

BBQ 102 Brisket & Butts

- Chris Marks
- Sponsored By:
- Three Little Pigs Sauces & Rubs



Chris Marks Bio

- Owner of <u>Three Little Pigs Rubs & Sauces</u> in Kansas City, MO and Chief BBQ Expert at Three Little Pigs BBQ Products. Chris Marks has won over 65 BBQ competition events and 600 individual awards in BBQ smoking all over the United States in the last 30 years, Chris has won the prestigious American Royal World BBQ Championship eight times. He has been featured on the Travel Channel's "Taste of America with Mark DeCarlo", the Food Network's "BBQ Battle" and numerous local broadcast and radio events throughout the Country. Chris also promotes the Good-One line of Smoker/Grills and Three Little Pig Sauces and rub/seasoning lines
- Chris currently teaches BBQ smoking Method and Techniques across the World at BBQ Specialty dealers that support the Three Little Pigs Sauces and seasoning lines. Chris has thought over 18,000 BBQ students in the Art of BBQ smoking in the last 25 years, including numerous Chefs and restaurant owners/mangers that are going back to charcoal and woods as primary source to cook "Real American BBQ".
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Brisket Class

BBQ 102

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How to choose the Brisket for Smoking

- 1. A brisket is generally divided into two parts, the flat and the point. For barbecue brisket you will want it undivided. You will also want it untrimmed, also called a "Packer's Cut". This cut will have a strip of fat running through the middle and a layer of fat on the top. The layer on top is called the fat cap. The fat cap is very important, as it will keep the brisket moist while it is smoking. The fat cap should be about 1/3 1/4 inch thick.
- 2. Whatever you buy, try to get a brisket with good marbling, white fat and a deep color in the meat. There should be good fat throughout the meat and not just in one place. Though the fat cap will add moisture to the meat during smoking, the fat spread throughout the meat will be much more effective. If the fat cap is more than 1/3 inch thick you might want to trim it down. It's best to have a single even layer.
- **3. Brisket Flat,** Try to choose a brisket that has a flat section of even thickness. Most flats tend to narrow a bit toward one edge, and this is normal—but avoid those that taper off to a very thin edge. Even thickness helps promote even cooking and provides uniform slices.

How to choose the Brisket for Smoking

- **4. Weight,** Whole, untrimmed briskets weigh 8-16 pounds. Something in the 12-16-pound range is your best bet. Large brisket flats with the fat cap intact weigh 6-7 pounds.
- **5. White, Hard Fat,** The conventional wisdom in barbecue circles is to choose a brisket covered in white, hard fat. This indicates that the animal was fattened on grain at the feedlot during the final weeks before slaughter. Fat that trends toward yellow in color is an indication of grass feeding and is thought to be less desirable for barbecued brisket—although attitudes may change as grass-fed beef becomes more popular in the U.S.

I try to choose a brisket with white, hard fat if I can, making sure it has a fat cap 1/4" to 1/3" thick over the entire flat portion.

6. Flexibility & Left-Handed Briskets

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Some people believe that the flexibility of a brisket is an indication of its tenderness. Frankly, I don't know how to evaluate this when a brisket is still in Cryovac. I don't know about you, but my butcher won't let me unwrap meat and handle it before purchase. So, I don't know what to make of this claim.

A more colorful claim is that the brisket from the left side of the animal is more tender than that from the right side. I don't know if this is true, but it does make for a great story.

Brisket Trimming

- Most briskets have extremely thick areas of fat on top of and around the point section (Picture 1), as well as a thick edge of fat running down one side of the flat section (Picture 2). Trim away most of this fat as best you can. Remember, the goal is to remove excess fat while still leaving a 1/4" layer to protect the meat below.
- Admittedly, it takes some time and experience to judge this, and there's really no harm if you leave too much fat. You also don't have to freak out if you cut a little too deep and strike red meat! Just back off on the knife and don't cut so deep. Take your time and remove what make sense to you, without cutting so close that you're exposing the meat.
- You will notice a very thick vein of fat running between the point and the flat sections. Some folks just trim fat from the surface of this vein, without cutting into the vein itself. I like to cut a V-shaped chunk of fat from this vein. You can be aggressive in removing fat from this area, but if you keep cutting and cutting, you'll end up almost separating the two sections! In fact, in Picture 3, I think I was a bit too aggressive.





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No Wrap "Texas Style Brisket"

Ingredients:

- 1-12-14 pound whole packer brisket
- 1-Cup of Three Little Pig's Mustard Style BBQ sauce
- 1-Cup of Three Little Pig's Texas Beef rub
- 1/3 Cup of Three Little Pig's Memphis rub



Instructions:

- Store your brisket in the refrigerator until you are ready to start trimming. Cold briskets are much easier to work with. Flip your brisket over so the 1. point end is underneath. Remove any silver skin or excess fat from the flat muscle. Trim down the large crescent moon shaped fat section until it is a smooth transition between the point and the flat. Trim and excessive or loose meat and fat from the point. Square the edges and ends of the flat. Flip the brisket over and trim the top fat cap to about 1/4 of an inch thickness across the surface of the brisket.
- 2. Cover the brisket on the top side with a coat of Three Little Pig's mustard sauce to help bind the rub to the brisket to maximize the crusting process.
- Distribute the **Texas Beef Rub** across the top of the brisket that is going to be faced up on the smoker. Using a **Jaccard tenderizer**, tenderizer the 3. brisket and drive the rub into the brisket. Once done tenderizing distribute a coat of the Memphis rub and repeat the tenderizing process. Come back with a final coat of the Texas Beef rub to finish before going to the smoker.
- 4. Preheat your smoker to 250-275 degrees F using indirect heat and hardwood lump charcoal smoke. Place the brisket on the smoker with the point end facing your main heat source. This is a thicker part of the brisket, and it can handle the additional heat. Close the lid and smoke until and internal thermometer reads 200-205 degrees F (usually takes around 10-12 hours).
- Remove the brisket to a large cutting board and allow to rest for 30 minutes before slicing. Slice both the point and the flat against the grain with a 5. **BBO 102** sharp knife and serve immediately

When Is Brisket Done?

- In order to be tender, a brisket must be cooked to an internal temperature of 180-205°. The reason for this, is that the conversion of collagen to gelatin doesn't even begin until meat reaches an internal temperature of 140°F and is most efficient as internal temps' approach 212°F. "Low and slow" barbecuing at 225-250°F is ideal to facilitate this conversion, providing gentle heat over many hours, allowing the collagen to make its transition into gelatin. While some moisture will be driven out of the brisket as it reaches these high internal temps, the gelatin makes up for it and keeps the meat moist. Of course, the fat layer on the brisket also helps maintain moisture in the meat during cooking, as well.
- My experience says a brisket is done when it's "fork tender", meaning that a fork or a probe thermometer goes in and out of the meat with little resistance. The problem is that both a properly cooked brisket and an overcooked one with both be "fork tender". For most folks like you and me, it's best to rely on internal meat temperature to determine when a brisket is properly cooked.
- What most everyone does agree on is that a properly cooked slice of brisket should pull apart easily, while still maintaining good texture. An overcooked slice will fall apart when picked up.

Target Temperature

- 188°F and 205°F seem to be the most popular target temps. I cook brisket to a variety of internal temps, depending on the method I use to cook them. When I barbecue a brisket entirely in the WSM, I cook to an internal temp of 185-205°F. In this temperature range, the flat will be fork-tender and the slices cut from the flat will hold together.
- How long will it take to cook brisket to 180-205°F? As a rough estimate, figure 1-1/2 hours per pound based on the post-trimmed weight. Remember, this is only an estimate--it may take more or less time, depending on the thickness of the brisket, the amount of connective tissue that needs to be converted to gelatin, the temperature of the cooker, weather conditions, and the number of times you open the cooker for turning



Brisket FAQ's

BBQ 102 Chris Marks Chief BBQ Expert

Temperature Of Brisket Before Cooking

- There are two schools of thought on this point. Some recipes, suggest that you allow a brisket to sit at room temperature for up to two hours before cooking. This helps to minimize the difference in temperature between the meat and the cooker.
- Why is this important? that cold meat can be fouled by creosote that results from a poorly managed fire, especially in wood-burning smokers. Others say that a brisket at room temperature takes less time and fuel to cook than a cold one, but I'm not sure this is much of an issue, either.
- In the other school of thought, we have those who believe it's best to take meat straight from the refrigerator and put it into the cooker. Their theory is that the smoke ring, that pinkish/purple color that forms beneath the surface of the brisket, is formed only while the meat is below 140°F. By starting with a colder piece of meat, it spends more time below 140°F in the cooker, resulting in a stronger smoke ring.

Brisket - Fat Side Up/Fat Side Down?

- Fat Side Down : Heat rising over the brisket is the primary source of drying. By using the fat cap of the brisket (the thick layer of fat on one side of the brisket) as a shield between the intense heat of the fire and the delicate meat will give a more tender brisket with a lot less surface drying.
- Fat Side Up : Meat is not a sponge. Yes it will absorb moisture (think brining) in small amounts as long as the circumstances are right (like a low temperature, salt content and the right PH). The fat from the melting cap is going to pour around the meat and drip off the bottom. This action will wash off much your spice rub.

Rules to a moist brisket

- Start with a well marbled brisket with a thin layer of fat (cap)
- Keep fat on the brisket
- Keep the fat between the meat and the fire as much as you can
- Keep the heat in the smoker low (under 250 degrees F.)
- Practice, experiment and learn
- Collagen is a long, stiff protein that is the most prevalent protein in mammals. It's made up of three separate molecules composed of amino acid chains, twisted around each other, something like the way fibers are twisted around each other to form a rope. This structure is what makes the collagen so strong; this strength is also what makes it more difficult to break down. The more collagen there is in a piece of meat, the tougher it is to cut and to chew. Skin is mostly collagen, as are the tendons that connect muscles to bones. For cuts that are high in collagen, cooking with methods that use slow, moist heat, such as stewing or braising, smoking are the best.
- Collagen is soluble in water and when it is cooked slowly with moist heat, it becomes gelatin. You can also make collagen less tough by slicing up meat into smaller pieces, which makes the fibers smaller and easier to break apart.

