

## Introduction to Pig Farm Business Enterprises

Nina Saeli, Veteran Project Lead



## Pig Terminology

- **Boar:** adult male of breeding age
- **Sow:** adult female of breeding age
- **Barrow:** castrated male
  - Barrows are typically castrated days or weeks after being born; if you don't castrate a male and decide to eat it when it is older, the meat may have *boar taint* which affects the flavor.
- **Gilt:** female not yet mated
- **Drift, Drove, Parcel, Passel:** names for a group of pigs
- **Farrow:** to give birth to piglets
- **Weaned:** no longer relying on mother's milk for nourishment (3-8 weeks)
- **Grower:** pig intended for breeding
- **Feeder:** weaned barrow or gilt between 40-80 pounds intended for slaughter
- **Finished:** a market ready for slaughter pig; typically weighing 200-285 lbs.

## Pig Enterprises

**Farrow to Wean:** In this system, the producer focuses on breeding sows, managing their gestation, and raising piglets until they are weaned. The weaned piglets are then sold to other farms for further raising. You own the sow, and you might own the boar, or you may work with another farmer that has boars to get your sow pregnant. Once the females give birth to litters of pigs, they are typically nourished by the sow for at least 4 weeks before weaning. At this point the piglets weigh between 10-15 pounds and are typically sold immediately after weaning. Some farmers wait until 6-8 weeks to wean; waiting longer to wean helps ensure a healthier, stronger piglet, however, the longer you hold onto the piglet before selling the more expensive it is to you. These piglets may be sold for the purpose of replacing a sow or a boar in another farmer's farrowing operation, as a pet, or to someone who wants to raise those piglets into feeder or finished pigs. This enterprise concept can be called a **nursery operation**.

**Farrow to Feeder:** This system starts out just like the Farrow to Wean system. You focus on breeding sows, managing their gestation, and raising piglets until they are weaned. Then once the piglets are weaned, they are separated from their mother and are fed a

nutritionally balanced, high protein starter feed to support growth. You'll raise this piglet until it is typically around 40-50 pounds. Feeder pigs are typically sold to other farms to be raised for meat products, but there are families that want to buy a single pig to raise it themselves for meat.

**Wean to Feeder:** In the wean to feeder system, you do not need a sow or a boar. You purchase weaned piglets and provide the appropriate nutrition and care to get them to 40-50 lbs. before you sell them to other farmers, who want to raise those pigs for the purpose of selling pork products. Dairy farmers sometimes choose to buy weaned pigs and then sell them as feeder pigs because a dairy farmer has easy access to corn and high protein milk which can easily support this important growth phase of the pig.

**Farrow to Finish:** This is a comprehensive system where the producer manages the entire process from breeding and gestation of sows to raising the piglets until they reach market weight (typically 200-285 pounds) and are ready to be slaughtered, butchered and sold to a customer.

**Wean to Finish:** In this system, you do not need a sow or a boar, because you purchase weaned pigs and raising them to market weight, again the goal being 200-285 lbs. Depending on the breed of the pig, it could take up to 7 months to get this pig to finishing weight because you are getting these piglets when they are only about 4-8 weeks old, and the care you have to provide for a weened piglet vs a feeder piglet will be different, as weened piglets are more susceptible to the weather elements and are still building their immune system.

**Feeder to Finish:** In this system, you do not need a sow or a boar because you purchase 40-50 lbs. piglet and raise them to market weight, again the goal being 200-285 lbs. Your focus is providing that pig with a safe and healthy environment in which to live and thrive. Depending on the breed, you can get a feeder pig to a finished weight within 5 months, but some breeds may take longer.

**Direct Customer Pork Sales:** This is not an enterprise that many people consider, but it basically means that you purchase a half or whole pig, have it butchered to your specification, and you sell the pork as wholesale and retail cuts. This does require you to put the up-front cost into paying for your product, and you need the freezer space to hold your product until it is sold. Marketing is going to be very important.

