

# Pork



## History

Raising pork for food began over 2,000 years ago in China.

Until the 1950s, many farms grew a bit of everything, and most included a few sows with several litters of piglets every spring and fall. Pigs were generally raised as a sideline to grain, beef, or dairy. They were primarily raised outdoors and in small shelters with straw bedding. This method worked well when there were only a few pigs per farm, but there were problems with predators, disease, parasites, and protection from extreme temperatures. Productivity was low with only 15 to 17 piglets per sow each year.

Advancements in technology and growth in farm size in the 1950s brought in a period of specialization. The largest pig barn of that era housed between 50 and 100 sows. Today's farms house 500 sows or more. Moving animals indoors to a more comfortable environment allowed farmers to provide better animal care, monitor breeding, improve animals' health and provide individualized care when necessary.

## A Day in the Life of a Pork Producer

Just like any type of farming, hog farming is a 365 day a year job and it is hard work. Pigs require daily care and attention to make sure they have ample fresh water and food available. Hogs are generally fed once a day.

In addition to providing food and water, farmers and their barn staff must routinely walk the pens to check on the pigs. If a pig is unwell or has been injured by another animal, they are moved to "sick

pens" in the barn until they can be checked by a Veterinary Technician or veterinarian.

Government approved medications are used only to treat sick pigs as needed. Routine vaccinations may be given to the pigs, just as you do for your pets!

## Production

Hog farms vary in size and type. Some hog farms are "farrow to finish" operations, which means they have a breeding stock herd and raise hogs from birth through to market weight. Other farms may be strictly "finishing barns" that raise weaned pigs through to market weight. There are also genetics farms in Saskatchewan that raise specific breeds of pigs for their genetics which are sold to other pork producing customers around the world.

Pigs are raised in temperature-controlled barns that provide good lighting, ventilation and safe penning for the pigs. Cleanliness of the barn is very important in keeping pigs healthy and preventing diseases.



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Before pigs are moved to a new area in the barn, rooms are thoroughly pressure washed, disinfected, and left to dry. Pigs are very clean animals and instinctively select clean dry areas for sleeping, resting, and feeding. They will poop in another area where the manure and liquids can drop through slatted floors to a “manure pit” under the barn. This helps keep the penning and the pigs cleaner!

Viruses and germs can easily be spread from humans, birds or wildlife to pigs. Staff working in barns must “shower in” at the farm before they can go to the barn or have any contact with the animals. As well, trucks or delivery vehicles that travel between farms and assembly yards or packing plants where swine diseases may be present, must be washed and disinfected thoroughly before returning to the farm.

## The Breeding Cycle

Gilts are female pigs that have not given birth. They are ready for breeding at about 6-7 months of age.

A sow is pregnant for 115 days (3 months, 3 weeks and 3 days) and will have an average of 2 litters per year. She will wean about 21-25 piglets every year. During pregnancy, sows are housed in either loose housing systems or farrowing pen. Pigs are herd animals and generally do well in group housing, though in some cases sows can exhibit aggression during gestation. The type of housing can depend on the disposition of the animals during pregnancy and how social they are.

Farrowing pens are designed to provide a creep area along one side to allow piglets to nurse while rails along the sides of the pen allow the sow to

move or laydown without causing injury to the piglets. Heat lamps are also used to keep the newborns warm and avoid chills. The pens also allow Farrowing Technicians to assist the sow during her delivery by drying the newborn piglets, clearing fluids from their mouths and nostrils and performing a general examination of each piglet to ensure there are no signs of illness or injury.

Boars are housed separately from the sows and if the farm does natural breeding, there will be one boar for every 20-25 sows. On farms with very large sow herds, producers will often use artificial insemination which can be easier on the sow.

Piglets are weaned at about 3 weeks of age and moved to nursery barns with other piglets of the same size and age. The barn is kept at a comfortable temperature so they do not get chilled. In the nursery they will begin to eat solid food in pellet form. When they reach about 30 kgs (in about 4-5 weeks) they are moved to a grow-finish barn to be raised to market weights of between 180-200 kgs (which takes about 2 months).



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## Diet

Pigs diets are grain-based and include canola, barley, wheat, soybeans, corn and vitamins and essential minerals. Swine nutrition is a very important aspect of production and researchers are always working on formulating diets for pigs based on food sources available in various regions. If a region grows a lot of corn then the pigs will eat predominately corn. On the Prairies, pigs are fed a blend of canola, barley, wheat and soybeans.

Their diets are specifically formulated for every stage of growth. Pigs are **never** fed food scraps or given hormones of any kind on our farms.

Pigs eat grains like barley, corn, peas, canola meal, and soybeans, mixed with vitamins and minerals. A lot of research has helped farmers know the exact amount and type of food a pig needs as it grows. Pigs have the same needs that pets do such as a balanced diet, a health program (vaccinations), clean water, and a safe environment to live in.

## Animal Welfare

Farmers know that responsible and humane care is important to the well-being of pigs and that quality care is essential to raising healthy animals.

Producers follow very high standards and raise animals according to the Code of Practice for the Care and Handling of Farm Animals-Pigs, a comprehensive set of guidelines that promote optimal animal care on the farm and during transport. The hog industry actively participates in reviews and updates to the national Codes for the care and handling of pigs.

