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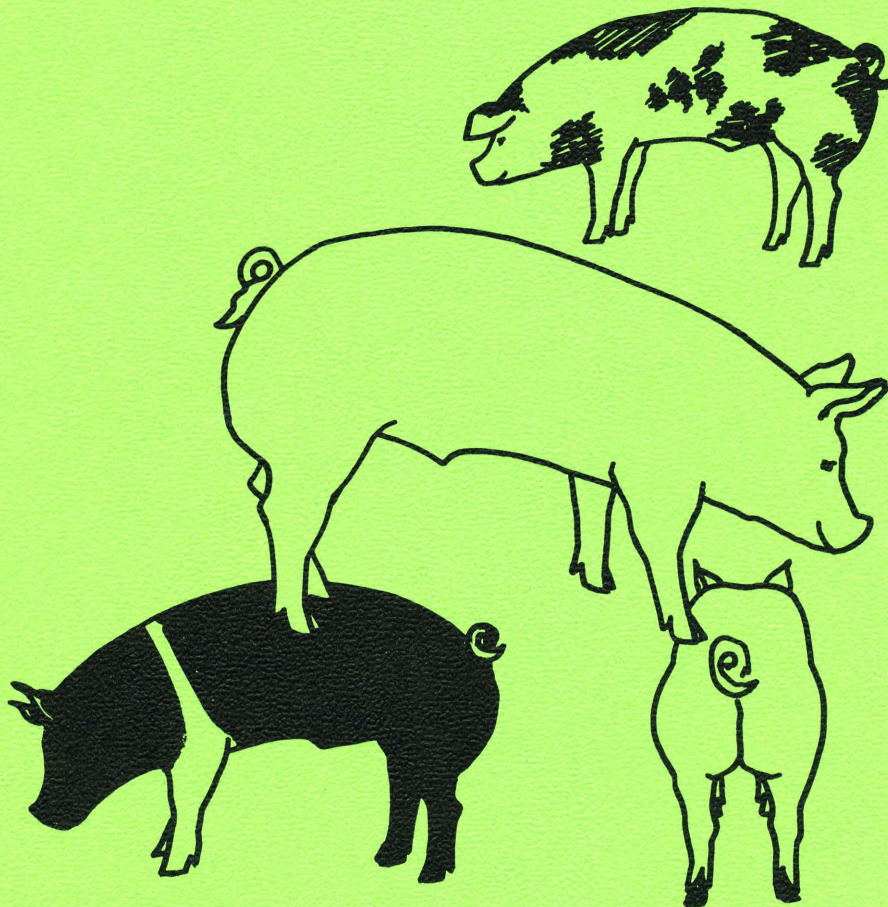
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Your 4-H Market Hog Project
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YOUR 4-H MARKET HOG PROJECT



YOUR 4-H MARKET HOG PROJECT

by

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Feeding several pigs to sell as market animals is probably the most common 4-H swine project. It does not require a large amount of money or expensive buildings and equipment. It can be completed during the summer months.

The words swine, hogs, and pigs refer to animals of the porcine or pig family. In this bulletin, **swine** will be used in referring to the pig family in a general way, **pig** will generally be used in referring to young animals, and **hog** will generally refer to animals at or nearing market weight or finished for market. The term **barrow** means a castrated male, and the term **gilt** means a young female.

WHAT YOU CAN LEARN

- How to select feeder pigs for your project.
- How to select proper feeds for your pigs.
- How to combine these feeds into a balanced ration.
- How to figure costs and returns from your project.
- How to tell when your pigs are sick.
- How to tell when your pigs are healthy.
- How to prepare your pigs for exhibition.
- How to handle your pig in a show ring.
- These are but a few of the many things you can learn. Working with your leader, you may want to make a list of your own of the things you want to learn from this project.

SOME EXPERIENCES YOU WILL HAVE

- Working with animals.
- Working and sharing experiences with other boys and girls who have market swine projects.
- Selling your animals after you have become attached to them.
- Exhibiting your pigs at a county fair or show.
- How to win and lose gracefully if you take part in a competitive show.
- Participating in the activities of your club. These might include a visit to a livestock market, slaughter plant, retail meat market, or veterinary clinic; serving as an officer of your club and, later, as a teen leader.
- Preparing and giving a demonstration at one of your club meetings.
- Enjoying games, recreation, and trips planned by your club.

- Working with your leader, who will have a special interest in you as a boy or girl as well as in your project.
- Meeting and talking with qualified persons in the livestock field who may be able to assist you in a choice of a career.

