural Extension agent for a complete listing of poisonous plants in your area. If adequate pasture is not available, you will need to supplement with hay.

Adult cattle need 2 to 4 pounds of grass type hay per 100 pounds of body weight daily; use the higher number in severe winter weather. Alfalfa hay is very high in protein and calcium and should be used only for young animals. To avoid hay waste, we suggest the use of a hay feeder. If you are feeding your cattle outdoors, place hay under cover to prevent feed from getting wet, a problem that can be expensive and hazardous to your cattle's health. To locate a source of hay in your area, check with your County Agricultural Extension agent for a listing of hay/straw auctions or look in the farming section of your local paper. Because hay is less expensive per bale when purchased in large quantities, building some type of hay storage structure or loft is well worth the investment. If you have multiple cattle, it is also more cost-effective to use large-bale hay ( 400 to 800 pounds per bale) rather than the smaller bales, which weigh between 40 and 50 pounds, although using larger bales does necessitate the use of a tractor for feeding.

## Handling Cattle

It is important to be careful when working around cattle or any large animal. Although cattle are not usually aggressive, they are very strong and can injure you accidentally when they are performing normal movements such as swinging their heads to the side to swat at flies. Also be alert to where your cattle are stepping so they don't accidentally crush your feet.

Cattle may feel threatened when confined, and some do kick or throw their heads. Do not ever allow yourself to be cornered without an easy way out. A frightened animal or one who feels threatened will often run you into a wall or gate, so always be very aware of your location when you are around cattle. Also, know the cattle you are working with and approach them slowly until you determine whether or not the animal is going to react in a manner that could cause injury.

Generally, you will not need to use cattle chutes for restraint, depending on the animals involved. Instead, we recommend that you halter-train your cattle and use halters regularly for grooming and check-ups so that the cattle become used to them. Cattle are relatively easy to halter-train if you start when they are young, and breeds such as Holsteins and Jersey take well to halter training. We recommend the use of rope halters, available through farm supply stores or catalogs. For beef-breed cattle, cattle you get from cases where they were mishandled and frightened, or any animal who shows signs of aggression, we recommend not attempting to train them with a halter and using a chute system instead in the interests of your safety and the safety of the animal.

To provide extra restraint when using a halter on a calmer cow, you can corner the cow or steer at the hinged end of a gate and then "squeeze" them between the gate and the fence (you should always have an assistant so that one person can lead the cattle and one can work the gate). Then, tie the cow's or steer's halter to a heavy post to prevent the animal from backing up. Position a rope behind them, as well as between the wall and the end of the gate. Some cattle will allow you to handle them without using the squeeze gate method; simply haltering them is often sufficient for many care needs.

By regularly brushing your cattle and running your hands over their bodies and legs, you will get them accustomed to being handled, leading to less stressful handling in the future. One of the most important ways to keep yourself and your animals safe is to know each individual animal and how they react in stressful situations. Cattle who have been through traumatic experiences can be harder to work with and may require the assistance of a veterinarian or someone who is trained to handle them. Handling an aggressive or even frightened animal can be extremely dangerous and is not something that should be attempted without years of training.

## Shelter Requirements for Cattle

Building. Cattle shelters need not be elaborate, but they must be waterproof and draftfree. Depending on the climate in your location, you may need only a three-sided structure with the open side facing away from the prevailing winds.

If you have a totally enclosed barn, be sure it is well ventilated. This is extremely important for both hot and cold weather. If the barn is much warmer than $50^{\circ} \mathrm{F}$ during cold weather, humidity from urine, manure, and body moisture may rise and can cause pneumonia.

Allow at least 35 to 40 square feet for each animal. Always provide your cattle with plenty of clean, dry straw for bedding. Remove damp and soiled straw daily, replacing it with fresh straw. Spreading lime (be sure to use hydrated lime, not feed lime) or other deodorizer/moisture-absorbing product on wet areas before laying down fresh straw will help absorb moisture and prevent the spread of bacteria. Other products are also available, including Sweet PDZ or Stall Dry, which work equally well but are much more expensive than lime. If your barn has a cement floor rather than dirt, provide extra bedding during the winter months. Cement is very hard on cattle, so we do not recommend the use of concrete flooring unless it is covered with a think rubber matting or thick sand.

Fencing. Sturdy fencing and secure gates are a must for cattle. There are many types of cattle fences, including woven wire, wood, electric, and barbed wire. Prices vary greatly, so shop around. Typically, electrical (high tensile) or woven wire (or a combination of the two) is the most practical type to use. Barbed wire provides adequate containment but can lead to injuries if your cattle attempt to break through the fence. Fencing should be approximately 4 feet high, stretched taut, and secured to posts at every 8 to 10 feet. For more high-strung breeds, including Angus or other breeds raised for meat, high-tensile electric fencing is the best choice or a very high-woven wire fence with wooden corral boards. We have found that many of these cattle will jump on fencing and smash it down, but they will not do this with the high-tensile fencing.

