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This circular replaces Circular 665. The revisions are by G. R. Carlisle, Associate Professor of Animal Science, and George L. Daigh, Instructor in 4-H Club Work. Circular 665 was by G. R. Carlisle and R. O. Lyon.

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Urbana, Illinois  March, 1960

A SWINE MANUAL
for 4-H Club Members

THE SWINE PROJECT is among the most profitable and least risky of all 4-H livestock projects. If you are just beginning in 4-H, you will find that investing in a gilt or sow for breeding or several barrows for feeding is a good way to earn money quickly. In this project there are purebred and grade units which will fit into almost any Illinois farm situation. Many members will begin by feeding one or more barrows or market gilts. This is a good way to learn about feeding and managing hogs being fattened for market. If you want to learn more about the hog business, there are many opportunities in the other feeding and breeding units.

UNITS YOU MAY CHOOSE

The swine project has three units—market hog feeding, purebred gilt, and swine production. The requirements are listed below. Members are encouraged to exhibit their animals at 4-H and county shows.

Market hog feeding. In this unit members feed and care for pigs which will be marketed. To gain additional experience members should follow their pigs through a market. Here are the requirements:

1. If you are a beginning member, feed 1 to 3 barrows or market gilts. Experienced members should feed 10 or more barrows or gilts or they may feed an entire herd in a partnership or management agreement.
2. The pigs must have been farrowed in the current calendar year.
3. Begin keeping records when you obtain the pigs.
4. You have until June 1 to enroll.

Purebred gilt. In this unit members feed and care for purebred gilts. It is a good way to learn about the purebred business. The requirements are as follows:

1. Raise one or more purebred gilts. Keep only one breed and register the gilts in your name.
2. The gilts must have been farrowed in the current calendar year.
3. Begin keeping records when you obtain the gilts.
4. You have until June 1 to enroll.

Swine production. This unit is for the member who is interested in
Producing his own market hogs or in establishing a purebred herd. It may be a continuation of the purebred gilt unit. The requirements are:

1. One or more purebred or grade sows bred to a purebred boar. If you are experienced in raising hogs you may carry an entire herd in a partnership or management agreement. If you are using purebred sows, keep only one breed and register them in your name.

2. The sows must farrow during the current calendar year.

3. If you are a beginning member begin keeping records when you obtain the sows. Experienced members who carry animals in this unit from year to year should keep continuous records on the sows and on the litters until the litters are marketed.

4. If you are beginning or are adding sows to your herd, you have until March 1 to enroll. If you are carrying your hogs in this unit con-
Continuously from year to year you should re-enroll by September 1 (the beginning of the 4-H Club year) so that you can keep continuous records.

CHOOSING YOUR ANIMAL

Deciding on the Breed

In choosing a breed to raise, ask yourself at least two questions: First, what breeds are most common in your community? Second, what breed do you prefer? If a number of your neighbors are raising the breed you choose, it will be easier for you to get good animals at a reasonable price. But you should like the breed too, since your liking the animal will play a large part in the success of your project.

In Illinois nine breeds are most common. They are Hampshire, Berkshire, Chester White, Poland China, Spotted Poland China, Duroc, Tamworth, Yorkshire, and Landrace (Figs. 2-10). Among breeds found in smaller numbers are Hereford, Ohio Improved Chester White (O.I.C.), and certain new breeds such as the Minnesota No. 1 and Minnesota No. 2.

Selecting Animals for Your Project

It is a good idea, especially if you are a beginner, to ask someone with experience to help you pick out your hog. This person could be a purebred breeder, vocational agriculture teacher, farm adviser, assistant farm adviser, or club leader. Swine are usually selected on the basis of at least three points: (1) individuality, or the form and general characteristics of the individual animal; (2) production, which is judged by the weight and size of the litter from which the animal comes; and (3) pedigree.

Individuality. Form or type (general outline) is important in choosing a pig. Look for an animal that is fairly long, medium in width across the back, and that stands on legs which are medium in length. The pig should have deep, wide hams; in fact, the widest part of the pig should be through the center of the ham when viewed from the rear. The legs should be set well apart. They should be straight, with bone that is medium size, and with straight, strong pasterns.

The pig should have an overall appearance of being muscular, not flabby or fat. Avoid pigs that are short, wide and flat on top, and that stand with their legs together rather than wide apart. Also avoid pigs
A typical Hampshire gilt (courtesy Hampshire Swine Registry).  (Fig. 2)

A typical Berkshire gilt (courtesy American Berkshire Association).  (Fig. 3)

A typical Chester White gilt (courtesy Chester White Swine Record Association).  Fig. 4)
A typical Poland China gilt (courtesy Poland China Record Association). (Fig. 5)

A typical Spotted Poland China gilt (courtesy National Spotted Poland China Record Association). (Fig. 6)

A typical Duroc gilt (courtesy United Duroc Swine Registry). (Fig. 7)
A typical Tamworth gilt (courtesy Tamworth Swine Association). (Fig. 8)

A typical Yorkshire gilt (courtesy American Yorkshire Club, Inc.). (Fig. 9)

A typical Landrace gilt (courtesy American Landrace Association, Inc.). (Fig. 10)
Practicing livestock judging will give you experience that will help you to select the best animals for breeding. (Fig. 11)

that are extremely long, narrow, light-boned, and narrow through the ham.

When picking a pig ask yourself these questions:
1. Is the pig long, trim, smooth?
2. Does it have a heavy, deep, bulging ham?
3. If it is a gilt does it have at least 12 nipples? Are the nipples prominent?
4. Does the pig have enough bone? Are the legs wide apart? Are the pasterns short and strong?

If you want to know more about selecting swine on individuality, see Illinois Circular 752, "Judging Livestock."

**Production.** The profit from your swine project will depend largely upon the number of pigs raised per litter. So make as sure as you can that any young animals you are going to use for breeding will be good producers. They should come from large litters farrowed by sows that are good milkers and good mothers.

Probably the easiest way to select breeding stock on the basis of production is to study the total weaning weight of the litter from which an animal comes. Weaning weights of 275 pounds for an eight-week-old
litter farrowed by a gilt and 320 pounds for an eight-week-old litter farrowed by a sow are considered satisfactory. Many good-producing sows, however, farrow litters which weigh much more. If you can’t get the litter weaning weights, at least be sure that the animal comes from a litter in which a satisfactory number of pigs (eight or more) were farrowed and raised.

In addition to litter size and weight information, find out all you can about the growth rate and carcass quality of closely related pigs. Ask the breeder if he has run any slaughter tests on relatives of the pig you are buying, and if so find out what these tests told about the animals. If the pig you buy had several close relatives that produced meaty carcasses, the chances are that he is also a meaty, muscular pig.

