



LIVESTOCK Leaders' Guide

Beef

Sheep

Swine

Dairy Cattle

Dairy Goats

Oregon State University Extension Service

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This publication is for 4-H Livestock club leaders to use as a tool in working more effectively with 4-H members carrying livestock projects. The project, as carried in the 4-H program, serves two purposes: first, it helps boys and girls develop better understanding of and appreciation for animals; second, it serves as a tool to develop the personal qualities of young people.

4-H is a program of youth development and education. Experiences provided should be based upon the needs and interests of the youth.

Be sure you have a copy of the *Oregon 4-H Leaders' Handbook*. It contains valuable information on 4-H, leadership, how clubs function, and planning. There is an entire section devoted to working with boys and girls.

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Goals of 4-H

The goals of 4-H include helping boys and girls develop leadership, character, and effective citizenship.

Club activities such as business meetings conducted by the members, community service projects, working on committees, social activities, and group recreation provide a real-life laboratory in leadership, character, and citizenship development. 4-H opens the door to expanded horizons through county and state events for members.

The livestock program is designed to help 4-H members to:

1. Develop leadership, initiative, self-reliance, sportsmanship, and other character traits which are valuable.
2. Experience the pride and responsibility of owning an animal and receive training in its care, feeding, management, and related costs.
3. Gain an appreciation of care for, purpose of, and role of livestock in the everyday life of individuals.

4. Increase skill, patience, and understanding in handling, raising, and training animals.
5. Increase the knowledge of safety precautions to prevent injuries to the animals and people.
6. Promote greater love for animals and a humane attitude towards them.
7. Prepare for citizenship responsibilities by working together in groups and supporting community projects and activities.

4-H is learning by doing. By caring for and training an animal the member learns patience, responsibility, initiative, and dependability. Members will learn to set goals and develop standards for themselves.

The key to the success of a 4-H club is you, the 4-H leader. This guide is designed to stimulate ideas as well as to provide a general framework for your club's yearly program. In the final analysis, your judgment of the needs and interests of the members will determine the specific topics to be included in each meeting and the yearly program.

Working with Young People

Each 4-H member has needs, interests, desires, strengths, and weaknesses which affect his behavior. Regardless of how the behavior appears to you, it is reasonable for the member. While each member has a different personality, all youth share some common needs. They are:

1. **They want to belong.** Belonging to an identifiable group provides the opportunity for them to make friends. Belonging and being accepted in a group gives them a feeling of personal worth. As a leader, you should closely observe the relationships between and among members to avoid isolation of some members or the forming of cliques within the club.
2. **They want to achieve.** Young people want to know their efforts are worthwhile and appreciated. The rate of achievement of members varies. You need to constantly appraise each member's efforts in all areas of 4-H, not just the project, so that the member is recognized for accomplishment in relation to his or her ability. You need to challenge the higher achiever and at the same time provide opportunities for less-advanced members to be recognized.
3. **They want adventure and new experiences.** Young people are active. They want to do new things. They are searching for an "idol" to pattern

their behavior after, someone who "really leads the way." As a leader, you will need to provide new and creative experiences. Variety in the club program helps meet this need. Activities in addition to project work should be emphasized.

4. **They want to be independent.** While this may seem troublesome, it is essential to growing up. You can help them learn to make decisions and be responsible for themselves and to the group. Although they may make errors, these mistakes will contribute to the development of judgment and are less costly than mistakes later in life.
5. **They want love and affection.** Affection or love is essential in personality development. Everyone needs to know they are wanted in spite of their shortcomings. You will need to keep in mind both the group and the individual. By providing encouragement, showing interest in each member and the group, and by listening to their problems as well as triumphs you will help meet this need for affection.

Your leadership job will be easier, more meaningful, and more rewarding if you remember each boy and girl!

Leadership Responsibility

The responsibility of the leader is both a challenge and an opportunity. It is the key position in the 4-H program. If you enjoy working with young people and like animals, you will find working with the 4-H Livestock program to be a most satisfying experience.

The leader's job has many sides. These may be defined into three general categories: 1. an organizer, 2. an advisor, and 3. a teacher. Specific responsibilities, outlined and in addition to those outlined in *Leaders' Handbook*, include:

As an organizer

- Get the club formed.
- Enroll club members.
- Secure project material for members.
- Plan the yearly program.
- Keep members informed of educational events and activities and encourage their participation.
- Involve parents in the club's program.

As an advisor

- Assist members and parents in selecting projects.
- Help club officers plan and conduct meetings.
- Provide guidance to members of committees for club activities or special projects.
- Counsel with junior leaders.
- Help members see how they can become active in the betterment of their community.

As a teacher

- Teach subject matter in the project book(s).
- Keep abreast of new developments in the project field so this may be taught to members.
- Help members plan and present teaching demonstrations.
- Conduct tours or other club events to reinforce your teaching efforts.
- By the example you set you will indirectly teach such values and behaviors as punctuality, responsibility, respect for others, the dignity of work, and constructive use of leisure time.

You're a Member of a Team

You, as a 4-H club leader, are a member of a leadership team in which each has an important part to fulfill. The other members of the team are:

- Community coordinators
- Junior leaders
- Parents of 4-Hers
- Resource leaders
- Teen leaders
- Extension agents

The responsibilities of these team members are outlined in the *Leaders' Handbook*, Section 2.

You can make effective use of county Extension agents without demanding an undue amount of their time if you . . .

- Learn to know the Extension agents and the nature of their work. You can then use their talents and services to better advantage.
- Occasionally, discuss with them how they can best help you. Keep a list of items to discuss with them when you see them.
- Ask them to help with the planning of a program or a special event before the final plans are made.
- Keep the agents informed about the activities of your club. The agents are in a better position to help you when they know what you are doing.
- Keep in mind that the agent does not always have to be a participant in a meeting or event to make a real contribution.
- Attend 4-H leader meetings. Leaders receive excellent help and guidance in the training and leader meetings.
- Become involved in 4-H events and activities. You will learn while at the same time provide a real service to the county program.

Organizing a 4-H Club

Before you organize a club, you may need to do some advance groundwork. Be sure to review the Leaders' Guide, *So You Want to Organize a 4-H Club*.

Boys and girls should have the full support and permission of their parents before they enroll in a livestock project. People must like animals and understand that a livestock enterprise may be costly. Usually no profit may be expected. Furthermore, there is some danger of injury to youth from animals which are handled carelessly. In addition to those outlined in *So You Want to Organize a 4-H Club*, here are some tips to help you get started:

- Talk to the parents, boys and girls, and others in the community about 4-H and the livestock program.
- Visit the homes of prospective members who either have animals or seem interested in buying them.
- Make arrangements for the meeting and notify all families in the community of the time and place.
- Arrange to have one of the county Extension agents, a 4-H community coordinator, or an experienced 4-H leader present at the meeting to explain the 4-H program, membership and project requirements, and procedures for organizing the club or group.
- A good plan is to have an older boy or girl who has had leadership experience in 4-H serve as temporary chairman until the group has elected its permanent

officers. As a leader, it is your job to teach the officers to conduct businesslike meetings. You need to check with each officer to see that he knows his responsibilities.

