

Swine Care and Management



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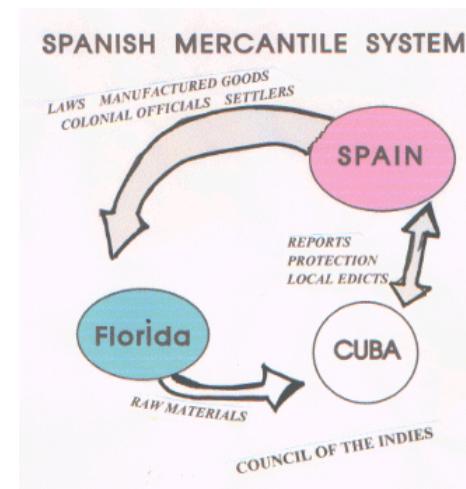
Hog History or 'Hogstory'

- Most hogs as we know them today are thought to have descended from the Eurasian Wild Boar.
- From Asia, they spread to Europe and Africa.



Hogs in the U.S.

- Hogs arrived in the New World with the conquistadors
- In the early days of Americas conquest, cured pork products (hams and bacon) even served as an early form of currency



Some interesting U.S. history

- Kewanee, Illinois, is the Hog capital of the World



Picture From RoadsideAmerica.com

So you've bought a pig!

- How old is it?
- Is it a weaner?
- How much does it weigh?
- Is it a feeder?
- Is it male?
- Is it castrated?
- Is it female?
- What breed is it?



Some definitions

- Pig – a very young hog
- Feeder Pig – weighing between 40 and 70 pounds
- Hog – over 120 pounds
- Gilt – a female that has yet to bear young
- Sow – a female that has borne young
- Shoat – a recently weaned pig
- Barrow – a castrate
- Boar – an intact male

Stockmanship



- Before working with pigs, attendants should receive adequate instruction and know the basic needs of the animals entrusted to their care.
- By recognizing behaviors and other symptoms that indicate discomfort or disease problems, attendants should know when they need to take remedial action or to consult a veterinarian.

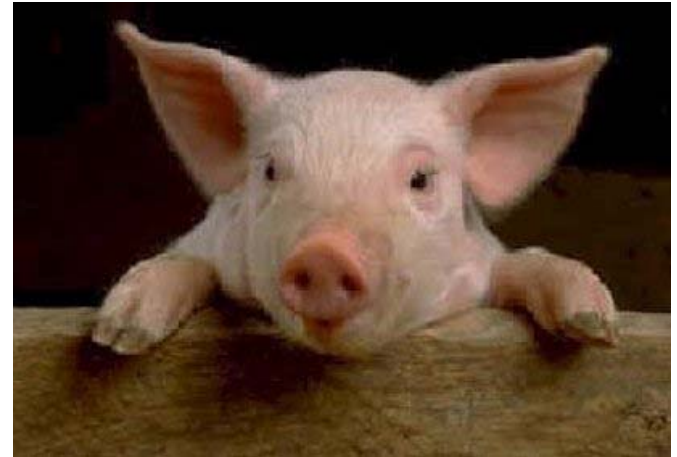
Basic Stockmanship Skills



- To minimize the pigs' excitement, attendants should make an easily recognized signal before entering the barn or the room.
- Pigs should be lifted with care, gentleness and patience.
- Knowledge of how the healthy animal behaves is very important.

The Healthy Pig Statistics

- Strong appetite
- Temperature around 102.5 degrees F
- Sleek hair coat
- Respiration rate around 15-20 breaths per minute
- Heart rate around 58 to 70 beats per minute (Higher in younger animals)



Signs of Illness

- Slow getting up from bed
- Loss of appetite
- Looking drawn
- Developing diarrhea
- Acting depressed
- Vomiting
- Lame or stiff gait
- Acting uncoordinated



Modern Pork Production



Modern pork has become a source of high-quality protein and valuable nutrients such as iron and zinc, mainly through:

- Selective breeding
- Better management systems
- Advancements in veterinary livestock medicine
- Improved feeding practices

Breeds of Pigs - 3 Most Popular

- Duroc
- Hampshire
- Yorkshire

...and their crosses are the backbone of the modern pork industry in the United States

The Duroc (A colored breed)

- Originally Duroc-Jersey
- Developed from crosses between Jersey Red of New Jersey, and the Duroc of New York
- Red in color, with smallish drooping ears
- Great muscling and meat qualities makes it ideal for terminal crossing



The Hampshire (A colored breed)

- Of English origin
- Black hog with a distinctive white belt encircling the shoulder region
- Has erect ears and trim appearance
- Offspring show rapid growth and exceptional leanness
- On average, do not produce large litters



