

Your Market Hog

Selection of a project animal should be done carefully, with consideration given to breed, size and quality. Size and quality are especially important, and while management and nutrition have great influence on both, it is a big help to begin with a good animal.

At the same time, however, while you want to select the best pigs you can possibly afford, be sure that the price you pay is consistent with your objectives. For the beginner, who is learning about feeding, management, etc., good quality pigs bought at a modest price may be the wisest investment. Purchasing livestock at high prices actually does not guarantee success or mean easier management.

A successful project outcome requires the pig to have a desirable genetic background and an excellent environment while in your care.

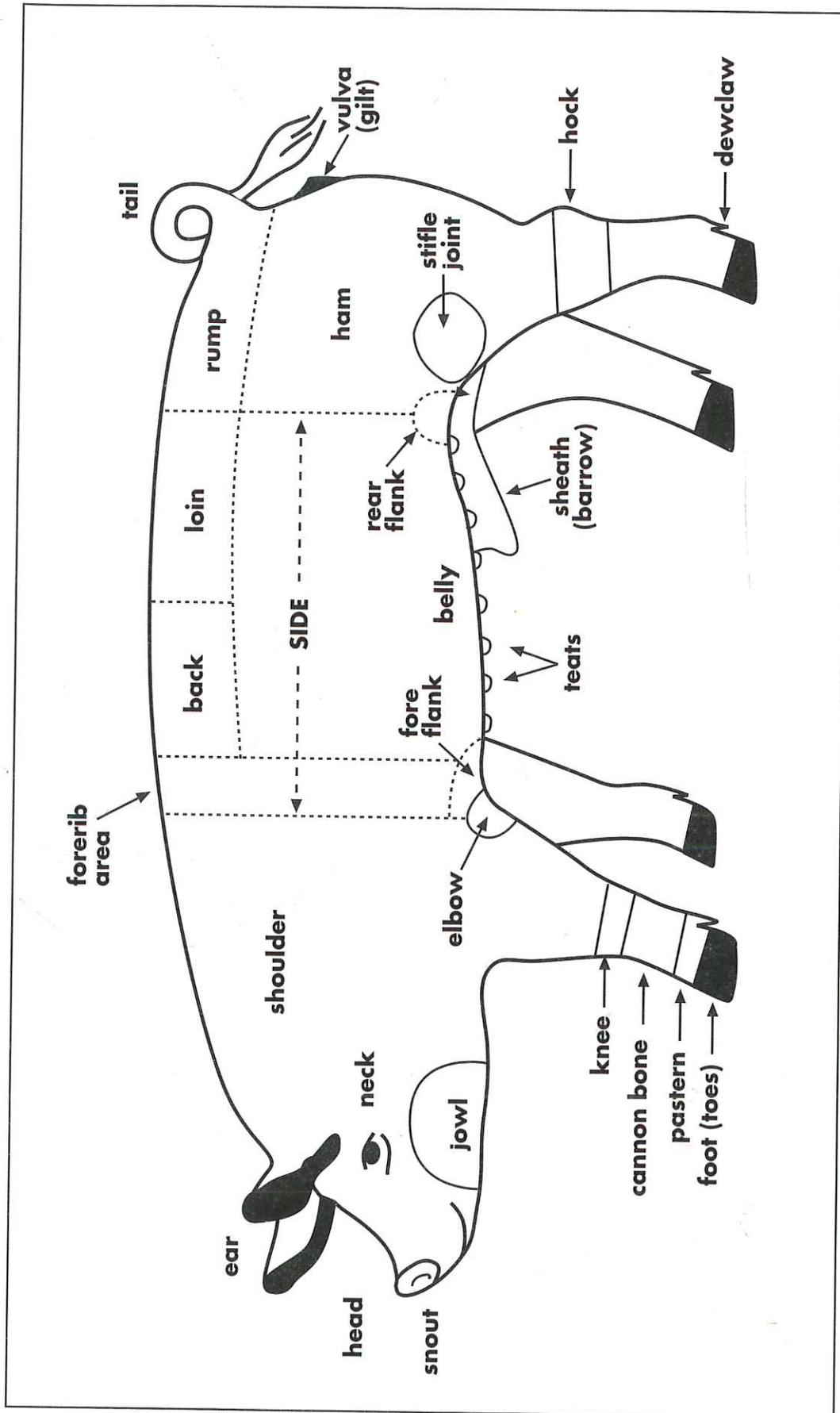
Your aim, then, should be to find good quality pigs (because they have higher potential than others) at a price that fits within your budget.

This project will give you the information you need to select good quality pigs. Before discussing the characteristics of size and structure that indicate good quality, it will be helpful (1) to review the parts of a pig and (2) identify some of the breeds commonly available.

Parts of the Pig

If you are going to raise pigs, you need to know what parts are what. You should, in fact, know the parts of a pig even before you make your first purchase selections (see Figure 3.1). This knowledge should be permanent, at least for as long as you are in the business of

raising pigs. When talking to fellow 4-H members, a breeder, or a judge, you will want to sound knowledgeable about your 4-H project. So take some time now to study the following diagram and become thoroughly familiar with all the indicated parts of a pig.



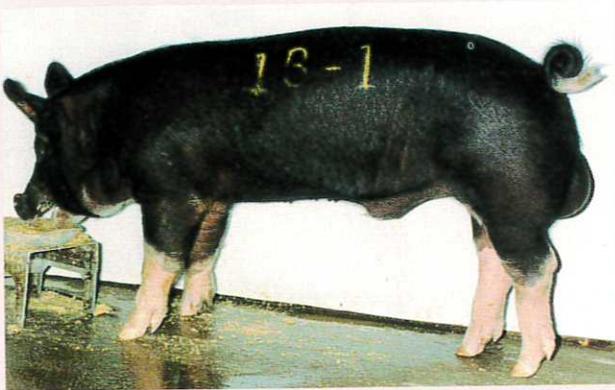
LEARNING LABORATORY KIT

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Figure 3.1
 Parts of the pig

Breeds of Swine

There are many breeds of swine from which you can choose your project animal. Following are brief descriptions of some of the more popular ones.

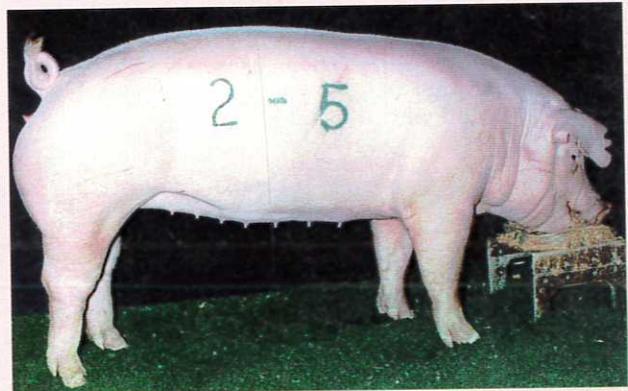


Berkshire

This breed comes from the county of Berkshire in England. The ears are short and erect. It is black with white feet, tail and usually has a splash of white on the face.

Chester White

This is an American breed, developed in Chester County, Pennsylvania. Swine breeders crossed imported White English hogs with smaller local hogs and called the results "Chester County Whites." The members of this breed are large and pure white, known for being good mothers and have medium sized ears that droop down over the eyes.



Duroc

This is another American breed. It came from a cross between red hogs bred in New York and red hogs bred in New Jersey. The result was called Duroc-Jersey. The Duroc part of the name came from a famous stallion kept on the farm of one of the red hog breeders in New York at that time. Since then, the name Jersey has been dropped and the breed is simply called "Duroc." Durocs are solid red, but they may range from dark to light shades. They have droopy ears and grow quickly and efficiently.



Hampshire

England is the place of origin of this breed, which comes from the County of Hampshire.

It is easily recognized by its white belt encircling a black body. The standard of this breed states that the width of the belt must not exceed two thirds of the body length. This white belt covers both forelegs. Hind feet and legs may be white, as long as the white does not extend above the hocks. Hampshires have erect ears and are noted for being heavy muscled.



Hampshire color marking requirements for pedigreed barrow shows differ slightly from breeding shows. If you plan on exhibiting in a pedigreed exhibition, be sure to refer to the color marking requirements as outlined by The National Swine Registry.

