

Youth and Dairy Cattle: A Safe Partnership



*A guide for
young people who
work with dairy cattle*



Developed by Tim Erickson and Cheryl Schwanke



Acknowledgements

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Ordering information

This material is designed to supplement the video-
tape *Youth and Dairy Cattle: A Safe Partnership*.
Copies of the video may be ordered from:

Livestock Conservation Institute
1910 Lyda Drive
Bowling Green, KY 42102
602-782-9798

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Youth and dairy cattle: a safe partnership



Working with dairy cattle should be a fun and rewarding experience. You and other young people who raise cattle can gain management skills, improve your self confidence, win awards, earn money and set an example for others.

You cannot obtain these benefits without a thorough knowledge of handling techniques and safety practices. Safety is the key. Some studies show that nearly half of all farm injuries to young people ages 6 to 18 are associated with cattle. In fact, 70 percent of all injuries associated with farm animals in Wisconsin are sustained by people working with dairy cattle.

Injuries can happen anytime, but to avoid risk, any worker should use special care when performing certain activities. The following jobs can require special precautions or adult supervision:







-  operating feed handling equipment.
-  handling dairy cattle.
-  milking cows.
-  training animals for show.
-  exhibiting and showing cows.
-  handling dusty or moldy feeds.

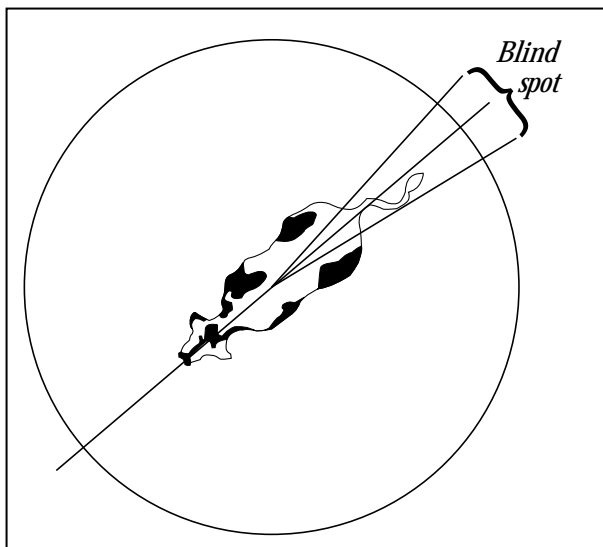
Other dangerous jobs should be performed by adults—not children or teenagers.

If you follow the guidelines in this publication and the video *Youth and Dairy Cattle: A Safe Partnership* you can lower the risk of injury when you work with dairy cattle.

Understanding the behavior of dairy cattle



Dairy cattle are usually easygoing, curious animals with dispositions suited to human contact. They are also creatures of habit that respond to calm and consistent handling practices. To be safe, remember these behavioral traits of dairy cattle:

-  Cattle have a long memory of their good and bad experiences.
-  Cattle respond to rewards, such as coaxing to a new location with a bucket of feed.
-  Cattle become tame by repeated contact with humans. Tameness is, therefore, a learned behavior.
-  Cattle have panoramic, almost 360-degree vision. Their only blind spot is directly behind them, so never approach a cow from the rear.
-  Cattle have good hearing and are calmest when surrounded by familiar sounds.
-  Cattle are sensitive to touch. Consistently gentle yet firm contact results in tame cattle






Cattle can see within almost the full circle around them because of their panoramic vision.

while surprising or unpleasant contact can cause a response from cattle which injures people.

-  Cattle are unpredictable. Even the best handler can be surprised by the actions of a dairy animal.
-  An understanding of the cattle behavior concepts of flight zone and point of balance (explained later in this publication) is critical for anyone planning to move, handle or load dairy cattle.

Cattle that pose special dangers

It is best to leave some cattle handling jobs to adults or experienced youth over age 16. Any handler should use caution and always have an escape route planned when working with these animals.

-  Sick or injured cattle are dangerous and very unpredictable, even when they are lying on the ground.
-  Dairy cows at calving time are unpredictable. Cows experience changes in hormone levels which cause some to be very protective of new born calves. They can be extremely aggressive toward any people in the area.
-  Dairy bulls of any age **should not** be trusted. Youth under 16 are advised not to handle bulls. Handlers should follow these precautions:
 - ◊ *Use a nose ring.*
 - ◊ *Use special care when a bull is near or with cows or heifers.*
 - ◊ *Never turn your back on a bull and always plan an escape route.*
 - ◊ *Two people should handle bulls more than one year old.*



🐮 Cows or heifers in heat often show unusual behavior. They might walk the fence, bellow, push, butt or ride other animals. They may also be unusually aggressive toward people.

The flight zone

The flight zone is the area or space surrounding an animal or group of animals. When a person enters the zone the animal will move away until it feels safe. If the person retreats, the animal usually stops moving away.

