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ALL ABOUT PORK



The pig, *Sus scrofa domestica*, embarked on a historical journey that originated in Asia, unfolded through the Near East (modern day Middle East), and reached its peak in Europe before arriving to the Americas thanks to Spanish voyagers. The inaugural pigs on the continent made their debut during Columbus's second voyage, a culinary companion brought along by explorers to sustain them during their extensive expeditions. As a testament to their enduring legacy, the explorers left behind a presence of swine in the New World, where, until then, large domesticated animals had been absent.

The pig stands out as a truly remarkable creature, uniquely suited to domestication. Celebrated for their fruitful breeding, sows can birth an impressive 15 piglets annually, maturing in a mere six months on average. An omnivore by nature, the pig efficiently converts the wide-ranging diet it consumes into delectable meat, rendering it an ideal choice on the farm where it assumes the role of nature's consummate "garbage-disposal" on a daily basis.

Not all swine are cut from the same cloth, however, as pigs were historically categorized into two distinct types: the lard variety and the bacon variety. Lard-type pigs, once the go-to for producing the cooking fat of choice before it acquired an unfortunate reputation, has a compact and strong build with short legs. These heritage breed pigs, exhibit a swift fattening process, resulting in meat characterized by its generous fat content. During World War II, lard found itself in the production of explosives, leading people to turn to vegetable oils for cooking out of sheer necessity. Post-war, these vegetable oils successfully rebranded as healthier fats, leaving lard in the shadows and leading many lard-type pig breeds to fall out of favor.

On the flip side, bacon pigs embody leanness and maintain a slender, muscular physique. Traditionally nourished on legumes, grains, tumps, and dairy byproducts, they exhibit a slower growth rate compared to their lard counterparts but excel in muscle development over fat accumulation. As lard-type pigs dwindled in popularity, breeders shifted their focus to other varieties, in the pursuit of the leaner pork that has since become one of the most widely consumed meats in the world.

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HEALTHY INGREDIENT CONTRIBUTION



Pork is a wholesome inclusion in a well-rounded diet, offering a range of health benefits and essential nutrients. The nutritional value of pork hinges on the cut and preparation method, therefore, opting for lean cuts and using cooking techniques with minimal added fat can amplify its healthful attributes. Striking a balance through moderation in overall dietary choices is vital to fully benefiting from the nutritional merits of pork while minimizing the intake of excess saturated fats.

Iron: In addition to helping hemoglobin carry oxygen from the lungs to other parts of the body, iron also helps muscles store and use oxygen, reduces tiredness and fatigue, and improves both mental and physical performance. The recommended daily value (DV) of iron varies widely dependent on gender and age.

Protein: Protein is an important macronutrient for the building blocks of the body. The body uses protein to build and repair tissue, make enzymes and hormones, and build muscle and skin. A 4-ounce serving of lean pork (loin, tenderloin) provides about 24g of protein or about 40% of the DV for a sedentary adult weighing 175 pounds.

Zinc: Essential for normal growth and development, immune function, and protein synthesis, a 4-ounce serving of lean pork (loin, tenderloin) provides 2.14mg of zinc or approximately about 20% of the DV for men or 25% for women.

Other Bioactive Compounds Found in Pork:

- **Creatine:** a nitrogenous compound playing a role in energy metabolism and muscle function/performance.
- **Taurine:** an amino acid-like compound playing a role in physiological processes, eye health, and cardiovascular function.
- **Glutathione:** a powerful antioxidant playing a role in immune system support and protecting cells from oxidative damage.
- **Niacin:** a vitamin (B3) playing a role in energy metabolism, nerve function, and supporting healthy skin.
- **Cobalamin:** a vitamin (B12) playing a role in nerve function, DNA production, and formation of red blood cells.
- **Conjugated Linoleic Acid:** a fatty acid that has been associated with anti-inflammatory and antioxidant properties.