**Seedstock Production:** The primary purpose of a seedstock production enterprise is to raise and sell high-quality, genetically superior pigs for breeding purposes. This type of system is essential to ensure these heritage breeds survive and to preserve valuable genetic diversity for the future. These pigs are typically bred and raised for future breeding stock purposes.

You may sell some of these pure heritage breeds to farmers for the purpose of replacing their pure-bred pigs in their mating and farrowing operations. You may sell them to a farmer so they can be cross bred to improve behavior, health, or growth performance., or you can sell them to farmers for the purposes of being raised to their finished weight and processed for meat. Pure bred heritage pork does get a higher price if you have the right market to sell it.

To build a successful seedstock production enterprise, consider the following tasks:

- Identify role in the industry
- Set a breeding objective
- Decide which traits to select for
- Obtain genetic information
- Determine the mating system
- Measure genetic improvement
- Present the product at its' best advantage

## **Cross breeding.**

Cross breeding takes as much consideration and care as breeding pure stock. You are trying to ensure genetic progress and deliver healthy, genetically superior animals that improve the profitability of other swine operations. Consider the following:

- Behavior compatibility
- Health compatibility
- Management compatibility
- Have a plan to rotate gilts and boars
- Be strategic

Pigs should not be inbred because it increases the risk of undesirable traits, reduces overall health and performance, and can lead to significant genetic problems. To prevent inbreeding, farmers should source breeding stock from different, unrelated farms, separate

young pigs by sex, and avoid using the same male or female for breeding over extended periods. Inbreeding can cause:

- Smaller size
- Slower growth
- Reduced health and fertility
- Weaker immune systems
- Skeletal deformities
- Behavioral issues
- Increased mortality rates for piglets

## Pig/Pork Marketing

### Marketing and Selling a “Finished” Pig

- **Roasting Pigs:** A good option to promote; make sure to get orders early and ask customers what final size roasting pig they want. “Slaughter on site” is allowed by NYS and will allow the customer to save money, just make sure to slaughter on the transportation platform unless you have the means to move a 200+lb. carcass.
- **Halves and Wholes:** Selling half or whole pigs is allowed in NYS, but there are some rules to follow. Make sure that you have enough freezer space to hold the meat and think about spacing out slaughter/butcher dates to make sure pork is picked up before the next round of pigs is processed.
- **Wholesale and Retail Cuts:** Selling cuts are the most lucrative way to make money, but you need to have the capacity to hold the pork longer-term (e.g. enough freezer space) and you are accepting the risk if not all cuts sell.

### Develop an Enterprise Marketing Plan

- *Never grow or produce anything unless you know how and to whom you will sell it.*
- **Define your end goal:** Will you be raising pigs for meat or for breeding stock? Both?
- **Identify your target market:** Who are your potential customers?
- **Consider potential markets:**
  - **Direct-to-consumer sales:** This may include farmer’s markets, farm stores, or online sales.
  - **Restaurants and institutions:** Work with the chef to understand exactly what they want. Have a plan of how many pigs you need to raise for the restaurant’s

needs and for any cuts you'll end up with that the chef may not want. If that chef wants 25 pork chops a week for 10 weeks, then you need to know how many pigs will support the orders. You need to schedule for the butchering to support the chef's order and support your capacity to hold the rest of that pig if necessary. The most important question to ask yourself is how are you going to sell the rest of that pig? And is selling to this restaurant worth it? It can be worth it, but you need to plan.

- **Selling weened / feeder pigs to finishing operations:** Talk to farmers about what they are looking for. Build business relationships early.
- **Niche markets focusing on specific attributes** (e.g., heritage breeds, organic, pasture-raised): This is about finding your specific market; for example, when selling weaned and feeder pigs, you may find farmers looking for specific heritage breeds, which could be your niche. Another example is to raise certified organic or pasture raised pigs.
- **Marketing strategy:** How will you sell your pork or breeding stock? How can you work with other local farmers to support one another? Develop relationships with customers or buyers early.
- **Processor relationships:** Establish connections with meat processors and understand their requirements and scheduling; there are only a certain number of butchers in NYS and they book out months in advance. Build that relationship early!