The Texas Crutch

In a real, foil/cellophane wrapped piece of meat:

- Foil wrapping reduces cooking time.
- The purpose of adding a bit of liquid before foil wrapping is NOT to create steam, but to increase thermal conductivity through the foil into the meat. Heat conduction from foil through air to meat is much weaker.
- Steam does not immediately form inside a foil pack- the cooler food lowers the internal air temperature, and evaporative cooling slows the heating process.
- Wrapping in foil braises the food for hours, until the liquid nears the boiling point. Again, most of the time, it is not steaming.
- In a tightly wrapped braising package with lots of fat accumulated in the bottom, eventually some of the air vapor will be steaming or even superheated in localized areas. More likely to occur at 350F, less likely at 250F.
- Loosely wrapped food will hardly ever reach the steaming point
- In the barbecue world, foil wrapping is often known as the "Texas crutch". Basically, you slow cook the meat for a few hours to brown and develop . a Smokey flavor and crust, until reaching 150-160F. Then, wrap the meat in aluminum foil and catering quality cellophane and adding in a bit of moisture (water, apple juice, beef broth, ..) to prevent the 'cue from drying out, and to directly conduct heat through the foil into the bottom of the meat. Finally, after a few more hours of basting in foil/ cellophane remove the meat and either serve immediately or finish on the grill.

Common wisdom holds the added moisture flashes into steam to speed up cooking. But the 150F meat's thermal mass and evaporative cooling suppresses any tendency to boil- at least for a few hours. And after a few hours, its often time to unwrap.

What are the advantages of butcher paper over foil or just smoking without either?

 Answer: Butcher paper lets the meat breathe, holding the moistness in the meat, but without making the bark (crust) soggy. Foil will act as a seal and steam the meat and will make most barks mushy or soggy when unwrapped. Once you wrap the brisket, there's no need to continue adding wood to your charcoal." Wrapping does create a tenderer and juicy product, and it can speed up the cooking process, but you will sacrifice the true BBQ Pit flavor of crusty smokey brisket or butts

Pros & Cons on Wrapping Meat

Pros

- Cut down on cook time Like I mentioned, by wrapping the brisket you can power through the stall and you can enjoy your delicious smoked brisket even faster.
- Keep meat moist and tender Brisket is a bit of a fickle beast; it needs to be smoked for a long
 period of time for the fat and collagen inside to break down, but if you cook it for too long it will begin to
 dry out. Wrapping it will help keep it moist and tender.
- **Stops meat taking on smoke** Too much smoke can give your meat a lighter fluid flavor. Once it is hit about 145°F internal temp more smoke will not add much flavor.
- You can hold for several hours Once you remove meat from your cooker it will begin to rapidly cool down. An easy way to combat this is to "hold" your brisket in a dry cooler filled with towels (more on this later). By wrapping your brisket, you can easily transfer from the cooker to your cooler with little to zero mess.

Cons

• **Ruins bark** – If you wrap your meat too early, or if you just cook it for too long while it is wrapped you run the risk of your bark becoming nothing more than a wet and mushy mess.

Wrap vs Unwrap

	Cook Time	Bark	Taste
Foil	11	Soft	Beefy
Butcher Paper	11.5	Little Crunch	Medium
Straight Up	12	Crunchy	Smoky

What is the "Stall" ?

- The meat is sweating, and the moisture evaporates and cools the meat just like sweat cools you after cutting the lawn. Here's how he proved it.
- The barbecue stall is a simple consequence of evaporative cooling by the meat's own moisture slowly released over hours from within its pores and cells. As the temperature of cold meat rises, the evaporation rate increases until the cooling effect balances the heat input. Then it stalls, until the last drop of available moisture is gone."
- The process seems to take all the moisture out from the surface and just below it, and this is clearly part of the formation of the crusty, jerky like, spice laden "bark" on the surface that contributes to the textural and flavor profile.

More FAQ's

• What temperature should I pull the brisket off the smoker?

• **Answer**: Smoke Temp should be about 225-275. Take it to 165, foil it, take it to 205, pull it, let is rest in for 30 minutes, slice and that is about it. Or to even make it easier add about an hour to the cook and **do not use foil** and let the brisket smoke to 205. If you do all that, you will have the **perfect brisket**

Why did my brisket turn out tough?

• **Answer:** A brisket that is tender like that is pure gold for a smoker. The problem is that a brisket is one of the more challenging cuts of meat to smoke, If the brisket is tough, it is because it needs more time to cook to tenderize and break down the connective tissues, or the **brisket is cut with the grain instead of against the grain to guarantee tenderness**.

What's better point or flat brisket?

• <u>Answer: The point has more fat content, it is thicker, and some say a more flavorful cut. The point is the cut that "Burnt Ends "come from. The brisket is a tough cut of meat. Some prefer the point because it tends to be more tender and juicier after cooking. The flat or round cut is much leaner and is best sliced as thin slices and is tougher to smoke to correct tenderness.</u>

Should I separate point from flat brisket?

• **Answer:** Therefore, after your traditional brisket butchering (Packer Brisket), you need to start to separate the flat form the point. In short, you want to remove the fat layer between the point and the flat. Using a sharp boning knife expose the point meat so it can absorb smoke. You do not have to separate the muscles.