THE PROJECT

The Market Hog Project consists of feeding several pigs to a market weight of approximately 200 to 225 pounds. This same procedure is carried on regularly by adult swine raisers. You will actually learn much of the same basic information used by the adults engaged in the swine enterprise.

Do not expect to make a big profit on your project. Your profit will depend on the cost of the pigs when you start the project; the cost of the feeds used, plus other costs; and the price you receive for the hogs when you sell them. If you market your hogs at your county or area fair or show, generous people in your community often pay more for your animals than their true market value. This increases your chance for a profit. However, it is important that you know the difference between the regular livestock market price or value of your hogs and the price you receive at the sale sponsored by your fair or show. Your 4-H leader can help you get this information.

If you receive more than the regular market price for the hogs you sell, you should realize that this difference is a reward to you for having participated in the project and carried out the practices you have learned.

SELECTING PIGS FOR YOUR PROJECT

Points to Remember

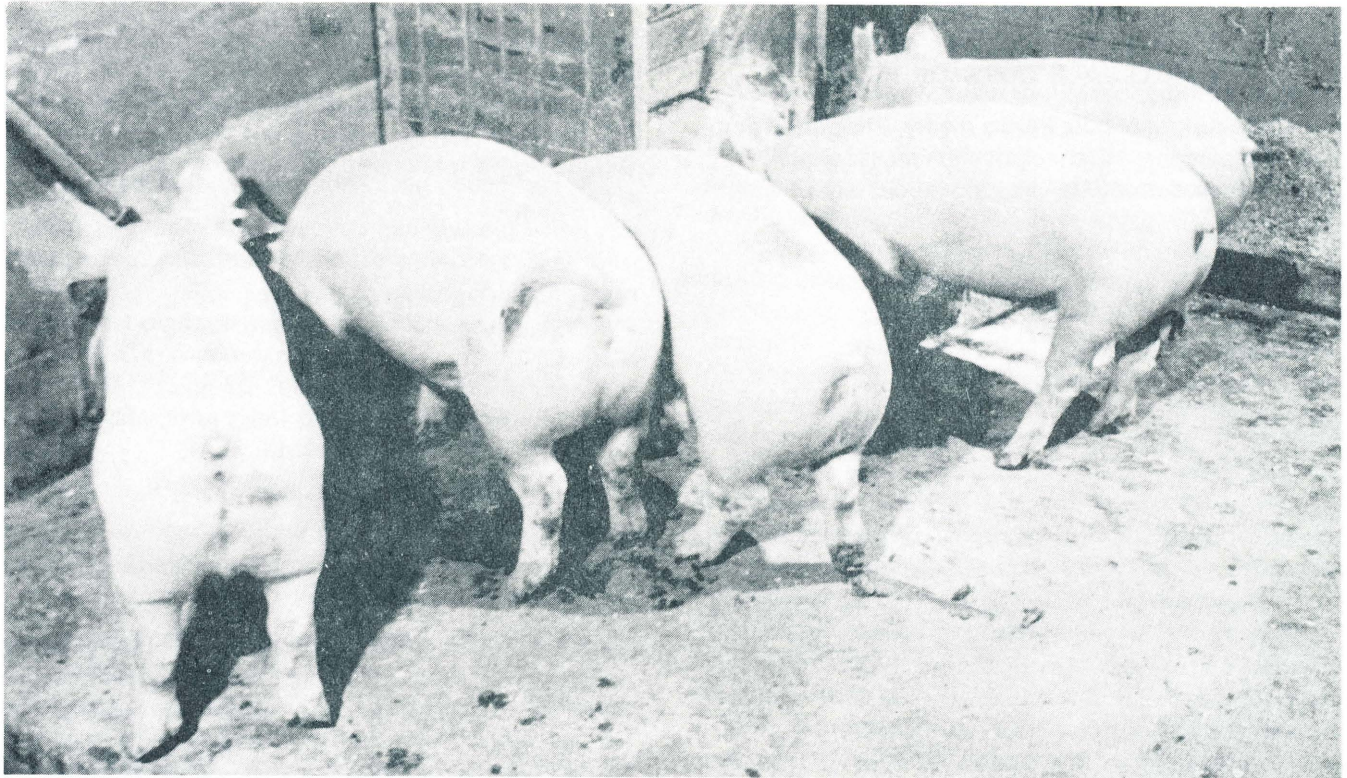
Select pigs that will have the proper amount of finish when they weigh 200 to 225 pounds. This is the most desirable market weight.

