

Florida 4-H Tailgate Grilling Day Camp



Agent/Volunteer Resources

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UNIVERSITY of FLORIDA



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LEARNING ACTIVITY OUTDOOR MEAT COOKING EQUIPMENT

Learning Objective: Youth will learn to select and use the basic equipment to safely cook using a charcoal grill.

Life Skills: Decision Making and Healthy Lifestyle Choices

Background: Grills come in many sizes and shapes. Grills can be simple or very fancy with many accessories. Select a grill that is sturdy and has a durable fire box. The thicker the metal for the fire box, the longer the grill will last. The size of the grill cooking surface depends on the need. For example, a small portable grill may be selected for picnics but a larger, maybe permanent, grill for use at home. Choose a grill that you can control the heat either by opening or closing vents or moving the cooking surface up or down. Also, some grills have a shield to reflect heat and prevent wind drafts; other grills have lids that will hold heat, prevents wind drafts and is useful for smoking meats. Personal clothing should be clean and neat and not present a safety concern (no loose fitting clothing and open toed shoes). People cooking should wear a head covering, wash hands and may use plastic gloves when serving to prevent contamination of food.

Useful accessories include:

- Table: portable table to place your utensils and prepare your food
- Tongs: two, long handled tongs are needed – one for the meat and one to move charcoal
- Apron: to keep yourself clean and for protection
- Padded Mittens or Gloves: for handling hot food and equipment
- Fork, Knife & Spatula: long handled to move or turn meat and stay a safe distance from fire
- Skewers: for cooking kabobs; long with wooden handles are safer
- Sprinkle Water Bottle: to douse flame-ups; spray bottles can cause ashes to fly
- Basting Brush: to add sauces to meat surface
- Small Pan: to keep sauces warm
- Thermometer: to check meat internal doneness
- Pliers: to grasp cooking grid to move off grill to add charcoal
- Cooler: to safely transport food items

DO

- Demonstrate various grills and accessories to use in outdoor meat cooking.
- Talk about choosing the right grill and things to consider like:
 - Type of fuel
 - Size
 - Features wanted
 - Style
 - Budget
 - Where it will be used
- Visit a store that sells and grills and grilling supplies
- Set up a grill accessory/equipment ID learning station
- Discuss how to and set up a prep station

REFLECT

- What types of grills and accessories were used for outdoor meat cooking?
- Were there any accessories that were missing?
- Were there any accessories you had not seen before?
- What accessories were available for food safety? Personal safety?
- What did you include in your grill accessory/equipment ID learning station? Why?

APPLY

- How can becoming aware of the types of grills and accessories improve on your outdoor meat cooking skills?
- How can you utilize the grill accessories and equipment to be safe while cooking meat outdoors?
- How can you prepare a work station to have safe grilling practices?
- Which of the grilling utensils and equipment do you think are really necessary? Which are just high priced gadgets?
- What type of grill makes preparing food the easiest for your family?
- What types of grills and accessories were used for outdoor meat cooking?
- Were there any accessories that were missing?
- Were there any accessories you had not seen before?
- What accessories were available for food safety? Personal safety?
- What did you include in your grill accessory/equipment ID learning station? Why?

LEARNING ACTIVITY SAFETY WHILE GRILLING

Learning Objective: Youth will learn about fire, food and personal safety while grilling.

Life Skill: Healthy Lifestyle Choices

Background: Tailgating is possibly more popular than the athletic or entertainment events they generally accompany. However, you must use good safety practices to prevent injury, property damage or food borne illness.

Safety hazards can be grouped into location, fire and food safety.

Location safety - Locate your grill on a firm, level surface to prevent the grill from tipping over. Your grill should be away from wood siding, shrubs or any other material that can burn. Keep young children, pets and flammable materials away from your cooking. Do not place portable grills on tabletops that can burn. Never grill indoors, garages or areas that are not well ventilated. Charcoal briquettes produce carbon monoxide and cause illness or even death. Remember that utensils and grill tops and sides are very hot so use long handled utensils and protective mitts to prevent injury. Also, loose clothing and open toed shoes should not be worn.