Parent Cooperation

Parent cooperation provides the foundation to support the activities of your club. 4-H leaders report involvement of the parents early in the club year helps develop parent understanding of 4-H.

In addition to those ideas outlined in the *Leaders' Handbook*, specific examples of ways to involve parents include:

1. Contact parents before first club meeting to briefly explain the 4-H livestock project.
2. Contact persons by phone or home visit during the year so that you may become better acquainted.
3. Rotate meetings to members' homes. Space may prevent holding some training meetings at homes, but business and most meetings probably could be rotated.
4. Ask parents to assist with some club activities. Each parent has some ability that is usable in the club.
5. Encourage parents to assist members with home livestock training and preparation of reports members are assigned to do.
6. Recognize parent assistance given the club.

Project Supervision

Some of the boys and girls will own or have access to animals at the time they join the 4-H club. Others will not. The local leader should be prepared when called upon to counsel with the parents and members as to

the type of project which would best meet the individual member's needs. Choosing the right project will add greatly to the satisfaction and pleasure of the boy or girl and reduce the chance for disappointment.

Young boys and girls should not select animals or projects that are too large for them to handle. Younger and smaller animals with good dispositions are safer for beginners. Members who have gained experience may want to start with lambs, goats, calves, or weaner pigs and train their own animal.

If pasture and feed are available, the member may want to own a cow, doe, goat, ewe, or sow and raise calves, lambs, goats, or pigs. This kind of project has the advantage of providing a monetary return and the opportunity for gaining experience in raising animals for sale. In selecting an animal for breeding, it is advisable to choose a breed in demand locally.

Points which should be considered in selecting the kind of animal include: age, weight, degree of experience and skill of the boy or girl, facilities available for keeping the animal, price the purchaser can afford, individual preference regarding type and quality, and plans for using the animal.

It is not necessary to buy a purebred animal to benefit from a 4-H livestock project. A sound, healthy animal of good conformation is needed, regardless of breeding.

Insurance

In order to protect your club, several insurance companies provide good insurance for leaders and members on a low cost-per-day basis. Insurance information can be obtained from your county Extension agent.

Achievement Recognition

The 4-H leader will find that the wise use of recognition will inspire boys and girls. It will help them receive a satisfying experience in 4-H work. The spirit of competition is natural for young people. It is a stimulus which can be used effectively in development of character and skills. It can also defeat its purpose if permitted to get out of hand.

The wise leader will help members focus their attention on their project work, club activities, and sharing experiences with and helping other members instead of looking on recognition awards as their chief goal. He will help them realize that the greatest rewards come from service to others and personal achievement rather than "outdoing" someone else.

The following principles are basic in forming an awards and recognition program:

- Activities should emphasize the development of desirable character traits.
- Standards should be within reach of the members and yet high enough to challenge them to do their best.
- Rules of procedure should be fair and clearly stated.
- Judging must be fair and impartial.
- It is better to distribute the awards among a number of worthy contestants than to concentrate on one or two top winners.

4-H Teaching Methods and Aids

As a 4-H leader you are a teacher of boys and girls. The good teacher strives to hold the interest and cooperation of the pupils. One effective means of accomplishing this end is to vary the method of presenting the subjects as often as practical. A wide range of variation in presentation is possible in teaching animal husbandry. Lectures, blackboard talks, movies, slides, demonstrations, judging contests, practice sessions, quiz contests, and tours can all contribute to the learning process. Older 4-H members and other livestock producers can help with the teaching.

A good teacher has in mind or, more appropriately, has written down teaching activities. By prior planning you will be able to have the necessary resources and plans so that both you and your members have a meaningful, enjoyable experience.

Demonstrations

A demonstration is showing and telling how to do something. The demonstration method of teaching is particularly applicable in training in animal science. Much of the subject matter in this program can be taught only by demonstrations followed by supervised practice. As 4-H members master each phase of their training, wise leaders provide them the opportunity to conduct presentations themselves. By so doing, members develop poise, initiative, and the ability to impart knowledge to others. They can then assist the leader in training less experienced members.

Whenever the subject matter to be taught permits the introduction of action into a meeting, a demonstration by the leader or member adds life and interest to the meeting. Demonstrations in a public presentation will encourage better understanding by the audience. The topic to be demonstrated or the information to be discussed will be somewhat regulated by the ages and the experience of the 4-H members.

Here are some suggestions for demonstrations:

- Approaching, haltering, and leading an animal
- Properly fitting an animal
- Training an animal
- How to present an animal properly
- How to measure grains
- The feed value of various grains
- Different types of forage, their use and value
- Determining the age of an animal by its teeth
- Judging beef, sheep, dairy cattle, goats, or swine
- Safe hauling, loading, and unloading of animals
- How to make a blanket for calf, cow, or lamb
- How to fit a dairy animal properly

- How to fit a beef animal, sheep, or swine properly
- Trimming the feet of animals
- The retail cuts of (1) beef, (2) sheep, (3) swine
- How to build a fence
- The proper care of pasture
- How to develop a feed ration
- How to apply powders and liquids to control parasites
- The proper washing of animals
- How to give medicine to an animal

Although a part of the instruction time may be spent outdoors with animals, you may want to include subject matter as part of the program at regular 4-H meetings. Some of the subjects that can be taught during indoor sessions are:

- Breeds of animals and their uses
 - Parts of an animal
 - Types of equipment
 - Parts of equipment
 - Care of equipment
 - Feeds and feeding
 - Safety precautions
 - First aid
 - Animal health
 - Judging
 - Making an adjustable rope halter for leading
 - Record keeping
 - Principles of judging
- Refer to the program guide for other ideas.

Discussions

Discussions are a means of crystalizing thoughts on a subject. Several types of discussion can be used. One that is popular is the agree-disagree type of question that is related directly to a type of livestock—their training, use, or owner's responsibilities. Another name for this type of exercise is a true-false test. In just a few minutes you can make up a set of questions from any phase of a member's manual. After you have developed your list of questions, you can have the members write down whether they think the question is true or false and then exchange and grade each other's paper.

Another method is to read a statement, have the members who agree raise their hands and have the members who disagree raise their hands. Compare the count. Have a few members then discuss why they agree or disagree before giving the correct answer.

A third variation of this method would be to divide the members of the club into two groups. Give one group a few minutes to make up questions from a par-

ticular project manual. Have the other team attempt to answer the questions. This is an excellent way of teaching as it involves the young people and makes learning fun.

Other Teaching Devices

Word Scrambling. Select any number of words from any project under discussion for scrambling. Present them to the members on paper or a blackboard.

Examples:

<i>Puzzle</i>	<i>Solution</i>
wehitsr	withers
sudheolr	shoulder
pesartn	pastern
mezluz	muzzle

Crossword Puzzles. A number of crossword puzzles are available to use as teaching aids. These are directed towards parts of the animal, wholesale and retail cuts of meat, and breeds of animals. This is discussed further under *4-H Materials*. You can develop your own crossword puzzles to make learning fun for the members.

