FEEDER PIG PRODUCTION
in Illinois

By T. R. Greathouse and G. R. Carlisle

Circular 865
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Feeder Pig Production in Illinois

T. R. Greathouse and G. R. Carlisle

Feeder pig production is increasing in Illinois. In 1961, one-sixth of the finished hogs sold were purchased as feeder pigs. The feeder pigs averaged 8½ weeks of age when marketed and about half of them weighed between 38 and 52 pounds. Most were purchased directly from the farmers who produced them.

There are several advantages of raising feeder pigs as compared with growing hogs to market weight:

- There is a more rapid turnover in the volume of pigs that can be handled each year. It takes only about two months to get the pigs to market from the time they are farrowed.
- It provides an opportunity to use efficiently a maximum amount of labor.
- Less grain is required per dollar of product sold.
- The breeding herd will make the best use of any pasture you have available for swine.

A feeder pig operation demands year-round labor, a strict sanitation and disease control program, and assurance of a satisfactory market. Your abilities for handling swine must be better than average to cope with the specialized nature of producing feeder pigs. Producing large litters of high-quality pigs that are free from disease and parasites and are uniform in type and size is essential for a successful feeder pig business.

Selecting Your Breeding Stock

You can increase the number and quality of pigs farrowed and weaned if you select your breeding stock with particular care. Before selecting your stock, however, you must consider (1) the kind of breeding program to be followed, and (2) the individuality of herd replacements.

When choosing a breeding program consider some of the advantages of crossbreeding. Crossbred sows usually farrow and wean

1T. R. Greathouse and G. R. Carlisle, Instructor and Associate Professor of Animal Science Extension, respectively.
larger litters than non-crossbred sows. The resulting mixed-colored pigs, however, will not ordinarily sell quite as well as pigs that are uniformly colored.

A simple crossbreeding system involves rotating boars of three different breeds. For example, a Hampshire boar might be used for the first mating. Then a Yorkshire boar might be mated to the daughters of the Hampshire boar. The third boar used could be a Duroc mated to the daughters of the Yorkshire boar. 1

To acquire the type of herd replacements you want, buy breeding stock with as much production information as possible. Performance records will increase your chances for successful buying and, consequently, for successful feeder pig production. To help select breeding animals with the most desirable genetic ability, it is best to buy from a breeder who follows a program of breed certification, on-the-farm testing, or boar testing.

**Look for these characteristics when selecting breeding stock:**

1. Breeding animals should be big for their age. Boars should weigh at least 200 pounds at 5 months, and gilts should weigh 200 pounds at 5½ months.

2. The animals should have good length of body and ample bone.

3. Both boars and gilts should have at least 12 well-spaced and well-developed teats.

4. They should have a meaty appearance with heavy hams and good spring of rib.

5. They should be free from disease. (See Disease and Parasite Control, page 13.)

6. As indicated by backfat thickness probes, boars weighing 200 pounds should have no more than 1.1 inches of backfat. Gilts at 200 pounds should have no more than 1.4 inches of backfat.

7. As indicated by available feed figures, boars, from weaning to 200 pounds, should not have required more than 300 pounds of feed per 100 pounds of gain.

**MANAGING THE BREEDING HERD**

**Breeding Season Management**

Proper management during the breeding season is important if you want to get a high conception rate and large litters of healthy pigs.

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1For other suggested programs, see Illinois Circular 824, Managing Your Hog Business.
Follow these suggestions before the breeding season starts:

1. Mate your boars to a few extra gilts to be sure they are active.
2. Give the boars a chance to get plenty of exercise to keep them from becoming sluggish or slow breeders. It is best not to pen boars next to sows and gilts that are coming in heat as the excitement may wear the boars down.
3. Starting two weeks before and continuing throughout the breeding season, flush the sow herd by full-feeding a well-balanced ration. (See Feeding Recommendations and Suggested Rations, pages 14-19.)