**Pedigree.** A pedigree is a written record of an animal’s ancestors, usually going back two generations, and sometimes further. If you are choosing pigs for a market-hog unit, you won’t have to pay much attention to pedigree, since you will probably sell the animals when you have finished the project. In selecting purebred swine, however, you should give some thought to the pedigree. This does not mean that an animal’s pedigree has to be full of the names of outstanding show winners, for many excellent 4-H projects are based upon animals from little known bloodlines. If an outstanding animal does appear in a pedigree it should be in the first or at least second generation. If it is any farther back it probably won’t have much effect on the animal being considered.

**FEEDING SWINE**

It’s a little harder to feed swine than to feed either sheep or beef cattle. It isn’t that a balanced ration is any more important for swine than for these other animals—it’s just that a little more care is needed to provide swine with everything they need.

That’s because a hog has a simple stomach while sheep and cattle have four parts to their stomachs. Sheep and cattle can eat large amounts of hay and other roughage—feeds which are rich in vitamins, protein, and minerals. A hog can’t digest so much roughage.

Another advantage of the paunch in sheep and cattle is that bacteria which live in it produce certain B vitamins. These vitamins can be used by the animal. A hog does not produce these vitamins to any great extent in its simple stomach.

A hog’s needs can be taken care of by adding a mixture of protein, vitamins, minerals, and antibiotics to its grain ration. These mixtures are usually called protein supplements. Also, whenever possible, hogs should be on good green pasture.
Farm Grains Usually Fed to Hogs

Corn. Corn makes up the largest part of the ration fed to most corn-belt hogs. It is one of the best energy feeds available, but like all farm grains it is low in protein, some vitamins, and minerals. Thus corn, or any other farm grain, should not make up the entire ration. A good protein supplement should be fed with the grain.

You may wish to grind the corn and mix it with the protein supplement. This method has the following advantages: (1) pigs gain faster; (2) there are fewer tailenders or runts; and (3) you can keep pigs from eating too much of the expensive protein supplement. The extra cost of grinding, however, raises feed costs and may even be more than the savings gained from the pigs eating less protein supplement.

Oats. Since oats contain a considerable amount of fiber, which pigs can't use, they should not make up more than a fourth of the grain fed to growing hogs. For breeding animals, however, it is desirable that one-fourth to one-third of the ration be oats. The oats will help keep the animals from getting too fat.

Oats have a hull which hogs do not like, so they should be finely ground before being fed to hogs. This grinding makes the hull less noticeable.

Barley. Not much barley is available for hog feed in Illinois. If barley is fed, it should always be ground. Scabby barley is not a good feed for hogs.

Wheat. It usually pays to grind wheat for hogs. Wheat should be coarsely ground and mixed with some other ground grain such as oats. Finely ground wheat fed alone makes a doughy mass which pigs do not like. Ground wheat is about equal, pound for pound, to shelled corn in food value. However, pigs will not fatten quite so fast on wheat as on corn, but will tend to grow a little more.

Rye. Rye, like wheat, should be coarsely ground for hogs. If it has much ergot (a fungus that causes the seed to become an enlarged black mass) in it, it is not a good hog feed.

Protein Supplements

Protein supplements contain more than just protein; they also contain vitamins, minerals, and antibiotics. Protein supplements may be home-mixed or they may be bought ready-mixed. Purchased supplements are usually a little more expensive than home-mixed ones, but they will probably have less fiber and thus produce slightly faster gains. Table 1
Table 1. — Suggested Home-Mixed Supplements for Swine

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Drylot (pounds)</th>
<th>Pasture (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sow Pigs under 75 lb.</td>
<td>Hogs over 75 lb.</td>
</tr>
<tr>
<td>Soybean meal</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Alfalfa meal</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Meat scraps</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Feeding limestone</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Steamed bonemeal</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Trace-mineralized salt</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>(a)</td>
<td>(a)</td>
</tr>
</tbody>
</table>

* Most antibiotic carriers also contain Vitamin B12.

gives the formulas for some suggested home-mixed supplements. These will be satisfactory either for free-choice feeding along with whole corn or for adding to ground grain in a ground and mixed complete feed.

**Vitamins.** Pigs on good legume pasture get all the vitamins they need from the growing plants. Therefore the vitamin part of protein supplements is most important when pigs are in drylot or on poor, dried-up pasture. If you are using a home-mixed supplement the most practical way to take care of the vitamin problem is to add alfalfa meal as shown in Table 1. If you buy a ready-mixed supplement it will probably contain less alfalfa meal than a home-mixed one. To replace the vitamins in alfalfa meal, manufacturers of ready-mixed supplements use synthetic vitamins. These synthetic vitamins are not always available to club members.

**Minerals.** The mineral needs of your pigs are taken care of by the limestone, bonemeal, and trace-mineralized salt in the formulas in Table 1. If you want to, you can replace these three minerals with an equal amount of a complete mineral mix which you can buy. Be sure that the trace-mineralized salt (or the complete mineral mixture) you use contains zinc. Look at the label on the bag to see. If you feed your hogs a ration that does not contain added zinc, your hogs may get parakeratosis, a condition where the skin gets thick and develops cracks.

**Antibiotics.** Antibiotics are added to protein supplements to help control disease and speed up gains in your pigs. The ones that are most generally used are aureomycin, terramycin, and penicillin. There is some evidence that a mixture of two or more is better than one used by
itself. Antibiotics are not needed in the rations of sows, only in the rations of growing pigs.

You may not be able to get the antibiotics to mix in your home-mixed protein supplement. If this happens, you will probably be better off buying a ready-mixed protein supplement that contains an antibiotic rather than using a home-mixed one that does not contain it.

**How much protein supplement to feed.** Table 2 shows you what percent of protein you will need in the ration of hogs of various weights and classes. The table also shows how much corn and how much supplement to mix together to get a ration with the right amount of protein in it. The third column in the table gives you an idea of how much protein supplement your pigs should be eating if they are getting supplement and corn free-choice. Sometimes pigs eat much more supplement than they need, making their feed costs too expensive. If this happens, try adding about one part alfalfa meal to two parts supplement to make the supplement less tasty.