All Canadian farms that market pigs to federally-inspected processing plants must be certified under the third-party audited Canadian Quality Assurance (CQA®) and the new Canadian Pork Excellence (CPE) programs. Farms must be inspected annually by veterinarians who use a checklist to assess the farm's cleanliness, safety and the health of the animals. As well, all individuals responsible for transporting animals to federal processing plants are required to be trained and certified under the Trucker Quality Assurance (TQA™) program.

Saskatchewan's hog farmers adopt best practices and new technologies on their farms to ensure safe food production. Everyone involved in raising pigs must maintain a high standard of animal care. A skilled and well-trained workforce is essential in animal agriculture.

### Industry in Saskatchewan

**Production:** averages about 2 millions hogs annually

**Number of Producers:** 95 companies with 140 farms. There are also more than 200 small scale pork producers in the province.

**Value to Economy:** average of \$200 million in farm cash receipts annually

### Industry in Canada

**Production:** 14.325 million pigs (January 1, 2018)

**Number of Producers:** 6,920 (July 4, 2019)

**Value to Economy:** \$4.1 billion in farm cash receipts (2018)

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Another important component in responsible animal care is maintaining healthy herds and preventing diseases through good biosecurity practices on the farm. Healthy animals do not have to be subjected to veterinary intervention or given medications to treat illness. This reduces unnecessary stress on the animals and keeps them calm and healthy – this results in better pork!

## Technology

Hog farmers have seen significant progress in technology over the past 20 years. Automated feeding and watering systems in some of the newer and larger barns allow the farmer to feed many animals at one time. In addition to saving time and work in the barn, feeders can be equipped with RFID technology to collect data and track the exact amount of food each animal receives and how often they go to the feeder.

Newer farms have equipment that allows them to “auto sort” large pens of pigs according to size and weight.

Sensors also alert barn staff when feed/water levels are low. Some farms have their own feed mills that are programmed to produce specialized feed formulations and auger the food directly to the barn.

Other technology includes automated climate control in the barn where lighting, temperature, humidity and ventilation can all be monitored and adjusted on a computer or smart phone.

## Nutrition

Eating pork provides our bodies with lean protein which is important for energy and building muscle. Pork also contains 26 essential vitamins and minerals we need in our diet to be healthy.

A healthy diet is one that includes a variety of foods that are nutrient rich such as grains, dairy, vegetables & fruits and meats & alternatives. Healthy amounts of both animal and plant proteins improve diet quality and have complementary benefits when eaten together.

Pigs provide us with nutritious and delicious foods like roasts, chops, burgers, ham and bacon!

### Did you know?

*Pigs don't sweat! Storybook pigs are often shown in the mud as they try to keep cool and out of the sun but real pigs actually like to keep clean..*

## Pigs and the Environment

Plants, animals, people and the natural environment form a cycle necessary for life. This is called the Nutrient Cycle.

Plants need soil, sun, nutrients, rain and warm temperatures to grow. Plants help absorb pollutants and greenhouse gases in the air and convert them to oxygen. Farmers and their families generally live

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and work in the same farmyard so they understand the importance of protecting the soil, water and the air. They want a healthy place to live, raise crops and livestock. Many Canadian farms have environmental farm plans that help to audit the farming operation for environmental concerns and set goals for improvements.

Pig manure is a valuable natural fertilizer that contains nitrogen (N), phosphorus (P) and potassium (K). Nitrogen makes plants green and healthy and phosphorus and potassium help to build roots and the body of the plant.

Hog manure can be applied to many different crops like wheat, barley and canola to increase yields. It is also valued for helping to build up soil with organic matter, which helps to hold water and nutrients.

## By-Products

Pigs also provide us with more than just meat. Virtually every part of the pig is used. For instance, gelatin is a product that comes from pigs and is used in foods such as cottage cheese, marshmallows, ice cream, yogurt, and Jell-O. Buttons, bone china, wood glue, lipstick, and crayons also come from pigs. Pigs are a source of insulin which has been used to treat diabetes. There are many other by-products of pigs, for example:

*Pig skin* can be used to treat massive burns and injuries in humans.

*Pigs' hair* is used to make paint brushes and hair brushes.

*Dried pig ears* are a dog's favourite treat!

*Pig heart valves* can be used in medicine to replace human heart valves.

## Careers

There are many rewarding careers in pig production. Jobs in rural areas can be difficult to find, however agriculture and livestock production provide many opportunities for rewarding full time employment and careers:

- Production Technician (Nursery/  
Breeding/Finishing)
- Barn Worker
- Animal Transport
- Accounting
- I.T. Specialist
- Human Resources Specialist
- Workplace Health and Safety
- Research Scientist
- Veterinarian | veterinary assistant
- Swine Nutritionist
- Feed Mill Operator
- Geneticist
- Barn construction, maintenance and  
sanitation
- Meat Processing
- Food Safety Inspector
- Industry Suppliers (Feeds/  
pharmaceuticals/equipment)

## Glossary

- Boar: Adult male pig
- Gilt: Un-bred female pig
- Sow: Mother pig
- Weanling: Baby pig