Follow these suggestions during the breeding season:

1. Your gilts should be at least 8 months old before they are bred.
2. Make sure your breeding animals are free from any sign of disease.
3. Boars will vary greatly in their feeding habits. Some will eat only 4 to 6 pounds of feed daily; others will eat as much as 12 pounds. No matter what amount they eat, however, it is important to feed a ration high in protein and well balanced with vitamins and minerals (page 15).
4. If possible, allow two services for each heat period if sows and gilts are being hand mated. This will increase the number of sows and gilts which will settle during the first heat period. It will also increase the number of live pigs farrowed by about one pig per litter.
5. If only one service is given, breed about 24 hours after the first sign of heat.

You should consider some of the advantages and disadvantages of following either a hand-mating or pasture-mating program. If hand mated, your boars can usually breed more sows in a given length of time. Hand mating also allows you to keep a record of breeding dates. More labor is required for hand mating; however, than for pasture mating. If you have two boars and are using pasture mating, turn them with the sow herd on alternate days.

The table below gives a suggested number of sows per boar. Active boars will be able to breed more sows than the numbers given here.

<table>
<thead>
<tr>
<th>Length of breeding season</th>
<th>Suggested number of sows per boar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pen mating</td>
</tr>
<tr>
<td></td>
<td>Boar pig</td>
</tr>
<tr>
<td>3 weeks</td>
<td>10</td>
</tr>
<tr>
<td>6 weeks</td>
<td>20</td>
</tr>
</tbody>
</table>
These hogs exhibit excellent meat-type characteristics: plump ham, long rump, prominent teats, and good depth of body.

**Management During Gestation**

During the gestation period, feed your sows to gain 50 to 65 pounds. To help control gains, if possible separate your gilts from the older sows, especially in drylot. You can either self-feed or hand-feed. Although more feed is usually required for self-feeding, less labor is involved. It is generally cheaper, however, to hand-feed. (See Feeding Recommendations and Suggested Rations, pages 14-19.)
Good meat-type hogs produce feeder pigs that will excel in carcass quality.

Your sows should have a chance to get plenty of exercise. To get pregnant sows to exercise, put them on pasture or in stalk fields or separate their waterers and feeders from their sleeping quarters.

Shelter and equipment during this period can be relatively simple. During the winter, allow bred sows 16 to 20 square feet of dry, draft-free shelter per head. During the summer, allow 20 to 30 square feet of shade per head.
Breeding and Farrowing Dates

<table>
<thead>
<tr>
<th>Date of service</th>
<th>Date due to farrow</th>
<th>Date of service</th>
<th>Date due to farrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1</td>
<td>April 25</td>
<td>July 10</td>
<td>Nov. 1</td>
</tr>
<tr>
<td>Jan. 11</td>
<td>May 5</td>
<td>July 20</td>
<td>Nov. 11</td>
</tr>
<tr>
<td>Jan. 21</td>
<td>May 15</td>
<td>July 30</td>
<td>Nov. 21</td>
</tr>
<tr>
<td>Jan. 30</td>
<td>May 25</td>
<td>Aug. 9</td>
<td>Dec. 1</td>
</tr>
<tr>
<td>Feb. 10</td>
<td>June 4</td>
<td>Aug. 19</td>
<td>Dec. 11</td>
</tr>
<tr>
<td>Feb. 20</td>
<td>June 14</td>
<td>Aug. 29</td>
<td>Dec. 21</td>
</tr>
<tr>
<td>March 2</td>
<td>June 24</td>
<td>Sept. 8</td>
<td>Dec. 31</td>
</tr>
<tr>
<td>March 12</td>
<td>July 4</td>
<td>Sept. 18</td>
<td>Jan. 10</td>
</tr>
<tr>
<td>March 22</td>
<td>July 14</td>
<td>Sept. 28</td>
<td>Jan. 20</td>
</tr>
<tr>
<td>April 1</td>
<td>July 24</td>
<td>Oct. 8</td>
<td>Jan. 30</td>
</tr>
<tr>
<td>April 11</td>
<td>Aug. 3</td>
<td>Oct. 18</td>
<td>Feb. 9</td>
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<tr>
<td>April 21</td>
<td>Aug. 13</td>
<td>Oct. 28</td>
<td>Feb. 19</td>
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<td>Aug. 23</td>
<td>Nov. 7</td>
<td>March 1</td>
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<td>May 11</td>
<td>Sept. 2</td>
<td>Nov. 17</td>
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<td>Sept. 12</td>
<td>Nov. 27</td>
<td>March 21</td>
</tr>
<tr>
<td>May 31</td>
<td>Sept. 22</td>
<td>Dec. 7</td>
<td>March 31</td>
</tr>
<tr>
<td>June 10</td>
<td>Oct. 2</td>
<td>Dec. 17</td>
<td>April 10</td>
</tr>
<tr>
<td>June 20</td>
<td>Oct. 12</td>
<td>Dec. 27</td>
<td>April 20</td>
</tr>
<tr>
<td>June 30</td>
<td>Oct. 22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Approximate farrowing date can be determined by adding 4 months and subtracting 1 week from the breeding date. The heat period occurs every 18 to 21 days and lasts 3 to 4 days. The gestation period lasts from 16 weeks to 114 days.*