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TYPES AND VARIETIES

Pork, sourced from domestic pigs, stands as a remarkably versatile meat celebrated in diverse cuisines worldwide. The influence and diversity of pork is a result of its wide-ranging flavor and texture, influenced by factors including regional preferences, the cut and the specific breed of pig utilized. Crossbreeding is common to achieve specific goals such as growth rates, meat quality, and disease resistance.

Major Swine Breeds:

- **Berkshire:** Known for their cleanliness, high-quality, pricey meat and has been designated as a heritage breed.
- **Chester White:** Known for their quality muscle, often used in commercial pork production.
- **Duroc:** Known for well-marbled meat with excellent flavor and tenderness.
- **Hampshire:** Known for its lean muscle, high carcass quality, and minimal backfat.
- **Landrace:** Known for its lengthy body and high percentage of carcass weight attributed to the ham and loin.
- **Poland China:** Known for their large size and high-quality meat.
- **Spotted:** Known for their carcass quality and reproduction productivity in females.
- **Yorkshire:** Known for lean meat, often used in commercial pork production.
- **Iberico:** Known for their high price, unique flavor (acorn diet) and considered by many as the best pork in the world.

Primal Cuts of Pork:

- **Shoulder**
 - Butt Roast
 - Shoulder Roast
- **Loin**
 - Blade (Chop, End Roast)
 - Rib (Chop, Baby Back, Country Style, Spare)
 - Center Cut (Chop, Loin Roast, Rib Roast)
 - Sirloin (Chop, Roast)
 - Tenderloin
- **Leg**
 - Fresh Ham, Shank End
 - Fresh Ham, Sirloin Half
 - Spiral Cut Cured Ham
 - Country Cured Ham
- **Side**
 - Fresh Belly
 - Cured/Smoked Belly (Bacon)
 - St. Louis Spare Rib



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SELECTING AND STORING

Selecting Pork:

- **Color & Appearance:** Look for pork that has a pinkish-red color and avoid buying meat with any gray tinging. The fat on the pork should be firm and white in color. Avoid pork that has dark colored bones.
- **Marbling:** Intramuscular fat, known as marbling, provides flavor and tenderness to cuts of pork. Look for small, fine streaks of fat throughout the meat.
- **Cuts:** Cuts of pork should be selected based on the method of which the pork will be cooked. Lean cuts like the loin and tenderloin are best for fast cooking methods like grilling, while fattier cuts like the shoulder and belly yield best results when prepared by slow-cook methods such as braising, smoking, or roasting.
- **Freshness:** Butchers should always be well versed in the freshness and origin of their meat products. Check the use or sell by date on the packaging to determine the freshest options. All pork should have a "Passed and Inspected by USDA" seal.
- **Smell & Touch:** Fresh pork should never feel "slimy" and should have a clean, slightly sweet smell. Avoid pork with a sour or off odor.

Storing Pork:

- **Safe Handling:** Always practice good hygiene by washing hands and surfaces that come into contact with raw pork to prevent the spread of bacteria. Washing pork before cooking is not recommended due to cross-contamination concerns.
- **Refrigeration:** Pork should be refrigerated immediately upon receipt and kept cold at all times. Pork should be stored in the coldest part of the refrigerator at a temperature of 40°F or below. Use within 3-5 days or freeze.
- **Packaging:** If needed, packages of pork can be stored in plastic bags to prevent cross-contamination due to leakage. Keep pork in its original packaging until use or rewrap it in an airtight container or plastic wrap.
- **Freezing:** To extend storage, pork can be frozen for up to 4-6 months and still maintain its quality. Pork should be tightly wrapped in plastic and placed in freezer bags before freezing.
- **Thawing:** Pork is best thawed slowly in the refrigerator or, if needed in a timelier manner, by using the defrost function of a microwave. Thawed pork should be cooked promptly and should not be refrozen in its raw state. Never thaw at room temperature.
- **Use-By Dates:** Follow the use or sell by dates making sure to consume or freeze pork before the date is surpassed.
- **WIDTID:** Never taste a food to determine if it is spoiled. It's always best to use the rule of "when in doubt, throw it out" when dealing with a food product suspected to have gone bad.



