



QUALITY ASSURANCE
CHARACTER EDUCATION

“Quality Counts” is sponsored by

Animal ID, Inc.
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Heart of Texas Fair and Rodeo
Houston Livestock Show and Rodeo
Production Plus Seed Company
Purple Circle Youth Livestock Magazine
National Finance Credit Corporation of Texas
Riverstar Farms
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Cover photos by:

Jessica Cowan and Dottie Cook

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Foreword

The Josephson Institute of Ethics, as part of its nationwide CHARACTER COUNTS! effort, has identified six main values or traits that define a person of good character. They are:

Trustworthiness

Respect

Responsibility

Fairness

Caring

Citizenship

People develop and strengthen their character by practicing certain behaviors, just as muscles are built through exercise. Because of the responsibilities involved in carrying out 4-H and FFA livestock projects, these projects are a good venue for teaching the importance of character to young people. As they learn how to care for and show their animals, they can also learn the truth of the old saying: “The important thing is not whether you win or lose, but how you play the game.”

In the Quality Counts curriculum, teachers and leaders will find lessons that illustrate the relationship of best animal husbandry practices and desirable behavior. Each chapter has its own set of objectives, with lessons and activities to help young people take responsibility for, and see the consequences of, their own decisions.

The overall objectives of Quality Counts are:

- ◆ To provide character education for Texas youth who participate in 4-H and FFA livestock projects.
- ◆ To ensure that animals raised in 4-H and FFA livestock projects meet all food quality and safety standards.
- ◆ To maintain a positive image of youth livestock programs.

For more publications on specific projects and character education please visit the Texas AgriLife Extension Bookstore at <http://AgriLifeBookstore.org> and the Instructional Materials Service Web site at <http://www-ims.tamu.edu>.



Chapter 1

Introduction to Quality Counts

Chapter 1 is an overview of the Quality Counts program. Quality Counts has a two-fold mission: fostering the development of good character in the youth and adults who participate, and teaching the importance of quality assurance in livestock projects.

After completing this chapter students will be able to:

- ◆ Describe the purpose of the Quality Counts program.
- ◆ Explain the purposes of the 4-H and FFA programs.
- ◆ Explain the purpose of livestock projects.
- ◆ Explain why quality assurance is important in livestock production.
- ◆ Identify the six pillars of character and apply them to livestock projects.



Lesson 1

The Purpose of the Quality Counts Program

Objectives Discern the need for good character and safe food products, and the relationship between the two.

Understand the ethical implications of the decisions one makes while raising livestock.

Teaching points Ask the participants these questions and discuss with them:

What are some of the ethical decisions you face when raising livestock for a 4-H or FFA project?

How do you go about making those decisions?

Why are there rules for raising and showing livestock projects?

Are the rules fair? Why or why not?

What would it be like if there were no rules?

Do we expect the meat and other food we buy to be safe to eat? Whose job is it to make sure food is safe?

What responsibilities do we have to the animals we own?

Also point out that what the students learn about character in the Quality Counts program will apply to everything else in their lives.

Responsibility
Respect
Trustworthiness
Citizenship

"Character is revealed by how we behave when we are sure that we won't be found out."

Thomas Babington Macaulay

"The sole meaning of life is to serve humanity."

Leo Tolstoy



Activity 1

“Learning by Example” by Larry Mrozinski

The purpose of this activity is to show how young people are influenced by adult decisions.

Materials needed

Handout 1

Steps

- (A) Read, or have someone read, the story to the group.
- (B) Lead a discussion, asking questions such as: “What was the first bad decision that was made?” “What other bad decisions were there?” Ask students what they could do if they were in Tommy’s situation.
- (C) Give students Handout 1 to take home.

When Tommy was 8 years old, his father registered a lamb born on December 24 as being born on January 2. His father said to Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 9 years old, his father bred the family’s flock of purebred ewes with a ram of another breed and registered the lambs as purebreds. His father said to Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 10 years old, his 4-H leader and county agent tagged and weighed newly purchased lambs a month after the ownership deadline. They both told him, “It’s okay, kid; everybody does it.”

When Tommy was 11 years old, his parents bought him a registered ewe lamb to show at the county fair and changed the ear tag to their own flock tag. His parents said, “It’s okay, kid; everybody does it.”

When Tommy was 12 years old, his grandparents bought him a show lamb and left it with the breeder who fed and fit the lamb until the day before the county fair. The breeder and his grandparents said, “It’s okay, kid; everybody does it.”

When Tommy was 13 years old, his veterinarian issued health papers for sheep he never inspected and that had foot rot and lamb fungus. He said, “It’s okay, kid; everybody does it.”

When Tommy was 14 years old, his neighbor used an electric animal prod on his lamb to get it to brace. He told Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 15 years old and after winning the Grand Champion Market Lamb at the county fair, he saw his dad having a beer with the judge and paying the judge \$200 for making his son’s lamb champion. The judge and his father said, “It’s okay, kid; everybody does it.”

When Tommy was 16 years old, his FFA advisor falsified the number of Tommy’s winning sheep proficiency award entry. His advisor said, “It’s okay, kid; everybody does it.”

When Tommy was 17 years old, his uncle used Lasix on his market lamb at the state fair to make it weigh into a lighter class. His uncle said, “It’s okay, kid; everybody does it.”

When Tommy was 18 years old, his brother pumped the loin of his lamb at a national sheep show. His brother said, “It’s okay, kid; everybody does it.”

When Tommy was 19 years old, his entire family knew that he'd given clenbutural to his market lambs. They told him, "It's okay, kid; everybody does it."

When Tommy was 20 years old, a friend offered him cocaine. His friend said, "It's okay, kid; everybody does it."

When Tommy was arrested later that night for using cocaine and called his family to ask them to bail him out of jail they told him, "How could you have brought such a disgrace to your family? You never learned any of that at home. Where did you go wrong?" After hearing of his arrest, Tommy's 4-H leader, FFA advisor, county agent, grandparents, uncle, veterinarian and neighbors were also shocked. If there's one thing the adult world can't stand it's a kid who breaks the rules.

Activity 2

The Tower of Character

The purpose of this activity is to show how character can be destroyed in small ways over time.

- | | |
|-------------------------|--|
| Materials needed | JENGA game by Milton Bradley, or other materials that can be stacked and removed such as dominoes or blocks |
| Steps | <ul style="list-style-type: none">(A) Have one participant build a tower on a flat, sturdy surface, placing each layer of blocks at right angles to the layer under it. Explain that each block represents a piece of a person's character.(B) Let students take turns removing one block at a time from any but the top layer of the tower. While they're removing blocks, discuss the ways that a person's bad experiences can erode his character. Explain that a young person is influenced by others, either for good or for bad.(C) When the tower finally falls, explain that with constant erosion, a person's character will fail and he'll give in to bad choices and unacceptable behavior. |

Lesson 2

The Purpose of 4-H and FFA

Objectives	Understand the missions of the 4-H and FFA programs.
	Realize that the decisions they make reflect on the image of the organization they represent.
Resources	<i>FFA Handbook</i>
	4-H 1-5.0128, <i>4-H Club Management Handbook</i>
Teaching points	The missions of 4-H and FFA are not based on livestock projects, although many members participate in those projects.
	Not everyone belongs to 4-H or FFA for the same reasons.
	Membership in 4-H or FFA can give you opportunities to develop as a person, in ways that will help in all parts of your life.

Citizenship

“Art, like morality, consists of drawing the line somewhere.”

G. K. Chesterton

“The country will not be a good place for any of us to live in unless we make it a good place for all of us to live in.”

Theodore Roosevelt

Activity 1

Understanding 4-H and FFA

The purpose of this activity is to explore the purposes of these organizations.

Materials needed Quality Counts slide show (available at *Qualitycounts.tamu.edu*), computer or LCD projector; or overhead projector; Images 1 and 2
Chalkboard, dry-erase board or paper pad on easel
Chalk or markers
Handouts 2 and 3

- Steps**
- (A) Have each participant give one reason he or she is in 4-H or FFA. Write the reasons on the board or paper. Show the value in each reason given.
 - (B) Give participants copies of Handouts 2 and 3. Show Image 1. Read the 4-H and FFA mission statements to the group. Discuss the similarities of the two statements.
 - (C) Show Image 2. Have participants recite the 4-H Pledge and FFA motto. You also may have them recite the 4-H Creed and FFA Creed.
 - (D) Discuss whether the reasons they are members are reflected in the organizations' mission statements.

4-H Mission Statement

Prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term, progressive series of educational experiences that enhance life skills and develop social, emotional, physical and cognitive competencies.

FFA Mission Statement

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education.

4-H Pledge

To make the best better, I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living for my club, my community, my country and my world.

4-H Creed

I believe in 4-H for the opportunity it will give me to become a useful citizen.

I believe in the training of my head for the power it will give me to think, to plan and to reason.

I believe in the training of my heart for the nobleness it will give me to become kind, sympathetic and true.

I believe in the training of my hands for the dignity it will give me to become useful, helpful and skillful.

I believe in the training of my health for the strength it will give me to enjoy life, resist disease and work efficiently.

I believe in my country, my state and my community for their development.

In all these things I believe, and I am willing to dedicate my service to their fulfillment.

FFA Motto

Learning to Do

Doing to Learn

Earning to Live

Living to Serve

FFA Creed

I believe in the future of agriculture, with a faith born not of words but of deeds —achievements won by the present and past generations of agriculturists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so—for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me.

I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.

Activity 2

4-H and FFA Building Character

The purpose of this activity is to show the importance of organizations such as 4-H and FFA in the development of young people.

Materials needed	Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Image 3 Handouts 4, 5 and 6
Steps	<p>(A) Give each student a copy of Handout 4. Explain that these are assets that can help a young person develop sound character. The external assets come from one's environment, while the internal assets come from one's own self. Ask them to place a check mark beside the assets they feel 4-H and FFA provide or help members develop.</p> <p>(B) Read through the list, asking how many checked each asset (by show of hands). Keep a record of assets selected most and those selected least.</p> <p>(C) After going through the list, ask if anyone has a strong opinion—either pro or con—for including or excluding a particular asset.</p> <p>(D) Try to help the group resolve the controversial issues.</p> <p>(E) Give each student a copy of Handout 5. Divide the group into as many as six subgroups. Assign each group a fictional character. Ask each group to discuss its character and decide how the character can benefit most from 4-H/FFA membership (based on the developmental assets). Each subgroup should then make a brief presentation to the whole group.</p> <p>(F) Wrap things up by giving students Handout 6 and showing Image 3. Explain what the statistics mean (for example, 53 percent of young people who have 0 to 10 assets will have an alcohol problem; 72 percent of young people who have 31 to 40 assets will be in good health, etc.).</p>

40 Developmental Assets (material from the Search Institute)

External Assets

1. *Family support*—Family life provides high levels of love and support.
2. *Positive family communication*—Young person and her or his parent(s) communicate positively, and young person is willing to seek advice and counsel from parent(s).
3. *Other adult relationships*—Young person receives support from three or more nonparent adults.
4. *Caring neighborhood*—Young person experiences caring neighbors.
5. *Caring school climate*—School provides a caring, encouraging environment.
6. *Parent involvement in school*—Parent(s) is actively involved in helping young person succeed in school.
7. *Community values youth*—Young person perceives that adults in the community value youth.

8. *Youth as resources*—Young people are given useful roles in the community.
9. *Service to others*—Young person serves in the community 1 hour or more per week.
10. *Safety*—Young person feels safe at home, at school, and in the neighborhood.
11. *Family boundaries*—Family has clear rules and consequences and monitors the young person's whereabouts.
12. *School boundaries*—School provides clear rules and consequences.
13. *Neighborhood boundaries*—Neighbors take responsibility for monitoring young people's behavior.
14. *Adult role model*—Parent(s) and other adults model positive, responsible behavior.
15. *Positive peer influence*—Young person's best friends model responsible behavior.
16. *High expectations*—Both parent(s) and teachers encourage the young person to do well.
17. *Creative activities*—Young person participates 3 or more hours per week in lessons or practice in music, theater or other arts.
18. *Youth programs*—Young person participates 3 or more hours per week in sports, clubs, or organizations at school or in the community.
19. *Religious community*—Young person spends 1 hour or more per week in activities in a religious institution.
20. *Time at home*—Young person is out with friends with nothing special to do two or fewer nights per week.

Internal Assets

21. *Achievement motivation*—Young person is motivated to do well in school.
22. *School engagement*—Young person is actively engaged in learning.
23. *Homework*—Young person does at least 1 hour of homework every school day.
24. *Bonding to school*—Young person cares about her or his school.
25. *Reading for pleasure*—Young person reads for pleasure 3 or more hours per week.
26. *Caring*—Young person places high value on helping other people.
27. *Equality and social justice*—Young person places high value on promoting equality and reducing hunger and poverty.
28. *Integrity*—Young person acts on conviction and stands up for her or his beliefs.
29. *Honesty*—Young person tells the truth even when it is not easy.
30. *Responsibility*—Young person accepts and takes personal responsibility.
31. *Restraint*—Young person believes it is important not to be sexually active or to use alcohol or other drugs.
32. *Planning and decision making*—Young person knows how to plan ahead and make choices.

33. *Interpersonal competence*—Young person has empathy, sensitivity and friendship skills.
34. *Cultural competence*—Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.
35. *Resistance skills*—Young person can resist negative peer pressure and danger.
36. *Peaceful conflict resolution*—Young person seeks to resolve conflict nonviolently.
37. *Personal power*—Young person feels he or she has control over things that happen.
38. *Self-esteem*—Young person has high self-esteem.
39. *Sense of purpose*—Young person believes his or her life has a purpose.
40. *Positive view of personal future*—Young person is optimistic about his or her personal future.

Lesson 3

The Purpose of Livestock Projects

Objectives Understand the purpose of livestock projects.

Recognize that 4-H/FFA and youth livestock shows are partners in carrying out the purpose of livestock projects.

Teaching points Livestock projects teach young people how to feed, care for and show their animals. However, their more important purpose is to encourage personal growth and development.

Every decision made in producing project animals is related to one's character.

Adults involved with livestock projects have a responsibility to help young people develop good character.

Livestock shows are separate entities from 4-H and FFA. Membership does not give one the right to exhibit in livestock shows.

Responsibility

Respect

Caring

"If you think of what you ought to do for people, your character will take care of itself."

Woodrow Wilson

"In the final analysis, the one quality that all successful people have is the ability to take on responsibility."

Michael Korda



Activity 1

The Real Purpose of Livestock Projects

The purpose of this activity is to reveal the relationship between raising and exhibiting livestock and one's character traits.

Materials needed

Chalkboard or dry-erase board
Chalk or markers
Copy of the activity list (next page), cut apart into individual statements
Handout 7

Steps

- (A) Write the six pillars of character on the board, leaving plenty of space under each. Read and explain each one.
- (B) Pass out the individual statements, one to each student. Ask them to decide which pillar of character their statements belong under, and then take turns coming forward to write their statements under that pillar of character.
- (C) Reveal the correct answers by handing out Handout 7. Discuss.
- (D) Read the activity summary.

Six Pillars of Character

Trustworthiness—includes honesty, promise keeping and loyalty

Respect—includes courtesy and proper treatment of people and things

Responsibility—includes accountability, perseverance, and the pursuit of excellence

Fairness—involves consistently applying rules and standards appropriate for different ages and ability levels

Caring—promotes the well-being of people and things through actions, not just feelings

Citizenship—includes making the home, community and country a better place to live

Activity List (copy and cut apart into individual statements)

feeds and waters the animals daily

adheres to the possession deadlines

adheres to withdrawal times on drugs and dewormers

uses only approved drugs

handles and treats animals humanely

cares for animals properly

listens to and follows advice of advisors

recognizes that animals depend on their caretaker

goes beyond caring for the daily needs of the animal by giving it extra time and attention to produce a winner

adheres to deadlines for submitting entry forms and for arriving at shows

never gives up in the show ring

feeds only approved livestock rations

accepts winning or losing with grace

follows rules in the show ring

follows recommended procedures for fitting and grooming an animal

keeps the stall and barn clean

accepts instruction

helps others at stock shows

teaches younger members

ensures that meat is safe for consumption

Summary

These are just some of the ways to show character in completing a livestock project. It is the responsibility of the adults involved to ensure that the experience builds positive character traits. It is the responsibility of the young person to do his or her best and learn as much as possible from the experience. If an adult does all the work necessary for a successful project, the young person does not have that opportunity. Younger children will need some help to halter break a calf or to shear a lamb, but parents and advisors should expect them to do all they are capable of. A livestock project should be a family undertaking, with adults giving appropriate supervision.

When young people take good care of their animals every day, even on difficult days when they have lots of homework or other activities, they are exercising their character muscles and learning how to be successful people. And the size of the animal makes no difference. They can have just as great an experience, and learn just as much, raising rabbits as they can raising steers.

Activity 2

Name that Skill

The purpose of this activity is to show how a livestock project helps a person learn important skills.

