

Youth Livestock Safety for the Swine Project

4-H Lifeskills:
Personal safety

Making decisions

Objectives:
Swine project members will:
Describe how you can be
injured while working with
show pigs

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

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Lesson 1: Take Good Care of Yourself

Overview

Livestock, including swine, are involved in many youth injuries every year. This lesson is designed to teach best practices for personal safety when working with pigs raised or purchased for the purpose of showing at livestock exhibitions. It should be used with other Swine Project materials.

Experience

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 in this lesson; then work through the discussion questions.

Take Good Care of Yourself

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

- Slips / Falls
- Cuts, scrapes, and bruises from being knocked down, stepped on, or bitten
- Muscle and/or back strain from daily chores, grooming, and bending over while showing

Less common injuries from working with and/or showing pigs:

- Breathing problems from inhaling dust, animal dander, or grooming products
- Serious injury such as puncture wounds

It's important to use personal protection equipment and develop safe working habits when working with your show pigs. Let's start with your first line of personal protection - clothing. While you have lots of options for what to wear, these lessons focus on best choices. Practice personal safety by using personal protection equipment and developing safe working habits, including:

- Closed-toe shoes or boots – sturdy, leather with non-slip soles for routine work and the show ring; and waterproof rubber work boots for the wash rack or other wet areas.
- Gloves – latex or rubber gloves protect your hands and forearms while washing, grooming, or doctoring; leather

Try This!

Practice safe lifting and carrying to protect your back.

Here's how:

Stand close to object to be lifted

Spread your feet wide enough to straddle the object

Squat, bending your knees and hips

Keep your head up and your back straight

Hold in your stomach muscles

Lift using your leg muscles

Keep the load close to your body with a firm grip

Turn your feet, not your back, in the direction you are going

gloves protect your hands when feeding and doing other work with your show pig.

- Long sleeves and long pants offer the most effective protection from exposure to scrapes, and scratches as well as dirt and dander from your show pig, its pen, or the surface of the show ring. However, when showing and working with your pig during the hottest days of summer it may be beneficial to wear short sleeves – just remember to wash your hands and forearms often with soap and water and use sunscreen when you are working with your show pig outdoors.
- Safety glasses protect your eyes from hair clippings, dirt, and grooming products. When working in bright sunlight, try tinted safety glasses to protect your eyes from ultraviolet rays.
- Ear plugs protect your ears when using motorized equipment, such as the clippers, and when working in an enclosed area where noises are loud – especially enclosed areas where pigs are squealing.
- Frequent hand washing with soap protects you whenever you work with your show pig. Animals can spread bacteria to humans. Contact with the pig's skin, dander, and feces – especially from washing and grooming tasks – creates an opportunity for bacteria to pass from your show pig to you.
- Learn first aid and keep a first aid kit in your show box and in the barn or building where you keep your show pig.

Do I Really Need Protection? – How You Can Be Hurt Working with Show Pigs

- You can slip, trip, or fall in the pen, over equipment or feed bags left laying around, on a slick walkway, or on an uneven surface (such as in sand in the show ring or in the show pig's pen at home).
- You can be bitten or your pig can knock you down.
- Your fingers get pinched in a gate latch; you can get poked by a wire, or the blades on the clippers.
- You can strain muscles in your arms, legs, or back by carrying heavy show boxes or buckets of feed. Frequent washing and grooming can cause muscle strains from frequently repeated movements, as in the up and down, back and forth of washing or clipping.

Did You Know?

Ergonomists (scientists who study human body function) say the three worst problems for agriculture are: full body stoop (bending forward and down from the waist, as when picking

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 pig behavior.

up feed bags, buckets, or show boxes); lifting/moving heavy objects (greater than 15% of body weight, i.e. feed bags, show boxes); and repetitive handwork (as when you are washing and clipping).

Did You Know?

You are more likely to hurt your back when:

- Lifting more than 15% of your body weight
- Carrying a load more than 10-15 yards

Use wheels to help carry loads; such as a wheeled dolly, a feed cart, a wheel barrow, or a utility cart.

Discussion Questions

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

Share

- How did you feel the first time you worked with your show pig?

Process

- How can you be injured when working with your show pig?

Generalize

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

Apply

- How can you use what you've learned in this lesson to help you in other activities?

Youth Livestock Safety for the Swine Project

4-H Lifeskills:
Solving problems

Making decisions

Objectives:
Swine 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 the lesson
outloud. When you're
finished, move on to the
discussion questions.

Lesson 2: Behavior Basics: Getting to Know Your Show Pig

To work safely with your show pig, you should have a basic understanding of animal behavior in general, and the behavior patterns of swine in particular.

- How an animal behaves is determined by genetics and experience. Some pigs are genetic carriers of a porcine stress gene that can make them more excitable and nervous and can even cause the pig to die from being overly stressed. Most breeders will be able to tell you if your show pig's sire or dam is a carrier of the stress gene.
- Pigs are smart. They learn quickly and respond well to positive reinforcement. Do your best to make your show pig's first experience in different surroundings a positive one. For example, when moving it to a new pen have a pan of feed waiting.
- Pigs are typically gentle and affectionate and become curious when put into a new situation. Most show pigs will become quite docile over the course of your project year when they are worked with often.
- A temperamental pig must be handled differently than one that naturally calm. Handling differently means you should move slowly and deliberately when driving the pig, spend more time with the pig to help it adjust to human interaction, and practice show ring activities at home and again when you get to the show.
- A pig frightens easily. Even very small disturbances in its surroundings can frighten it, which can cause your show pig to be calm at home in familiar surroundings, but become nervous when taken to the county fair where there are new, strange sights, smells, and sounds. A pig will usually grunt, bark, or squeal when angry.
- A pig has wide-angle vision that allows it to see behind itself without turning its heads.
- Pigs are sensitive to sharp contrasts in light and dark. A pig may balk and be reluctant to move if it sees shadows, puddles, bright spots, a change in flooring type or texture, drains, or flapping objects. Pigs also move easier from darker to lighter environments.
- When a pig becomes distressed during handling, allow it to rest and recover before proceeding again.

