



BRIESS™

MALT & INGREDIENTS Co.

All Natural Since 1876

**Trusted Quality from
America's Heartland**



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All natural since 1876



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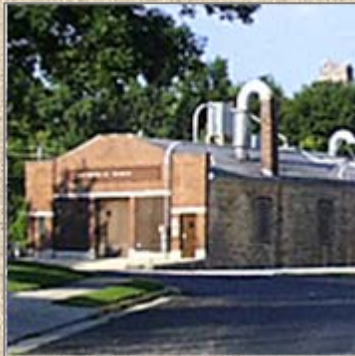


Facilities...



Two malting divisions

Insta Grains® Division



Irish Road Extract Plant

Milling Division



Distribution Center



Briess is North America's leading producer of specialty malts. We make more than 50 styles of base and specialty malts. That's more than any malting company in the world.



Briess Malt & Ingredients Company is the only vertically integrated malting company in North America. That means we make malt extracts from our own malts.

The Art of Crafting Specialty Malts

Specialty Malts

A specialty malt is any malt other than the standard brewers malt which is used as the base for all brews. A specialty malt is designed to add a unique characteristic or characteristics to the finished product.

Unique Characteristics of Specialty Malts Include:

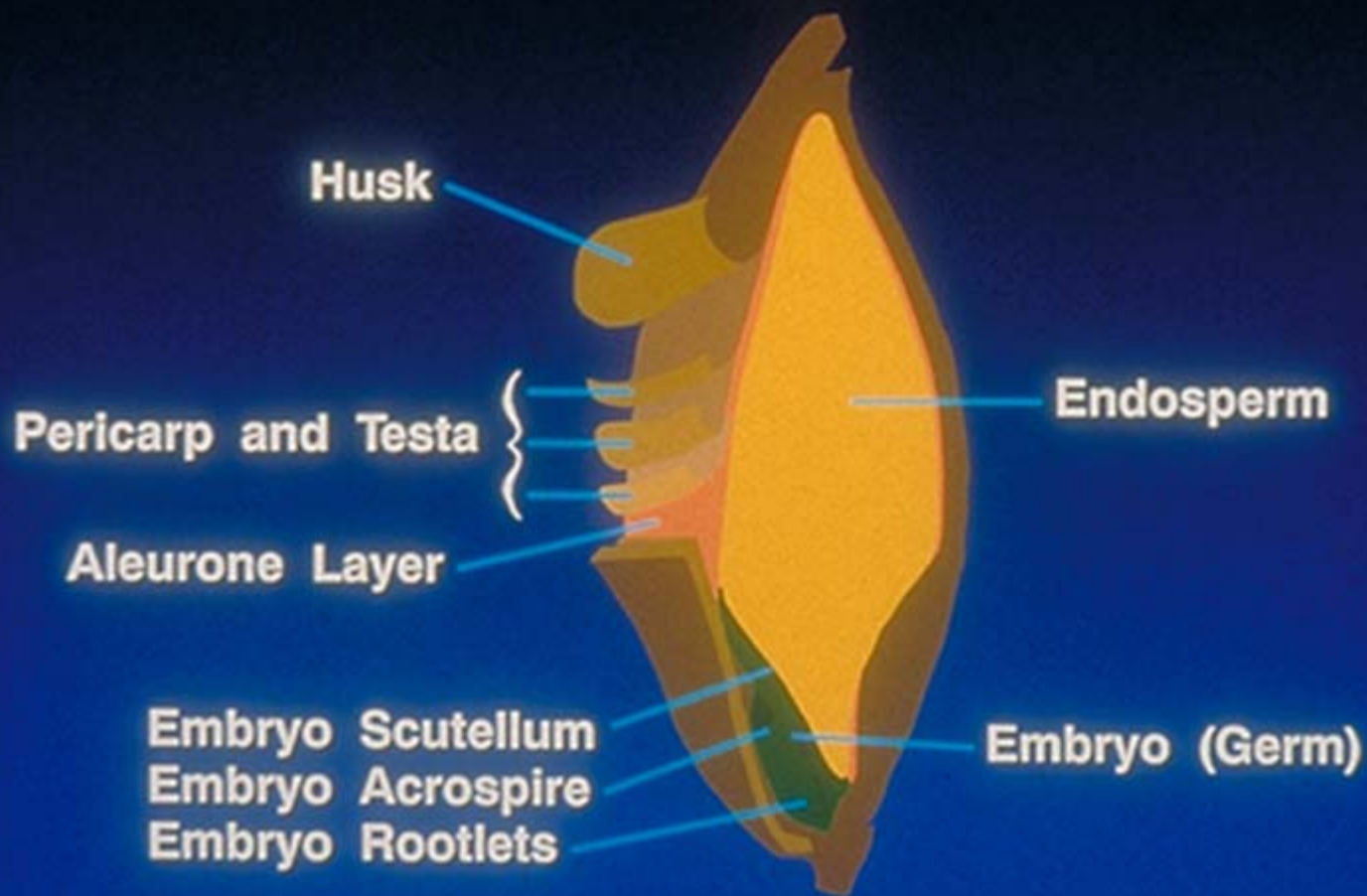
- Flavor
- Color
- Foam
- Foam Stability
- Body
(Mouthfeel)