Carry-Over Cooking

- Have you ever noticed that the internal temperature of meat **continues to rise** after removing it from the cooker, grill or oven? This is called **carry-over cooking** and is caused by residual heat transferring from the hotter exterior of the meat to the cooler center.
- As a general rule, the larger and thicker the cut of meat, and the higher the cooking temperature, the more
 residual heat will be in the meat, and the more the internal temperature will rise during resting due to carryover cooking. This means the meat must be removed from the heat at an internal temperature lower than
 your desired final internal temperature, allowing the residual heat to finish the cooking.
- This process of the food continuing to cook, using the retained heat in the food itself, is
- called **carryover cooking.** It is the reason why many recipes call for standing time. The carryover cooking that occurs during standing time causes the internal temperature of the food to rise several degrees and allows for the temperature to become more equalized throughout the food.
- How much carryover cooking is possible depends upon the size of the food, its density, its **heat capacity** (ability to retain heat), and how hot its internal temperature is when you remove it from the oven. Foods that are high in water have a high heat capacity, and therefore, are excellent at carryover cooking. Thus, failure to allow for standing time results in food that is overdone.

Brisket Yield

- When you take into account the trimming of the brisket before and after cooking, plus the shrinkage that occurs during cooking, don't be surprised if you end up with a 50% yield of edible meat from a whole, untrimmed brisket. That means 6 pounds of edible meat from a 12- pound brisket. Depending on the brisket and the internal temp you cook it to, it may be as low as 40% or as high as 60%.
- If you're cooking brisket for a party, figure 4-5 ounces of meat per sandwich or 6 ounces of sliced meat on a plate (8 ounces for hearty eaters). Using a 40% yield, just to be safe, a 12-pound brisket yields 19 4ounce sandwiches or almost 13 6-ounce plate servings.

Slicing & Chopping Brisket

- Separate The Point From The Flat
- This dark, almost burnt looking piece of meat is, in fact, a properly cooked brisket. Don't be surprised if your brisket
- turns out looking like the one shown in Picture1
- Start by separating the point from the flat. After the brisket has cooked, the demarcation between these two sections becomes clear. Using a sharp knife, cut through the thick vein of fat to separate the two pieces. Some people find that scraping the excess fat from the flat section first helps to reveal the vein of fat between the two sections more clearly.
- **Picture 2** shows how the two pieces look after being separated. The flat is on the left and the point on the right. This particular brisket has an enormous point, almost as big as the flat, which is quite unusual. The point on your brisket will most likely be smaller.



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Slicing & Chopping Brisket

• Slice The Flat

- Scrape the remaining fat from the flat section where it was connected to the point. Determine the direction of the grain of the meat, then cut across the grain into 1/4" slices. If the meat seems a bit tough, slice it thinner; if fall-apart tender, slice it up to 1/2" thick.
- This picture shows how the slices will look. If the brisket flat is much wider than your knife, cut the brisket down the center against the grain, then cut shorter slices across the grain from each half.





Slicing & Chopping Brisket

- Slice Or Chop The Point When it comes to the point section, you have several options. You can throw it back into the smoker for 4-6 hours to make burnt ends (see below). It can also be trimmed of excess fat and sliced across the grain, but I don't care for the texture of these slices very much. My preference is to trim the excess fat and shred the meat for chopped sandwiches.
- To shred the point, hold a serrated knife across the grain and push the knife away from you at an angle down through the meat. You're not trying to cut a clean slice-- you want to tear shreds from the soft meat. Weed out any bits of excess fat and connective tissue that did not break down during cooking. Add to the shredded meat any cutting board leftovers from slicing the flat section, then chop through the meat a few times with a chef's knife to cut up any large pieces.

Burnt Ends

- Traditionally, burnt ends sold in restaurants were the dry edges and leftover bits and pieces of the brisket flat after slicing, mixed with barbecue sauce. These morsels were highly prized for their intense, smoky flavor.
- In Kansas City can't meet the demand for burnt ends using leftover bits, so they make a facsimile by cubing fully cooked brisket flats, placing the cubes in a pan and smoking them for a couple of hours, then adding sauce and smoking for a couple more hours.
- Another approach for making burnt ends is to separate the point section from the flat section after the flat is done, then return the point to the cooker for smoke for an additional 4-6 hours. Chop the point, mix with barbecue sauce, and enjoy!
- Burnt Ends Video's

Beef 101

• How beef is graded

- Grades are based on the amount of marbling in the meat and the age of the animal. Marbling is the flecks and streaks of white fat you find distributed throughout the meat. In general, the higher the degree of marbling, the more tender, juicy, and favorable the meat will be. Consequently, higher grade meats come at a higher cost. Age also plays in an important part. Beef is best in flavor and texture when cattle are between 18 and 24 months old, so the grading favors younger animals. There are eight distinct grades of beef recognized by the USDA. In order of descending quality they are:
 - Prime
 - Choice
 - Select
 - Standard
 - Commercial
 - Utility
 - Cutter
 - Canner

Beef Grading

- Prime grade beef, this is the grade of beef that contains the greatest degree of marbling. It is generally sold to finer restaurants and to some selected meat markets. It is significantly higher in price because less than 3% of the beef graded is Prime. Prime grade beef is the ultimate in tenderness, juiciness, and flavor. Prime Rib is a USDA Prime rib roast for example, and many top steak houses serve only Prime cuts.
- **Choice grade beef:** has less marbling than Prime but is still of very high quality. This is the most popular grade of beef because it contains sufficient marbling for taste and tenderness, while costing less than Prime. Just over half of the beef graded each you earns a grade of Choice. Choice cuts are still tender and juicy.
- Select grade beef: This is generally a lower priced grade of beef with less marbling than Choice. Select cuts of beef may vary in tenderness and juiciness. Select has the least amount of marbling, making it leaner than, but often not as tender, juicy and flavorful as, the other two top grades.
- About a third of beef graded falls into this category.