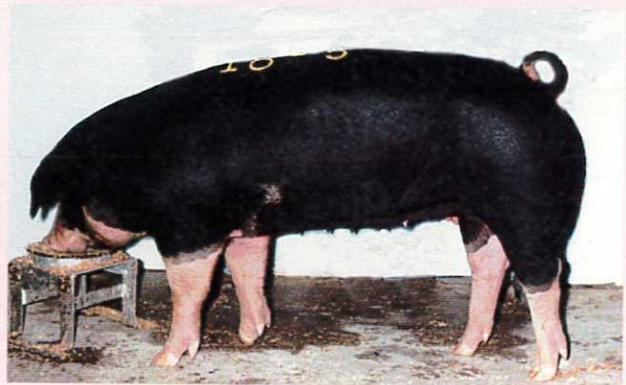


Hereford

To be registered, Hereford hogs must have a white face, the body must be at least $\frac{2}{3}$ (light or dark) red and have at least 2 white feet. White also must be showing not less than one-inch above the hoof.

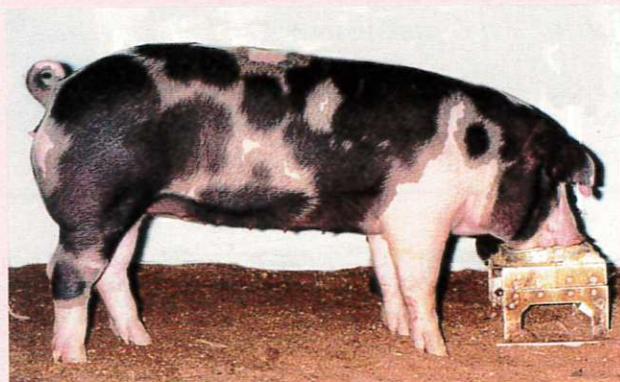
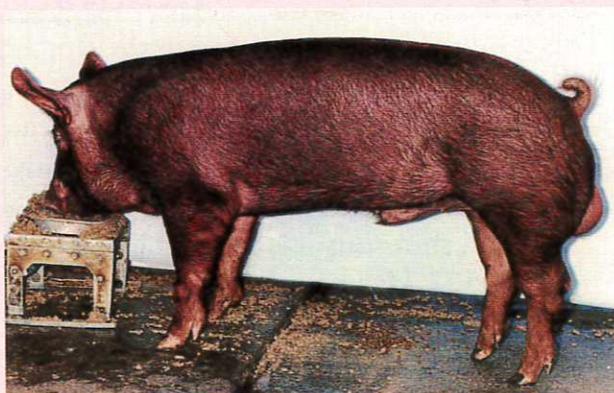
Poland China

This breed did not come from Poland or China, but from Butler and Warren counties in Ohio. The color is generally black, with six white points. The six points are the four legs, tail and nose. Many have white spots on certain areas of the body. They have droopy ears and are known for being lean and heavy muscled.



Tamworth

England is also the origin of this breed. Tamworths are all red (shades golden to dark). Their ear carriage is erect with a long narrow face and snout.



Spot

This breed was called Spotted Poland China for many years. It looks somewhat like the Poland China, but has much more white on its body. The Spot breed was established in 1961. It has droopy ears, gains weight well, and is known for being an aggressive breeder.

Yorkshire

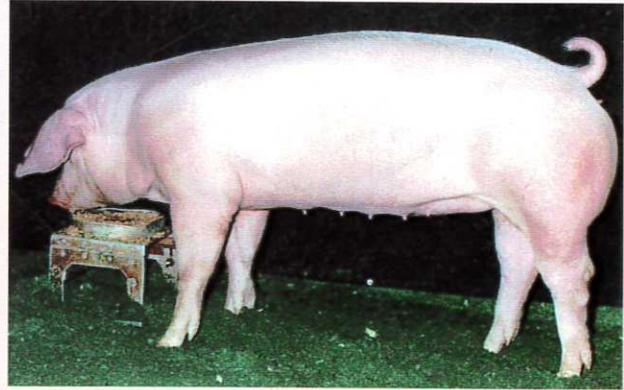
These hogs came from England where two distinct types were produced—the “Large” and the “Middle Whites.” Yorkshires used in the United States generally came from the “Large Whites.” Members of this breed are long bodied, white hogs. The ears are erect.

The hair or bristles are white; usually the body is white, but sometimes there may be some black pigmentation on the skin. This pigmentation is discouraged, but not condemned. Yorkshires produce large litters and are known as the mother breed.



Landrace

This is one of the newer breeds in the United States. American Landrace are descendants of Danish Landrace hogs. The American Landrace is all white and very long in body. In color it resembles the Chester White and the Yorkshire, but it is longer bodied than the Chester and has a much longer snout than the Yorkshire. The Yorkshire has erect ears, while both Chester White and Landrace ears want to point forward and down. The Landrace has especially large, floppy ears and is known for being a good mother.



Pietrain

This breed originated in Belgium. Breed characteristics generally include a black hair coat with varying amounts of white spots. Originally bred for their extreme muscle volume and leanness.

Swine Breed Associations

Now that you are aware of some of the breeds, you need to know that there are breed associations that maintain registration and performance records for the breeds. They also furnish information on judging, fitting and showing. Judging pictures and breed magazines may be obtained for a small fee.

Before you actually select your project hog, you may want to write to the executive secretaries of the breed associations in which you are interested and request their up-to-date information.

Breed Associations

Breed	Name of Association	Address
Duroc Hampshire Landrace Yorkshire	National Swine Registry/United Duroc Association /Hampshire Swine Registry/ American Landrace Association/ American Yorkshire Club	P.O. Box 2417 W. Lafayette, IN 47996-2417 765/463-3594 (phone) 765/497-2959 (fax)
Berkshire	American Berkshire Association	P.O. Box 2436 W. Lafayette, IN 47996-2436
Chester White	Chester White Association	P.O. Box 9758 Peoria, IL 61612-6320
Poland China	Poland China Record Association	P.O. Box 9758 Peoria, IL 61612-6320
Spotted Swine	Spotted Swine Breeders	P.O. Box 9758 Peoria, IL 61612-6320
Tamworth	National Tamworth Swine Association	200 Centenary Road, Winchester, OH 45697
Hereford	National Hereford Hog Record Assoc.	Route 1, Box 37 Flandreau, SD 57028-0037

Size Consideration/ Structure

Regardless of breed chosen, it is very important when selecting your project pigs to select ones at the right weight and size. If a pig is to weigh 240 pounds by fair time, a 60 pound pig needs 100–110 days to attain that size. Forty pound pigs need 125 days. Select a weight that is appropriate to the amount of time you have from project start until fair time. Expect the average growth rate for a feeder pig to be 1.5–1.75 pounds daily gain.

When selecting size, don't forget to consider frame size as well. Frame size plays an important part in the weight of your pig. If you have a large framed barrow or gilt, it can carry 240–280 pounds much easier and better than a smaller framed animal. The smaller framed pig will appear to be fatter.

Selecting the Right Type of Pig

Selecting pigs of the right type can be a difficult task because 40–60 pound pigs will not show the differences in body shape that larger pigs do. However, by developing a checklist of characteristics you need to consider for project selection, you can more accurately assess the potential of the project animal.

This list includes:

1. Breed of parents
2. Breed type/appearance
3. Performance history of parents
4. Visual observation and measurement of performance of relatives at 230–260 pounds (Figure 3.2)
5. Carcass evaluation of relatives



Figure 3.2
Monitor Swine Performance

Get a picture of a past champion market hog from a county or state fair. Memorize how that ideal market hog is designed. Keep in mind this “ideal” type of pig so you can look for its characteristics as much as possible (Figure 3.3).

