



Swine Fact Sheet

Animal Sciences

Auburn University



SFS-0210

February, 2010

HOUSING AND PASTURES FOR SOWS AND LITTERS

W. F. "Frank" Owsley
Extension Animal Scientist
and
Norwood J. Van Dyke
Retired Extension Animal Scientist
Auburn University

Raising a sow and litter is possible without spending a lot of money. As long as you provide protection from the elements, a comfortable place to sleep, food and water, sows will typically perform very well. Sow and pig housing is a trade-off between labor and money. One can be used to offset the other. For example, a farrowing pen with concrete slats will cost more to build, but is easier to keep clean. A pen on the ground must be kept clean and sometimes bedded, but costs less to build. For small producers, low-cost facilities are often the wisest choice.

Shelter and equipment for growing and gestating gilts or sows can be kept relatively simple. Portable farrowing huts make excellent facilities where land and wooded areas are available. A sandy well drained shady area is the best location for your sow and litter. Huts should be built in such a way as to protect the young pigs from cold and rain and should have guard rails to prevent them from being crushed. Farrowing huts should be placed in the shade during warm and hot weather to prevent the sow from getting too hot. Sows prefer a temperature of about 72°F and pigs are most comfortable at about 90°F. Sows which are exposed to temperatures above 82 ° F have reduced milk production, reduced feed intake and are more likely to mash a baby pig. A hot sow will not get off of a squealing baby pig as readily as a cool, comfortable sow.

Huts can be made of wood or metal. Wooden huts should be painted to increase their life. Generally, most huts are about 4 feet wide by 8 feet long. Metal huts should be made of aluminum or white painted metal to decrease their heat absorption. Galvanized metal should not be used because it absorbs heat and radiates it down to the sow. If galvanized metal is used, prime and paint it with a white exterior paint to prevent heat absorption. Farrowing huts should be placed so that the opening is to the south to prevent the sun from shining in during hot weather. Huts should be situated so that runoff water from a rain does not flow inside forming a mudhole.

If you are going to be successful in your project, it is necessary for you to have a safe, sanitary farrowing hut for your sow. Clean the hut and remove all organic matter (dung and bedding) by using a stiff bristle brush to scrub the farrowing hut with soap and

ALABAMA A&M AND AUBURN UNIVERSITIES, AND TUSKEGEE UNIVERSITY, COUNTY GOVERNING BODIES AND
USDA COOPERATING

water. Failure to remove the organic matter will decrease the effectiveness of the disinfectants. Cleaning and disinfecting should be done within a few days of farrowing. Disinfecting the farrowing hut can be accomplished with numerous compounds such as sodium hyperchlorite (laundry bleach) and quaternary ammonium compounds. Always thoroughly rinse the farrowing hut to remove all traces of the disinfectant prior to allowing your gilt to return to her pen. The gilt should also be scrubbed and washed with a mild soap and water and thoroughly rinsed close to farrowing time after her pen has been disinfected to remove any parasites which could infect the newborn pigs.

Provide bedding to protect the litter from cool to cold temperatures. Bedding can be short straw or shavings and should be about 2 inches thick. Wet bedding should always be removed immediately to prevent scours in the newborn pigs. In warm weather, bedding can be removed when the pigs are about 5-8 days old.

Farrowing pens which provide free natural movement of the sow should have guard rails to protect the newborn pigs from being crushed. Sows can be allowed to farrow without restraint in huts in pastures situations. Farrowing sows in open pastures should be limited to seasons when newborn pigs will not be exposed to cold or heat. Huts should be provided to protect pigs from drowning during rainy periods.

Do not allow your sow to pollute fresh water streams. Water should be provided in such a manner where it is not allowed to run into streams. Pens should be located in such a manner so as not to cause odor pollution to your family and neighbors. The key to odor prevention is to have adequate space for the sow and litter. Chlorophyll is the green color in plants. It is also a key ingredient used in cat litter to control odor. Because this is true, green pastures for the sow and litter is an excellent way to control odor and provide a good source of nutrients for the sow and litter.

Pastures For Sows and Litters

Swine producers in the Southeast can produce forages for grazing 10 months out of the year. Producers can reduce feed costs by taking advantage of forages for grazing gestating sows and lactating sows.

Pasture space for sows depend on the season, the forage planted, fertility and rainfall and stocking rate. Generally, winter pastures can be maintained with 4-12 sows per acre. White sows are more sensitive to a chemical produced by rye and rape. This chemical reacts with the sunlight when the plant is wet with dew and can cause blistering on the skin of the sow. The solution is to allow the sow to graze only after the dew has dried off the plants.

Grazing for sows can be provided by perennials, annuals or both. Annuals consist of rape, soybeans, rye, wheat, oats, ryegrass, annual clovers and summer annual grasses which include sudangrass, sorghum-sudan hybrids, and various millets. Perennials such as alfalfa and perennial peanuts also have potential as a forage if properly managed. Check with your local county extension office for varieties suitable to your area.