**Table 2. — Amount of Protein Recommended in Swine Rations**

<table>
<thead>
<tr>
<th>Weight or class of swine</th>
<th>Protein (percent)</th>
<th>Ratio of supplement to corn</th>
<th>Supplement per head daily (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drylot or poor pasture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 40 lb.</td>
<td>20</td>
<td>1:2</td>
<td>.4</td>
</tr>
<tr>
<td>40 to 100 lb.</td>
<td>16</td>
<td>1:3</td>
<td>.9</td>
</tr>
<tr>
<td>100 lb. to market</td>
<td>12</td>
<td>1:7</td>
<td>.9</td>
</tr>
<tr>
<td>Gestation(a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilts.</td>
<td>16</td>
<td>1:3</td>
<td>1.3</td>
</tr>
<tr>
<td>Sows.</td>
<td>14</td>
<td>1:4</td>
<td>1.2</td>
</tr>
<tr>
<td>Lactation(b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilts.</td>
<td>15</td>
<td>1:3(\frac{1}{2})</td>
<td>2.8</td>
</tr>
<tr>
<td>Sows.</td>
<td>15</td>
<td>1:3(\frac{1}{2})</td>
<td>2.8</td>
</tr>
<tr>
<td>Good legume pasture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 40 lb.</td>
<td>18</td>
<td>1:2</td>
<td>.5</td>
</tr>
<tr>
<td>40 to 100 lb.</td>
<td>14</td>
<td>1:4</td>
<td>.6</td>
</tr>
<tr>
<td>100 lb. to market</td>
<td>10</td>
<td>1:15</td>
<td>.5</td>
</tr>
<tr>
<td>Gestation(a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilts.</td>
<td>13</td>
<td>1:6</td>
<td>.7</td>
</tr>
<tr>
<td>Sows.</td>
<td>12</td>
<td>1:7</td>
<td>.6</td>
</tr>
<tr>
<td>Lactation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilts.</td>
<td>13</td>
<td>1:6</td>
<td>1.8</td>
</tr>
<tr>
<td>Sows.</td>
<td>12</td>
<td>1:7</td>
<td>1.6</td>
</tr>
</tbody>
</table>

\(a\) Gestation is the period in which the gilt or sow carries her young.
\(b\) Lactation refers to the period in which the pigs are nursing.
\(c\) If bred sows or gilts are on good alfalfa or Ladino clover pasture, leave out the supplement and feed 3 or 4 ears of corn per sow per day and minerals free-choice.
Pastures for Pigs

Good pastures save feed, help to furnish needed minerals, protein, and vitamins in the ration, and help to keep pigs healthy. In general, pastures can be divided into three main groups: (1) legume pastures, (2) winter and early-spring rye pastures, and (3) emergency pastures.

Good legume pastures are the foundation of most pasture programs for hogs. Alfalfa, red clover, lespedeza, and, in recent years, Ladino clover are widely used for hogs in Illinois. Except for lespedeza, these legumes can be pastured from about the first of May in most parts of Illinois, and will furnish pasture until frost in the fall. Usually 15 to 25 pigs can be carried on an acre of legume pasture, depending on how good the stand is and how fertile the soil. If the pasture crop gets too high early in the season, it should be clipped, so that the pigs will have a young growing crop to pasture. About a ton per acre of first-cutting alfalfa hay is usually taken from the hog pastures at the University of Illinois in June.

Rye seeded in the early fall or late summer makes good winter and early-spring pasture for bred sows and for sows and litters. At the University of Illinois Balbo rye is seeded about September 1 at the rate of 1½ bushels an acre. This rye is used either for winter pasture for bred sows, starting about November 1, or for early-spring pasture for sows and their litters. Rye is ready for spring pasture about March 15, which is at least six weeks before the legume pasture is ready. The rye that is used for winter pasture for sows is not used for spring pasture for sows and their litters.

Rye used for winter pasture will carry six to eight sows to the acre if it gets a good start before the sows are turned on. In the spring rye will carry at least eight sows and their litters to the acre. If you have only one or two project sows you can have plenty of winter and early-spring pasture if you have only ½ to ½ acre of rye.

Emergency pastures should be used when legume pastures are not available. While they are not as good as legume pastures, they are much better than no pasture at all. Here are two suggested mixtures for emergency pastures:

(1)  
1½ bushels oats  
5 pounds rape  
per acre

(2)  
1½ to 2 bushels oats  
2 pounds red clover  
2 pounds sweet clover or alfalfa  
per acre
Feeding the Growing Market Hog

Your market-hog unit will probably begin with either weanling pigs you have bought from some hog raiser in your community, or with pigs you have produced yourself. You will therefore have to feed the animals so that they will both grow and fatten at the same time. A pig weighing 50 or 60 pounds needs a ration fairly high in protein (Table 2). The ration should also be well balanced in minerals and vitamins. The protein supplements in Table 1 are good examples of supplements to feed.

The growing pig may be either self-fed or hand-fed. If you are starting out and have just one barrow or pen of barrows, you will probably want to hand-feed. But if you have several animals you will probably save time by using a self-feeder (Fig. 12) with grain in one compartment and protein supplement in another or a complete ground ration in both compartments. A self-feeder, however, will not take the place of plenty of attention. If you use one, visit your pigs at least twice a day to see that they are all right and have plenty of feed and water.

Slopping pigs. Many 4-H members who are hand-feeding mix the grain and supplement together and grind the mixture, often feeding the ground feed as a slop. Usually, grinding shelled corn will not save enough grain to pay for the grinding; and slopping of pigs, except during show time, will make so little difference in gains that it will not pay for the labor it takes.

However, many breeders who show hogs year after year feel that slopping pigs puts a “bloom” on them that they will not get on dry self-feeders and an automatic water supply take much of the labor from swine raising. If the pasture is some distance from the building lot, water may be hauled in a large tank. (Fig. 12)
feed. So if you want to do the best possible job with your pigs and are willing to spend a few extra hours getting them in the best condition for showing, it may be worth while to give them part of their ration as a slop. A suggested ration would be a mixture of ground shelled corn and ground oats in equal parts as a slop twice a day. Just feed what the pigs will clean up in about 15 minutes. At the same time give them all the shelled corn and supplement or ear corn and supplement that they want, in a self-feeder. If you are feeding a ground complete ration, feed it both as a slop and in a self-feeder.

Keep pigs on pasture. People used to think that barrows had to be extremely fat at show time. As a result, many project barrows were shut up in a small pen and almost “fed off their feet.” Today, a meaty rather than a fat hog is in demand. So it is not a good practice to shut your market hogs up in a pen. If possible keep them on a good legume pasture.

A good green pasture will furnish much of the protein and almost all the vitamins and minerals that a pig needs. Pigs fed good rations on pasture will gain as fast as or faster than if they had been shut up in drylot with no pasture. And because they can get plenty of exercise they aren’t so apt to get overly fat and flabby. Rather, they will tend to put on a good firm finish. Good pastures are cleaner than most hog lots, so that pigs on them have a better chance to stay healthy. In addition to all these other advantages, a good pasture will make the feed bill less.

