

Youth Livestock Safety for the Dairy Project

4-H Lifeskills:
Personal safety
Making decisions

Objectives:
Dairy project members will:
Describe how you can be
injured while working with
dairy show animals

Describe appropriate personal
protection equipment and
clothing choices for working
with dairy show animals at
home and at shows

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Lesson 1: Take Good Care of Yourself

Overview

Livestock are involved in many youth injury incidents every year. Because of their size compared to the size of the youth who own and work with them, dairy cattle can be particularly dangerous. This lesson is designed to teach about personal safety practices when working with dairy show animals. It should be used with other Dairy Project materials.

Watch the video clip entitled "Take Good Care of Yourself" and work through the discussion questions at the end of the video. If you choose not to use the video, take turns reading out loud the information below; then move on to the discussion questions.

Take Good Care of Yourself

It's important to protect yourself and learn safe working habits, to work safely around animals. This lesson focuses on best practices for personal safety when working with dairy animals raised or purchased for show.

Safe working habits include protecting yourself, your animals, and others. The most common injuries from working with and/or showing dairy animals are:

- Slips / Falls
- Muscle and/or back strain
- Cuts, scrapes, and bruises from being kicked or stepped on
- Blisters and burns from lead ropes or electrical appliances such as clippers

Less common injuries from working with and/or showing beef animals:

- Breathing problems from inhaling dust, animal dander, or chemicals
- Serious injury – such as broken bones, amputations, puncture wounds

Practice personal safety by using personal protection equipment including:

- Sturdy, closed-toe boots or shoes with non-slip soles are your best choice for footwear when working with dairy show animals.

- Leather gloves protect your hands from rope burns while practicing with your dairy show animal at home. Latex or rubber gloves are a good choice to protect your hands while washing or grooming your dairy animal.
- Long sleeves and long pants are the best choice to protect your skin from sun damage, dirt, and animal dander. When it's just too hot to wear long sleeves outdoors be sure to use sunscreen and wash exposed skin with soap.
- Safety glasses or goggles protect your eyes from hair clippings, dirt, and grooming products. Choose tinted safety glasses for bright sunlight.
- Ear plugs are the safest choice is to when you are close to loud noises such as while operating clippers, blowers, or other motorized equipment.
- Wash your hands frequently - with soap and use hand sanitizer between washings or when soap is not available. Handwashing protects you and your dairy show animal. Contact with the animal's hide, dander, manure, or urine creates an opportunity for disease to pass from your animal to you.
- Be prepared for cuts, scrapes, and emergencies by learning first aid and keeping a first aid kit in your show box and in the barn or building where you stall your dairy show animal.

Do I Really Need Protection? - How You Can Be Hurt Working with Dairy Show Animals

You may think that you're careful, but there are lots of ways to get hurt when working with dairy animals.

- You could be kicked, stepped on, or tripped while leading, feeding, or grooming your dairy show animal. It may get frightened and try to run, jump, kick, or butt its head.
- You can trip or fall over things left lying around, or when walking on an uneven surface such as the show ring or the wet floor of the wash rack.
- Without gloves, your fingers can get pinched in the neck chain on the halter or in a gate latch.
- You could be poked by wire, clipper blades, or the teeth on the grooming combs.
- Frequently repeated movements, such as up, down, back and forth while washing, grooming, and clipping can strain your muscles, causing aches and pains. To prevent repetitive strain injuries, take frequent breaks and try not to do the same thing -such as clipping your show animal - for hours at a time. Break up tasks into shorter jobs.
- Lifting and carrying heavy show boxes or bags of feed can strain muscles in your arms, legs, and back.

How much is 15% of your body weight?

Use this simple formula.

Take your weight times 0.15

For example, if you weigh 100 pounds, the most you should lift is 15 pounds.

$$100 \text{ lbs.} \times 0.15 = 15 \text{ lbs.}$$

Do the math for yourself to calculate how many pounds you can safely carry.