Use of grazing systems with various types of forages for gestating sows represents a method of reducing feed grain needs for swine producers. Sows can utilize either grasses or legumes as forage crops. Legumes such as clover, alfalfa and peanuts are preferred because of their higher nutrient content but, at certain times of the year, grasses are more advantageous. Bermuda and bahia grass are much lower quality forages for sows. Grazing of forages can supply a major portion of the gestating sow's nutrient requirements if a well-planned rotational grazing system is implemented that will supply forages throughout the year.

It is important to properly supplement grazing sows so that they will maintain proper condition and produce healthy litters. Many producers simply reduce the daily feed allotment when sows are grazing. However, this practice reduces intake of all nutrients and often results in problems with mineral or vitamin deficiencies. A feeding period during which time 4 pounds (summer) or 5 pounds (winter) of a normal gestation diet is fed will allow the gilt or sow to adapt to utilization of forages. After that period and in subsequent gestations, intake of protein and energy from the diet can be reduced.

Research has shown that feed intake of gestating sows grazing quality forages can be reduced to one third of the normal levels while maintaining normal reproductive performance. Sows can be fed 1.5 pounds per day of a 14% protein diet (.6% lysine) to supply energy and protein needs. However, mineral and vitamin levels should not be reduced. Thus, calcium, phosphorus, salt, trace mineral and vitamin levels must be increased by about 4 times in the diet. Sows should have access to a free choice complete vitamin and mineral mix in a mineral box or an old tire with a plywood bottom bolted on. A complete mix includes the calcium and phosphorus necessary for everyday growth and production. Do not use a complete bag of minerals in your mineral box. Furnish the sows with a 4 - 5 day supply to prevent the minerals from becoming hard. Minerals should always be protected from the weather by having them in a covered facility such as a shed or a covered mineral box. Lactating sows should be allowed access to a self feeder along with grazing to maintain proper body condition.

Management

Avoid grazing winter annuals too early. Keep animals out of the pasture until plants are at least 6 inches tall. Do not overgraze when cold weather stops plant growth. At such times, begin supplemental feeding and, if possible, remove the animals.

During the spring growth flush, the pasture should be utilized efficiently. The optimum pasture height is 4-5 inches. Increase the stocking rate by adding animals or divide the pasture to concentrate the animals. Mowing pastures with excess growth will maintain high quality forage for your sows and pigs.

Rotation of pastures or drylots is recommended for prevention of parasite build up. Parasite eggs are passed into the ground from swine feces. The eggs can remain for many months. Without rotation, pigs will be constantly infected with internal parasites.

Conclusion

A good sow-pig unit:

- ✓ provides protection from winter weather and drafty winds
- ✓ provides shade in the summer
- ✓ provides adequate space for the sow and litter
- ✓ protects the baby pigs from crushing
- ✓ is well drained and dry
- ✓ can be simple and inexpensive
- ✓ should not cause odor problems which are offensive to neighbors
- ✓ protects the quality of our water and streams

SPACE REQUIREMENTS FOR SWINE ON DIRT LOTS OR PASTURES

	<u>Grower/Finisher</u>	<u>Breeding Stock</u>
Feeder and waterer space		
pigs/space or hole	4	1
pigs/waterer	20-25	5-10
distance between feeder and waterer 50'	50'	
Shade/shelter space, ft²/animal	5-6	15-20
Dirt lot space, ft²/animal^a		
flat	400	1000
slope (>5%)	600	1500
Pasture space, animals/acre^b	50-100	4-12

^a Dirt lot space requirements depend on soil type, slope, maintenance and crop coverage. Tight clay soils and slopes over 5 percent increase the space requirements.

^b Pasture space requirements depend on crop planted, fertility, rainfall and season, as well as the factors listed for dirt lots.

USING A-FRAME FARROWING HOUSES

Equipment:

- * Surround A-frame with pen made of four 16 ft. welded wire panels
- * Place pens in rows for convenience and stability
- * Secure a nipple waterer for the sow in one corner (use inexpensive black plastic pipe for source)

Location:

- * Place A-frame in light sandy soil or well drained location
- * Set A-frame with doors in North and South directions for warm southern exposure in winter and reduced sun plus maximum ventilation in summer
- * Place A-frames under shade trees if possible in summer and in open fields with North wind protection in winter
- * Make every effort to rotate locations to prevent buildup of diseases and parasites in farrowing area

Management:

- * Place sow in pen with A-frame at least 3 days before expected farrowing-ring noses
- * Bed A-frame with 1/3 bale of high quality bedding:
 - bright clean wheat straw preferred
 - avoid use of moldy bedding, bahia or coastal hay is not desirable
- * In cold weather close sows up at night
- * Cull sows and avoid using her offspring if serious disposition problems occur