

MU Guide

Swine Care, Selection and Showmanship

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Youth livestock projects are valuable tools for teaching, learning and experiencing many of the aspects of life. The responsibility gained through participation in a livestock project is extremely valuable. Whatever the species, there is something to be learned and experienced in a livestock project (Figure 1).

What am I going to do with this pig?

The first step in starting a swine project is not selecting the pig but rather determining a goal for the project. The question to ask is, "What do I want to accomplish with this project?"

Raising and showing market pigs is a popular project. Working with a market pig will allow participants to determine whether they would like to become involved in swine production in the future. Raising pigs can be rewarding, but it also poses environmental, disease-related and marketing challenges. The National Pork Board offers a Pork Quality Assurance Program to help producers learn good production practices and become level 3 certified. It is essential that all swine youth exhibitors participate in this program.

Care

Knowing where the animal is going to live and how it will be cared for is vital before the pig ever comes home. Raising or showing pigs begins with locating and constructing a good home for the project animal(s). It is extremely important in the summer that pigs be kept cool and comfortable, but it is equally important to keep pigs warm and dry during the winter. Because swine have sweat glands only in their snout, they need access to a cool environment to keep their bodies cool.

Housing space per pig is an important consideration. Minimum space requirements for indoor and outdoor facilities are as follows:

	Shed space requirement	Pen space requirement
Outdoor	5 sq. ft/pig	6–15 sq. ft/pig
Indoor		8 sq. ft/pig

An example of an outdoor pigpen for two pigs would be a 4x4-foot shed attached to a 6x6-foot pen.



Figure 1. Showing pigs provides a good learning experience.

Because pigs housed outdoors will root around in the dirt to provide cool places to lie down, planning is important to prevent excessive pen damage. In addition, locating the pen close to the transportation used in hauling the pigs around will make it much easier to load and work with the animals.

Selection criteria

Once the goal of the project is established and the housing is sorted out, it is time to look for the pig. The long-term goals of the project have a bearing on what kind and type of animal to look for. Project animals can be purebred or crossbred. The eight major breeds of swine in the United States are Berkshire, Chester White, Duroc, Hampshire, Landrace, Poland, Spots and Yorkshire. *A good Web site to learn more about breeds of swine is <http://www.ansi.okstate.edu/breeds/>.*

Selecting the correct type of pig is important when starting the project. It is helpful to determine when show dates are scheduled so that the appropriate size of pig can be purchased. If a pig is to be shown at 250 pounds, a 60-pound pig will need 100–120 days to reach that weight. A pig's typical growth rate is 1.5 to 1.75 pounds per day. Planning is needed to purchase animals that will have enough time to reach market weight.

Selecting animals that will perform well is crucial,



Figure 2. The ideal pig balances muscle expression, leanness and structural soundness at a typical market weight.

regardless of breed. Important features to consider are structural soundness, muscling and frame size (Figure 2).

When selecting pigs, look for youthful appearing pigs that are the same size as, or bigger than, others in their group. With these “growthier” pigs, exhibitors hope to avoid slow-growing, poor-performing pigs.

It is also important when selecting pigs to find animals that are sound and loose structured. This means that they move freely and naturally and don’t appear too stiff or restricted in their movement. It is imperative that pigs be able to move around as they grow and develop. Pigs that are poorly structured will have trouble moving and trouble growing and performing.

Nutrition

Genetics, nutrition, environment and health status will determine the growth rate of your pig. The ideal situation would be to allow the pig free access to feed and water until the day of the show. In fact, in commercial production, pigs are encouraged to grow as fast as possible while still maintaining an acceptable level of leanness. This practice minimizes labor and increases average daily gain and profitability.

However, when raising a show pig, you are trying to get the pig to look its best on the day of the show. Most shows have a range of acceptable weights similar to those in the swine industry. Because of these restrictions, controlling the pig’s growth rate may be required to attain the animal’s ideal show weight. The optimal weight could be different for each pig depending on frame size, age and degree of muscling. The ideal market weight should obtain the maximum profitability from the packer and receive no price docks. For example, if a given show has a weight range of 220 to 280 pounds, then the ideal weight for the pig might be 255 to 265 pounds. The goal is to have the pig on the upper end of the weight scale but still muscular and lean.

Daily feeding practices

After the arrival or selection of your pig, ensuring proper care and management is critical to the pig’s success. During the first week, the pig should be checked three or four times a day and fed only enough to last two to three days, which will ensure that the feed is clean and

fresh. The pig will also need an adequate supply of clean, fresh water and access to dry housing that maintains the temperature in the pig’s comfort zone.

After the first week, pigs can be on a self-feeder, eating as much feed as they desire. However, it is still important to check the feeders twice a day to ensure that feed is always available and that the feed is flowing into the bottom of the feeder. During periods of high humidity, feed has a tendency to build up along the sides of the feeder. When this occurs, feed should be pushed down daily to ensure adequate feed intake.