Fire safety - Only use an approved charcoal starter – never use gasoline or kerosene to start the fire. Never put lighter fluid on a hot fire! Do not use aerosol cans around fires because many aerosol propellants are flammable. Never leave your hot grill unattended. Flare-ups in the grill and grease fires are also dangers. A spray bottle with water can usually control flare-ups. Coarse salt or baking soda can smother a grease fire. A fire extinguisher that is capable of controlling wood/paper and grease fires would be a good idea. After cooking, either douse the hot coals with water or close the vents on grill to smother fire. Make sure coals are cold before disposing of them.

Food safety - The inside of muscle is usually not contaminated with any pathogens which can cause food-borne illness. A pathogen is a harmful microorganism. Pathogens such as Salmonella and E. coli O157:H7 can live within the digestive tract of food animals and can be transferred to the carcass surface during slaughter. Therefore, it is essential that all ground meat be cooked to 160°F, as checked by a properly calibrated cooking thermometer in the thickest part of the food. The surface of intact seafood and whole-muscle cuts of meat, such as steaks, chops, and roasts must be cooked to a minimum internal temperature of 145°F during cooking, thus ensuring heat destruction of surface bacteria. Because the interior of these products have not been exposed to pathogens they are safe when cooked to 145°F. However, all poultry should be cooked to an internal temperature of 165°F. For more information on proper cooking temperatures see

http://www.fsis.usda.gov/wps/wcm/connect/625d9435-4f14-46fe-b207-5d6688cb4db5/Safe_Minimum_Internal_Temperature_Chart.pdf?MOD=AJPERES

Collectively, we can prevent food borne illness by remembering three control measures: keep food clean, keep food cold or keep food hot. Do not let raw meat juices contaminate other food items and thoroughly wash your hands to minimize cross contamination. Pack raw meat in sealed containers or bags and place in bottom of cooler. Bacteria that cause food borne illnesses thrive in the temperature danger zone of 40-140°F. Therefore, keep raw meat at or below 40°F and rapidly chill and refrigerate leftover cooked food.

For more information about food safety, see the “Being an Educated Consumer” heading of this bulletin <http://edis.ifas.ufl.edu/pdffiles/AN/AN28300.pdf> or <https://edis.ifas.ufl.edu/fs256> [http://www.floridahealth.gov/Environmental-Health/food-safety-and-sanitation/ documents/preventfoodcon.pdf](http://www.floridahealth.gov/Environmental-Health/food-safety-and-sanitation/documents/preventfoodcon.pdf)

DO

- Have youth make a list of potential outdoor cooking safety hazards.
- Discuss both the fire and food safety hazards, emphasizing the preventative measures.
- Demonstrate safe grilling techniques, proper use of utensils, and a meat thermometer.
- Discuss how long it took for the meat to reach a safe temperature. Discuss the appearance of the meat when it was safe to eat.
- Review Safe minimum internal temperatures

All poultry	165°F
Ground meats	160°F
Beef, pork, lamb and veal steaks, roasts and chops	145°F*

*As measured with a food thermometer before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat to higher temperatures.

- Discuss cross contamination of foods, using clean gloves, not using same pans, cutting boards for raw and cooked meat unless it has been washed and sanitized. - Refer to Food Safety at Tailgating for points to cover during this demonstration <https://edis.ifas.ufl.edu/fs256>
- Discuss hand washing and its importance. Demonstrate how to remove gloves without cross contamination. https://edis.ifas.ufl.edu/topic_handwashing
- Discuss how to pack your cooler to minimize contamination of foods
- Review Basic grill maintenance safety
 - make sure all parts of grill are stable and can't be turned over easily
 - Burner and grill are free of rust and dirt
 - Base of grill is solid