Your weight X 0.15 =
The heaviest load you should carry by yourself

$$\underline{\hspace{2cm}} \times 0.15 = \underline{\hspace{2cm}}$$

The next lesson is about the behavior of dairy heifers and cows.

In fact, Ergonomists, scientists who study human body mechanics, say the three main reasons for back injury in agriculture are: Picking up an object from bending at the waist, instead of using your legs, lifting more than 15% of your body weight, and carrying a heavy load more than 10-15 yards.

So, how should you pick up a heavy object?

- First, stand close to the object to be lifted.
- Spread your feet wide enough to straddle the object.
- Then, squat, bending your knees and hips.
- Keep your head up and your back straight and hold in those stomach muscles
- Lift using your leg muscles
- Keep the load close to your body with a firm grip
- And finally, turn your feet, not your back, in the direction you are going.

What should you do if you have a heavy load to carry more than 10 – 15 yards?

- Ask someone to help you, get a wheeled dolly, a feed cart, wheel barrow, or a wheeled utility cart, or a show box with wheels.

Remember, to avoid injury, you have to take good care of yourself!

What did you learn?

Share

How did you feel the first time you worked with your dairy show animal?

Process

Based on what you learned in this lesson, what should you wear when working with your dairy show animal and why?

Generalize

How can you be injured working with your dairy show animal?

Apply

What other activities do you participate in that require you to protect yourself and how do you protect yourself?

Youth Livestock Safety for the Dairy Project

4-H Lifeskills Solving problems

Making decisions

Objectives

Dairy project members will:
Understand how animals react
in a variety of environments

Understand how to keep
yourself and others safe at
home and at public shows

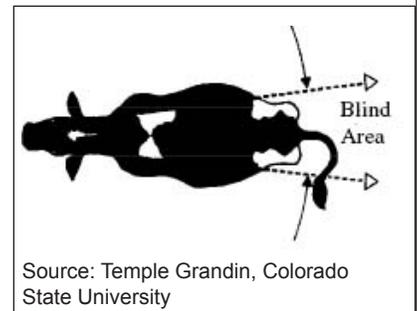
Experience

Watch the video clip
"Behavior Basics" or take
turns reading aloud the
information here. When
you're finished, move on to
the discussion questions.

Lesson 2: Behavior Basics: Getting to Know Your Dairy Show Animal

It's a good idea for everyone who shows dairy animals to have a basic understanding of animal behavior, particularly the behavior patterns of cattle.

- Animal behavior is determined by two factors: genetics and experience. Dairy animals that are treated gently and quietly will have smaller flight zones and be easier to handle than animals that have been treated roughly.
- Get to know your project animal. One that "spooks" easily must be handled differently than one that adapts more readily to changes. Handling differently means you should make changes slowly, watch your dairy show animal closely when you change locations, and adjust handling methods as necessary.
- Your dairy show animal may be calm at home in familiar surroundings, but may become agitated when taken to a different location with new and strange sounds, such as the county fairgrounds where there may be carnival game noise, children crying screaming, or balloons popping. Cattle are sensitive to high-pitched noises and are easiest to handle when noise levels are low. Typically noise levels will not be low at a dairy show or fair.
- Understanding how your dairy show animal might act in different situations will help make livestock shows safer for everyone – for exhibitors as well as the people who are watching.
- Do your best to make your dairy show animal's first experience in different surroundings a positive one. For example, have a feed pan waiting when you move it to a new pen.
- All cattle have wide-angle vision. This means that it can see behind itself without turning its head, so it may react to something that we don't think it can see. Cattle also tend to shy away from shadows, puddles, and other walking surface changes.



Source: Temple Grandin, Colorado State University

- Cattle prefer to move from a darker area to a lighter area. Keep this in mind when moving your dairy show animal from outside into a darker arena. It may resist at first. Be patient and allow it to adjust.
- Fear causes animals to run away. Animals can develop permanent fear memories that may never be erased. For example, if your dairy show animal had a bad experience when loaded on a trailer for the first time, it may be difficult to load in the future.