After the pigs reach about 125 pounds, it is time to start closely monitoring their growth rate. Ideally pigs should be weighed weekly to monitor growth. The pigs should be weighed at the same time of day each week — for example, Sunday afternoons or Thursday evening after school — because a pig’s weight will change throughout the day depending on feeding and drinking patterns. Weighing at the same time of day will help prevent large fluctuations in weight that may only be due to water intake.

Record the weight of each pig weekly. After a couple weeks, average daily gain can be calculated by dividing the weight gain by the number of days between weights.

$$\text{Average daily gain} = \frac{\text{Weight gained}}{\text{Number of days}}$$

It is important to know how many days are left in the finishing period (how many days until show weigh-in).

After observing the growth rate of your pig for a few weeks and knowing exactly how many days until the show, you can start adjusting the pig’s growth to ensure optimal weight for the show. The optimal weight could be different for each pig depending on frame size, age, and degree of muscling. Depending on the pig’s growth rate and number of days remaining in the finishing period before show day, you will probably need to start individually hand feeding each pig twice a day to more closely control feed intake.

If the pig needs to gain weight quickly, it will eat more feed if it is fed more often, such as three to four times per day. To determine how much the pig will eat, feed a known amount to the pig at the normal feeding time and return in about an hour and see if any feed is left. If there is feed still some feed left, try feeding a slightly smaller amount at the next feeding until the pig is cleaning up all of the feed within an hour of feeding. This is the approximate amount of feed that the pig would eat until full. There are other methods to stimulate feed intake and ultimately growth rate, such as top dressing the feed at each feeding with a small amount of (0.25 to 0.50 lb) of dried whey, plasma proteins or other flavor enhancers. In severe cases, a couple raw eggs could be cracked onto the feed at the time of feeding. These supplemental feeding practices should only be done during the last couple weeks before the show, if pigs are extremely underweight.

As the pig nears its optimum weight, the amount of feed can be adjusted to facilitate target weight gain. A pig should not be fed less than 4 pounds a day. It is important to remember that most diets are formulated for pigs that are allowed to eat all that they want. When limit feeding, additional vitamins, minerals and protein may need to be added to the diet to provide the necessary requirements of the pig. Fresh, clean water should **never** be withheld from the pig at any time. Water deprivation not only jeopardizes the welfare of the animal but will also cause muscles to lose shape and expression.

Nutrient requirements

Water is the most essential of all nutrients and should never be withheld. The flow rate of nipple waterers should be checked weekly and should provide one quart of water per minute.

Carbohydrates and fat provide energy to the pig. Carbohydrates come from feed grains (corn, milo, wheat, barley, oats) and make up the majority of the pig's diet. Fat comes from animal and vegetable oils and is used to increase the energy value of the diet. While energy is needed for growth and maintenance, over-feeding energy will cause a pig to store the excess in the form of fat. However, if the energy level is insufficient, muscle mass can actually be lost because it also takes energy to maintain existing muscle.

Protein is essential for proper growth and development of muscle and bone. Proteins are made up of amino acids that are linked together. Ten amino acids are not produced within the pig's body and must be provided in the diet. Of these, lysine, threonine, tryptophan and methionine are most important. The need for lysine is higher than that for other amino acids; therefore, in most cases, if the diet meets the lysine requirement, then adequate amounts of the other essential amino acids are also provided in adequate concentrations.

Most commercial **complete** show pig feeds are balanced for nutrients needed during a certain stage of growth. However, it is not recommended to continually feed the same ration, because nutrient requirements change. For example, the lysine (protein) requirement declines as the pig gets bigger and feed intake increases. Overfeeding protein can be expensive and can actually cause the pig to use the excess protein as energy, causing a greater deposition of fat.

Other specialty ingredients maybe added to the ration to enhance performance (average daily gain and feed efficiency), improve carcass leanness and increase muscle deposition. These feed additives include chromium picolinate, betaine, carnitine and repartitioning agents (such as ractopamine-HCl). You should consult with your nutritionist and always read the label before supplementing any of these feed additives to ensure that they are used properly. Following are feeding guidelines for various stages of a swine project:

Getting started

- Check pigs frequently
- Check waterers
- Hand feed
- Watch hair coat condition
- Monitor behavior/activity

Gaining weight

- Minimize heat stress
- Feed more often
- Top dress with a couple raw eggs
- Wet the feed to make a mash
- Top dress with a small amount of a nursery diet, dried whey, plasma proteins or flavor enhancers

Maintaining weight

- Lower daily feed intake (not less than 4 lb/d)
- Exercise or walk the pigs once a day
- Move pigs outside if possible
- Increase protein content
- Feed a high fiber source
- *Never* restrict water intake

Table 1. Suggested crude protein and lysine requirements for growing pigs.