Characteristics You Should Look For

Conformation

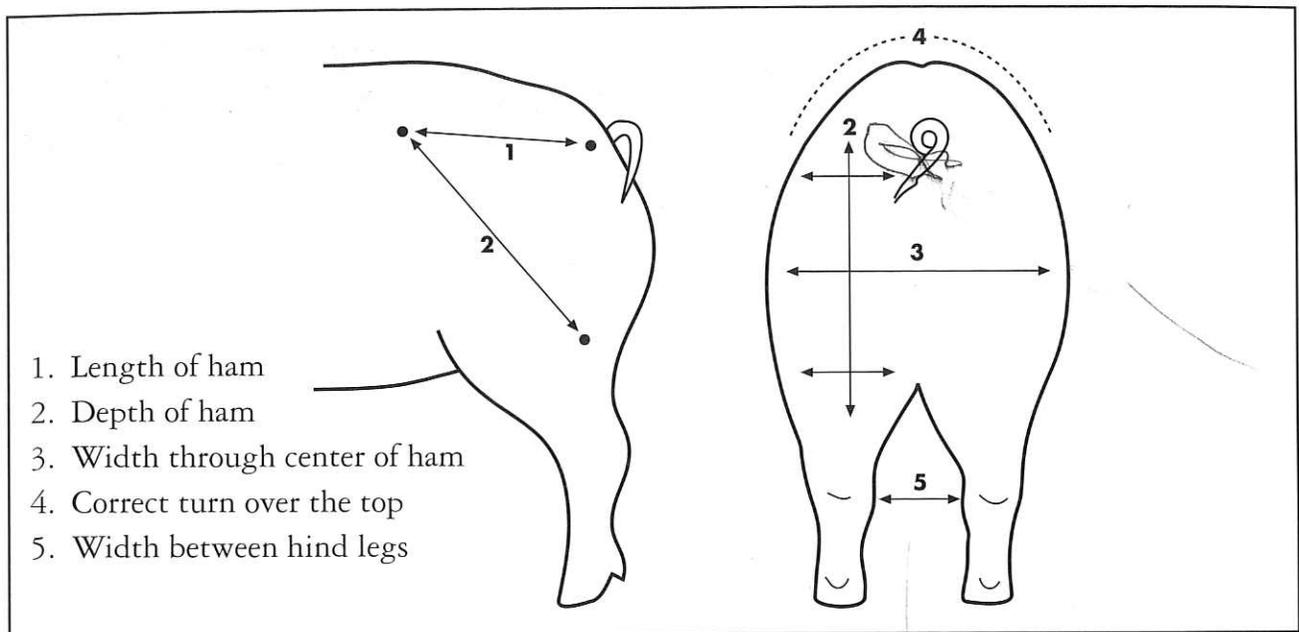
This refers to the general body shape of the pig as determined by its framework or skeleton and muscle structure. A large-framed, longer-sided pig will grow and reach a heavier market weight faster, yielding a carcass with more total muscle than that of a small-framed, shorter-sided pig. Poor management, improper feeding or poor health will prevent either type of pig from developing to its genetic potential.

Muscle

The ideal muscle pattern in today’s meat hog is long, thick, and smooth. This muscle structure can best be observed by viewing the ham (Figure 3.4). Also, because this muscle structure is somewhat loose, the pig is able to move more freely off his front and rear legs.



Figure 3.3
Ideal Market Hog Design



1. Length of ham
2. Depth of ham
3. Width through center of ham
4. Correct turn over the top
5. Width between hind legs

Figure 3.4

Points to consider in appraising muscling.

Don't confuse type of muscling with the amount of muscle. There is a need for an adequate amount of muscling in the ham and loin region, but it must be long and smooth rather than tight and round. Some extremely thick-muscled pigs may carry an inherited defect known as the Porcine Stress Syndrome (PSS), which contributes to stress susceptibility. When a stress-susceptible

(PSS) pig is excited by movement or fighting, he will begin to tremble and go into shock and may even die. If PSS pigs do not die, they will have carcasses that will yield pale, soft, watery pork. Also, because PSS pigs are often short and steep in their rump structure, females may have more difficulty giving birth. (See Figure 3.5, 3.6, 3.7.)

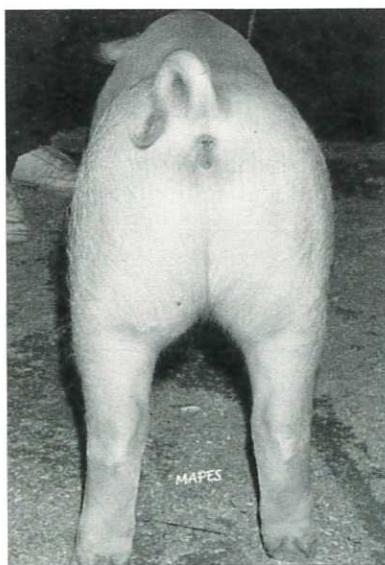


Figure 3.5
Light Muscled

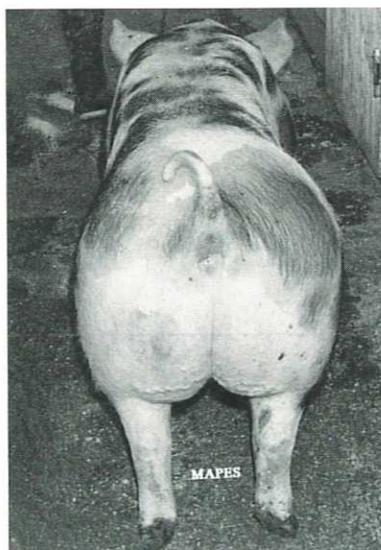


Figure 3.6
Round Muscled

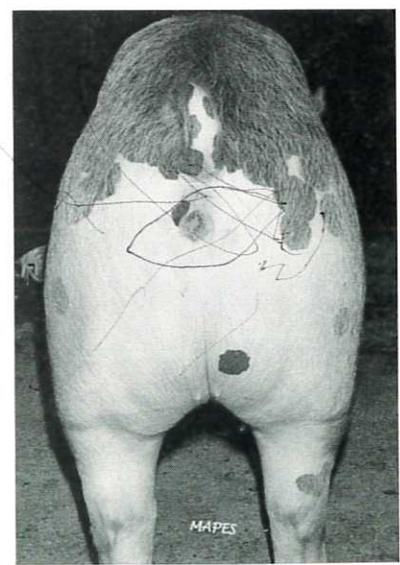


Figure 3.7
Ideal Muscled

Fat

Fat has been identified as the pork industries' number one enemy. Fat is a primary concern in our health conscious society. Also, fat is costly to the pork producer because it takes 2½ times the amount of feed to produce a pound of fat versus a pound of lean. (Compare Back Views of Figures 3.8 and 3.9)

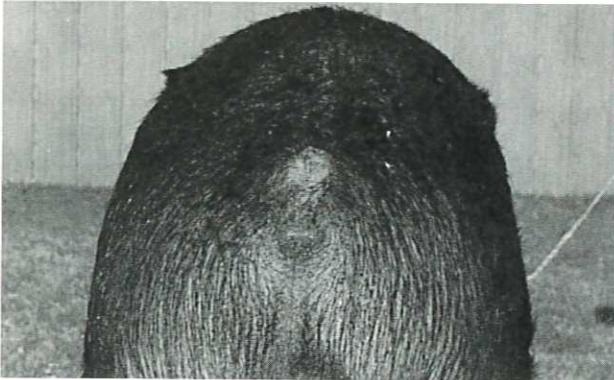


Figure 3.8
Fat Market Hog (Back View)

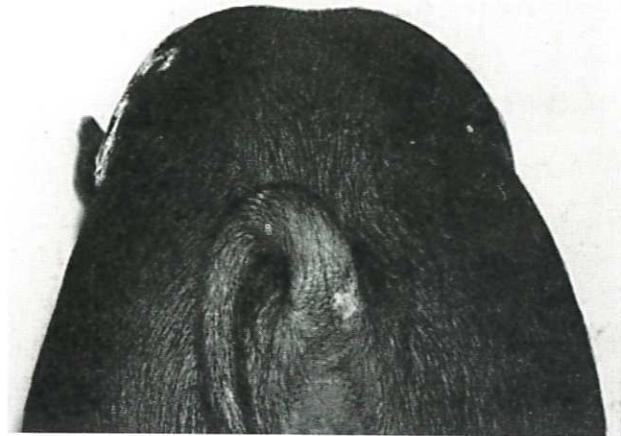


Figure 3.9
Lean Market Hog (Back view)

A small amount of fat is desirable in market hogs, but a large amount is not. Backfat is the best indicator of total fatness of hogs. Other areas that are good indicators of excess fat that can be observed easily include: lower ham region; area over the loin edge; jowl; middle; elbow pocket; behind the shoulder.

Structure

In today's confinement rearing of hogs, structural soundness is a necessity. Because of the demand for sound, fast growing, durable and efficient breeding stock, the seedstock producers must produce livestock that adapts to a confinement system in the breeding pens, farrowing crates and finishing floors. Hogs with good structural soundness can adapt to these conditions and produce quality carcasses.

Following are brief descriptions of general and particular characteristics of sound structure in hogs.

It takes several features to ensure soundness. Basic body design on a structurally correct hog includes a relatively flat top, level rump, high tail setting, and a sloping, angular shoulder position, which provides a shock-absorbing effect when walking or standing.

Some particular points important to structural soundness include the following:

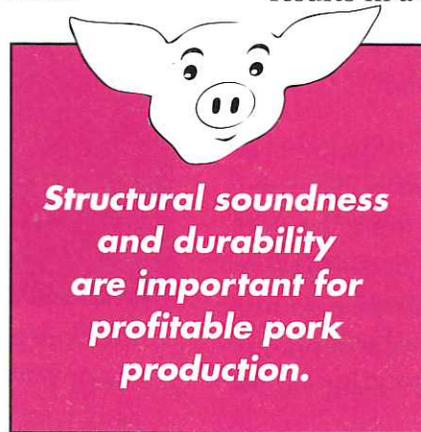
- When the shoulder is too straight, pressure is applied at the shoulder joint and at the knee joint. Because the knee joint offers the least resistance to pressure, the front legs buckle over. Thus, the front legs should angle out of the shoulder into a long, sloping pastern.
- Normal rear leg placement is best described as hocks slightly flexed,

bending into a flexible pastern. This allows the various joints to absorb shock equally.