The Yorkshire (A White Breed*)

- All white, with sharply erect ears and dark eyes
- Shares origins with the *English Large White*
- Highly recommended for youngsters, and is the most widely available of the purebred swine breeds
- Yorkshires can grow at a rate of over pounds per day



* Not really white, but lightest shade in the brown color range

Other common breeds – The spotted

- AKA *Spotted Poland China*
- Black and white spots
- Sometimes primarily black
- Sometimes primarily white
- Drooping ears



Other Common Breeds – The Berkshire

- Large black breed with splashes in face and lower half of the body
- Short erect ears
- Very valuable in Japan where it sells for premium prices



Other Common Breeds – The Landrace

- White in color
- Longest of the popular breeds
- Distinctive long, drooping ears
- Among the most docile of breeds
- Produces very large litters



Interesting (endangered) Breed

The Mulefoot

- Has solid hoof like a mule, not the cloven hoof with two points seen in other swine breeds
- Last herds isolated on an island in the Mississippi River near Louisiana



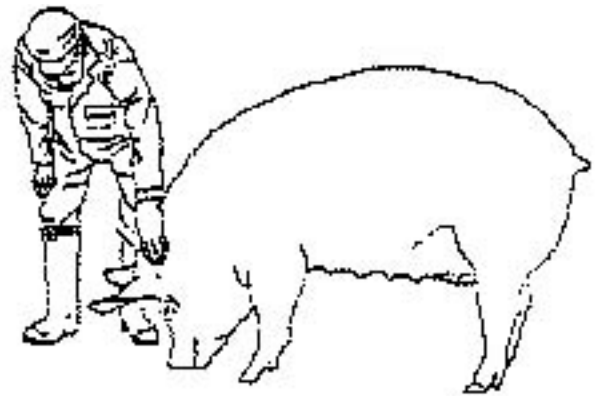
Handling of Swine

- Gentle handling and good husbandry practices will improve swine productivity.
- Where sows showed little fear of humans, reproductive performance was high.
- Where sows were fearful of humans, reproductive performance was lower



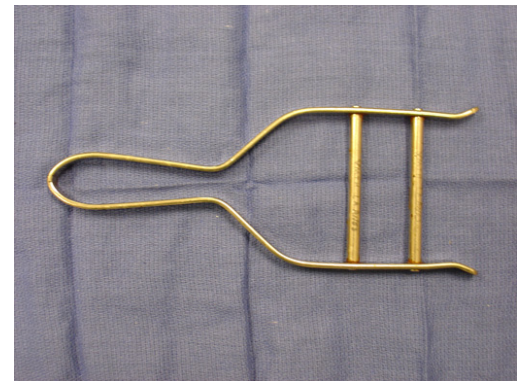
Animal-Human Contact

- Be sure the hog is made aware of your presence.
- Use a soft soothing voice.
- Pigs quickly learn to recognize voices, especially if they are associated with food.
- As pigs become familiar with handlers, the sound of a familiar voice is often calming to the animal.



Handling tools

- Snare – used for market weight and larger hogs
- Mouth speculum – used to keep the moth open for administration of medicines or oral examination
- Chutes – Loading, transportation



Moving Hogs

- Always remember pigs will move away from walls toward openings.
- This is an advantage since one can use a "hog board" to simulate walls.
- Pigs will refuse to move if the place you wish them to go is dark



Moving Hogs

- Lighting should be bright, but even.
- Hogs have wide angle vision and are sensitive to sharp contrasts of light and dark.
- Will balk or refuse to move if they see shadows, puddles, bright spots, a change in flooring type or texture, drains, metal grates, or flapping objects.
- Will be balky and difficult to drive until they have been on concrete for at least 30 minutes.



The New Environment

- When pigs first meet, they go through a period in which they establish social relationships. One pig dominates, and the others become subordinate.
- In a socially-stable pen, which is the desired environment, each pig has a stable social relationship with each other pig



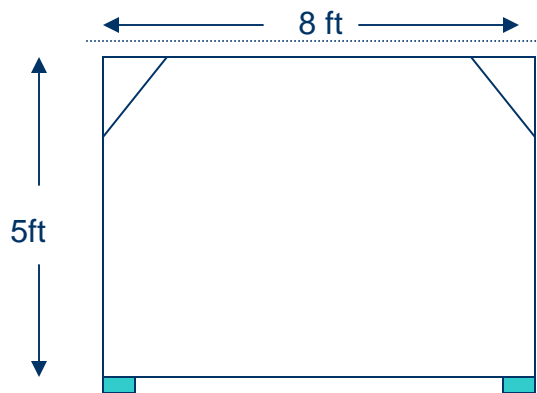
Housing

- Housing system must provide conditions conducive to comfort, good health, growth and performance at all stages of the pig's life.
- Temperature requirements (thermal comfort zones) vary with age and size and the environmental conditions in the housing system used.
- Temperature at pig level may differ several degrees from that at higher levels, where it is commonly measured.



