FROM THEORY TO SMOKE: EXPERIENTIAL LEARNING IN UNDERGRADUATE MEAT SCIENCE EDUCATION FOR SMOKED SUCCESS

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Introduction/need for innovation or idea

- Increasing disconnect in knowledge between consumers and the meat products they purchase.

Opinions & conflicting messages based on:
perception of quality, nutritional adequacy and healthiness, health risks, ethical concerns, belief systems, and concerns about the origin of the products (Clonan, 2015; Dinah de Araújo et al., 2022).

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Consumers draw conclusions based on misinformation and limited foundational knowledge. Therefore, there is a need for educational efforts to improve consumer understanding of meat production, processing, and preparation.

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Innovative experiential learning opportunity within an undergraduate meat science course developed to offer solutions to bridge this gap and promote informed consumer decision making when purchasing and preparing meat products.

How it Works

1. Build Foundational Meat Science Knowledge
2. Apply Knowledge Through Experiential Learning
3. Plan & Prepare the Rib Product
4. Cook, Finish & Present
5. Evaluate & Demonstrate Competency

Results to date/implications

Comments from Social Media	"...unforgettable and incredibly fun experience!" "The end result? Tender, sweet, smokey perfection."
Comments from Course Survey Evaluations	"I only wish we could have done more labs. The lab for smoking ribs was amazing and really cool!! I've never done that before, and I plan to use the smoker my dad never opened hopefully this summer!!" "This class was very fun and one of my favorites so far at Texas State and rib contest!" "The ..., ribs, and ... were all very engaging and educational." "Making the ribs was a blast, and I'm so grateful for Mr. Sam for helping us.

Future plans

- Expand the content by incorporating different cuts of meat from various primals such as the loin, belly, shoulder, and ham.
- Recruit students in different agriculture majors to enroll in the course to broaden education beyond animal science majors.
- Divide AG 4330 into two courses, Meat Muscle Biology and Processed Meats. Placing even more emphasis on hands-on experiences.

Costs/resources needed

Items	Units	$ Price/Unit	Total
Ingredients			
Spareribs (avg. 5.5 lbs.)	32	2.19/ lb.	$386
Others (sauce, seasoning, etc.)			$104.09
Supplies			$123.6
		Total	$613.69
		HEB Donated Total	$386
		TXST Total	$228

References

Clonan, A., Wilson, P., Swift, J.A., Leibovici, D.G., Holdsworth, M. (2015). Red and processed meat consumption and purchasing behaviours and attitudes: impacts for human health, animal welfare and environmental sustainability. *Public Health Nutrition, 18*(13):2446 2456. doi: 10.1017/S1368980015000567

De Araújo, P.D., Coelho Araújo, W.M., Patarata, L., Fraqueza, M. (2022). Understanding the main factors that influence consumer quality perception and attitude towards meat and processed meat products. *Meat Science, 193*: 108952. doi: 10.1016/j.meatsci.2022.108952