2-Row

6-Row

STRUCTURE OF THE BARLEY KERNEL



Malting is a three-step process



1) Steeping



2) Germination



3) Drying

Primary Immersion Phase



Drain & Air Rest Phase



Spray or Additional Immersion





Steep Out



Objective
is to
obtain
uniform
germination
or “chitting”



Germination

Germination, which began in the steep tank, continues in the compartment where the barley undergoes modification.



Control Points In Germination

- Kernel Moisture
- Piece Temperature
- Time

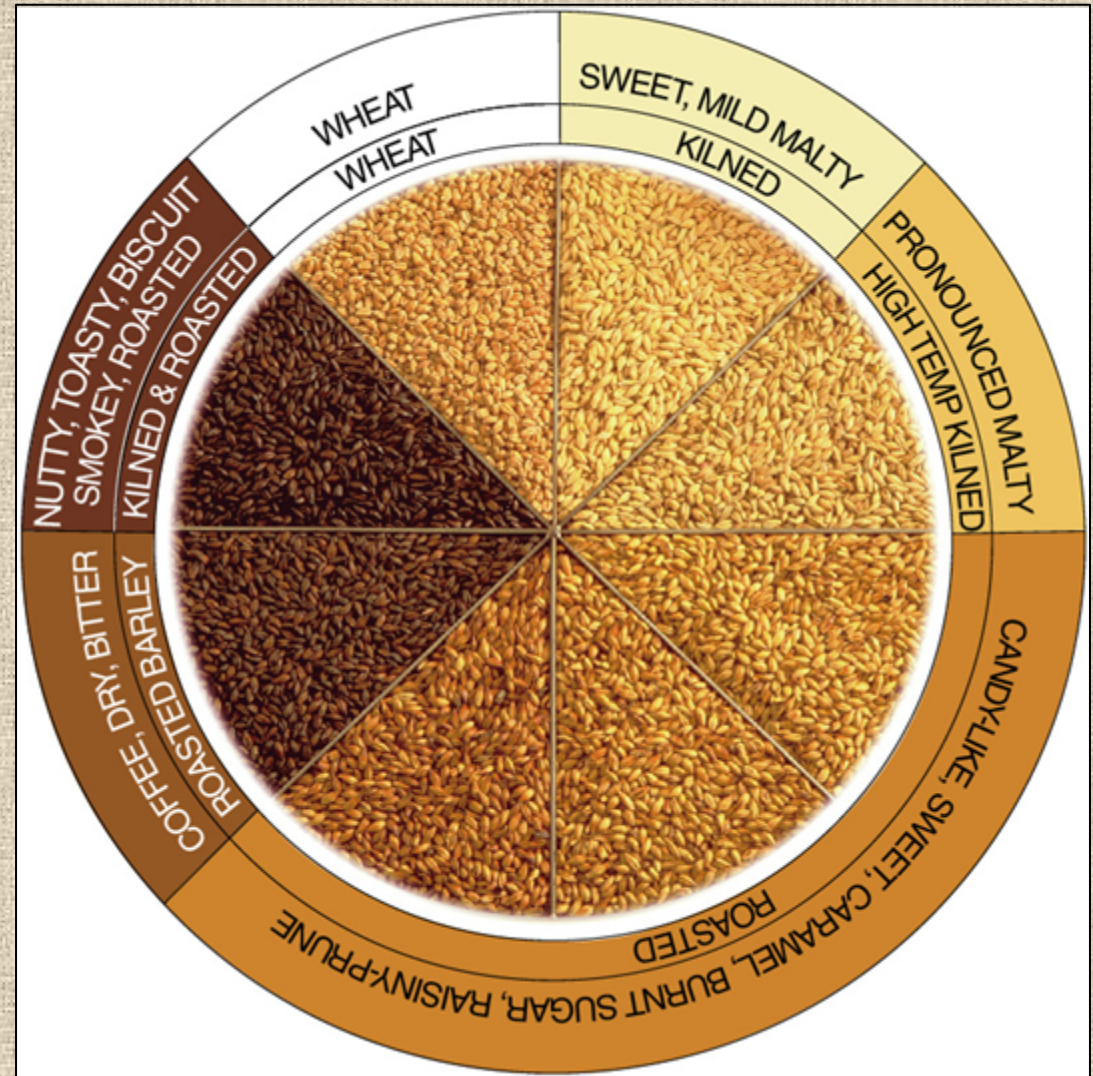
Objectives of Kiln Drying



- Stop growth and modification
- Preserve enzymatic activity
- Create shelf stability
- Create colors and flavors

Categories of Specialty Malts

- Kiln Produced
- Roaster Produced



Kilned Specialty Malts

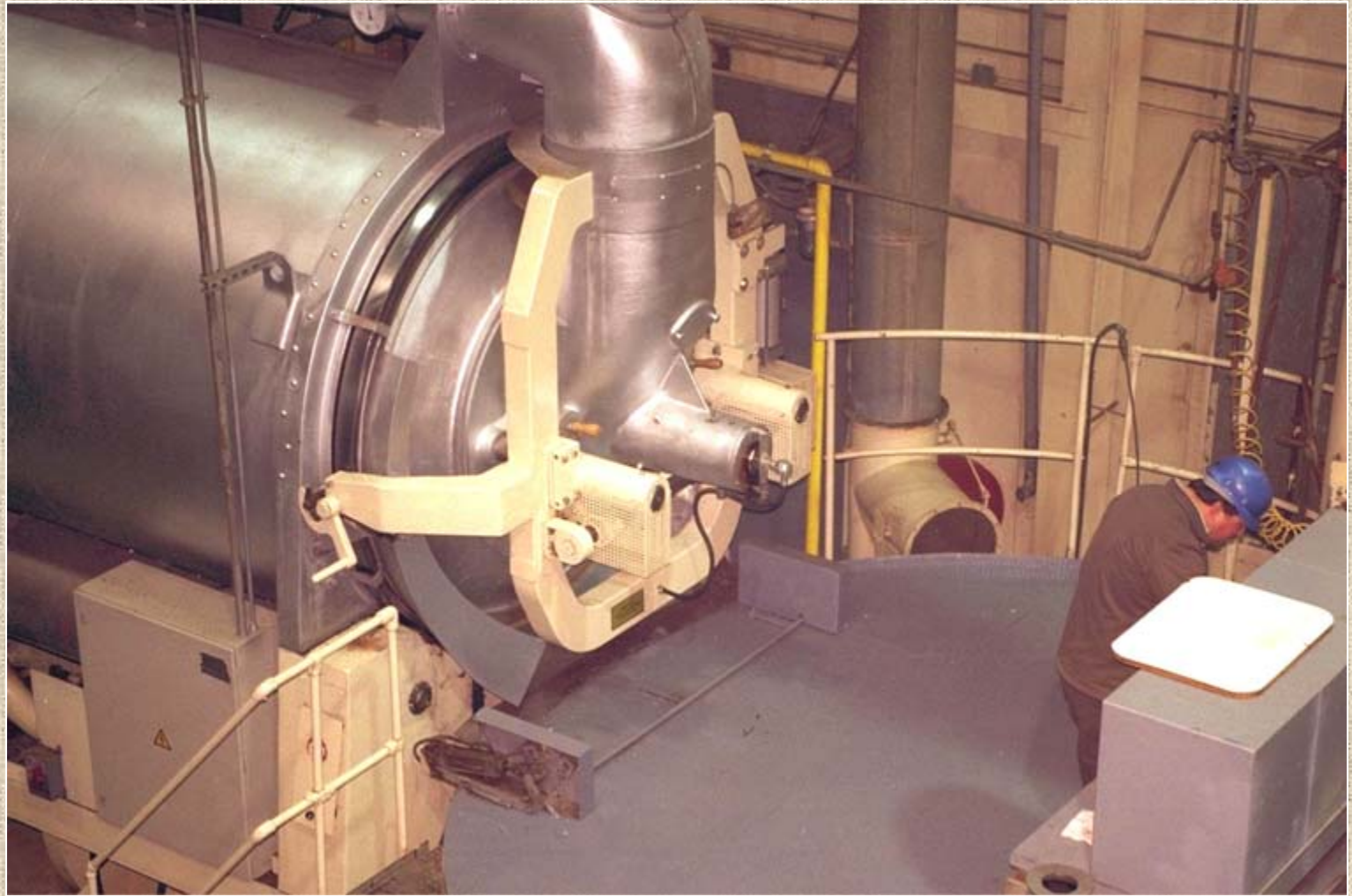
Pilsen
Carapils®
Pale Ale
Ashburne®
Bonlander®
Aromatic
Munich 10L
Munich 20L



