



PERDC

**PROCESS ENGINEERING RESEARCH
& DEVELOPMENT CENTER**
TEXAS A&M ENGINEERING EXPERIMENT STATION

Formerly "Food Protein Research & Development Center"

4th Annual Practical Short Course

Organized by the
Extrusion Technologies Program
Process Engineering Research & Development Center
Texas A&M Engineering Experiment Station
The Texas A&M University System
College Station, Texas 77843-2476 U.S.A.

Extruded Pet Foods and Treats July 8-11, 2019

SCHEDULE

Monday, July 8, 2019

- 6:00 PM Registration, hotel
- 6:30 PM "Welcome, Introduction, & Announcements"
- Mian N. Riaz
- 7:00 PM Dinner, hotel (optional)

Tuesday, July 9, 2019

- 7:40 AM Bus leaves hotel for Rudder Tower, Texas A&M University
- 8:00 AM "Introduction and Principles of Extrusion" - Mian N. Riaz
- 9:15 AM "Overview of Pet Food Nutrition" - Alaina Mooney
- 10:15 AM Break
- 10:30 AM "Raw Materials for Extrusion Processing"
- Galen Rokey
- 11:45 AM **Group Photo**
- 12:00 PM Lunch
- 1:15 PM "Bulk Material Handling in Extrusion Processes"
- Jonathan Thorn
- 2:15 PM "Non-Extruded Treats" - Galen Rokey
- 3:00 PM Break
- 3:15 PM "Additives to Optimize Pet Food Quality"
- Lynn Deffenbaugh
- 4:00 PM Bus leaves for PERDC for Multiple Demonstrations:
 - **Pet Treat on Single Screw Extruder**
 - **Pet Treat on Twin Screw Extruder**

Wednesday, July 10, 2019

- 7:40 AM Bus leaves hotel for Rudder Tower, Texas A&M University
- 8:00 AM "Extrusion Hardware and Die Design for the Production of Pet Food Products" - Galen Rokey
- 9:15 AM "Preconditioning: Effects on Extrusion of Pet Food"
- Topher Dohl
- 10:00 AM Break
- 10:15 AM "Extruded Treats" - Galen Rokey
- 11:00 AM "Automated Control of Extrusion Systems" - Topher Dohl
- 11:45 PM Lunch
- 1:00 PM "Software Parameters and Operating Parameters"
- Galen Rokey
- 1:45 PM "Product Analysis and Laboratory Techniques"
- Alaina Mooney
- 2:30 PM Break
- 2:45 PM "Pet Food and Treat Shelf Life" - Sara Cutler
- 3:45 PM "Fundamentals of Drying" - Keith Erdley
- 4:30 PM Bus Leaves for PERDC for Multiple Demonstrations:
 - **Multi Shaped Pet Food on Single Screw Extruder**
 - **Pet Food with Fresh Meat on Twin Screw Extruder**

Thursday, July 11, 2019

- 7:40 AM Bus leaves hotel for Rudder Tower, Texas A&M University
- 8:00 AM "Cooling and Coating Systems" - Keith Erdley
- 8:45 AM "Meat and Meat Handling in the Pet Food Industry"
- Patrick Burke
- 9:45 AM Break
- 10:00 AM "Food Safety and Extrusion Systems" - Leah Wilkinson
- 11:00 AM "Cutting and Sizing of Pet Food and Treats"
- Brett Cutler
- 11:45 AM **Graduation Lunch**
- 1:00 PM "Baked Pet Foods" - Brett Cutler
- 1:45 PM "Pet Food Color 101: Synthetic and Natural Colors for Pet Products" - Jeff Plodzien
- 2:30 PM Break
- 2:45 PM "NIR Analyzer on Ingredients and Pet Feed"
- TBA
- 3:15 PM "Troubleshooting: Ensuring a Smooth Running Extrusion Operation" - Galen Rokey
- 4:15 PM Bus leaves for PERDC for Multiple Demonstrations:
 - **Surface Coating of Pet Foods**
 - **NIR Analyzer on Ingredients and Pet Feed**



You can register online at <https://perdc.tamu.edu/extrusion/>

OBJECTIVES OF SHORT COURSE

- Train production personnel in principles and characteristics of extruders and support systems for effective selection and operation.
- Review current practices for preparation of pet foods and pet treats.
- Demonstrate equipment in operation and familiarize attendees with practical aspects of extrusion technology for pet food manufacturing.

ACCOMMODATIONS

Reservations for lodging should be made directly by attendee. A block of rooms has been reserved at the Embassy Suites for short course participants at the special rate of **\$ 125/night** plus tax for single or double occupancy. This rate includes a free full breakfast as well as free shuttle to and from the College Station airport. Ask for the rate specifically and mention the **Group Code "PET."** **Hotel reservations must be received before June 9, 2019** in order to get special rate; the special rate DOES NOT APPLY before July 8 or after July 12. You can make your reservation by telephone, fax, or the internet:

Embassy Suites

201 University Drive East

College Station, Texas 77840, USA

Tel: 979.260.6000; Fax: 979.260.6001

<http://www.embassysuitescollegestation.com>

When faxing or emailing hotel reservations, please include a credit card number to confirm your reservation, and also include your departure and arrival dates.