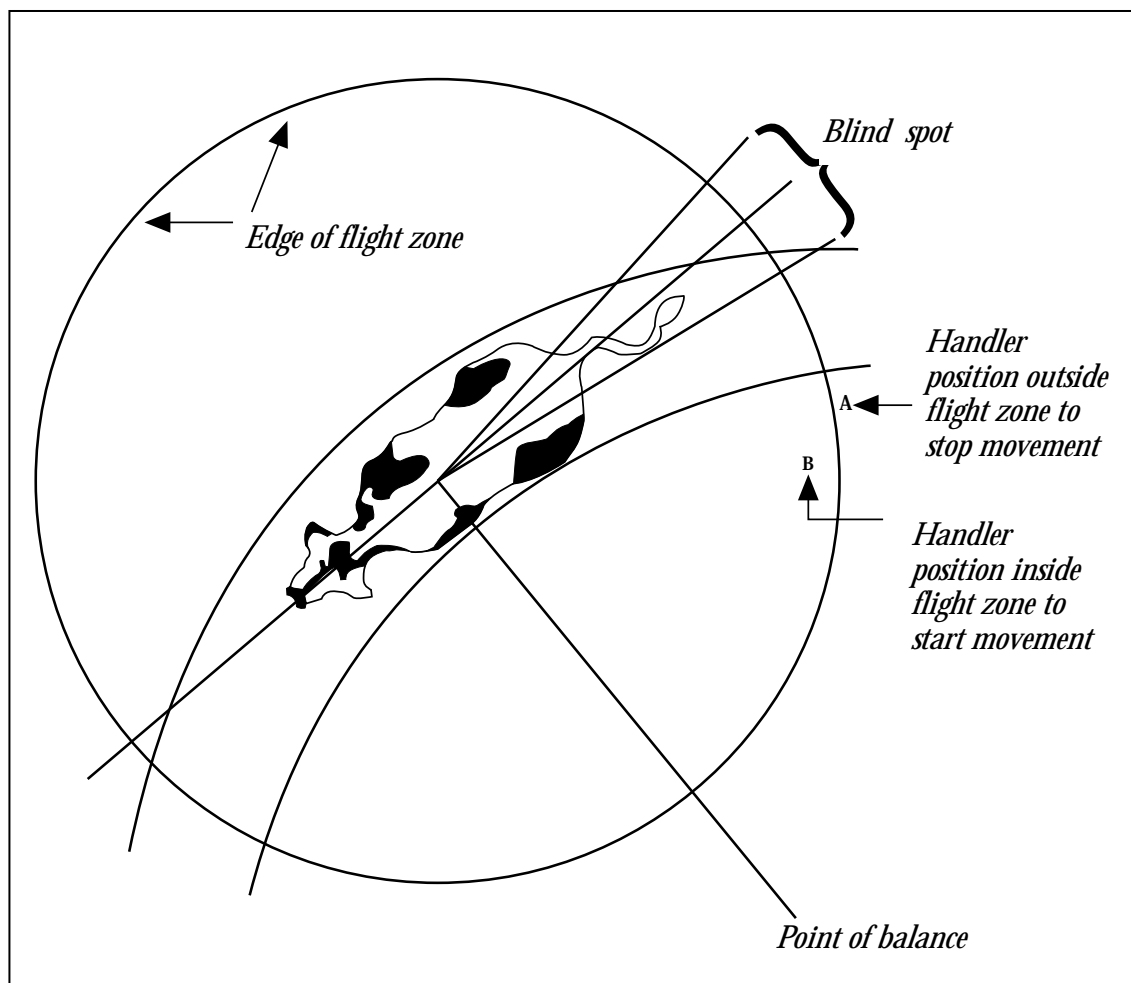
Different animals have different flight zones. A “wild” cow has a large zone while a very tame cow might not have a flight zone at all (that is, she welcomes your approach and touch).

The size of the flight zone for an animal or a group changes, depending on these factors:

- the handler’s angle of approach.
- the speed of the handler’s approach.
- the cow’s familiarity with the handler.
- sound or visual contact with the handler.
- wildness or tameness of the animals.
- the animals’ recent experiences.

Point of balance

An animal’s point of balance actually relates to its flight zone. With most cattle, the shoulder is the point of balance. If a handler approaches in front of the point, the animal moves backward. By approaching from behind the point, the handler makes the animal move forward.



Consider the flight zone and point of balance when you want to either start or stop an animal’s movement.



Did you know? You may not be “legal”

In many states, you can't legally drive until you are 16 years old. According to the Federal Hazardous Occupation Order of Agriculture, there are also certain jobs on the farm which are just too dangerous for youth under age 16. These jobs, common on dairy farms, are off-limits to youth under age 16:

- operating a tractor (if the tractor has over 20 PTO horsepower).
- operating a hay mower, baler, blower, feed grinder, grain handling equipment, etc.
- working in a yard, pen or stall with bulls, or with a cow and her newborn calf.
- working in a newly-filled silo or manure pit.
- handling agricultural chemicals marked “poison” or “warning.”

