

Organized by the

Food Protein Research & Development Center

Texas Engineering Experiment Station

The Texas A&M University System

Artie McFerrin Department of Chemical Engineering

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

In cooperation with

American Soybean Association / WISHH

Course will cover new and developing technology in high moisture meat analogs.



Upcoming Practical Short Courses For details, visit www.tamu.edu/extrusion

Aquaculture Feed Extrusion,
Nutrition & Feed Management
September 20 - 25, 2009

Feeds & Pet Food Extrusion
January 31 - February 5, 2010

Snack Food Processing:
Extruded Snacks & Tortilla Chips
March 7 - 12, 2010



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

REGISTRATION

Registration fee for the short course and pilot plant demonstrations is \$1,595 and includes Sunday evening mixer, daily lunches, refreshments during breaks, local transportation, a short course eBook manual and certificates of completion.

There is a 10% discount if three or more individuals from the same organization register for the short course. Academic discounts may be applicable if space is available.

Make checks payable to TEES (Texas Engineering Experiment Station) and mail to TEES Fiscal Office, 3124 TAMU, College Station, TX 77843-3124. You may pay the fee by credit card (American Express, Visa or Master Card). Registration fees are not refundable, but substitute personnel may be sent by the same firm. Mail the registration form and a copy of your check to Cyndi Casanova, Short Course Coordinator (See address on registration application form). Space is limited; therefore, applications will be accepted on a first-come, first-serve basis.

INSTRUCTORS

Ms. Linda Beck, Global PPD Manager, Soy Protein, Cargill, Inc.
Dr. Rick Buckner, Executive VP, General Manager, Clarkson Grain Company
Dr. Rich Clough, Head, Extraction and Protein Technologies Program, Food Protein R&D Center
Mr. Mike Fleckenstein, Technical Manager Textured Protein, Archer Daniels Midland Company
Dr. Girish Ganjyal, Principal Scientist, MGP Ingredients, Inc.
Mr. Peter Golbitz, Director, SunOpta Grains and Food Group
Mr. Mark Heimann, Application Manager, Roskamp Champion
Mr. Jim Hershey, WISHH Program Director, American Soybean Association
Mr. Gerry Hertzfel, Technical Service, Wenger Manufacturing Company
Mr. Daniel Koop, Regional Sales Manager, Urschel Laboratories
Mr. Spencer Lawson, Equipment Technician, Wenger Manufacturing Company
Dr. Rongrong Li, Savory Application, Givaudan Flavors Corp.
Mr. Chris Mack, Research Associate, Food Protein R&D Center
Mr. Mac Orcutt, Research Fellow, Solae Company
Mr. Brian Plattner, Process Engineering Manager, Wenger Manufacturing Company
Dr. Mian N. Riaz, Head, Extrusion Technology Program, Food Protein R&D Center
Mr. Kevin Riley, Sales Manager, Clipper Separation Technologies
Dr. Nabil Said, VP Nutrition & Extrusion Technologies, Insta-Pro International
Dr. John Schillinger, President, Schillinger Genetics, Inc.
Dr. Wilmot Wijeratne, Director of Research & Food Technology, Harvest Innovations

For additional technical information, write, call, fax or e-mail to:

Dr. Mian N.Riaz
Food Protein R&D Center
2476 TAMU, The Texas A&M University System
College Station, Texas 77843-2476 U.S.A.
Tel: 979/845-2774; Fax: 979/845-2744
Email: mnriaz@tamu.edu

OBJECTIVES OF SHORT COURSE

- Review current practices for processing texturized vegetable protein.
- Review production of full fat soy.
- Review application and benefits of texturized vegetable protein in different food systems.
- Review and understand soy protein ingredients processing for making texturized vegetable protein.
- Demonstrate equipment in operation, and familiarize attendees with different aspects of texturization of vegetable protein.

LOCATION AND FACILITIES

All lectures will be held at Rudder Tower on the Texas A&M University Campus. College Station temperature in mid August is in the 73-96°F (23-36°C) range. Participants will be taken by bus to Cater-Mattil Hall (TAMU Campus) for afternoon demonstrations. Translation equipment is available by prior arrangements for organized groups willing to provide their own translator.