Tours and Field Trips

Trips to livestock enterprises, livestock shows, field days, feed dealers, grocery stores, packing plants, and other various aspects of the livestock industry represented in your community are valuable in opening the eyes of members to the impact of the livestock enterprise on community activities.

They provide a variance in the training techniques, and members find them most enjoyable and fun. Prior arrangements for tours and field trips are important. Carrying through what you hope to accomplish on a tour or field trip should be done in an educational manner.

Workshop

You may want to schedule some work sessions at your meeting time where members will receive training and then begin to work on such things as budgeting for their 4-H Livestock project, balancing rations, summarizing and analyzing records. This could be production records, 4-H records, and others which you feel would be appropriate.

Slides and Movies

Slides and movies are available from breed associations, Oregon State University, public libraries, and other locations. It is important that you preview these ahead of time so that you are familiar with the content and can see if they are up-to-date.

Resource People

Talks by special resource persons such as trained nutritionists for feed firms, veterinarians, livestock producers, feed lot operators, meat processing personnel, and others make excellent club features.

It is well to use a variety of methods in the course of the year or even at a single meeting. This makes it more interesting to members; therefore, you can accomplish more with the members. It would be a mistake to have all movies, outside speakers, or lecture.

Judging Contests

Have judging contests in which the members compare two or more animals of the same breed. Compare the breed characteristics as described in various manuals and teaching aids.

Other teaching techniques and learning experiences are suggested in the *Oregon 4-H Leaders' Handbook*, sections 6 and 7. We hope that you will refer to this for other ideas.

4-H Materials--A Tool for the Leader

4-H materials are a valuable aid for the leader in planning and providing a club experience to 4-H members. The following list includes the materials available and how you might use them. Remember; these are suggestions. Your own experiences and those of the county Extension agents and other leaders in your county will be of value in helping you to determine the use.

Leaders' Handbook

The *Leaders' Handbook* will give you valuable information and hints on 4-H, the leadership function, 4-H policies, how clubs function, and working with boys and girls. It is important that you review it carefully before planning your club program.

Members' Manuals

The 4-H Beef, Dairy Goat, Sheep, Swine, Calf and Yearling in 4-H Dairying, Cow in 4-H Dairying, and 4-H Dairy Science manuals will provide you an outline of the subject matter emphasis. You will need to receive only those manuals dealing with the areas in which you have members actively participating in the club. The manual should be used to teach subject matter as well as a teaching guide for caring for, fitting and showing, and as a reference for other areas of interest. *Project manuals should be given to the members at the second or third meeting. Members should receive only one copy of the project manual during their 4-H years.* At the same time you should encourage members to obtain a notebook in which to put the manual and other

materials to be given at a later time. Members should be encouraged to bring the 4-H materials to all meetings.

Advancement Programs

The *4-H Dairy Advancement Program* (Dairy Cattle and Goat) and/or *Meat Animal Advancement Program* (Beef, Sheep, and Swine) should be a regular part of the teaching in your 4-H club. It will provide helpful suggestions for club programs and set realistic goals for members to achieve in 4-H. You will want to be sure that all of the members have copies of the Advancement Program and that they understand how it fits into the total 4-H Livestock project. The Advancement Program should be given to the members at the same time as the project manual.

The Advancement Program provides the leader excellent guidelines for developing the club program. It is designed so that young people can move at their own speed. The Advancement Program serves as a tool to motivate self-learning.

It is recommended that members work on one section at a time. You need to recognize that if there is considerable difference in the advancement within the club, members may be working at several levels of the program. This provides the opportunity for junior leaders or older 4-H members to work with the members at various levels in the program.

When members have completed a level of advancement you may obtain advancement certificates from the county Extension office. These should be presented at one of the club meetings. To help you use the Advancement Program you should refer to the *4-H Advancement Program, Leaders' Guide*.

Reference Materials

There are a number of reference materials available for 4-H clubs that may be requested by the leader at the county Extension office. Some of these supplemental materials are:

4-H Livestock Judging. This is a very comprehensive, technical book on the judging and giving reasons. It is excellent for developing an understanding of the desirable characteristics in various types of livestock. It starts to develop a system for young people in evaluating animals as they use the decision-making process. This manual should be given to members before they judge. It is recommended that it not be given to them when they first enroll.

How to Make a Rope Halter. This is a demonstration aid which can be secured at your county Extension office and should be given to the members when

you might be making rope halters in your club. It is not designed to be given to the members without a demonstration or actually having them make rope halters. Making a rope halter is an excellent club meeting activity.

Teaching Aids

There are a number of excellent teaching aids available to leaders. These can help make meetings more interesting and challenging. The teaching aids are under continuous revising and development.

It is recommended that you check with your Extension office to see what teaching aids might be available.

Be sure that you request teaching aids shortly before you plan to use them. They are excellent to use with a discussion, demonstration, or to follow up in a series of slides or movies. You will want to visit with your Extension agent on using them.

Members' Records—Animal, Feed and Growth, and Production

It is suggested that livestock records be given to members at the third or fourth meeting. This is different than outlined in *So You Want to Organize a 4-H Club* because of the need to involve parents with detailed livestock records. At this time you will want to invite the parents to the meeting so that they may know about records, purposes of records, and how parents may help. It is recommended that the yearly program be shared with the parents at this time.

Keeping accurate and complete records is important in the overall development of the 4-H member. Keeping records stimulates members to analyze results, strive for self-improvement, and provides training helpful in later life.

Record keeping is easier for some than others. Guidance and encouragement from the leader and the parents will help boys and girls take pride in keeping accurate, neat records which are a true reflection of their 4-H accomplishments.

Each 4-H member with a livestock project should keep an *Animal Record*. The *Feed and Growth Record for Market Animals* should be kept by all members (particularly intermediates and seniors) who have market animals as their project. All 4-H members who have producing animals (even if they are not show animals) should be encouraged to keep *production records* on their particular type of livestock. Information on how to use these records can be obtained from your county Extension agent.

Program Guides--Planning a Club Program

Each club should have a yearly program. The program provides a logical sequence of educational, social, and recreational experiences for members. Use the *4-H Leaders' Handbook* for ideas and help in planning the club program. Your own experiences and imagination will be helpful in developing a meaningful program.

The program guides that follow are suggestions only. How much time you devote to each phase will depend upon your judgment, the size and progress of the group. To provide a meaningful, enjoyable experience, members should have experiences in a number of the areas. The meeting should be varied in content and in activity.

Your program guide is designed to give specific suggestions for most topics that might be included in a 4-H Livestock club meeting. It is simple to use. As you plan your meeting, you need to select a general topic that you wish to teach. Suggestions are shown in the

column on the left-hand side. The suggested skills or new ideas for that topic are listed in column two. After you choose the skill or ideas you wish to teach, go to column three and decide the method that would be most effective for you in teaching that idea. In column four you will find a list of possible resources to be used in teaching that particular subject. Title of books are found in italics. Refer to reference section for further details on these books.

A word of caution: There are several ideas and skills shown in each major topic. Don't try to cover all the ideas in one meeting. It is best to cover just one idea well. Keep in mind the variety of teaching methods and topics to be covered, as well as whether the meeting will be indoors or out-of-doors.

The ideas shown are only suggestions. There are many ideas which you will be able to add to this list.