Feeding Young Breeding Stock

Since many club members start their first-year projects with a gilt bought at weaning time, this section will deal largely with feeding young breeding stock after weaning. Feeding the sow and litter is discussed on pages 17 through 20.

Young animals to be used for future breeding stock should be well grown, healthy, and sound in their feet and legs. To have these characteristics, they need the right kind of feed. It is highly important that their rations have enough protein, minerals, and vitamins.

In many ways feeding young breeding stock is like feeding hogs which are going to market. This is especially true of pigs up to 200 pounds in weight. Much of the discussion on the preceding pages about feeding the growing barrow also applies to young breeding animals.

Pasture is important. Like market hogs, young breeding stock should be kept on green growing pasture as much as possible. This will help keep them healthy, will furnish much of the protein, minerals, and
vitamins they need, and will help them become big, thrifty, sound pigs which will make suitable breeding stock.

**Slopping may be worth while.** As with the barrow, feeding part of the ration as a slop will probably put a little extra bloom on the pigs, but it does take more work. If you have time, you might give pigs on pasture a feed of slop twice a day. They should also have shelled corn and supplement or a ground complete ration, whether they are getting slop or not. Dry feed may be given in a self-feeder, at least until the pigs weigh 200 pounds.

**Keep animals from getting too fat.** After boars and gilts have reached 200 pounds, they are likely to get too fat if kept on a full feed of shelled corn and supplement. There are several ways to keep this from happening. One way is to hand-feed the hogs enough corn to keep them growing well, but not enough to make them too fat. Along with the corn, feed about $\frac{1}{2}$ to $\frac{3}{4}$ pound of supplement per head each day if the hogs are on pasture, and $\frac{1}{4}$ to 1 pound of supplement if the hogs are in drylot.

A second way to keep young breeding stock from becoming too fat is to include a considerable amount of oats in the ration. If you want to self-feed your young gilts and boars after they have reached 200 pounds, you might put a mixture of 50-percent ground oats and 50-percent ground shelled corn in one compartment of a self-feeder, with supplement in another part. You may have to adjust this mixture according to the condition of the hogs. If they seem to be getting too fat, add a little more oats to the mixture and cut down on the corn. If they don't seem to be gaining fast enough, cut down on the oats and add more corn. The supplement to use depends on whether the hogs are on pasture or in drylot (Table 1).

**Feeding the Brood Sow and Baby Pigs**

Good feeding is especially important for the brood sow while she is pregnant and while she is nursing her pigs. In fact, these two periods are the times when poor feeding is most apt to cause poor results in the project.

**Feed heavily at breeding time.** The brood sow should be fed so that she is gaining weight rather rapidly at breeding time. This practice is called "flushing." Hog producers believe that flushing brood sows helps make sure that they will settle promptly and that they will have large litters. The ration used at breeding time should be well balanced in protein, minerals, and vitamins. Feeding shelled or ear corn and one of
the supplements in Table 1 is satisfactory. About 1 pound of supplement should be fed per head per day if the sows are in drylot and ½ to ¾ pound if the sows are on pasture. If at all possible the sows should be on pasture during the breeding season, so that they will get all the vitamins they need.

Cut down ration after breeding. After the sows have been mated and are settled in pig, the grain in the ration used in flushing should be cut back a little. Otherwise the sows will get too fat. A sow should gain 80 to 100 pounds while she is carrying a litter, or slightly less than a pound a day. A total feed of 5 or 6 pounds a day is about right. You will have to use your own judgment as to whether your sow is becoming too fat. Remember that she should be in at least good condition at farrowing time, or else she will not milk well.

Pregnant sows can be either self-fed or hand-fed. If they are hand-fed they should get enough grain to keep them in good condition, and enough supplement to balance the ration. Some people like to self-feed bred sows. To keep the sows from becoming too fat, the ration should have quite a lot of bulk. One suggested ration for self-feeding is:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 pounds ground shelled corn</td>
<td></td>
</tr>
<tr>
<td>30 pounds ground oats</td>
<td></td>
</tr>
<tr>
<td>30 pounds ground alfalfa hay or alfalfa meal</td>
<td></td>
</tr>
<tr>
<td>4 pounds tankage</td>
<td>or 10 pounds</td>
</tr>
<tr>
<td>4 pounds soybean meal</td>
<td>commercial drylot</td>
</tr>
<tr>
<td>2 pounds simple mineral mixture</td>
<td>sow supplement</td>
</tr>
<tr>
<td></td>
<td>100 pounds</td>
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</table>

This ration would be fed during the winter when pasture is not available. You may need to adjust it according to the condition of the sows. If they tend to get too fat, cut down on the corn and add more oats or alfalfa. If they aren’t gaining fast enough, give them more corn and less oats.

Feed lightly at farrowing time. When a sow is shut up in a pen to farrow, cut down on her feed to some extent, but not enough to make her lose weight. The ration used for self-feeding during pregnancy is still good, but she should get less than a full feed of it. Some hog men like to throw a double handful or so of bran in the sow’s feed at each feeding. The bran will help keep her from becoming constipated. The day the sow farrows, give her only a light feed, but be sure she gets all the water she wants.

Increase ration after farrowing. Starting a day or two after the sow farrows, gradually increase her feed until she is on full feed ten days or two weeks after she farrows. If you use a ration like the one
suggested above, gradually add corn and supplement at the same time. By the time the sow is on full feed, she should be getting mostly corn and supplement, since she needs a rich ration to milk heavily. More care and time is needed to bring a heavy-milking sow or a sow with a small litter to full feed than one with a large litter or one that is a poor milker. You will have to use your own judgment in this matter or ask your father or 4-H club leader for advice.

If the pigs are to gain fast, the sow must be fed to milk as heavily as possible while she is nursing her pigs. She may be hand-fed or self-fed— the important thing is that she always has all she wants to eat. If one or two or just a few sows and their litters are kept in a lot together, hand-feeding will probably work just as well as self-feeding. But if several sows and their litters are run together, self-feeding the brood sows will probably result in somewhat better gains for the pigs and slightly fewer death losses. Also, self-feeding will take less work. Shelled corn and supplement in separate compartments of a self-feeder give very satisfactory results. If ear corn is hand-fed, it is a good idea to feed supplement in a self-feeder.

