



\* Protected Under 18 U.S.C. 707

Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources

## Feeding and Managing Replacement Gilts

Raising gilts for a future 4-H sow-litter can be both profitable and educational. The breeding gilt project will teach you about the care and management of a gilt until she becomes a sow. Raising pigs from her to sell or expand your herd can be profitable as well as a rewarding experience. Unlike the show barrow project, the breeding gilt gives you a base to start your very own swine-breeding herd.

### Livestock Terms You Should Know

**Pig**-Small young animal.

**Hog**-A grown pig.

**Boar**-A male hog.

**Barrow**-A male pig castrated before he reaches maturity.

**Gilt**-A female under one year of age that has not farrowed a litter of pigs.

**To breed**-To mate.

**Bred**-Has mated.

**Farrow**-To give birth to baby pigs.

**Gestation period**-The length of time from breeding of the sow or gilt to birth of the pigs. This is about 114 days or three months, three weeks, and three days.

**Purebred**-Pigs whose parents (boar and sow) are of the same breed and are registered with a breed association.

**Crossbred**-Pigs whose parents are of different breeds.

### Selecting Your Gilt

In buying your gilts, you have two or more choices. You may buy gilts soon after they are weaned (usually 8 to 10 weeks of age) or gilts that have been grown out (approximately 6 months of age). Of course, you may buy gilts in between these two ages. There are advantages and disadvantages in buying gilts and weaning age.

#### Advantages

1. Purchase price should be low.
2. You will gain valuable experience in feeding out the gilts to breeding age.
3. Your gilts should increase in value more than your cost of feeding them out.

#### Disadvantages

1. It is more difficult to select the best gilt from a litter or herd at weaning time.
2. Many breeders do not like to sell their best-gilt pigs at weaning time.

### Points to Consider in Gilt Selection

1. Buy from a breeder who has no serious disease problems in the herd.
2. Select from any breed popular to your area. If you want to sell only market pigs, crossbred gilts will be fine too.
3. Select gilts from litters of at least eight pigs and from the best producing sows if possible.
4. Select gilts that are desirable in body conformation, length of body, width and depth of chest and overall muscling.
5. Select gilts that are standing on adequate bone with the feet and legs sound and correctly placed.
6. Select gilts which have 12 or more evenly spaced, well-developed teats.
7. Select from herds that have performance records indicating rapid growth rate and low back fat.

### Space, Shelter, and Equipment

A small pasture lot of about 2,000 square feet per gilt is needed for your gilts to get adequate exercise. An easy to clean, dry-bedded shelter free from drafts and leaks is needed for the cold winter months. Your pasture lot and shelter should be well-drained land. If shade from trees in your pasture lot is not available, then you will need to construct some type of open sided, well-ventilated shelter. Other things you can use to help keep your gilts cool during the hot summer months is a concrete hog wallow or a fogging system over concrete or sand.

Provide plenty of clean fresh water and feed for your gilts. You have two options for feeding and watering your gilts:

1. Self-waterers and feeders can be used to reduce labor. One disadvantage to self-feeders is their costs. In some cases, feed is wasted with self-feeders. The self-waterer need to be protected from freezing during the winter months.
2. Wide, heavy metal or wooden troughs that cannot be easily overturned should be used when hand feeding and watering your gilts.

### Feeds and Feeding

Swine, unlike beef cattle, need very little fiber in their daily diets. In fact, swine are what we call a simple stomach animal. Their digestive tract is very much like humans'.

The ingredients of your ration that you feed your gilts are made up of four classes of nutrients. They are:



**Plywood houses with a cedar shade break and an automatic watering system**

1. Energy
2. Proteins
3. Minerals
4. Vitamins

### **Energy**

Energy is usually supplied from carbohydrates in corn, grain, sorghum, wheat, or barley. Gilts need high-energy rations to grow, maintain body temperature, and to furnish energy for the body processes.

### **Proteins**

Proteins are made up of amino acids, which are commonly known as “building blocks.” Proteins are used to build muscle tissue. Soybean meal, meat and bone scraps, tankage, peanut meal, and milk by-products are used as protein feeds. Soybean meal is the most common.