- Set up your grill in an open area that is away from buildings, overhead combustible surfaces, dry leaves, or brush. Be sure to avoid high traffic areas and always barbecue in a well-ventilated area. Be aware of wind-blown sparks.
- Grate is clean - Demonstrate removing old food and other charred materials from grill using wire brush and wash with hot soapy water if needed.
- Review Personal Safety Measures
 - Use barbecue utensils with long handles (forks, tongs, etc.) to avoid burns and splatters.
 - Wear clothing that does not have hanging shirt tails, frills, or apron strings that can catch fire, and use flame-retardant mitts when adjusting hot vents.
 - To put out flare-ups, either raise the grid that the food is on, spread the coals out evenly, or adjust the controls to lower the temperature. If you must douse the flames with a light spritz of water, first remove the food from the grill.
 - Be ready to extinguish flames.
Use baking soda to control a grease fire and have a fire extinguisher handy. A bucket of sand or a garden hose should be near if you don't have a commercial extinguisher
 - Never leave a grill unattended once lit.
 - Stay away from hot grill. Don't allow anyone to conduct activity near the grill when in use or immediately following its use. The grill body remains hot up to an hour after being used.
 - Don't move a hot grill. It's easy to stumble or drop it and serious burns could result.

REFLECT

- What hazards can arise while cooking meat outdoors?
- What preventative measures can be taken to ensure safety while cooking meat outdoors?
- Why should we identify potential hazards before we start cooking meat outdoors?
- What other factors besides the kind of meat affect how fast food should be cooked?

APPLY

- Think about everyday cooking at your own home. Does your family follow these safety procedures?
- What do you think are the most important safety measures in grilling?
- For outdoor cooking, what can you do to help your family become more aware of the location, fire, and food safety hazards?

LEARNING ACTIVITY BUILDING THE FIRE

Learning Objective: Youth will learn to safely start charcoal to provide the heat for grilling.

Life Skill: Healthy Lifestyle Choices

Background: You may want to line your grill with aluminum foil. This helps protect your grill and makes clean up much easier. If your grill does not have a grate for the charcoal, you may place dry sand or small gravel in bottom to help the fire “breathe” and burn hotter. If your grill is rounded on the bottom, use the sand or gravel to level the fire base. If your grill has bottom vents, open them before starting the fire. Select a high quality charcoal. The better charcoal briquettes start easier and burn more uniformly. To determine the number of charcoal briquettes, spread briquettes 1 to 2 inches beyond the area the meat will cover on the cooking rack. Start your charcoals by one of the following methods: liquid starter, chimney starter or ready to light charcoal.

Liquid Starter: Arrange the charcoal in a pyramid shape on the charcoal or fire grate. Add the liquid starter according to manufacturer’s directions and wait at least one minute before lighting. Use a long stem match or long stem butane lighter to start the fuel.

Chimney Starter: You can purchase a chimney starter or make one by punching or drilling holes around a large can. Place newspaper in bottom of chimney starter and add charcoal to top. Liquid starter may be added to briquettes. Light newspaper through a bottom hole.

Ready to Light Charcoal: These briquettes are pre-soaked with lighter fluid. Arrange in pyramid shape and light.

Electric Starter: Just bury the heating element in charcoal and plug it in. Within minutes, your charcoal will be red hot and ready.

Warning: Never use gasoline or kerosene to start fires, never add starter to hot coals and never grill indoors!

Regardless of the starting method, allow all liquid starter fluids time to completely burn off so that the fuel will not impart an “off-flavor” to the meat. Coals will be ash-covered (white) in about 30 minutes. Then, evenly spread a single layer of coals over the fire grate. Most meat cuts are prepared over medium heat coals. The coals will glow through a thin ash cover or you can hold your hand four inches over the coals for about six-eight seconds.

Pointers for working with Charcoal

- Charcoal should only be used outdoors. Never barbecue in your trailer, tent, house, garage, or any enclosed area because carbon monoxide may accumulate and kill you.
- There are several ways to get the charcoal ready to use. Charcoal chimney starters allow you to start the charcoal using newspaper as a fuel.