While these are good rules concerning some difficult duties, there are three exceptions made in some states permitting youth under 16 to perform these jobs. These exceptions apply when a young person:

1. works on a parent's or guardian's farm.
2. has a special training certificate.
3. is employed in a cooperative student-learner program with a written agreement between the employer and the school.

State child labor laws are often more restrictive and allow no exemptions. If you are 16 and don't fit under the exceptions noted above, leave these jobs to an adult! Even if you do qualify, these tasks are best performed by workers with more experience.

Practice what you've learned

Activity: Even people have a “flight zone”

Do you like it when someone moves very close to your face while talking to you? What if they yell and scream? What if that person is a total stranger? Would you get more nervous if the person sneaked up behind you?

Most people don't like extremely close contact. They like to keep a buffer zone or “personal space” between themselves and others. Your personal space is a lot like the flight zone for cattle.

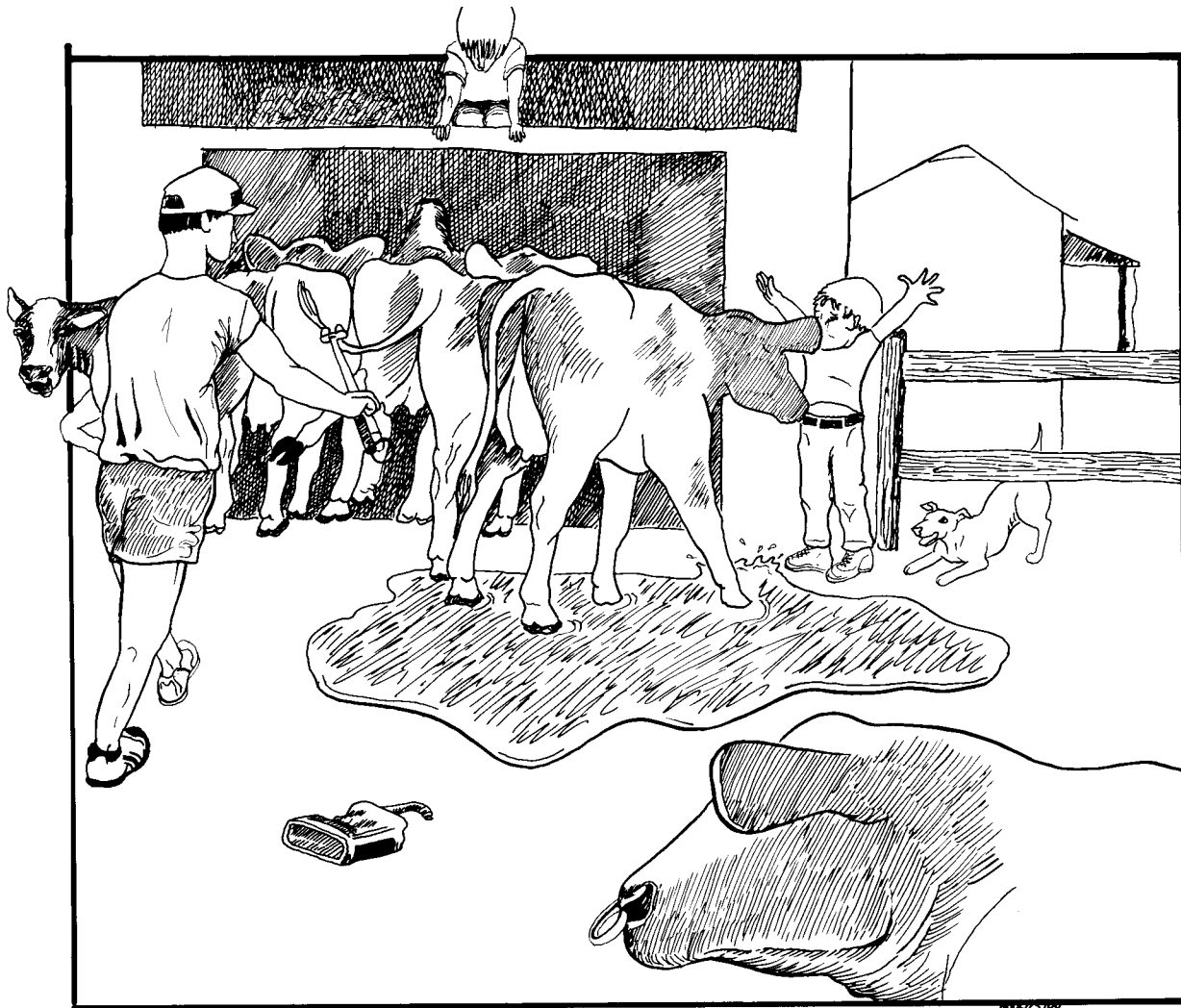
To discover how the idea of flight zone works in dairy cattle, try the following experiment.

