

Farmer Skill & Knowledge Checklist: Swine Production

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This checklist is a guide to the types of skills and knowledge useful to a swine producer in Maine. Increasing your levels of knowledge and skill can help you

- improve your farm management skills,
- increase your chances of having a profitable beef enterprise, or
- gain employment in a successful beef operation.

If you are just starting out, don't be intimidated by this list; just use it to prioritize your learning. If you are experienced, remember that you can always improve and learn more, whatever your skill level.

Circle your current and desired (target) competence using this scale:

- 1=No knowledge/skill
2=Some knowledge/skill
3=Well-informed/experienced

Recommended knowledge	My current level knowledge / experience			Priority to Learn		
General Management						
Be able to identify and express the goals of your swine operation.	1	2	3	1	2	3
Understand how hogs (both sows and boars) behave in different situations.	1	2	3	1	2	3
Know and use the safety guidelines for working and handling hogs.	1	2	3	1	2	3
Know how to implement and maintain a hog ID system.	1	2	3	1	2	3
Be able to move one or more hogs on foot.	1	2	3	1	2	3
Be able to safely load swine onto a trailer or into a crate.	1	2	3	1	2	3
Be able to estimate the weight of an animal.	1	2	3	1	2	3
Be able to set criteria for culling individual breeding stock from your herd.	1	2	3	1	2	3
Be familiar with agencies and resources (public and private) for swine producers in the U.S. and Maine.*	1	2	3	1	2	3
Be familiar with swine certification programs.	1	2	3	1	2	3

Be able to attract and keep effective farm workers.	1	2	3	1	2	3
Swine Nutrition						
Understand the importance of providing a constant source of clean water.	1	2	3	1	2	3
Be familiar with elements of feed management, such as sanitation, feed quantity, feeding frequency, and feeder structural materials.	1	2	3	1	2	3
Be able to calculate yearly or seasonal feed needs.	1	2	3	1	2	3
Be familiar with types of feeds and their nutrient values.	1	2	3	1	2	3
Be able to read and interpret a feedbag label.	1	2	3	1	2	3
Know what premixes and supplements provide; and what form they should be used for your hogs.	1	2	3	1	2	3
Be able to list components of growing and finishing rations for market animals.	1	2	3	1	2	3
Know how to properly feed the herd sire.	1	2	3	1	2	3
Be able to recognize common nutritional disorders.	1	2	3	1	2	3
Be able to take a feed sample.	1	2	3	1	2	3
Advanced Skills						
Know how to use the Pearson's square to balance a feed ration.	1	2	3	1	2	3
Be able to balance a feed ration for a replacement sow.	1	2	3	1	2	3
Be able to balance a feed ration for a pregnant sow.	1	2	3	1	2	3
Swine Health						
Understand the importance of sanitation and biosecurity on your farm—and when visiting other farms.	1	2	3	1	2	3
Be able to develop a biosecurity plan for everyday practices and for a biosecurity emergency.	1	2	3	1	2	3
Know the components of a swine health program (such as various vaccinations).	1	2	3	1	2	3
Be able to recognize normal and abnormal temperatures of swine.	1	2	3	1	2	3
Know how to take a rectal temperature.	1	2	3	1	2	3
Be familiar with common swine diseases (causes and symptoms).	1	2	3	1	2	3
Be able to recognize a sick individual.	1	2	3	1	2	3
Know how to differentiate antibiotics typically used for swine.	1	2	3	1	2	3
Be able how to calculate dosages of vaccines, dewormers, and antibiotics from label directions.	1	2	3	1	2	3
Be familiar with the feed directive regulations in regards to feeding antibiotics.	1	2	3	1	2	3
Select the proper types and sizes of needles for use on piglets, feeders and adults.	1	2	3	1	2	3
Be able to properly draw a vaccine or other injectable from a vial into a syringe.	1	2	3	1	2	3
Be able to give an intramuscular (IM) injection.	1	2	3	1	2	3
Be able to give a subcutaneous (sub-Q) injection.	1	2	3	1	2	3
Be able to properly dispose of a used needle.	1	2	3	1	2	3
Know how to take a fecal sample for diagnosis of internal parasites.	1	2	3	1	2	3
Know how to recognize signs of internal parasites.	1	2	3	1	2	3
Know how to select a proper dewormer for swine.	1	2	3	1	2	3
Be able to administer an oral dewormer.	1	2	3	1	2	3

