

Petfood R&D Showcase: Leveraging Science into Product Innovation

Greg Aldrich, PhD
KSU – Pet Food Program



Welcome

- The Partnership
- The Pet Food Program at KSU
- The Topic



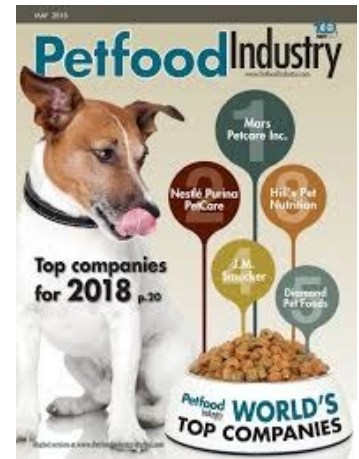
The Partnership

KANSAS STATE
UNIVERSITY



PETFOOD R&D SHOWCASE 2019

Petfood
Industry
.com



KANSAS STATE
UNIVERSITY

Department of Grain Science
and Industry

Pet Food and Kansas

- Animal food industry
 - Supports 19,940 jobs in Kansas with a total economic contribution of over **\$8.9 B**
- Dog and cat food manufacturing industry
 - Supports 2,423 jobs in Kansas with a direct output of **\$3.6 B**
 - Indirectly, it supports 12,308 employees and a total economic contribution of **\$5.7 B**
- Animal and pet food exports
 - 3.4% (\$185.8 million) of total pet food production
 - 4th most exported item in the state

Pet Food Program

- Established KSU 2012
- Home: Grain Science & Industry
 - Feed Science & Mgt
- Training: Short courses, Minor, BS, MS, PhD
- Cross-campus Initiative
- ECO-DEVO support





Initiatives: Building Critical Mass

- Awareness building
- Course and curriculum
- Research capabilities – establish and expand
- Funding and support
 - Grants, contracts, fee-for-service projects
 - Sponsors and charitable contributions
- Economic development
 - Kennels, manufacturing facilities, laboratories

Cross-Functional Network

- KSU
 - *Grain Science & Industry*: Sajid Alavi, Greg Aldrich, Gordon Smith, Yonghui Li
 - *Animal Science & Industry*: Scott Beyer, Liz Boyle, Terry Houser, Fadi Aramouni, James Lattimer, Cassie Jones, Randy Phebus, Evan Titgemeyer, Umut Yucel, Valentina Trinetta
 - *Ag Economics*: Deborah Kohl, Aleksan Shanoyan
 - *College of Human Ecology*: Kadri Koppel, Edgar Chambers III, Delores Chambers
 - *K-State Olathe*: Bryan Severns
 - *Engineering - AML*: Jeff Tucker
 - *Veterinary Medicine*: Sally Olson
- KSU-IC, KBED & KSU-Foundation
 - Rebecca Robinson, Kent Glasscock, Trent Armbrust, Kim Schirer
- KDA
 - Lynne Hinrichsen, Chad Bontrager, Suanne Numrich, Abby Works
- AIB
 - Brian Strouts, Kathy Brower,



Behaviors as biomarkers for animal health, welfare

Lindsey Hulbert, Ph.D., assistant professor, animal behavior,
Kansas State University




Resistant starch and factors that influence starch digestibility

Yong-Cheng Shi, Ph.D., professor, Department of Grain Science
and Industry, Kansas State University



How pathogens contaminate pet food

Janak Dhakal Ph.D., post-doctoral fellow in the Department of Grain Science and Industry, Kansas State University



How marketing, science and consumer preference drive premiumization in pet food

Natasha Davis, strategic client partner, Nielsen



Mites in semi-moist pet foods: Exploring strategies to prevent infestation

Tom Phillips, Ph.D., professor of entomology, Kansas State
University

Workshops

- Leveraging microencapsulation technology for pet nutrition
 - Balchem
- Reducing the risk of *Salmonella* contamination in pet food
 - Pet Food Solutions

Demonstrations

- Tips, tricks for using naturally sourced colors in pet food
 - Chr. Hansen
- Specialty treat production for single screw extrusion
 - Extru-Tech Inc. and Milne Fruit
- Learn how flavors can enhance pet food, treats
 - FONA International
- Formulating pet food products with fruit for antioxidant, anti-inflammatory properties
 - Tree Top Ingredients

Events & Short Courses



- 2020
 - *January 13-17* Pet Food Formulation for Commercial Production – KSU (IGP; GRSC 750)
 - *April 27-29* Petfood Forum – Kansas City
 - *KSU Pet Food Workshop*
 - *Extrusion Workshop*

What Next?