Aging Beef

- Dry Aging
- The old method of aging meat is known as dry aging. Dry aging is done by hanging meat in a controlled, closely watched, refrigerated environment. The temperature needs to stay between 36 degrees F and freezing. Too warm and the meat will spoil, too cold and it will freeze, stopping the aging process. You also need a humidity of about 85% to reduce water loss. To control bacteria you need a constant flow of air all around the meat, which means it needs to be hanging in a well-ventilated space. The last and most important ingredient in this process is an experienced butcher to keep a close eye on the aging meat.
- Aging takes about 11 days before you see much improvement in the flavor of the meat. After that the flavor continues to intensify, but so does the loss of weight and the risk of spoilage. Eventually the meat will be worthless so many fine restaurants who do their own aging will limit it to 20 to 30 days.
- Wet Aging
- The less expensive alternative to dry aging is called wet aging. Meat is shipped from packing plants to butchers in vacuum packaging. Butchers can set this packed meat aside in their refrigerators and allow them to age. Since the meat is packed in its own juices the enzymes will breakdown the connective tissues and make it more tender.
- However, because there will be no fluid loss the concentration of flavor that you get from dry aging won't happen.
- Aging needs to be done at precise temperatures and humidity under controlled circumstances. The average family refrigerator just doesn't have what it takes to properly age beef. It is very easy to get a good colony of bacteria going in that meat during the couple of weeks it takes to age a piece of beef.
- It is popular with many of the competition barbecue cooks to age their briskets. This is done for a short period of time and with sealed meats. The cryovac briskets can be held in your refrigerator for a **week or two safely**. It is debatable how much

Beef Definitions

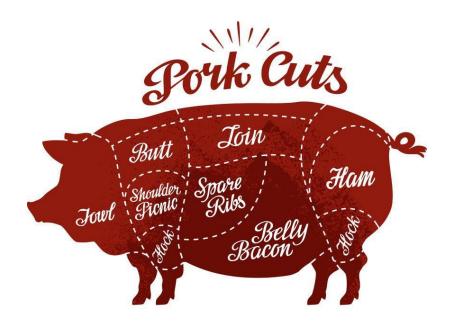
- Natural Beef
- USDA standards for labeling beef as natural are much less stringent. "Natural" beef merely means that the beef is minimally processed, without flavorings, coloring, preservatives or synthetic additives. Note that this does not include hormones or antibiotics, which are permitted under USDA regulations, although individual producers may voluntarily choose to forgo use of these as well. The regulations do not address the cattle's food or environment--there is no requirement that the animals have access to the outdoors, nor are they forbidden to consume animal byproducts.
- There is no third-party verification or tracking of natural cattle herds. They can be processed in factory feedlots.
- Organic Beef
- Organic beef must be certified by the USDA to meet stringent standards. The cows must be born and raised on certified organic pasture and fed only certified organic grain and grass. They can never receive any antibiotics or hormones, and they must have unrestricted access to the outdoors. These guidelines are subject to third-party verification and certification must be renewed annually.

Beef Definitions

- Grass Fed Beef
- The definition of *Grass-fed beef* generally means beef from cattle that have eaten only grass or forage throughout their lives, however some producers do call their beef grass fed but then actually finish the animals on grain for the last 90 to 160 days before slaughter.
- Grass Finished Beef
- A more specific definition is *Grass Finished Beef*. Finishing is just another word for the time that cattle are normally fattened for the last few months before processing. Typically, feed lots finish cattle for 90 to 160 days on grain, usually corn, whereas grass finished cattle are fattened on grass only, until the day that they are processed.
- Grass finishing compared to grain finishing
- When considering the definition of grass-fed beef, most beef animals have probably eaten grass at some point in their lives, but the important thing is that they're "finished", or fattened on grass, rather than grain, for the 90 – 160 days before slaughter.
- During those few months of grain finishing the levels of important nutrients like CLA and Omega 3 decrease dramatically in the beef animal's tissues. It is in the finishing process that those levels and ratios drastically decline because of the grain feeding, and that is why it's so important to make sure that the beef you eat is not only grass fed, but grass finished.

Meat Tenderness Influences

- Stress: Stress prior to slaughter is one of the most important influences on ultimate meat tenderness. After death the sugars in the muscles are converted to lactic acid, lowering the pH. A normal, non stressed animal has muscle pH of around pH 5.5 after death (24 hours after slaughter all the sugars have been converted).
- **Pre slaughter electrical stunning:** Where animals are routinely rendered unconscious by electrical stunning immediately prior to slaughter, the muscles are positively affected from the tenderness point of view, mainly through mechanically fracturing some of the 'giant', intermediate and shorter muscle fibers of meat
- Aging: Very rapid chilling virtually *immediately* after slaughter causes the muscle fibers to contract (except for those being stretched by the weight of the carcass (e.g. tenderloin) strongly. These shortened muscle bundles resist shear forces and cause 'tough meat'. The relaxed (stretched) muscles on the same instantly chilled carcass are elongated and 'opened out' and thus remain relatively tender.
- Age: Aging shouldn't be confused with age. Young animals are tenderer anyway because the protein breaking down enzyme system decreases as an animal gets older. So, paradoxically, aging the meat by leaving it to hang for some weeks works best with younger animals least likely to need it!
- In general, as animals age the amount of connective tissue (collagen) increases. More importantly, the degree of interconnectivity of the collagen increases with age, which results in the collagen becoming resistant to dissolution in cooking. Thus, meat from older animals can become more resistant to tenderization in cooking, and require longer, slower cooking, such as braising, smoking, or pot roasting to deal with the greater amount and connectivity of the collagen.