Materials needed

Chalkboard or dry-erase board
Chalk or markers
Handout 8

Steps

- (A) Ask the group what skills they can gain from raising and exhibiting livestock. Write their answers on the board.
- (B) Give each student a copy of Handout 8. Explain that it lists some of the skills they might learn in a livestock project. Talk about any similarities or differences between this list and the skills listed on the board.
- (C) Ask students to follow the instructions on Handout 8, writing some ways each of the skills might be learned through a livestock project. For each skill, ask one student to tell the group what he or she has written.

Lesson 4

The Importance of Quality Assurance in Livestock Production

Objectives	Recognize the consequences of delivering contaminated or unsafe meat to consumers.
	Identify character traits associated with quality assurance.
	Understand the importance of maintaining consumer confidence in meat products.
Teaching points	Drug residues can seriously affect the safety of meat products.
	Consumers expect the food supply to be safe.
	When you care about your fellow consumers and understand the responsibility of producing safe products you become a better citizen.
	A huge amount of meat enters the market each year from youth livestock projects. It's important that exhibitors keep this in mind as they feed and care for their animals. Following label instructions for using animal care products is the responsibility of everyone who raises and shows livestock.

Trustworthiness
Responsibility
Caring
Citizenship

"Lying can never save anyone
from another lie."

Vaclav Havel

"A bad workman always
blames his tools."

Unknown

Activity 1

Calculating the Effect of Texas Youth Livestock Projects on the Market

The purpose of this activity is to show the impact of 4-H and FFA livestock projects on the meat market in Texas.

Materials needed

- Chalkboard or dry-erase board
- Chalk or markers
- Scratch paper
- Pens or pencils
- Calculators
- Handout 9

- Steps**
- (A) Divide the group into subgroups and give each group a calculator, scratch paper and pencil. Give each person a copy of Handout 9 and ask that they follow along as you present the information.
 - (B) Explain the first table and put the totals on the board. Talk about the fact that a tremendous amount of meat from youth livestock projects enters the market each year in Texas.
 - (C) Define these terms:
 - Live weight*—the weight of the animal at the time of harvest
 - Dressing percentage*—the carcass weight divided by the live weight times 100 (to convert to percentage)
 - Carcass*—the product after the animal is harvested (meat, fat and bone)
 - Harvest*—the process of slaughtering the animal, when the head, viscera (intestines and stomach), hide and shanks are removed
 - (D) Review the second table and have the group discuss the live weights of their projects to see how these averages are determined. Also review with them the average dressing percentage. It's a good idea to talk about why there is such a variation in dressing percentage among species. Swine have the highest dressing percentage (70 to 75 percent) because they are the only species that is monogastric. This means they have only one stomach. All the other species are ruminants (with four compartments to their stomachs). Also, when swine are harvested the skin is left on (only the hair is removed), as are the feet.
 - (E) Using their calculators, have the students determine how many pounds of carcass are entering the market from youth projects for each animal species. Lead them through the process.
 - Swine = 32,617 entries x 175.2 lb each = 5,714,498 lb
 - Meat goats = 23,821 entries x 60.5 lb = 1,441,171 lb
 - Market lambs = 11,349 entries x 66.3 lb = 752,438 lb
 - Market steers = 8,438 entries x 756 lb = 6,379,128 lbThat's a total of 14,287,236 lb of carcasses entering the market every year from Texas youth livestock projects! It's your responsibility to see that the meat you produce is safe for human consumption.

Lesson 5

The Six Pillars of Character

Objectives	Recognize the six pillars of character.
	Identify specific behavior associated with these traits.
Teaching points	How do you define good character?
	How do you know a person is someone you can trust and respect? Is it what he does, what he says, or both?
	How does a person's character affect the decisions he or she makes?
	Why are these traits important in a person who raises and exhibits livestock?

Trustworthiness

Responsibility

Citizenship

Caring

Respect

Fairness

"No act of kindness,
no matter how small,
is ever wasted."

Aesop

"Justice is truth in action."

Joseph Joubert

"Adversity introduces
the man to himself."

Anonymous

Activity 1

Defining the Six Pillars of Character

The purpose of this activity is to help students understand the behavior that demonstrates these character traits.

Materials needed Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 4–9

Steps (A) As you show each character trait, define it by discussing the specific behaviors listed.

Activity 2

Applying the Six Pillars of Character to Livestock Projects

The purpose of this activity is to apply what the students have learned about the six pillars of character to the specific actions they take and decisions they make with their livestock projects.

Materials needed

Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 10–15
Chalkboard or easel pad
Chalk or markers
Handout 10

Steps

- (A) Show the images naming the six pillars of character, one at a time. Ask participants to name ways they can demonstrate each trait in carrying out their livestock projects. (You might want to list these on a chalkboard or easel pad.)
- (B) At the end of the meeting, give each participant a copy of Handout 10, which lists ways young exhibitors can demonstrate the six pillars of character.

Activity 3

It's a Question of Ethics

The purpose of this activity is to help students make ethical decisions.

- Materials needed** Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 16–20
- Steps**
- (A) Read the first scenario. Then show Image 16 and ask what should be done. After the group has given their answers, tell them that the most correct answer is C. Then ask them:

Which pillars of character are important in making this decision?

Are any of the pillars in conflict?

Are there any other solutions to this dilemma?
 - (B) Repeat with each scenario, identifying the most correct answer after the group discussion.

Scenario 1: It is December 23, and when you went out to feed your show pigs you noticed that you did not have enough feed to last through the holidays. You and your father go to the feed store to pick up some more feed. Since your show is not far away, you can no longer feed the medicated feed because of the withdrawal time. But the feed store clerk tells you they're out of nonmedicated feed. He offers to sell you the medicated feed at the same price as nonmedicated feed. (Choices on Image 16—correct answer is C)

Scenario 2: Before you can make a decision about the feed, the store owner comes along. He's overheard the conversation and tells you that your neighbor Bob, whose son also has show pigs, has just bought a ton of nonmedicated feed and might share with you. When you get home your dad calls Bob, who says you're welcome to as much as you need until the feed store gets some more. He says that he and his family are going out of town and tells you where to find the feed. You and your little brother hop on the four-wheeler and go to get the feed. After loading it, you admire the fine quality pigs Bob's son has. While looking at them, you realize that some of the pigs are validated to another exhibitor in the county. (Choices on Image 17—correct answers are B and C)

Scenario 3: The fun at Bob's hasn't ended yet. While loading the feed, your little brother knocked over a storage cabinet in the barn. What comes out of the cabinet is a surprise: illegal drugs. There are no animals in Bob's pens that these drugs could legally be given to. (Choices on Image 18—correct answer is B)

Scenario 4: Your father recently agreed to be the project leader for your 4-H club. One of his duties is to locate swine projects for the members of the club. He wants to do this as fairly as he can, so he finds a breeder who has enough high-quality pigs for everyone. He schedules a day to go pick up the pigs and you decide to ride with him. When you get there the breeder shows you a pig he has set aside for you. He knows that you are a good feeder so he wants you to have this pig that is better than the rest. (Choices on Image 19—correct answers are A and D)

Scenario 5: The pig you've raised for the county show is overweight and the show is just 2 days away. A buddy has offered to help with some sort-of-legal practice that will get the weight off the pig in time for the show. If you don't take the help, your pig probably won't qualify. (Choices on Image 20—correct answers are C and D)

Activity 4

Tight Spaces

The purpose of this activity is to show the importance of adequate pen space and clean, dry facilities for livestock.

Materials needed 2 small tarps, blankets or bed sheets

- Steps**
- (A) Divide the group into two equal teams.
 - (B) Place the two tarps on the ground about 10 feet apart. Make sure the tarps are too small for a whole team to stand on easily. Fold them if necessary.
 - (C) Have the team add one member at a time to the tarp until no more people can stand on the space. The team that can get the most members on the tarp without anyone falling off wins. Explain that if the kids were animals, the team with the most in the space would actually be the losers. Talk about the importance of adequate space to livestock. Explain some of the problems caused by overcrowding. You can also cover the tarps with mud to illustrate the importance of a clean, dry facility for livestock.

Chapter 2

Revised Language

With the exception of horses, all livestock, including show and exhibition animals, are raised for the purpose of producing food. Therefore, exhibitors and/or guardians must act responsibly to ensure the safe use of drugs in these animals and the production of safe food products. Best practices demand that the use of all drugs in food producing animals be conducted by or under the direction of a veterinarian. In addition, all instructions concerning the use of drugs should be followed precisely, and meticulous records should be kept by the exhibitor and/or guardian. Medical records can be an effective tool for communicating with livestock show officials.

All animals harvested for food, including show animals, are subject to testing for drug residues by the Food Safety Inspection Service of the USDA. Exhibitors and/or guardians should note that FSIS places more scrutiny on show livestock and test carcasses with a higher frequency than livestock from the commercial industry (FSIS Directive 10800.1 Page 9). Exhibitors and/or guardians should always follow all label directions in the use of antibiotics, drugs for internal and external parasitic infections, and drugs used to treat coccidian, in order to decrease the likelihood of a residue in edible tissue.

Detection of these drugs at slaughter would be considered a different infraction category than drugs that enhance performance or are illegal for food producing animals. Drugs that are illegal for use in food producing animals and those that may enhance performance or mask defects of livestock are strictly prohibited by livestock shows and may be tested for in live animals. Therefore, any trace of these drugs in show animals may constitute a serious infraction. Following slaughter withdrawal recommendations for these drugs does not ensure that these drugs will not be detected.



Chapter 2

Food Safety

Quality assurance should be important to all youth livestock producers. Each year many youth livestock projects enter the food chain. Youth should realize that it is their responsibility to produce safe, wholesome products and that the animal husbandry decisions they make affect the quality of the food they produce.

After completing this chapter students will be able to:

- ◆ Explain the food supply continuum.
- ◆ Define HACCP plans and explain how they relate to livestock exhibitors' goals to ensure safe products.
- ◆ Identify potential hazards in meat products.
- ◆ Outline the Food Safety and Inspection Service (FSIS) and its role in food safety.

Lesson 1

The Food Supply Continuum

Objectives	Determine the responsibilities of food producers.
	Identify the segments of the food industry and the importance of each in upholding the safety of the food supply.
Teaching points	Each year, a large number of livestock raised by young people enter the food supply.
	As food producers, young people must realize that it is their responsibility to produce safe, wholesome products. This is called “quality assurance.”
	Consumers have a right to expect safe food products. Producers are consumers, too.
	(Image 22) The food supply continuum is the series of processes that food products move through on their way from the producer to the consumer. The first step is the producer, then comes transportation—livestock haulers play an important role in food safety and meat quality by the way they treat and handle animals. The next step is marketing. Animals are often marketed through an intermediary before arriving at the packer.
	The packer harvests the animals and prepares the carcasses for processing. Packers supply water and may cool the animals with misters after they are unloaded from trucks, and then let the animals rest before harvesting. Veterinarian personnel inspect the animals for obvious signs of disease before they are harvested. Veterinarians supervise the entire process to ensure safe practices. During processing, the carcasses are usually fabricated into marketable cuts. Proper sanitation and handling are crucial to preventing contamination.
	The USDA’s Food Safety and Inspection Service (FSIS) serves a vital role in ensuring the safety and wholesomeness of meat and poultry products that enter the food supply continuum, and certifies that all products are accurately labeled. The FSIS is also

Responsibility Caring

“While we are free to choose our actions, we are not free to choose the consequences of our actions.”

Stephen R. Covey

“Compliance is about what I must do; ethics is what I should do.”

Michael Josephson

responsible for enforcing laws that require federal inspection and regulation of products prepared for distribution and use as human food. FSIS verifies compliance with the Humane Methods of Slaughter Act for livestock. Over 7,800 personnel serve in FSIS' plant inspection program to cover more than 6,200 federally inspected establishments. In order to conduct slaughter operations, facilities must have FSIS inspection personnel present. These veterinarians and inspectors confirm that slaughter establishments follow all food safety and humane handling regulations. This includes verifying that the facility maintains proper sanitation procedures, follows its HACCP plan, and complies with all FSIS regulations pertaining to slaughter and processing operations.

After slaughter and fabrication, the carcass parts enter the retail sector, which includes grocery stores and other outlets where meat is sold directly to the consumer. Temperature control, sanitation and other good management practices are essential to keep the food safe. Meat also reaches consumers through the food service industry, which includes restaurants, schools or any place food is served. Cooking methods, sanitation, storage, and handling are important here, too. The final stage is the consumer, who also has responsibility for food safety. Proper handling, storage and cooking, along with good sanitation, are important at this stage of the continuum.

(Image 23) The way animals are raised and the decisions their caretakers make, determine the quality of the food that comes from those animals. However, product safety can be compromised at any point in the food supply continuum—including improper use of drugs and medicines; stress during transport; microbial contamination at, during, or after harvest; or improper handling of the product by consumers.

ALL producers are affected when there is negative publicity about the safety of the food supply.

Activity 1

Food Supply Continuum Puzzle

The purpose of this activity is to show exhibitors how all segments of the livestock industry rely on each other to produce safe products.

Materials needed

Paper plates
Pens or markers
Scissors
Handout 11

Steps

- (A) Before the class: With a marker, draw jagged lines to divide each paper plate into seven pie-shaped sections. Label each section with one segment of the food supply continuum, beginning at the top and going clockwise: Producer, Transportation, Marketing, Harvesting, Processing, Retail or Food Service, Consumer. Cut along the jagged lines and jumble the pieces of each plate to make a puzzle.
- (B) Divide the group into several smaller groups. Give each small group one of the puzzles and ask them to work together to put it together. As they work, remind the students that all segments of the food industry fit together in a continuum.
- (C) Give out copies of Handout 11. Ask the group each question, discuss the answers, and have students write in the answers on the handout.

The Food Supply Continuum

1. Which segment is responsible for safe handling of the animal product (beef, pork, lamb) in their homes? _____
2. Which segment is responsible for distributing the product to restaurants or grocery stores? _____
3. Which segment carries the animal from the farm to the market?

4. Which segment sells the animal to the packer?

5. Which segment harvests the animal? _____
6. Which segment processes the carcasses into retail cuts?

7. Why is it important for all segments to work together?

Activity 2

Group Sit

The purpose of this activity is to explain the importance of each segment of the food supply continuum in keeping meat safe and wholesome for human consumption.

Materials needed None
(Requires plenty of room to move around, and a moderate level of agility and fitness. Adults should supervise to ensure students' safety.)

- Steps**
- (A) Have the young people number off from 1 to 7, forming groups of seven.
 - (B) Have students stand close together in a circle, all facing the same direction, so that each is in front of and behind another. They should be in their groups, in numerical order from 1 to 7, then starting over with 1 from the next group.
 - (C) Assign each number a position in the food supply continuum. For example, number 1s = Producer, 2s = Transportation, 3s = Marketing, 4s = Harvesting, 5s = Processing, 6s = Retail/Food Service, and 7s = Consumer
 - (D) Have each person put his/her hands on the shoulders of the person in front, then slowly sit down on the knees of the person behind. Once the group has managed this, it's time for food safety to become an issue. Describe a food safety/quality issue that could jeopardize the food supply at a particular point in the continuum. For example, you might say: "What if a producer administered illegal drugs to his animals and the meat was found to contain harmful and illegal drug residues? The producer would be responsible for making the food unsafe." At that point you would ask all the number 1s to leave the circle. The other students shouldn't move. See if they can continue to sit with one part of the continuum missing.
 - (E) Repeat with other food safety issues arising from other parts of the continuum, until the circle of students can no longer sit. Then discuss these questions with the group.

What happened to those left in the circle when one group had to leave? Relate this to the food supply continuum by asking what would happen to our food supply if one industry segment was irresponsible or made a mistake.

How do 4-H and FFA livestock projects fit into this circle? What effect do 4-H and FFA livestock producers have on the food supply continuum? (Remind them of the Chapter 1 lesson about the amount of meat that enters the food supply from youth livestock projects.)

Lesson 2

Understanding Food Safety

Objectives	Explain why consumers are concerned about food safety.
	Identify the potential consequences of food safety mistakes.
	Explain what measures are in place to ensure safe food (e.g., Hazard Analysis and Critical Control Points, or HACCP).
	Evaluate the producer's responsibility to prevent hazards.
Teaching points	Occasionally there have been failures in the food supply system that caused products to be unsafe. (Discuss examples such as food recalls, pesticide or drug residue problems, and other kinds of contamination.)
	The USDA has adopted a Hazard Analysis and Critical Control Points (HACCP) program to prevent these problems. Packing plants are required to have HACCP plans. A HACCP plan identifies where and how problems could occur, and how to prevent those problems. For example, because bits of metal might get into meat when it is pumped or ground, packing plants have metal detectors to prevent metal from entering the food supply. These hazard-prevention measures are tested and monitored, and extensive records are kept to show what the plant is doing to ensure food safety. A similar system and mindset can be used on the farm. For instance, what steps would you take as a producer if a needle broke while you were giving an injection? How do you prevent drug residues in your animals?
	Exhibitors also should have their own HACCP plans, because some hazards can occur before the product leaves the farm. If there is a chance that a hazard exists, the producer is obligated to inform the packer. HACCP is simply a way of thinking through a problem or situation, defining the intended outcome, and then figuring out how to get there, given the potential problems along the way. Exhibitors can create their own plans by using the following steps:
	<ol style="list-style-type: none">1. Identify hazards2. Find control points

Trustworthiness Responsibility Citizenship

"A community is like a ship;
everyone ought to be
prepared to take the helm."