Feed baby pigs in creep. When pigs are two to three weeks old, they will begin to want some other food besides their mother’s milk. At this time they should have a creep in the corner of the lot where the sow cannot get at their feed (Fig. 13). If this creep is near where the sow eats, the pigs will learn to go into it sooner. A creep is more important if the sow is hand-fed and if there are several sows in a lot

Feeding pigs in a creep before weaning gives them a good start and helps to keep them from losing weight when they are weaned. Many swine men prefer vertical bars to the horizontal bars pictured, because the pigs don’t have to stretch to get under the bars. (Fig. 13)
than if the sow is self-fed or there are only one or two together in a lot. However, to keep pigs gaining so that they will not lose their “baby fat,” providing a creep is always a good practice. In bad weather pigs will eat twice as much feed from a creep inside a building as from one outside.

As to feeds to put in a creep, you may buy a ready-mixed pig starter or creep ration or use one of the following home-mixed rations:

<table>
<thead>
<tr>
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<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td>Hull oats</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Corn</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Soybean meal</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Meat scraps</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Alfalfa meal</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Sugar molasses</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Skim milk</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Minerals</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Antibiotic</td>
<td>2 gm.</td>
<td>2 gm.</td>
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</tbody>
</table>

If you buy a commercial pig starter, get one in pellet form that contains sugar mixed in the pellet, and not one that is sugar-coated.

The earlier you can get pigs started to eating, the better. A pig makes better use of its feed before weaning than at any other time. In all cases, get your pigs on corn and protein supplement as soon as they will eat these feeds.

**MANAGING THE SWINE PROJECT**

**Sanitation**

A strict sanitation program is the most important step in managing a swine project. Even if you buy the right kind of animals and feed them the right rations at all times you won’t have a successful project without sanitation. A good sanitation program is the basis for all control of disease and parasites.

One of the most effective programs for swine sanitation is the McLean County System. These are the steps in this program (Figs. 14 through 17):

1. *Thoroughly clean and scrub out the farrowing pen.* This is hard work, but it is necessary for good sanitation. First take out all dirt and old bedding that can be scraped out of the pen. Then thoroughly scrub the pen with boiling lye water. Use 1 pound of lye in each 10 to 15 gallons of water. If you can get hold of a steam cleaner, it will do an even
Thoroughly clean the farrowing pen. A steamer does a good job but is expensive to use. A broom and hot lye water will also do the job. (Fig. 14)

Wash the sow with soap and water to remove dirt and worm eggs. The sow should have previously received piperazine in her drinking water to remove worms. (Fig. 15)

If the sow has farrowed in a pen around the main farm buildings, haul her and her pigs to clean ground. Do not drive them over yards infested with worm eggs and diseases. (Fig. 16)

Keep the pigs on the clean ground. Putting them back in old pig lots is inviting diseases and worms. Good legume pasture will also save grain and help provide needed minerals, vitamins, and protein. (Fig. 17)
better job and do it easier. However, a steam cleaner is apt to be too expensive to be practical for a 4-H project.

2. **Worm the sow** two weeks before farrowing with piperazine, or water wormer.

3. **Wash the sow with warm water and soap** before she is put into the farrowing pen. In cold weather, it may not be advisable to wash the sow completely, but her feet, legs, udder, and sides should always be washed. Washing the sow will help to keep the little pigs from getting a mouthful of worm eggs the first time they nurse.

4. **Have the sow farrow in a lot or field where there have been no hogs for a year or two.** Or if it is desirable to have her farrow in a pen around the main buildings of the farm, haul her and her litter out to clean ground when the pigs are a week to 10 days old. The idea is to keep the little pigs from ever running on ground where there have been hogs during the past year.

5. **Keep the young pigs out on the clean ground,** pasture preferred, until they are at least 4 months old. It is better if they never come back into the old hog lots, but if they are kept on clean ground until they are at least 4 months old, roundworms will not cause too much damage.

**Disease Prevention**

Three diseases of swine are quite widespread in Illinois. But they can be controlled if you follow a program to prevent them. These diseases are hog cholera, brucellosis (Bang's disease), and leptospirosis.

**Hog cholera** is prevented by vaccinating the pigs when they are young with modified live virus plus serum. Vaccinate when pigs are 4 to 6 weeks old. This treatment gives lasting immunity. Your pigs must be vaccinated before you can show them. But don't wait till then. The time to vaccinate is when they are young so that they will be protected all their life.

**Brucellosis or Bang's disease.** There is no vaccination for this disease, so good sanitation and management are all-important. Any animals that are purchased should be bought with the understanding that they must pass the blood test for Bang's disease. Also, it is a good idea to keep new animals separate from the rest of the hogs on the farm for 30 days. Then test them again before allowing them to run with the other hogs.

Besides testing all hogs that are brought onto the farm for projects,
it is advisable to test all breeding stock on the farm at least once a year. All animals that react should be sold on the market right away. If you can get your father to do this, it may help to keep your hogs from becoming infected and may save you from having a failure in your project.

Brucellosis also affects people, so you should take care to keep from getting the disease. Thoroughly scrub and disinfect your hands after working with sows at farrowing time or handling newborn pigs. It is best to wear rubber gloves while handling newborn pigs, but this may be inconvenient at times.

**Leptospirosis** is a fairly new disease in Illinois but it causes as much as or more loss than Bang’s disease. It too can be detected by a blood test, so newly purchased animals should be tested for leptospirosis at the same time they are tested for Bang’s disease. There is a vaccine available for leptospirosis. Your veterinarian can tell you more about it.

**Many other diseases** besides these two sometimes affect hogs. But you can prevent them fairly well by following a strict sanitation program. If hogs do become sick, call a veterinarian. He is the man best qualified to decide what is wrong and what treatment to use.

**Parasite Control**

Two kinds of parasites attack hogs — internal and external parasites. The worst internal parasite of hogs is the roundworm. If you follow the McLean County System of swine sanitation, you can pretty well control roundworms as well as most other internal parasites. It is important to carry out completely all steps of the program.

Even if you have done a pretty good job with your sanitation program, your pigs may still have a few worms at weaning time. Therefore, it is a good idea to worm them when they are about 10 weeks of age. Use one of the following two methods:

1. Use piperazine (water wormer) in the drinking water. This is a one-day treatment, which is easy to use and which does not set the pigs back. Follow directions on the container as to amounts to use.

2. A drug, hygromycin, may be added to the feed to help get rid of worms. It should prevent pigs from becoming infested with worms, and if pigs already have worms, it will get rid of them within 5 weeks. Hygromycin is most effective when fed in creep rations and to pigs up to 60 pounds in weight. It should not be fed to brood sows.