SHORT COURSE CONDUCT

All Short Course sessions will be informal. Questions are encouraged during the lectures, breaks, and social periods. Rights to cancel this course with refund or to substitute speakers and 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. Cash bars will be available.

TRANSPORTATION

College Station is easily reached by about 10 flights daily. From Dallas/Ft. Worth International Airport connect via American Airlines (American Eagle Commuter). From Houston Intercontinental Airport connect via Continental Airlines (Continental Express). The College Station Airport code is CLL. Participants should call the Hilton hotel (693-7500) upon arrival at Easterwood Airport for courtesy van service.

ACCOMMODATIONS

Reservations for lodging should be made directly by attendee. A block of rooms has been reserved at the College Station Hilton and Conference Center for short course participants at the special rate of \$91/night plus tax for single or double occupancy. Ask for the rate specifically and mention Group Code TVP. Hotel reservations must be received before July 31, 2009 in order to get the special rate. You can make your reservation by telephone, fax, or on the internet.

College Station Hilton & Conference Center
801 University Drive East
College Station, Texas 77840 USA
Tel: 979/693-7500; Fax: 979/260-1931
www.hiltoncs.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.

11th Annual Practical Short Course on Texturized Vegetable Protein & Other Soy Products August 23 - 28, 2009

Sunday, August 23, 2009

6:00 PM Registration, Hilton Hotel
6:30 PM Welcome Introduction and Announcements - Mian N. Riaz
7:00 PM Social / Mixer with Cash Bar, Hilton (optional)

Monday, August 24, 2009

7:40 AM Bus Leaves Hotel for Rudder Tower, Texas A&M University
8:00 AM "Introduction to Extrusion" - Mian N. Riaz
9:00 AM "Cleaning and Drying of Soybeans for Texturized Vegetable Protein" - Kevin Riley
10:00 AM Break
10:15 AM "Introduction to Dry Extrusion, Full-fat Soybean Processing, Extrusion-Expelling of Soybeans" - Nabil Said
11:45 AM **Group Photo**
12:00 PM Lunch
1:00 PM "Cracking, Dehulling and Flaking of Soybeans for Texturized Vegetable Protein" - Mark Heimann
2:00 PM "Textured Soy Protein Products for Niche Markets - Processing and Utilization" - Wilmot Wijeratne
2:45 PM Break
3:00 PM "The Effects of Genetic Variation of the Soy Flour Composition on Production of Unique TVP Products" - John Schillinger
3:45 PM **Bus Leaves to FPRDC for Multiple Demonstrations**
1. "Full-fat Soybean Processing by Dry Extrusion"
2. "Dehulling of Soybeans"
3. "Extrusion-Expelling of Dehulled Soybeans"
4. "Making Low-fat Soy Flour from Extruded-Expelled Cake for Food Applications"
5. "Production of Low Cost TVP Using Dry Extrusion"
5:00 PM Bus Leaves for Hotel

Tuesday, August 25, 2009

7:40 AM Bus Leaves Hotel for Rudder Tower, Texas A&M University
8:00 AM "Overview of Soy Foods" - Peter Golbitz
9:00 AM "Texturized Vegetable Protein in Meat and Meat Products, and Vegetarian Applications" - Mac Orcutt
9:45 AM Break
10:00 AM "Applications and Benefits of Texturized Wheat Gluten" - Girish Ganjyal

10:45 AM "Soy Flour for the Baking Industry" - Linda H. Beck
11:45 AM Lunch
1:00 PM "Using Soy Isolates in Meats Products" - Mac Orcutt
2:00 PM "GMO Soybeans: Are They Problems for Processors" - Jim Hershey
2:45 PM Break
3:00 PM "Dairy Alternatives" - Peter Golbitz
4:00 PM **Bus Leaves to FPRDC for Multiple Demonstrations:**
1. "How to Incorporate Texturized Soy Protein in Foods" - Solae
2. "How to Incorporate Texturized Wheat Gluten In Foods" - MGP Ingredients
3. "How to incorporate Soy Isolates in Meat Products" - Solae
5:00 PM Bus Leaves for Hotel