Healthy feeder pigs will gain from 1 1/2 to 1 3/4 pounds per day if fed properly.

Selecting feeder pigs about 50 pounds in weight will usually prove to be the most desirable for 4-H Market Hog Projects.

If your hogs are to be marketed at your county fair or show, you need to consider the date of this event in selecting your feeder pigs.

Example: You need to know the date of your county fair or show if you plan to market them at this event. For example, if you have 100 days to feed your pigs, you will need to buy at least a 50-pound feeder pig



A satisfactory pen and feeder arrangement for the Market Hog Project. Also note heavily muscled, meaty feeder pigs as indicated in deep bulging hams.

the rather specific requirements of growing pigs for certain essential nutrients, makes it very important for you to understand a few basic rules in selecting the proper feeds in the right proportions for your pigs.

Pigs are non-ruminant animals. They have a single stomach in contrast to ruminants which have a stomach that is divided into four compartments. Cattle and sheep are examples of ruminants. To grow rapidly and efficiently, swine must receive a high energy, concentrated grain ration, low in fiber. Cattle and sheep on the other hand can digest large quantities of fibrous feeds such as hay and pasture.

Energy Feeds or Concentrates

Farm grains are the most common and the best source of energy feeds for swine. The following tells how the different farm grains can be used and how they compare as feeds for swine.

Corn

Corn is an excellent energy feed for all classes of swine. It is an ideal finishing feed because it is high in digestible carbohydrate (starch), low in fiber, and is a very palatable, safe feed that can be fed in a variety of ways. It may be fed shelled, ground, mixed, or free-choice, or even as ear corn. It may be dry or high moisture. It makes little difference to the pig; he likes corn any way it is offered.

In spite of its virtues, corn alone will not keep pigs alive. Corn contains 7 to 9 percent protein, but the protein is deficient in practically all of the essential amino acids (protein building blocks) required by the pig. It is also so deficient in calcium and other minerals, and so inadequate in vitamin content that pigs will perform very poorly if they are limited to a ration containing only corn. So corn must be supplemented with a protein that makes up its amino acid deficiencies. Equally important are the needed minerals and vitamins. Properly supplemented corn is an excellent energy feed for all classes of swine.

Barley

Barley is an excellent energy feed when corn is not available. Because of its higher fiber content, barley has more bulk and is slightly lower in energy. It contains more protein than corn, but the amino-acid balance is not good. In feeding value, it is worth about 90 percent of corn.

Barley should be ground to a medium degree of fineness or rolled for swine. When fed in this manner, it can replace all or part of the corn in a swine ration. It is somewhat less palatable than corn. Thus, it is best to mix the ground barley with protein supplement.

Oats

As an energy feed, oats are handicapped by their high fiber content. This bulk makes oats a better feed for

breeding animals than for young pigs or finishing animals where high-energy rations are needed for fast gains.

The feeding value ranges from 70 to 80 percent that of corn. Fine grinding or removal of the hull improves the feed efficiency. When ground oats comprise no more than 30 percent of the total ration, the growth rate of growing pigs will be reduced very little, if at all.

Wheat

For all practical purposes, wheat is equivalent to corn as a source of energy and is slightly superior in protein (quality and quantity). It can be used as a pound-for-pound substitute for corn; but because of cost, it is not widely used in swine feeding. Low quality wheat not suitable for milling, as well as damaged wheat, can be profitably utilized by swine.

Wheat should be ground coarsely or rolled for hogs. When ground too finely, it has a tendency to form a pasty mass in the mouth and becomes less palatable.

Grain Sorghums (Milo)

Grain sorghums have many of the same virtues and deficiencies as corn and can replace corn in all swine rations. The kernel is hard and small and should be ground and mixed with other ingredients. The feeding value is approximately 95 percent that of corn.

Protein Supplements

From the above discussion of the common farm grains used to supply energy for pigs, it can be seen that all are deficient in both the quantity and quality of protein. Therefore, it is necessary to supplement the grains for hogs with protein-rich feeds. Most 4-H members will find it more convenient and probably more economical to purchase a commercial protein supplement prepared especially for swine. Table 1 illustrates how to mix a 16 and a 14 percent protein ration.

TABLE 1

How to Mix a 16% and 14% Protein Ration

	Weight of Pig (lbs.)	
	40-125	125 to Market
Ground corn (lbs.)	77	84
40% hog supplement (lbs.)	23	16
% Protein	16	14

Note: Ground oats can be substituted for 25% of the corn.

