Advancing Sustainability in Pork Production: Nutritional Strategies to Improve Feed and Nutrient Utilization

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Iowa State University · iFEEDER · University of Minnesota · Kansas State University · NC State University · pork checkoff

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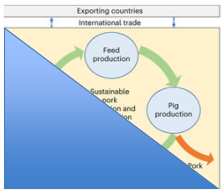
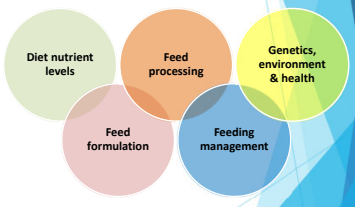
Objective

The review aimed to summarize practices to improve feed and nutrient utilization by pigs (for future integration into LCA).

2

Opportunities and areas to improve feed and nutrient utilization at a production level





Navales et al., 2025

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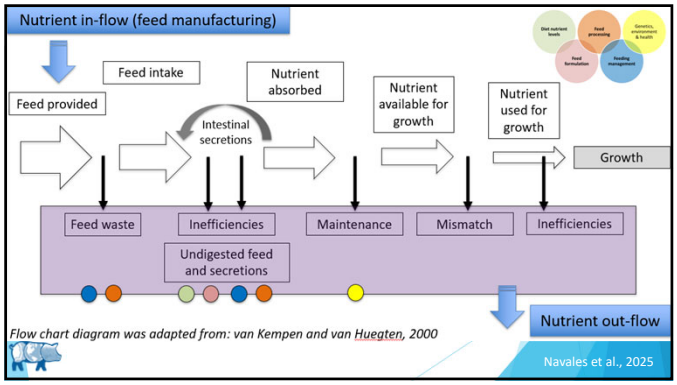

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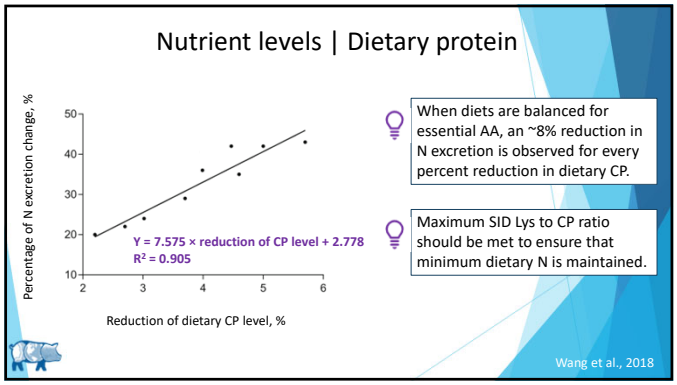

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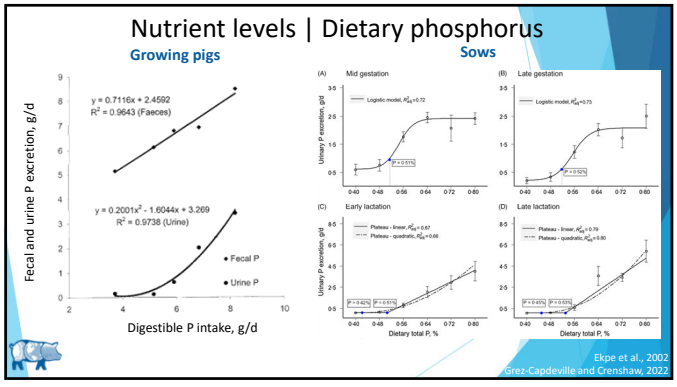

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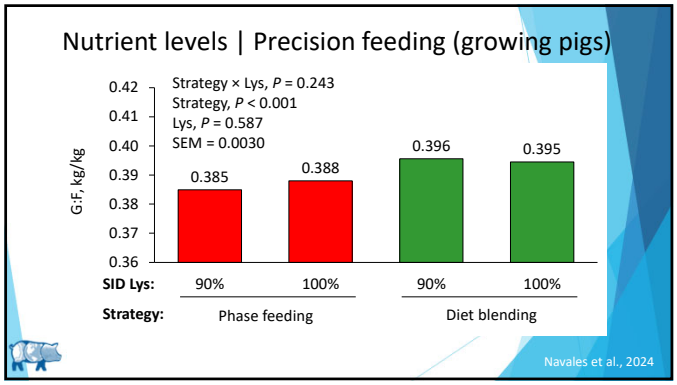