## Considerations for Choosing a Pig Enterprise

### Production System

- **Indoor systems:** Indoor systems require regulation of the temperature, humidity, and fresh air access. Just like humans, pigs are susceptible to respiratory infections, so ventilation is required.
  - **Pro:** more control over the environment
  - **Con:** may require significant capital investment in housing and equipment
- **Outdoor systems:** Outdoor systems can offer welfare benefits for pigs to express natural behaviors. Keep in mind that pigs do not graze, they forage; they will use their snout to find food. Additionally, they will dig up ground to create wallows for wet areas to make mud which allows them to stay cool and protect their skin from the sun. Outdoor systems require shelters and a plan to protect pigs from predators.
  - **Pro:** utilize pastures or deep-bedded hoop structures
  - **Pro:** promoting natural behaviors and potentially lower startup costs
  - **Con:** management for weather extremes, containment, and predators
  - **Con:** parasites and pasture management.

**Resources and Infrastructure.** What do you have? What do you need?

- **Land:** Adequate space for housing, pastures, and waste management.
- **Facilities:** If you are going to keep a sow for farrowing, then your sheltering needs will be different, and you may want farrowing pens. Consider where you will house the various groups of piglets based on if they have been weaned or by ages. You will need to consider watering systems, feeding systems, fencing, and handling equipment.
- **Water Supply:** You need a reliable and clean water source.
- **Feed Storage and Handling:** You will need proper storage to protect feed quality and minimize waste. You have to protect your feed against the weather and against other animals.
- **Transportation:** Consider how your pigs will be transported. Will farmers or customers be coming to you or will you need ability to transport? If raising pigs to a finishing product, you will need to transport these pigs to a market or processing facilities. Renting a trailer is an option. The size trailer you need depends on how many pigs you may be transporting in a single haul.

## **Financial**

- **Initial capital investment:** Land, buildings, equipment, and breeding stock.
- **Operating expenses:** Feed, veterinary care, utilities, labor, and maintenance.
- **Profitability analysis:** Thoroughly analyze potential income and expenses to determine the economic viability of your chosen enterprise.

## **Labor Requirements**

- **Time and workload:** Labor required will depend on:
  - The scale of your operation
  - The chosen production system (intensive vs. extensive)
- **Hiring needs:** Determine if you will need to hire additional workers and consider the availability of skilled labor in your area.

## **Animal Health and Welfare:**

- **Disease prevention and biosecurity:** A robust health program is critical to prevent losses and ensure healthy animals.
- **Veterinary care:** Establish a relationship with a veterinarian experienced in swine health.
- **Housing and management practices that promote animal welfare:** Provide adequate space, comfortable bedding, and enrichment opportunities.

- **Comply with animal welfare standards and regulations.**
  - <https://agriculture.ny.gov/animals/pigs-hogs-other-swine>

## **Environmental Impact & Regulations**

- **Waste Management:** Develop a plan for managing manure and wastewater to comply with regulations and minimize environmental impact.
- **Permitting and zoning:** Understand and comply with local, state, and federal regulations regarding pig production.
- **Sustainability:** Consider the environmental impact of your operations and explore sustainable practices.
- All of these considerations can assist you in laying a strong foundation for a successful and sustainable pig enterprise.

## **Pig Breeds**

### **Selecting a Pig Breed**

Consider the following:

- Size and growth rate to market weight
- Feed efficiency
- Litter size and maternal abilities
- Carcass characteristics (leanness, meat quality, taste)
  - It is not recommended to get piglets that have been cross bred over several generations as this can affect the quality of the meat.
- Suitability for your chosen production system (e.g., some breeds are better adapted to outdoor vs. indoor rearing).
- Availability
- Appropriate for climate
- Hardiness and temperament
- Customer preferences

### **Pig Breed Categories.**

- **Maternal** – Mothering abilities and reproductive rates
  - **Strong Maternal Instincts:** They exhibit natural aptitude for caring for their offspring, including nest building, attentive care for piglets, and effective communication.