- There are also electric charcoal starters, which do not use fire. Be sure to use an extension cord for outdoor use. Unplug and remove a hot starter with caution and be careful where you put it. Always cool starter completely before storing. Never use an electric starter in the rain and/or when standing on wet ground.
- If you use a starter fluid, use only charcoal starter fluid. Never add charcoal fluid or any other flammable liquids to the fire. Wait until fluid has soaked in before lighting. Cap lighter fluid immediately and place a safe distance from grill. Never add lighter fluid to coals that are already hot or warm. Never use gasoline, kerosene, or other highly volatile fluids as a starter. They can explode.
- Keep charcoal fluid out of the reach of children and away from heat sources.
- Once the grill is lit, do not touch briquets or wood chunks to see if they are hot. Keep grill uncovered until ready to cook.
- Keep vents open while cooking. Charcoal briquets and wood chunks need oxygen to burn.
- When you are finished grilling, let the coals completely cool before disposing them in a metal container. You can dispose of cold ashes by wrapping in heavy-duty aluminum foil and placing in non-combustible container. Be sure no other combustible materials are nearby.
- If you must dispose of ashes before completely cooled, place them in heavy duty foil and soak with water completely before disposing in non-combustible container.

Tips for grilling clean-up:

- BEFORE lighting the grill, apply non-stick spray on the grates. The protective spray cuts down the clean-up time afterwards.
- For charcoal grills, line the bowl with aluminum foil. After grilling, and once the grill and coals are cool, simply discard the foil with the coals and ash, then wash and reline with foil for next time.
- Use a wire brush or even crumbled aluminum foil to scrub away buildup on the grates once the grill has cooled.
- Squirt grease-cutting dishwashing detergent on grill and grates (once cool). Scrub with brush or abrasive pad, then rinse. A repeat may be necessary.
- Place a grill pad or splatter mat beneath your grill before cooking. These naturally heat resistant pads will protect your deck or patio from any grease that misses the drip pan and will make it a lot easier to keep your outdoor living area clean and looking like new.

DO

- Make a chimney starter from a large can.
- Demonstrate proper charcoal starting techniques for each method.
- Determine the approximate coal temperature. (2-3 seconds hand count = hot coals; 6-8 seconds hand count = medium coals; 11-14 seconds hand count = low coals.)

REFLECT

- What are the different ways to start the fire in your grill?
- Why should the fire from your grill “breathe”?
- Have you ever tasted the “off-flavor” left behind by a liquid starter?

APPLY

- What starter type was easiest for you to safely start a fire to cook meat outdoors?

LEARNING ACTIVITY SMOKING & SLOW-COOKING

Learning Objective: Youth will learn to select beef, pork, chicken and seafood which work well for smoking/low temperature, slow cooking.

Life Skill: Decision Making

Background: The palatability of muscle foods is a combination of flavor, juiciness and tenderness. Improper cooking can adversely affect meat palatability. Combining proper cut selection and cooking method is one key to preparing highly palatable animal protein dishes

A grill can be utilized in multiple ways. Grilling is conducted by placing food within 6 inches of a high, dry heat source, for a reasonably short time. A grill can be used as an outdoor oven for baking by placing foods 12 inches or more from a low to moderate heat setting with little smoke generation. A grill can be used as a smoker by using indirect, low dry heat (less than 250°F), predominantly as smoke, for an extended period.

Essentially, all proteins can benefit from low, dry heat cooking, but particular cuts should not be grilled. Beef and pork cuts from muscles of locomotion such as the legs, hips, and chest tend to be tougher, due to having more insoluble connective tissue, than muscles of posture, like those from the back. These tougher cuts and other larger roasts should be cooked over lower heat for a longer time to solubilize collagen and improve tenderness or prevent overcooking, improving juiciness. See this document for more information on beef and pork cut selection <http://edis.ifas.ufl.edu/pdffiles/AN/AN22900.pdf>. For more science-based information on smoking and slow cooking see Texas A&M University's barbeque page <http://bbq.tamu.edu/>.

To practice your skills further, consider participating in the 4-H meat judging and poultry judging contests at the University of Florida. More information can be found at <http://animal.ifas.ufl.edu/youth/livestock/meatsJudging.shtml> and <http://animal.ifas.ufl.edu/youth/Poultry/index.shtml>, respectively.

DO

- Purchase a tougher roast such as a beef bottom round or brisket flat. Cut a steak from this roast for grilling over high heat and cook the rest of the roast over low heat and compare the tenderness of the two pieces.
- Purchase different types of wood chips for smoking (pecan, mesquite, hickory, etc.) Place the same kind of meat product on different grills, one without wood chips and the others containing an aluminum foil pouch with the different types of moist wood chips. Compare the appearance and taste of the products.

