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Brisket Benefits

Healthy fat 'depots' discovered in beef brisket.

by *Blair Fannin, Texas A&M University*

The beef brisket, treasured by most Texas barbecue connoisseurs and a common staple found inside smoking pits throughout the Lone Star State, contains "depots" or tiny reservoirs of healthy monounsaturated fatty acids, according to new research.

Oils like olive or canola are the best sources of monounsaturated fatty acids since they contain 70%-80% oleic acid, according to experts.

"However, the fat in beef brisket from corn-fed steers contains nearly 50% oleic acid, and oleic acid increases the longer cattle are fed a corn-based diet," said Stephen Smith, a Texas AgriLife Research meat scientist and professor in the department of animal science at Texas A&M University (TAMU).

Smith chaired a thesis study conducted by Stacey Turk, a TAMU animal science graduate student. Turk's study could trigger a change in how meat processors view brisket by offering a ground product that's more nutritious than those found in retail grocery outlets today.

"We found the brisket to be the most healthful area of the carcass," she said. "The

brisket in the southern parts of the U.S. is a well-known product. However, in the Midwestern and Eastern parts, briskets might be used for corned beef products, and the rest is shipped to the Southern states. Processors could use this idea to utilize the brisket for a healthier ground product."

This would allow processors to place a premium on a "ground brisket" and market the product, Turk said.

"Even if processors don't want to grind the whole brisket, the point of the brisket where the web muscle lies is where a lot of the fat is, and this could be separated from the other part and used for a ground product," she said.

However, "fat" isn't a favored word among meat processors for fear they will turn away heart-

health-conscious consumers. Attempts to overcome this marketing hurdle will be a challenge, experts say.

"I've talked to different producer groups, and I'm trying to get the industry to capitalize on this," Smith said. "They don't want to talk about fat in their product, and I can understand that."

However, producers of Wagyu beef

raised in Japan, the U.S. or Australia aren't afraid of the association with fat. Wagyu beef is known for its high marbling and monounsaturated fat.

"They produce a highly marbled product and the more marbling, the healthier its fat composition," Smith said. "They're not afraid of fat, and I hope the rest of the industry sees that."

Turk's research suggests cattle breed type plays a role in determining unsaturation or saturation of fat depots. This research points to Wagyu cattle containing higher percentages of the monounsaturated palmitoleic and oleic acids and lower percentages of the saturated palmitic and stearic acids than our domestic breed types. Diet and time on feed "strongly affect total fatty acid composition of fat depots," Turk said. Oleic acid levels increased with feeder cattle's age, as well as with time on a corn-based diet.

A new challenge is the current price of corn. At more than \$5 per bushel, it's costing feedlot operators more money to fatten feeder cattle on corn products prior to shipping to the packing plant, Smith said.

But there's hope, Smith said. By identifying fat depots that carry the beneficial monounsaturated fatty acids, operations in trimming rooms at meat processing plants can be modified without expensive equipment.

"You don't have to change the way you produce those cattle. What you can change is in the trimming room and how you partition off those depots," Smith said.

Smith provided an example.

"My wife likes a certain supermarket, and when she goes in, she wants to buy a brisket," he said. "It costs a couple of dollars per pound, but she wants it trimmed. If they trim off the outside fat, she usually breaks even since it goes up in price, but weighs less. That fat trim is thrown away and could have otherwise been salvaged and partitioned back at the processing plant and used in ground beef."

Overall, the research could be adopted with little capital expense through the beef processing sector, Turk said.

"The beef industry can utilize this information to adopt a relatively easy and inexpensive method to increase the nutritional quality of processed beef products by selecting specific fat trimmings," Turk said.



Editor's Note: Blair Fannin is a communications specialist with TAMU Agricultural Communications, which provided this article.