When you understand how your animal might act in different situations, you can use that understanding to help make livestock shows safer for everyone – exhibitors as well as people who are watching the show. Keeping your dairy show animal calm is a good start. Other strategies to keep in mind at the show include:

- Be aware of where others are at the show – the general public (in the stands and walking around) and other exhibitors.
- Move slowly to and from the show ring with your show steer or heifer. When you become excited or in a hurry, your show steer or heifer will sense the change in your behavior, which might scare it. Remember that fear causes an animal to run from whatever scares it.
- Get to know your show steer's/heifer's behavior patterns and help it adjust to its new surroundings.
- Do the best you can to keep away from crowded areas while leading your show steer or heifer at the fair. You may have to lead your show animal through crowded areas to get to the show ring. It's **your** responsibility to keep **your** animal under control. Most people don't understand how easy it is to scare a show animal, because it usually looks so calm and those who are familiar with animals often think they can't be hurt but we must remember – animals are unpredictable.
- Practice, practice, practice show day activities – at home and again when you get to the show. Practice haltering; leading on halter; leading to the show ring; leading in the ring with your show stick; tying and untying at the pen or stall; leading beef to and from its pen or stall; opening and closing gates; washing and grooming chores. Your show steer or heifer will be much more comfortable doing activities it has practiced before and it will be less likely to be scared of the show ring if it's been in it before the show.

Knowing these behavior basics can help keep you and your beef show animal safe.

What did you learn?

With your project group members, discuss how you stay safe when working with your dairy show animal.

Share

- How did your dairy show animal act the first time you led it on halter?

Process

- How did you feel the first time you led it?

Generalize

- What can you do to make sure your dairy show animal is ready for the show ring?

Apply

- List some ways you can share with others what you have learned about animal behavior?

The next lesson is about safe facilities and equipment for your dairy show animal.

Youth Livestock Safety for the Dairy Project

4-H Lifeskills:
Solving problems

Making decisions

Objectives:

Dairy project members will:
Recognize how maintaining
equipment and buildings
affects personal safety and
the dairy show animals

Understand how to keep
yourself and others safe at
home and at public shows

Experience

Watch the video clip
"Facilities and Equipment" and
work through the discussion
questions at the end of the
video. If you choose not
to watch the video, take
turns reading out loud the
information here; then move
on to the discussion questions.

Lesson 3: Facilities and Equipment

Keeping yourself and your dairy show animals safe includes making sure buildings, pens/lots, and equipment are well maintained and in proper working order. The facilities you use to house and work your show animals should be well designed, strong, and safe for you and your animals.

- Keep buildings, alleys, and lots neat and tidy. Remember: Slips, trips, and falls cause many injuries when working with livestock. Make sure you have a place to put all your supplies, equipment, and feed and keep all of those items in their proper place. Clean up spills as soon as they happen. Don't allow manure or feed to accumulate in alleyways or chutes.
- Keep mechanical equipment clean and well maintained. Clean and sanitize grooming tools regularly, not only to keep them operating properly, but also to remove any organisms that can spread disease (such as ring worm).
- Inspect electrical cords on clippers and blowers often. Replace cords that have exposed wires.
- Use only electrical outlets have three-pronged receptacles; if outlets are located outdoors, make sure they are waterproof and have ground fault circuit interrupters to keep you and your show steer or heifer from getting an electric shock.
- Make sure there is good lighting for indoor and outdoor areas where you will be working with your show steer or heifer. Lighting should be bright and not create shadowy areas. Your show steer or heifer can get scared when it goes from a brightly lit area to a dark shadowy area.
- Keep fences, gates, doors, etc. repaired. Replace or repair equipment that doesn't work. Gates that are hard to open can cause muscle strains or can pinch you if you have to push hard on them and they open or close unexpectedly. Wire ties or nails poking out of fence boards can cause scrapes or puncture wounds.
- Choose equipment that will help make working with your

show steer or heifer easier. A grooming chute helps hold your animal while you groom it while allowing you access to all parts of the animal for grooming. A squeeze chute helps hold the show steer or heifer still while you administer medicines.