- The toes should all be evenly sized to allow for more stability on the floor surface. Even toe surface wear occurs because of even weight distribution.
- Larger size of bone is desirable and important for ruggedness and durability, but, not at the expense of structural correctness.
- Desirable movement can best be described as freedom of movement with body weight distributed equally on eight toes.
- Front legs should reach forward with a long, loose stride. A pig will be able to freely raise his head and snout higher than the arch in the center of his back if the skeletal structure is correct. Short, choppy front leg movement appears to be associated with straight shoulders, steep pasterns and strongly arched tops.
- Desirable rear leg action is viewed from the side as long, loose strides with good cushion in both the hock and pastern areas.
- A sound structured market pig should be able to place its rear foot in approximately the same location that the front foot had been, as viewed from the side while walking.

Structural Soundness

Structural soundness and durability are important for profitable pork production in modern, intensive systems. Study the *undesirable* boar in Figure 3.10. He is steep rumped. The hip (E), stifle (F) and hock (G) lock in a straight line position with each step. This results in more shock to each joint during movement. Also, this boar can be expected to move with a stiff, shuffling gait off his rear legs. Two other structural problems are the top being arched too high and the shoulder blade (A) set in a straight line over the front leg bones. Thus, walking puts stress on the point of the shoulder (B), the knee (C) and the front pastern (D). Sometimes, the pressure will make the knee buckle or remain in a bent position.



Compare the *desirable* structure of the boar in Figure 3.11 to the undesirable boar in Figure 3.10. Observe the more level top line; the longer, more level rump; and the more sloping, angular shoulder blade position (A). The front legs appear to curve slightly backward at the knee (C), and the pasterns (D) slope at about a 60 degree angle. This angularity of the front skeletal structure results in a shock-absorbing or cushioning effect as the boar strides on a hard surface. The rear leg joints also are set with more angle than on the undesirable boar. Notice, too, that the desirable boar appears to stand wider based, with more room between the forelegs. This boar can be expected to move with more action and flexing of knees and hocks.

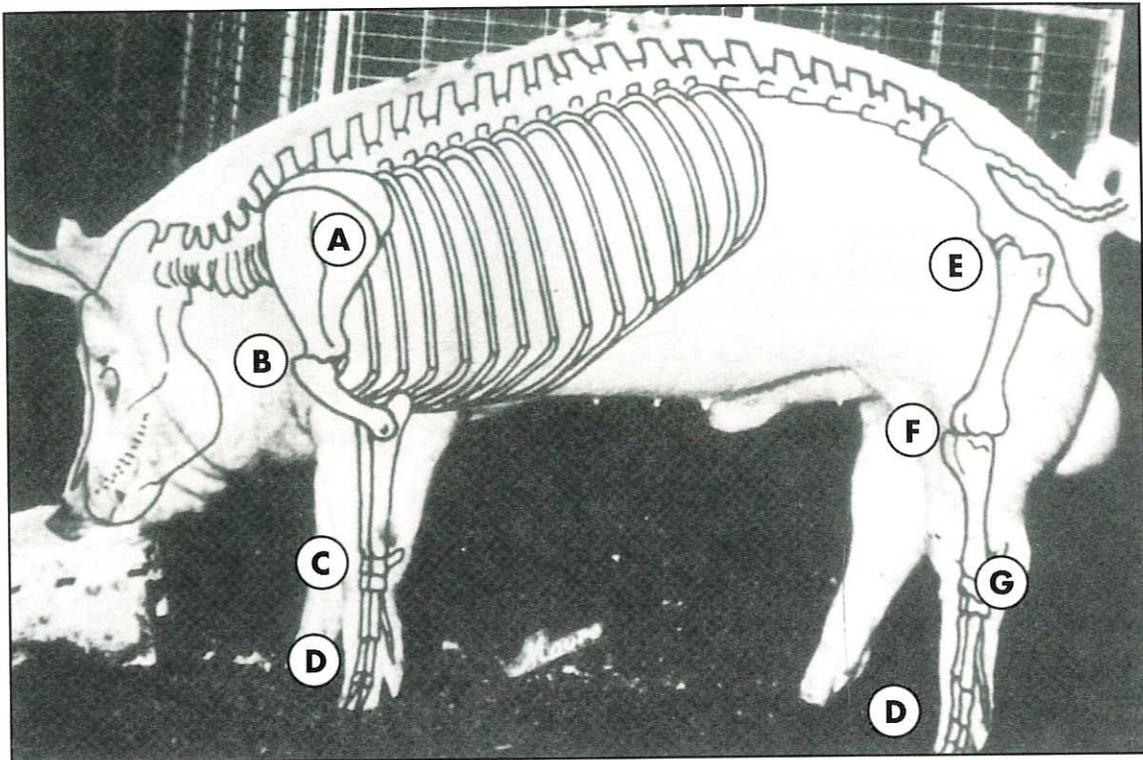


Figure 3.10
Undesirable Structure

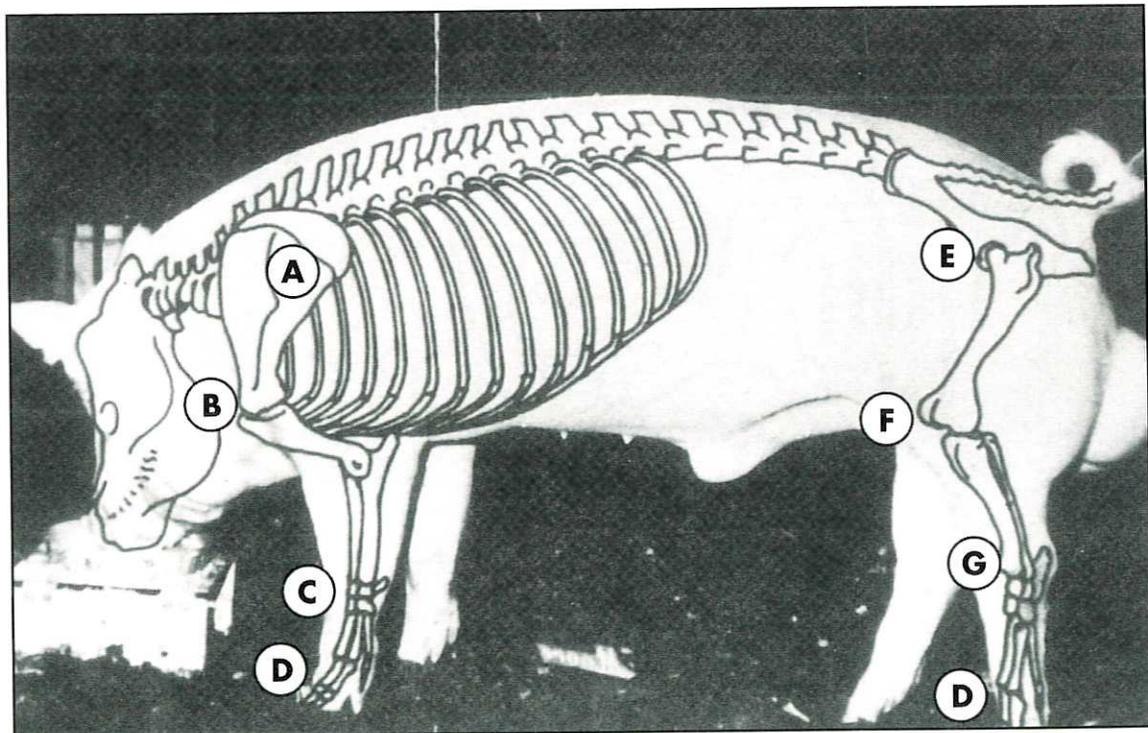


Figure 3.11
Desirable Structure

Capacity

The body cavity should be moderately deep and square, with the ribs sprung wide throughout the chest cavity. The depth should continue the length of the animal's body in a uniform manner from the forerib to the rear flank. Body capacity is important for maintaining health, intake of feed, and adequate reproductive volume (Figure 3.12, 3.13).