Henrik Ibsen

"Trust is an essential factor
in achieving sustainable
success."

Unknown

"Don't compromise yourself.
You are all you've got."

Janis Joplin

3. Establish limits for each point
4. Monitor progress
5. Take corrective action when necessary
6. Keep accurate records
7. Verify the measures taken produced intended results.

Record-keeping is vital when it comes to food (livestock) production. Exhibitors should keep careful records of all medications used on livestock. Accurate records are especially important when dealing with livestock intended for major livestock shows. Documenting all treatments, dates of administration, and dosages are all useful in communicating with show officials in the event of a positive test result.

(Image 24) There are three types of hazards in meat—microbial, chemical and physical. All three types of hazards, whether initiated by the producer or further down the food supply continuum, can cause consumers to mistrust producers of meat products. It is the responsibility of livestock owners to ensure that when livestock leave their hands, they are free from any hazards that could compromise the integrity of the food supply.

Microbial Hazards:

- Pathogens found in meat, such as *E. coli* or *Salmonella*
- Can cause widespread foodborne illness outbreaks
- Not commonly initiated by producers

Chemical Hazards:

- Drug residues or chemicals found in meat, such as penicillin or other antibiotic residues
- Can be unintentionally added or simply neglected and may cause problems if consumed by someone with allergies to certain medications
- May be initiated by producer through misuse of product, restricted injection site area, or not following withdrawal times

Physical Hazards:

- Foreign objects or particles found in meat, such as needles or other metal/plastic objects; injection site lesions or bruises
- Can cause injury or illness to consumers
- May be initiated by producer in the form of broken needles at injection site areas

Activity 1

Create Your Own HACCP Plan

The purpose of this activity is to help students understand the basics of an HACCP plan.

Materials needed

Handout 12

Steps

- (A) Give each participant a copy of Handout 12. Have them complete the work sheet to illustrate the way a HACCP plan is developed. Participants may work individually or in small groups.
- (B) When the students have finished, ask the group how they could use a HACCP plan with their livestock projects.

HACCP Plan (Handout 12)

1. **Identify hazards.** If you don't clean your room you can't go the party. List some problems that might prevent you from cleaning your room (school, meetings, sports, etc.).
2. **Find critical limits for each critical control point.** For example, it is critical that your room be spotless before Saturday. Each day will be important because you must clean a little each day to get the job done. List the things you must do each day (for example, hang up clothes, put away games and toys, sweep the floor, etc.).
3. **Establish critical limits for each critical control point.** For example, you will not dirty your room at all during the week and you will clean up a little each day.
4. **Monitor.** Follow your plan to clean your room and watch to make sure your little brother or sister doesn't enter.
5. **Take corrective action if there is a problem.** For example, if your little brother or sister leaves toys scattered in your room, what could you do to solve the problem? If you failed to get one day's chores done, add them to the next day's chores.
6. **Keep records on each critical control point.** Each day, check off the chores you planned to do.
7. **Verify that the HACCP plan is working correctly.** By Saturday, your room is clean and you get to attend the party.

Activity 2

Identifying Hazards

The purpose of this activity is to teach young people how to distinguish between chemical, microbial and physical hazards as defined by the HAACP program.

Materials needed None

Steps (A) Read the following list, one item at a time. Ask whether each item is a microbial, chemical or physical hazard.

<i>Salmonella</i> bacteria	(Answer: microbial)
Broken needle	(Answer: physical)
Liquid pesticide residue	(Answer: chemical)
Piece of glass	(Answer: physical)
<i>E. coli</i> bacteria	(Answer: microbial)
Wood chips	(Answer: physical)
Oil and grease residue	(Answer: chemical)
<i>Listeria</i> virus	(Answer: microbial)
Razor blade	(Answer: physical)
Piece of plastic	(Answer: physical)
Any type of bacteria	(Answer: microbial)
Drug residue	(Answer: chemical)

Activity 3

Broken Needles

The purpose of this activity is to show the damage that broken needles cause for livestock.

Materials needed	Toothpicks Gummy, flexible candy (orange circus peanut chews work well)
Steps	(A) Pass out toothpicks and candy to the group. (B) Ask participants to “inject” the candy with the toothpick, then bend it strongly without breaking it. (C) Now have them pull out the toothpicks and inject the candy again. The toothpicks should break, illustrating damage to the animal.

Material in chapter 2 was taken from:

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, Iowa: National Pork Producers Council, 2000. © 2000, National Pork Producers Council. Used with permission.



Chapter 3

Proper Care of Livestock

In 2015, there were more than 57,000 Texas 4-H and FFA youth beef, swine, sheep, goat, rabbit and poultry projects exhibited at livestock shows in Texas. The exhibitors of those and future projects must realize that, because these animals will enter the food supply, they are responsible for quality assurance. One element of quality assurance in livestock production is the proper use of medications and feed additives to ensure these substances do not enter our food supply.

After completing this chapter students will:

- ◆ Identify types of animal identification and tracking.
- ◆ Name the benefits of housing animals in proper facilities.
- ◆ Evaluate overall animal health.
- ◆ Explain the meaning of medication labels and feed tags.
- ◆ Administer medications properly.
- ◆ Explain the importance of withdrawal times and detectable levels.
- ◆ Describe drug testing methods.

Lesson 1

Animal Identification and Tracking

Objectives

Describe methods of identifying animals.

Recognize that it is the owner's responsibility to identify and track treated animals.

Understand the ethical implications of the tracking process.

Teaching points

The two types of animal identification are temporary and permanent. Some common temporary methods are ear tags, paint brands, and wing bands. Common permanent methods are brands, tattoos, nose prints, and ear notches.

(Image 25) For each animal species, there are appropriate identification methods. These include:

- Cattle - brands, tattoos, nose prints, and ear tags
- Swine - tattoos, ear notches, and ear tags
- Sheep and goats - tattoos, ear tags, and nose prints

It is important to keep records so that animals can be tracked when they are taken to market, when they are sold, and when they are bought.

Responsibility

Caring

Citizenship

"The best place to find a helping hand is at the end of your own arm."

Swedish proverb

"Compassion is the basis of morality."

Arnold Schopenhauer

"There is a difference between interest and commitment. When you are interested in doing something you do it only when time permits. When you are committed to something you accept no excuses, only results."

Art Turok

Activity 1

Ear Notching

The purpose of this activity is to show young people how to read swine ear notches.

Materials needed

Markers

Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Image 26

Handout 13

Ear notchers (optional)

Steps

- (A) Discuss the ear notching system used in swine, showing Image 26. The number in the pig's right ear denotes the litter number; the number in the pig's left ear identifies the pig number within the litter.
- (B) Give a copy of Handout 13 to each student. Read out several numbers and have them practice "notching" the ears of the pig in the drawing by marking where notches should go. If the group is older let them use real ear notchers.

Lesson 2

Animal Facilities

Objectives	Provide appropriate facilities for animals.
	Demonstrate how to handle animals properly, especially during loading and transport.
	Accept personal responsibility for treating animals humanely.
Resources	AS 3-4.060, <i>4-H Meat Goat Guide</i>
	AS 3-4.059, <i>4-H Show Lamb Guide</i>
	AS 1-2, <i>Managing Beef Cattle for Show</i>
	AS 2.010, <i>Rabbit Project Reference Manual</i>
	AS 3-4.0210, <i>4-H Sheep Project Leader's Guide</i>
	AS 16-2, <i>Texas 4-H Swine Project Guide</i>
	(These publications from the Texas AgriLife Extension Service are available at: http://AgriLifeBookstore.org)
Teaching points	(Image 46) All animals require appropriate facilities. Housing should be safe, provide shelter from extreme temperatures, and have good ventilation. Animals also need clean bedding. Of course, animals also need fresh water and an adequate supply of food.
	(Image 47) Always handle animals gently and calmly to prevent stress. Transporting animals can cause stress. Try not to move animals when it's very hot or very cold. If it is hot, make sure animals have shade; also wet the straw or shavings and keep the trailer moving to create a cool air flow. If it's cold, be sure animals have enough straw bedding to stop cold drafts. Give them water immediately after transport, and during transport if possible.
	(Image 48) Use proper equipment for loading and transporting, and load animals carefully. Never use electric prods, buzzers or slappers to handle animals. Treat animals humanely at all times.

Caring Respect

"The respect that is only brought by gold is not worth much."

Francis E. W. Harper

"Life's most persistent and urgent question is, 'What are you doing for others?'"

Martin Luther King Jr.

Activity 1

Defining Character and Ethics

The purpose of this activity is to give young people working definitions of *character* and *ethics*.

Materials needed

Index cards
Pens or pencils
Chalkboard, dry erase board or easel with paper pad
Chalk or markers

Steps

- (A) Give each participant an index card and pencil. Ask students to think about a good definition for *character* and write it on one side of the card.
- (B) On the other side of the card, have students write the name of someone who exhibits good character.
- (C) Ask various members of the group to share their definitions of character. Write these on the board or paper. Discuss until the group comes up with a good, brief definition they agree on. Then share these definitions:

“The pattern of behavior or personality found in an individual; moral constitution.” (Webster’s New World College Dictionary, fourth edition)

“Ethics in action.” (Michael Josephson)
- (D) Ask for volunteers to share the names of people who have good character. Ask: Why do you think this person has high character? What qualities does this person have that make you look up to him or her?
- (E) Ask students how their definition of character could be applied to raising livestock. How would a person of high character raise and exhibit livestock?
- (F) Read the following definition of *ethics*:

“Standards that indicate how one should behave.”(Michael Josephson)

There are two aspects of ethics: Knowing right from wrong, and choosing right from wrong. Discuss the difference between character and ethics.

Lesson 3

Caring for Your Animals' Health

Objectives

Recognize that their decisions affect the health of their animals.

Develop a plan for proper nutrition and the different phases of feeding.

Explain appropriate ways of reaching or maintaining optimal animal weight.

Recognize signs of illness and injury.

Explain the importance of disease prevention.

Implement appropriate biosecurity measures.

Calculate average daily gain, medication dosages, feed conversions and costs of feed and medicine.

Teaching points

(Image 49) Nothing is more essential for your animals than nutritious food and clean, fresh water. As you raise your animal, the object is to provide good nutrition every day so that it will be in optimal condition at show time. It isn't fair, or humane, to your animal if you allow it to become too fat or too thin and then try to correct the problem right before a show. Never withhold water from an animal for more than a few hours, especially as a means of shedding weight.

Feed additives alter the metabolism of the animal and may affect the way the animal handles stress. (Remember that stress can be caused by handling, loading, showing, and weight management.)

You should check your animals every day for signs of injury or illness. When an animal is ill or injured, treat it immediately and correctly. Follow label directions on medications. If you have any doubt about handling the problem yourself, get help or advice from a veterinarian.

Many producers practice strict biosecurity on their farms or ranches. If you visit someone else's farm, be sure you observe any rules they have, just as you would want visitors to your farm to observe your rules. It might be a good idea to adopt some simple biosecurity measures for your operation.

Responsibility

Fairness

Caring

**"We are made kind
by being kind."**

Eric Hoffer

**"We can do no great things;
only small things with
great love."**

Mother Teresa

There are three levels of biosecurity:

Level I—Visits to farms/ranches where there is no contact with livestock or livestock facilities.

- ◆ wash hands with soap and water before and after the visit
- ◆ park vehicles on paved surfaces
- ◆ avoid unnecessary contact with animals or animal facilities

Level II—Visits to farms/ranches where there is only minimal contact with livestock and livestock facilities. Extra measures for this level are:

- ◆ wear clean rubber boots
- ◆ clean and disinfect all equipment
- ◆ clean and disinfect rubber boots

Level III—Visits to farms/ranches where there is close contact with livestock and facilities. Extra measures for this level are:

- ◆ wear clean coveralls
- ◆ disinfect all clothes after visit
- ◆ if vehicle is not parked on pavement, pressure wash tires and wheel wells to remove dirt
- ◆ keep clean clothes and equipment away from dirty clothes and equipment

Remember that by adhering to biosecurity rules you will help prevent the spread of diseases.

Activity 1

Calculating Average Daily Gain

The purpose of this activity is to teach young people to calculate the average daily gain of their animals.

Materials needed

Handout 30

Steps

- (A) Give each young person a copy of Handout 30. Explain the formula for figuring the average daily gain (ADG).
1. There are three components of ADG: beginning weight; ending weight; and number of days on feed.
 2. To calculate the ADG, subtract the beginning weight of the animal from the ending weight and divide that number by the number of days the animal was on feed.

$$\frac{\text{Ending weight} - \text{Beginning weight}}{\text{Number of days on feed}} = \text{ADG}$$

- (B) Have participants complete the work sheet. Discuss their answers.

Activity 2

Calculating Dosage from Medicine Labels

The purpose of this activity is to help participants learn to calculate medicine dosages.

Materials needed Handout 31

- Steps**
- (A) Pass out copies of Handout 31.
 - (B) Read each scenario to the group. Ask students to identify the animal's symptoms and check the Omnibiotic label to see if the medication is approved for treating these symptoms.
 - (C) If the medication is approved, have the group calculate the required dosage for the animal.
 - 1. Identify the recommended daily dosage.
 - 2. Identify the minimum/maximum dosages.
 - 3. Determine the weight of the animal.
 - 4. Figure the correct dosage with the following formula:
$$\text{Weight} \times \text{ml/lb} = \text{dosage}$$
 - (D) Ask students to complete the work sheet. Then reveal the correct answers and discuss the process. Make sure each student can correctly calculate dosage. The correct answers are:
 - Scenario 1: Recommended dosage = 2 ml per 100 lb body weight
Minimum/maximum dosage = 15 ml per day
Weight of animal = 650 lb
Dosage = $650 \times 2 \text{ ml per } 100 \text{ lb} = 13 \text{ ml of Omnibiotic}$
 - Scenario 2: Recommended dosage = 2 ml per 100 lb body weight
Minimum/maximum dosage = 15 ml per day
Weight of animal = 175 lb
Dosage = $175 \times 2 \text{ ml per } 100 \text{ lb} = 3.5 \text{ ml of Omnibiotic}$
 - Scenario 3: Recommended dosage = 2 ml per 100 lb body weight
Minimum/maximum dosage = 15 ml per day
Weight of animal = 75 lb
Dosage = $75 \times 2 \text{ ml per } 100 \text{ lb} = 1.5 \text{ ml of Omnibiotic}$

Activity 3

Estimating Show Weight

The purpose of this activity is to help exhibitors learn to estimate the show weight of animals.

Materials needed

Handout 32

Steps

- (A) Distribute copies of Handout 32. Discuss the importance of knowing how to help an animal reach its ideal show weight.
- (B) Discuss the feed conversions for different types of animals:
 - Swine = 3 lb of feed for 1 lb of gain
 - Beef cattle = 7 lb of feed for 1 lb of gain
 - Sheep: 4 lb of feed for 1 lb of gain
- (C) Ask the students to complete the questions on the handout. Then check their answers and discuss the process. Make sure each student understands it.
 - Project 1: $28 \text{ lb of feed} \div 7 = 4 \text{ lb of gain per day}$
 $4 \text{ lb} \times 60 \text{ days} = 240 \text{ lb}$
 $1,000 + 240 = 1240 \text{ lb the animal will weigh in 60 days}$
 - Project 2: $6 \text{ lb of feed} \div 3 = 2 \text{ lb of gain per day}$
 $2 \text{ lb} \times 21 \text{ days} = 42 \text{ lb}$
 $200 + 42 = 242 \text{ lb the animal will weigh in 3 weeks}$
 - Project 3: $115 \text{ lb} - 100 \text{ lb} = 15 \text{ lb to gain}$
 $30 \text{ days} \div 15 \text{ lb} = 0.5 \text{ lb to gain per day}$
If 4 lb of feed = 1 lb of gain per day, then
 $2 \text{ lb of feed} = 0.5 \text{ lb of gain per day}$

Activity 4

Keeping Records for a Livestock Project

The purpose of this activity is to teach students about the different costs associated with raising livestock, and show them how to record costs.

Materials needed: Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 50 and 51
Handout 33

- Steps:**
- (A) Using Images 50 and 51, explain the various kinds of expenses associated with raising livestock. Ask participants if they can think of any other costs not listed.
 - (B) Discuss the importance of keeping careful records of project costs. Explain that this is the same kind of record keeping a livestock producer must do to show the cost of doing business and calculate the profit or loss from the business.
 - (C) Give each participant a copy of Handout 33 to take home for future reference. Suggest that they make copies of the blank record sheets to use with their projects.