Weight range (lb)	Crude protein (%)	Total lysine (%)
50–80	17–18	0.9–1.05
81–120	15–17	0.75–0.90
121–200	13–15	0.65–0.80
201–Mkt	12–13	0.55–0.75

Note: Requirements vary based on sex, health status, environment, climate, and dietary formulations (if using synthetic lysine the crude protein concentrations will be lower). Gilts should be at the upper end of the range and barrows towards the lower end of the range.

Showing

Showing pigs is the highlight of the program for some swine project participants, but it is important to remember that there is a great deal of work and time involved before entering the show ring. Practicing at home and being prepared for the show are necessary for a successful day showing pigs. It is also important to think about what is right and wrong when showing pigs. Cheating to affect the outcome is wrong. Livestock project participants are producing products for the American consumer and therefore need to be responsible and ethical in what they do. Working hard to provide the right balance of nutrition and exercise is the proper path to the objective, not using artificial means to affect the outcome.

Participants need to prepare for showing by collecting all supplies that will be required at the show. It is helpful to put them in a container that can be easily transported from the vehicle to the barn and back again. Exhibitors will need the following supplies:

- Feed, feed pans and water pans
- Bucket, brushes and soap
- Water hose and sprinkler can or mister
- Cane or other device with which to drive the animal
- Bedding
- Fans and extension cords (summer shows)

Fitting

Fitting is an all-encompassing word in the business of showing animals. It refers to getting animals ready for show by enhancing features and by proper nutrition, exercise and grooming. Learning to fit a pig needs to occur in well advance of the show. Great success is not built overnight or through special potions; it requires patience, persistence and time.

Fitting starts with learning about each project animal and what needs to be done for that animal to look its best. Practice clipping hair at home well in advance of the show to learn the proper technique and how the animal will respond to the activity. Practicing early also allows for mistakes in clipping hair to grow out before the show. Clipping pigs extremely short is not the goal, but rather the exhibitor should use clipping to enhance the positive physical traits of the animal.

Exercise is important aspect of fitting show animals. It helps improve the animal's muscle expression and reduce fat, which are both important in exhibiting. Exercise also helps pigs build endurance, which aids them in not tiring as easily during the show. By walking and practice showing a pig at home, an exhibitor learns about the animal and how best to display it to a judge.

Ring

Showing experience develops with time, but understanding what is expected of exhibitors in the show ring will help them to be successful. Exhibitors should

- Be on time to the class.
- Be courteous to other exhibitors and the judge.
- Keep their animal 10–15 feet away from the judge and moving in a relaxed manner (Figure 3).
- Keep good eye contact with the judge.
- Know where the judge is at all times.
- Show off the animal's good features and limit the amount of time the judge sees the bad ones. If a pig has a wasty middle but an expressive top and hip, keep the pig moving away from the judge so that the good points are in view more often than the problems.

Showmanship

Showmanship starts at home and is developed by continuous practice. Knowing an animal better than anyone else is imperative to exhibiting that animal to its best. Showmanship is not about the animal alone but about the exhibitor's ability to present the best features of the animal. It is also about watching the judge, the assistants around the ring, and other exhibitors. Successful showmanship requires displaying the animal to its best as well as being courteous and helpful to other exhibitors in the ring. Successful exhibitors always strive



Figure 3. This pig is in good position relative to the judge.

to learn and to better themselves. Never pass up an opportunity to learn and improve! Watching other people show and finding qualities that are good and bad serves as an extremely helpful learning tool.

Showmanship is important throughout the day, not just in the ring. Judges often watch for and find exhibitors who impress them during the show. As an exhibitor, you should know these things about showmanship:

- Your pig's age, weight and ear notch.
- Kind and amount of feed being fed.
- Swine anatomy (Know your pig parts, especially the valuable cuts of meat.)
- What your pig needs to look better.

Showmanship does not end when the judge asks you to pen your pig. The judge wants to see how well the pig will work for you and how well you can work with other exhibitors. It is also important to remember to shut the pen gate when the judge asks you to reenter the ring. That is just another mark of a courteous and respectful exhibitor. Good sportsmanship is the key to successful livestock showing.

Summary

Showing pigs can be a rewarding experience. The quest for the "champion" pig begins with selection. The selection process should take into account show regulations, number of days until the show date, structural soundness, genetics and muscle expression. Once a pig has been purchased, daily management of environment and feeding become critical to ensure the pig's maximum genetic potential is achieved. Manipulation of the feeding program is usually needed closer to the show date to obtain the ideal pig weight. Remember that water should never be restricted, and feed intake should at least be 4 to 5 pounds a day. Winning is nice but the objective should be to improve your knowledge about swine, produce a quality pork product for consumers and, above all, enjoy the experience of showing pigs.