



IGP Institute

Flour Milling for State Wheat Commissioners and Staff

December 9–11, 2024 • Manhattan, Kansas

Participants will learn basic principles of flour milling and the impact that wheat quality has on milling efficiency and flour performance. The course, IGP–KSU Flour Milling for State Wheat Commissioners and Staff, will be held December 9–11, 2024.

The course will be taught through a series of lectures and hands-on training in the Kansas State University milling laboratories, including the commercial Hal Ross Flour Mill, bench-top Milling Laboratory, and the Baking Laboratory. The course labs will focus on understanding the milling process and associated equipment, milling different classes of U.S. wheat, and baking practices utilizing different wheat class flours.

About Us

At the IGP Institute, we conduct professional trainings on-site and via distance for the grain and feed industries. Our courses focus on flour milling and grain processing, feed manufacturing and grain quality management, grain marketing and risk management, baking, and brewing and fermentation. We also conduct on-location trainings as well as customized offerings as requested. To learn more about our programming, please visit our website at www.grains.ksu.edu/igp.

Register

Registration with hotel: \$1,350. Breakfast, parking, and WiFi are included. IGP will book and pay for the room and send a confirmation number and email. Check in on Sunday, December 8, and check out on Thursday, December 12.

[Click Here to Register](#)



Course Topics

- Competitor Quality for U.S. Wheat Globally
- Wheat Cleaning and Conditioning
- Milling Systems and How They Work Together
- Understanding Flowsheets
- Milling Extraction and Other Milling Math
- Impact of Wheat Quality on Milling Extraction
- Wheat and Flour Blending
- Flour and Dough Testing Methods
- Flour Functionality

For more information contact:

Shawn Thiele (smt9999@ksu.edu) Cell: 785-313-3950

KANSAS STATE
UNIVERSITY

IGP Institute
Department of Grain Science and Industry

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IGP-KSU Flour Milling for State Wheat Commissioners and Staff

IGP Institute / Kansas State University

December 9 – 11, 2024

Course Agenda

Course Objectives:

Participants will receive training in the basic principles of flour milling and greater understanding of the relationship between wheat quality and flour performance.

These objectives will be met through classroom lectures and hands on practical training in the milling laboratories at Kansas State University including the Hal Ross Flour Mill and Shellenberger milling and baking laboratories.

Monday, December 9

- 0745 Depart Bluemont hotel via hotel shuttle or personal transportation
- 0800 **Welcome, Introductions, Course Outline and Overview:** *Shawn Thiele, Associate Director / Flour Milling and Grain Processing Specialists, IGP Institute, Department of Grain Science and Industry, Kansas State University; 785-313-3950; smt9999@ksu.edu*
- U.S. Wheat Classes and Market Overview:** *Dalton Henry, Vice President of Policy, U.S. Wheat Associates; dhenry@uswheat.org; 785-293-2131*
- Principles of Wheat Cleaning and Conditioning:** *Thiele*
- 1000 Break & Group Photo - IGP
- Gradual Reduction System Overview and Flowsheet Terminology:** *Thiele*
- Milling Math:** *Thiele*
- 1200 Lunch - IGP
- Milling Laboratory (Shellenberger Hall):** *Thiele*
- Mill six classes of US Wheat
 - Understand the milling flow process
 - Understand milling differences between wheat classes
- 1700 Adjourn and depart to hotel

Tuesday, December 10

- 0745 Depart Bluemont hotel via hotel shuttle or personal transportation
- 0800 **Milling Process Specifics:** *Thiele*
- Explanation of Major Milling Equipment and the Process
- Wheat and Flour Blending:** *Thiele*
- 1000 Break - IGP

Wheat Milling Exercise at the Hal Ross Flour Mill – Milling HRW and SWW: Thiele

- Break Releases
- Purifiers
- Sizings, Reduction Rolls, Collection Passages
- Flour Steam Analysis
- Sample Board Analysis

1200 Lunch - IGP

HRFM Wheat Milling Exercise Continued:

1530 **U.S Wheat Update:** *Justin Gilpin, Chief Executive Officer, Kansas Wheat Commission, Kansas Association of Wheat Growers; jgilpin@kswheat.com*

Tour of Kansas Wheat Innovation Center: *Justin Gilpin*

1730 Adjourn and depart to hotel

Wednesday, December 11

0745 Depart Bluemont hotel via hotel shuttle or personal transportation

0800 **Impact of Grade, Wheat Quality Characteristics, and Mill Performance on Flour Extraction:** *Thiele*

Flour Functionality: *Aaron Clanton, BNEF Instructor, Department of Grain Science and Industry, Kansas State University; 785-532-4065;*

alclanton@ksu.edu

Break - IGP

Flour and Dough Testing Methods: *Clanton*

1200 Lunch - IGP

Bakery Lab SH110: *Clanton*

- Baking Bread, Cakes and Cookies using Different Classes of U.S. Wheat Flour

1700 Adjourn and depart to hotel

1830 **IGP Sponsored Group Dinner/Drinks and Presentation of Certificates:**

Colbert Hills Golf Course, 5200 Colbert Hills Dr, Manhattan, KS 66503

Thursday, December 12

All are invited to attend the Kansas Wheat Commission Board Meeting and Kansas Wheat Innovation Center Holiday Party on Thursday December 12th

0900 **Kansas Wheat Commission Board Meeting**

1200 Lunch – KWIC

1400 **Kansas Wheat Innovation Center Holiday Party**