Material for Chapter 3 is from:

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, Iowa: National Pork Producers Council, 2000. © 2000, National Pork Producers Council. Used with permission.

Lesson 4

Medication Labels and Feed Tags

Objectives

Recognize that the decisions made when using animal health products affect the general welfare of animals and consumers.

Demonstrate how to read a medication package insert, medication label and feed tag, and identify key points such as the active ingredient, route of administration, dosage, and withdrawal times.

Calculate the dosage of a medication from the label.

Compare label and extra-label medication usage.

Describe the difference between over-the-counter and prescription drugs.

Understand proper use of supplements and feed additives, specifically, beta agonists.

Understand the importance of using professional veterinary care when needed and keeping accurate medical records.

Understand that following labeled withdrawal may not prevent a positive test result.

Teaching points

As defined by the Food and Drug Administration Act 21 USC 312, a drug is any substance that is used to treat, cure, prevent, mitigate or diagnose disease. Any medicine or feed you give your animals will affect their health positively or negatively. Ultimately, the health of your animals may affect consumers. When deciding how to care for your animals, you must make decisions responsibly so neither livestock or consumers are harmed.

Whether the drug you are using is prescription or over-the-counter, always contact your veterinarian to ensure all precautions are taken to achieve the best management practice.

One of the most important concepts you must learn is how to read feed tags and medication labels. (Image 27) Labels provide critical information, including the expiration date, dosage, special warnings and cautions about their use, the application method, the active ingredient, and the trade name.

It is also important to understand that there are different types of labels that can be found on

Trustworthiness
Responsibility
Citizenship

**"You can't escape the
responsibility of tomorrow
by evading it today."**

Abraham Lincoln

injectable or oral medications. Manufacturer labels are the labels that are on the over-the-counter package or bottle. This label should be strictly adhered to, unless otherwise instructed by a veterinarian. If you are uncertain about any of the information on the manufacturer's label, you should contact your veterinarian for clarification before administering the drug. The veterinarian or pharmacist label is the label that is placed on the package or bottle if it is being prescribed by a veterinarian. This is considered extra-label and should be followed in place of the original manufacturer's label.

The expiration date tells you when the medicine or feed is no longer effective or safe. If the medication or feed has expired, the material should be discarded properly according to American Veterinary Medical Association standards. These guidelines can be found at <https://www.avma.org/>. The dosage tells you how much to give your animals, and the application method tells you how to administer the product (by mouth, by injection, etc.). The active ingredient is the main chemical or 'medicine' in the product. The part of the manufacturer or veterinarian/pharmacist label that says "Warning," "Caution" or "Precautions" gives special instructions for using the product.

(Image 28) Prescription drugs are available only through a veterinarian. Over-the-counter drugs are products you can buy without a prescription. Both kinds of products must be used exactly as their labels say to use them, except under the direction of a veterinarian.

The Veterinary Feed Directive will become effective January 2, 2017. This regulation, set forth by the U.S. Food and Drug Administration, will mean that producers and exhibitors will no longer be able to purchase medically important antimicrobials used in or on feeds without a veterinarian-written prescription.

Do not take the instructions for using over-the-counter drugs for granted. Products intended for humans may not be safe for animals, and may also leave residues that make the meat unsafe for consumption. The same holds true for improperly used animal drugs.

(Image 29) There are two types of drug usage. Labeled use means using it exactly as the label says. This is the legal way to administer drugs, and the way most producers use them. Extra-label use means

a veterinarian has prescribed the use of a drug in a way not specified on the label. This can be legal.

(Image 30) You are responsible for following all instructions on the label whenever you use a medicine or feed additive. Only a veterinarian can change the instructions on the labels of medications. For example, a veterinarian might suggest increasing the dosage or giving the medicine for a longer period of time. However, no one, not even a veterinarian, can change the instructions on the labels of feeds or feed additives.

When using feed additives or supplements, such as beta agonists, livestock owners must always use them as labeled. Even so, as with other drugs and medications, these still may not be allowed in livestock intended for shows in Texas. Additionally, if used by themselves, beta agonists can be obtained over-the-counter. However, if used in conjunction with antibiotics, these must have a veterinarian-issued VFD order to be purchased. In either instance, extra-label use in feed is illegal, even if a veterinarian is involved.

It is very important to remember that though certain drugs are approved for certain uses and species, they still may not be tolerated at some county, regional and major livestock shows in Texas. Even though you follow all labeled instructions and are under the supervision of a veterinarian, it is critical to check specific livestock show guidelines and rules regarding their drug testing policies.

Activity 1

Reading a Medication Insert

The purpose of this activity is to make students familiar with the different sections of a medication insert.

Materials needed Handout 14

- Steps**
- (A) Give each participant a copy of Handout 14. Ask them to fill in the blank next to each number to identify each part of the medication insert.
 - (B) When all have finished, read the correct answers (below) and have students check their answers. Discuss any questions they may have.

Answers

1. Name of drug
2. Active ingredients
3. Species
4. Approved use
5. Dosage
6. Cautions and warnings
7. Route of administration
8. Storage requirements
9. Withdrawal times
10. Sizes available

Activity 2

Reading a Feed Tag

The purpose of this activity is to teach students how to read a feed tag.

Materials needed

Handouts 15 and 16

Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 31 and 32

Steps

- (A) Give students copies of Handout 15 and ask them to complete the work sheet.
- (B) When all have finished, show Image 31, read the correct answers, and discuss each question.
- (C) Repeat with Handout 16 and Image 32.

Activity 3

Extra-label Use of Drugs

The purpose of this activity is to reinforce the correct ways to use prescription and over-the-counter drugs.

- Materials needed** Handout 17
Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Image 33
- Steps**
- (A) Give students copies of Handout 17 and ask them to complete the work sheet.
 - (B) When all have finished, show Image 33 and discuss each question as you reveal the correct answer.

Activity 4

Medication Labels

The purpose of this activity is to acquaint students with medication labels.

- | | |
|-------------------------|--|
| Materials needed | Handout 18
Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Image 34 |
| Steps | (A) Give students copies of Handout 18 and ask them to complete the work sheet.
(B) When all have finished, show Image 34 and discuss each question as you reveal the correct answer. |

Lesson 5

Administering Medicines

Objectives	Administer medications properly.
	Describe the different routes of administration and proper injection sites.
	Determine the proper needle length and gauge.
	Handle and dispose of equipment properly.
Teaching points	The medicine label contains the information you need to be able to use the product correctly, including the route of administration, the dosage, withdrawal times, etc.
	(Image 35) Never inject animals in the loin (back) or rump (ham or leg). These are areas most commonly consumed in meat animals, so it is best to avoid as injection sites in all cases. Intramuscular (in the muscle) injections should be given in the neck muscle. Subcutaneous (under the skin) injections should be given in the neck, dewlap, or elbow pocket.
	(Image 36) Be sure you use the correct length and gauge of needle. The size and species of the animal and the route of administration (intramuscular or subcutaneous) determine the needle size to use. Never use a needle if it has been bent, dropped or damaged in any way. Remember, dropping a needle may cause burrs that would keep it from functioning properly.
	In an effort to retain sterile hygiene and decrease injection-site infections, the best practice to use a needle ONLY one time. Reusing needles presents the opportunity for disease transmission within a herd/flock, etc.
	When disposing of needles, exhibitors should consult a local veterinarian regarding the proper disposal of “sharps” in the exhibitor’s locality. There are specific “sharps” containers specifically designed and labeled for the storage and disposal of needles.

Responsibility

Caring

“The quality of a person’s life is in direct proportion to his or her commitment to excellence.”

Vince Lombardi

“Men are only as great as they are kind.”

Elbert Hubbard

Administering Livestock Injections						
	Subcutaneous			Intramuscular		
Species	Size of needle	Gauge of needle	Location	Size of needle	Gauge of needle	Location
Sheep/Goats	1/2-inch	20-gauge	flank/elbow	1-inch	18-gauge	neck
Swine	1/2-inch	19-gauge	flank/elbow	1-inch	16–19-gauge	neck
Cattle	1/2–3/4-inch	16–18-gauge	neck	1–1.5-inch	16–18-gauge	neck

Activity 1

Livestock Injection Sites

The purpose of this activity is to show students the proper injection sites on livestock.

Materials needed Handouts 19–21

Steps (A) Pass out copies of the handouts. Discuss each one thoroughly, concentrating on the information about proper injection sites. Remind students that they will need help from an adult until they learn to give injections properly.

Activity 2

Banana Injection

The purpose of this activity is to give students a chance to practice giving injections.

Materials needed 2 bananas for each student
Food coloring
Jar of water
Needles and syringes or plastic pipettes

- Steps**
- (A) Mix the food coloring into the water. Give each participant two bananas and a syringe and a needle or a plastic pipette.
 - (B) Discuss the proper way to draw up medication into the syringe. Demonstrate for the students, using the colored water. Have each student practice drawing up the colored water into their syringes (or pipettes).
 - (C) Next, ask students to properly give a subcutaneous injection into one banana, and then an intramuscular injection into the other banana. (Watch closely for any unsafe behavior.)
 - (D) Cut open each banana and observe how the “medicine” was dispersed. Ask students to evaluate whether or not they gave the injections correctly.

Activity 3

Injection Site Blemish

The purpose of this activity is to teach the importance of injecting medication properly.

- Materials needed** Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Images 37 and 38
- Steps**
- (A) Display the illustration of the injection site (Image 37). Explain that animals can get sick and need medicine just like people. It's important to know where to inject animals with medicine because injecting in the wrong place can damage the food quality of the meat. Some medicines are meant to be injected just under the skin. Others are meant to be injected into muscle. The proper site for intramuscular injections is the triangular mass of the neck muscle, as shown by the triangle in the picture.
 - (B) Display the illustration of meat (Image 38). Explain that the picture shows how meat quality can be damaged by improper injection of medicine. In this illustration, an injection was made into the round primal in beef, and it has caused an abscess. Point out the abnormal color of the meat in the bottom of both sides of the round cut. Caution students to always consult a veterinarian for help in establishing a health program for their animals. Remind them never to give an injection without consulting the veterinarian, project leader, county Extension agent and/or agricultural science teacher.

Activity 4

Burrs on Needles

The purpose of this activity is to show young people how burrs can happen and what they look like.

Materials needed 2 needles
 2 syringes

- Steps**
- (A) Attach the needles to the syringes. Allow participants to see up close what a proper syringe and needle looks like.
 - (B) Drop one syringe on the floor (a hard floor is necessary). This should cause a burr on the needle.
 - (C) Have participants compare the two needles. Watch carefully as they examine the needles to ensure safety.
 - (D) Discuss why a needle with a burr should never be used.

Lesson 6

Drug Withdrawal Times

Objectives

- Define *withdrawal time*.
- Find the withdrawal time on the medication package insert, product label, or feed tag.
- Explain the importance of withdrawal times in preventing drug residues from entering the food supply.
- Determine withdrawal times and calculate “safe dates” and keep proper medication records.

Teaching points

(Image 39) Withdrawal time is the length of time it takes an animal’s body to eliminate medication to a level that is safe for consumption. This is the period following the last treatment with the drug during which the animal may not be offered for slaughter and during which products from this animal such as milk and eggs may not be offered for sale. The length of the withdrawal period is based on the time necessary for drug residues in the animal to deplete to levels that are shown to be safe. In other words, it’s the time needed between giving the animal medicine and eating the meat or drinking the milk, so that the food does not contain unsafe drug residues.

(Image 40) The law requires that withdrawal times be printed on drug labels and feed tags. (Remind students that they learned how to find the withdrawal times on labels in Chapter 3, Lesson 2.)

(Image 41) If a drug is used in a way not prescribed on the label (extra-label use), the withdrawal time could be altered at the discretion of a veterinarian. One reason that it is unethical to use drugs improperly is that you might be responsible for unsafe meat entering the food supply. It is important to keep very accurate records of all the drugs given to your animals, including dates, dosage, etc.

Drug residue information pertaining to the food supply is collected at the federal level by testing for residues in accordance with USDA Food Safety and Inspection Service (FSIS). Exhibitors and/or guardians should note that FSIS places more scrutiny on show livestock and tests carcasses with a higher frequency than livestock from the commercial industry.

Trustworthiness
Responsibility
Citizenship

“Responsibility is the price of greatness.”

Winston Churchill

“Citizenship exists in the service of country.”

Jawaharlal Nehru

Activity 1

Record Keeping

The purpose of this activity is to show students the different kinds of records they should keep.

Materials needed Handouts 22–24

- Steps**
- (A) Give students copies of the three handouts.
 - (B) Describe each record and how it can be used. Ask students for their ideas about using such records with their animals.
 - (C) Ask students to make copies of the handouts to use for record keeping in their own projects.

Activity 2

Calculating Withdrawal Times

The purpose of this activity is to give students practice in calculating withdrawal times.

Materials needed Handouts 25–27
 Images 42–44

- Steps**
- (A) Give students copies of Handout 25. Explain that it represents treatments. Ask participants to calculate the withdrawal times (days and times) for the drugs that have been given, and write their answers in the column marked “Date & Time Withdrawal Complete.”
 - (B) Show Image 42, which contains the correct answers. Discuss.
 - (C) Repeat with Handouts 26 and 27 and Images 43 and 44.

Activity 3

Treatment Record

The purpose of this activity is to give young people practice in keeping a treatment record.

- Materials needed** Handout 28
Quality Counts slide show (available at *Qualitycounts.tamu.edu*), computer or LCD projector; or overhead projector; Image 45
- Steps**
- (A) Give each young person a copy of Handout 28 and ask them to complete the work sheet.
 - (B) Using Image 45, reveal the correct way to fill out the treatment record. Discuss.

Lesson 7

Food Safety and Drug Residues

- Objectives**
- Describe the causes of drug residues.
 - Determine the animal owner's responsibility to prevent drug residues through proper production practices.
 - Explain when tests for drug residues are appropriate.

- Teaching points**
- Drug residue problems are often caused by not reading the label before administering the drug. For example, if a drug is only labeled for intravenous use and is given intramuscular, there may be a considerable difference in the withdrawal time, and ultimately the time when the product is safe to market.
 - Drug residues may result when drugs labeled for one species are given to another. An example of this would be administering a drug to goats that is labeled for cattle. This would be considered extra-label use and can only be executed under the supervision of a licensed veterinarian.
 - Drug residues may also result when two drugs are combined in the same syringe and given as one injection. Combining two drugs often results in the formation of a totally new chemical, which may have a very different withdrawal time than either of the drugs separately.
 - The livestock owner has the ultimate responsibility to ensure that all drugs are administered properly. All drugs should be given under the supervision of a veterinarian; administering drugs may not be appropriate for some conditions. All drugs, even over-the-counter drugs, can result in residues if given improperly. Remember, it is your responsibility to document all drugs given to food animals.
 - Finally, it is imperative to understand that animals are subject to residue testing at the time of harvest.

Trustworthiness

Fairness

Responsibility

"It is reasonable that everyone who asks for justice should do justice."

Thomas Jefferson

"Success on any major scale requires that you accept responsibility."

Michael Korda

Lesson 8

Performance Enhancing Drug Testing and Livestock Shows

Objectives	Explain livestock show rules regarding drug testing and the procedures used to test for drug residues.	•
	Provide examples of types of drugs for which exhibitors can be penalized.	•
	Outline best practices for an animal that falls sick leading up to a major livestock show.	•
	Define “zero-tolerance” and what this means to livestock exhibitors.	•
Teaching points	Due to the competitive nature of exhibiting show animals, some exhibitors may try to gain a competitive edge by using performance-enhancing drugs. For this reason, many livestock shows and county fairs choose to participate in a drug-testing program. Drug testing livestock show animals helps livestock shows create a level playing field by identifying livestock that may have an unfair advantage achieved by using performance-enhancing drugs. Any trace of these drugs in show animals may constitute a serious infraction.	•
	Livestock show drug testing is accomplished by collecting urine samples at the livestock show which is tested for detectable levels of drug residues. Detectable levels of drug residues are pre-determined levels at which a drug is detected in a biological matrix. Different testing platforms have different levels of detection, but with more advanced instruments, some can detect certain drugs in the single digit parts per trillion (ppt) range. That’s the same as one drop of detergent in enough dishwater to fill a string of railroad tank cars ten miles long!	•
	Chain-of-custody of the drug test sample begins at the livestock show and is maintained throughout the lifespan of the sample at the laboratory. Chain-of-custody at the laboratory begins with the sample receipt. Upon receipt, samples are inspected for any tampering or damage prior to testing. Information such as employee’s initials, dates, and reagent lot numbers are also recorded for each sample as it	•
		•

is tested. Storage location and sample disposal information is also recorded and maintained.

A typical livestock show drug screen consists of a two-part process. Samples undergo different extraction procedures that attempt to isolate and concentrate various drugs based on their chemical properties. Following the extraction process, samples undergo an initial screening process. If a sample is found to be suspicious as a result of the initial screening, confirmation testing is performed. Confirmation testing uses a new sample from the original test container.