### **Minerals**

Minerals are needed mainly for proper bone growth. Minerals needed in largest amounts by your gilts are calcium, phosphorus, and salt. Some feeds are low in these minerals and you will need to add a swine mineral supplement to your ration that you feed your gilts. Mineral supplements include calcium carbonate (ground limestone), dicalcium phosphate, steamed bone meal, and trace mineral mixes.

### **Vitamins**

Vitamins are needed daily in small amounts to maintain growth and maintain good health of your gilts. Vitamins A, D, E, K, B<sub>12</sub>, and riboflavin, niacin, choline chloride, and pantothenic acid should be in your pig’s diet. Purchased feed or supplements should contain these vitamins.

### **Antibiotics**

One other ingredient needed in your ration is an antibiotic. Antibiotics are added to swine rations to help control or prevent disease and to improve growth rate and feed efficiency of your gilts.

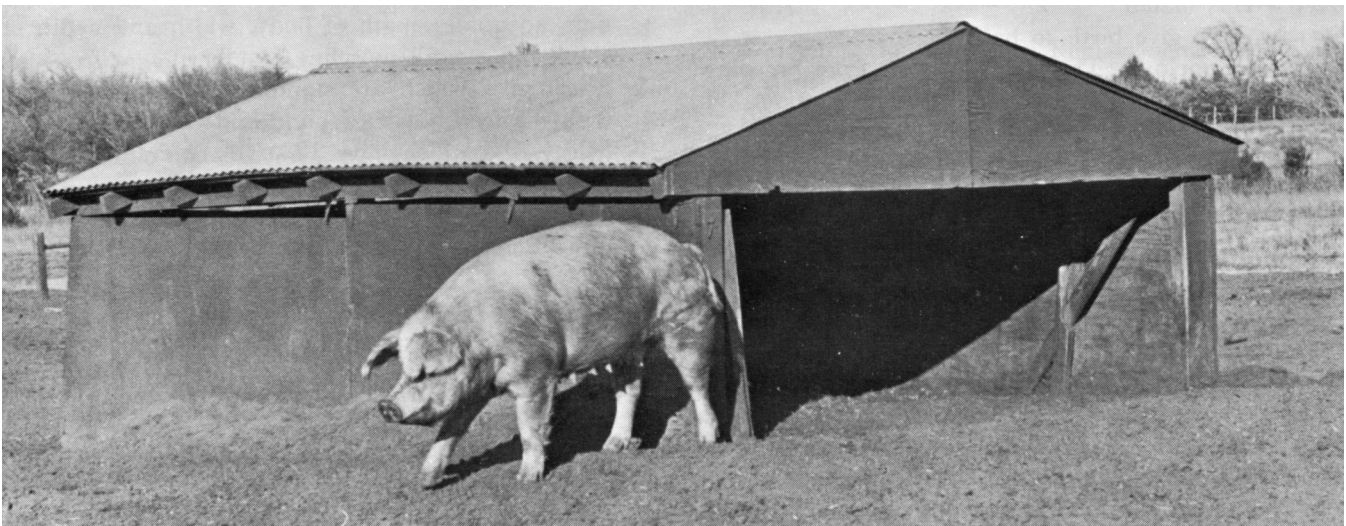
### **Water**

Water is in some cases not classed as a nutrient, but is very important. In fact, an animal can live much longer without feed than it can without water. Make sure that your gilts have plenty of clean fresh drinking water at all times.

### **Feeding**

Your gilts should be fed a balanced ration containing all the necessary nutrients.

Gilts should weigh at least 40 pounds at 8 weeks of age and should be fed a 16% crude protein ration. Self-feed or hand-feed all they will eat until they have reached a weight of 175 to 200 pounds. They should reach this weight at approximately 5 months. During the period from 5 months to



**A plywood and sheet iron house for several gilts to live in**





**A 4-H member hand feeding his gilt a balanced ration.**

breeding time (7 to 8 months of age) gilts should be limit fed so they will weigh 250 to 275 pounds at breeding time.