Add 10 to 20 grams of an antibiotic such as Aureomycin or Terramycin per ton of complete feed to stimulate growth.

TABLE 2

Approximate Daily Consumption of Feed by Pigs of Different Weights and Average Daily Gain

Weight of Pig	Weight of feed eaten daily (lb.)	Average daily gain (lb.)
40	2.5	1.0
100	4.5	1.5
150	6.5	1.8
200	7.7	1.9

Water

Water is so common it is seldom thought of as a nutrient. Hogs need to have plenty of clean, fresh water at all times if they are to grow and gain properly.

Additional information on feeding swine is given in Extension Bulletin 537, *Swine Feeds and Feeding*. Copies of this bulletin are available at county Extension offices.

KEEPING YOUR PIGS HEALTHY

If you start your project with healthy pigs and feed a properly balanced ration, you should not have any serious problems in keeping them healthy. It is always well to be alert for pneumonia and similar respiratory problems. If your pigs begin to develop any of these problems, they will act "droopy." Their tails and ears will droop, and they will also show signs of breathing rapidly and will cough frequently. Antibiotics added to the ration as suggested in Table 1 will help keep disease problems under control and stimulate growth.

Controlling Parasites

Large round worms (ascarids) can be a serious problem, especially when pigs are young. If they have not been wormed by the producer, you should treat them shortly after getting them home. Use Piperazine or Atgard as directed by the manufacturer. These materials can be purchased at feed stores or elevators.

Lice and mange mites are common external parasites frequently found on pigs. Like round worms, these parasites keep pigs from being thrifty and cause them to gain slowly. Both lice and the mange mite will cause pigs to rub the wall of the pen or feeder. The mange mite will also cause the pig's skin to become thick and reddened. Lindane is the most common material used to eradicate these pests. For a complete list of materials to use for lice and mange, see Extension Bulletin E-706, *Controlling Insects and Mites in Livestock*. Be sure to read directions carefully and especially note the minimum number of days that the material can be used before slaughter.

RECORDS TO KEEP

The reason for keeping records on your market hog project are:

- To help you learn more about animals, their rate of growth, the feed they require, and their habits.
- To help you plan future projects.
- To determine if you made or lost money and how much.

Information that will be helpful and interesting (use *Livestock Record Form*, 4-H No. 275):

- The weight of each pig at the start of the project. (Weights can be obtained by holding the pigs and standing on a bathroom scale and then subtracting the weight of the person holding the pig.)
- You will learn more about pigs if you weigh them every 30 days during the project, if this is possible, as they become larger.
- The weight of each hog at the time it is marketed.
- The total cost or value of the pigs at the start of the project.
- The money received from the sale of the hogs.
- The amount of feed used.
- The total cost of the feed used.
- The total cost of medicine and veterinary fees.
- Anything interesting or unusual that happened to the pigs during the project.

From the above information you can:

- Make a chart or graph showing how fast each pig grew.
- Figure the rate-of-gain per day.
- Figure the feed cost per pound-of-gain.
- Figure the total cost per pound of hog sold (cost of pigs + cost of feed + other expenses ÷ by weight of hogs sold).

MARKETING YOUR HOGS

Most 4-H members market their hogs at their county fair sale. If you sell your hogs by this method, you should check with your 4-H leader regarding the market price farmers are receiving for hogs of similar weight and quality. If you receive more than this amount, it is due to the generosity of the person who bought your hogs. You should consider it a reward for your efforts and not the true value of the animals. If you do not market your hogs at your county fair sale, there are numerous livestock auctions and buying stations throughout the state that will buy your pigs. Desirable market hogs are always in demand. Your local 4-H leader can help you select one of these markets.

Regardless of where you sell your hogs, it is always desirable to have them look as attractive as possible and

to avoid filling them with extra feed and water. Buyers do not want to pay for this feed. They base their price on the pounds of meat your hogs will produce.

EXHIBITING YOUR HOGS

You and other members of your club may want to exhibit your market hogs at your county or area fairs or show. This is often a requirement if you are to sell your hogs at your fair or show. Exhibiting your hogs should be a pleasant experience for you. However, it is only one part of your project. It is perfectly normal for you to want to win and to feel badly if you do not. The important thing to remember is not to let the results of the show spoil what would have otherwise been an enjoyable experience in your 4-H project.

In order to exhibit your hogs properly and enjoy your experience in the show ring, you must begin your preparation when you start your project. Your pigs must be healthy and free from internal and external parasites. They must be fed at the proper rate so they will have just the right degree of finish and condition at the time of your fair or show.