REFLECT

- What is palatability? Why is it important?
- What was the difference in the tough roast grilled over high heat versus grilled over low heat?
- Did you like the taste associated with the wood chips? What was your favorite?

APPLY

- Will you consider using wood chips while cooking meat outdoors?

LEARNING ACTIVITY SELECTING PROTEINS FOR GRILLING

Learning Objective: Youth will learn to select beef, pork, chicken and seafood that are suitable for grilling.

Life Skill: Decision Making

Background: The palatability of muscle foods is a combination of flavor, juiciness and tenderness. Improper cooking can adversely affect meat palatability. Combining proper cut selection with the proper kind of cooking is one key to preparing highly palatable animal protein dishes.

Grilling is conducted by placing food within 6 inches of a high, dry heat source, for a reasonably short time. Grilling generally works for tender cuts of meat, portioned approximately for one person. Cuts used for grilling generally should be at least $\frac{3}{4}$ -1 inch in thickness. Cuts which are $\frac{1}{2}$ inch thick or thinner can have acceptable palatability, but are easy to overcook when grilled. Large pieces, roasts and whole chickens can become overcooked on the outside and the interior will be undercooked. These cuts should either and/or less tender red meat cuts and whole chickens can be smoked or grilled if placed further away from the heat (6 inches +) at lower heat and for longer times.

Grilling is suitable for essentially all poultry and seafood as most will be reasonably tender. Grilling is also suitable for more tender cuts of beef and pork. See this document for more information on beef and pork cut selection <http://edis.ifas.ufl.edu/pdffiles/AN/AN22900.pdf>.

Many less tender cuts of beef and pork are “non-intact” by being needle tenderized, enhanced or marinated. Many fresh retail pork and poultry products and some beef products have been marinated or “enhanced”, which must be included on the label. See this document for more information on “non-intact” meat <http://edis.ifas.ufl.edu/pdffiles/AN/AN28300.pdf>.

Additional suggestions when selecting products for grilling include:

Choose beef steaks and roasts which grade USDA Select, Choice, or Prime. Most consumers prefer ground meat blended to have between 10-20% fat. Do not select very pale, soft, and watery appearing pork or chicken. Choose seafood which has a firm muscle texture, little if any odor, and certainly no off odor. See this document for more information on seafood selection, quality, and safety <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm077331.htm> .

DO

- Visit your grocery store and identify the cuts that are suitable for grilling.
- Purchase a less tender beef cut such as a bottom round or arm roast and a loin or rib steak. Cut the roast in half, marinate one and not the other half and then compare the eating quality of the three pieces.
- Make patties from 20 and 10% fat ground meats of the same species and compare the eating quality.
- Purchase very light colored and very dark red pork chops and compare their eating quality.

REFLECT

- What proteins are acceptable for grilling?
- Why do less tender cuts need to be tenderized, enhanced, or marinated?
- Did you prefer the very light or very dark red pork chops? Why?

APPLY

- How will you select cuts of protein for grilling in the future?

LEARNING ACTIVITY ENHANCING FLAVOR WITH RUBS, SAUCES, MARINADES AND SMOKE

Learning Objective: Youth will learn methods of seasoning meats to enhance the natural meat flavor.

Life Skill: Decision Making

Background: Meat palatability is a combination of flavor, juiciness and tenderness. Other learning activities have demonstrated factors affecting tenderness and juiciness; this activity will address the flavor of grilled meat. The most familiar type of grilled and flavored meat is barbecue. The addition of spices and seasonings can be applied through rubs, mops or sauces or marinades. Depending on the desired flavor intensity, these flavorings can be added prior to cooking, during cooking (basting) or added at serving. Remember that sugar and tomato based sauces burn and blacken very easily.

Rubs A combination of dried spices that are rubbed into the meat prior to cooking. Apply to the meat surface and rub. Place in closed plastic bag then place in refrigerator for 2-24 hours. Usually contains salt, pepper, sugar and spices.