High-quality feeder pigs, as indicated by good length of body, ample bone, and thriftiness, can be produced only by using carefully selected, meat-type breeding stock.
Farrowing Time Management

Clean farrowing quarters

Strict sanitation at farrowing time is essential. Clean the farrowing quarters by using a steam cleaner, high-pressure sprayer, or hard-bristled scrub brush with a mixture of 1 pound of lye to 30 gallons of boiling water.

Disinfect pens

Disinfect the pens with a quarternary ammonium compound (QAC), phenol solution, or hypochlorite solution. Before QAC can be effective all debris must be removed. In general, disinfectants work best when used on warm surfaces.

Your veterinarian or farm adviser can help by recommending specific disinfectants.

Fumigate

Where scours are a persistent problem in a central farrowing house, you might, after a thorough cleaning, follow a program of fumigation. The following steps are recommended:

1. Seal all doors and windows tightly.
2. Wet all floors and walls with water before fumigating.
3. Use 1 gallon of formaldehyde and 2 pounds of potassium permanganate per 6,000 cubic feet of space in the building.
4. Place the formaldehyde in two or three pans equally spaced down the center of the building.
5. Divide the potassium permanganate so that you will have an approximately equal amount for each pan of formaldehyde.
6. Starting at the back of the building, rapidly drop the potassium permanganate into the pans of formaldehyde as you move toward the exit.
7. Leave the building immediately.
8. Lock the building for 8 hours so that it will remain tightly closed to all persons and animals.
9. After 8 hours, open the doors and windows and air the building thoroughly before re-entering.

Gets sows ready to farrow

1. Wash the sows thoroughly with soap and warm water before you put them in their farrowing quarters.
2. Spray the sows with malathion or lindane solution to control lice and mange. (See Disease and Parasite Control, page 13.)
Save more baby pigs by using farrowing stalls.

Stalls built by these plans keep the sow from crushing her pigs. Slotted floors reduce labor of manure handling.
3. Place the sows in their farrowing quarters about 3 to 5 days before they are due to farrow. This gives them a chance to become familiar with their new surroundings.

4. Use farrowing stalls or pens with guard rails to help prevent the sows from crushing their pigs.¹

5. In cold weather, bed the farrowing pen with short straw, shavings, or ground corn cobs to a depth of not more than 2 inches. Also provide supplementary heat.

A sow should farrow within 24 hours after milk first appears in her udder. Close supervision at this time is very important. Although sows in farrowing stalls need less attention, it is good practice to make regular checks on all of your sows.

After farrowing, the sows can either be left in their pens or turned out twice a day for feed and water. Turning them out will save labor for feeding and manure removal and will also give the sows an opportunity to exercise. One or 2 hours of exercise twice a day is adequate. Unless sows can be turned out on a clean feeding platform or on ground that is not contaminated, it is best to leave them in their pens.

Caring for Newborn Pigs

Most baby pig losses occur during the first week after farrowing. The following suggestions on handling baby pigs can help you prevent costly losses and raise more pigs per litter.

Keep baby pigs dry and warm by using dry bedding and by providing supplementary heat in cold weather.

Be sure that all pigs get some of the colostrum, or first milk, from the sow. The antibodies in this milk help protect them from disease and infection.

Daub the pigs’ navel cords in a 7 percent solution of iodine within 24 hours after they are born.

Even-up litters by transferring the strongest pigs from large litters to small litters of the same age.

Clip needle teeth only if necessary. Be careful to clip only the tips of the teeth to avoid injuring the gums.