The two most common external parasites of hogs are lice and mange. These can both be controlled by using either lindane or malathion. Use
½ pint of 20-percent lindane solution in 20 gallons of water, or 1 quart of 57-percent malathion concentrate in 25 gallons of water. Do not use lindane within 30 days of slaughter. Spray the sows at the time they are put into the farrowing pen. This will keep lice and mange off the baby pigs. Do not treat pigs until after weaning. In case of heavy infestation, spray your hogs again after 14 days.

During the winter months pick a sunny, mild day for spraying and bed the sleeping quarters heavily with fresh bedding.

**Management During the Breeding Period**

Several things should be considered in managing hogs at breeding time. Some of the more important steps to follow are these:

1. Be sure that both the sow and boar are healthy. Both animals should be tested for Bang's disease and leptospirosis before the breeding season starts. Also, it is unwise to breed a sow when she has any other disease, such as flu, or to use a boar that has anything wrong with his health.

2. Do not let the boar run with the sow herd, but keep him separate and bring the sow to him. This way you can keep breeding records so that you will know when the sow is due to farrow. You will then be able to get her to the farrowing pen in plenty of time.

   Another reason for keeping the boar and the sow herd separate is that if a young boar is allowed to run with a large herd of sows, litters will probably be small and some sows may not even get bred.

3. Provide clean, dry quarters for both sows and boar at all times. This is especially important during the fall and winter, when hogs are apt to get flu and pneumonia if they are kept in damp and dirty houses.

   Feeding the sow at breeding time has already been discussed (page 17). Both sow and boar should be getting enough of a well-balanced ration to keep them gaining in weight. If possible, the sows and boar should be running in good green pasture during the breeding season.

**Management During Gestation**

The period from the time the sow is bred until the birth of her litter is called the gestation period. This is usually 112 to 114 days for hogs but may be 2 or 3 days shorter or longer. Usually a sow that is bred on or after November 9 will farrow on or after March 1 the next spring. You can come within 2 or 3 days of the sow's farrowing date by figuring it will be 3 months, 3 weeks, and 3 days from the breeding date.

Providing the proper housing is an important part of management
during the gestation period. During the winter the sleeping quarters should be clean, dry, and reasonably free from drafts, but they should be well ventilated. A house shouldn’t be so airtight that it becomes steamy. There should be plenty of room in the house for the number of sows that use it. Bedding should be changed whenever it becomes damp or dusty.

During the summer, one of the best ways to handle a sow bred for a fall litter is to have her on good legume pasture with some shade to protect her from the sun. No other housing will be needed for a bred sow during the summer.

During the winter you will have to make sure that the sow gets plenty of exercise. One good way to do this is to let her run in a corn or bean field to hunt for grain that may have been missed at harvesting. Another good way is to feed the sow some distance from the house so she will get exercise when she goes to eat.

It is not a good idea to let a bred sow run with other classes of livestock like cattle or horses. If cattle have Bang’s disease, the sow may pick it up from them. Also, the heavier animals may injure a bred sow so that all or part of her litter is lost.

Care at Farrowing Time

If you have kept careful breeding records, you will know approximately which day the sow will farrow and can start to make preparations ahead of time. It’s important that these preparations be made in advance. If they aren’t, the pigs may have to be farrowed in a dirty pen or in a lot where other sows are running — and there’s no better way to get a litter off to a bad start.

The farrowing pen. There is no one best kind of farrowing house. Plans for building farrowing houses and other kinds of equipment are available from your farm adviser. Whatever style of house you have, it should be warm, dry, free from drafts, and easily cleaned. If possible, it should be built in such a way that you can easily work with the sow when she is in the house.

A pen 6 feet by 6 feet is large enough for most gilts and many older sows, but some large sows may require a larger pen. It’s a good idea to have guard rails around the walls to keep the sow from crushing the pigs against the walls. Rails may be built by fastening 2-by-4’s so that they are 8 or 9 inches above the floor and extend 6 to 10 inches out from the walls. Building a pig brooder (Fig. 18) in one corner of the pen will help to save pigs in early spring litters. It should be strongly built so that the sow cannot break it down. If electricity is used, the wiring
A pig brooder in one corner of the house will keep pigs from being chilled. Note the fastenings of the guard rails. (Fig. 18)

should be carefully done with good materials, to lessen the danger of fire. The cord running to the bulb in the brooder should be protected so that the sow can’t chew on it.

As already pointed out, the farrowing pen should be thoroughly cleaned and scrubbed a day or two before the sow is put in it. The pen should not be too heavily bedded. A medium amount of rather fine bedding is better than a large amount of some coarse bedding like rye or wheat straw.

**Farrowing stalls** (Fig. 19) are used on many farms to help save all the pigs possible. There is practically no loss from sows crushing their pigs when the sows farrow in farrowing stalls. You can buy these stalls or build them. Your farm adviser can give you a plan for building a farrowing stall. If your sow farrows in a farrowing stall, she should be turned out twice a day for feed, water, and exercise. Pigs may be left in the farrowing stall as long as 3 weeks, but most of the danger of their being crushed will be past after a week or 10 days.

**Watch the sow closely.** The sow should be in a pen or farrowing stall at least 3 or 4 days before she is due to farrow, so that she will get used to her surroundings. After she is in the pen or stall, look at her several times a day if possible. When she starts to “make a bed” or pile up her bedding, and becomes restless and nervous, she will usually farrow within 10 or 12 hours. About this time milk will begin to form in her teats.

As soon as a sow begins to show signs of farrowing, check her every
hour or two until she starts to farrow. Then, if possible, you and your father should stay with her most of the time, to give any assistance that may be needed and to keep the sow from accidentally crushing some of the pigs. Sitting up with a sow at night may mean the loss of some sleep, but you can make that up the next day, and in cold weather staying with the sow often means saving a litter of pigs which otherwise would have been lost.

**Caring for the newborn pigs.** As the pigs are born, dry them off (a piece of dry burlap is good). In cold weather, a heat lamp in the brooder or the lamps in the farrowing stall will help keep pigs from being chilled. If your sow is very nervous, you may want to take the pigs away from her and put them in a warm place until she has finished farrowing. Then put them back with her to nurse and leave them there.

![Farrowing stalls protect the pigs from being crushed by the sow.](Fig. 19)
When the pigs are a day old, you will need to do three things:

1. Apply iodine to the navel cord of each pig. A small bottle of iodine with a double thickness of cloth fastened across its neck works fine. Be sure the navel cord is thoroughly painted.

2. Ear-mark each pig in the litter with a mark used only in that litter (Fig. 20). All purebred pigs must be ear-marked before they can be registered; and if good records are to be kept, every pig, grade or purebred, should be ear-notched. All pigs in the same litter generally bear the same notch, but some breeders’ associations allow an individual pig number for each pig. Write to your association to find out which method you may use.