I Like Pork Butts and I Cannot Lie!



- Despite the name, pork butt **does not** come from the rear end of the hog--it is cut from the shoulder.
- The pork shoulder weighs 12-18 pounds and consists of two portions: the **butt**, which is the upper portion of the shoulder, and the **picnic**, which is the lower portion.
- The whole pork butt is a rectangular roast weighing 6-10 pounds and containing a portion of the shoulder blade bone. It is sold bone-in or boneless; if boneless, a whole roast may be cut into half portions.
- The whole picnic weighs 6-9 pounds. It contains a portion of the foreleg and is usually sold with some skin attached. The picnic is sometimes cut into an upper arm portion (the meatier portion, usually sold skinless) and the lower foreleg portion (containing more bone, skin, and connective tissue).



Know the difference between pork shoulder and pork butt.

PORK BUTT	PORK SHOULDER	
Also known as "Boston butt"	Also known as "picnic shoulder" or "picnic roast"	
Well marbled with intramuscular fat	Typically, has less intramuscular fat and marbling	
Often sold with fat cap intact	Frequently sold with skin on	
Rectangular, uniform shape	Tapered, triangular shape	
Sold as bone-in and boneless	If boneless, typically sold in netting; when netting is removed, meat "unfolds" into uneven layer	

Tips on Picking out the Best Whole Pork Shoulder or Pork Butt

- If you're buying Whole Shoulders, look for them to weigh 16-17lbs. I've found that this size
- shoulder trims down to the perfect contest size.
- When cooking butts, I stick with the **8lb range**. Stay away from the larger cuts of meat. If you're feeding lots of folks and want the best value, the larger sizes are great, but I want the best piece of meat that I can possibly get for a contest.
- Get to know your local butcher. He will have access to the freshest meat, and as you build a working relationship with him, he will be able to keep an eye out for the best cuts that you want. My butcher knows exactly what I want now that I've been working with him for a while. As meat comes in (usually by the case) he puts the prime cuts to the side and holds them for me.
- Stores such as Sam's Club or Costco have really good product. It's hard to find whole shoulders at these places, but they do sell good pork butts.
- Normally found in a two pack, the butts are fresh. Watch out for any "loose" packaging. These have been exposed to air and will not be as fresh. I've found that in the two pack, one of the butts is usually near perfect, but the other may be underweight or have some flaws. This isn't always the case but with a little patience and a trained eye you can find really good meat at a Warehouse store.
- The next important item to look for is the muscle on the front of the butt. Often called the "money muscle", this is where prime judging meat is found. As you examine the package, feel the front of the butt (farthest from the bone). It should feel fairly firm. The money muscle should have a decent amount of fat marbling throughout.

Pork Butt

Other Names for Pork Butt

- Pork butt is also known by the following names, or some combination thereof:
- Boston shoulder roast
- Boston roast
- Boston butt
- Shoulder butt
- Shoulder blade roast

• Why Pork Butt Is Preferred For Barbecue

• You can make great-tasting barbecue with either pork butt or picnic. Both portions contain a lot of fat and connective tissue, which results in moist, succulent meat after many hours of "low and slow" cooking. However, most people use pork butt because it is more commonly available in stores (especially at wholesale warehouse stores) and because it has somewhat less waste than the picnic. Both portions, however, are quite inexpensive.

Pork Butt Temperatures

- Internal Meat Temperatures
- In order to be tender, a pork butt must be cooked to an internal temperature of 180-205°. The reason for this is that
 the conversion of collagen to gelatin doesn't even begin until meat reaches an internal temperature of 140°F and is
 most efficient as internal temps approach 212°F. "Low and slow" barbecuing at 225-250°F is ideal to facilitate this
 conversion, providing gentle heat over many hours, allowing the collagen to make its transition into gelatin. While
 some moisture will be driven out of the pork butt as it reaches these high internal temps, the gelatin makes up for it
 and keeps the meat moist
- For sliced pork, cook to 180-185°. For pulled pork, cook to 190-205°.
- Where to Measure Internal Temperature
- A pork butt consists of a number of individual muscles that converge at the shoulder, and there is a lot of fat and connective tissue between these muscles. As a result, you will get different temperature readings between different muscles and between meat and fat or connective tissue.
- I feel the best way to measure internal temperature is to check in several locations and average the results. For example, if you're shooting for 195°F and you get readings of 193°F, 195°F, 198°F, and 201°F in different locations, you've achieved your goal of 195°F. If you prefer to measure in just a single location, then measure in the thickest part of the meat.