Know how to recognize signs of external parasites.	1	2	3	1	2	3
Know how to select and apply a pour-on material for external parasite control.	1	2	3	1	2	3
Breeding and Reproduction						
Be able to keep production records.	1	2	3	1	2	3
Be able to evaluate body condition scoring.	1	2	3	1	2	3
Understand the implications of body condition for reproductive health.	1	2	3	1	2	3
Be able to recognize estrus in a sow.	1	2	3	1	2	3
Be able to identify common purebred swine breeds.	1	2	3	1	2	3
Know how to select a replacement sow.	1	2	3	1	2	3
Know how to select a boar for a certain trait.	1	2	3	1	2	3
Be able to calculate time of farrowing from breeding date.	1	2	3	1	2	3
Understand hybrid vigor.	1	2	3	1	2	3
Understand how to use heritability of various traits to improve your herd.	1	2	3	1	2	3
Be familiar with the benefits and drawbacks of crossbreeding.	1	2	3	1	2	3
Know and understand the stress gene and resulting poor quality pork.	1	2	3	1	2	3
Be familiar with the basics of and considerations for artificial insemination (AI).	1	2	3	1	2	3
Understand how estrus synchronization might be used for AI.	1	2	3	1	2	3
Understand the reproductive tract of a sow.	1	2	3	1	2	3
Advanced Knowledge						
Understand DNA testing for the boar.	1	2	3	1	2	3
Know how to use an Expected Progeny Difference (EPD).	1	2	3	1	2	3
Farrowing						
Be able to assemble materials for a farrowing kit.	1	2	3	1	2	3
Be able to develop and follow a newborn checklist/protocol for your farm.	1	2	3	1	2	3
Be able to recognize when a sow is about to give birth.	1	2	3	1	2	3
Know the stages of farrowing and be able to recognize normal births.	1	2	3	1	2	3
Be able to safely work around farrowing and nursing sows.	1	2	3	1	2	3
Be able to assist sows experiencing farrowing difficulties.	1	2	3	1	2	3
Be able to recognize dystocia (a breech birth or other abnormal birthing) and know when assistance is needed.	1	2	3	1	2	3
Know how to recognize and treat a vaginal prolapse.	1	2	3	1	2	3
Know how to recognize and treat a retained placenta.	1	2	3	1	2	3
Be able to apply a tincture of iodine to the umbilical cord.	1	2	3	1	2	3
Be able to properly stomach-tube a newborn piglet.	1	2	3	1	2	3
Be able to recognize the difference between a male and female piglet.	1	2	3	1	2	3
Be able to properly handle and store colostrum.	1	2	3	1	2	3
Understand how and why needle teeth are removed from baby piglets.	1	2	3	1	2	3
Understand the importance of iron for baby piglets.	1	2	3	1	2	3
Know how to choose the appropriate castration tools for male piglets.	1	2	3	1	2	3
Be able to castrate a male piglet.	1	2	3	1	2	3
Understand the universal ear notching identification system of swine.	1	2	3	1	2	3
Be able to ear-notch a piglet.	1	2	3	1	2	3
Be able to balance a feed ration for a feeder pig.	1	2	3	1	2	3

Facilities

Understand space requirements for swine at different ages/growth stages.	1	2	3	1	2	3
Be able to calculate adequate space for swine.	1	2	3	1	2	3
Understand the needs of animals for protection from the elements.	1	2	3	1	2	3
Know how to select or build and use a windbreak.	1	2	3	1	2	3
Understand the need for proper barn ventilation in different seasons and conditions.	1	2	3	1	2	3
Know how to build or design a feed bunk.	1	2	3	1	2	3
Be familiar with ways to properly store grain.	1	2	3	1	2	3
Know how to select proper bedding materials for swine.	1	2	3	1	2	3
Know how to design a basic manure management system to minimize runoff of nutrient.	1	2	3	1	2	3
Know the principles, design, and components of a working chute or handling facility for holding and treating individual animals.	1	2	3	1	2	3
Understand the importance of fly control and how to implement an effective fly control system or strategy.	1	2	3	1	2	3