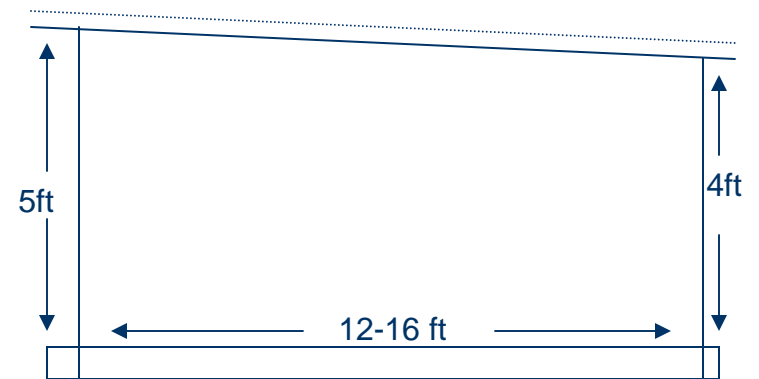
Housing Pigs – main objectives

- Create a true micro-environment
- ½ inch backboard or sheet insulation beneath the sheet metal roofing prevents condensation



Front View

An Example



Side View

Ventilation

- Protect pigs of all ages from draughts. Protection is extremely important for piglets up to 2 weeks of age, newly weaned pigs and sick/injured pigs.
- The effects of dust on the health of pigs are not well documented nor are the ways of reducing dust levels in the room.
- Until ways of reducing respirable dust levels are better defined, follow simple, good housekeeping habits.

Flooring

All floors must be safe for pigs. Flooring materials differ in their suitability for pigs of different ages. Some characteristics to look for include:

- A dry, well drained surface
- Solid non-slip footing
- Sharp edges that may cause injury.



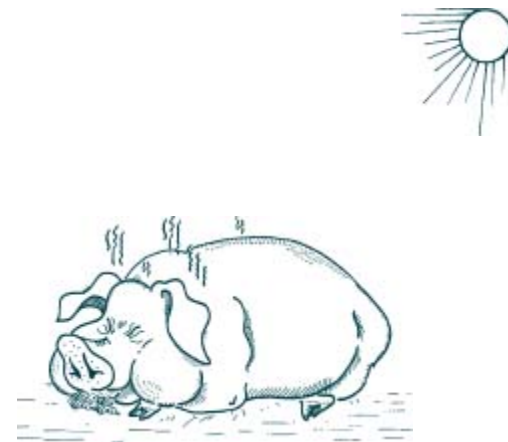
Temperature Control During Frost/freezes

- Provide insulation against draughts
- Provide bedding (may increase temp. at pig level by up to 10 degrees)
- Consider installing warm bulbs



Effects of heat stress

- Pigs try to minimize the effects of heat stress by an increase in heat dissipation and
- A reduction in heat produced from body metabolism



Effects of heat stress (Heat Dissipation)

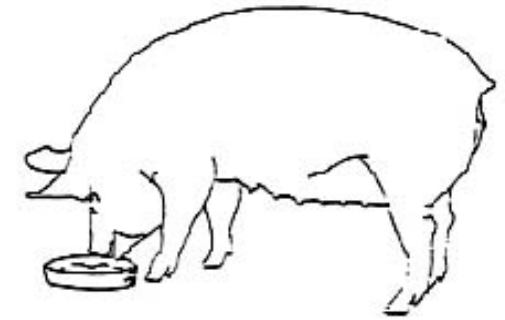
- Increase heat dissipation by increasing respiration rate (panting). The pig is thus cooled via a process called evaporative cooling.
- Pigs will increase their body surface area by sprawling out to increase contact with a cool surface like a floor.
- Seeking and washing in water.



Effects of heat stress (Reduced body metabolism)

- Eating, digestion, and nutrient absorption all generate heat.
- Pigs reduce their metabolic heat production by eating less feed.
- Voluntary reduction in feed intake by the pig is an effort to lower the heat increment of feeding and thereby decreases the amount of heat that will need to be dissipated into the environment.

Nutrition



- Pigs—being versatile omnivores—can eat a wide range of feeds, such as pasture grasses and other fibrous materials, as well as alternative energy and protein sources.
- Since they do not have rumens, pigs digest fiber primarily in their large intestine through fermentation.