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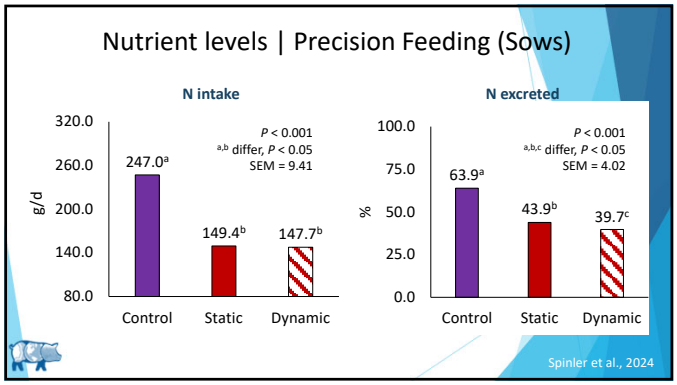

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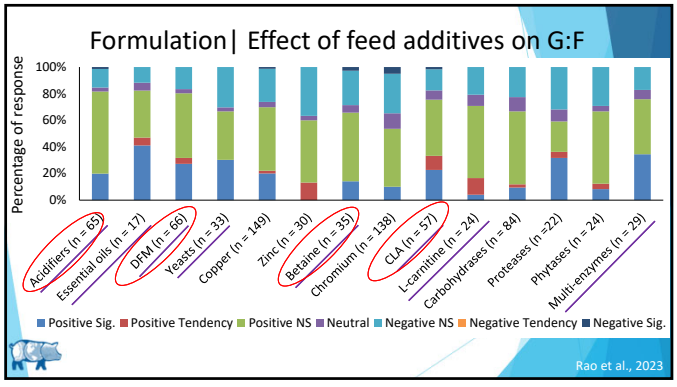

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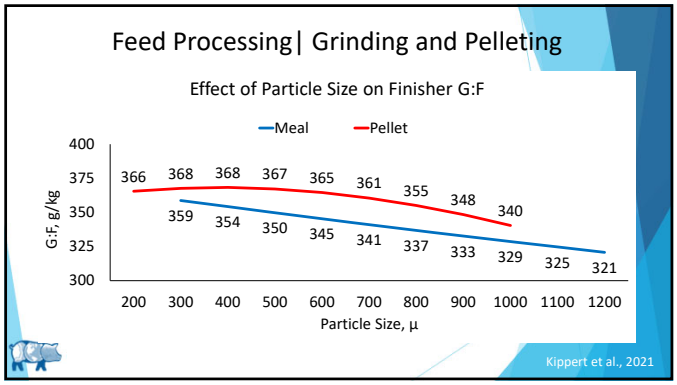

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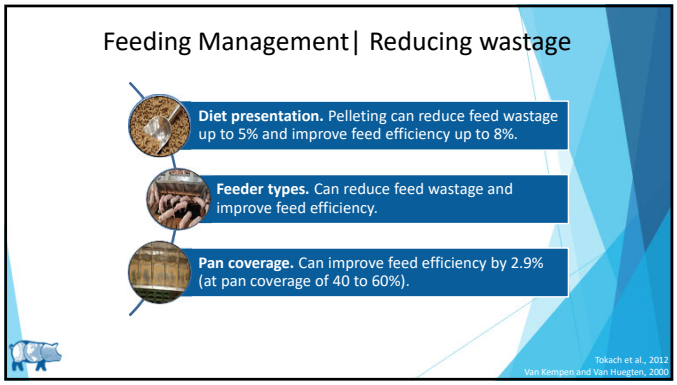

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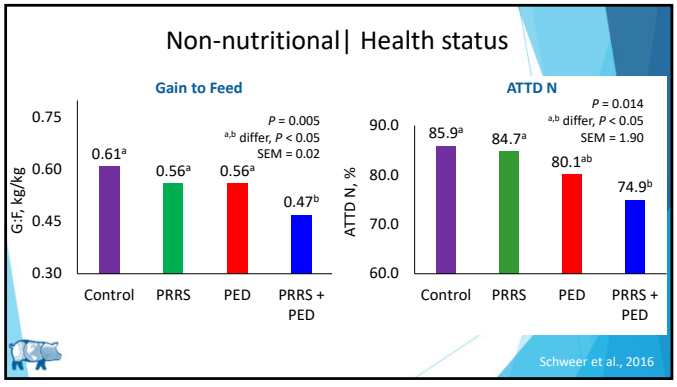

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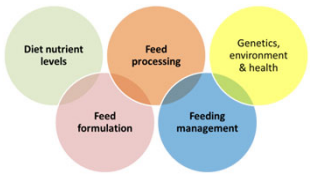
Other opportunities

Diet energy level on feed efficiency

Ingredient selection and use of alternative ingredients

Use of phytase and other feed enzymes

Treatment of ingredients



Split-sex feeding and Immunocastration

Genetic selection

Temperature

Floor and feeder space

Navales et al., 2025

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Take Away Messages

- Feed and nutrient utilization by pigs can be improved through diet nutrient levels, feed formulation, feed processing, feeding management, and non nutritional factors.
- The review has been published in JAS and will serve as an important resource for the development of future life cycle assessments of the pork industry.