Help pigs which have become chilled or too weak to nurse. You can give them 1 or 2 teaspoons of corn syrup diluted with an equal amount of warm water every hour until they are strong enough to nurse. Or give them an under-the-skin injection of 5 to 10 cc. of a 5 percent solution of glucose.

¹For further information about farrowing equipment, see Illinois Circular 780, Hog Farrowing Houses and Equipment.
Castrate boar pigs when they are about two weeks old. Castration is easy then and the pigs recover quickly. The lines indicate where incisions should be made.

Castrate boar pigs by the time they are two weeks old.

Prevent nutritional anemia. This results from an iron deficiency which often occurs when the pigs are kept on concrete or wooden floors for 2 or 3 weeks and receive only sow’s milk. Symptoms of nutritional anemia include pale skin, rough haircoat, and wrinkled skin around the neck and shoulders. The pigs become listless and inactive and, when forced to move, they show signs of “thumps.”

To prevent nutritional anemia, start giving the pigs supplementary iron 2 or 3 days after they are born. One method of providing iron is to put clean sod where the pigs can get to it. Or you can give each pig an iron pill according to the manufacturer’s recommendations. Another effective but more expensive method is to use an injectable iron solution. Any of these treatments will provide adequate protection until your pigs meet their own iron needs by eating creep ration.

Start your pigs on creep feed when they are 7 to 10 days old. The greatest advantage of creep feeding is that it supplements the pigs’ diet in the latter stages of the lactation period when the amount of sow’s milk decreases. You will also find that pigs are thriftier and make more rapid gains on creep feed. The decrease in number of runts and deaths is another advantage. Creep feeding also permits earlier weaning.

Wean pigs when they weigh 30 pounds and are eating well.

Vaccinate when the pigs are 6 to 8 weeks old.
Disease and Parasite Control

A strict program of disease prevention is vital to any feeder pig enterprise. To prevent disease, follow all the recommendations outlined below.

Maintain a closed herd. Your only outside purchases should be for herd boars. Raise your own gilts for herd replacements.

Buy breeding stock only from herds that you and your veterinarian know are healthy.

Blood-test all purchased animals for brucellosis and leptospirosis.

Isolate all newly purchased animals for at least 30 days.

Control all traffic that could carry disease to your herd. This includes feed delivery, truck, and sales traffic, and all other visitors. Require all visitors to disinfect their footwear if they must enter the swine production area.

Control all animals, such as rodents and dogs, that could carry disease to your herd.

Maintain sanitation in all areas your herd is likely to contact. Farrowing quarters and equipment should be thoroughly cleaned and disinfected after each farrowing period. If possible allow the quarters to remain idle for 1 to 2 weeks between litters. Mudholes, shallow ponds, and other wet places breed disease. Drain them or keep the hogs away from them. Keep your hog lots clean and rotate pastures at least once every year.

Vaccinate your herd to maintain a high level of resistance to cholera, leptospirosis, and erysipelas.

You should become acquainted with the symptoms and prevention of such diseases as atrophic rhinitis, brucellosis, hog cholera, erysipelas, leptospirosis, and transmissible gastroenteritis (TGE). These diseases are severe and require your veterinarian's assistance.

Information on the causes, symptoms, and possible prevention of these diseases may be obtained from your veterinarian or farm adviser. Or you can write to the College of Veterinary Medicine, Extension Veterinarian, University of Illinois, Urbana, Illinois.

Control internal parasites

1. Maintain strict sanitation.
2. Worm sows a month before they are due to farrow. This will help prevent roundworm infestation in the baby pigs.
3. Worm pigs two weeks after weaning if they need it. If the pigs have worms, however, much damage has already been done. Piperazine is not as toxic as sodium fluoride and is now recommended for worming. This water-soluble compound may be used in drinking water and is convenient and easy to use. For amounts, follow the directions on the container.

Hygromycin, an antibiotic, has also been approved as a feed additive to help prevent worm infestation. Or if the pigs are already infested, it will help eliminate worms within five weeks and prevent worm eggs from hatching. Hygromycin should be used in creep rations and in rations for pigs weighing up to 75 pounds.

4. If you move a sow and litter from their farrowing quarters, do not drive them through areas that have been contaminated by other hogs.