3. Clip the needle or wolf teeth with a pair of side-cutter pliers. Pigs may cut each other and the sow’s udder if these teeth are not removed.

Care During the Nursing Period

Preventing anemia. Sow’s milk lacks the minerals iron and copper. If baby pigs are shut away from the soil and are getting only sow’s milk for food they are apt to develop a disease called anemia. Symptoms of this disease are listlessness and “thumps.” Usually the biggest, fattest pigs develop anemia first. Anemia may be prevented in one of three ways:

1. Give each pig a shot of injectable iron when he is 3 days old. This costs more than the other systems but it is convenient and positive.

2. Paint the sow’s udder with a solution of ferrous sulfate. Get a pound of ferrous sulfate from a druggist. Dissolve this in 3 pints of hot water. Some will settle to the bottom of the container, but don’t worry about that. Make a swab by wrapping some cloth around the end of a
small stick and paint the sow’s udder once a day with the solution. Stir the solution each time before you use it. Start doing this when the pigs are about 3 days old.

3. Put some fresh sod or dirt in the pen every day. Be sure to get dirt from a place where hogs have not been running. A good place is a roadside ditch bank.

**Housing.** Good housing is especially important during the nursing period. Young growing pigs should have clean, dry quarters. If the bedding becomes dusty or damp, it should be promptly changed. When the pigs are 2 or 3 weeks old, they should have a creep (Fig. 13).

**Castration and vaccination.** Healthy boar pigs which are not to be saved for breeding stock should be castrated at about 4 to 6 weeks of age. They will receive less shock and setback at this age than if they are older and larger. Pigs that are not thrifty or that have a temperature above 102.6° F. (normal) should not be castrated.

When castrating, cleanliness is important. Castrate on a bright sunny day if possible. After the operation apply some mild disinfectant to the wound caused by the operation and be sure the sleeping quarters are clean and free from dust.

Vaccination has already been discussed on page 22. *Pigs should never be castrated and vaccinated at the same time.* At least 2 weeks should be allowed between operations. If pigs have been castrated when 4 weeks old, a good time to vaccinate is at 6 weeks of age.

**Schedule for taking care of pigs.** The following schedule is a good one to follow when caring for nursing pigs:

1. First day — notch ear, paint navel with iodine, clip needle teeth.
2. Third day — iron shot for anemia (or one of the other methods starting now and continuing until the pigs are outside on clean ground).
3. Two weeks of age — provide creep food.
4. Four weeks of age — castrate.
5. Six weeks of age — vaccinate.

**Managing the Growing Pig**

A well-fed, healthy pig on a good legume pasture is probably one of the easiest animals to care for. But a few things do need to be watched. During the summer plenty of shade is a *must*. Natural shade such
as a tree is best. If there isn’t any natural shade some artificial shade must be built. A very simple shade may be made in this way: Set a few posts in the ground. Connect the posts with poles fastened to the tops of the posts. Throw some old woven wire over the poles, and some straw, hay, or even weeds on the wire. A movable shade (Fig. 21) is probably even better since it can be moved when the ground beneath it gets dusty. Hogs should never have to depend upon small individual houses for their shade during the hot summer months.

A portable sunshade will help keep pigs comfortable during the hot part of the summer and will help guard against heat losses. (Fig. 21)

Plenty of clean water at all times is very important. Hogs will not do well if they have to go without water at times. Many types of automatic waterers are available and most of them are satisfactory. It is a good idea to put these waterers on a platform of some kind to keep the ground beneath them from getting muddy. If hogs are watered from a trough, the trough will need to be filled several times a day, especially during the hot summer months. Waterers should be near the shade and the feeding places.

Gilts and boars should be separated when they are 4 to 5 months old. This is necessary to keep the gilts from having litters when they are too young, ruining them for brood sow prospects the following year.

MARKETING SWINE

There are many places in Illinois where you can market the hogs you raise in your 4-H project. These include “direct buying” markets where you sell your hogs to the buyer, and terminal markets, where a commission firm sells your hogs for you and you pay a fee for the firm’s services. There are advantages to both ways of selling. The way you sell your hogs will probably depend upon the way your father or neighbors sell
their hogs. If you sell your hogs at a direct buying market, it is a good idea to check the price that is being paid at more than one market, just to be sure you are getting the highest possible price.

The price hogs bring depends upon weight, grade, and dressing percent. The most desirable weights at which to market hogs are from 200 to 230 pounds. Hogs in this weight range produce the most desirable carcasses and usually receive the best prices. Hogs that are heavier than this are fatter than they should be, and the cuts of meat such as the ham and loin are too heavy to bring top prices in the meat trade.

Grade is determined by the amount of fat a hog has and by his length. Since a small amount of fat is desirable, the higher grades of hogs have less fat. What we are really interested in is the amount of lean meat a hog has in his carcass. The less fat he has, the more lean; therefore, by measuring the fat, we can arrive at an estimate of how much lean meat he has. A good rule of thumb to remember is this: For each 1/10 inch of backfat a hog has, he will have 1 percentage point less lean in his carcass.

The three most common grades of hogs are No. 1 (Figs. 22, 24, and 26), No. 2, and No. 3 (Figs. 23, 25, and 27). The amount of backfat and the percent of the carcass that can be expected in the four lean cuts are given in the table below. The four lean cuts are: ham, loin (pork chops), picnic (bottom half of shoulder), and boston butt (top half of shoulder).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Backfat (inches)</th>
<th>Lean Cuts (percent)</th>
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<tbody>
<tr>
<td>U. S. No. 1</td>
<td>1.2 to 1.6</td>
<td>53 to 49</td>
</tr>
<tr>
<td>U. S. No. 2</td>
<td>1.7 to 1.9</td>
<td>48 to 46</td>
</tr>
<tr>
<td>U. S. No. 3</td>
<td>2.0 or more</td>
<td>Less than 46</td>
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If you have good meaty hogs that will grade No. 1, it will pay to try to find a market where you can sell on a graded basis. Such markets usually pay more for No. 1 hogs than markets that simply buy on a weight basis.

