

## **Research Update: Qualitative Analysis of Specialized Supply Chain Relationships in Wagyu-influenced Beef**

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### **Extended Abstract**

Wagyu beef is highly marbled with a reputation for unique taste and tenderness. However, Wagyu cattle have significantly longer production cycles than conventional breeds, resulting in higher costs (Radunz et al., 2009). Wagyu-Angus cross breeding, with offspring known as Wangus, is a potential solution to the relative inefficiency of Wagyu cattle. Given the unique nature of Wangus production, producers may benefit from direct relationships with feedyards, processors, and buyers, helping ensure financial rewards for additional costs of Wagyu beef (Schroeder, Coffey, and Tonsor, 2021).

We conducted a customer survey for a Midwestern specialty cattle ranch focused on Wangus cattle. The ranch operates in the seedstock, cow-calf, and feedlot stages of the beef supply chain. It initially created a calf buy-back agreement to purchase bull customers' Wangus cattle for their feedlot, which ended in 2019. This survey examines fed-cattle buyers' and Wangus bull customers' supply chain relationships with the feedlot. Email and phone surveys were conducted with both customer groups.

All bull customers were cow-calf producers. Half participated in the calf buy-back program, securing a market for their calves. Annual calf crops ranged from 30 to 850 head with varied percentages of Wagyu-influenced calves. Two-thirds reported no additional production costs (excluding bulls), though these customers primarily sold Wangus calves and additional costs are

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likely during the later feeding stage. Forty percent reported market premiums, averaging 27.5%. After the buy-back program ended, one-third of producers fed calves to harvest weight to market Wangus freezer beef, while two-thirds sold calves at local auctions, reporting little to no marketing, an indication of the importance the buy-back program had for those producers.

The feedlot's two primary fed-cattle customers individually comprise 75% and 23% of sales, leaving 2% purchased by smaller buyers. Customers procured 10%–50% of their annual fed-cattle purchases from the feedlot. Supply chains do differ between larger and smaller-scale customers. Larger buyers procure fed Wangus cattle weekly or biweekly, process cattle in their own packing plant, and distribute branded beef products to retail entities. Smaller-fed cattle buyers only procure Wangus cattle annually or biannually, secure custom slaughter, and distribute the beef to butcher shops, consumers, or small-scale retailers. Both are paying 15% premiums to the feedlot and selling Wangus beef for 50% premiums on average. Feedlot customers view Wangus beef as part of a portfolio mainly composed of Angus beef, local and natural claims, prime quality grades, or a combination of attributes. Both customer groups are utilizing Wangus to also increase the proportion of prime grading cattle rather than marketing only the Wagyu name.

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## References

- Radunz, A.E., S.C. Loerch, G.D. Lowe, F.L. Fluharty, and H.N. Zerby. 2009. "Effect of Wagyu-versus Angus-sired Calves on Feedlot Performance, Carcass Characteristics, and Tenderness." *Journal of Animal Science* 87:2971-2976.
- Schroeder, T.C., B.K. Coffey, and G.T. Tonsor. 2021. "Enhancing Supply Chain Coordination through Marketing Agreements: Incentives, Impacts, and Implications." In B.L. Fischer, J.L. Outlaw, and D.P. Anderson, eds. *The U.S. Beef Supply Chain: Issues and Challenges, Proceedings of a Workshop on Cattle Markets*. College Station, TX: Texas A&M University, Agricultural and Food Policy Center, pp. 81–101.