Marinades Liquid flavoring agents. Marinades usually contain acids (vinegar, milk, yogurt, lemon or other fruit juices), vegetable oil and spices. Although marinades are used for flavor enhancement, the acids can tenderize meat to a very limited extent. Meat is usually marinated for 2-24 hours in the refrigerator. Marinate meats in plastic, glass or stainless steel containers; aluminum containers can react with the acids. If you plan to use the marinade for basting, vigorously boil the marinade to kill bacteria.

Mops/Sauces Mops and sauces are applied to the meat surface during cooking to help keep the meat moist as well as flavor. Butter or vegetable oil, vinegar, lemon juice, commercial sauces (such as Worcestershire, Teriyaki) and seasonings are common ingredients.

Smoking meats is another technique for enhancing flavor. Typically, water soaked hardwood chips, chunks or sawdust are placed over the heat to generate the smoke. Chips, chunks or sawdust are usually soaked for at least 30 minutes. Popular smoking woods are hickory and mesquite but oak, maple, pecan, apple and cherry are also used. Softwoods like pine produce a bad tasting smoke. There are liquid smokes that you can add as an ingredient to sauces and marinades.

Materials Needed:

1. Seasonings
2. Spices and seasonings, small containers, paper & pencils to write down descriptions
3. Steak or chop, meat rub, marinade and sauce, plastic locking bag
4. Samples of smoking woods, covered grill, charcoal & starter
5. Wood chips, grill and accessories, meat

DO

- Make a dry rub using the recipe below or any other you choose:

Dry Rub - *Smoke and Spice* by Cheryl Alters Jamison and Bill Jamison

¾ Cup paprika	2 Tablespoons chili powder
¼ Cup ground black pepper	2 Tablespoons garlic powder
¼ Cup salt	2 Tablespoons onion powder
¼ Cup sugar	2 Tablespoons cayenne

Thoroughly mix and store in covered container.

- Collect some of the common spices, herbs and seasonings use to flavor meat. Describe the appearance and taste of each; then try to identify each by sight and taste.
- Compare meat prepared by applying a dry rub, marinade and/or sauce to that without flavorings.
- Collect different types of smoking woods. Place an aluminum foil pouch of moist wood chips and heat each. Use a fork to poke holes in foil. (Best done on grill with cover to catch and concentrate smoke)
- Prepare meat with and without smoke.
- Caution – Be sure you do not contaminate your rub mix with raw meat juice if you have made more than you will use and want to save the excess rub.

REFLECT

- Can you identify the woods by their smoke?
- Can you taste the difference in meat prepared with smoke compared to meat prepared without smoke?
- Is there a color difference of meat prepared with some compared to meat prepared without smoke?
- Do you have a preference for meat prepared with a dry rub v. meat prepared in a marinade v. meat prepared with a mop/sauce?

APPLY

- How will you prepare a cut of meat in the future?
- Can these flavorings be used inside also?

RESOURCES:

4-H Cooking Curriculum 101, 201, 301, 401 & Helper's Guide. Retrieved from <http://www.4-hmall.org/Product/healthy-cooking/cooking-curriculum-set-of-5/01516.aspx>.

Loveday, Dwight. 2014. *4-H Outdoor Meat Cookery*. University of Tennessee Institute of Agriculture: UT Extension.*

The Ohio State University. Grill Master. Publication number: 4-H 472. Retrieved from <http://projectcentral.ohio4h.org/publications/grill-master/>

FOR MORE INFORMATION ON:

Choosing the right grill: <http://www.hpba.org/consumers/barbecue/consumers/barbecue/choosing-the-right-grill>

Proper cooking temperatures: http://www.fsis.usda.gov/wps/wcm/connect/625d9435-4f14-46fe-b207-5d6688cb4db5/Safe_Minimum_Internal_Temperature_Chart.pdf?MOD=AJPERES

<https://edis.ifas.ufl.edu/fs256> <http://www.floridahealth.gov/Environmental-Health/food-safety-and-sanitation/documents/preventfoodcon.pdf>

Food safety: <http://edis.ifas.ufl.edu/pdffiles/AN/AN28300.pdf>

Beef and pork cuts: <http://edis.ifas.ufl.edu/pdffiles/AN/AN22900.pdf>

Seafood selection, quality, and safety:

<http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm077331.htm>

Smoking and slow cooking: <http://bbq.tamu.edu/>

Tailgate Contest Videos: http://florida4h.org/programsandevents/_animalscience/4-h-tailgating-contest/tailgate-contest-videos/

*Original lesson plans modified and/or revised by George Baker, Dr. Chad Carr, Sonja Crawford, Julie Pigott Dillard, Brian Estevez, Mark Mauldin, Paula Davis and Dr. Marjorie Moore - University of Florida/Institute of Food and Agricultural Sciences.