Balance

Balance is the proportion of body parts. The pig should be strong topped and level rumped, which allows it to move out freely off its rear legs. (Figure 3.13)

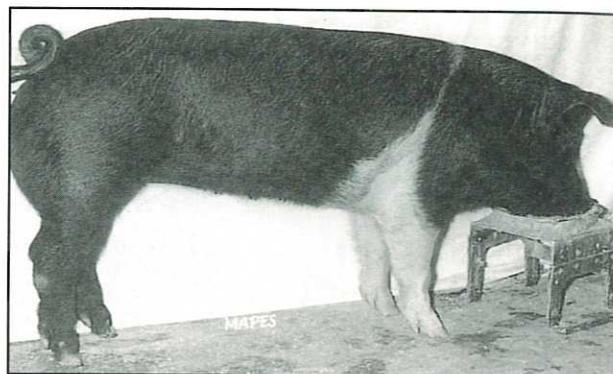
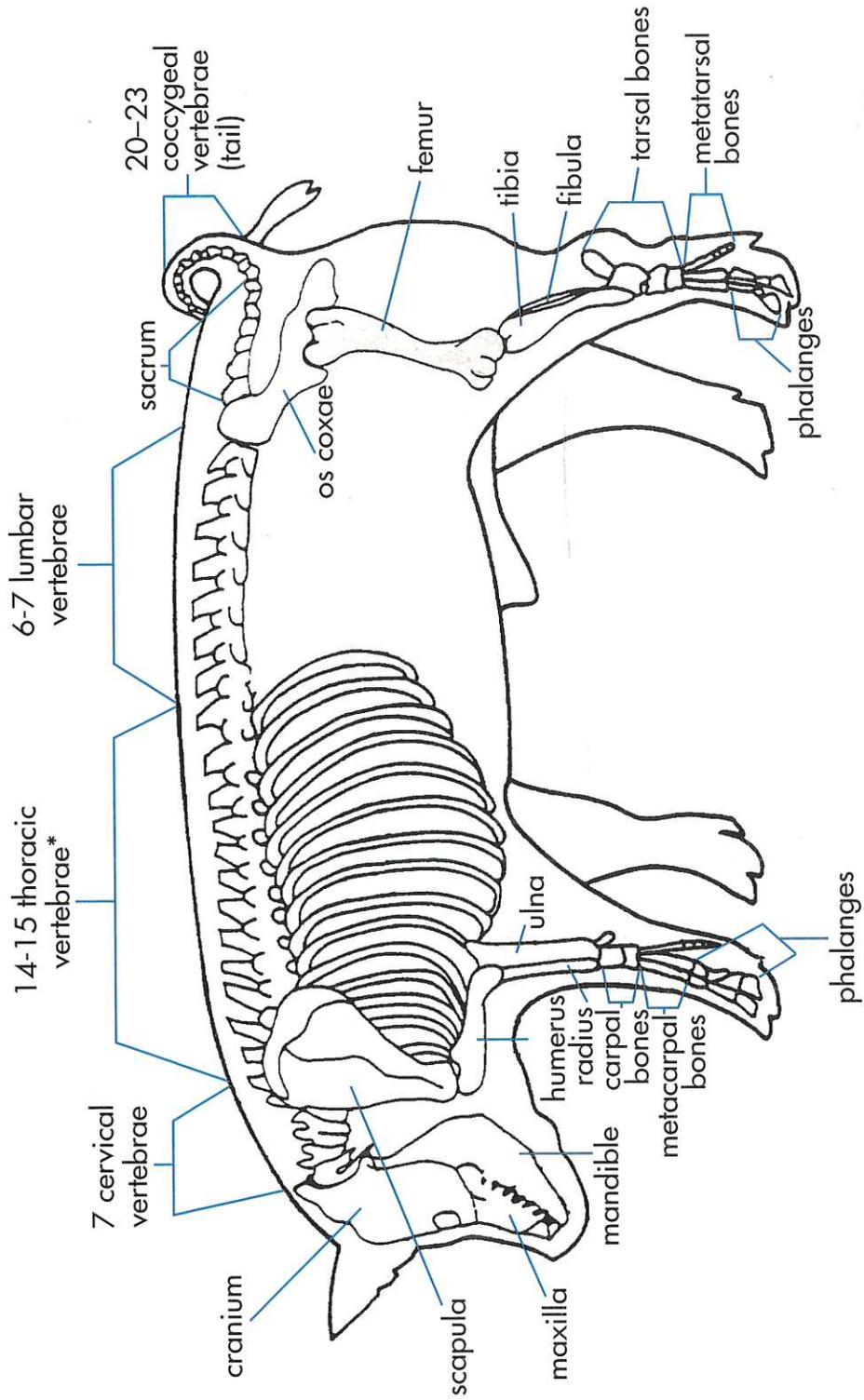


Figure 3.12
Restricted Capacity

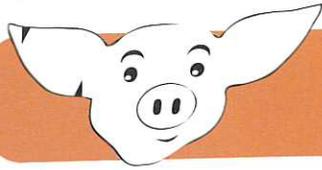


Figure 3.13
Large Capacity, Well-balanced

Skeleton of a Hog



* Some pigs may have up to 17 thoracic vertebrae.



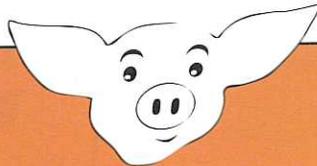
Chapter 10 Ear Notching

Ear notching is the most common method for permanent pig identification. The notches or holes grow as the pig grows. Ear notching should be done soon after birth for immediate identification. Each pig must have a unique ear notch in many seedstock herds because it is a requirement for pedigree and performance records.

It is not necessary that each pig have an individual

number in commercial operations where all hogs except replacement gilts are marketed for slaughter. Each litter, or all pigs in a farrowing group, or only gilts to be

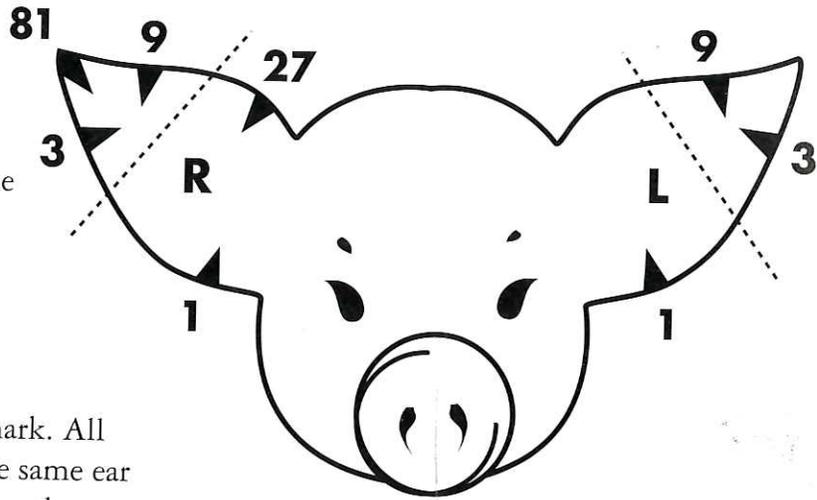
considered for replacements, might be ear-notched at birth with the same pattern. Market hogs might be notched with the week they were born, starting with week one on January 1 and July 1. This makes it possible to calculate days to market weight.



The Universal Swine Ear Notching System is the most widely used and most easily understood permanent identification method in the United States.

Universal Ear Notching System

The Universal Ear Notching System is the most common method of permanent identification. The following paragraphs and diagrams explain the Universal Ear Notching System.

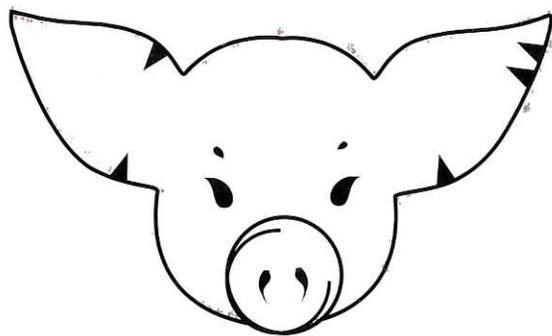
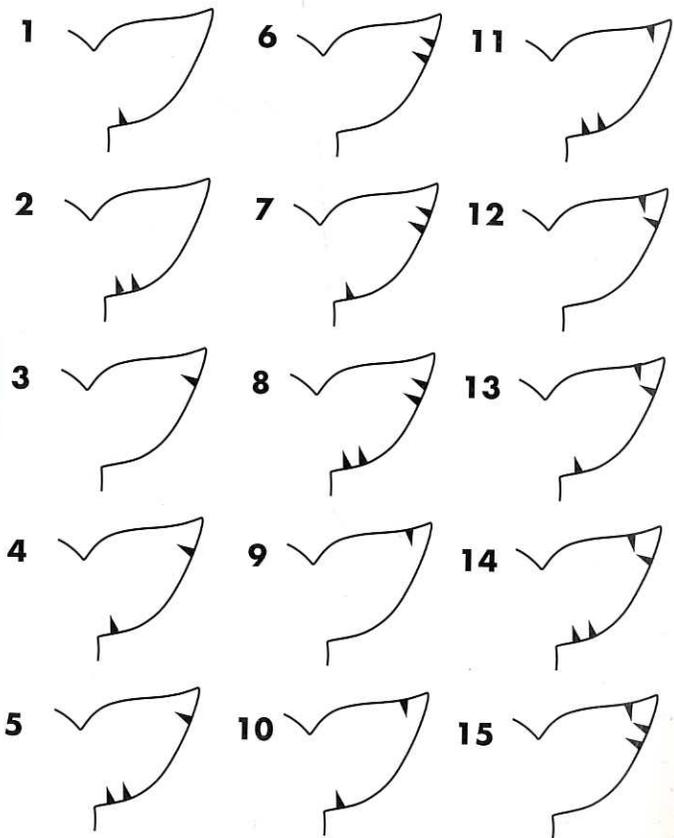


Litter Mark (Right Ear)

The right ear is used for the litter mark. All pigs in the same litter must have the same ear notches in this ear. The right ear is on the pig's own right.