General

4-H member objective	Member activity	Teaching technique	Resources
To have experiences that are fun and explore new opportunities.	Each member should have the chance to give demonstrations in front of the club and other groups.	Stress the importance of doing demonstrations, individual initiative, and public speaking in personal development.	0310— <i>4-H Show and Tell</i>
	Give presentations for various community groups on the current projects or past experiences; e.g. Kiwanis, P.T.A., etc.	Explain the value of doing kind things for others and working together for the improvement of the community.	0311— <i>You Present—Demonstrations, Illustrated Talks, and Speeches</i>
	With the other club members, participate in community projects of various kinds like litter campaigns, etc.	Recognize the accomplishments of the more introverted members as well as those who are more at ease in front of groups and can speak well.	023L— <i>4-H Meetings—Democracy in Action</i>
	Do independent projects in areas of special interest with the livestock—such as studies on various type of feeds, etc.	Talk to community groups and get their awareness and support in the club activities	0214L— <i>Community Pride Activity</i>
	Make science displays covering some phase of the program.	Provide opportunity for research and more advanced study.	0225L— <i>Judging Teaches Decision Making</i>
Participate in fairs, showmanship, displays, serving on committees.	Learn about the following nutrients; why they are important in the diet and the best sources of these nutrients to use in feeding livestock:	The leader must stress the importance of nutrition.	0226L— <i>4-H Demonstrations and Illustrated Talks</i> (leaders' guide)
			0226— <i>Teen Leadership</i>
Develop a knowledge of the basic nutrients that are important in a balanced diet and how to plan the proper feeding program.	Water <ul style="list-style-type: none"> ┌ Purity ├ Temperature ├ Gestation ├ Lactation └ Quantity 	Give plenty of information on nutrients to each member and have them prepare a report on their choice of feeds and what nutrients they contain. (Be quantitative.)	104— <i>How to Make a Rope Halter</i>
			Carbohydrates or energy compounds
		The members may need help, but knowledge in this area is very important. The theories apply not only to livestock but to humans and all forms of life as well.	141R— <i>Beef Cow Production Record</i>
			PNW 91— <i>4-H Dairy Science</i>
			<i>Dairy Goats—Breeding/Feeding/Management</i>
			120— <i>4-H Dairy Goat Project</i>
			Ag 26— <i>Your Dairy Goat</i>

4-H member objective	Member activity	Teaching technique	Resources
	Protein 1. Animal 2. Plant Urea (Nitrogen) Salt Calcium Phosphorus Vitamins Mineral supplements Roughages 1. Legume 2. Non-legume 3. Pasture 4. Hay 5. Silage TDN Feed Additives	There should be much discussion in the club meetings about nutrition. Field trips: Feed mills Grain stations Hay fields Chemical plants (mineral salts) Stock yards and slaughter houses: Processing of animals Analysis of carcasses Guest speakers from fields relating to nutrition. Associate nutrition with human diets—protein, meat, and milk. Use a workshop to plan and develop feed rations and balanced diets.	142— <i>4-H Swine Project</i> <i>Feeds and Feeding</i> by Henry and Morrison <i>The Sheepman's Production Handbook</i> has good information on nutrition. Sample feeding programs for lambs, ewes, feeders, lactating ewes, etc. Good in helping beginning members plan a proper feeding schedule for their sheep. OSU Feed Bulletins
To learn about career opportunities in the livestock field.	Take the opportunity to talk with men in fields dealing with livestock and agriculture. If possible, try for summer jobs where they will be able to see this type of career from firsthand experience.	Visit or have speakers on a) ranchers b) veterinarian c) feed lot operator d) business representative 1) financial 2) wholesale 3) retail 4) sales 5) buyer e) Extension staff f) shearers g) professional breeders 1) beef 2) dairy cattle 3) dairy goats 4) sheep 5) swine h) transportation industry i) feed processors j) farm equipment suppliers	
To learn proper record keeping and economics.	Keep 4-H Records and learn what records to keep, why to keep them, and how to evaluate them. Records members should keep: Permanent Record 4-H Story Advancement Program Production Records Market Animal Record Animal Record Others that are applicable	Explain procedures using "blown-up" records made on wrapping paper or blackboard. Story problems of an average member. Regularly scheduled record meetings where members fill in their own records. Periodic review of records.	032— <i>My 4-H Records</i> 033R— <i>Permanent Record</i> 039R— <i>My 4-H Notes</i> 100R— <i>4-H Animal Record</i> 141,2,3R— <i>Feed and Growth Record for Market Animals</i>
To develop knowledge of financing: profit and loss calculations and how to use and borrow money.	Learn about the economics of a livestock project and become familiar with the following terms: Investment Depreciation Profit	Discuss this topic with the members so they are aware of the financial tasks that are part of the learning experience.	Check with a local bank and ask about their agriculture representative who will be happy to explain things concerning financing.

4-H member objective	Member activity	Teaching technique	Resources
	Loss Interest Overhead Loan Assets Liabilities	Take a tour of a local bank and let the members become acquainted with a banker and the mechanisms of a bank. Arrange this tour beforehand on your own or with the help of the Extension office. Devise sample problems for the club members and have them calculate the return, rate of gain, profit or loss, etc. Help them with their calculations in their project records and encourage extra effort.	Help the younger members by showing them how to keep simple monetary statistics in their project records. The older members should go beyond this and make good records like determining rate of gain, yield per animal, etc.
To develop ability in showmanship.	Learn to be a good showman and take pride in himself and the animal. Go to a show and watch experts. Help open class exhibitors show their animals.	Have an experienced member or guest demonstrate the proper techniques in showmanship. Do not stress competition for awards in a showmanship contest. Members should take pride in showing all their animals, not just one special animal. Stress pride and doing one's best—not winning trophies.	Material from breed associations. 105— <i>4-H Showmanship Guide</i> 141— <i>Your 4-H Beef Project</i> PNW 78— <i>The Calf and Yearling in 4-H Dairying</i> PNW 82— <i>The Cow in 4-H Dairying</i> 120— <i>4-H Dairy Goat Project</i> PNW 50— <i>Your 4-H Sheep Project</i> 143— <i>4-H Swine Project</i>
Establish a good library of resource materials.	Collect the pamphlets needed and keep them in an orderly fashion so they can be used properly. Send away for more advanced books (optional). Library may be set up by subject indexing or other form of organization. Subscribe to at least one periodical (optional).	Show the members how to keep their materials organized so they are neat and readily accessible. Start a "club" library with very complete resources that would be available to the members. This should include pamphlets from Extension, advanced books, addresses of new material. Subscribe to at least one periodical for the club and leader to use.	The various breed associations have plenty of available pamphlets that are useful. Keep the periodicals bound in an orderly fashion. You may want to make a simple subject sheet index and issue for later referral.