Test the length of the flight zone for several cows in different situations. You'll need a fairly large (30 ft. x 30 ft.) pen or lot and two to five cows or heifers.

On a sheet of paper draw a cow—even a stick figure will do. Next, draw three or four full circles around the cow, each new circle about an inch larger than the one before. Let each ring represent a five foot distance from the cow.

Let one animal into the pen. First, have an adult handler that the animal knows calmly approach the animal from the side. When the animal turns away, mark that spot on your paper. You've just estimated her flight zone!

Now, make some changes. Have a stranger enter the pen. Approach the animal quickly from the same angle. Then cautiously approach the animal from behind (but don't get close enough to be kicked). Duplicate your tests with other cows or heifers not yet in the milking herd. Does the flight zone change? Is it different for each cow? How can you decrease the flight zone for all your cows? How can knowing about a cow's flight zone help you handle cattle more safely?



You be the traffic cop

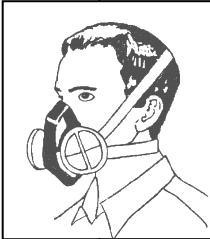
What is wrong with this picture? Identify at least seven of the unsafe and improper habits shown in this scene. (Hint: We'll give you the first one!)

1. Crowding too many cattle through the door
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



Did you know?

Your lungs need protection, too!



When you handle, feed, milk or move dairy cattle, you are also exposed to many respiratory (lung) hazards. Inhaling (breathing in) dusts and mold can make you ill, and even cause permanent health problems. Inhaling certain gases or being in areas with little or no oxygen can be fatal.

Respirators are devices that people can use to protect their lungs from hazards. Some respirators simply filter particles and odors out of the air while others offer more protection by supplying safe air from a container or through an automated filtering system.

Respirators are made to fit adults because only adults should work around hazardous areas. However, if you work around dairy animals, there will be times when you are in an area where there is dust or mold from which you should protect yourself (for example, when you are bedding a stall or grooming an especially dirty animal). If you must do the work because an adult is not available, you should wear a mask that fits well. Some masks are offered in small adult sizes and can be adjusted to fit.

The chart below shows a few types of lung hazards that are common on dairy farms. The first group lists hazards you might be exposed to as you work with animals. The second group is composed of hazards that adults might encounter when working around silos and manure storage areas.

JOBS THAT CAN CAUSE ILLNESS IF PERFORMED WITHOUT PROTECTION	
	Type of hazard
feeding, bedding stalls, cleaning up dusty areas*	dust and/or mold spores
grooming*	dust and/or allergy causing substances
moving wet or spoiled feed*	mold spores

**For most people, a mask-type respirator will provide adequate protection from these hazards if it fits well. Some mask type respirators are shown at the left.*

ADULT JOBS THAT CAN BE FATAL IF PERFORMED WITHOUT PROTECTION	
	Type of hazard
handling liquid manure; entering liquid manure pit** . . .	hydrogen sulfide
entering a newly-filled silo**	oxides of nitrogen, oxygen deficiency
entering an airtight, filled silo**	oxygen deficiency

***The National Institute for Occupational Safety and Health approves and labels respirators for specific uses. An air supplying respirator is shown at right for the second listing. Adults should check with a respirator supplier to find the right protective equipment for the job they are planning because different situations require different respirators. Making the wrong choice can be a deadly mistake.*

Practice what you've learned








Activity: Farm check-up

Protect yourself and your family's health by doing a farm safety check. Ask your parents to help you check for hazards. If you find a potentially hazardous situation, alert all family members and farm workers. Contact your local county Extension office for a farm safety checklist.



Safe milking procedures

Milking cows is a critical job on any dairy farm. Many family members assist with milking since cows must be milked two or three times every day, 365 days per year. Since milking involves repeated, close contact with large dairy animals, almost 40 percent of all dairy farm injuries occur during milking, even among adults. Youth who have the physical skills to milk cattle should follow these safety steps.

-  Approach cows with caution. Speak to them and place a hand on their backs before stepping between them, especially first-calf heifers or cows new to your farm.
-  Follow a routine.
-  Wear steel-toed boots. Use hearing and respiratory protective equipment if the environment is noisy or dusty.
-  Treat milking cows with care. Stress lowers production because nervous cows won't "let down" their milk.
-  Bring heifers through the milking facility several times before calving to accustom them to their new routine.
-  Warn all helpers about cows that are sick, injured, or tend to kick. Adults should milk these animals!
-  Children generally must be 12 or older before they work with milking animals.

Did you know?