Next, you must begin training them several weeks before the show. It may surprise you to learn that hogs can be trained to respond to your action. You must train them to move easily and, if possible, to slow down to a walk. Having your leader or a parent act as a judge while you are training your pigs will help both you and your pigs know what to expect when the actual judging takes place at your fair or show.

Grooming Your Pigs for Show

(Adapted in part from the *Nebraska 4-H Swine Manual*)

Grooming is just as important as training when getting pigs ready for show. Proper grooming improves the general appearance of a pig.

General appearance is the first thing a judge notices about a pig. This first impression is important because it has some bearing on where the pig is placed in his class.

Washing

The most helpful thing you can do in grooming a pig is to wash him. Wash your pigs twice—once about a week before fair time and again the day before your show. More frequent washings are not necessary if the pigs are kept clean and well bedded. Spend your extra time putting the finishing touches on training.

Before washing him, rinse the pig with clean water. A bucket of water can be used, but a hose will do a better job.

Rinsing will remove loose dirt and wet the skin and hair before soap is applied. Hold the pig's ears closed when you rinse his head so you won't get water in them. This is especially important at the fair. A pig with water in his ears can be difficult to handle in the show ring.

After the pig has been rinsed, apply enough soap or mild detergent to work up a good lather. Then, scrub

him well with a stiff brush. Don't forget the underline, the head, and the feet. These parts are often neglected.

If the lather is dirty, rinse it off and start over. A bar of hard-water, castile soap is good for washing pigs. If you use a mild, liquid detergent mix it with a bucket of warm water and apply it with a brush.

Don't ever use a strong soap or detergent because it will be harmful to the pig's skin.

When you have finished scrubbing, rinse the pig with cold water until all of the soap is gone. Give special attention to the underline and the area between the legs.

Keep the pig on a clean surface after leaving the wash rack. Take him to a holding pen and dry him as much as possible with a terry cloth towel. Continue to dry the pig by brushing him. Use a dry brush, and brush in the direction that the hair will lay naturally until it is dry; or it will curl up on the sides when he lies down.

Clipping

Clipping a pig's tail and ears improves his appearance. This can be done just before you leave for the fair, or it can be done at the fair. You should also clip the pig a couple of weeks before fair time just for practice. Use either hand clippers or electric barber clippers.

Clip the tail from a point 2 to 3 inches above the switch to the tail setting. Blend the hair carefully into the rump at the tail setting. Clip the inside as well as the outside of the ears. Clip to the base of the ear where it attaches to the head. Do not clip the head. Blend the clipped areas with the unclipped area. Clipping the sheath of a barrow tends to make him appear trimmer in the middle.

Dressing the Hair

After the pig has been washed and clipped, he will be ready for show except for dressing his hair. How the hair is dressed for show will depend on the color of the pig.

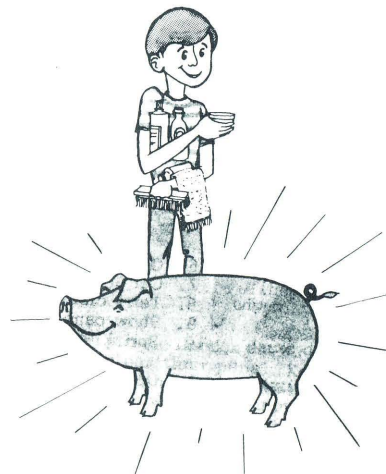
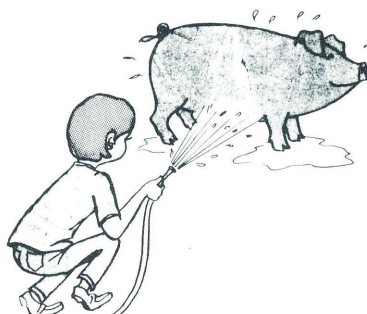
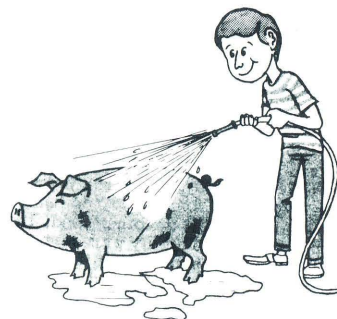
White hogs—use white talcum powder or cornstarch. Sprinkle the powder on thoroughly and brush to evenly spread the powder and to get rid of the excess.