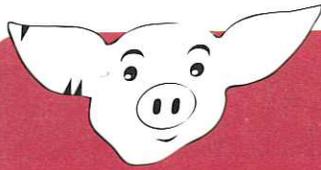
Individual Pig Mark (Left Ear)

The left ear is used for notches to show individual pig number in the litter. Each pig will have different notches in this ear.



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When listing (or reading) ear notches, the litter number is listed first and the individual pig number is listed second. This pig is out of litter #28.



Chapter 11 Space Requirements for My Market Hog

Your project animal requires adequate space to achieve optimal performance. Failure to provide the necessary feed, water and living space for growing/finishing pigs will result in overcrowding and poor performance. Symptoms of overcrowding include:

1. reduced gain
2. increased feed consumption
3. tail biting
4. cannibalism

Feeder and Waterer Space

- Self feeders: one space/4 pigs (Figures 11.1, 11.2)
- Waterers: one space/15 pigs (Figures 11.3–11.5)

Building Floor Space

Pen should be narrow in width (8 feet) and long in length (24 feet)

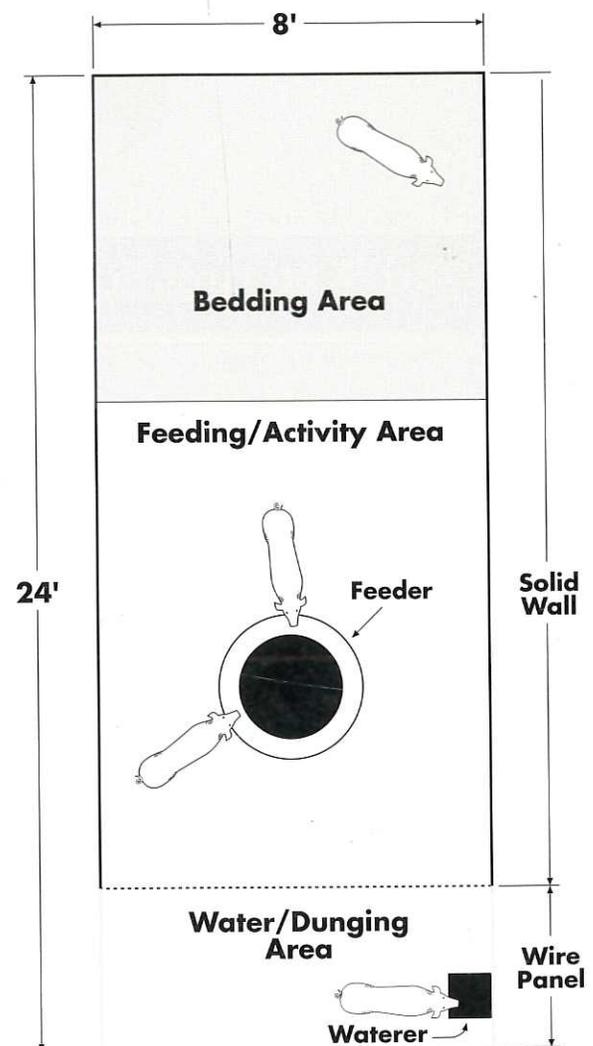
- Pigs to 40 lb; 3 sq. ft/pig minimum
- 40 to 100 lb: 4 sq. ft/pig minimum
- 100 to 150 lb: 6 sq. ft/pig minimum
- 150 lb to market: 8 sq. ft/pig minimum
- Outside Lots: 5 sq. ft. under roof/pig minimum and 6 to 15 sq. ft. per pig outside.

*Space requirements for breeding stock and nursery swine are included in Chapters 19 and 22.

When designing your swine projects' pen keep the following needs of your pig in mind.

Shape or Design of Pen

Pen shape is important because pigs "toilet train" better in rectangular pens than in square pens. If possible, design a pen that is at least twice as long as it is wide.



Manure Pattern or “Toilet Training”

- Dampen (water down) the pen in the area where you want pigs to deposit manure (dunging area), or pen newly arrived pigs into dunging area for 2 hours prior to allowing total pen access.
- Pigs will usually dung (go to the bathroom) in a wet area.
- When introducing pigs to their pen, place them in the area where they should dung.

General

- The sleeping area should be cool in the summer and warm in the winter, dry and draft free.
- If air quality in sleeping area is not good, pigs may dung there.
- If the sleeping area is too big, pigs will dung there.
- If pigs are in a dirt pen, locate water where it will drain away from the pen.
- Pigs need shade in the summer!
- Clean, fresh water should be readily available
- Fresh feed should be available
- Pigs should have access to fresh air and space for exercising.

Feed and Watering Equipment

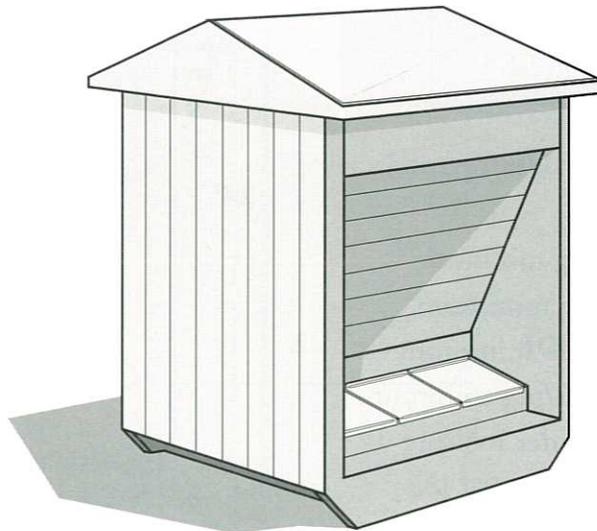


Figure 11.1
Self feeder

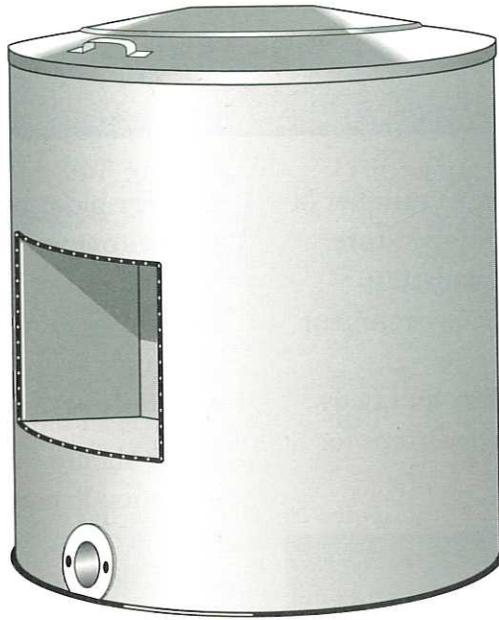


Figure 11.3

Tank waterer. 50–100 gallon capacity, 15 pigs per waterer space



Figure 11.4

Nipple waterer. 1 for every 15 head of market hogs but at least 2 waterers per pen

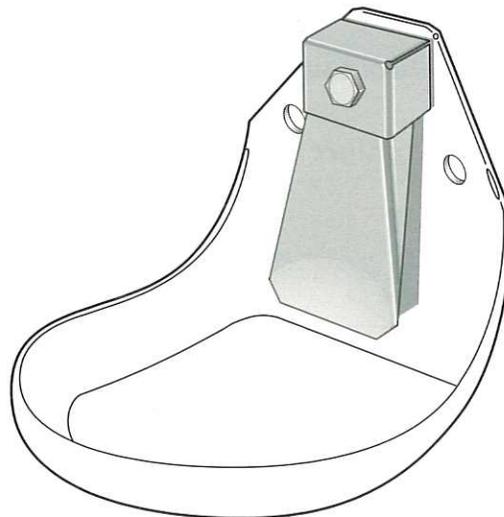


Figure 11.5
Cup waterer

Environment

A pig's environment results from a number of interrelated factors, including temperature, air movement, humidity, and insulating effects of the surroundings. The environment needed depends on the pig's age, weight, activity level, stage of production, and body condition. Suggested thermal conditions for swine are shown in Table 1.

