



# FLORIDA 4-H TAILGATE SERIES

## Fire-Building

### Introduction

Childhood obesity is a serious public health problem in the US. Today, nearly a third of American children are overweight or obese (CDC, 2015). A contributing factor to childhood obesity is general dependency on prepared food, which is somewhat fueled by our society's dwindling cooking abilities. Many parents do not have the time, or they do not know how to cook, so they have not passed the skill on to the younger generation. The average American knows little about the safe preparation of highly palatable animal protein entrées. Additionally, nutrition research suggests that animal protein in the diet is beneficial to adolescent development (Cleghorn, 2007).

The Florida 4-H Poultry BBQ program has existed for years, and the program for red meat cookery has been a huge success in Tennessee 4-H. With sponsorship for the winners at the state level, the Florida 4-H Tailgate Contest program will be a success in Florida as well. This program will strive to promote enjoyable outdoor cooking experiences, encourage the incorporation of animal protein in the diet in order to combat childhood obesity, improve youth nutritional knowledge and cooking skills, and impart knowledge about safe handling and proper degree of doneness to produce safe and delicious meat dishes.

**Learning Activity:** Building the Fire

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

**Life Skill:** Problem-Solving and Personal Safety

### Background

You may want to line your grill with aluminum foil to help protect your grill and make cleanup much easier. If your grill does not have a grate for the charcoal, you may

place dry sand or small gravel at the bottom to help the fire “breathe” and burn hotter. If your grill is rounded on the bottom, use the sand or gravel to make the fire base level. If your grill has bottom vents, open them before starting the fire. Select a high-quality charcoal. Higher quality charcoal briquettes start more easily and burn more uniformly. To determine the number of charcoal briquettes, spread briquettes 1 to 2 inches beyond the area that meat will cover on the cooking rack. Start your charcoals by using 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 1 minute before lighting with a long stem match or long stem butane lighter.

**Chimney starter:** You can purchase a chimney starter or make one by punching or drilling holes around a large can. Place newspaper at the bottom of the chimney starter and put charcoal on top of the newspaper. Light the newspaper through a bottom hole.

For more information on starting a fire using a chimney starter, visit <http://www.weber.com/weber-nation/grill-skills/mastering-smoke/using-a-chimney-starter/using-a-chimney-starter>.

**Ready-to-light charcoal:** These briquettes are pre-soaked with lighter fluid. Arrange in a pyramid shape and light.

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

Regardless of the starting method, give all liquid starter fluids time to completely burn off so that the fuel does not add an “off-flavor” to the meat. Coals will be white due to ash cover in about 30 minutes. Once the liquid

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starter fluids have burned off, evenly spread the coals into a single layer over the fire grate. Most meat cuts are prepared at medium heat. The coals will glow through a thin ash cover. You can tell the approximate level of heat by holding your hand 4 inches over the coals. If you can only keep your hand in that position for 2 to 3 seconds, the coals are hot. If you can only keep your hand in that position for about 6 to 8 seconds, the coals are at medium heat. Finally, if you can keep your hand in that position for 11 or more seconds, the coals are cool. Adjust the air flow or distance from the coals to achieve the desired level of heat.

### Do

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

- Which starter type helped you easily and safely start a fire in order to cook meat outdoors?

## Conclusion

Educating youth about ways to safely prepare animal protein on a grill will improve grilling safety, combat childhood obesity, improve the nutritional knowledge and cooking skills of today’s youth, and impart knowledge about safe handling and proper degree of doneness in order to produce safe and palatable meat dishes.

For up-to-date information on the Florida 4-H Tailgating Contest, please visit [http://florida4h.org/programsandevents\\_/animalscience/4-h-tailgating-contest/](http://florida4h.org/programsandevents_/animalscience/4-h-tailgating-contest/).

## Additional Resources

Florida 4-H Tailgating Contest: [http://florida4h.org/programsandevents\\_/animalscience/4-h-tailgating-contest/](http://florida4h.org/programsandevents_/animalscience/4-h-tailgating-contest/)

State 4-H/FFA Meat Judging Contest: <http://animal.ifas.ufl.edu/youth/livestock/meatsJudging.shtml>

4-H Poultry Judging Event: <http://animal.ifas.ufl.edu/youth/Poultry/index.shtml>

Florida Hog & Ham Program: <http://animal.ifas.ufl.edu/youth/livestock/HogHam.shtml>

## References

CDC. (2015). Childhood obesity facts. Accessed on July 12, 2016. <http://www.cdc.gov/healthyschools/obesity/facts.htm>

Cleghorn, G. (2007). Role of red meat in the diet for children and adolescents. *Nutrition & Dietetics*, 64(4), S143–S146.