By-product handling

What you will learn

During the milling process, about 70 to 75 % of the grain becomes flour, and the remaining 25 to 30 % is available as wheat by-products currently largely destined for livestock consumption. However, pelleting of these by-products (e.g., bran, husks) is advisable for various reasons, especially for storage and transport. Due to its higher bulk density, less storage and transport space will be required, and profitability therefore significantly increased. On the other hand, these by-products contain beneficial compounds for human health, which could be recovered and recycled into the food chain. This course will provide essential details to understand the process technology and machine requirements required for key applications in feed & food.

Required skill level

This course is well-suited for Plant and Production Managers; Head Millers; Product development technologists; Professionals **with commercial or technical background in grain or feed milling related industries.**

Next course dates and more information

Scan the QR code or go to buhlergroup.com/academy

Price

CHF 2’100.00 per person / 1 week

What is included

- Unlimited access to Wi-Fi and Internet
- Invitation letter for visa application
- Printed training documents
- One social event and dinner

Bühler AG | Milling Academy, 9244 Uzwil, Switzerland | T +41 71 955 30 58, millingacademy@buhlergroup.com

By-product handling
Detailed program

Monday

Welcome at the Milling Academy
- Formalities and administrative matters
- Bühler factory visit, including research centers

Red thread in milling
- Profound explanation of requirements from the perspective of the baker.

Cleaning section and conditioning of wheat
- Special flow sheet technology
- Sortex in the cleaning section
- Various surface treatment options (scouring, peeling, light peeling, pearling)
- Flow sheets around the world
- Conditioning of wheat

Tuesday

Short presentation of milling machines
- Roller mill and plansifter
- Purifier, bran finisher, detacher

Customer service
- Our products, our philosophy, organization and your opinion

Flow sheet technology
- Use of purifiers, bran finishers, detachers
- Discussion of real flow sheets from around the globe
- Differences in wheat and target finished products and their influence on flow sheet design

Social event in the evening

Wednesday

Practical
- Operation of the cleaning system

SOLIX, and power consumption reduction in general
- Measures to reduce operating power in the cleaning and mill

Perfect break release
- Optimized break handling as key to best semolina quality

Wednesday

Mechanical starch damage
- Starch structure, mechanical starch damage and its influence on water absorption and baking yield

Thursday

Practical milling in the School mill
- Settings applying the “perfect break release” with sample taking and analysis
- Comparison bare dressing and poor dressing
- Set-up of purifier in the school mill
- Impact of detachers

Extrusion
- Theory about extrusion and application in different products

Visit of extrusion laboratory

Friday

Bakery Innovation Center – Bakery basics
- Regional breads in a global world, a hands-on exercise in the bakery
- Different recipes / processes / products
- Practical approach with hands on exercises
- Different customer preferences in a multi-cultural world
- Application of Flour correctors to improve quality of bakery products

Value added products
- Premix, FHT, Air classification etc.

KPI (Key performance indicators)
- Evaluation of a flour mill

Course feedback
- End of course ca. 16:30

Working hours

08.00 – 09.30 / 10.00 – 12.00
13.15 – 15.00 / 15.15 – 17.00

We reserve the right to adjust the schedule for organizational reasons.

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