Dressing percent refers to what percent of the live weight of the hog is present in his carcass after he has been butchered. The average dressing percent of most hogs is about 70 percent. For example, a 200-pound hog with a dressing percent of 70 percent would have a 140-pound carcass. Very trim hogs may have a higher dressing percent than this, and very wasty, big-middled hogs may have a lower dressing percent. Buyers tend to discount these wasty hogs because they have a lower dressing percent than average.
A typical U. S. No. 1 market hog. Note the trimness of the middle, the length of the side, and the trimness of the jowl as compared with the No. 3 hog shown below. (Fig. 22)

Note the short side, the wasny middle, and the heavy jowl of the U. S. No. 3 market hog shown here. (Fig. 23)
Rear view of No. 1 market hog. The turn at the top is round rather than broad and flat, the width is medium, and the ham has a muscular appearance.
(Fig. 24)

Rear view of No. 3 market hog. The back is very broad, there are rolls of fat along the edges of the loin, and the lower part of the ham looks fatty instead of muscular.
(Fig. 25)

The No. 1 carcass shown above is long with a moderate amount of backfat. Compare it with the shortness and extremely thick backfat of the No. 3 carcass shown below.
(Figs. 26 and 27)
THE 4-H SHOW

Getting Ready for the Show

You must exhibit your pig or pigs to complete your project. The 4-H show is the best place to do this. Besides being fun, the show gives you a chance to learn a lot about good animals and what makes them good. Many 4-H members have decided to do a better job when they have seen better animals than theirs at the show. In fact they have gone home and turned what had been rather poor projects into outstanding ones.

Several weeks before the show start training the pig or pigs you are going to show. Try to train them so that you can drive them anywhere with only a light cane or whip. A few minutes a day spent in practice will be time well spent. Don't try to make pets of your pigs. Pet pigs that want their backs scratched in the show ring are worse than pigs that have never been handled, since it is almost impossible to get them to stay in a natural position.

About a week before the show and again the day before the show, wash the pigs thoroughly. Use plenty of soap, scrub them well with a brush, and be sure all the soap is rinsed out of their hair. Don't use a lot of cold water applied with a hose — if you do, your pigs are liable to catch flu. In cool weather, be sure the pigs have a warm place with plenty of bedding in which to dry off.

A few days before the show, start getting together the equipment you will need. This will include feed, bedding, water bucket, sprinkling can, troughs, brush, light oil, cane or whip, and some rags. If you are going to show a litter or pen of barrows, a hinged hurdle, 8 feet on a side and 30 inches high, is desirable.

Try to arrive at the show grounds during the cool part of the day. If possible, get there early enough to find pens in the north or east part of the tent or barn since these pens are cooler than those on the south or west. Do not feed your pigs just before loading them to go to the show. If they are hot when they arrive, wait till they cool off before feeding them.

At the Show

Feeding and watering. Every experienced hog showman slops his hogs while at the fair. A slop containing considerable ground or rolled oats and not too much ground corn is best. Mixing some dry skim milk in the slop will help keep the pigs eating well. Don't feed too much — just what the pigs will clean up in about 15 minutes. If at all possible, feed your pigs outside their pens, even if it is more work. The pigs will
eat better, the exercise is good for them, and their pens will stay cleaner.

One mistake many beginners make is to try to feed too late in the morning and too early in the evening. Feed early in the morning before it gets hot, and wait till the air has cooled off somewhat in the evening before feeding.

Water your pigs several times a day, but don’t leave water in troughs in the pen. The pigs will just spill the water, and damp bedding may cause flu.

**Caring for your pens.** Keep your pens clean and neat at all times. Keep feed and equipment out of the aisles. You and your animals are on exhibition all the time you are at the show, and nothing detracts more from an exhibit than dirty, cluttered pens and alleys.

Wood shavings or sand make excellent bedding in hot weather. Sawdust is good for colored breeds, but if it becomes damp, it is apt to stain white pigs. Straw is not the best bedding in hot weather, but it is much better than nothing. If you do use straw, use only a little and clean it out promptly if it becomes damp.

**Getting your pig ready for the ring.** On show day start getting ready to drive your pig into the ring well ahead of the time when your class is to be called. Be sure both you and your pig are clean. The hair of the colored breeds is usually dressed with oil. Pour some light oil on a rag and brush the pig’s hair with the rag. Be careful not to get too much oil on the pig. Too much oil on a hot day will make him too hot. White pigs and the white markings on colored breeds are usually sprinkled with talcum powder. Brush the pigs lightly after you apply the powder.

Don’t carry a brush into the show ring — brushing pigs while they are in the ring will just cause them to get out of a natural position. Instead, carry a rag (with a little oil on it for colored breeds) and use it to rub off any dirt that happens to get on the pig. Carry the rag out of sight in your pocket when you aren’t using it.

**Handling your pig in the ring.** When your class is called, be ready to start to the ring, but don’t rush to be the first one in. If your pig is hard to drive, handle him gently, and don’t fight him. A calm, fresh pig has a big advantage over a hot, excited pig that has been whipped on the way to the ring.

In the ring, don’t try to drive your pig right over the judge. There are usually too many pigs around the judge for him to see any of them well. On the other hand, don’t let your pig get hidden in a corner where the judge can’t see him at all. Drive him toward an open space several feet from the judge and try to keep him moving at a slow walk.
Keep him between yourself and the judge. In this way, the judge can see the pig, and you can keep one eye on the pig and one on the judge. One mistake a beginner often makes is to put a hand on his pig's back. This will make the pig look weak in the back and not as good as he probably really is.

Try to keep your pig out of fights in the ring. Once a pig gets started fighting, he is usually through showing for that day. Ordinarily, hand hurdles are not used in showing pigs. However, if you have a scrappy boar pig, a friend carrying a hand hurdle can be a big help in preventing fights in the ring.

In hot weather sprinkle some water on your pig if he begins to show signs of getting hot. Every year some 4-H project pigs are lost because they get too hot in the show ring.

**You can learn from the judging.** When the judging is over and the awards are made, be a good winner or loser no matter what placing you receive. Above all, don't complain if you lose. If you have an honest question about your entry, ask the judge as soon as the class is over. A good judge is always glad to answer a courteous question while the class is still fresh in his mind.

As soon as the judging is over, inspect all the winners and try to see if you can tell why they won. Comparing winners in this way is just as important as any prize money you may win, for it will help you learn how to pick out the best animals.

**After the Show**

When you get home from the show, keep the pigs you showed separate from the rest of the hogs on the farm for a week or two. If they come down with the flu, they won't be so apt to give it to the rest of the hogs.

As soon as you get home from the show, start making plans for the next year. If you have a sow or gilt you are going to use in a production unit the next year, start thinking about the kind of boar you can mate her to in order to correct some of the faults she may have. Don't neglect good feeding and management, even though next year's show seems a long way off. Your success or failure for the next year can be affected by the way you take care of your sows, even before they are bred.

Whenever you get a chance, attend purebred hog sales and shows. Try to see why the show winners are better than those that do not win and why some hogs bring more money than others. You can learn something at every event you attend. Only by trying to learn something at every opportunity will you be able to "make your best better."