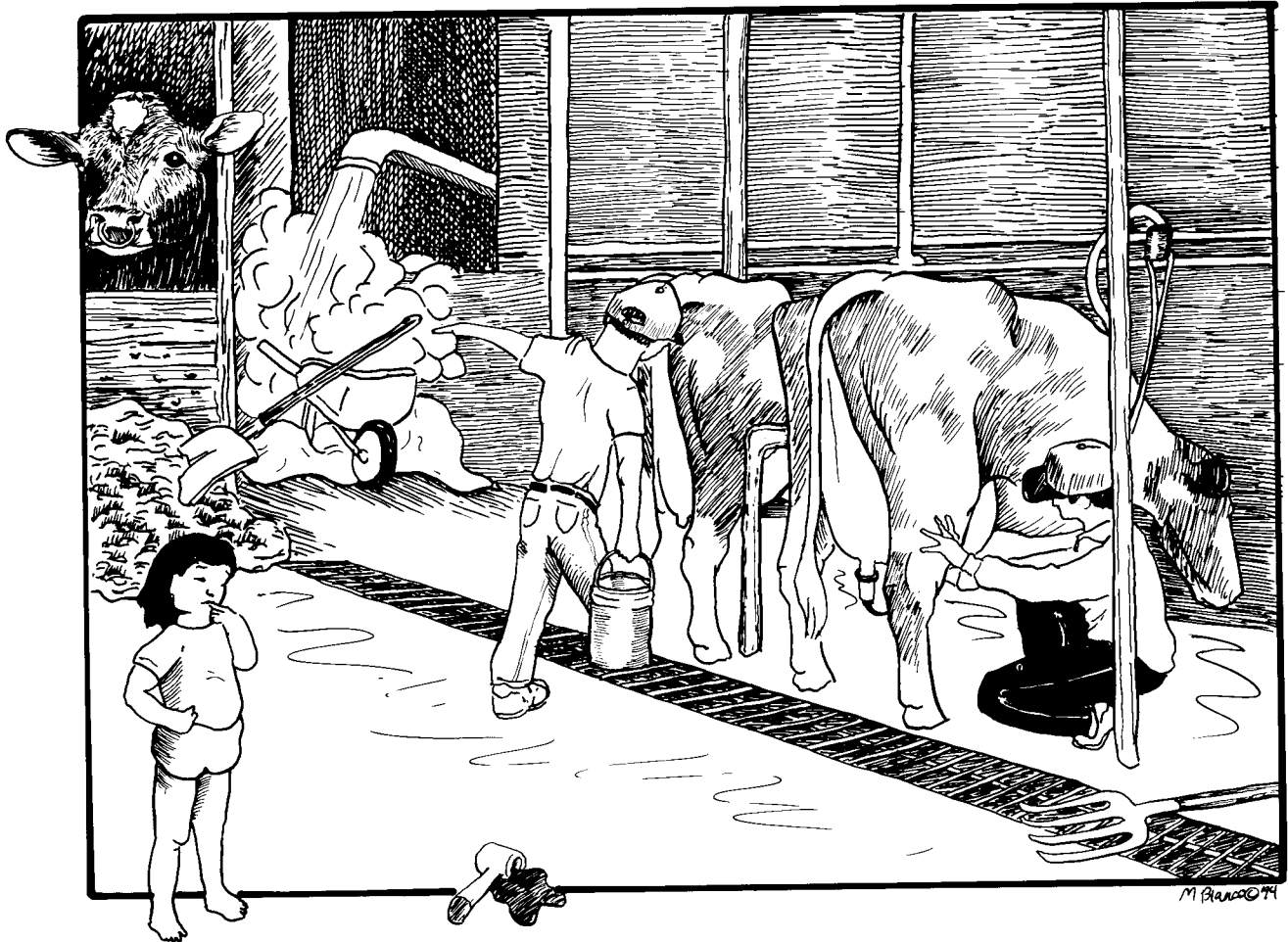
Fight or flight

When cattle sense that they are in danger, they do one of two things—**fight** or **flee**. A cow senses danger if a person, animal or machine comes too far into its flight zone. Cattle are also frightened by loud or erratic noises, strange behavior, or someone sneaking up from behind (their only blind spot). As a handler, you never know if an animal will run or stay to fight.

Dairy cattle fight in two ways: by butting with their heads or kicking. The best way to avoid a head butt or charge is with calm, proper handling. If an animal does charge, you must exit through a pre-planned escape route. Don't assume you can stop or turn a cow if it charges.

Kicking is the other way dairy cattle fight. Never sneak up on a cow if you want to avoid being kicked. Let a cow know you are there by speaking to it, approaching cautiously from the side and placing your hand on its back or rump. When working close to the animal's rear legs, stand close and lean into the animal's flank. If you feel a muscle contraction, quickly move forward or to the side to avoid a kick.