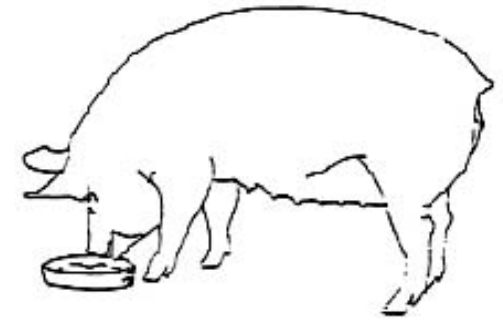
Nutrition



- Conventional swine rations consist primarily of corn and soybean meal—corn for energy and soybean meal for protein.
- Pigs should be fed daily, using a diet that meets the basic nutritional needs of given categories of pigs as currently defined the National Research Council (NRC).
- The Pig Site: <http://www.thepigsite.com/>



Nutrition



Age	Weight	Daily Consumption	Feed (Crude protein)
8 wks	40 lbs	1.2 pounds	Pelleted starter-grower, 17-18%
12 wks	75 lbs	2.5 – 3 pounds	Grind and mix, 11-15%
16 wks	125 lbs	4 – 5 Pounds	Grind and mix, 15%
To Market	150-230 lbs	6 – 7 pounds	Grind and mix, 14-15%

Watering

- Drinking water must be available at all times. It should be fresh and free from contamination.
- Nipple drinkers provide an excellent source of clean, uncontaminated water.
- In areas where water quality may vary, test the water regularly to ensure its suitability for the animals.



Health – husbandry practices

- Good housekeeping practices such as removing manure, washing down pens, disinfecting and generally cleaning up the facility are essential to maintaining a healthy herd.
- Pigs should be checked twice daily for signs of disease, injury or non-competitiveness (for food).
- Sick or injured animals should be attended to immediately, preferably moved to a warm, comfortable, draft-free environment.

Health - husbandry practices

- Entry to barns should be controlled to reduce the risk of disease being either transmitted by people (on boots, etc.), pets, rodents or wild animals.
- Medications should be used only on the advice of a veterinarian, following recommended treatment levels.



Health – Practicing Bio-security

- Add a foot bath at the entrance to your pig barn or pen
- Do not take visitors directly to visit your pig, especially if they are coming from, or own a farm themselves
- Store feeds away from birds and rodents



Health & Disease Overview

- Before leaving the farm of purchase, find out the brands of feed being used on feeders
- Enquire about vaccination status
- After bringing the feeder pig home, find out from other buyers what illnesses its siblings are having
- Check your pig everyday, get it accustomed to your voice, and purchase a rectal thermometer

Health & Disease – Vaccines and wormers

Vaccines available for:

- Leptospirosis
- Parvo-virus
- Atrophic Rhinitis
- Swine erysipelas
- Transmissible gastroenteritis

Wormers available for:

- Stomach worms
- Whipworms
- Lungworms
- Mange mites
- Lice



Some Common Diseases and Conditions of Pigs

A quick A-Z overview

Abscesses

- Pus-filled swellings caused by bacterial infections
- May be lanced and drained, and flushed with betadine, iodine or hydrogen peroxide
- Always lance abscesses away from other pigs
- **RX - with common antibiotics**



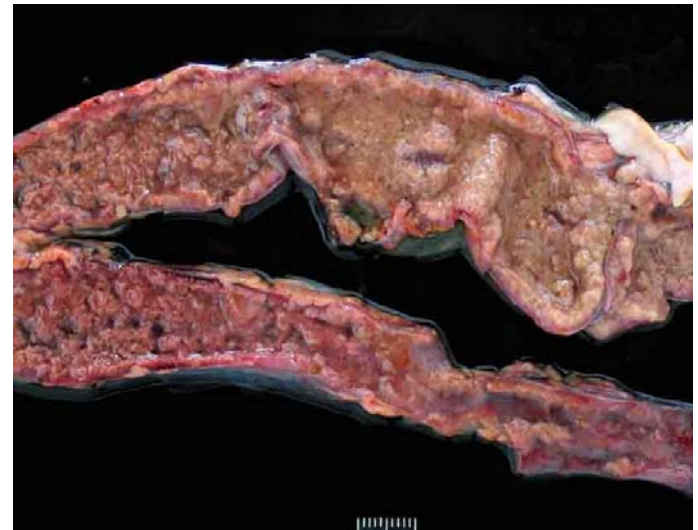
Atrophic Rhinitis

- Respiratory disease caused by multiple disease pathogens
- Transmitted to young pigs via nose to nose contact with their dams
- Early symptoms include sneezing, sniffing, blood from nose
- Late symptoms include atrophy of the bones of the snout, making the snout appears twisted