Beef

Develop a knowledge of beef breeds and their characteristics.	Learn about the following breeds of beef and the features that make them important: Angus Charolais Devon Galloway Hereford Limousin Red Angus Shorthorn Simmental	Have members prepare a report and give it to the club about the chosen or assigned breed of beef. The members may work alone or in groups. Take a field trip to feed lot or a local breeder's farm. If club meetings are held at the homes, have the entire club view the animals there. A slide show or speaker with visual aids may also be possible. Use fun contests with identification cards or pictures.	Breed associations for available publications. 141— <i>Your 4-H Beef Project</i> 106— <i>Livestock Nomenclature</i> 108— <i>Breeds of Beef</i>
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4-H member objective	Member activity	Teaching technique	Resources
Develop knowledge of beef anatomy.	Develop a working knowledge of the important parts of beef including: Back Muzzle Belly Nose Brisket Pastern Chest Pin Bones Crest Poll Crops Ribs Dewlap Round Face Rump Flank Scrotum Fore Arm Shank Fore Rib Shoulder Hock Stifle Joint Hoof Switch Hook Tail Head Knee Throat Loin Udder	A demonstration given by the leader, resource person, or older 4-H member to show the location of each part of the anatomy. Using a live animal is good because it enables all the members to feel and visualize for themselves. Make sure each member has an anatomy chart or drawing in project book.	106— <i>Livestock Nomenclature</i> 1011— <i>Wholesale Cuts of Beef</i> C-16— <i>Beef Parts Wall Chart</i> MB 45— <i>USDA Yield Grades for Beef</i>
Develop knowledge of the common health problems and how to take preventive measures as well as being watchful for symptoms of problems to facilitate early diagnosis and how to administer proper treatment.	Study the normal animal—anatomy and physiology. Learn how disease-producing agents interfere with normal function. Beef Cattle Diseases (common) Infectious Enteritis (scours) Pneumonia (Pasteurellosis) Retained Placenta Prolapsed Vagina White Muscle Disease Bloat Pinkeye Foot Rot External Parasites (lice grubs) Internal Parasites (roundworms, flukes, tapeworms, coccidiosis) Blackleg infectious Bovine Rhinotracheitis (IBR) Bovine Virus Diarrhea (BVD) Parainfluenza-3 (PI-3) Leptospirosis Other Diseases of Beef Cattle Naval-ill Calf diphtheria Bacillary hemoglobinuria Anaplasmosis Vibriosis Enterotoxemia Brucellosis Urinary Calculi Grass Tetany Listeriosis Salmonellosis Pulmonary Emphysema Traumatic Gastritis Johne's Disease	Study the normal animal with respect to temperature, respiration, pulse, etc. Observe locomotion and general attitude. Study in depth the commonly encountered disease problems which may occur in your project. Review the other less common disease problems and identify the causative factors and general signs which may be observed. Control measures should be suggested for all disease situations. Invite a local veterinarian to attend a club meeting and discuss the diseases he commonly observes in the area. Emphasize internal and external parasitic control. Study the basic principles of immunization and determine what types of vaccinations are recommended for this project.	<i>Diseases of Cattle</i> <i>Animal Diseases, Yearbook of Agriculture</i> <i>The Merck Veterinary Manual</i> 141— <i>Beef Project</i> Vet 1— <i>The Normal Animal</i> Vet 1L— <i>The Normal Animal Leaders' Guide</i> Vet 2— <i>Animal Disease</i> Vet 2L— <i>Animal Disease Leaders' Guide</i> Vet 3— <i>Immunology, Zoonoses and Public Health</i> Vet 3L— <i>Immunology, Zoonoses and Public Health Leaders' Guide</i>

4-H member objective	Member activity	Teaching technique	Resources
A knowledge of modern management techniques and equipment that are available in making beef operations more efficient and profitable.	Learn about the following equipment and techniques and how to use them: Weighing scales Handling beef cattle Squeeze chutes Hay feeders and racks Fencing, creep feeders Water tanks Corrals Supplemental feeding Tattooing Buildings and shelter Parasite control External—dusting or dipping Internal—drenching Ear tags and tagging Promotion and sales of the products	Demonstration by the leader or older members on the use of various equipment is important. Discussion on good techniques in management during the club meetings is essential. Provide material and plans for each member and where equipment is available.	141— <i>Your 4-H Beef Project</i> Bulletins and plans from the Extension service.
Develop an ability to properly groom beef.	Learn how to prepare his animal to be displayed to its best advantage.	Hold work sessions and give demonstrations in grooming. Encourage the members to ask questions from experts they meet at various fairs and shows. Have the older and more experienced members help teach the others.	141— <i>Your 4-H Beef Project</i>

Dairy

Develop knowledge of dairy cattle breeds and their characteristics.	Learn about each of the following breeds of dairy cattle and the features that make them important: Ayrshire Brown Swiss Guernsey Holstein Jersey Milking Shorthorn	Have members prepare a report and give it to the club about the chosen or assigned breed of dairy cattle. The members may work alone or in groups. Take a field trip to a modern dairy cattle milking and breeding operation. If club meetings are held at the homes, have the entire club view the animals there. A slide show or speaker with visual aids may also be possible. Use fun contests with identification cards or pictures. See examples of the breeds and talk to owners at livestock shows.	Breed association literature PNW 78— <i>The Calf and Yearling in 4-H Dairying</i> PNW 82— <i>The Cow in 4-H Dairying</i> PNW 91— <i>4-H Dairy Science</i>
Develop knowledge of dairy cattle anatomy.	Develop a working knowledge of the important parts of dairy cattle, including: Back Barrel Brisket Chest Crops Flank Heart girth Heel Loin Muzzle Pastern Pin bones Pins Ribs Rump Switch	A demonstration given by the leader, resource person, or older 4-H member to show the location of each part of the anatomy. Using a live animal is good because it enables all the members to feel and visualize for themselves. Make sure each member has an anatomy chart or drawing in project book.	PDCA Score Card PNW 78— <i>The Calf and Yearling in 4-H Dairying</i>