You may be asking why this is important. The reason is that certain classes of antibiotics cause safety and welfare concerns if given to livestock improperly or with the wrong intentions. The following types of drugs may cause livestock exhibitors to be penalized:

Antibiotics/Antibacterials -These can pose a food safety concern if not properly administered.

Anti-inflammatories -These can pose a food safety concern if not properly administered and could create an unfair competitive advantage.

Beta agonists - These may cause food safety and animal welfare concerns if used in an unapproved species or not used according to the label. They may also create an unfair advantage.

If your animal does become sick before a livestock show, do not administer any medications before consulting with your veterinarian, and make certain that both you and the veterinarian are aware of the particular show's rules. Consider the amount of time before arrival at the show, and assume that the time it takes an animal to metabolize a drug to a non-detectable level is longer than the labeled withdrawal period.

This is where you have to decide what is best for the project, as well as the consumer it could potentially impact. Remember, the best decision may be to leave the project at home.

Document all treatments administered to the animal in the feeding period. If the animal is treated with an approved drug and withdrawal times are observed, maintain official record of treatment from the veterinarian, including date of administration and dosage.

Most shows operate on the basis of zero tolerance, meaning that if a positive result is reported, it is the show's obligation to investigate that positive result. It is important to read and understand show rules

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Activity 1

Disappearing Residue

The purpose of this activity is to illustrate the effect of residues.

Materials needed

Handout 29
Pitcher of water for each group of three students
Ready-made chocolate milk
Plain milk
Chocolate or strawberry syrup
Chocolate or strawberry powdered mix
1 clear glass or clear plastic cup for each student
Sink or bucket

Steps

- (A) Divide students into teams of three. One at a time, have teams prepare glasses of chocolate (or strawberry) milk. One person on each team should have a glass of ready-made chocolate milk; one person should make chocolate milk from syrup; the third person should make chocolate milk from powder.
- (B) When everyone is ready, give each person a copy of Handout 29. Then ask them to drink their glasses of milk.
- (C) Have students fill their empty glasses with water from the pitchers, observe the glasses, and write down what they see on the handout. Then they should discard the water in a sink or bucket.
- (D) Have students fill their glasses with water again and record what they see. They should continue dumping and refilling the glasses until the glasses appear completely clear.
- (E) Discuss the following points:

Why was the water cloudy after you drank the milk? (Some of the milk was still in the glass.) The amount of milk left in the glass was the residue. Medications and feed additives also leave residues in the tissue (meat) of an animal's body.

Why was the water less cloudy after each rinsing? (Each rinsing washed more of the residue away.)

Residues leave an animal's body at different rates. Some residues are gone within a few hours. Others take days or months. Some residues never entirely leave certain tissues. For each day that passes after you give an animal medication, some of the residue is cleared away. The U.S. Food and Drug Administration establishes and enforces rules about how long it is before the residues from drugs reach safe levels. They have to ensure that food is safe when it is sold to consumers.

How can we make sure our animals don't have residues from medication when we send them to slaughter? (Always observe the proper withdrawal times.)

Why do we need to be concerned about drug residues? (People who are very sensitive to certain drugs may have life-threatening reactions if there are drug residues in meat.)

Consumers have a right to expect safe meat. If meat contains drug residues, consumers lose confidence in livestock producers and in the whole food industry.

Activity 2

Sunscreen No No

The purpose of this activity is to show how sunscreen and other topical medications can be absorbed through the skin of livestock.

Materials needed Red and blue food coloring
2 glasses or clear plastic cups
Several celery stalks with leaves
Knife

- Steps**
- (A) Cut the bottom of each celery stalk.
 - (B) Place several drops of red coloring in one glass and several drops of blue coloring in the other glass. Put several celery stalks in each glass.
 - (C) Wait 2 hours and observe what happens. While you are waiting, go on to another lesson or activity.
 - (D) Split the celery stalks to observe the water transport system. Also observe the leaves.

Explain to the students that sunscreens and any other medications applied to the skin of livestock can be absorbed by the body. They must be used with care, and only according to label instructions.



Chapter 4

Showing with Sportsmanship

In this chapter, participants are asked to think about what motivates them to exhibit livestock projects and how they define success and failure. They also learn the importance of setting personal goals.

After completing this chapter students will be able to:

- ◆ Define true success.
- ◆ Set personal goals.
- ◆ Define a true competitor.
- ◆ Explain the difference between gamesmanship and sportsmanship.

Lesson 1

Setting Goals for Success

Objectives	Define motivation, success and goals.
	Practice setting personal goals.
Teaching points	Motivation is what causes people to want to do certain things. There are many things that motivate us. Discuss motivation with the group.
	People may define success in many ways. It's important to think about how you define success, and how you define failure.
	Goals are the plans we have and the steps we take in order to be successful.

Responsibility

Trustworthiness

"Life is not so short but that
there is always time
for courtesy."

Ralph Waldo Emerson

Activity 1

What Motivates Us to Have Livestock Projects?

The purpose of this activity is to help students think about the reasons they chose to become involved in a livestock project.

Materials needed Pencils and paper
Chalk or markers
Blackboard or dry erase board

- Steps**
- (A) Ask participants to think about their motivation for having a livestock project and write down their thoughts.
 - (B) Explain that there are usually two main reasons people do things like extracurricular activities:
 - ◆ to have fun
 - ◆ to feel worthy or successful

Write these two categories on the board and ask participants to share the motivations they have written down. Write each one on the board under one of the categories. You can ask students which category they think is appropriate.
 - (C) Discuss the various motivations with the students. Be sure to ask why caring for and exhibiting livestock is about much more than winning and losing. Explain that it is about personal growth, becoming mature and responsible, and increasing knowledge.

Activity 2

What is Success?

The purpose of this activity is to help students understand the meaning of true success.

Materials needed Quality Counts slide show (available at *Qualitycounts.tamu.edu*), computer or LCD projector; or overhead projector; Image 52
Chalk or markers
Blackboard or dry erase board

- Steps**
- (A) Ask the young people how they define success. Write their definitions on the board.
 - (B) Ask how they define failure, and write those definitions on the board.
 - (C) Read the following:

Success is the achievement of something desired, planned or attempted.

Point out that this definition doesn't say anything about winning. It says that success is achieving something you desire, plan or attempt.

- (D) Read the following:

Failure is not achieving what you desire, plan or attempt.

Point out that this definition doesn't say anything about losing. It simply says that failure is not achieving what you hoped to achieve.

- (E) Show Image 52. It is very important that participants understand that success and failure don't have anything to do with winning and losing. Explain that it's the goals you set, and whether or not you reach them, that determine whether you succeed or fail.
- (F) Ask participants to list characteristics of successful people and unsuccessful people. Write them on the board. Here are some characteristics.

Characteristics of Successful People

1. confident
2. hard workers
3. failure increases motivation to work harder
4. challenge themselves
5. take credit for success and take responsibility for failure

Characteristics of Unsuccessful People

1. doubt themselves and are anxious
2. don't work very hard
3. give up when things don't go well
4. just go through the motions without much participation
5. believe someone else controls whether they succeed or fail

- (G) Reemphasize the fact that the way to be successful is to reach your goals.

Activity 3

Writing Personal Goals

The purpose of this activity is to teach students how to set and write down their goals.

Materials needed

Handout 34
Pens and pencils

Steps

- (A) Ask students to define “goal.” Discuss their answers. Here’s one definition:
GOAL = something one strives to attain or achieve
- (B) Using Handout 34, ask students to think about their goals for the coming year and write them down. Not all of their goals have to relate to their live-stock project, but some should. Explain that a goal should be challenging but realistic. It should be complete and focused—not something you just write down quickly without thinking about it. A list of goals should be like a road map with a purpose.
- (C) Goals are personal, so students don’t have to read them out loud if they choose not to. But you might ask if anyone would like to tell the group about one of their goals. Remind them that goals should not be about ribbons and trophies, but about other kinds of achievements.
- (D) Challenge the students to keep their list of goals in a place where they’ll see them often, and to keep track of their progress toward meeting their goals. Remind them that if they reach the goals they have set, they will achieve success.

Lesson 2

Valuing Sportsmanship

Objectives Explain the difference between gamesmanship and sportsmanship.

Commit to exhibiting good sportsmanship at all times.

Teaching points

We've been studying about the importance of developing good character, and what it means to have good character. When we prepare our livestock for exhibition and take them into the show ring, we have the opportunity to demonstrate good character by the way we conduct ourselves.

Some terms you may hear during competition are "gamesmanship" and "sportsmanship." They may sound similar, but they actually mean very different things.

Respect
Citizenship
Fairness
Caring

"The greater the man,
the greater the courtesy."

Alfred Lord Tennyson

Activity 1

Gamesmanship vs. Sportsmanship

The purpose of this activity is for students to learn to value the honorable traits that indicate good sportsmanship.

Materials needed Quality Counts slide show (available at Qualitycounts.tamu.edu), computer or LCD projector; or overhead projector; Image 53
Handout 35

- Steps**
- (A) Ask students what they think the difference is between gamesmanship and sportsmanship.
 - (B) Show Image 53 and discuss the definitions.
 - (C) Read each statement below and ask whether it represents gamesmanship (G) or sportsmanship (S).
 - ◆ picking up a show stick someone drops in the ring (S)
 - ◆ jabbing someone else's animal in the show ring (G)
 - ◆ being dishonest about an animal's age when registering (G)
 - ◆ teaching a younger exhibitor how to clip and fit a steer (S)
 - ◆ opening a gate for someone who has had a pig penned (S)
 - ◆ showing an animal in the wrong breed or division (G)
 - ◆ letting another exhibitor borrow a brush (S)
 - ◆ telling the judge that your animal weighs a different amount than the card says (G)
 - ◆ taking leadership of the county/chapter showmanship training to help others (S)
 - ◆ blocking the judge's view of another animal in the class (G)
 - ◆ sharing your knowledge about selecting projects with others (S)
 - ◆ depriving your animal of the appropriate amount of feed and water to get its weight down (G)
 - ◆ helping a younger exhibitor carry a bucket of water (S)
 - (D) Discuss why we should strive for sportsmanship, not gamesmanship. Give each participant a copy of Handout 35.

Activity 2

Maze Craze

The purpose of this activity is to help young people explore their ideas of what is fair and what is not.

Materials needed	20 paper plates Masking tape Bright colored sheets of paper Blindfolds (handkerchiefs, bandanas, strips of cloth)
Ahead of time	Create a “maze” by taping a twisting, turning, zigzag line of paper plates to the floor. After you’ve taped down 10 plates, tape down several sheets of colored paper. Then resume the maze with the remaining plates.
Steps	<p>(A) Divide the students into two teams. Pair the members of each team. One member of each pair should be blindfolded. The object of the game is for the partners to make it from one end of the maze to the other. The sighted person helps the blindfolded person. The blindfolded person cannot speak. Both people have to stay on the plates. Once a pair reaches the colored paper in the middle of the maze, the sighted person can no longer touch the other partner. Only voice directions can be used.</p> <p>(B) After all pairs have made it through the maze, ask:</p> <p>How did it feel to walk the maze blindfolded?</p> <p>How did your partners help you?</p> <p>Was it hard not to touch your partner in the second half of the maze?</p> <p>Did the blindfolded partners follow directions?</p> <p>What happened?</p> <p>(C) Now have the partners switch roles. This time the object is to see who can finish first. There are new rules: Pairs from one team can only talk; pairs from the other team can only touch. BUT. . .as they begin, surprise them with a change of rules: Pairs from one team can touch and talk, while pairs from the other team can only talk.</p> <p>(D) When everyone has finished, ask:</p> <p>What was it like to go through the course this time?</p> <p>How was it different?</p> <p>Someone should bring up the fact that it was unfair for one team to be able to talk and touch while the other team could only talk. If no one does, bring it up. Ask: How did it feel for the teams to have different rules?</p> <p>Ask the group to define what fairness means. Then ask if they can think of situations they have experienced while exhibiting livestock that are examples of fairness or unfairness.</p>

Handout 1

“Learning by Example”

by Larry Mrozinski

When Tommy was 8 years old, his father registered a lamb born on December 24 as being born on January 2. His father said to Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 9 years old, his father bred the family’s flock of purebred ewes with a ram of another breed and registered the lambs as purebreds. His father said to Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 10 years old, his 4-H leader and county agent tagged and weighed newly purchased lambs a month after the ownership deadline. They both told him, “It’s okay, kid; everybody does it.”

When Tommy was 11 years old, his parents bought him a registered ewe lamb to show at the county fair and changed the ear tag to their own flock tag. His parents said, “It’s okay, kid; everybody does it.”

When Tommy was 12 years old, his grandparents bought him a show lamb and left it with the breeder who fed and fit the lamb until the day before the county fair. The breeder and his grandparents said, “It’s okay, kid; everybody does it.”

When Tommy was 13 years old, his veterinarian issued health papers for sheep he never inspected and that had foot rot and lamb fungus. He said, “It’s okay, kid; everybody does it.”

When Tommy was 14 years old, his neighbor used an electric animal prod on his lamb to get it to brace. He told Tommy, “It’s okay, kid; everybody does it.”

When Tommy was 15 years old and after winning the Grand Champion Market Lamb at the county fair, he saw his dad having a beer with the judge and paying the judge \$200 for making his son’s lamb champion. The judge and his father said, “It’s okay, kid; everybody does it.”

When Tommy was 16 years old, his FFA advisor falsified the number of Tommy’s winning sheep proficiency award entry. His advisor said, “It’s okay, kid; everybody does it.”

When Tommy was 17 years old, his uncle used Lasix on his market lamb at the state fair to make it weigh into a lighter class. His uncle said, “It’s okay, kid; everybody does it.”

When Tommy was 18 years old, his brother pumped the loin of his lamb at a national sheep show. His brother said, “It’s okay, kid; everybody does it.”

When Tommy was 19 years old, his entire family knew that he’d given clenbutural to his market lambs. They told him, “It’s okay, kid; everybody does it.”

When Tommy was 20 years old, a friend offered him cocaine. His friend said, “It’s okay, kid; everybody does it.”

When Tommy was arrested later that night for using cocaine and called his family to ask them to bail him out of jail they told him, “How could you have brought such a disgrace to your family? You never learned any of that at home. Where did you go wrong?” After hearing of his arrest, Tommy’s 4-H leader, FFA advisor, county agent, grandparents, uncle, veterinarian and neighbors were also shocked. If there’s one thing the adult world can’t stand it’s a kid who breaks the rules.



Handout 2



4-H Mission Statement

Prepare youth to meet the challenges of childhood, adolescence and adulthood, through a coordinated, long-term, progressive series of educational experiences that enhance life skills and develop social, emotional, physical and cognitive competencies.



FFA Mission Statement

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education.

Handout 3



4-H Pledge

To make the best better,
I pledge my head to clearer thinking,
my heart to greater loyalty,
my hands to larger service,
and my health to better living for my club, my community, my country and my world.

4-H Creed

I believe in 4-H for the opportunity it will give me to become a useful citizen.
I believe in the training of my head for the power it will give me to think, to plan and to reason.
I believe in the training of my heart for the nobleness it will give me to become kind, sympathetic and true.
I believe in the training of my hands for the dignity it will give me to become useful, helpful and skillful.
I believe in the training of my health for the strength it will give me to enjoy life, resist disease and work efficiently.
I believe in my country, my state and my community for their development.
In all these things I believe, and I am willing to dedicate my service to their fulfillment.



FFA Motto

Learning to Do
Doing to Learn
Earning to Live
Living to Serve

FFA Creed

I believe in the future of agriculture, with a faith born not of words but of deeds - achievements won by the present and past generations of agriculturists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so—for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me.

I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.



40 Developmental Assets

External Assets

Family support
Positive family communication
Other adult relationships
Caring neighborhood
Caring school climate
Parent involvement in school
Community values youth
Youth as resources
Service to others
Safety
Family boundaries
School boundaries
Neighborhood boundaries
Adult role model
Positive peer influence
High expectations
Creative activities
Youth programs
Religious community
Time at home

Internal Assets

Achievement motivation
School engagement
Homework
Bonding to school
Reading for pleasure
Caring
Equality and social justice
Integrity
Honesty
Responsibility
Restraint
Planning and decision making
Interpersonal competence
Cultural competence
Resistance skills
Peaceful conflict resolution
Personal power
Self-esteem
Sense of purpose
Positive view of personal future

Handout 5

Fictional Characters

1. Johnny

This young person comes from a two-parent home where his father is a construction foreman and his mother is a teacher. In school he plays football and is a member of the Beta and Spanish clubs. He shows pigs through 4-H and is an area FFA officer. Johnny thinks he can do anything he puts his mind to. His classmates voted him most popular and most likely to succeed. He has plans to attend a four-year university but really wants to run for state FFA officer. His mother and father support him in everything he does. He has the reputation of being someone who couldn't lie if his life depended on it.