Technologies and practices to improve feed and nutrient utilization by pigs

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Objective

To develop meta-regression models to predict Zn, Cu, Fe, K, and S excretion in wean-to-finish pigs.

Arroyave et al., 2025

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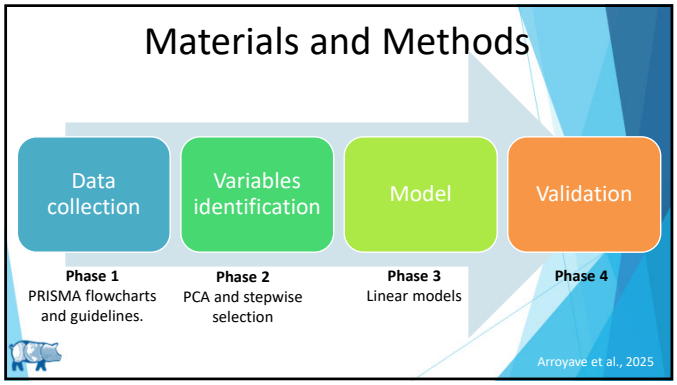

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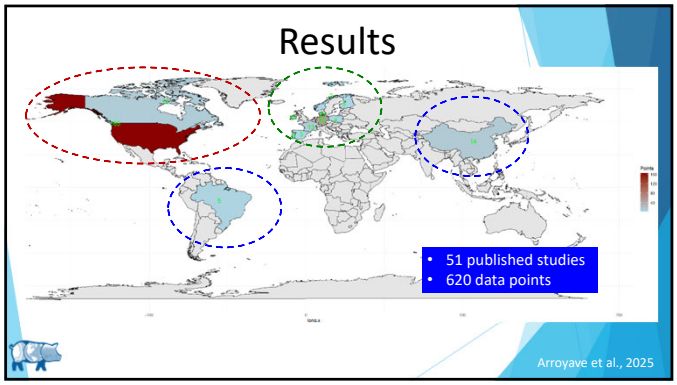

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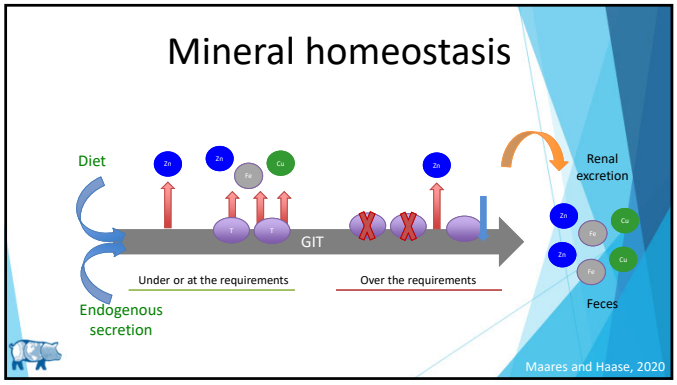

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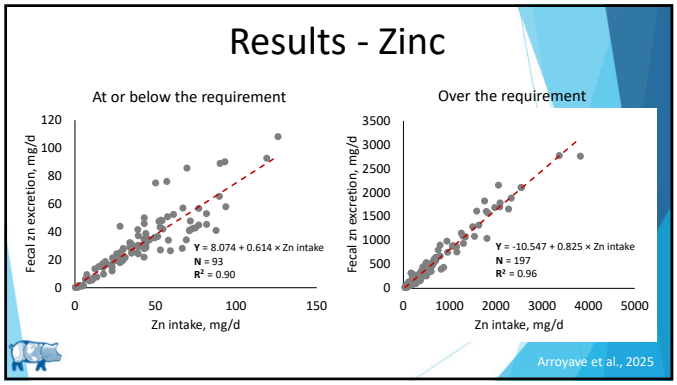