Suggested Activities:

Set up a practice show at a project meeting to practice show ring safety.

Take the Dairy Safety Assessment Quiz at www.ylsp.bae.ksu.edu

Evaluate the safety of your livestock facilities using the Safety Audit Checklist (found on pages 11-12). Make note of potential dangers and work with your parents or another grown up to correct the dangers.

Visit and evaluate project members' facilities with an eye on safety preparedness.

What did you learn?

Share

- What do you do with your buildings and pens to help you stay safe when working with your dairy show animal?

Process

- How do you care for your equipment to help you stay safe when using it to work with your dairy show animal?

Generalize

- Why are good housekeeping and proper maintenance necessary for personal safety?

Apply

- List some of the safety practices you do each day – at home, work, or school?

This is the final lesson on dairy safety. Thank you and be safe!

Additional Safety Information

For Leaders and Parents

North American Guidelines for Childrens Agricultural Tasks (NAGCAT) Guidance

Ages 12-13 years – Youth should be constantly supervised by an adult when working with their beef project animal(s);

Ages 14-15 years – Nearly constant adult supervision progressing to intermittent (every few minutes) based on the individual's ability and successful demonstration that the youth understands his or her own limitations and animal behavior;

Ages 16+ years – Intermittent adult supervision progressing to periodic (check every 15-30 minutes) based on youth's ability to handle animal and successful demonstration of safe working habits and an understanding of animal behavior.

Tips For Including Youth With Disabilities: Making the Best Better

Learn all you can about the child's disability. Discuss with the child's parents the nature of the disability and how best to work with the child's limitations. You may also want to talk with other professionals who work with the child.

Involve the child in project meetings and events just as you would a child without special needs. Provide the same opportunities to develop life skills to all youth enrolled in the project. Everyone grows from the experience of "mainstreaming" a child with a disability. The 4-Her with a disability develops self-reliance and self-confidence by interacting as an equal with other project members. Project members learn that youth with disabilities are not much different than themselves – each has strengths, weaknesses, and unique abilities. Adult leaders and volunteers learn life skills for working with people with limitations. Everyone learns how to be more comfortable with people who are different than themselves.

When necessary, modify project activities to match the ability of the child. Modifications should be designed to meet the child's abilities, yet challenging enough for to improve his or her knowledge and skills. Not all activities need to be adapted. Promote participation instead of elimination. Never allow

Dairy Safety References

National 4-H Cooperative Curriculum System, Inc. Dairy Cattle Series, 2005

Working Safely With Cattle, Clover Safe Notes #3, 2006, University of California ANR and 4-H Youth Development, http://safety.ucanr.org/4-H_Resources/Clover_Safe_Notes_by_Project_Area/

Understanding Livestock Behavior, Agricultural Tailgate Safety Training, The Ohio State University Extension Agricultural Safety Program, <http://ohioline.osu.edu/attn/modules.html>

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Kansas All Breeds Junior Dairy Show exhibitors

Schmitz Family, Marshall County, Kansas

Seiler Family, Sedgwick County, Kansas

Cheryl Skjolaas, University of Wisconsin Extension Farm Safety Specialist

John Slocombe, K-State Extension Farm Safety Specialist

modified activities to isolate the child who has a disability. The goal is meaningful inclusion.

In some cases, livestock show requirements may need to be modified. For example, a 4-Her in a wheelchair may need assistance from a fellow 4-Her to wash, groom, or feed an animal or in the show ring. Provide the opportunity for all youth to learn from experience. Pair abled 4-Hers (junior leaders or ambassadors) with the special needs 4-Her rather adults. Promote cooperation instead of competition. Practice at project meetings so all project members will know how to be of assistance.

Help the 4-Her set realistic, attainable project goals. Always include the 4-Her in goal setting and project modifications.

Be prepared to devote extra attention, time, and flexibility to the project. Remember to value each project member as an individual with unique and special talents.