2. Debbie

This young person comes from a single-parent home. She doesn't know who her father is. She skips class frequently and always uses the excuse "I don't feel well." She doesn't attend any of the events that her school has and also has a hard time making friends and talking to people. She never goes out because she has a job to help her mother out with the bills. She doesn't really know what she is going to do when she graduates, but thinks she will figure it out. She lives in a trailer park where everyone knows each other. Debbie also goes to church on Sunday.

3. Robert

This young person comes from a wealthy family. His father is a lawyer who travels a lot. His mother is a doctor. He considers himself the best at every thing he does. He loves to play baseball even though his father has never seen him play a game. He makes mostly A's and B's in school but likes to go out on the weekends and drink a few beers. His neighbors often have to call his parents because he is racing his car through the neighborhood. This young man is very hot-tempered and self-centered, and rarely helps anyone out.

4. Jason

This young person has moved from foster home to foster home and never really had a family. He is involved in nothing, unless it's trouble. He brags that he'll try anything once. He makes bad grades in school and doesn't know or care where he will be in the future. He likes to live just for the moment and is seen as a loose cannon. He will stand up for himself no matter what.

5. Sue

This young person comes from a two-parent, middle-class household. She is involved in 4-H, where she shows lambs and pigs. She is also a cheerleader. She is considered very popular at her school. Sue is a highly motivated person who holds honesty and integrity as her highest values. After high school she wants to attend college, as do all her friends. She is also on the A honor roll at school. Sue likes to go out with her friends but has the strictest curfew. Every Sunday you'll find her at church, where her mother is a Sunday School teacher and she is active in the youth group. Sue's ag teacher, county agent and youth group leader support her in anything she does. Sue knows that her actions today control her future.

6. Belinda

This young person comes from a single-parent home. Her mother died when she was very young. Her father owns his own small business, where she helps out on the weekends and whenever she can. She deals with people of all races and ethnic backgrounds at her father's business. Belinda doesn't really know what she wants to do in the future, but her father is discouraging her from going to college. She is involved with Habitat for Humanity and tutors a young child in reading two days a week. She recently lost her best friend because she wouldn't go along with what her friends were doing. She doesn't consider herself to have many friends. Belinda often wonders why her life is so tough sometimes.

Handout 6

Percentage of Youth Involved in High-Risk Behaviors					
		# of Assets			
		0-10	11-20	21-30	31-40
High-Risk Behaviors	Problem Alcohol Use	53%	30%	11%	3%
	Illicit Alcohol Use	42%	19%	6%	1%
	Sexual Activity	33%	21%	105	3%
	Violence	61%	35%	16%	6%
Percentage of Youth Promoting Positive Attitudes and Behaviors					
		# of Assets			
		0-10	11-20	21-30	31-40
Positive Attitudes & Behavior	Succeeds in School	7%	19%	35%	53%
	Values Diversity	34%	53%	69%	87%
	Maintains Good Health	25%	46%	69%	88%
	Delays Gratification	27%	42%	56%	72%

This material is from the Search Institute.



Handout 7

1. Trustworthiness—includes honesty, promise keeping and loyalty

- feeds and waters the animals daily
- adheres to the possession deadlines
- adheres to withdrawal times on drugs and dewormers
- uses only approved drugs

2. Respect—includes courtesy and proper treatment of people and things

- handles and treats animals humanely
- cares for animals properly
- listens to and follows advice of advisors
- recognizes that animals depend on their caretaker

3. Responsibility—includes accountability, perseverance and the pursuit of excellence

- feeds and waters the animal daily (even on busy, difficult days)
- goes beyond providing the daily needs of the animal by giving it extra time and attention to produce a winner
- adheres to deadlines for entry form and for arrival at livestock shows
- never gives up in the show ring
- feeds only approved livestock rations
- uses only approved drugs

4. Fairness—involves consistently applying rules and standards appropriate for different age groups and ability levels

- feeds only approved livestock rations
- uses only approved drugs
- accepts winning or losing with grace
- follows rules in the show ring
- follows recommended procedures for fitting and grooming an animal

5. Caring—promotes the well-being of people and things

- feeds and waters the animals daily
- keeps the stall and barn clean
- handles and treats animals humanely

6. Citizenship—includes making the home, community and country a better place to live

- accepts instruction
- accepts winning or losing with grace
- helps others at stock shows
- teaches younger members
- handles and treats animals humanely
- ensures that meat is safe for consumption

Handout 8

Listed below are some skills that are gained from exhibiting livestock. Next to each of them, write some of the ways these skills are learned. Also list any other skills you can think of.

Problem solving

Knowledge of the livestock industry

Self-confidence

Teamwork

Self-motivation

Self-discipline

Organizational skills

Character

Social skills

Competition



Handout 9

In 2000, the Texas AgriLife Extension Service completed a study of 4-H and FFA youth livestock projects at the county level. That year there were more than 70,000 livestock projects for market swine, goats, lambs and steers combined. The numbers for each species were:

Project Type	Total
Swine	32,617
Goats	23,821
Lambs	11,349
Steers	8,438
TOTAL	76,225

What does this mean in the Quality Counts program?

It is important for each exhibitor to understand that once a livestock project has been completed, the animal(s) will enter the food supply. Remember that the main objective of raising livestock is to produce high-quality food for human consumption. How much meat is produced from youth livestock projects each year? To figure that out, let's first define some terms.

Carcass is the term given to the product after the animal has been harvested.

Harvest is the process of slaughtering the animal and removing the head, viscera (intestines and stomach), hide and shanks.

Live weight is the weight of the animal at the time of harvest.

Dressing percentage is the carcass weight divided by the live weight times 100.

For the 71,196 projects studied in 2000, these were the averages:

Project type	Average Dressing %	Average Live Weight	Average Carcass Weight
Swine	73%	240 lb	175.2 lb
Goats	55%	110 lb	60.5 lb
Lambs	53%	125 lb	66.3 lb
Steers	63%	1,200 lb	756.0 lb

With this information we can estimate the total pounds of carcass weight these projects represent.



Swine

32,617 swine projects in 2004, multiplied by 175.2 (average carcass weight) equals 5,714,498 pounds of carcass weight.

Goats

23,821 goat projects in 2004, multiplied by 60.5 pounds (average carcass weight) equals 1,441,171 pounds of carcass weight.

Lambs

11,349 lamb projects in 2004, multiplied by 66.3 pounds (average carcass weight) equals 752,439 pounds of carcass weight.

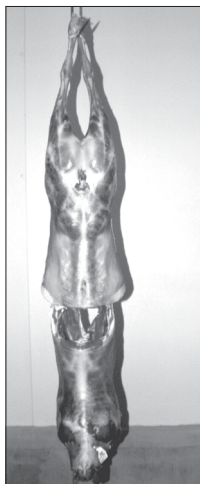
Steers

8,438 steer projects in 2004, multiplied by 756 (average carcass weight) equals 6,379,128 pounds of carcass weight.

Adding all those projects together, we see that a total of 14,287,236 pounds of carcasses entered the food supply from FFA and 4-H livestock projects. It is the responsibility of each exhibitor to make sure that food is safe. That's why it's so important to follow directions on medications and feed, because these products end up in our food supply.



Swine carcass



Goat carcass



Lamb carcass



Steer carcass

(Thanks to Extension Meat Science at Texas A&M University for supplying the photos. For more information about these carcasses, visit <http://meat.tamu.edu>.) For more information about project exhibition trends in Texas, see:

Boleman, C., J. W. Howard, K. L. Smith and M. E. Couch. 2001. "Trends in Market Steer, Lamb, Swine and Meat Goat Projects Based on County Participation: A Qualitative and Quantitative Study." *Texas 4-H Research Review*, pp. 53-61.

Handout 10

TRUSTWORTHINESS

Livestock exhibitors demonstrate that they are trustworthy when they:

- ◆ Record birth and possession dates of animals accurately
- ◆ Refuse to use dishonest practices to alter an animal's appearance, size, weight or behavior
- ◆ Maintain true ownership of their animals and do not show animals someone else has produced
- ◆ Do as much of the grooming and fitting of an animal as they are capable of, by themselves.
- ◆ Accept help and guidance from those designated by the show's guidelines, whether show officials, volunteers or managers
- ◆ Accept full responsibility for the care and feeding of their animals
- ◆ Talk honestly to fellow exhibitors and share all the information they need in selecting and caring for animals
- ◆ Meet all their obligations, such as paying a breeder on time
- ◆ Make clear commitments that are understood by everyone involved in the project, including family members and sponsors
- ◆ Remain loyal to their animals throughout the project, providing animals proper care as long as they possess them

An exhibitor with integrity will:

- ◆ Do the right thing at all times, even when the right thing is not the popular thing to do
- ◆ Report violations of show rules or guidelines
- ◆ Display good character and grace in losing or in winning
- ◆ Treat animals with dignity and respect
- ◆ Exhibit the ethical behavior that their families, sponsors and show managers expect

RESPECT

Respectful exhibitors will:

- ◆ Live by the Golden Rule, treating other exhibitors, spectators and judges as they, themselves, want to be treated
- ◆ Treat others with consideration, be courteous and polite, and show appreciation to adults and fellow exhibitors
- ◆ Give adults and fellow exhibitors complete and accurate information needed to make decisions
- ◆ Be tolerant, respectful and accepting of those who show a different breed or species of livestock
- ◆ Value and honor others and help others value themselves
- ◆ Listen to others and try to see their points of view
- ◆ Respect the property of other exhibitors, the show facility and the show barn equipment
- ◆ Show respect for animals through proper care, feeding, housing and handling:
 - Feed animals on time and provide fresh, clean water
 - Keep pens clean and dry
 - Provide shelter from severe weather
 - Handle animals in a safe, humane way
- ◆ Honor the independence of other exhibitors; allow them to have privacy and dignity
- ◆ Allow others to have a voice in decisions that affect them
- ◆ Refuse to threaten, intimidate, coerce, harass, or in any other way hurt other exhibitors or visitors in the barn or during the show
- ◆ Focus on the experience and not the goal of winning
- ◆ Solve disagreements, respond to insults and deal with anger peacefully
- ◆ Refuse to use threats or violence to get what they want or to express anger

RESPONSIBILITY

A responsible exhibitor will:

- ◆ Develop knowledge, skills and judgment about the desired characteristics of the animal he/she is showing and how to prepare the animal for show
- ◆ Ensure that the animal's birth date is recorded accurately
- ◆ Adhere to possession dates when purchasing animals
- ◆ Be truthful and honest when helping fellow exhibitors select animals
- ◆ Show loyalty to everyone involved in the project—the breeder, family members, other exhibitors, the sponsoring organization, the sponsoring show, and consumers
- ◆ Have a sense of duty toward the animal—feed it on schedule, provide fresh water and proper housing, and groom and exercise it regularly
- ◆ Feed only approved livestock rations
- ◆ Use only approved drugs and medicines
- ◆ Go beyond providing the daily needs of the animal by spending extra time to train and groom it properly
- ◆ Learn about the best production practices and encourage fellow exhibitors to learn
- ◆ Use good work habits and keep tools and equipment clean and organized
- ◆ Ask for permission before borrowing tools and return borrowed tools in good condition
- ◆ Keep the animal calm and handle it in a way that will not interfere with other animals and handlers
- ◆ Refrain from rough-housing, loud talking, put-downs and gossip
- ◆ Follow the designated schedule for using show barn facilities and equipment
- ◆ Do each job as well as it can be done, even if time and resources are short
- ◆ Be prepared to deal with problems such as a crowded washing area, shortage of water or interference from spectators
- ◆ Be a role model for peers and younger exhibitors
- ◆ Know the show guidelines for the animal being exhibited
- ◆ Be persistent from day to day to avoid last-minute problems
- ◆ Fit and groom the animal according to recommended procedures
- ◆ Meet deadlines for entry forms and for arriving at livestock shows
- ◆ Fulfill responsibilities assigned by the leader, teacher or sponsor
- ◆ Follow judges' directions
- ◆ Refuse to give up or quit in the show ring
- ◆ Prepare the animal for sale
- ◆ Demonstrate good showmanship during and after the sale
- ◆ Know the rules and regulations for selling the animal
- ◆ Write thank-you notes and letters of appreciation to buyers and others who helped make the project a success
- ◆ Continue to take good care of the animal until it is delivered to the purchaser
- ◆ Keep project books complete and up-to-date
- ◆ Keep an accurate list of all medicines and medical care given to the animal
- ◆ Keep accurate feeding records that show what, when and how much the animal was fed

FAIRNESS

An exhibitor will show fairness by:

- ◆ Treating all people fairly
- ◆ Listening to others and trying to understand what people are saying and feeling
- ◆ Considering all the facts and opinions before making a decision about a production or exhibiting issue
- ◆ Making fair decisions, using the same rules for everyone
- ◆ Showing a commitment to justice and impartiality at home, school and club meetings, on trips, and at shows and sales
- ◆ Admitting mistakes and correcting them promptly
- ◆ Accepting the differences of others and avoiding social cliques
- ◆ Living up to agreements
- ◆ Using only his/her share of the time and limited resources at a show (for example, washing an animal only at the time scheduled and using only equipment that has been scheduled for use)
- ◆ Following guidelines for exhibiting the animal properly in the show ring
- ◆ Refusing to allow personal preferences, prejudices or feelings to get in the way of making sound decisions
- ◆ Speaking encouragingly to exhibitors when they have failed or made mistakes

CARING

Caring exhibitors will:

- ◆ Stay alert to the needs of the animal and show compassion for the animal
- ◆ Treat animals humanely at all times
- ◆ Show compassion and kindness to all people
- ◆ Consider the needs of other exhibitors
- ◆ Share resources and equipment with others, especially younger exhibitors
- ◆ Include first-time exhibitors in their circles of friends
- ◆ Encourage exhibitors who seem to be struggling and offer to help or coach them
- ◆ Help exhibitors who have disabilities or special needs
- ◆ Understand and forgive the shortcomings of others
- ◆ Not be cruel or insensitive to others

CITIZENSHIP

To show good citizenship, exhibitors will:

- ◆ Know and fulfill their responsibilities
- ◆ Know and obey the rules, regulations and laws
- ◆ Stay informed about proper production and exhibiting practices
- ◆ Promote good character within their organizations, their communities, and society as a whole
- ◆ Protect the environment during the production and exhibiting of animals
- ◆ Keep the show facilities clean and free of litter and trash
- ◆ Volunteer to help fellow exhibitors
- ◆ Be team players and strengthen their organization by modeling ethical behavior
- ◆ Show respect to everyone
- ◆ Work to improve things.

Handout 11

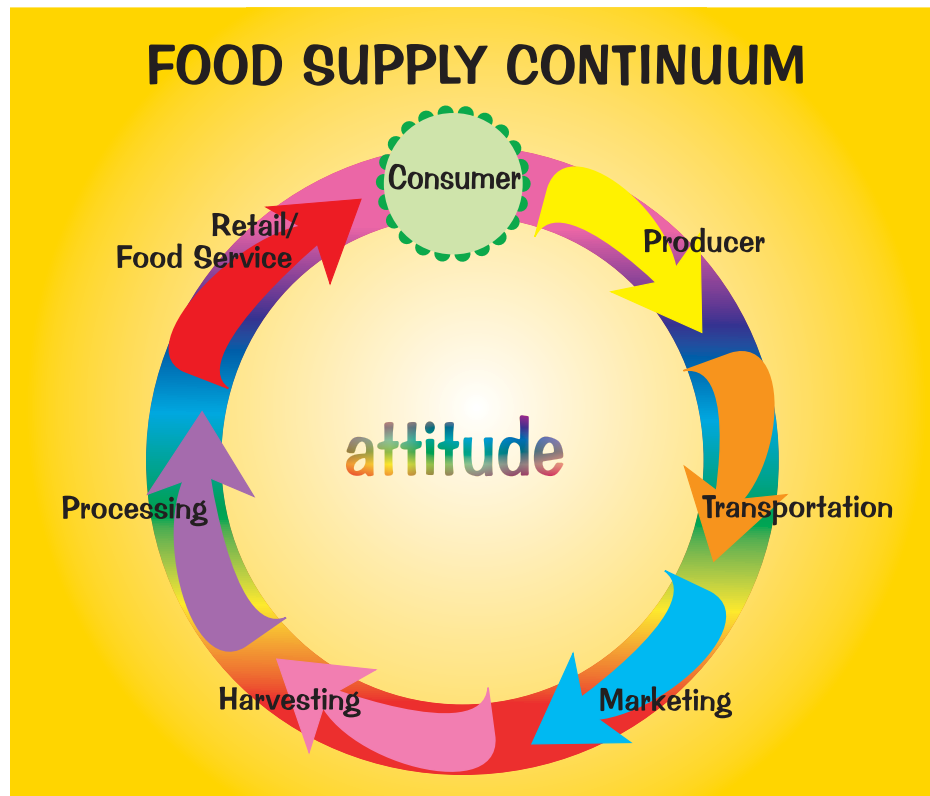
The Food Supply Continuum

1. Which segment is responsible for safe handling of the animal product (beef, pork, lamb) in their homes?

2. Which segment is responsible for distributing the product to restaurants or grocery stores?

3. Which segment carries the animal from the farm to the market?

4. Which segment sells the animal to the packer? _____
5. Which segment harvests the animal? _____
6. Which segment processes the carcasses into retail cuts? _____
7. Why is it important for all segments to work together? _____



Handout 12

HACCP Plan (Hazard Analysis and Critical Control Point)

1. Identify hazards. If you don't clean your room you can't go to the party. List some problems that might prevent you from cleaning your room (school, meetings, sports, etc.).