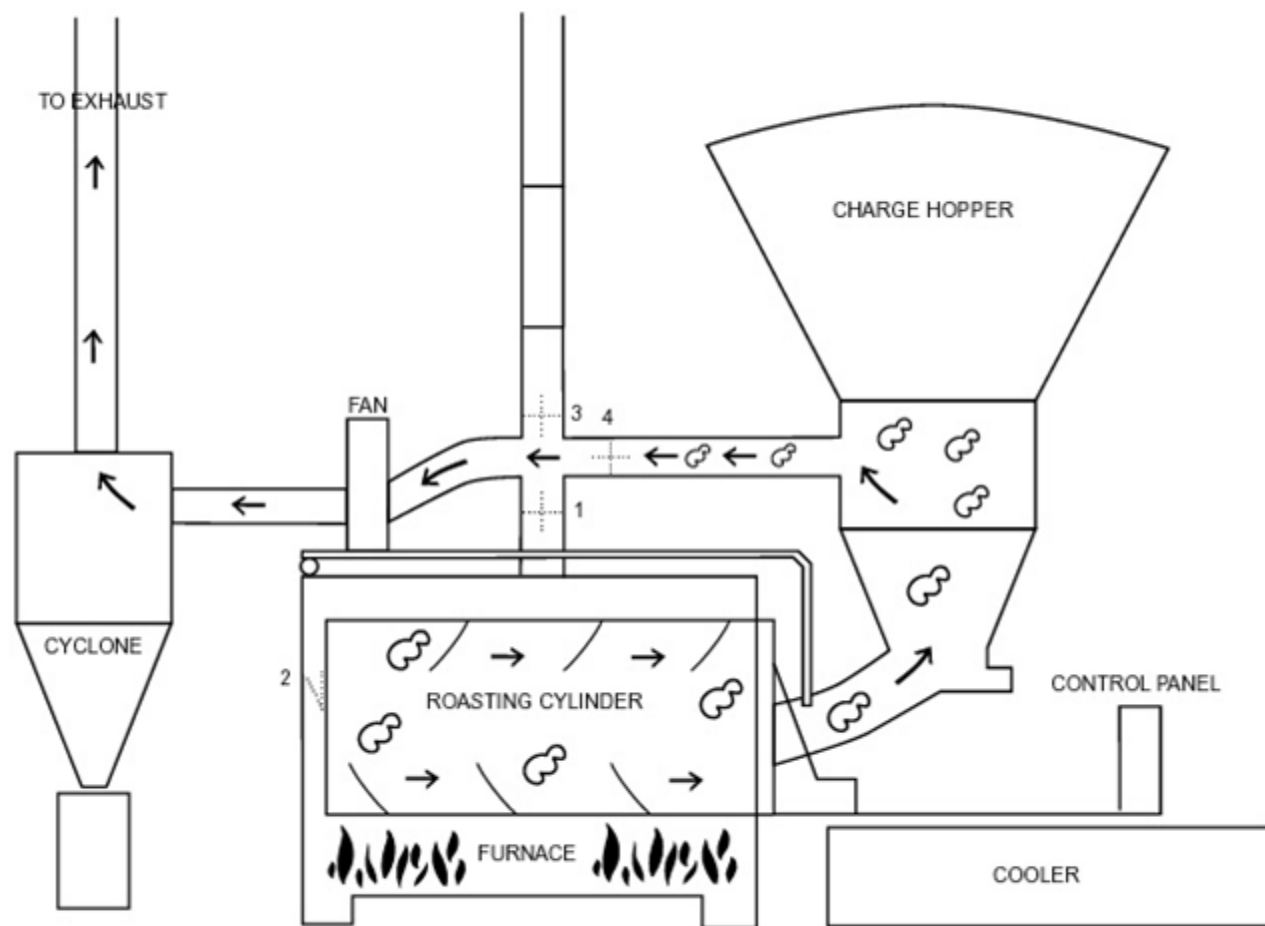
Unique Characteristics Of Kilned Specialty Malts