5. If you put sows and pigs on pasture, use land that did not have hogs on it the previous year.

Control external parasites

1. For controlling lice and mange, spray pigs with a mixture of 1/2 pint of 20 percent lindane solution in 20 gallons of water. Or you may use 1 quart of 57 percent malathion concentrate in 25 gallons of water. Do not use lindane within 30 days of slaughter.

2. Treat pigs after they are weaned. Then, along with older hogs, they should be treated twice at intervals of 14 days.

Both lice and mange spread swine pox. This is a relatively mild virus infection found in many feeder pigs. It is characterized by eruptions on the skin over the sides and belly of the animal. Swine pox rarely causes death, but when complicated with other infections, it may become serious. If you control lice and mange, swine pox will also be controlled.

FEEDING RECOMMENDATIONS AND SUGGESTED RATIONS

Breeding Herd Rations

There are two systems you can follow for feeding your breeding herd: (1) feed ground and mixed complete rations, or (2) feed grain and supplement separately. Both systems are satisfactory.
Complete rations

If you are using complete high-energy rations, boars should be hand-fed. They should receive enough—at least 6 to 8 pounds per head per day—to keep them in good condition.

Sows should be on full-feed during flushing. During gestation, 3 pounds per head per day should be adequate for sows on good pasture. When they are in drylot, hand-feed 5 pounds per head per day. Full-feed sows during lactation.

For pigs 6 weeks old or older, full-feed. Feed them creep ration until they are 6 weeks old.

An easy way to make a high-energy ration that is 16 percent crude protein is to grind together 3 parts shelled corn to 1 part 36 percent supplement. (For a suggested home-mixed supplement, see pages 16-17.) If you have a fairly large feeder pig operation and can buy soybean meal for at least $20 per ton cheaper than a commercial supplement, you may want to use Illinois Ration 16. The formula is given below:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground shelled corn, pounds</td>
<td>1550</td>
</tr>
<tr>
<td>Soybean meal, 44 percent, pounds</td>
<td>400</td>
</tr>
<tr>
<td>Steamed bone meal or dicalcium phosphate, pounds</td>
<td>20</td>
</tr>
<tr>
<td>Ground limestone, pounds</td>
<td>20</td>
</tr>
<tr>
<td>Trace mineralized salt with zinc, pounds</td>
<td>10</td>
</tr>
<tr>
<td>Vitamins</td>
<td></td>
</tr>
<tr>
<td>Riboflavin, grams</td>
<td>1</td>
</tr>
<tr>
<td>Pantothenic acid, grams</td>
<td>5</td>
</tr>
<tr>
<td>Niacin, grams</td>
<td>15</td>
</tr>
<tr>
<td>Choline, grams</td>
<td>100</td>
</tr>
<tr>
<td>Vitamin A, I.U.</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Vitamin D₂, I.U.</td>
<td>300,000</td>
</tr>
<tr>
<td>Vitamin B₁₂, milligrams</td>
<td>16</td>
</tr>
<tr>
<td>Antibiotics, grams</td>
<td>20</td>
</tr>
</tbody>
</table>

Omit the antibiotics if the ration is to be fed only to the breeding herd. Your farm adviser can help you locate the sources of the vitamins and antibiotics recommended in this ration.

Complete bulky rations have been formulated for self-feeding during gestation. Two suggested formulas are given on page 16.

1 If the trace mineralized salt contains less than 0.5 percent zinc, add 0.1 pound of zinc carbonate per ton of complete ration.
Ration 1

Ground shelled corn, pounds .............................................. 300
Ground oats, pounds .......................................................... 300
Ground alfalfa hay or meal, pounds ..................................... 300
Soybean meal, 44 percent, pounds ....................................... 40
Meat scraps or tankage, pounds ........................................... 40
Vitamin B_{12}, milligrams .................................................... 16
Minerals (a mixture of 2 parts limestone, 2 parts dicalcium phosphate or steamed bone meal, and 1 part trace mineralized salt with zinc\(^1\)), pounds .......................................................... 20

Ration 2

Ground alfalfa hay, pounds .................................................. 300
Ground ear corn, pounds ....................................................... 600
Soybean meal, 44 percent, pounds ........................................ 100
Meat scraps or tankage, pounds ............................................. 100
Vitamin B_{12}, milligrams .......................................................... 16
Mineral (a mixture of 2 parts limestone, 2 parts dicalcium phosphate or steamed bone meal, and 1 part trace mineralized salt with zinc\(^1\)), pounds .......................................................... 20

If the sows start to gain weight excessively, reduce the amount of corn and increase the amount of alfalfa.