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CULINARY USES

Pork is an incredibly versatile meat, having vast and varied culinary uses, that showcases its adaptability in different cuisines and cooking styles. Whether grilled, roasted, braised, or fried, cuts of pork can be transformed into a wide array of delicious dishes.

- **Pork Loin:** Cuts from the loin can be bone-in or boneless. Suitable for grilling, baking, pan-frying.
- **Pork Shoulder:** Roasts from the shoulder are ideal for slow-cooking such as braising, roasting, and barbecuing.
- **Pork Belly:** Popular for its crispy skin and succulent meat, the belly is suited to be cured/smoked, fried, and roasted.
- **Pork Ribs:** Available both in tender (baby back) and larger/meatier (spare) forms that are best when grilled or smoked.
- **Pork Ham:** Cut of pork that is best when slow cooked and is available fresh, cured or smoked.
- **Ground Pork:** Used in a variety of dishes such as meatballs, dumplings, sausages, and pasta sauces.
- **Pork Sausage:** Ground pork that is seasoned with a variety of herbs and spices. Popular pork sausage varieties include Breakfast, Italian, Chorizo and Bratwurst.
- **Pork Feet/Hock/Knuckle:** Often used in soups, stews and braised dishes to add flavor and richness.
- **Pork Offal:** Most utilized in traditional cuisines outside of the West and includes liver, kidneys, tongue, ears, and heart.
- **Pork Fat:** Known as lard and commonly used in place of other fats in cooking and baking.
- **Pork Cheek:** An often-overlooked piece of the pig that has excellent flavor and tenderness when braised.
- **Pork Jowl:** Similar to bacon but with a different flavor profile that is used to season various dishes.



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FUN FACTS



- Pork is the world's most widely consumed meat accounting for 42% of consumed meat.
- Pigs roll around in mud because they do not have sweat glands and risk getting sunburned.
- They may be hefty animals, but pigs can run a 7-minute mile, often outrunning humans.
- Hernando de Soto was dubbed the "father of the American pork industry" when his ship landed in Tampa Bay, FL in 1529 with America's first 13 pigs on board.
- George Washington's troops found salt pork to be a staple food at Valley Forge in the winter of 1776-1777
- The term barbeque (barbecue, BBQ) originated from French-speaking pirates. Their pork feast was coined "de barbe et queue" roughly translating to "from beard to tail" and showcased the versatility of the pig.
- Today, pork is roughly 75% leaner than it was in the 1950s.
- Hogs were traditionally taken to market, processed and salted in October. The meat was then cured for six months where cooler temperatures helped prevent spoilage and created perfect timing for a delicious Easter feast.
- The longest sausage ever made was created in 2014 in Romania and was nearly 39 miles long!
- Iowa ranks as the top pork-producing state (48 million hogs marketed in 2018) followed by North Carolina and Minnesota.
- In 2022, US pork exports topped \$7.7 billion (2.6 million metric tons).

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RECIPE

Lu Rou Fan (Taiwanese Pork Belly)
Yield: 4 Servings



- Ingredients:**
- 2 T. Peanut Oil
 - 2 lbs. Pork Belly, Skin-on, 1/2" Diced
 - 4 Large Eggs
 - 8 Slices Ginger, Peeled
 - 8 Cloves Garlic, Peeled
 - 1 Star Anise Pod
 - 1 Cinnamon Stick
 - 3 Bay Leaves
 - 3 T. Rock Sugar
 - 7 T. Light Soy Sauce
 - 1 C. Shaoxing Wine
 - 1 T. Dark Soy Sauce
 - 1 L. White Pepper
 - 1 L. Five-Spice Powder
 - 2 C. Water
 - 4 Shallots, Peeled, Thinly Sliced
 - Steamed White Rice for Serving
 - Steamed Bok Choy for Serving