Black, red, and spotted hogs—use a light oil (several commercial preparations are also good; light-weight mineral oil is good, too). Another good mixture is 2 parts 10 weight oil and 1 part kerosene. Apply oil evenly with a fly sprayer, pressure sprayer, or a wool rag. Make sure to oil the pig completely. Do not use powder on the belt of a Hampshire.

Polands and Berkshires—The white points on these two breeds should be powdered with white talcum, or use white, paste, shoe polish.

Apply the oil with an old towel. When too much oil is applied, remove excess by rubbing with a dry towel.

When temperatures are very high, water may be used on colored pigs instead of oil to help keep the pigs from getting overheated.



SHOW RING PROCEDURES

The following are the usually accepted procedures in exhibiting your hogs before the judge:

Your Personal Appearance

You should be neat and clean. You should be appropriately dressed for the occasion. Suitable wear would be neutral slacks for light-colored pigs and dark slacks for a red or black pig. A white shirt or blouse is suitable. Dresses and shorts are unsuitable. Leather boots or shoes should be worn for protection. Expensive or elaborate clothing is not preferred over neat, clean, more conservative apparel.

Appearance of the Pig

Pigs should show proper size for age. Evidence of good health as indicated in a young hair coat is necessary. Animals should be healthy and free from internal and external parasites. Preparation for the show ring should be done as outlined in the sections on grooming, washing, clipping, and dressing the hair.

Show Ring Procedure

Enter the show ring promptly when the class is called with the pig under control at all times. Showing your pig at his best advantage is the first requirement of a good showman. You must know where the pig is and where the judge is at all times. When driving your pig, have a cane or whip in one hand, a small brush in your pocket, and have one hand free to open gates. If you use a cane, hold the straight end in your hand and guide the pig with the curved end. This gives more surface to guide the pig and the hook can be used to pull your pig from a fight. Never use the hook except to separate pigs that are fighting. If you use a whip make sure it is a lightweight one; not more than 3 feet long with a small switch on the end. Your pig may be driven by gently tapping him on the shoulder or neck. Tap the pig gently behind the front flank or on the side to move him forward. Never hit the pig on the back, rump, or snout. Never place your hand or cane around the pig's tail or hind legs. Never shove or use your knee to make your pig move.

Keep the pig between you and the judge. Never get between the pig and the judge or between a fellow exhibitor's pig and the judge. Try to keep your pig in the judge's view and not too close or too far away. Generally speaking, the pig should be kept 10 to 15 feet away from the judge. When showing the pig, stay out of bunches or large groups. Try to keep your pig in the open area where the judge can see him. Try to anticipate every movement of the judge and have your pig where he is looking and will be looking. Keep your pig walking at a slow walk. Pigs look better at a walk than while standing still.

Be courteous. Never do anything that will distract attention from a fellow showman's pig. Be courteous to

the judge. Try to do as he asks. After the judge has placed your pig, give him a quiet "Thank You." If you disagree with him, this is not bad since we do not all see things exactly alike, but keep your disagreement to your self. Always congratulate the winner. It takes a bigger, stronger person to smile when he loses than to smile when he wins.

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OTHER PROJECT AREAS RELATED TO THE MARKET HOG PROJECT

Several other projects will broaden your experiences and help you with your Market Hog Project. These include:

Veterinary Science Project (Study how to keep your pigs healthy).

Crop Science Project (Produce grain for your pigs).

Photography Project (Tell the story of your hog project with pictures).

Entomology Project (Learn about external parasites of hogs).

Additional Bulletins that Will Give You Helpful Information for Your Market Hog Project

Extension Bulletin 536 — *Introductory Animal Nutrition*

Extension Bulletin 537 — *Swine Feeds and Feeding*

Extension Bulletin E-706 — *Controlling Insects and Mites in Livestock*

4-H Bulletin 575A — *4-H Livestock Judging Guide*

Some Topics for Swine Demonstrations

Feeding Market Hogs

Fitting and Showing

Diseases and Parasites of Swine

Selecting Market Hogs

Wholesale and Retail Cuts of Pork

Balancing a Ration

The Type of Hogs Consumers Want

Some Suggested Individual or Group Activities

Invite a local swine farmer to come to a club meeting to share ideas.

Follow a member's hogs through a slaughter house.

Have a club tour to visit all swine projects.

Practice swine judging prior to the fair or show to help members know what the judge is looking for.

Visit with a local veterinarian about sanitation and disease prevention.

Invite non-farm youth to have a swine project on a member's farm.

Invite outstanding 4-H swine project members from other clubs to visit your club and tell about their experiences.

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