4-H member objective	Member activity	Teaching technique	Resources
	Hock Hoof Hooks Knee	Teats Thigh Udder Withers	Spelling contests can be fun. Get tapes and measure the heart girth and relate to weight or growth.
Develop knowledge of the common health problems and how to take preventive measures as well as being watchful for symptoms of problems to facilitate early diagnosis and how to administer proper treatment.	Study the normal animal—anatomy and physiology. Learn how disease-producing agents interfere with normal function. Dairy Cattle Diseases (Common) Milk fever Ketosis Retained Placenta Foot Rot Infectious Enteritis (Scours) Pneumonia (Pasteurellosis) White Muscle Disease Traumatic Gastritis Indigestion and Bloat External parasites (lice, grubs) Internal parasites (roundworms, flukes, coccidiosis) Blackleg Grass Tetany Mastitis Other Diseases of Dairy Cattle Leptospirosis Parainfluenza-3 (PI-3) Bovine Virus Diarrhea (BVD) Infectious Bovine Rhinotracheitis (IBR) Pinkeye Naval-ill Calf diphtheria Vibriosis Brucellosis Johne's Disease Bacillary Hemoglobinuria	Study the normal animal with respect to temperature, respiration, pulse, etc. Observe locomotion and general attitude. Study in depth the commonly encountered disease problems which may occur in your project. Review the other less common disease problems and identify the causative factors and general symptoms which may be observed. Control measures should be suggested for all disease situations. Invite a local veterinarian to attend a club meeting and discuss the diseases he commonly observes in the area. Emphasize internal and external parasite control. Study the basic principles of immunization and determine what types of vaccinations are recommended for this project.	<i>Diseases of Dairy Cattle</i> <i>The Merck Veterinary Manual</i> <i>Animal Diseases, Yearbook of Agriculture</i> <i>Hoard's Dairyman Management Manual</i> Vet 1— <i>The Normal Animal</i> Vet 1L— <i>The Normal Animal Leaders' Guide</i> Vet 2— <i>Animal Disease</i> Vet 2L— <i>Animal Disease Leaders' Guide</i> Vet 3— <i>Immunology, Zoonoses and Public Health</i> Vet 3L— <i>Immunology, Zoonoses and Public Health Leaders' Guide</i> PNW 78— <i>The Calf and Yearling in 4-H Dairying</i> PNW 82— <i>The Cow in 4-H Dairying</i> PNW 91— <i>4-H Dairy Science</i>
Develop knowledge of modern management techniques and equipment that are available in making dairy cattle operations more efficient and profitable.	Learn about the following systems and how they function: Milking procedures Priming Milking machine Milking parlor Balling gun Bulk tank Self-unloading wagon Auto feeding systems Bunk silo Chutes Corrals Fences Tags and tagging	Demonstration by the leader or older members on the various methods is important. Discussion on good techniques in management during the club meetings is essential. Provide material and plans for each member and where they are available. Discuss proper milking procedures and what can be done to achieve the greatest efficiency, production, sanitation, and safety for the cow.	Project manuals PNW 78— <i>The Calf and Yearling in 4-H Dairying</i> PNW 82— <i>The Cow in 4-H Dairying</i> PNW 91— <i>4-H Dairy Science</i> PNW 113— <i>4-H Leaders' Guide for Dairy Projects</i> Bulletins from the Extension service
Develop an ability to groom dairy cattle	Learn how to prepare his animal so it will be displayed to its best advantage. Learn about cleaning, grooming, trimming, and foot trimming.	Hold work sessions and give demonstrations on grooming. Encourage the members to ask questions from experts they meet at various shows and fairs.	PNW 78— <i>The Calf and Yearling in 4-H Dairying</i> PNW 82— <i>The Cow in 4-H Dairying</i> 105— <i>4-H Showmanship Guide</i>

Dairy Goats

4-H member objective	Member activity	Teaching technique	Resources
Develop knowledge of dairy goat breeds and their characteristics.	Learn about each of the following breeds of dairy goats and the features that make them important: American La Mancha French Alpine Nubian Saanen Toggenburg	Have members prepare a report and give it to the club about the chosen or assigned breed of dairy goat. The members may work alone or in groups. Take a field trip to a local breeder's operation. If club meetings are held at the homes, have the entire club view the animals there. A slide show or speaker with visual aids may also be possible. Use fun contests with identification cards or pictures.	Emerald Dairy Goat Association Oregon State Dairy Goat Council American Dairy Goat Association 1124— <i>Dairy Goat Breeds</i> 120— <i>4-H Dairy Goat Project</i> Ag 26— <i>Your Dairy Goat</i>
Develop knowledge of dairy goat anatomy.	Develop a working knowledge of the important parts of dairy goats, including: Back Barrel Brisket Chest Chine Crops Dew claw Ear Elbow Eye Face Flank Forehead Front udder attachment Heart girth Hip bone Hock Hoof Horn butts Jaw Loin Muzzle Neck Pastern Pin bone Poll Rear udder attachment Ribs Rump Shank Shoulder Tail Teats Throat Thurl Udder Withers	A demonstration given by the leader, resource person, or older 4-H member to show the location of each part of the anatomy. Using a live animal is good because it enables all the members to feel and visualize for themselves. Make sure each member has an anatomy chart or drawing in project book. Use slides and charts for demonstration.	Score Cards from Goat Association 1122— <i>4-H Dairy Goat Crossword Puzzle</i> 1123— <i>4-H Dairy Goat Puzzle Board</i>
Develop knowledge of the common health problems and how to take preventive measures as well as being watchful for symptoms of problems to facilitate early diagnosis and cure.	Study the normal animal—anatomy and physiology. Learn how disease-producing agents interfere with normal function. Dairy Goat Diseases (Common) Mastitis Internal parasites External parasites Mange Foot Rot Abscesses Brucellosis Bloat Ketosis Milk Fever Goiter Virus Abortion	Study the normal animal with respect to temperature, respiration, pulse, etc. Observe locomotion and general attitude. Study in depth the commonly encountered disease problems which may occur in your project. Review the other less common disease problems and identify the causative factors and general symptoms which may be observed. Control measures should be suggested for all disease situations. Invite a local veterinarian to attend a club meeting and discuss the diseases he commonly observes in the area. Emphasize internal and external parasitic control.	<i>Dairy Goats, Breeding/Feeding/Management</i> <i>Infectious Diseases of Domestic Animals</i> <i>The Merck Veterinary Manual</i> Vet 1— <i>The Normal Animal</i> Vet 1L— <i>The Normal Animal Leaders' Guide</i> Vet 2— <i>Animal Disease</i> Vet 2L— <i>Animal Disease Leaders' Guide</i> Vet 3— <i>Immunology, Zoonoses and Public Health</i> Vet 3L— <i>Immunology, Zoonoses, and Public Health Leaders' Guide</i>

4-H member objective	Member activity	Teaching technique	Resources
		Study the basic principles of immunization and determine what types of vaccinations are recommended for this project.	120— <i>4-H Dairy Goat Project</i> Ag 26— <i>Your Dairy Goat</i>
Develop knowledge of modern management techniques and tools that are available in making dairy goat operations more efficient and profitable.	Learn the techniques of goat husbandry. Learn recommended Milking procedures Feeding systems Chutes and milking stands Fences and corrals	Demonstration by the leader or older members on the use of various equipment is important. Discussion on good techniques in management during the club meetings is essential. Provide material and plans for each member and where equipment is available.	C-2456— <i>Dairy Goat Tack Box Plans</i> Goat journals Dairy goat bulletins
Develop an ability to groom dairy goats and to show them.	Learn how to prepare his animal so it will be displayed to its best advantage.	Hold work sessions and give demonstrations on good grooming. Encourage the members to ask questions of experts they meet at various shows and fairs.	105— <i>4-H Showmanship Guide</i> <i>Dairy Goats, Breeding/Feeding/Management</i> , pp. 71-74. 120— <i>4-H Dairy Goat Project</i>