Directions:

1. Place a heavy-bottom pot over medium heat. Add the oil and cubed pork belly. Cook over medium heat for approximately 30 minutes to render fat and begin browning.
2. While the pork is browning, bring a medium pot of water to a boil. Add eggs and boil for 8 minutes. Remove eggs and cool to stop cooking. Once cool, peel eggs and set aside.
3. Remove most of the pork fat from the pot and reserve for frying shallots.
4. To the pork, add all remaining ingredients except for water. Return to medium heat and mix well to combine.
5. Add the water and give one last stir. Bring to a light simmer and cover with lid. Reduce heat to low and cook for 1.5 hours.
6. While the pork belly is simmering, add the rendered pork fat to a small pan over medium-high heat. Fry the shallots until golden brown. Remove shallots to a lined plate to drain and set aside.
7. After pork belly has been cooking for 30 minutes, add the fried shallots and peeled boiled eggs. Continue simmering for the remaining hour. At the one-hour mark, remove the lid and allow the sauce to slightly thicken.
8. Once desired tenderness and sauce consistency is achieved, remove aromatics.
9. Serve braised pork belly with quartered eggs and steamed bok choy over white rice.

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QUIZ



After you read through this month's Ingredient of the Month, take this quiz to test your knowledge. In order to earn continuing education hours (CEHs) from the American Culinary Federation (ACF), the test must be completed through the ACF's Online Learning Center. Seventy-five percent accuracy is required to earn one hour of continuing education credits toward professional certification.

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QUIZ

Question #1



What did swine breeders shift their focus to as lard-type pigs dwindled in popularity?


- A. Larger pig breeds
- B. Heritage pig breeds
- C. Leaner varieties
- D. Wild pig species

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QUIZ

Question #2



A 4-ounce serving of lean pork provides about 40% of the DV of protein for a sedentary adult weighing 175 pounds.


- A. True
- B. False

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QUIZ

Question #3



Which bioactive compound found in pork plays a role in energy metabolism and muscle function/performance?


- A. Taurine
- B. Niacin
- C. Creatine
- D. Glutathione

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QUIZ

Question #4



What swine breed is recognized for its well-marbled meat with excellent flavor and tenderness?


- A. Hampshire
- B. Landrace
- C. Ibérico
- D. Duroc

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QUIZ

Question #5



The Berkshire breed of pork is recognized for its high-quality meat and is considered a heritage breed.


- A. True
- B. False

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QUIZ

Question #6



When selecting pork for cooking, what purpose does the marbling serve?

- A. Adds color to the meat
- B. Provides flavor and tenderness
- C. Reduces fat content
- D. Decreases cooking time


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QUIZ

Question #7

What is the recommended action if pork is suspected to be spoiled?



- A. Taste a small portion
- B. Cook it promptly
- C. Use the rule of "when in doubt, throw it out"
- D. Cook it thoroughly


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QUIZ

Question #8

What form of pork ribs are characterized as being larger and meatier?



- A. Baby back ribs
- B. Spareribs
- C. Both are the same
- D. Neither is meaty


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QUIZ

Question #9

Which cooking method is most appropriate for pork cheeks to optimize flavor and tenderness?




- A. Grilled
- B. Cured
- C. Pan-seared
- D. Braised

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QUIZ

Question #10




Which state, who marketed 48 million hogs in 2018, ranks as the top pork-producer in the United States?

- A. Texas
- B. North Carolina
- C. Iowa
- D. Minnesota

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JOIN US NEXT MONTH!



Stay tuned for the next ACF Ingredient of the Month! Be sure to visit the Online Learning Center (OLC) to download a copy of each month's ingredient presentation. Don't forget to take the official IOTM quiz through the OLC to earn one hour of continuing education credits toward professional certification.

For more information:

- www.acfchefs.org
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