The stall, Plateau is evaporative cooling

- The meat is sweating, and the moisture evaporates and cools the meat just like sweat cools you after cutting the lawn. Here's how he proved it.
- The barbecue stall is a simple consequence of evaporative cooling by the meat's own moisture slowly released over hours from within its pores and cells. As the temperature of cold meat rises, the evaporation rate increases until the cooling effect balances the heat input. Then it stalls, until the last drop of available moisture is gone."
- The process seems to take all the moisture out from the surface and just below it, and this is clearly part of the formation of the crusty, jerky like, spice laden "bark" on the surface that contributes to the textural and flavor profile.

Pulling Pork Butt

- Pulling Pork Butt
- When pulling hot pork butt, protect your hands by wearing heat-resistant gloves or disposable latex gloves over cotton work gloves.
- After cooking the pork butt to 195-205°F and letting it rest for at least 30 minutes, remove the bone (if any) and pull the meat into thumb-sized pieces or smaller.
- The most common ways of pulling pork are by hand, with large serving forks or bear claws.
- To pull the meat by hand, separate the butt into chunks along the natural seams between muscles. Remove any areas of fat or connective tissue by hand or by scraping with a knife, and then tear the chunks into small pieces.
- To pull the meat using serving forks, just plunge two forks into the meat side-by-side and pull the meat apart. Use the forks to break large pieces down into small, bite-sized ones. Remove any areas of fat or connective tissue by hand.
- Many people enhance the flavor of pulled pork by mixing in salt and pepper and then by mixing in a tomato-based sauce.
- Pulled pork butt can be served on a plate or in a sandwich. It's common for a pulled pork sandwich to be served on a bun with a drizzling of sauce and a scoop of Cole slaw.

Pork Butt Yield

- "Bark"
- The terms "bark" describe the dark brown outside meat of barbecued pork butt that is so flavorful. Make sure that each of your guests gets some of this meat in their serving of pulled pork.
- Pork Butt Yield
 - When you take into account trimming the fat before cooking, the shrinkage that occurs during cooking, and some waste when pulling the meat, you'll end up with a 40-60% yield of edible meat from an untrimmed pork butt. For example, an 8-pound untrimmed pork butt will yield 3-5 pounds of edible meat.
 - If you're cooking pork butt for a group, figure 4-6 ounces of meat per sandwich. Assuming a 50% yield, an 8-pound untrimmed pork butt will yield 16 4-ounce sandwiches or almost 11 6-ounce sandwiches.

Pork Butt Quick Cook

- Pork butt is one of those meats that take a very long time to barbecue. It's filled with lots of fat and connective tissue, and it takes many hours of low, slow cooking to render the fat and breakdown the connective tissue, resulting in meat that's tender and easy to pull. Most people plan on cooking pork butt for 1-1/2 to 2 hours per pound to an internal temperature of 180-190°F or higher. This can take 14-16 hours for a large, bone-in butt.
- Sometimes you just don't have that much time. One way that people get around this problem is to cook pork butt overnight, then put the butts in the cooker at night, go to bed, and finish cooking them the next morning. Unfortunately, there are times when even this method is not feasible. On those occasions, the solution may be to accelerate the cooking process by using aluminum foil and heavy-duty cellophane.
- Aluminum foil and cellophane is a controversial topic in barbecue circles. Some people will say, "I'd rather not have pork butt at all than to cook it using foil." That's OK--I respect that view and I'm not trying to convince anyone that they must use foil. In fact, using foil does have some drawbacks, which I will discuss in a moment. Still, foil and cellophane can be a useful tool in situations where you want to shorten the cooking time.

What Else Can I use Pulled Pork for ?

• Pulled pork is a staple barbecue food. Sure, it makes for a great pulled pork sandwich, but it's also having many other possibilities not just BBQ. Since pulled pork is tasty and versatile, it would be a shame to waste it on the same old barbecue sandwich recipes you have been using for generations.

- Unique Pulled Pork Recipes that are not BBQ Sandwiches
 - Pulled Pork Nachos.
 - Pulled Pork Poutine.
 - Pulled Pork Chili.
 - Pulled Pork Enchiladas.
- Pulled Pork Mac and Cheese.
- Pulled Pork Gyros.
- Pulled Pork Pizza
- Thai-Style Pulled Pork Over Rice
- Pulled Pork Taquitos
- Pulled Pork Cuban French Bread Pizza
- Pulled Pork Bratwurst
- Pulled Pork Shepherd's Pie
- Pulled Pork Lettuce Wraps
- Pulled Pork Burrito Bowls
- Pulled Pork Hoagie

Simple No-Wrap Pork Butt or Shoulder

Ingredients:

- 8-10 Pork Butt or Shoulder
- Three Little Pigs Touch of Cherry Rub
- Three Little Pigs Championship Rub
- Three Little Pigs Mustard BBQ Sauce
- Picked Onions
- Sweet Pickles
- Sandwich buns

Directions:

- Preheat your smoker to 250°F.
- Combine all <u>Three Little Pig's Touch of Cherry & Championship rub</u> in a bowl and mix.
- Apply a coat of Three Little Pig's Mustard BBQ Sauce on the butt or shoulder as a rub binder.
- Apply a generous amount of the Championship & Touch of Cherry rub on all sides of the pork shoulder.
- Place the pork shoulder in your smoker fat side down, with 5 to 6 wood chunks of your choice on top of hot coals. Cook until the deepest section of the meat reaches an internal temperature of 205°F, or about 8 1/2 hours.