Fencing, Forages, and Pastures

Understand the pros and cons of different grazing systems for swine.	1	2	3	1	2	3
Know how to design a pasture for flexible usage.	1	2	3	1	2	3
Understand the basics of rotational grazing for swine.	1	2	3	1	2	3
Recognize common pasture forages.	1	2	3	1	2	3
Recognize plants poisonous to swine in Maine.	1	2	3	1	2	3
Be able to evaluate a pasture for forage quantity and quality.	1	2	3	1	2	3
Identify forage stages of maturity and their implications for quality.	1	2	3	1	2	3
Know how to take a soil sample (from a field or pasture), and be able to interpret the results.	1	2	3	1	2	3
Be familiar with different watering systems for swine at pasture.	1	2	3	1	2	3
Know the advantages and disadvantages of—and be able to choose between—electric fencing and non-electric fencing.	1	2	3	1	2	3
Know how to drive a corner fence post.	1	2	3	1	2	3
Know how to select and hang a hog gate.	1	2	3	1	2	3

Selling Your Product

Be able to identify marketing options (such as hog sales, private treaty, cooperative marketing, and direct marketing) and choose the right ones for your operation. Understand preconditioning requirements for specific auctions and sales.	1	2	3	1	2	3
Know the retail yield of a carcass.	1	2	3	1	2	3
Understand the importance of value-added swine products.	1	2	3	1	2	3
Understand with the value of an animal at different growth stages and conditions.	1	2	3	1	2	3
Be able to determine when a gilt or shoat is ready for market.	1	2	3	1	2	3
Be familiar with and know how to find annual price cycles and trends for different ages of swine.	1	2	3	1	2	3
Know the cuts of meat and from what part of the carcass they come.	1	2	3	1	2	3
Know the grades of swine (both quality grades and yield grades).	1	2	3	1	2	3

Know how to develop a marketing plan for your own hog operation.	1	2	3	1	2	3
Know the food safety and food-related regulations in Maine and the U.S.	1	2	3	1	2	3
Advanced Skill						
Be familiar with the U.S. swine industry infrastructure.	1	2	3	1	2	3
Economics						
Be able to keep accurate financial records (on a computer or on paper).	1	2	3	1	2	3
Be familiar with different swine enterprise types (such as feeder, farrow to finish, or purebred).	1	2	3	1	2	3
Know how to use hog-based enterprise budgets.	1	2	3	1	2	3
Know how to determine the break-even point for your enterprise.	1	2	3	1	2	3
Be able to analyze financial records to make wise decisions.	1	2	3	1	2	3
Be able to identify and implement money-saving or labor-saving practices.	1	2	3	1	2	3
Be able to correctly complete income tax Schedule F, "Profit or Loss From Farming."	1	2	3	1	2	3
Advanced Skill						
Know how to interpret market reports—and know when to sell.	1	2	3	1	2	3

*Sources of Information

ATTRA/National Sustainable Agriculture Information Service

(Formerly known as the "Appropriate Technology Transfer for Rural Areas" project)

800.346.9140

attra.ncat.org

Maine Department of Agriculture, Conservation and Forestry

207.287.3871

maine.gov/agriculture

Maine Pork Producers Association

www.katahdinoutdoors.com/mainepork

Natural Resource Conservation Service (NRCS)

(help with manure management plans and other water-related issues)

207.990.9100

nrcs.usda.gov

Pork Information Gateway

porkgateway.org

Pork Quality Assurance (PQA) program

pork.org

Maine Pork Producers Association

"swine," Breeds of Livestock, Oklahoma State University

(descriptions of all swine breeds and their breed associations)

ansi.okstate.edu/breeds/swine

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(county office contacts; books and publications)
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