Sheep

Develop knowledge of sheep breeds and their characteristics.	Learn about each of the following breeds of sheep and the features that make them important: Cheviot Columbia Corriedale Dorset Hampshire Lincoln Merino Montadale Rambouillet Romney Shropshire Southdown Suffolk Targhee Possibly other breeds	Have members prepare a report and give it to the club about the chosen or assigned breed of sheep. The members may work alone or in groups. Take a field trip to a feed lot or a local breeder's farm. If club meetings are held at the homes, have the entire club view the animals there. A slide show or speaker with visual aids may be possible. Use fun contests with identification cards or pictures.	<i>Sheepman's Production Handbook</i> has a listing of all the National Breed Associations. This is a good source of up-to-date material concerning the breeds. PNW 50— <i>Your 4-H Sheep Project</i> 109— <i>Breeds of Sheep</i>
Develop knowledge of sheep anatomy.	Develop a working knowledge of the important parts of a sheep including: Back Belly Brisket Dock Ear Eye Flank Girth Head Hip Hoof Jaw Leg Loin Muzzle Neck Nose Pastern Rump Shoulder Teats Testicles or Scrotum Twist Udder	A demonstration given by the leader, resource person, or older 4-H member to show the location of each part of the anatomy. Using a live animal is good because it enables all the members to feel and visualize for themselves. Make sure each member has his own anatomy chart of drawing in project book.	PNW 50— <i>Your 4-H Sheep Project</i> has an anatomy chart Demonstration-size fold-up charts are also available from the Extension office. 1012— <i>Wholesale Cuts of Lamb</i> C-18— <i>Sheep Wall Chart</i>

4-H member objective	Member activity	Teaching technique	Resources
To learn preventive measures, local health problems, and methods of recognizing early signs of illness.	Learn about locally occurring diseases of animals together with the principles of first aid and sanitation that may prevent these diseases from spreading.	Give each member material on the diseases—the description and cure.	<i>Your 4-H Sheep Project</i> has some good general information.
	<p>Sheep Diseases (Common)</p> <ul style="list-style-type: none"> Foot Rot Sore Mouth Tetanus External parasites (lice, keds, nasal grub, mange) Internal parasites (roundworms, liver flukes, lungworms, tapeworms, coccidiosis) Enterotoxemia Mastitis (Blue Bag) White Muscle Disease Pinkeye 	Have a local or state veterinarian come to the club and give a demonstration on prevention and signs of disease.	Many good books are available on health at a local library.
	<p>Other Diseases of Sheep</p> <ul style="list-style-type: none"> Ulcerative dermatosis Epididymitis Enzootic Abortion of Ewes Vibriosis Listeriosis Milk Fever (Hypocalcemia) Grass Tetany Pregnancy Toxemia Urinary Calculi Polyarthritis Salmonellosis Bluetongue Black Disease Leptospirosis Erysipelas Myiasis (Blowfly strike) 	Discuss health, husbandry, and preventive medicine in depth as regards local diseases. Demonstrate such medication techniques as can and should be performed by livestock owners.	The <i>Sheepman's Production Handbook</i> has very complete information on diseases.
	Study the normal animal—anatomy and physiology.	Discuss some exotic diseases (not in depth) that might be future dangers.	<i>Newsom's Sheep Diseases</i>
	Learn how disease-producing agents interfere with normal function.	Study the normal animal with respect to temperature, respiration, pulse, etc. Observe locomotion and general attitude.	<i>The Merck Veterinary Manual</i>
		Study in depth the commonly encountered disease problems which may occur in your project. Review the other less common disease problems and identify the causative factors and general signs which may be observed. Control measures should be suggested for all disease situations.	Vet 1— <i>The Normal Animal</i>
		Invite a local veterinarian to attend a club meeting and discuss the diseases he commonly observes in the area.	Vet 1L— <i>The Normal Animal Leaders' Guide</i>
		Emphasize internal and external parasitic control.	Vet 2— <i>Animal Disease</i>
		Study the basic principles of immunization and determine what types of vaccinations are recommended for this project.	Vet 2L— <i>Animal Disease Leaders' Guide</i>
Develop knowledge of modern management techniques and equipment that are available in making sheep operations more efficient and profitable.	<p>Learn about the following equipment and techniques and how to use them:</p> <ul style="list-style-type: none"> Card Chutes Creep Drench gun Drenching Ear tags Elastrator or means of docking and castration Feeders Flushing Foot baths Foot trimmers or knife Hypodermic needle and syringe Lambing pens Shears Sheds Tick dusting 	Demonstration by the leader or older members on the use of various equipment is important.	The <i>Sheepman's Production Handbook</i> has many good ideas and principles to follow.
		Discussion on good techniques in management during the club meetings is essential.	PNW 50— <i>Your 4-H Sheep Project</i>
		Provide material and plans for each member and where to get new equipment.	Extension Plan Book and pamphlets.
			Periodicals and livestock books are also good sources for information.

4-H member objective	Member activity	Teaching technique	Resources
Develop an ability to groom a sheep.	Learn how to prepare his animal to be displayed to its best advantage.	Hold work sessions in washing, trimming, grooming, etc. Encourage the members to ask questions from experts they meet at various fairs and shows.	Have Extension agent be available for help and questioning. PNW 50— <i>Your 4-H Sheep Project</i>

Swine

Develop knowledge of swine breeds and their characteristics.	Learn about each of the following breeds of swine and the features that make them important: Berkshire Chester White Hampshire Landrace Tamworth Yorkshire	Have members prepare a report and give it to the club about the chosen or assigned breed of swine. The members may work alone or in groups. Take a field trip to a feed lot or a local breeder's farm. If club meetings are held at the homes, have the entire club view the animals there. A slide show or speaker with visual aids may also be possible. Use fun contests with identification cards or pictures.	Breed Association offices 1010— <i>Breeds of Swine</i> 143— <i>4-H Swine Project</i>
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Develop knowledge of swine anatomy.	Develop a working knowledge of the important parts of a swine including: Back Ears Fore flank Ham Hind flank Jowl Loin Neck Pasterns Ribs Rump Shoulder Side Teat line Testicles	A demonstration given by the leader, resource person, or older 4-H member to show the location of each part of the anatomy. Using a live animal is good because it enables all the members to feel and visualize for themselves. Make sure each member has his own anatomy chart or drawing in project book. Use line drawings to illustrate cuts of the carcass and muscling versus fat.	Breed Associations National Pork Producers Association Swine Production books: Ensminger 1013— <i>Wholesale Cuts of Pork</i> C-17— <i>Swine Wall Chart</i>
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Develop knowledge of the common health problems and how to take preventive measures as well as being watchful for symptoms of problems to facilitate early diagnosis and cure.	Study the normal animal—anatomy and physiology. Learn how disease-producing agents interfere with normal function. Swine Diseases (Common) Baby pig scours (colibacillosis) Swine dysentery Erysipelas Leptospirosis MMA (Mastitis-Metritis-Agalactia) Lice Mange Internal parasites Tail biting Anemia	Study the normal animal with respect to temperature, respiration, pulse, etc. Observe locomotion and general attitude. Study in depth the commonly encountered disease problems which are likely to occur in your project. Review the other less common disease problems and identify the causative factors and general symptoms which may be observed. Control measures should be suggested for all disease situations. Invite a local veterinarian to attend a club meeting and discuss the diseases he commonly observes in the area.	<i>Diseases of Swine</i> <i>Swine Health: Respiratory Diseases and Arthritis</i> <i>Swine Health: Common Diseases Affecting Baby Pigs</i> <i>The Merck Veterinary Manual</i> 143— <i>4-H Swine Project</i> Vet 1— <i>The Normal Animal</i> Vet 1L— <i>The Normal Animal Leaders' Guide</i> Vet 2— <i>Animal Disease</i>
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4-H member objective	Member activity	Teaching technique	Resources
	Other Diseases of Swine Enzootic pneumonia (viral pig pneumonia) Atrophic rhinitis Influenza Pasteurellosis PSS-Porcine Stress Syndrome PSE-Pale Soft Exudative pork Jowl abscess Brucellosis Hog Cholera Salmonellosis	Emphasize internal and external parasitic control. Study the basic principles of immunization and determine what types of vaccinations are recommended for this project.	Vet 2L— <i>Animal Disease Leaders' Guide</i> Vet 3— <i>Immunology, Zoonoses and Public Health</i> Vet 3L— <i>Immunology, Zoonoses and Public Health Leaders' Guide</i>
Develop knowledge of modern management techniques and equipment that are available in making swine operations more profitable and efficient.	Learn about the following equipment and techniques and how to use them: Castrating Cutting Needle Teeth Cutting Tails Ear Notching Iron injections Scales	Demonstration by the leader or older members on the use of various equipment is important. Discussion on good techniques in management during the club meetings is essential. Provide material and plans for each member and where to get new equipment.	Extension Service bulletins and publications 143— <i>4-H Swine Project</i>
Develop an ability to prepare swine for show.	Learn how to prepare his animal to be displayed to its best advantage.	Hold work sessions and give demonstrations in grooming. Encourage the members to ask questions of experts they meet at various shows and fairs.	105— <i>4-H Showmanship Guide</i> 143— <i>4-H Swine Project</i>