Grain and supplement fed separately

If grain and supplement are fed separately, boars should be given grain as they need it and 1½ pounds of supplement per day. For sows and gilts, feed corn and supplement free-choice during flushing. During gestation, feed them 4 pounds of corn and 1 to 1½ pounds of supplement when in drylot, and 2 to 3 pounds of corn and 0 to ½ pound of supplement when on pasture. Full-feed sows during lactation. Pigs that are 6 weeks old or older can be fed corn and supplement free-choice.

There are many good commercial supplements, but you can mix your own by using one of the following formulas:

A supplement to use when hogs are in drylot or on poor pasture:

- Soybean meal, 44 percent, pounds ......................................... 1000
- Alfalfa meal, pounds ......................................................... 600
- Meat scraps or tankage, pounds ......................................... 400
- Ground limestone, pounds .................................................. 80
- Steamed bone meal or dicalcium phosphate, pounds .................. 80
- Trace mineralized salt with zinc\(^1\), pounds ........................... 40
- Vitamin B_{12}, milligrams .................................................... 48
- Antibiotics, grams .............................................................. 50-100

\(^1\) See footnote, page 15.
A supplement to use when hogs are on good legume pasture:

- Soybean meal, 44 percent, pounds: 1300
- Meat scraps or tankage, pounds: 700
- Ground limestone, pounds: 40
- Steamed bone meal or dicalcium phosphate, pounds: 40
- Trace mineralized salt with zinc: 20 pounds
- Vitamin B₁₂, milligrams: 48
- Antibiotics, grams: 50–100

If both supplements are to be used only for the breeding herd, antibiotics are not needed. Include antibiotics if the supplement is to be fed to younger pigs.

Feeding at farrowing time

For the first half day after farrowing, sows need plenty of fresh water but no feed. They should be on full-feed by the end of the first week. You can start by hand-feeding a limited amount of feed the first 2 or 3 days and then gradually increase the amount to full-feed. Some producers, however, have brought their sows to full-feed by turning them to a self-feeder containing a high-energy ration with 16 percent protein or a special complete ration for farrowing time. The sows should be allowed to self-feed for an hour in the morning and at night.

Some producers have also had good results by using a self-feeder with these rations in the farrowing pen or stall. If you are going to try to self-feed sows at farrowing time, start the day the sows are put into the farrowing house.

If you want to make up a special complete ration to feed sows just before and after farrowing, follow this formula:

- Ground shelled corn, pounds: 30
- Ground oats, pounds: 30
- Wheat bran, pounds: 30
- Drylot sow supplement, pounds: 10

During the peak of lactation, heavy-milking sows nursing large litters may eat as much as 15 pounds of feed daily.

Creep rations

When buying a commercial creep ration for pigs, get one in pellet form that has sugar mixed in the pellet and not one that is sugar coated. If you want to use a home-mixed ration, the following formula is satisfactory.

¹See footnote, page 15.
Ground corn, pounds .................................................. 700
Rolled oats, pounds .................................................. 200
Sugar, pounds .......................................................... 200
Soybean meal, 44 percent, pounds ................................. 400
Dried skim milk, pounds ............................................ 400
Ground limestone, pounds .......................................... 20
Steamed bone meal or dicalcium phosphate, pounds ........ 20
Trace mineralized salt with zinc, pounds ....................... 10

Vitamin and antibiotic premix should be added to the ration to furnish these amounts:

- Riboflavin, grams .................................................. 2
- Pantothenic acid, grams ........................................... 10
- Niacin, grams ....................................................... 30
- Choline, grams ...................................................... 200
- Vitamin A, I.U. ....................................................... 6,000,000
- Vitamin D, I.U. ....................................................... 600,000
- Vitamin B₁₂, milligrams ........................................ 32
- Antibiotics, grams .................................................. 40

Your farm adviser can help you find the sources of these vitamins and antibiotics.