The flight response (running away) seems less dangerous to people, but running cattle can cause damage. They can jump over or run through fences that would normally be strong enough to stop them. Frightened cattle also run toward and injure other people, animals or themselves.



You be the safety detective

What is wrong with this picture? Identify at least seven of the unsafe and improper habits shown in this scene. (Hint: We'll give you the first one!)

- 1. Milking on wrong side of cow
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



Safe halter training



Many youth get their first introduction to handling dairy cattle by preparing for a show. Showing cattle can be a fun and rewarding activity which develops important skills. While the relationship between youth and dairy cattle should be positive, it can also be dangerous. Follow these safety steps while you halter train cattle:

- All youth need adults to help, but children age 9 or younger need adult supervision.
- Always be quiet and calm, but firm.
- Start training early, when calves are three to six months old.
- Train in a small to medium-sized pen which is clean and free of debris.
- Start with two halters and handlers for added control.
- The lead strap and person leading should be on the left side of the animal's head as viewed from behind the animal.
- Brush and stroke the animal for 15 minutes each session. This tames cattle and conditions their hair.

Practice what you've learned

Activity: a cow's perception

A cow has poor depth perception and must put its head down momentarily to inspect something new in its path.

Let a group of three to five cows walk through a familiar gateway. Now, throw a feed sack or sheet of paper in the gateway. Let the cows pass and observe how each cow studies the foreign object. Remember that good handlers must:

- keep walkways free of all debris (including water puddles).
- give cows a moment to inspect new objects before passing.

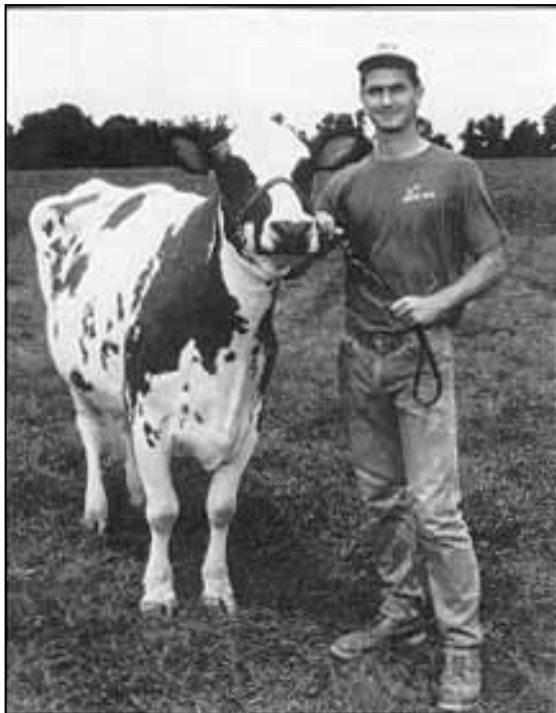
- Short, frequent training sessions are better than occasional, long ones.
- Tie animals using a slip knot.
- Use a nylon, rope-type halter.
- Check your animal every 15 minutes as it becomes accustomed to being tied.
- While your animal is tied, make sure it has adequate feed and water.