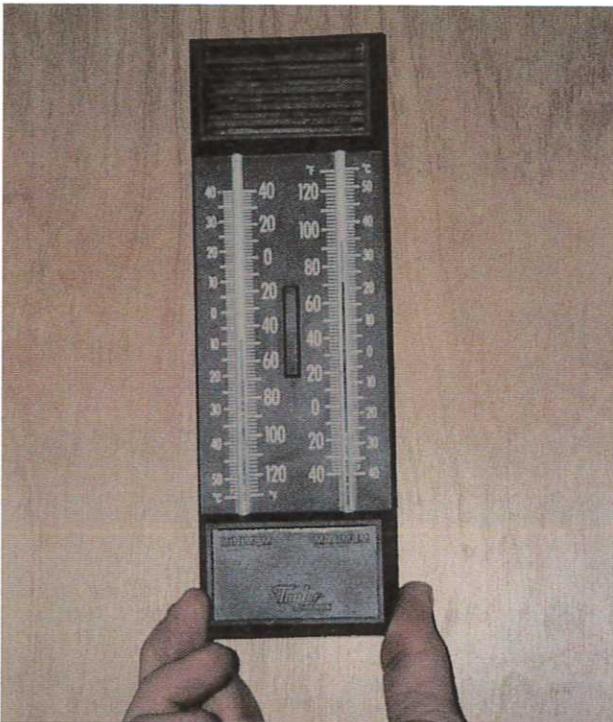


Figure 11.6

Monitor room temperature for comfort

Because older pigs can tolerate a wider range of environmental conditions than younger pigs, their welfare can be provided for more easily. Pen design and spacing are less critical, although many confinement units have adopted common standards.

Shade should be provided in pastures, fields, and outside pens. Trees and other natural objects can provide adequate shade if available. Facilities to provide shade can be constructed so they can also serve as protection from the wind and cold during the winter. Shades with open sides allow air movement during the warm and hot months; during the cold months solid sides can be added for additional protection.

Ventilation rates in enclosed facilities will require seasonal adjustment. In cold weather, a sufficient rate of air movement to remove water vapor, contaminants, and odors is necessary. During hot weather, higher ventilation rates are needed to provide cooling.

Fans can keep the air moving during hot weather. High temperatures can also be reduced in buildings by using evaporative coolers or by fogging water into the fan's air stream. Sprinklers have been used successfully to provide cooling in outside pens. Concrete "wallows" offer a place for pigs to lie in water, yet prevent muddy areas that may result in odors and fly breeding.

Table 1. Preferred Thermal Conditions for Swine

Type and weight	Preferred range ^a	Lower extreme ^b	Upper extreme ^c
Lactating sow and litter creep area for piglets	60 to 80°F for sows; for piglets 90°F	75°F creep area	90° for sow; 90°-100°F
Prenursery, 10 to 30 lb	80 to 90°F	60°F	95°F
Nursery, 30 to 75 lb	65 to 80°F	40°F	95°F
Growing, 75 to 150 lb	60 to 75°F	25°F	95°F
Finishing 150 to 220 lb	50 to 75°F	5°F	95°F
Sow or boar	60 to 75°F	5°F	90°F

^aBased on NRC(1981); DeShazer and Overhults(1982); Hahn(1985)

^bThese represent lower extremes in air temperature when pigs are held in groups. Bedding is recommended when air temperature approaches the lower extreme.

^cExcept for brief periods above these air temperatures, cooling should be provided by means such as evaporatively cooled air or spray cooling for growing pigs, or a water drip for lactating sows.

(Swine Care Guidelines for Pork Producers Using Environmentally Controlled Housing)

Manure Disposal

Wastes must be managed in a manner that will maintain sanitary conditions for the pigs, prevent fly breeding, minimize odors, and protect ground water quality (See Figure 11.10). Fly eggs will not hatch when manure is completely dry, nor when it is in a flowable liquid form. A manure handling, storage, or disposal system should quickly convert manure, urine, and other wastes to either a very dry form or a very wet form. The very dry and wet forms also minimize odors.

The density of the hog population will help to determine the degree of waste management necessary. If farrowing and growing are carried out in fields or large open areas, manure disposal on a day-to-day basis is essentially a natural function. Some scraping and manure collection in lots may be necessary to maintain a nuisance-free and healthy environment.



Figure 11.7
Improper storage of manure. Wet, uncontained storage leads to odor, run-off potential, and rapid multiplication of flies and insects.

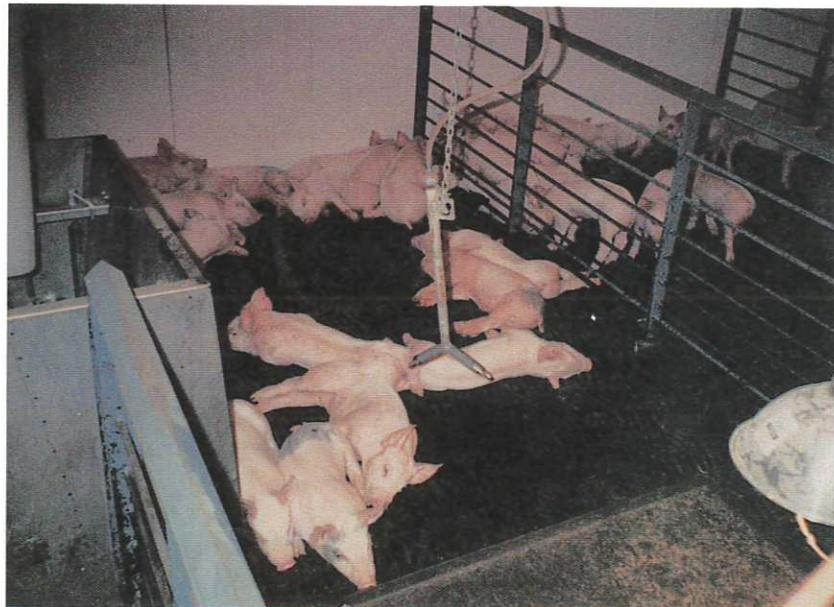


Figure 11.8
Clean, comfortable environment

Confinement facilities require waste handling and holding facilities to contain manure, urine, runoff, and wash water. The waste material can be spread on cropland or pastures from the holding facility. Local or county ordinances regarding manure disposal and runoff must be followed.

Odor—Odor from swine farms have always been a part of the business. As swine units have become larger and more intensified the problems associated with odor have increased. Managing the odor produced by your pork project is an additional responsibility that must be addressed in today's environmentally sensitive society.

Sources of odors in and around swine buildings include:

- Wet, manure-covered floors
- Dirty, manure-covered hogs
- Spilled, moldy feed
- Improper disposal of dead pigs
- Manure pits under barn floors
- Incomplete combustion in incinerators
- Dust from feeders and hogs
- Stored manure awaiting land application

Odors created from manure are caused by decomposition. The two principle compounds that cause odor are sulfur (Hydrogen Sulfide) and those containing nitrogen (Ammonia). The factors that affect the amount of odor produced are:

- Number of hogs
- Temperature
- Diet
- Air flow
- Dust level

The best method of reducing odor is by following sound management practices, i.e., common sense. Keep facilities clean. Take time to pick up and keep things neat.



Figure 11.9
Dirty pen; poor dunging pattern

Water Quality

We all depend on clean air and water. The water supply we use for both personal use and for livestock comes from surface water (lakes, streams, and rivers) or groundwater.

Groundwater is an important source for most

livestock operations. It provides drinking water for half of the U.S. population and almost the entire rural population.

Contamination of groundwater is a concern because it is such a vital nutrient.

Both manure and fertilizers have been used extensively to increase crop production in order to feed the growing world population. However, improper application of these substances to farmland can result in contamination of ground and surface water. When soils containing manure nutrients and fertilizers move into water, negative things can happen.

- Nitrate nitrogen and ammonium nitrogen are produced through the biological breakdown of manure. Nitrate nitrogen in water can be harmful to humans. The Public Health Service has set the drinking water standard at 10 parts per million (ppm) of nitrate. Doctors recommend using bottled drinking water when nitrate levels exceed this amount.

- Manure can harbor dangerous bacteria such as giardia and cryptosporidium. These pathogens are a risk for seafood, seafood eaters and swimmers.
- Bacteria in manure can sicken fish and other organisms, making them more vulnerable to the stream's changing chemistry.
- High ammonia levels are very destructive. They can actually kill certain species of fish.
- Solids from soil erosion decrease the water quality and disrupt the food chain by harming microorganisms, invertebrates and insects larvae.