### Effect of Litter Size on Costs per Pig

<table>
<thead>
<tr>
<th>Pigs weaned per litter</th>
<th>Total cost per litter</th>
<th>Total cost per pig weaned</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>$77.00</td>
<td>$ 6.40</td>
</tr>
<tr>
<td>10</td>
<td>70.87</td>
<td>7.09</td>
</tr>
<tr>
<td>8</td>
<td>66.07</td>
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<td>6</td>
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</tr>
<tr>
<td>2</td>
<td>41.67</td>
<td>20.84</td>
</tr>
</tbody>
</table>

*The data are based on the assumption that feed costs represent 75 percent of all costs. Grain is valued at 2 cents per pound, supplement at 5 cents per pound, and creep feed at 6 cents per pound.

### Feed and Water Space Requirements

The following points are general guides for meeting feed and water space requirements in your feeder pig operation.

1. For self-feeding in drylot or on pasture, provide 1 linear foot of feeder space or 1 feeder hole for each sow and litter.

*If the trace mineralized salt contains less than 0.5 percent zinc, add 0.1 pound of zinc carbonate per ton of complete ration.*
2. For hand-feeding in drylot or on pasture, allow 1½ feet of trough space for each sow and litter.

3. Provide 1 linear foot of creep-feeder space for each 10 pigs. The trough on creep-feeders should be no more than 2 inches deep.

4. Provide 1 automatic waterer for every 4 sows and their litters.

5. For hand-watering, provide 2 linear feet of trough for each sow and litter.

**MARKETING FEEDER PIGS**

There are three major methods of marketing feeder pigs in Illinois: (1) farmer-to-farmer agreements; (2) local auctions or cooperative feeder pig auctions; and (3) contract feeder pig production.

**Farmer-to-Farmer Agreements**

More pigs are sold by farmer-to-farmer agreements than by any other method. Because the pigs are sold directly to one farmer by another, mixing pigs from more than one farm is avoided. The chances of spreading disease are therefore reduced. Another advantage is that one farmer is reasonably assured of a steady supply of pigs he wants while the other farmer is assured of a steady market.

**Auctions**

**Local auctions**

There are approximately 75 licensed auction houses in Illinois where feeder pigs may be marketed. If the feeder pigs sold through local auctions are inspected by a veterinarian and unthrifty pigs are rejected, producers will find these markets satisfactory outlets for high-quality pigs.

**Cooperative feeder pig auctions**

Cooperative feeder pig auctions were developed under the leadership of local swine producers and the Illinois Agricultural Extension Service. By this method, all pigs are moved directly from the farm to the auction. They have been vaccinated and castrated and must pass rigid inspection by veterinarians and graders before they can be sold. The pigs are sold by the pound.

These auctions encourage the production of high-quality pigs and provide an excellent market for feeder pigs by pooling large numbers that are of desirable type and uniform in color and size.
Contract Feeder Pig Production

Contract feeder pig production involves a contract between a feeder pig producer and a statewide cooperative marketing agency. The producer agrees to market all of his pigs through the agency. In return, the agency, for a fee, furnishes field service on production problems, secures a market for the pigs, provides facilities for weighing and assembling, and delivers the pigs to buyers from the assembly point. The agency also sorts the pigs into uniform lots prior to delivery. It rejects those pigs that are undesirable according to standards of thrift, type, and soundness. The agency guarantees against losses by death for a specified period after delivery. A set fee is deducted from the sale price of the pigs by the agency for the services it performs.

Readers desiring additional information on hog production may obtain single copies of the following publications from their county farm adviser or by writing the University of Illinois, College of Agriculture at Urbana:

Some Factors in Hog Prices and Movements. Circular 691.
Hog Farrowing Houses and Equipment. Circular 780.
Handling Hog Manure as a Liquid. Circular 820.
Electric Heating Cable for Swine. Circular 830.
Hog Cholera. VM-3.
Infectious Atrophic Rhinitis of Swine. VM-5.
Swine Dysentery. VM-6.
Swine Pox. VM-9.
Hog Mange. VM-19.
Leptospirosis. VM-20.
Respiratory Diseases of Swine. VM-21.
Swine Brucellosis. VM-25.