2. Find critical limits for each critical control point. For example, it is critical that your room be spotless before Saturday. Each day will be important because you must clean a little each day to get the job done. List the things you must do each day (for example, hang up clothes, put away games and toys, sweep the floor, etc.).

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

Saturday _____

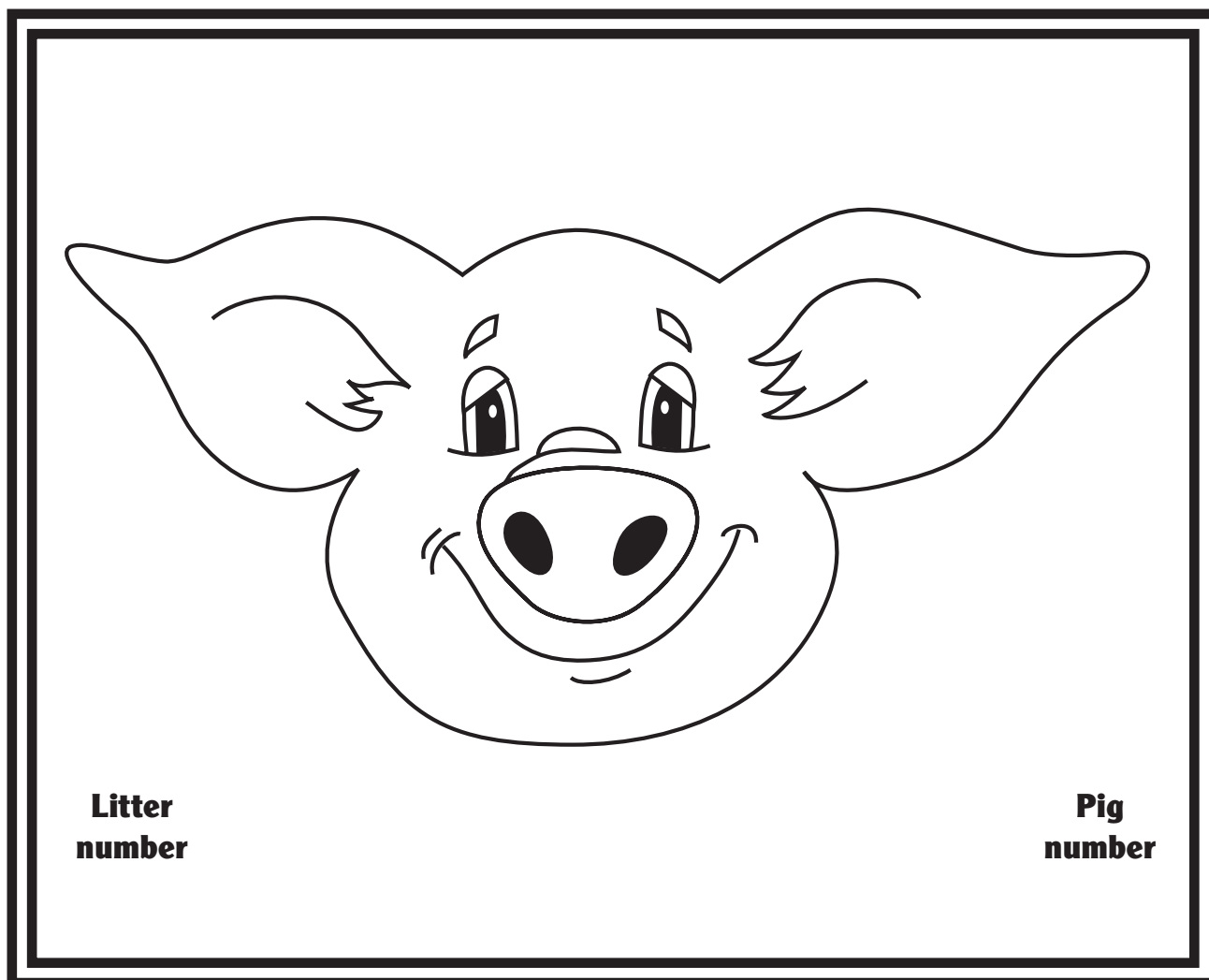
3. Establish critical limits for each critical control point. For example, you will not dirty your room at all during the week and you will clean up a little each day.
4. Monitor. Follow your plan to clean your room and watch to make sure your little brother or sister doesn't enter.
5. Take corrective action if there is a problem. For example, if your little brother or sister leaves toys scattered in your room, what could you do to solve the problem?

If you failed to get one day's chores done, what could you do?

- _____
6. Keep records on each critical control point. Each day, check off the chores you planned to do.
 7. Verify that the HACCP plan is working correctly. By Saturday, your room is clean and you get to attend the party.

Handout 13

Ear Notching



Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.

Medication Insert

1 → Omnibiotic
(Hydrocillin in Aqueous Suspension) ← **2**

Directions for use: See package insert

For use in beef cattle, lactating
and non-lactating dairy cattle, swine and sheep ← **3**

Read entire brochure carefully before using this product
For Intramuscular Use Only

Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in aqueous base.

4 → Indications: **Cattle** — bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. **Swine** — erysipelas, pneumonia. **Sheep** — foot rot, pneumonia, mastitis. And other infections in these species caused by or associated with hydrocillin-susceptible organisms.

Recommended Daily Dosage
The usual dose is 2 ml per 100 lb of body weight given once daily.
Maximum dose is 15 ml/day.

Body Weight	Dosage
100 lb	2 ml
300 lb	6 ml
500 lb	10 ml
750 lb or more	15 ml

Continue treatment for 1 or 2 days after symptoms disappear.

Caution: **1.** Omnibiotic should be injected deep within the fleshy muscle of the neck. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. **2.** If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. **3.** Treated animal should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines. **4.** Omnibiotic must be stored between 2° and 8°C (36° and 46°F). Warm to room temperature and shake well before using. Keep refrigerated when not in use. ← **7**

6 → Warning: Milk that has been taken from animals during treatment and for 48 hours (four milkings) after the last treatment must not be used for food. ← **9**
The use of this drug must be discontinued 30 days before treated animals are slaughtered for food.

10 → How supplied: Omnibiotic is available in vials of 100 ml.

Before administering any drug to an animal be sure you understand the information on the drug label.

Identify the parts of the medication insert by filling in the corresponding blank with the correct name of the part.

- | | | |
|----------|---------|---------|
| 1 _____ | 4 _____ | 7 _____ |
| 2 _____ | 5 _____ | 8 _____ |
| 3 _____ | 6 _____ | 9 _____ |
| 10 _____ | | |

Lamb & Goat Grower

Medicated for goats, lambs and calves being fitted for show.

Administer Fast Forward™ Fast Fat as a conditioning supplement during any phase of the feeding period to achieve desired body conditioning scores.

Guaranteed Analysis

Crude Protein, not less than	10.00%
Crude Fat, not less than	5.00%
Crude Fiber, not more than	3.50%
Calcium (Ca), not less than	0.70%
Calcium (Ca), not more than	1.00%
Phosphorus (P), not less than	0.50%
Potassium (K), not less than	0.50%
Selenium (Se), not less than	0.30 ppm
Vitamin A, not less than 2,000 International Units per pound	

Ingredients

Ground Corn, Barley, Dried Whey, Ground Milo, Dehulled Soybean Meal, Calcium Salts of Fatty Acids, Cane Molasses, Monocalcium Phosphate, Dicalcium Phosphate, Brewer's Dried Yeast, Calcium Carbonate, Sodium Sesquicarbonate, Sodium Propionate (a preservative), Choline Chloride, Natural and Artificial Flavors, Manganous Oxide, Zinc Oxide, Potassium Sulfate, Magnesium Oxide, Defluorinated Phosphate, Mineral Oil, Ferrous Sulfate, Vitamin E Supplement, Vitamin A Acetate, Potassium Iodide, Niacin Supplement, Biotin, Calcium Pantothenate, Cobalt Carbonate, Riboflavin Supplement, Menadione Dimethylpyrimidinol Bisulfite (source of Vitamin K Activity), Cholecalciferol (source of Vitamin D₃), Sodium Selenite, Vitamin B₁₂ Supplement, Folic Acid.

Feeding Instructions

This supplement is for calves weighing at least 600 lb, goats and lambs. Top-dress rations for thin or stressed animals with Fast Fat at a rate of 8 to 16 oz per 100 lb of body weight per head per day. Fast Fat can be fed during any phase of the feeding period to achieve desired body conditioning scores.

100-lb goat	8 oz
125-lb lamb	10 oz
1,200-lb calf	96 oz (6 lb)

NOTE: Base ration volumes figured for goat and lamb at 3% of body weight per head per day.

Manufactured by:
ADM Alliance Nutrition, Inc.

Reading a Feed Tag

1. What is the main ingredient in this feed?

2. What is the crude protein level?

3. What is the minimum crude fat level of this diet?

4. Is ground milo included in the ingredients of this diet?

5. How much ration should a 125-lb lamb be fed?

6. When should this supplement be fed to animals?

7. What are the minimum and maximum calcium levels of this diet?

Pig & Cattle Grower

Medicated for horses, rabbits, cattle, goats, poultry and swine

Administer Calf-Manna as a nutritional supplement for better growth and performance. Calf-Manna's four main ingredients—high-quality proteins, digestible carbohydrates, anise and brewer's dried yeast—meet the needs of many animals by providing for more growth, energy, palatability, and better digestion.

Guaranteed Analysis

Crude Protein	min. 25.0%
Lysine	min. 1.4%
Methionine	min. 0.3%
Crude Fat	min. 3.0%
Crude Fiber	min. 3.0%
Crude Fiber	max. 6.0%
Acid Detergent Fiber	max. 10.0%
Calcium	min. 0.7%
Calcium	max. 1.2%
Phosphorus	min. 0.6%
Salt	min. 0.5%
Salt	max. 1.0%
Sodium	min. 0.2%
Sodium	max. 0.4%
Copper	min. 15 ppm
Copper	max. 35 ppm
Selenium	min. 0.1 ppm
Zinc	min. 125 ppm
Vitamin A	min. 20,000 IU/lb

Ingredients

Soybean Meal, Corn, Hominy Feed, Feeding Oatmeal, Dried Whey, Dehydrated Alfalfa Meal, Linseed Meal, Brewer's Dried Yeast, Vegetable Oil, Fenugreek Seed, Anise Oil, Calcium Carbonate, Monocalcium Phosphate, Dicalcium Phosphate, Salt, Sulfur, Iron Oxide, Ferrous Carbonate, Ferrous Sulfate, Copper Oxide, Copper Sulfate, Manganous Oxide, Zinc Oxide, Sodium Selenite, Cobalt Carbonate, Calcium Iodate, Vitamin A Supplement, Vitamin D₃ Supplement, Vitamin E Supplement, Choline Chloride, Thiamine Mononitrate, Niacin Supplement, Riboflavin Supplement, Calcium Pantothenate, Pyridoxine Hydrochloride, Vitamin B₁₂ Supplement, Folic Acid, Biotin, Calcium Propionate (a preservative).

Feeding Instructions

Beef calves	10% of creep ration
Show cattle	1–2 lb/day
Brood cows & bulls	1 lb/day
Baby pigs	1/8–1/4 lb/day
Show hogs	1/2–1 lb/day
Gestating sows	1/8–1/4 lb/day
Lactating sows	1/2–3/4 lb/day
Boars	1/4–1/2 lb/day

Manufactured by:
Manna Pro Corporation
Net Weight 50 pounds (22.7 kilograms)

Reading a Feed Tag

1. What is the main ingredient in this feed?

2. What is the crude protein level?

3. What is the minimum crude fat level of this diet?

4. Is ground milo included in the ingredients of this diet?

5. How much supplement should be fed to show cattle? Show hogs?

6. What is one of the four main ingredients found in this supplement?

7. What are the minimum and maximum calcium levels of this diet?

Handout 17

Extra-Label Drug Use: Prescribed Only By a Veterinarian

Veterinarian increases dosage beyond label
Veterinarian changes frequency of administration beyond label
Veterinarian changes duration of treatment
Veterinarian changes disease to be treated
Veterinarian changes species to be treated
Veterinarian prescribes any other non-label use of OTC or Rx drug

**Off-Label Drug Use: Producer uses without veterinarian approval.
THIS IS ILLEGAL!**

Label each situation as extra-label, off-label, or okay.

- 1) _____ The label says to give 10 cc of the drug; your vet says to give 20 cc.
- 2) _____ Your animal is diagnosed with foot rot and you treat it with an OTC medication approved for foot rot.
- 3) _____ You decide to use a drug for pneumonia to treat your animal's ringworms without consulting a veterinarian.
- 4) _____ You use a drug approved for chickens on your sheep without checking with the veterinarian prescribing it.
- 5) _____ The label says treat the animal twice a day and you treat it once at 8 a.m. and once at 8 p.m.
- 6) _____ The label says "treat once daily" and your vet tells you to treat the animal at 6 a.m., noon, and 6 p.m.
- 7) _____ The label says "administer only to lactating females" and your veterinarian says to give the medicine to your 3-week-old calf, piglet or lamb.
- 8) _____ The label says treat for 5 days. Your first treatment is Monday and you give the last shot on Friday.

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.



Handout 18

Medication Labels

Before administering any drug to an animal, you must know what information is on the drug label.

1 →	Omnibiotic	← 2
	(Hydrocillin)	
Directions for use: See package insert.		
3 →	Warning: The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food. Exceeding the highest recommended dosage level may result in antibiotic residues in meat or milk beyond the withdrawal period.	← 4
	Store between 2° and 89°C (36° and 46°F).	← 5
	Keep dry and away from light.	
6 →	Net Contents: 100 ml	
	Distributed By:	
	USA Animal Health, Inc.	← 7
	8 →	Destroy after August 13, 2002

Identify the parts of the medication label by filling in the corresponding blank with the correct name of the part.

1 _____

5 _____

2 _____

6 _____

3 _____

7 _____

4 _____

8 _____

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.

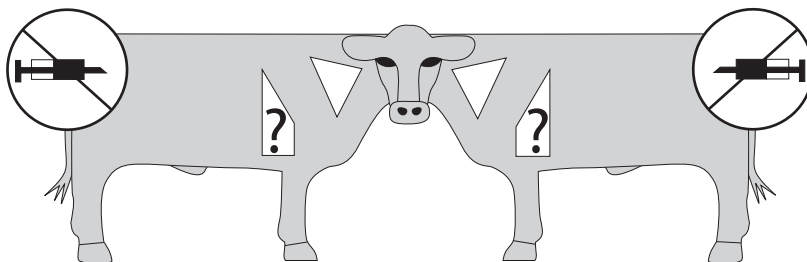
Beef Cattle Injection Checklist

Choosing the correct needle

- ✓ Size and length of needle are important for proper entry and safety to the animal.
 - Subcutaneous (SQ) — 16- or 18-gauge, ½ or ¾ inch long
 - Intramuscular (IM) — 16- or 18-gauge, 1 to 1½ inches long
 - 14-gauge needle is NOT recommended because of associated risks to the animal.
- ✓ Replace needles about every 10 to 15 injections.
- ✓ Replace broken, bent or dull needles.

Choosing the best injection site

- ✓ IM and SQ injections should be given in the neck muscle.
- ✓ Avoid making injections in damp or dirty facilities to minimize the risk of infection at the injection site.
- ✓ NEVER INJECT INTO THE HINDQUARTERS.



Handling vaccines and medications with care

- ✓ Store in refrigerator, maintain correct storage temperature at the chute, and keep out of sunlight.
- ✓ Do not mix two different products together in the same syringe.
- ✓ Use separate needles for filling syringes and injecting calves to minimize contamination.
- ✓ Properly sanitize syringes.
- ✓ Use hot water in syringes with disinfectant residues.

Maintaining quality

- ✓ Communicate with your veterinarian and work together to create a herd health program.
 - ✓ Maintain records on health, treatments and vaccinations to share with buyers.
-

Sheep Injection Techniques

When making a subcutaneous (under the skin) injection:

Use small, short needles (20-gauge, ½-inch).

Use loose flaps of skin in the flank, elbow, or behind and below the ear.

Slide the needle under the skin away from the site of the skin puncture before depositing the product.

When making an intramuscular (into the muscle) injection:

Use only if subcutaneous injection cannot be used.