**Florida 4-H Tailgate Contest Sponsored by Winn Dixie Supermarkets & Sonny's BBQ
District/State Rules & Guidelines**

4-H will provide:

- 14" Weber grill
- Lighter fluid
- Charcoal
- Hairnet
- Plastic gloves
- Cooking thermometer
- \$25 voucher from Winn Dixie Supermarkets to purchase ingredients
- ½ of 6'x30" table for final presentation
- Presentation containers

4-H Member must provide:

- Grilling tools – tongs, spatula, apron, glove, sprinkle water bottle, basting brush, pliers, pan, etc.
- Fresh, uncooked meat protein – enough for two 6-8 oz. cooked portions
- Meat protein can be either beef, pork, poultry – chicken or turkey only or seafood – shrimp only
- Woods chips (optional)
- Copy of your recipes
- Marinade
- Meat can be marinated prior to contest
- Marinades can be commercial or personal recipe
- Display/presentation materials and supplies

Rules & Guidelines:

1. 4-H youth must be 11-18 years old as of September 1 to participate.
2. Contest check-in will begin at 8:00 am.
3. Cooler Inspection: keep meat covered at all times and stored in a cooler at a temperature not to exceed 40° F.
4. 4-H member will be assigned a grill. Grill must remain on the ground at all times.
5. Grills will be started at 9 am.
6. Preparation and grilling time limit is 2.5 hours.
7. All red meat and shrimp must be cooked to at least 145° F.
8. All ground products must be cooked to at least 160° F.
9. Poultry must be cooked to at least 165° F.
10. Contestants must state a degree of doneness for beef/pork – medium rare, medium, medium well or well done.
11. Contestants are required to turn in the prepared protein at the end of the stated cooking time.
12. No additional items (drink, garnish, vegetables, etc) should be submitted to judges.
13. Cooking over oil or gas is not permitted.
14. No assistance is allowed during preparation, cooking or presentation.

Attire:

- Clothing should help ensure both food and fire safety
- Neat and clean clothing – nothing loose
- Closed toed shoes

Questions and Observations:

- Youth will answer questions and be observed throughout the contest
- Meat protein used in the table top display must have been prepared and cooked on site
- Youth may create a poster, sign or digital image to display on their table.
- Youth should expect to be both observed and asked questions
- Questions may include
 - Fire safety
 - Food safety
 - Primary food safety pathogens
 - Temperature control
 - Prevention of cross-contamination
 - Proper use of meat thermometer
 - If contestants have not finished preparing food for their display, judges will return to score the finished display.

Sample score sheet

Criteria	Possible Points	Awarded Points
Pre-cooking – 10 points		
• Meat Temperature < 40° F / no cross contamination	5	
• Proper attire to achieve food & fire safety	5	
Presentation/Observation/Questions – 40 points		
• Speaking ability, use of time & display	10	
• Creativity/challenge of recipe, knowledge of meat protein chosen	10	
Observation & fire safety protocol questions	10	
• Safety & efficiency producing fire		
• Safe cooking equipment		
• Proper fire temperature/amount of charcoal or wood		
Observation & food safety protocol questions	10	
• Knowledge of food safety pathogens with species		
• Prevention of cross contamination		
• Proper use of a meat thermometer		
Proper portion size & plate presentation	10	
Eating & Visual Desirability – 40 points		
• Tenderness – consider tenderness improvement in tougher cuts	10	
• Flavor – appealing with no off flavors	10	
• Juiciness – products are juicy & succulent	10	
• Total attractiveness & targeted degree of doneness	10	
TOTAL	100	