- A pig will stop when faced with a solid barrier. That's why solid portable panels work well for moving and sorting pigs. These panels will likely be used at shows too.
- "Rooting" is a natural behavior for pigs. "Rooting" is when the pig tucks its head and uses its snout to push up whatever it comes in contact with. It will "root" at its food and water containers and its handler. If a pig roots under your foot it can knock you over as it rises up.
- Pigs have strong jaws and sharp teeth. Even though its sharp incisor teeth were clipped when it was a piglet, its remaining teeth are sharp and can cut you if the pig decides to "root" up your leg.
- Pigs do not sweat and are unable to cool themselves like other mammals. They wallow in mud to cool themselves. In warm weather, you may have to provide shade and possibly a water mist or drip on your show pig's pen to help it keep cool.

When you understand how your show pig 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 show pig calm is a good start. Other strategies to keep in mind at the show include:

- Be aware of where others are at the show – your fellow exhibitors and the general public, especially those who may be walking around the alleys where you drive pigs.
- Move slowly to and from the show ring with your show pig. It's not a race. When you become excited or in a hurry, your show pig 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 pig's behavior patterns and help it adjust to its new surroundings when you get to the show.
- Do the best you can to keep away from crowded areas while driving your show pig. Many people do not understand how easy it is to scare a show animal or how strong the animal is because show animals usually look so calm and well-behaved.
- Practice, practice, practice show day activities – at home and again when you get to the show. Practice driving the pig to the show ring; driving in the ring using your show cane, stick, or whip; driving the pig back to its pen; driving the pig through gates; and washing and clipping it. Your show pig 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 there before the show.

- To control your show pig with the show stick, gently tap the pig in its neck/shoulder area. Lightly tap on the right side to make the pig go left. Tap on the left side to make the pig go right. Tap the top of the back between the shoulder blades when the pig is walking straight. With practice your show pig will learn that a tap on the top of the shoulders means to go straight. Avoid excessive tapping and never beat or use force to strike the pig with the show stick. Aggressive actions toward the show pig will scare it and cause the pig to run away.

Discussion Questions

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

Share

- How did it act the first time you drove it using your show stick?
- How did you feel the first time you drove your show pig?

Process

- How does its environment affect the way your show pig behaves?

Generalize

- How does learning about swine behavior help you when you work with other animals?

Apply

- List some ways you can show others what you've learned about animal behavior?

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

Youth Livestock Safety for the Swine Project

4-H Lifeskills: Solving problems

Making decisions

Objectives:

Swine project members will:
Recognize how maintaining
equipment and buildings
affects personal safety and
pig safety

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 the lesson out loud,
then move on to the discussion
questions.

Lesson 3: Facilities and Equipment

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

- The pig's housing area should include a covered area for shelter from the weather and an open area. Select housing that is easy to clean and disinfect. The building should also be well ventilated. For the health of your pigs, when your project is finished for the year and your pigs are gone it is advisable to till the soil in the pen and expose it to sunlight for at least 3 days before new pigs occupy the pen. If pigs are kept indoors on concrete flooring, clean the area thoroughly and disinfect with a product approved for swine facilities.
- Keep buildings, alleys, and pens 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.
- 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 hair that can spread other organisms (such as lice).
- Inspect electrical cords on clippers 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 pig from getting an electric shock.
- Make sure there is good lighting for indoor and outdoor areas where you will be working with your show pig. Lighting should be bright and not create shadowy areas. Your show pig can get scared when it goes from a brightly lit area to a dark shadowy area.
- Keep fences, gates, latches, 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

Suggested Activities for Project Meetings

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

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

Evaluate the safety of your livestock facilities using the Safety Audit Checklist. Make note of potential dangers and work with your parents to correct the dangers.

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

Suggested guest speakers: veterinarian, swine producer, EMT, doctor, or nurse

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 to you or your show pig.

- For showing your pig you will probably want a show stick which can be a pig cane, piece of pvc pipe, or whip. You may also want a small, soft-bristled brush to brush off any dirt. Be sure to clean the equipment after each practice session with your show pig. Regular cleaning will help kill any microorganisms that might spread disease.

Discussion Questions

Share

- What equipment do you use when working and showing your pig?
- How do you care for your equipment to help you stay safe when using it to work with your show pig?

Process

- How can facilities contribute to a safer environment for you and your show pig?
- How does properly maintaining equipment contribute to keeping you and your show pig safe?

Generalize

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

Apply

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

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

Swine Safety References

National 4-H Cooperative Curriculum System, Inc. *Swine Series*, 2004; www.4hccs.org

Safe Care and Handling of Swine, Clover Safe Notes #22, 2007, 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/atts/modules.html>

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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 Swine Project Series materials, 4-HCCS BU-08065, BU-08066, BU-08067, BU-08068

Kansas Swine Project Curriculum

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

NAGCAT Reference Sheets: Lifting; Catching & holding a pig; Leading/grooming animals; 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