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National Breed Associations

Beef

- American Angus Association*, 3201 Frederick Blvd., St. Joseph, Missouri 65401
American Brahman Breeders Association, 4815 Gulf Freeway, Houston, Texas 77023
American Hereford Association, Hereford Drive, Kansas City, Missouri 94105
American-International Charolais Association, 1610 Old Spanish Trail, Houston, Texas 77025
American Polled Hereford Association, 4700 E. 63 St., Kansas City, Missouri 64130
American Polled Shorthorn Society, 8288 Hascall St., Omaha, Nebraska 68124
American Scotch Highland Breeders' Association, Edgemont, South Dakota 57735
American Shorthorn Association, 8288 Hascall St., Omaha, Nebraska 68124
American Simmental Association, 270 Country Commons Rd., Cary, Illinois 60013
Beefmaster Breeders Universal, Third Floor-Gunter Hotel, San Antonio, Texas 78206
Devon Cattle Association, Inc., Goldendale, Washington 98620
Galloway Cattle Society of America, Inc., Springfield, Iowa 62336
International Brangus Breeders Association, Inc., 908 Livestock Exchange Building, Kansas City, Missouri 64102
Performance Registry International, 201-204 Frisco Building, Joplin, Missouri 64801
Red Angus Association of America, P.O. Box 776, Benton, Texas 76201
Santa Gertrudis Breeders International, Box 1257, Kingsville, Texas 78363

Dairy Cattle

- American Guernsey Cattle Club*, 70 Main St., Peterborough, New Hampshire 93458
American Jersey Cattle Club, 1521 East Broad St., Columbus, Ohio 43205
Ayrshire Breeders' Association, Brandon, Vermont 05733
Brown Swiss Breeders' Association of America, 800 Pleasant St., Beloit, Wisconsin 53511
Dutch Belted Cattle Association of America, 6000 N.W. 32nd Ave., Miami, Florida 33142
Holstein-Friesian Association of America, Box 808, Brattleboro, Vermont 05301

Dual-Purpose Cattle

- American Milking Shorthorn Society*, 313 S. Glenstone Ave., Springfield, Missouri 65802
Red Poll Cattle Club of America, 3275 Holdrege St., Lincoln, Nebraska 68503

Goats

- American Angora Goat Breeders Association*, Rocksprings, Texas 78880
American Dairy Goat Association, Box 186, Spindale, North Carolina 28160
American Goat Society, Inc., 1606 Colorado St., Manhattan, Kansas 66502

Sheep

- American Cheviot Sheep Society*, P.O. Box 5051, Lafayette Hill, Pennsylvania 19444
American Corriedale Association, Inc., P.O. Box 29C, Seneca, Illinois 61360

- American and Delaine-Merino Record Association*, Aleppo, Pennsylvania 15310
American Hampshire Sheep Association, Box 190, Stuart, Iowa 50250
American Oxford Down Record Association, Rt. 1, Eaton Rapids, Michigan 48827
American Rambouillet Sheep Breeders' Association, Wall Rt., San Angelo, Texas 76901
American Romney Breeders Association, 212 Withycombe Hall, OSU, Corvallis, Oregon 97331
American Shropshire Registry Association, Inc., P.O. Box 1970, Monticello, Illinois 61856
American Southdown Breeders Association, 212 South Allen St., State College, Pennsylvania 16801
American Suffolk Sheep Society, 52 N. First, East, Newton, Utah 84321
Black-Top National Delaine-Merino Sheep Association, Box 23, Hickory, Pennsylvania 15340
Columbia Sheep Breeders Association of America, Box 272, Upper Sandusky, Ohio 43351
Continental Dorset Club, Box 1206, Carbondale, Illinois 62901
Debouillet Sheep Breeders Association, South Kentucky, Roswell, New Mexico 88201
Karakul Fur Sheep Registry, Rt. 1, Fabius, New York 13063
Montdale Sheep Breeders Association, 4103 N. Broadway, St. Louis, Missouri 63147
National Lincoln Sheep Breeders Association, 5284 S. Albaugh Rd., West Milton, Ohio 45383
National Suffolk Sheep Association, Box 324, Columbia, Missouri 65201
U.S. Targhee Sheep Association, Security Bank-Box 2513, Billings, Montana 59103

Swine

- American Berkshire Association*, 601 W. Monroe, Springfield, Illinois 62704
American Landrace Association, Inc., Box 111, Culver, Indiana 46511
American Yorkshire Club, Inc., 1001 South St., Box 878, Lafayette, Indiana 47902
Chester White Swine Record Association, 116 E. 8th St., Rochester, Indiana 46975
Hampshire Swine Registry, 1111 Main St., Peoria, Illinois 61606
National Hereford Hog Record Association, R.R. 3, Shelbyville, Illinois 62565
National Pork Producers Council, 3101 Ingersoll Ave., Des Moines, Iowa 50312
National Spotted Swine Record, Bainbridge, Indiana 46105
Poland China Record Association, Box 71, Galesburg, Illinois 61401
Tamworth Swine Association, Rt. 2, Cedarville, Ohio 45314
United Duroc Swine Registry, 1803 W. Detweiller, Peoria, Illinois 61614

Commercial Livestock—Cattle

- American National Cattlemen's Association*, 801 E. 17th Ave., Denver, Colorado 80218
National Livestock Feeders Association, 309 Livestock Exchange Bldg., Omaha, Nebraska 68107

Commercial Livestock—Sheep

- National Lamb Feeders Association*, Box 867, Miles City, Montana 59301
National Wool Growers Association, 600 Crandall Bldg., Salt Lake City, Utah 84101