

*News Article*

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Date: June 25, 2018

Please use by: July 12, 2018

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## Understanding agriculture: swine

If you are one who is perplexed by simple questions about agriculture that you don't understand, read on. Today's article is a primer on swine, written primarily for the curious non-farmer.

Some historians say that the pig was among the first animals to be domesticated, somewhere around 7000 B.C. They were first introduced in North America in 1539 by Hernando de Soto. Early colonists brought pigs to new settlements in the east in the later 1500's.

Several familiar food products, called pork, come from swine. These include bacon, ham, sausage, pork chops and other cuts. According to U.S. Department of Agriculture, a pork chop cut at 3 per pound, bone in, with 3 oz. of lean only (fat trimmed) and broiled, has 172 calories, 26 grams of protein, and 7 grams of fat. 3 medium slices of regular bacon has 109 calories, 6 grams of protein and 9 grams of fat. 3 oz. of light cure ham (lean and fat) has 207 calories, 18 grams of protein, and 14 grams of fat.

According to Pork Checkoff at [www.pork.org](http://www.pork.org), pork is an "excellent" source of nutrients important to our health, such as thiamin, niacin, riboflavin, vitamin B-6, phosphorus and protein, and a "good" source of zinc and potassium.

We get several useful medical applications from swine. All told, hogs are a source of nearly 40 drugs and pharmaceuticals. Among these are insulin, heart valves, and porcine burn dressings.

Other industrial by-products derived from hogs include leather, glue, artist brushes, and cosmetics. Nothing is wasted, and an aphorism sometimes uttered is, "Everything but the oink is used."

There are several common breeds of swine, including: Duroc, Hampshire, Yorkshire, Berkshire, Chester White and Spot (called "Spotted Poland China" for many years).

The term "swine" is synonymous with hogs or pigs. The term "hog" generally refers to older swine, and "pig" generally refers to younger swine. A "litter" is the total number of pigs born to one sow. Farrowing is the term used for a sow giving birth to a litter of piglets, and raising the young pigs to weaning age. A sow is an adult female who has had a litter of pigs, a boar is an adult breeding male, a gilt is a female who has not had a litter of pigs, and a barrow is a castrated male. Hogs raised to market weight for meat are generally gilts and barrows.

The gestation (pregnancy) period of a sow is 3 months, 3 weeks, and 3 days. A baby pig, or piglet, weighs about 3½ pounds at birth, and will double its weight in just 7 days.

Most farmers use specialized farrowing crates in barns to aid in the birth and early rearing of piglets. A farrowing crate is a penning system which has an area for the sow and areas for the pigs. Farrowing crates have been designed to reduce the number of pigs which are accidentally laid or stepped on by the sow. Also, farrowing crates provide a cooler area for the sow and warmer areas for the young pigs. The flooring is designed to keep the pigs dry, which reduces the spread of enteric diseases. Farrowing crates also allow the pork producer to assist in the birth process of pigs.

According to Purdue Extension's *Pork Industry Handbook*, "Corn is the most commonly fed grain; however, other grains such as sorghum grain, wheat, or barley may be used." Corn is an excellent energy source, and soybean meal is an excellent amino acid source.

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As a monogastric (single stomach, not ruminant) animal, they require a high protein, low fiber diet. Swine need water, protein, energy, vitamins and minerals. Pork producers work with nutritionists to formulate swine diets. Feed costs can represent roughly 60-75% of the total cost of pork production.

If you ever watch pigs eat when they are fed, you quickly understand where we get the expression, "You eat like a pig!" Pigs are not what you would call polite or courteous at the feed trough.

Some may wonder why pigs like to roll around in mud when they are raised outside. The answer is that pigs can't sweat, so they roll around in mud to cool off.

Pork producers work closely with veterinarians to develop a veterinarian-client-patient relationship in order to maintain herd health. Medicated feed is only available through what is called a Veterinary Feed Directive (VFD), which is basically prescription-only feed based on a health need, determined by a veterinarian.

According to USDA National Agricultural Statistics Service, Indiana Field Office, farmers in 2016 farrowed 271,000 sows in the spring, and 285,000 sows in the fall. Pigs born were 2,790,000 and 2,979,000, respectively. The average number of pigs per litter was 10.38 in 2016. (To compare, in 1990, the average number of pigs per litter was 7.85). In 2016, farmers marketed 2,000,610,000 pounds of pork for \$1,013,493,000, not including the value of home consumption of pork. Total slaughter in 2016 was 8,651,900 head at an average live weight of 277 pounds, for a total live weight of 2,392,266,000 pounds.

According to Pork Checkoff, a typical market hog today weighs 282 pounds, and has 116 pounds of lean meat.

According to USDA, the United States is the world's 3<sup>rd</sup> leading producer of pork, behind China and the European Union. Brazil is a distant 4<sup>th</sup>. In 2017, the United States exported roughly 31% of the pork it produced. Among all states in 2017, Indiana ranked 5<sup>th</sup> in inventory of hogs and pigs, behind Iowa, North Carolina, Minnesota and Illinois.

Find more information about swine at Purdue Extension's pork page, <https://www.extension.purdue.edu/pork/>. Some information was sourced from Swine Resource Handbook, 4-H Circular 134R, by The Ohio State University, and from Purdue University's Food Animal Education Network, <http://www.ansc.purdue.edu/faen/index.html>.