Resources

National 4-H Curriculum Dairy Cattle Series materials, 4-HCCS BU-08161, BU-08162, BU-08163, BU-08164

Kansas Dairy Project Curriculum

Online Youth Dairy Project Safety Assessment, www.ylsp.bae.ksu.edu

NAGCAT Reference Sheets: Lifting; Working with large animals; Leading/grooming animals; Feeding hay to cows; Cleaning service alley; www.nagcat.org/nagcat/pages/default.aspx

National Ag Safety Database (NASD); <http://nasdonline.org>

A Perfect Fit: 4-H Involvement for Youth with Disabilities, Purdue University

Making 4-H More Accessible: Youth With Special Needs Leaders' Handbook, California 4-H Youth Development Program; www.ca4h.org/leadership/ambassador/03-04/CASA-Book.pdf

Inclusive 4-H, University of Wyoming, <https://uwadmnweb.uwyo.edu/wyo4h/Inclusive/intro.pdf>

SAFETY AUDIT CHECKLIST

This checklist will help identify potential hazards with your livestock handling equipment and facilities. Conduct the audit with your parents or project leader. Answer the questions by checking YES or NO. If the answer is YES, no further action is necessary. If the answer is NO, then a hazard may exist that should be corrected. Prioritize the level of risk represented by the hazard using the ranking terms of: Major, Serious, or Minor. Record the date the hazard is corrected and keep the checklist with your project records.

Priority Levels for Identified Hazards:

Major: Potentially life-threatening or serious injury potential; requires immediate action.

Serious: Injury or property damage possible; requires prompt action.

Minor: Not likely to cause serious injury or property loss; correct the hazard during the off-season or during down time.

ANIMAL HANDLING SAFETY	Yes	No	Level of Priority	Date Corrected
Are steps and walkways roughened to prevent slips and falls?				
Are walkways and aisles kept free of debris, manure, and feed?				
Are animal drugs and barn chemicals kept in a secure area in original containers?				
Are pens, gates, and fences in good condition, without protrusions?				
Do doors and gates open smoothly?				
Are there at least two exits from buildings?				
Do you make animals aware of your approach so as not to frighten them?				
Do you leave yourself an "out" when working in close quarters with animals?				
Are animals immunized as required?				
Is the grooming chute in good repair with a non-slip mat?				
Are electrical cords in good repair, no exposed wires?				
Is there adequate lighting in work and walking areas?				
Are all electrical outlets properly grounded with ground fault circuit interrupters?				
Are portable tools unplugged when not in use?				
Are faulty wiring and electrical equipment repaired or replaced immediately?				
Are extension cords used only for temporary work?				

ANIMAL HANDLING SAFETY (continued)	Yes	No	Level of Priority	Date Corrected
Is personal protective equipment available? (safety glasses, leather and rubber/latex gloves, and ear plugs)				
Do you wear sturdy leather boots, long sleeves, long pants, and gloves when handling animals?				
Are appropriate fire extinguishers located strategically for easy access in case of fire?				
Are fire extinguishers inspected regularly?				
Do you know how to operate a fire extinguisher?				

SAFE LIFTING AND MATERIALS HANDLING	Yes	No	Level of Priority	Date Corrected
Has everyone in the family received instruction on safe lifting techniques?				
Is the “bend your knees” rule always followed?				
Do you use assistance, such as a wheelbarrow, dolly, or wheeled cart, to move loads more than 10 yards or loads weighing more than 15% of your body weight?				
Do you check for a clear pathway before lifting and moving objects?				

FIRST AID / EMERGENCY ACTION	Yes	No	Level of Priority	Date Corrected
Do you maintain first-aid kits in the following locations:				
◆ Home?				
◆ Barn?				
◆ Pick-up?				
◆ Show box?				
Are first-aid kits periodically checked and replenished?				
Has anyone in your family received first-aid training in the last 3 years?				
Has anyone in your family received training in CPR (cardiopulmonary resuscitation)?				

LIST YOUR OWN SAFETY CONCERNS	Yes	No	Level of Priority	Date Corrected