- Color Range: 0.9L – 23L
- Hue: light straw to golden
- Flavor Range: sweet, malty, biscuity, intense maltiness
- Kernel Characteristics: mealy with enzyme preservation (except Carapils® which is glassy)

Roaster Specialty Malts



Typical Drum Roaster Diagram



A TYPICAL ROASTING DRUM

©2001 Briess Malting Company, Chilton, Wisconsin, USA

Roasted Green Malt

Caramel
Extra Special
Caramel Vienne
Caramel Munich



Unique Characteristics Of Roasted Green Malt

- Color Range: 10L – 140L
- Hue: golden to deep red
- Flavor Range: candylike, toffee, burnt sugar, raisiny, molasses
- Kernel Characteristics: partial mealiness to full glassiness

Kiln Dried, Roasted Malts

Victory®
Special Roast
Chocolate
Dark Chocolate
Black



Unique Characteristics Of Kiln Dried, Roasted Malts

- Flavor range: bready, nutty, toasted, biscuity, chocolate, dark coffee
- Wort color: deep golden to black

Roasted Barley, Black Barley



Unique Characteristics of Roasted Barley, Black Barley

- Clean, sound, uniformly plump barley, roasted
- Flavor is strong, often with bitter after taste
- Wort flavor is creamy, strong coffee
- Aroma is coffee
- Wort color is dark brown to black

RAW BARLEY

“GREEN MALT” (barley that has been steeped and germinated)

Kilned Base Malts

*Sweet, Delicate
Mild to Mild Malty*



Base (1.8)
Pilsen (1.0)
White Wheat (2.5)
Red Wheat (2.3)

High Temp Kilned Malts

*Light Malty to
Pronounced Malty*



Vienna (3.5)
Pale Ale (3.5)
Ashburne® Mild (5.3)
Bonlander Munich® (10)
Aromatic (20)
Munich 10L, 20L

Roasted Caramel Malts

*Sweet, Mild to
Intense Caramel,
Toffee, Burnt
Sugar*



Caramel 10L-120L
Caramel Vienne 20L
Caramel Munich 60L

Special Processed Malts

*Biscuity, Toasty,
Nutty, Woody,
Raisiny, Prunes*



Victory® (28)
Special Roast (50)
Extra Special (130)
Rye Malt

Dark Roasted Malts & Roasted Barley

*Rich Coffee,
Roasted, Subtle
Bitter Chocolate,
Dry, Astringent*



Chocolate (350)
2-Row Chocolate (350)
Dark Chocoalte (420)
Black Malt (500)
Roasted Barley (300)
Black Barley (500)

Briess Malt Extracts for Brewing



In February 2002 the Briess Extract Plant in Chilton, Wisconsin, was commissioned. The 18,000 square-foot-facility is a state-of-the art malt extraction facility capable of producing brewers grade pure malt extracts and other grain extracts, such as BriesSweet® Brown Rice Syrup for food and non-alcoholic beverage applications.



**Full automated.
NFPA Certified
(National Food
Processors
Association)**



It took 2 years to build the Briess Irish Road Extract Plant. These were the first four dry storage silos installed when the plant was built. Additional dry storage silos have since been added. The main components of the Briess Extract Plant are:

- Dry Storage**
- Milling**
- Weighing/Blending Grains**
- Mashing/Conversion**
- Separation/Boiling**
- Evaporation**
- Packaging**

Milling



Weighing





Mashing / Conversion



Separation/ Boiling



Evaporation



**Environmentally
controlled
packaging
process**



Bulk Loading/ Unloading





90,000+
square
foot
distribution
center



CBW® Pilsen Light

CBW® Golden Light

CBW® Bavarian Wheat

CBW® Sparkling Amber

CBW® Traditional Dark

CBW® Porter



- **American Lagers**
- **Pale Ales**
- **English, Scottish and Irish Style Ales**
- **Amber or Red Ales**
- **Wheat Beers**
- **Nut Brown Ales**
- **Bock Beers**
- **Oktoberfest/Marzen Styles**
- **Munich Style Beer**
- **Rye Beers**
- **Porters and Stouts**
- **Barleywine**



Thank You



David Kuske, Director of Malting Operations
Briess Malt & Ingredients Company
Chilton, Wisconsin USA
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