Pasture. We recommend 5 to 10 acres of land per cow or steer. The amount of acreage necessary depends on pasture quality, weather, and seasonal factors, as well as the amount of hay you are feeding them. If you have a large number of cattle, you should have multiple pastures so that you can rotate the cattle between them, allowing unused pastures to regenerate.

## Health Care of Cattle

Basic Maintenance. Cattle are relatively easy to take care of, and sanitary housing, good quality pasture, nutritious food, and plenty of sunshine will greatly reduce health problems. Regular brushing will help keep cattle's skin and hair healthy and is usually something they enjoy.

Keeping your cattle's feet properly trimmed and checking for cracks and other problems is imperative to their overall well-being. One of the main causes for euthanasia in cattle is the inability to walk as they get older. Your veterinarian should examine your cattle's hooves to determine if they need trimming or any other care every six months. Hoof trimming should always be done by a professional to avoid injury to the cattle and yourself, but also so that the hooves are trimmed properly. Hoof trimming should be done annually, or bi-annually if your cattle are prone to hoof problems. Maintenance trimming may be needed in between these scheduled times. If you intend to do maintenance trimming yourself, get advice and instruction from a professional beforehand.

Special Needs or Older Cattle. Because cattle live a long time, it may become necessary at some point to separate your older and younger animals so that older animals do not have to compete for food or barn space. Older cattle experience arthritis, weight loss, dental problems, and a variety of other health issues. Care often becomes more difficult and more time-consuming as cattle age.

Special feeds such as mashes made of grain and chopped hay may be required for cattle who have bad teeth or no teeth or cattle who struggle to keep weight on. Monitor your older cattle closely. If they seem to be staying away from or falling behind the younger members of the herd, it is probably time to give them their own place to live. Make sure that when you separate cattle from the herd, they are removed with a herd mate they are bonded to. Cattle are very family-oriented and can become depressed when separated. Be aware of which cattle are bonded and spend the most time together.

Making everyday life easy for cattle is important. Keep them on as flat a surface as possible and locate water troughs and feed stations in close, easily accessible areas. Thick, clean, dry bedding is a must for arthritic and older animals, who are down more often and therefore prone to developing sores. We use straw with a short fiber so that cattle who drag a leg or have other mobility problems do not get caught up in the bedding. It may also be helpful to provide a sand-covered surface for elderly cattle. Your Agricultural Extension office can help you set up a sand pen for them.

Vaccines. Cattle need to be vaccinated yearly for rabies and several other contagious diseases. Consult your veterinarian for advice on vaccinating your cattle because different regions require different vaccines.

During your daily contact with your cattle, always be on the lookout for any physical or behavioral changes. Symptoms indicating illness include listlessness, pale coloring,
limping, loss of appetite, teeth grinding, coughing, and abnormal temperature. If any of these symptoms occur, consult your veterinarian immediately.

## Common Health Problems of Cattle

Bloat/Grain Poisoning. This is a serious condition commonly caused by overeating grain or particularly lush pasture. Make sure feed barrels and feedbags are completely inaccessible to cattle. When introducing cattle to new pasture, acclimate them slowly by bringing them some of the pasture for a few days. Then, turn them out for only a few hours at a time for the first week.

The first obvious symptoms of bloat are distension of the rumen (the area beside the hip bone on the left side), labored breathing, and signs of discomfort such as kicking, grinding teeth, groaning, bawling, and profuse salivation. Any evidence of bloat should be deemed an emergency, and your vet should be contacted immediately.

Foot Rot. Foot rot is a bacterial infection of the hoof. One or more hooves can be infected at any time. Typically, the first symptom of foot rot is lameness. Check the hoof for signs of swelling, odor, or pus/discharge, and consult your veterinarian for treatment.

The risk of foot rot is greatly minimized by proper hoof care and maintenance of living areas. Keep cattle off excessively muddy pasture and rough walking surfaces, which can cause injury to the hoof. Also watch out for unclean feed areas and cement surfaces prone to build-up of feces and urine ("slurry"), which greatly increase the incidence of hoof infections and foot rot.

Respiratory Problems. Coughing, nasal discharge, watery eyes, sneezing, lethargy, and loss of appetite are all symptoms of respiratory infection. Consult your veterinarian if you notice any of these symptoms.