Once the pork shoulder has reached its targeted temperature, remove from your smoker and place in a large aluminum drip pan. Cover with aluminum foil and let rest for 1 hour.

Using Meat Claws or Disposable BBQ Gloves, shred the pork shoulder and discard any bones or sizable chunks of fat. Once <u>fully</u> <u>shredded</u>, <u>pour in your choice of finishing sauce over the meat</u>. For a Carolina style <u>pulled pork use either Three Little</u> <u>Pig's Carolina</u> <u>BBQ sauce or new Carolina Mustard Sauce</u>.

Assemble sandwiches with buns, pickled onions, sweet pickles, and Three Little Pig's Mustard BBQ sauce to finish.

BBQ 102



Which Three little Pigs BBQ Rubs?

www.three-little-pigr-bbq.com

Thee Little Pigs

Rub	Beef	Pork	Poultry	Seafood	Wild Game	Vegetables
Kansas City All Purpose	х	Х	х	х	Х	Х
Kansas City Championship	×	х	×		Х	х
Kansas City Championship Hot	x	х	×		х	Х
Kansas City Sweet	Х	Х		Х	Х	Х
Kansas City Touch of Cherry	Х	Х	Х			X
Memphis Style	Х	Х			Х	×
Texas Beef	Х	Х	Х		Х	X



Three little Pigs BBQ Rub Descriptions

www.three-little-pigs-bbg.com



Three Little Pig's Texas Style BBQ Rub was developed for beef, and is especially good on brisket, thick steaks, prime rib, ribs, or tri tip. This Texas Style Seasoning works well on a very hot grill or smoker, since it has little sugar. Texas Beef gets its distinctive flavor from a healthy dose of fresh ground black, white, and red pepper topped off with a hit of Garlic powder, coarse kosher salt, and other spices. Texas Beef Style is a natural on hamburgers and pork chops and makes a great table condiment when you desire to create an extra peppery flavor.



Three Little Pigs Memphis Style BBQ Rub seasoning blend delivers distinctive flavors with a combination of fresh ground black, white and red pepper, coarse kosher salt and sugar. Topped off with a hit of Worcestershire powder and other spices. Memphis Style Rub works perfectly over any meat cooked on grills or smokers.



Three Little Pig's Touch of Cherry BBQ Seasoning is our most unique offering. Sweet cherry flavor enhanced with a tasty combination of sugar, brown sugar, salt, garlic, onion, spices, and natural cherry and smoke flavor, helps create a sweet caramelized flavor on your favorite meats. Touch of Cherry BBQ rub draws out a very unique flavor for pork, poultry, ham, chicken, fish, shrimp, mushrooms and veggies.



Three Little Pigs Championship BBQ Rub is always a balanced mix of sweet and spicy ingredients that provide a mega-flavor boost. Kansas City Championship BBQ Rub is ideal for all kinds of meats, soups, chili, veggies, baked potatoes and



Three Little Pig's Kansas City Sweet BBQ Rub is a savory rub that will add a ton of flavor without straying away from the natural flavor of the meat itself. This is a mild rub that won't overpower ribs, pork, and chicken. It also serves as a great starter for anyone who wants to add flavors himself or herself such as to increase the sweetness (e.g.,sugars, honey, etc.), saltiness or peppers to meet the liking of her or his tastebuds.



Three Little Pig's Kansas City All-Purpose BBQ Rub is an allaround seasoning. This Seasoning possesses a fresh and unique flavor, without straying too far from what folks expect from a BBQ rub. Use it on poultry, pork, beef, or seafood for tasty results. Sprinkle it on veggies, French fries, or baked potatoes for an extra kick of flavor.

Three little Pigr BBQ Sauce Description's



Three Little Pigs Touch of Cherry BBQ Sauce Is a complex sauce, the underlying ingredient is Cherries. The tart and sweet fruit is added with tomatoes to an apple cider and vinegar base, then sweetened with brown sugar and molasses and spiked with a variety of spices.



Three Little Pigs Mustard Style BBQ Sauce blends zesty, creamy mustard, sweet molasses, sugar, tangy apple cider vinegar with hickory smoke notes and a hint of perfectly aged cayenne pepper



Three Little Pigs Competition BBQ Sauce has beenThree Little Pigs Spicyour secret to winning numerous BBQ awards and
contests for years. With a sweet aroma, the tang of
vinegar, and a dominating sweetness, the classic to-
mato based sauce has a touch of heat added toThree Little Pigs Spicy
shiny sauce has a dark
ture is broken up with
they include garlic, on
sauce runs medium-th
to balance the sweet.



Three Little Pigs Kansas City Sweet Going to Kansas City! Kansas City here I come! Three Little Pigs Kansas City Sweet BBQ Sauce is a sweet, smokey classic tomato-based sauce. Great paired with chicken and pork, this sauce is enhanced with natural smoke flavor and sugars.



Three Little Pigs Spicy Chipotle This smooth and shiny sauce has a dark mahogany hue. Its syrupy texture is broken up with some small bits that look like they include garlic, onion, and black pepper. The sauce runs medium-thin with a bite of Chipotle heat to balance the sweet.



Three Little Pigs Carolina Style This Eastern NC Style BBQ Sauce offers a savory blend of apple cider vinegar, salt, black pepper, crushed red pepper flakes, cayenne pepper, garlic powder and hickory smoke powder for irresistible hickory barbecue flavor.