TRANSPORTATION

Easterwood Airport at College Station is easily reached by about eight flights daily. From Dallas/Ft. Worth International Airport connect via American Airlines. From Houston Intercontinental Airport connect via United Airlines. **The airport code for Easterwood Airport is CLL.** To get to the hotel in College Station, participants can call the **Embassy Suites (979.260.6000)** upon arrival at Easterwood Airport for courtesy van service or participants can schedule a pickup with GroundShuttle.com (855.303.4415) from George Bush Intercontinental airport (IAH) or Houston Hobby airport (HOB) or Austin Bergstrom airport (AUS).

REGISTRATION

The registration fee for the short course and pilot plant demonstrations includes Monday evening mixer, daily lunch, refreshments at breaks, local transportation, a short course eBook manual, and certificate of completion. **Registration fee is \$ 1195 if paid in full by June 9, 2019. After this date, registration fee is \$ 1295.** Continuing Education Units (CEUs) are available. An **OPTIONAL** black&white paper manual is available for an additional \$200 fee. There is a 10% registration discount if three or more individuals from the same organization register for the short course. Academic discounts may be applicable if space is available. **Registration fees are not refundable**, but substitute personnel may be sent by the same firm. Space is limited; therefore, applications will be accepted on a first-come, first-served basis.

You can register online at

<https://perdc.tamu.edu/extrusion/>

You can pay online by credit card (American Express, Visa, or Master Card). If paying by check, make payable to **TEES (Texas A&M Engineering Experiment Station) and mail to TEES Fiscal Office c/o TEES EDGE Program, 7607 Eastmark Dr. Suite 250D, College Station, TX 77840.**

For registration inquiries, contact:

Cyndi Casanova

Short Course Coordinator

Process Engineering R&D Center

2476 TAMU

College Station, Texas 77843-2476 U.S.A.

Tel: 979.845.2741

Email: shortcourse@tamu.edu

LOCATION AND FACILITIES

All lectures will be held at Rudder Tower, Texas A&M University Campus. College Station temperatures in July are from 75-95°F (24-35°C). Participants will be taken by bus to the Process Engineering R&D Center (Texas A&M RELIS Campus) for afternoon demonstrations. Manuals and lectures will be in English. Translation equipment is available by prior arrangement for organized groups willing to provide their own translators.

SHORT COURSE CONDUCT

All short course sessions will be informal. Insurance policies do not allow non-university personnel, other than original manufacturers, to operate equipment. Questions are encouraged during the lectures, breaks, and social periods. **Laptops are allowed in the classroom to follow the presentations in the short course eBook manual.** If you require WiFi access during the conference, please inform the Short Course Coordinator when you register (the hotel has its own WiFi access and is separate from the conference). Rights to cancel this course with refund, to deny service, to substitute speakers, and to change schedules, as necessary to expedite the course, are reserved. Texas A&M University System policy does not allow inclusion of alcoholic beverages in registration fees.

INSTRUCTORS

Patrick Burke, President and CEO, Omaha Industries, Inc.

Brett Cutler, PE, Applications Sales Engineer, Baker Perkins Inc.

Dr. Sara Cutler, Technical Service Manager, Kem in Nutrinsurance

Dr. Lynn Deffenbaugh, Technical Services Manager, Kem in Nutrinsurance, Inc.

Topher Dohl, Technical Center Director, Wenger Manufacturing Company

Keith Erdley, Technical Manager, Drying Technology, Wenger Manufacturing Company

Connor Girlinghouse, Technical Assistant, Extrusion Technology Program, Process Engineering R&D Center, Texas A&M University

Chris Mack, Senior Research Associate, Extrusion Technology

Program, Process Engineering R&D Center, Texas A&M University

Alaina Mooney, Technical Analyst & Nutrition Manager, Wenger

Manufacturing Company

Jeff Plodzien, Chemist III Confections and Pet Food, Sensient Food Colors LLC.

Stephen D. Prince, Research Assistant, Extrusion Technology Program, Process Engineering R&D Center, Texas A&M University

Dr. Mian N. Riaz, Head, Extrusion Technology Program, Process Engineering R&D Center, Texas A&M University

Galen Rokey, Process Technology Director, Companion Animal Division, Wenger Manufacturing Company

Jonathan Thorn, Executive Director of Process Technology, Schenck Process LLC

Leah Wilkinson, Vice President of Public Policy and Education, American Feed Industry Association

UPCOMING PRACTICAL SHORT COURSES

For details, visit <https://perdc.tamu.edu/short-courses/>

Aquaculture Feed Extrusion, Nutrition, & Feed Management

August 25-30, 2019

Food Extrusion

September 29 - October 4, 2019

Feeds and Pet Food Extrusion

February 2-7, 2020

Snack Food Processing

March 2020

For additional technical information, contact:

Dr. Mian N. Riaz

Process Engineering R&D Center

Texas A&M University System

Tel: 979.845.2774

Email: mniaz@tamu.edu

The Extrusion Pilot Plant at Texas A&M University is available for contract research.