- **High Milk Production:** Maternal sows are known for their ability to produce ample milk, which is essential for the healthy growth and survival of large litters of piglets.
- **Large Litters:** These breeds typically have larger litter sizes compared to other pig breeds, contributing to higher overall piglet production.
- **Longevity and Durability:** Maternal sows are expected to have a long productive life in the herd, consistently producing and raising multiple litters over several years.
- **Docile Temperament:** Maternal breeds docile nature can facilitate management and interactions with the other sows, particularly during farrowing and lactation.
  - **Maternal traits matter because:**
    - **Improved Piglet Survival:** Strong maternal instincts and good milk production directly contribute to higher survival rates for piglets, especially in the crucial first few days after birth.
    - **Increased Production Efficiency:** More weaned piglets per sow directly translates into higher productivity and profitability for the farm.
    - **Reduced Costs:** By fostering healthy and thriving piglets, the need for extensive intervention and specialized care can be reduced.
    - Maternal pig breeds form the foundation of a successful pig operation by ensuring the production and thriving of a new generation of pigs. They are particularly important in crossbreeding programs where they are often crossed with **terminal breeds** (known for their growth and carcass quality) to achieve a desirable combination of traits in the offspring.
- **Terminal** – Excels in producing meat, often used in crossbreeding to enhance meat quality and growth rates of offspring. Popular terminal breeds include Duroc, Hampshire, and Berkshire.
  - **Meat Production:** They are bred for their superior muscle development and meat quality.
  - **Growth Rate:** Terminal breeds generally grow faster than other breeds, allowing for quicker market turnover.
  - **Feed Efficiency:** They are efficient at converting feed into muscle and body weight.
  - **Crossbreeding:** They are often used as sires in crossbreeding programs to improve the meat characteristics of offspring.

- **Specialty** – Unique qualities, such as temperament, heritage breeds, meat quality other specific traits. Some examples include Duroc, Berkshire, Mangalista, Red Wattle and Guinea Hog. These are often raised on small farms. A pig breed may be considered a specialty breed for any of the following reasons:
  - **Meat Characteristics.**
  - **Historical Significance**
  - **Temperament**
  - **Heritage**

### **To 8 U.S. Pig Breeds.**

- **Berkshire:** A heritage breed with rich, flavorful meat, often featured in high-end restaurants.
- **Chester White:** A large, white pig breed known for hardiness, fast maturity, and lean, marbled pork.
- **Duroc:** Known for high-quality, tender, and juicy meat due to excellent marbling.
- **Hampshire:** A popular breed for meat production, known for efficient feed conversion and flavorful meat.
- **Landrace:** Females are heavy milkers and often farrow large pigs. Crossing well with other breeds, Landrace often possesses length of body, a high percentage of carcass weight in the ham and loin and the ideal amount of finish.
- **Poland China:** Excellent feeders, gaining weight well under good care and management.
- **Spotted:** Known for their feed efficiency, rate of gain and carcass quality. In addition, commercial producers appreciate Spotted females for their productivity, docility and durability.
- **Yorkshire:** Known for their muscle, with a high proportion of lean meat and low backfat. Soundness and durability are additional strengths.

Other common breeds of pigs that you may see in the northeast include:

- **Hereford:** A hardy and docile heritage breed known for fast growth and high quality, well-marbled meat.
- **Tamworth:** A heritage breed of pig that is social and well-suited for beginners and outdoor systems. It is known for producing high-quality, lean meat.
- **Gloucestershire Old Spot:** A hearty heritage breed of pig known for strong foraging abilities and producing flavorful pork and lard.
- **Red Wattle:** A heritage breed known for its hardiness and ability to thrive in various environments.

- **Mangalitsa:** A woolly pig breed known for its rich, flavorful pork and high fat content.
- **Guinea Hog:** A heritage breed that is the only lard hog breed still in existence.
- **Large Black:** A large, black pig breed that can be recognized by its floppy ears and is known for its calm temperament, hardiness, and good foraging ability.
- **Kune Kune:** A small, friendly breed known for its good temperament and suitability for smaller farms.