This can be accomplished by hand feeding your gilts approximately four pounds per head per day from 175 to 200 pounds to breeding time. A 15 to 16% crude protein brood sow ration is used. If you mix a supplement with grain, a good ration is as follows:

Ingredients	Pounds
Ground corn or grain sorghum	77
40% protein supplement	23
<b>Total</b>	<b>100</b>
<b>% protein</b>	<b>16</b>

If you have your own grinding and mixing equipment and are able to buy all the ingredients for a swine ration, you could feed the ration shown in Table 1.

**Table 1. Suggested Breeding Gilt Ration**

Ingredients	Pounds
Corn or grain sorghum	1420
Soybean meal (44%)	320
Dehydrated alfalfa meal (17%)	300
Calcium carbonate	15
Dicalcium phosphate	35
Salt	10
Vitamin-trace mineral mix*	+
<b>Total</b>	<b>2000 lb</b>
<b>Protein %</b>	<b>15.10</b>
<b>Calcium %</b>	<b>.85</b>
<b>Phosphorus %</b>	<b>.63</b>

\* Follow manufacture's recommendation

## Animal and Herd Health

### Internal Parasites

If your weaning age gilts have not been treated for worms you will need to do so before putting them on full feed. They will need to be treated again in about 30 days.

Available wormers are: piperazine, Atgard V (dichlorvos), Tramisol (levamisole hydrochloride), Banminth (pyrantel tartrate), or fenbendazole (Safe-Guard). It is very important to follow the label direction carefully when deworming your gilts.

### External Parasites

Check your swine herd frequently for lice and mange. These very small insects burrow into the skin of your gilts resulting in skin irritations, hair loss, and reduced performance. Table 2 shows you some insecticides that can be used to control lice and mange. Like the wormers, it is very important to follow the label directions for dosage and application.

**Table 2. Control of Lice and Mange**

Insect	Insecticide
Lice and Mange	Lindane
	Malathion
	Ectiban EC
	Prolate
	Ectrin
Lice only	Co-Ral
	Rabon
	Methoxychlor
	Tiguvon (pour on)

You can help prevent the occurrence of disease and parasite infections by using good management and sanitation practices.

1. Pastures and lots should be well-drained.
2. Rotate pastures or lots yearly.
3. Be sure your pigs are comfortable during hot and cold weather.
4. Clean out shelter, water trough, and feeder as needed.
5. Provide fresh, clean drinking water.
6. Vaccinate your gilts for leptospirosis and parvovirus.
7. Consult your veterinarian for recommended health practices.

## Breeding Your Gilts

Breed your gilts at 7 to 8 months of age. Gilts bred too early may be stunted in their growth and have small litters.

Breed your gilts to a good quality boar. If one is not available on your farm, make arrangements with a breeder nearby for services of a boar. Try to breed to a boar with records indicating that he is an individual that excelled in performance. This means a boar that weighed 220 pounds in 150 days or less and with a back fat probe of less than 1 inch. Be sure the boar is not closely related to your gilts.

If you want to produce purebred pigs for sale as breeding stock or show barrows, breed to a purebred boar of the same breed. If you want to sell market hogs, consider crossbreeding.

There are definite advantages to crossbreeding. It usually results in larger and more vigorous pigs at weaning that will reach market weight quicker.

## Things to do (Activities)

1. Visit a commercial hog farm.
2. Visit a purebred swine breeder's farm.

3. Attend a purebred swine sale.
4. Attend a Swine Breed Association Type Conference, if one is held in your area.
5. Attend county, area, or state pork producer meetings.

## Questions

1. Explain the difference between a gilt and a sow.
2. Explain the difference between purebred and crossbred hogs.
3. What are the three most important minerals?
4. Breeding gilts should be selected from litters of at least \_\_\_\_\_ pigs.
5. The four classes of nutrients are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
6. What age should your gilt be bred?
7. What are the advantages of crossbreeding?

## Other Resources

1. County Extension 4-H educators in your area.
2. Experienced pork producers in your area.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Samuel E. Curl, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of \$.20 per copy. 0404.