Use proper needle size (18-gauge, 1-inch).

General Injection Techniques

Restrain animal (no movement) before injecting.

Inject only into clean and dry areas.

Make certain injections don't just go into the wool.

Use different needles to inject sheep from those used to remove product from multidose vials.

Replace needles with a bent shaft, because they're more likely to break.

Before injecting, check needle point and replace if dull or bent to reduce the chance of carrying in foreign material and causing an abscess.

Replace needles at least after every 20 injections.

Record the product name, serial number and date used.

Inject neck muscles, NEVER the leg.

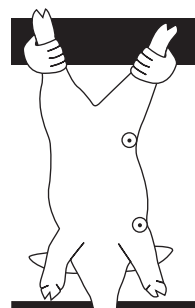
Martin W. B. and I. D. Aitken, ed. *Diseases of Sheep*. 2nd edition. Oxford: Blackwell Scientific Publications. 1991.

Veterinary Epidemiology—Principles and Methods. Cannon and Roe. Martin, Meek and Willeberg. 1982.

Swine Injection Techniques

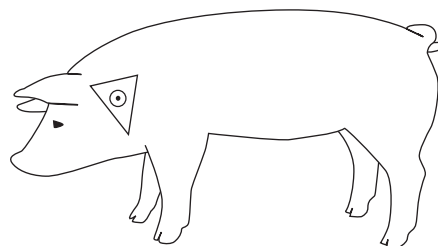
Subcutaneous (SQ): Deposits the drug under the skin

- ◆ Inject only into clean, dry areas.
- ◆ Use the loose flaps of skin in the flank and elbow of small pigs.
- ◆ Use the loose skin behind the ear of sows.
- ◆ Slide needle under the skin away from the site of the skin puncture before depositing the medication.



Intramuscular (IM): Deposits the drug into the muscle

- ◆ Use a spot on the neck just behind and below the ear.
- ◆ The neck area should be used for IM injections. (See area outlined in figure.)
- ◆ Damage to the ham or loin can result in condemnation of the meat cut.
- ◆ Use proper needle size to ensure medication is deposited in the muscle.



Intraperitoneal (IP)

- ◆ Should be used only after veterinary instruction and guidance, as serious injury to abdominal organs can occur.

**Consult the product label
for approved routes
of administration.**

Correct Injection Techniques

Restrain the animal before injecting.

Adjust the syringe properly.

Make sure the needle is placed properly on the syringe.

To prevent swelling or an abscess at the injection site:

1. Use sterile needles.
2. Inject only into clean, dry areas.
3. Don't use the same needle to remove product from the vial and to inject pigs.

Consult with your veterinarian about possible drug and vaccine reactions.

Handout 22

Pen or Individual Animal Treatment Record

[illegible]

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.



Handout 23

Drug Storage Record Inventory Control Sheet

Drug name: _____

Storage condition/location: _____

Purchase date	# Units purchased	Size	Person storing drug	Amount used	Pen or animal used on	Person administering drug

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.



Handout 24

Farm Medication Plan

Date completed: _____

Storage		Usage			
Production stage	Product name and concentration	Route	Withdrawal dosage	Time	Drug purpose
New stock					
Breeding					
Gestation					
Lactation					
Creep					
Young animal					
Grower					
Finisher					

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.



Handout 25

Treatment Record

Treatment date and time	Animal ID Name Species ID number Description	Condition being treated	Estimated weight	Treatment given (medication amount and route given)	Name of person giving treatment	Labeled milk/meat withdrawal time	Date and time withdrawal complete	If this is an extra- label use of a Rx drug, list the name, address and phone number of the veterinarian who prescribed the treatment
Aug. 1, 2010 10 a.m.	Swine, 35-11 Hamp/Duroc barrow	Pneumonia	200 lb	LA-200, 9 ml, IM	Adam Smith	28 days		Not applicable
Aug. 2, 2010 10 a.m.	Swine, 45-8 Hamp barrow	Lame right rear foot	230 lb	Penicillin 10 ml, IM	Adam Smith	11 days		Dr. Jones Mytown, OH 740-555-1212
Aug. 4, 2010 10:30 a.m.	Swine, 23-6 Blue-butt gilt	Coughing, fever	240 lb	Naxcel 8 ml, IM	Adrian Smith	0 days		Dr. Jones Mytown, OH 740-555-1212
Aug. 5, 2010 11 a.m.	Swine, 22-2 Blue-butt barrow	Swollen right knee	210 lb	Tylan 200 4 ml, IM	Amanda Smith	14 days		Not applicable

Using the calendar below for reference, write dates and times withdrawal is complete for each treatment.

August 1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	September 1	2	3	4

Handout 26

Treatment Record

Treatment date and time	Animal ID Name Species ID number Description	Condition being treated	Estimated weight	Treatment given (medication amount and route given)	Name of person giving treatment	Labeled milk/meat withdrawal time	Date and time withdrawal complete	If this is an extra- label use of a Rx drug, list the name, address and phone number of the veterinarian who prescribed the treatment
Sept. 1, 2010 11 a.m.	Beef, 122 Angus bull calf	Dehydration	85 lb	Bovine IgG Colostix, 400g + 1.5 qt water, oral	John Doe	0 days		Not applicable
Sept. 2, 2010 9 a.m.	Beef, 241 Simbrah heifer calf	Cut on right front inside leg	275 lb	Penicillin G Procaine, 5cc for 7 days, IM	Jane Doe	10 days		Not applicable
Sept. 3, 2010 11 a.m.	Beef, 163 Brangus cow	Mastitis	1,000 lb	Piruse Pirlimycin Hydrochloride for 4 days, external teat application	Jenny Doe	36 hrs.—milk/ 9 days—meat		Dr. Smith Belton, TX 979-533-1573
Sept. 5, 2010 9:30 a.m.	Beef, 202 Charolais cow	Failure to lose after birth	900 lb	LA-200, 40cc for 3 days, IM	Jimmy Doe	28 days		Not applicable

Using the calendar below for reference, write dates and times withdrawal is complete for each treatment.

September 1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	October 1	2	3	4	5

Treatment Record

Treatment date and time	Animal ID Name Species ID number Description	Condition being treated	Estimated weight	Treatment given (medication amount and route given)	Name of person giving treatment	Labeled milk/meat withdrawal time	Date and time withdrawal complete	If this is an extra- label use of a Rx drug, list the name, address and phone number of the veterinarian who prescribed the treatment
Oct. 3, 2010 9 a.m.	Goat, 302 Boar wether	Urinary calculi	140 lb	Ammonium chloride with water drench	Dan Miller	0 days		Not applicable
Oct. 4, 2010 9 a.m.	Sheep, 51 Suffolk ewe	Pneumonia	130 lb	Naxcel, 2-3cc, IM	Dan Miller	7 days		Dr. Keys Abilene, TX 281-666-9753
Oct. 6, 2010 10 a.m.	Sheep, 12 Hampshire ewe	Pinkeye	135 lb	Penicillin, 3cc for 2-3 days, external eye application	Dennis Miller	10 days		Not applicable
Oct. 8, 2010 11:30 a.m.	Goat, 312 Angora/Boar wether	Sore feet	125 lb	LA-200, 2cc IM	Dan Miller	28 days		Not applicable

Using the calendar below for reference, write dates and times withdrawal is complete for each treatment.

October 1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	November 1	2	3	4

Handout 28

Medication Label / Treatment Record

Your name is Jenny Jones and today is July 23, 2010. Two days ago the market hog, "Spot" (a 200-pound, blue-butt barrow with the ear notch 36-7), that you have been raising since April started having breathing difficulty. Yesterday Spot failed to eat and would not move around unless forced to do so. You called your veterinarian, Dr. Bruce E. Losis, who examined your hog and diagnosed the problem as pneumonia. He administered medication yesterday and left you with more medicine and the instructions shown below. You have just finished giving the follow-up medication as directed.

Bruce E. Losis 100 Quality Avenue Hometown, OH 43200 USA Telephone # 614-555-5050	Owner: Jenny Jones Date: July 22, 2010 Indications: Pneumonia Animal ID: hog 36-7 Directions: Give 15 ml (cc) subcutaneously on July 23 Precautions: Use care in injections to avoid infections Warning: Use of this drug must be discontinued for 7 days before slaughter or market food Product/active ingredient(s): Biomeycin Expiration date: August 13, 2010
---	---

July 2010						
S	M	T	W	T	F	S
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1. Complete the treatment record for the medication you gave your hog.

Treatment Record

Treatment date and time	Animal ID Name Species ID number Description	Condition being treated	Estimated weight	Treatment given (medication amount and route given)	Name of person giving treatment	Instructed milk/meat withdrawal time	Results	Date and time withdrawal complete	If this is an extra-label use of a Rx drug, list the name, address and phone number of the veterinarian who prescribed the treatment
							X		

X = This information was not given in the situation.

2. What is the first full day this hog could safely be processed (slaughtered) for food?

Handout 29

Drug Residues

Chocolate Milk

Time	Observation (what you saw)
Immediately after drinking the milk (before rinsing)	
First rinse	
Second rinse	
Third rinse	
Fourth rinse	

1. How many rinses did it take before the glass became clean?
2. What can you do to ensure that your animals don't have an illegal residue when you market them?

Sterle, Jodi and Rachel Williams. *Pork Quality Assurance Youth Program*. Des Moines, IA: National Pork Producers Council, 2000.



Calculating Average Daily Gain

Average Daily Gain (ADG) is important because it shows how efficiently the animal is growing. Once you know how much your animal is gaining each day, you can estimate how much weight the animal still needs to gain before the show and you can begin manipulating how much feed the animal receives.

To calculate Average Daily Gain, subtract the beginning weight from the ending weight and divide by the number of days on feed.

$$\frac{\text{Ending weight} - \text{Beginning weight}}{\text{Number of days on feed}} = \text{ADG}$$

Calculate the Average Daily Gain for the following animals:

1. When you bought your market steer he weighed 500 pounds. When he was weighed exactly 100 days later he weighed 850 pounds. What is his average daily gain?
2. An FFA member shows pigs for SAEP (the Supervised Agricultural Experience Program). This FFA member bought a show pig on October 1. When he got the pig home, it weighed 50 pounds. On October 8, the pig weighed 64 pounds. What is the pig's average daily gain for this week?
3. A 4-H'er weighed her lamb on Sunday afternoon. The lamb weighed 100 pounds. Two weeks later it weighed 107 pounds. What was the average daily gain?

Calculating Dosage from Medicine Labels

Omnibiotic

(Hydrocillin in Aqueous Suspension)

Directions for use: See package insert

For use in beef cattle, lactating
and non-lactating dairy cattle, swine and sheep

Read entire brochure carefully before using this product

For Intramuscular Use Only

Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in aqueous base.

Indications: **Cattle** — bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. **Swine** — rypelas, pneumonia. **Sheep** — foot rot, pneumonia, mastitis. And other infections in these species caused by or associated with hydrocillin-susceptible organisms.

Recommended Daily Dosage

The usual dose is 2 ml per 100 lb of body weight given once daily.

Maximum dose is 15 ml/day.

Body Weight	Dosage
100 lb	2 ml
300 lb	6 ml
500 lb	10 ml
750 lb or more	15 ml

Continue treatment for 1 or 2 days after symptoms disappear.

Caution: 1. Omnibiotic should be injected deep within the fleshy muscle of the neck. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage.

2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3. Treated animal should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines.

4. Omnibiotic must be stored between 2° and 8°C (36° and 46°F). Warm to room temperature and shake well before using. Keep refrigerated when not in use.

Warning: Milk that has been taken from animals during treatment and for 48 hours (four milkings) after the last treatment must not be used for food. The use of this drug must be discontinued 30 days before treated animals are slaughtered for food.

How supplied: Omnibiotic is available in vials of 100 ml.

Scenarios

Tommy has a show steer that currently weighs 650 pounds. As he was working with him one day, Tommy noticed that the steer had a sore on its right front leg. He called his county agent, who told him to give the steer two doses of Omnibiotic, one one day and one the next. The county agent told Tommy to read the label carefully to calculate the correct dosage.

Calculation steps:

1. Identify recommended dosage:
2. Identify minimum/maximum dosage:
3. Identify the weight of the animal:
4. Calculate dosage (weight x ml/lb = dosage):

When Sara weighed her show hog yesterday, he weighed 175 pounds. She has noticed that he is showing symptoms of pneumonia. Sara called the local veterinarian, who suggested that she treat the symptoms with Omnibiotic. Calculate the dosage for Sara's pig.

Calculation steps:

1. Identify recommended dosage:
 2. Identify minimum/maximum dosage:
 3. Identify the weight of the animal:
 4. Calculate dosage (weight x ml/lb = dosage):
-

While shearing his lambs, Billy noticed that one of them had developed foot rot. The veterinarian suggested using Omnibiotic to treat the problem. The lamb weighs 75 pounds. Calculate the correct dosage.

Calculation steps:

1. Identify recommended dosage:

 2. Identify minimum/maximum dosage:

 3. Identify the weight of the animal:

 4. Calculate dosage (weight x ml/lb = dosage):
-

Handout 32

Calculating Daily Weight Gain

It is important to know how much weight your animal is gaining each day. You don't need to weigh the animal every day, but you should weigh it once a week. If you know how much weight your animal is gaining each day on the amount of feed you are giving, you can adjust the feed ration to help the animal reach its ideal weight before show time.

Here are the average feed conversions for different animals:

Swine = 3 lb of feed for 1 lb of gain

Beef cattle = 7 lb of feed for 1 lb of gain

Sheep = 4 lb of feed for 1 lb of gain

Figure out how much feed each of these animals should be given each day to reach their desired weight:

Project 1: A 4-H'er is raising a market steer. The steer weighs 1,000 pounds. If the 4-H'er is feeding the steer 28 pounds of feed a day, how much will the steer weigh in 60 days?

Project 2: An FFA member weighed his pig 3 weeks before the county fair. The pig weighed 200 pounds. He feeds the pig 6 pounds of feed a day. How much will the pig weigh when he takes it to the fair?

Project 3: A 4-H'er would like her market lamb to weigh 115 pounds on show day. The lamb currently weighs 100 pounds and there are 30 days until the show. How much feed should she give the lamb each day to reach the desired weight?

Handout 33

Recording the Cost of a Livestock Project

Record keeping is a very important part of a livestock project. You can use your records to figure out just how much a livestock project costs by recording all your expenses. Record expenses in the following categories: Beginning Inventory, Feed, Other Expenses, Total Expenses.

Beginning Inventory

A record of the animals you have at the beginning of your project. Record each animal, the date that it was purchased, its weight, and its cost or value. Examples:

Date	Animal description	Weight	Cost/Value
3/21/10	Charolais steer	520 lb	\$1,000
7/1/10	Market lamb	50 lb	\$500
10/21/10	Hampshire Barrow	95 lb	\$250

Feed Expense

The amount you spent on feed for your project. Record the date you bought the feed, the type of feed, how much was bought (pounds), and the total cost of the feed. Examples:

Date	Type of feed	Pounds	Cost
3/21/10	Steer feed	500 (10 bags)	\$135
7/1/10	Lamb feed	150 (3 bags)	\$31.50
10/21/10	Pig feed	150 (3 bags)	\$48

Other Expenses

Items such as equipment, show supplies, veterinary bills, medications, validation costs, registration fees, travel costs, etc. Record the date of the purchase, the item, and the cost. Examples:

Date	Item/Expense	Cost
3/21/10	Halter and lead rope	\$20
8/1/10	Clippers	\$100
11/11/10	LA 200®	\$35

Total Expenses

The total amount that you have spent on your project. Add up the costs of the beginning inventory, feed and other expenses. Example:

Beginning costs +	Feed expense +	Other expenses =	Total expenses
\$1,750	\$214.50	\$155	\$2,119.50

http://www.ans.iastate.edu/youth/beef_recordkeeping.html



Beginning Inventory Sheet

[illegible]

Feed Expense Sheet

[illegible]

Other Expense Sheet

[illegible]

Total Expense Sheet

[illegible]

http://www.ans.iastate.edu/youth/beef_recordkeeping.html

Handout 34

Steps for Writing Goals

1. Make sure the goal is something you really want, not just something that sounds good.
2. Write a goal in the positive instead of the negative (for example, "I will. . .").
3. Write your goal out in complete detail.
4. Make sure your goal is high enough.
5. WRITE IT DOWN!

Example:

My personal goals are:

to practice showing my steer four times a week

to brush my steer twice a week

to clean the pig pen three times a week

to help my younger sister feed her calf

to participate in at least three shows this year

to improve my math grades

to lead a showmanship clinic this year for my club/chapter

My personal goals are:

SPORTSMANSHIP

is about exhibiting livestock with honor

Sportsmanship = livestock exhibition is a contest governed by high standards of integrity and ethics.

GAMESMANSHIP

is all about winning for gain and glory

Gamesmanship = livestock exhibition is a chance to win by doing whatever you can get away with.

Texas A&M AgriLife Extension Service

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