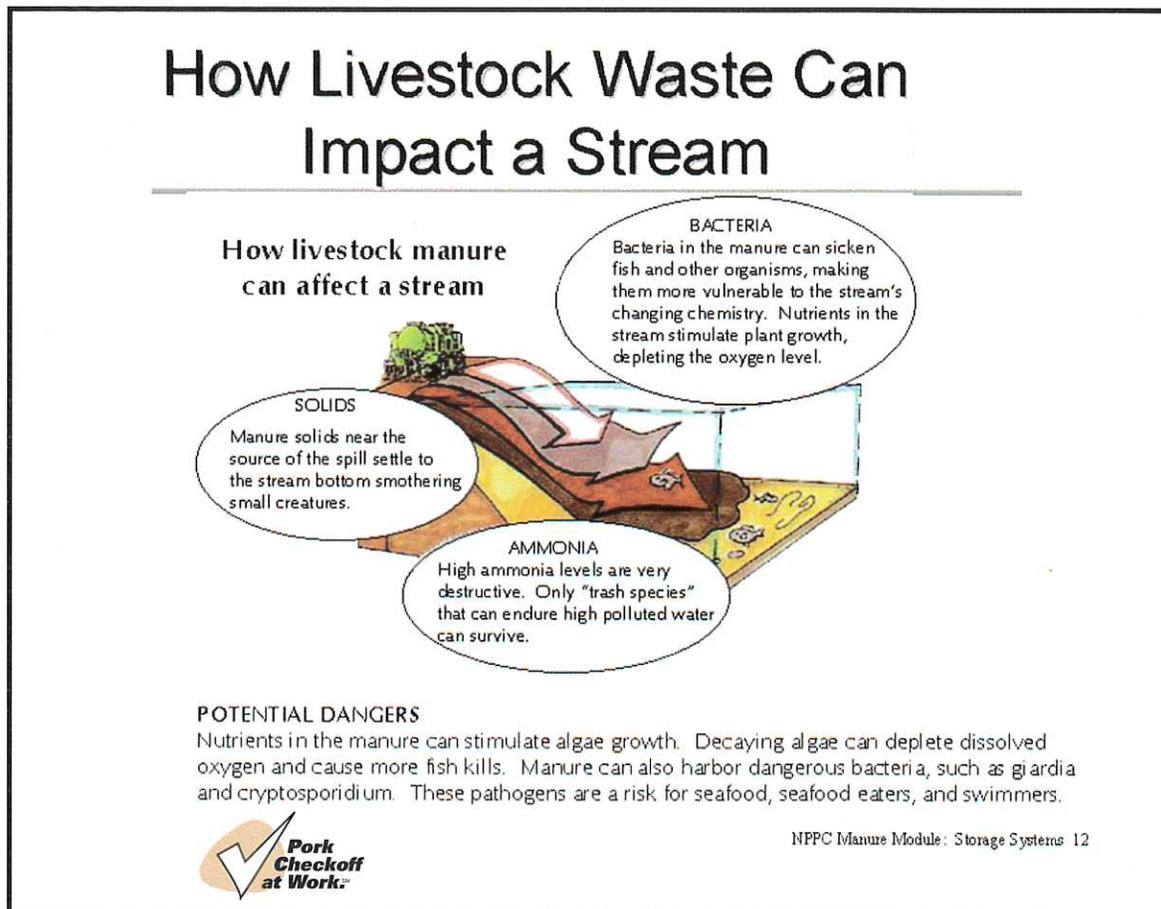
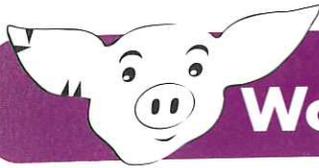


Figure 11.10



Chapter 14 Working Safely with Swine

Many livestock producers have never stopped to consider why animals behave as they do and, more importantly, what this behavior may mean to their personal safety. Animal handling practices are often inherited from watching others and from our own experiences growing up on the farm. Too often, this results in unsafe animal handling and restraint practices.

Although most animal accidents are not fatal, many men, women and children are needlessly injured each year because of a lack of safety awareness. Broken bones, crushed and mashed limbs, missed days of work and school and unnecessary medical expenses are some of the results of animal related accidents.

Individuals may work carefully around animals most of the time, but they are injured in an animal accident because of preoccupation, haste, impatience or anger. It is during these moments that a livestock handler really needs to understand animal behavior.

Swine are generally colorblind and have poor depth perception.

This results in extreme sensitivity to contrast, which may cause the animal to balk at shadows or rapid changes from light to dark. Swine also are cautious when moving from one type of floor surface or ground cover to another. Allow time for their senses to get acclimated to the new environment.

Livestock with newborn offspring exhibit a maternal instinct. They are usually more defensive and difficult to handle. When possible, let the young stay as close to the adult as possible when handling.

Most swine have a strong territorial instinct and develop a sense of "homeland" in their pens. They develop a very distinctive, comfortable attachment to these areas. An example of the homeland instinct is the well worn paths created in most pastures and between pastures and buildings, water troughs and feed bunks. Forcible removal from a homeland area can cause animals to react unexpectedly.

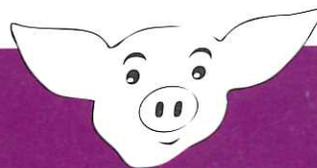
Considering these animal traits, it is easy to understand why animals often hesitate when going through unfamiliar gates, barn doors, and handling and loading chutes. In addition, shadows, yelling and rapid changes in

lighting can further excite animals and make their behavior unpredictable. Similar problems occur when animals are moved away from feed, separated from the herd or approached by an unfamiliar person.

Animals are extremely sensitive to noise and are easily frightened or spooked. In their attempts to move away from

the direction or source of the noise, they may crash into or through objects, including people, because of their colorblindness and poor depth perception. Be cautious around animals that are blind or deaf on one side. They favor that side and can suddenly swing around to investigate disturbances. If standing too close, a person could easily be knocked down and trampled.

Young farm animals can form relationships simultaneously with other animals and with human handlers. Animals respond to the way



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are usually more
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they are treated and draw upon past experiences when reacting to a situation. For example, a newborn raised on a bottle or bucket may develop a very strong affection for the person feeding it and feel comfortable around people. However, animals that are chased, slapped, kicked, hit or frightened when young will naturally fear being approached.

Animals are often said to be “stubborn” because they balk or refuse to enter an area. Once this has happened, the animal is likely to refuse the next several times as well and may become a little more excited and dangerous with each refusal. It is important to take the time to prepare for moving animals. Many livestock producers are tempted to move animals without the necessary planning and equipment/facilities (such as hurdles, gates and panels) and often end up in a battle with the animal that could lead to an injury.

In addition to unique vision characteristics, sensitivity to noise and a strong territorial instinct, animals have physical and mental sensations similar to those of humans that can cause them to react fiercely to handlers. Animals experience hunger, thirst, fear, sickness, injury and strong maternal instincts. They also develop individual behavior patterns such as kicking or biting. The handler should be aware of these behaviors and take necessary precautions. Safety precautions include using personal protective equipment such as safety glasses, gloves, long trousers, steel-toed shoes or boots, shin guards and a hard hat, depending on the activity and type of livestock being handled.

Handlers should also be concerned with zoonotic diseases, which are illnesses that can be transmitted between humans and animals. Leptospirosis, rabies, brucellosis, salmonellosis and ringworm are especially important. A livestock producer can contract zoonotic

illnesses by being bitten by the animal, handling an infected animal or disposing of infected tissues. To reduce exposure to disease, use basic hygiene and sanitation practices, which include prompt treatment or disposal of infected animals, adequate disposal of infected tissues, proper cleaning of contaminated sites, and proper use of personal protective equipment.

Facilities can play a major role in preventing accidents. Good facilities provide a means of controlling animals while allowing easy access for routine chores—all in a safe environment. To help prevent accidents, keep walk and work surfaces properly lighted and clear of debris and obstructions. To reduce the risk of falls, provide slip resistant footing for workers and livestock with roughened concrete ramp and floor surfaces.

Most animal related accidents are the result of “people-problems”. Poor judgment and lack of understanding are major causes of accidents involving animals. Plan ahead to allow plenty of time to move animals, so there is no need to hurry. Do not try to manhandle animals when you are angry. Some handlers may exhibit a feeling of superiority over animals, which is foolish when one considers the size of some farm animals.

Other common problems should also be avoided, such as horseplay (people play), improper lifting of young animals, prodding an animal that has no place to go, tying a person to an animal, attempting a task without enough help, not providing proper and safe facilities, and not wearing personal protective equipment.

What can livestock producers do to increase their level of safety when handling animals? Although there is certainly no magical formula, common sense is a key ingredient.