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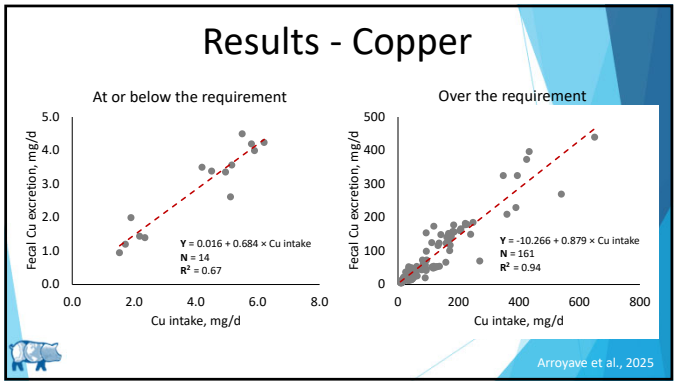

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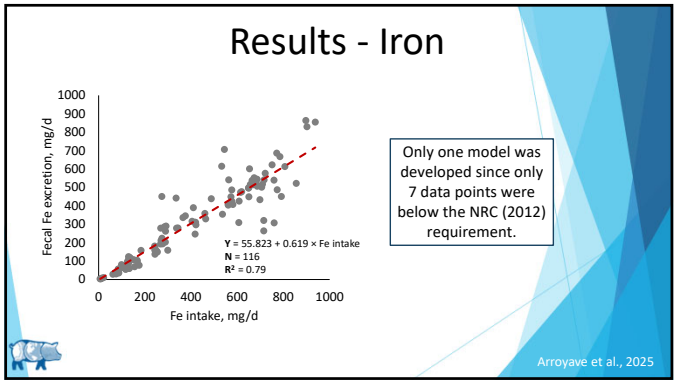

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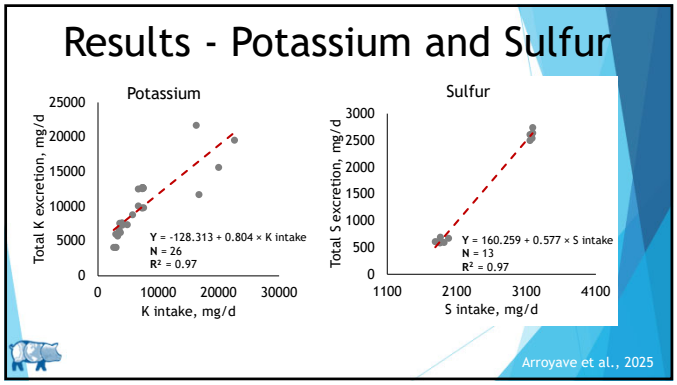

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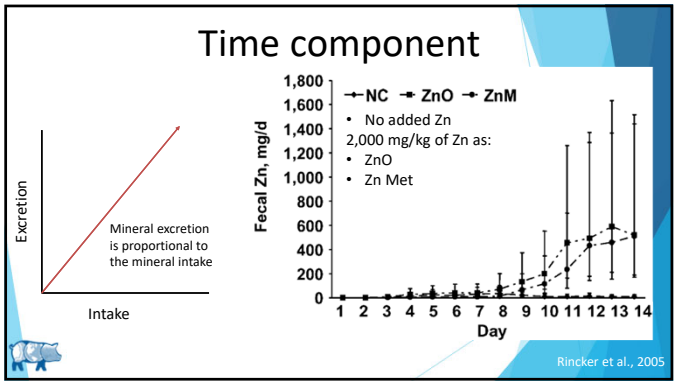

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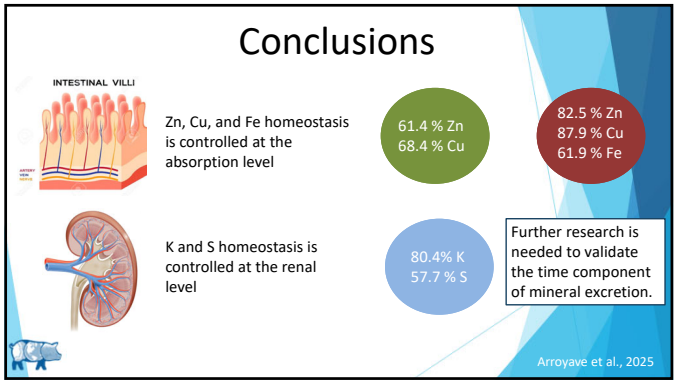

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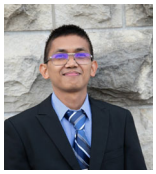

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