Clostridial Enteritis

- Intestinal disease caused by *Clostridium perfringens* Type C
- Causes diarrhea which may or may not be bloody
- Pigs contract the disease from the sow or from contact with infected soil especially where feces are dropped
- Prevention – Sanitation, Vaccination
- **RX - antibiotics**



Dehydration

- Caused by illnesses that result in scouring
- Symptoms include sunken eyes, raised hair, Weakness, shivering, dry nose
- **RX – Rehydrate with oral glucose, electrolytes (Pedialyte, Gatorade)**



Erysipelas (Diamond Skin Disease)

- Caused by a bacteria
- First sign may be the Rapid death of one or more 50 – 200 pound pigs
- Pigs lose appetite, walk with arched backs and red diamond-shaped lesions may appear on body
- Chronic condition causes arthritis in pigs
- Prevention – Vaccination renders effective protection
- **RX – Antibiotics (not very effective)**



E. coli

- Bacterium that causes several illnesses
- Causes post weaning scours
- Causes serious condition known as hemorrhagic bowel syndrome
- Prevention – Good housekeeping
- **RX - Antibiotics**



Greasy Pig Disease



- A Staphylococcus (staph) infection
- Staph is a secondary invader to previous skin infections such as mange mites or injuries
- Skin flakes off, becomes crusty and may crack, and may have a stinky brown secretion
- Pigs grow dull and go off feed
- **RX – Antibiotics, medicated shampoos approved for swine**

Leptospirosis (Lepto)

- May be transmitted in the urine of dogs, cows, rats and swine
- Enters through the mucus membrane or breaks in the skin
- Causes fever, diarrhea, loss of appetite
- Classic jaundice symptoms in white pigs may be seen
- **RX – Antibiotic therapy under veterinary guidance**

Lungworm

- Hogs are infected by ingesting infected earthworms
- Larvae migrate to the heart and lungs
- Asthmatic cough characterized by 'thumping' noise
- **RX – Effective parasite control program**



MMA (Mastitis, Metritis, Agalactia)

- Syndrome characterized by
- Mastitis – udder infection
- Metritis – uterine or womb infection
- Agalactia – Loss of milk
- **RX – Reduce stress, treat symptoms; Antibiotics, corticosteroids, multivitamins, oxytocin**

Mycoplasma Pneumonia

- Caused by organism known as *Mycoplasma hyopneumoniae*
- Mostly seen in pigs about 3 months old
- A dry chronic cough evident especially after exercising
- Loss of appetite, fever
- **RX - Antibiotics**

Swine Influenza

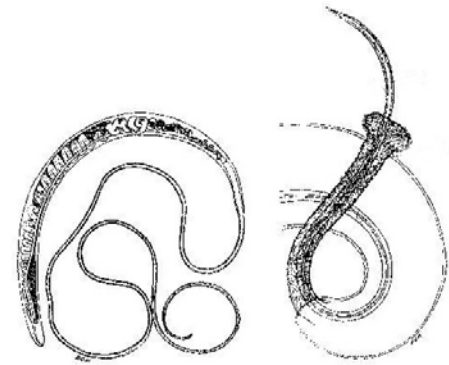
- The hog version of the flu, usually caused by the Type A influenza virus
- May be spread via lungworm eggs, transmitted among pigs and between pigs and humans
- Deep dry cough, fever, loss of appetite, eyes and nose discharge
- Hogs tend to recover from the disease

Transmissible Gastroenteritis (TGE)

- Highly contagious, serious viral disease
- Occurs mostly in winter months
- Virus gets to pigs from multiple sources including, infected pigs, infected boots, dogs, birds
- Symptoms include vomiting, diarrhea, dehydration, death
- **RX – no specific treatment. Rehydrate, administer antibiotics and keep comfortable**

Whipworms, Roundworms, stomach worms

- Worms consume valuable nutrients and starve pigs of food and energy
- Infected animals go off food, develop anemia and may die
- **RX – an effective parasite control program**



Waste Management

- The goal of sustainable waste management is to enhance on-farm nutrient cycling and to protect the environment from pollutants.
- Hog manure is an excellent soil builder—supplying organic matter and nutrients and stimulating the biological processes in the soil to build fertility.
- If possible, manure should always be incorporated into the soil as soon as possible after spreading to avoid losses of nitrogen and reduce odor.

Thanks Guys!!!