Leading dairy cattle

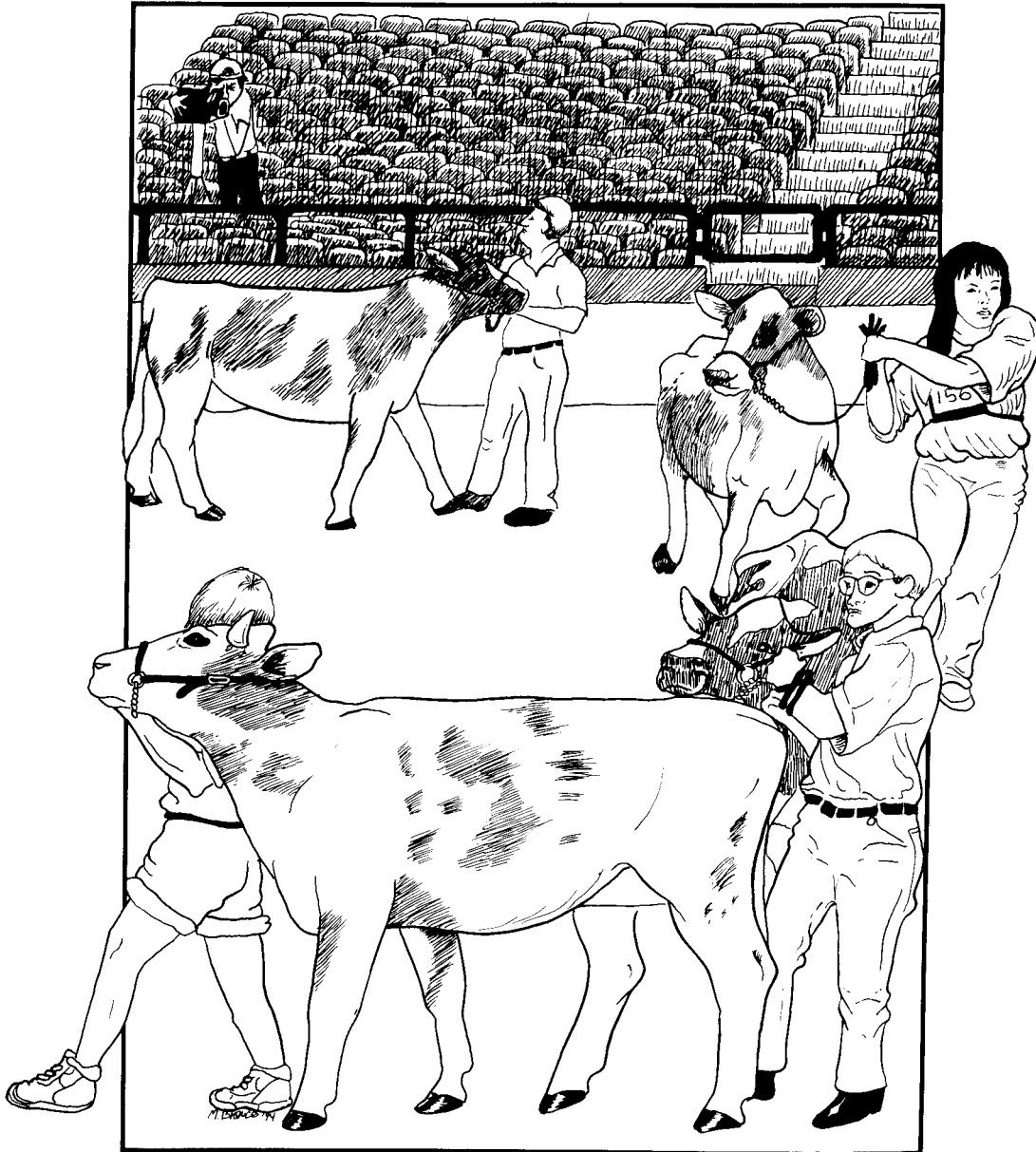
- 🐮 Hold the strap close to the animal's head and walk between its head and front shoulder.
- 🐮 Stand on the left side.
- 🐮 Do not play "tug-of-war." If the calf runs, pull its head back toward its stomach, so the animal turns a left-hand circle.
- 🐮 Walk forward with your feet clear of the animal's front feet. Walk backward only when under close inspection by the judge.
- 🐮 Leave several feet of space between animals. If an animal is in heat, leave extra space so your animal doesn't jump on the animal in front of it.
- 🐮 Never wrap extra lead rope around your hand! If you do, and the animal bolts, you could be dragged.
- 🐮 Wear protective footwear such as steel-toed boots.

Follow these steps when you handle cattle



Remember:

- 🐮 Remain calm and steady.
- 🐮 Be patient.
- 🐮 Start and follow a routine.
- 🐮 Plan ahead for every job.
- 🐮 Use the proper equipment for the job.
- 🐮 Wear protective boots or shoes.
- 🐮 Treat cattle as livestock, not pets.
- 🐮 Pay attention to cattle, not outside distractions.
- 🐮 Work with cattle when you are rested, not tired.
- 🐮 Wear protective equipment if the environment is noisy or dusty.
- 🐮 Practice a job many times under adult supervision.
- 🐮 Make sure you are ready to do a job before you proceed.
- 🐮 Have an adult supervise all children nine or under.



You be the judge

What is wrong with this picture? Identify at least seven of the unsafe and improper habits shown in this scene. (Hint: We'll give you the first one!)