Wednesday, August 26, 2009

7:40 AM Bus Leaves Hotel for Cater-Mattil Hall - Texas A&M University
8:00 AM "Detour to Inspect Single and Twin Screw Extruders" - Cater-Mattil Hall, Wenger Associates.
8:30 AM "Preparation and Characteristics of Soy Protein Flour, Concentrates and Isolates for Texturized Vegetable Protein" - Mike Fleckenstein
9:15 AM "Overview of Solvent Extraction of Soybeans for Texturized Vegetable Protein" - Rich Clough
9:45 AM Break
10:00 AM "Raw Material Selection and Additive Effect on Texturized Vegetable Protein" - Brian Plattner
11:00 AM "Quality Control and Testing of Finished Texturized Soy Protein" - Mike Fleckenstein
11:30 AM "Milling of Texturized Soy Protein for Food Application" - Daniel Koop
12:00 PM Lunch
1:15 PM "Extrusion Hardware and Die Design for the production of Texturized Vegetable Protein" - Gerry Hertzl
2:45 PM Break
3:00 PM "Effect of Preconditioning on Processing Texturized Vegetable Protein" - Spencer Lawson
4:00 PM "Texturization of Various Food Proteins" - Girish Ganjyal

4:30 PM **Bus Leaves to FPRDC for Multiple Demonstrations**
1. "Chunk-Style TSP on Single Screw Extruder"
2. "Fibrous Soy Protein (FSP) on Twin Screw Extruder"
3. "Milling of Textured Vegetable Protein for Different Food Applications" - Urschel Laboratories
5:15 PM Bus Leaves for Hotel

Thursday, August 27, 2009

7:40 AM Bus Leaves Hotel for Rudder Tower, Texas A&M University
8:00 AM "Processing Economics of Texturized Vegetable Protein" - Brian Plattner
9:00 AM "High Moisture Meat Analogs and Other Extrusion Applications" - Gerry Hertzl
10:00 AM Break
10:15 AM "Extrusion Processing Technologies for Texturized Vegetable Protein" - Brian Plattner
11:30 AM **Graduation Lunch**
1:00 PM "Types of Extruded Soy Proteins, Selection for Meat Alternatives, Designing a Meat Alternative with Examples" - Mian Riaz
1:45 PM "Drying of Texturized Vegetable Protein" - Spencer Lawson
2:45 PM Break
3:00 PM "Identify Preserved Soybeans for Soy foods and TVP" - Rick Bucker
4:00 PM **Bus Leaves to FPRDC for Multiple Demonstrations**
1. "High Moisture Meat Analog with Twin Screw Extruder"
2. "Textured Soy Product with Single Screw Extruder"
3. "Flavoring Texturized Vegetable Protein" - Rongrong Li
5:00 PM Bus Leaves for Hotel

Friday, August 28, 2009

7:40 AM Bus Leaves Hotel for Rudder Tower, Texas A&M University
8:00 AM "How to Mask Beany Flavor in Soy Products" - Rongrong Li
9:00 AM Break
9:15 AM "Fuctional Soy Foods" - Mian N. Riaz
10:00 AM Wrap-Up - Mian N. Riaz"
10:15 AM Bus Leaves for Hotel

Practical Short Course on
Texturized Vegetable Protein & Other Soy Products

August 23-28, 2009
Texas A&M University
(Please Type or Print Clearly)

Name: _____
This name will appear on your graduation diploma

Job Title: _____

Company: _____

Mailing Address: _____

City: _____ State: _____

Zip Code: _____ Country: _____

Phone: _____ Fax: _____

E-mail: _____

Name Card (you would like to be called): _____

Contact in case of emergency: _____

List any special diet requirements: _____

Method of Payment (mark one)

- Checks payable to TEES
 If paying with credit card please include type of card:
 American Express Visa Master Card Diners Club

Number: _____

Exp. Date: _____ Total Amount: \$ _____

Signature: _____

Return this application to:

Cyndi Casanova, Short Course Coordinator
Food Protein R&D Center
The Texas A&M University System
2476 TAMU, 373 Olsen Blvd., Cater-Mattil Hall
College Station, Texas 77843-2476 U.S.A.
Tel: 979/847-8997; Fax: 979/845-2744
E-mail: shortcourse@tamu.edu

You can also register on the web:
www.tamu.edu/extrusion