Johne's Disease. Johne's disease is a chronic bacterial infection that primarily affects the lower small intestine of ruminants (e.g., cattle, goats, sheep, llamas, deer, and bison). Clinical signs include weight loss and diarrhea with a normal appetite. Johne's disease typically does not present until two to six years after initial infection, which usually occurs at birth.

Conventional medicine offers no treatment for Johne's disease. Some homeopathic treatments or herbal supplements may help keep your cattle comfortable and may extend life, although this is not often the case. We have, however, cared for cattle diagnosed with this disease who lived very full and long lives. Keep in mind that even cattle coping well with Johne's disease may still be shedding bacteria, which can persist in the environment for months.

Among cattle, Johne's is most prevalent in the dairy breeds (Holstein, Jersey, and Guernsey) and is rampant at industrial facilities. Because calves less than two years of age are most susceptible to the disease, we discourage housing calves with adult cattle
who have Johne's disease or allowing calves in areas where infected cattle have lived. Consult your veterinarian immediately if you suspect Johne's disease.

Eye Cancer. Cattle, especially the lighter-skinned breeds such as Hereford, are very prone to eye cancers. If detected early, these can be treated. Left untreated, however, these cancers spread rapidly, becoming quite costly to treat, or even fatal. Therefore, it is important to monitor your cattle's eyes constantly.

Eye Infections. Check your cattle daily for signs of eye infections. Symptoms include discolored or cloudy eyes, unusual discharge, and swelling. Pinkeye is a very serious condition in cattle and can lead to blindness if not discovered and treated early. Contact your veterinarian immediately if you find signs of an eye infection. Pinkeye vaccines are also available and should be used if pinkeye is common in the area where you live.

Parasites. Although good sanitation will greatly reduce parasite problems, you should still have your cattle checked regularly. Fecal tests should be carried out every six months and cattle treated according to the results. Ivermectin is commonly used to treat parasites and is available in both pour-on solutions and injectables. If you choose to use an injectable, ask your veterinarian to show you how to administer it before attempting to do so yourself. We recommend the pour-on form because it is equally effective and far easier on them.

Mastitis. Mastitis is an inflammation of the mammary glands caused by bacteria. Acute mastitis symptoms include an elevated temperature and a hot, hard, swollen udder that is very sore. Mastitis most often affects cows who have been lactating, but even cows who are not lactating are susceptible. Seek veterinary advice if you notice any of the above symptoms because treatment with antibiotics is crucial.

When you rescue, cattle you may often take in animals who are very sick. When cattle arrive they must be isolated in a strict quarantine area, and caretakers should wear coveralls or Tyvek suits over their clothing and boot covers, and foot baths should be used. If animals are in really bad shape, do not spread their bedding on pastures. Pile in a separate area on the farm until all tests below are conclusive.

- Have all fecal tests done on each individual adult animal for Johnes' if suspected (emaciated, poor coat condition, loose stool) and do not expose to calves (with exception of mother and baby, if nursing) until the tests come back negative.
- Check for hoof rot, hoof cracks, hairy wart, or other hoof issues. You do not have to lift legs to check, but look for signs such as lameness or redness or swelling at the back of the foot and hoof line.
- Vaccinate cattle with Elite 9 HS or another vaccine recommended by your vet within a week of their arrival, with the exception of calves less than three months of age; booster again before placing the animals in homes or adding them to the existing farm herd.
- If a calf is nursing or still with her mother, do no separate him unless it's absolutely necessary for the health of either the mother or baby. If they must be separated, keep them close enough that they can touch.
- Check all animals' eyes for watering or discharge. If pinkeye is suspected, have your vet check to confirm because it is highly contagious. Wear gloves when touching eyes, nasal area, tails, etc.
- Have a vet administer rabies vaccines to adult cattle or calves over three months of age.
- Treat for any parasites discovered in fecal sample and recheck fecal within 10 days of treatment.
- Check for external parasites. Treat lice and mange with topical treatments along with the Ivomec.
- If there is a chance that a cow is pregnant, have your vet check her status immediately. If there are no apparent signs of pregnancy, Lutalayse can be given to ensure that a possible early-term pregnancy is terminated.


## Resources for Cattle Care

Please note: Many of the catalogs listed contain products commonly used in animal agriculture. Unfortunately, there are no farm catalogs that list only cruelty-free items. Omaha Vaccine Company: PO Box 7228, Omaha, NE 68107; phone: 800-367-4444
Nasco Farm \& Ranch: 901 Janesville Ave., Fort Atkinson, WI 53538-0901; phone: 800-558-9595
Valley Vet Supply: PO Box 504, Marysville, KS 66508; phone: 800-468-0059