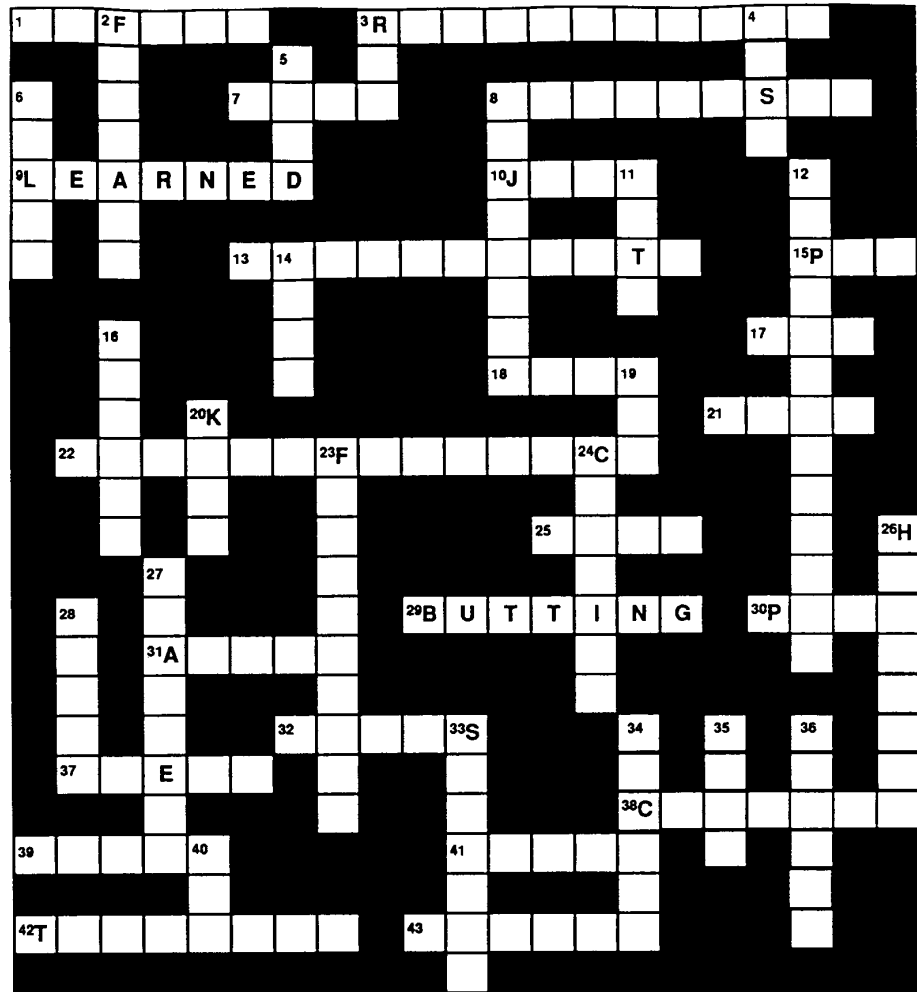
1. Boy in back is walking backward
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.



Check what you know

ACROSS

- _____ should be your first concern when handling, milking or showing dairy cattle.
- Dust masks provide _____ protection for workers in dusty environments.
- When working near an animal's hind legs, _____ into the thigh to reduce the impact of a kick.
- The frequency of injuries to young people goes up as the length of work time _____.
- Familiarity with humans is a _____ behavior for cattle.
- When startled, dairy animals can _____ to avoid what scared them.
- When handling cattle in a small area, always make sure to give yourself an _____.
- Plan an escape route before entering a bull _____.
- Lead straps should be on the _____ side of the cow's head.
- Always approach animals from the _____.



- Cows have a small _____ spot directly behind them.
- To get a cow to move forward, you should move behind her _____.
- Barn floors, hay, dried feed, and bedding all contain _____, which can injure your lungs.
- Rubbing around the horns and head can cause _____ behavior.
- Your dairy cattle farm _____ should always include safety.

- Young children should always have an _____ present when working with cattle.
- _____ can cause lung damage, especially if inhaled over a long period of time.
- _____ to young calves to help them become familiar with human contact.

- Cows have increased hormone levels and are sometimes aggressive and unpredictable around the time of _____.
- Use feed when training cattle to _____ a trailer.
- When practicing safe cattle handling, it is always better to "out-_____ them, not out-muscle them."
- Halter _____ is safest when performed on 3- to 6-month-old dairy calves.

- Approaching cattle from _____ is dangerous and can cause you to be kicked.

DOWN

- In most show situations, the exhibitor should walk _____.
- If an animal starts to _____, move out of the flight zone and it should stop.
- _____ of injury is decreased when you properly plan animal handling activities.



DOWN (continued)

5. Since it can cause butting, avoid rubbing the horn area of the _____.
6. Halters made of _____ will not swell when wet as some rope halters do.
8. Proper dairy cow handling will reduce _____ on the farm, in the parlor, or at the show.
11. Don't treat dairy cows as _____.
12. When handling cattle, plan for the unexpected, as they can behave in _____ ways.
14. Always tie with a _____ knot.
16. Cattle have a long _____ for good and bad experiences.
19. _____ protection is needed when doing any job where flying debris or heavy dust and chaffe is possible.
20. The more you _____ about cattle behavior, the less likely you are to get hurt.
23. The distance at which a cow will turn away when a person approaches is called the cow's _____.
24. Practice _____ when a cow lowers or shakes her head at you.
26. Cattle _____ facilities should be designed based on the behavior patterns of the provide cattle.
27. If cattle are herded too forcefully or panicked, they could _____.
28. Hard, or steel-toed _____ provide protection for feet when working around dairy cattle.
33. Youth under age _____ are not recommended to handle dairy bulls.
34. Calmly standing beside a cow and leaning on her flank may keep you from being _____.
35. Nearly one-____ of farm injuries to youth aged 6 to 18 are associated with dairy cattle.
36. Understanding the _____ zone is the key to safely handling dairy cattle.
40. Cattle may _____ quickly or circle if herded forcefully.

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