



Midwest Hops And Barley Co-op

Jon B. Reynolds BrewPlan, Inc. & Midwest Hops and Barley Co-op April 9, 2011



Introduction--Hops

- What are Wisconsin Craft Brewers looking for in Hops today?
 - Uniqueness in many hop varieties—high alpha hops are in very high demand
 - Proprietary hops are springing up offering very unique brew styles (Simcoe, Citra and Amarillo)
 - Competitive prices with West Coast producers
 - Marketing of indigenous ingredients in their beers
 - Continued growth of organic beer segment
 - Trend toward "Buying Local" from co-op's

Challenges for Hops Growers In Wisconsin...

- Moisture
- Erosion
- Soil Content
- Sunlight
- Pest Control
- Trellis System
- Harvesting Equipment
- Harvesting Labor
- Pelletizing
- Marketing











Six Midwestern Brewers Created A Cooperative Market for the Wisconsin (Local) Growers...

- Lakefront Brewery, Milwaukee, WI
- Sprecher Brewery, Glendale, WI
- South Shore Brewery, Ashland, WI
- Central Waters Brewery, Amherst, WI
- The Bull Falls Brewery, Wausau, WI
- Goose Island Brewery, Chicago, IL





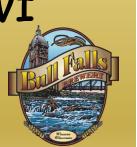


Deep Water Grille

South Shore Brewery

808 W. Main Street | Ashland.



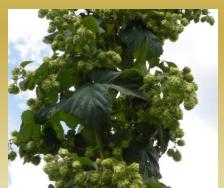


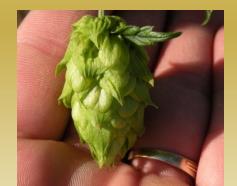


Seven Wisconsin Growers Are Growing Hops for the Wisconsin (Local) Brewers...

- Wokatsch/Stettin Hop Farms—Wausau, WI
- J & M Garden Farms—Waterloo, WI
- Hillside Hop Farm—Waterloo, WI
- Randel Roots Hop Farm—Hortonville, WI
- Driftless Organics—Soldiers Grove, WI
- Lime Lake Farms—Amherst, WI (New Member)
- Fine Bine Farms—Rosholt, WI (New Member)









Hop Varieties The Co-op Grew... 2010 Wet Hop Production (#'s)

- Cascade—846 #
- Magnum—155 #
- Willamette—125 #
- Tettnang—64 #
- Kent Goldings--42 #
- Sterling—32 #
- Total Harvest (Wet)—1,264 #













Introduction--Barley

- Craft brewers prefer 2-row barley over 6-row barley.
- 2-row barley difficult to grow in Wisconsin climate.
- New seed varieties (Pinnacle and New Dale) have been tested by Major Brewers for growing in cold weather climates—they were successful.
- Key is to source a seed company early to gain access to 2-row barley.
- Plenty of ground (out of CRP) to grow more barley.
- 2-row Barley is something more Wisconsin Craft Brewers have an interest in.









Barley Varieties The <u>Co-op Grew</u>... 2010 Barley Production—Bayfield County (#'s)

- 6-Row Robust 145,000 # Malted
- 2-Row New Dale 70,000 # Malted
- Total Harvest (6-Row and 2-Row)—215,000 # Malted

All of this Barley was grown in Bayfield County and Malted at International Malting in Thunder Bay, Canada, due to Freight economies of being in closer proximity.

Midwest Hops and Barley Co-op Business Model

"Grow Local, Brew Local, Sell Local"

Midwest Hops and Barley Co-op Created Its Business Plan to Assist Both Wisconsin Craft Brewers and Growers...

Co-op Objectives:

- Provide indigenous crops to Midwest Craft Brewers at affordable prices to reduce ingredient costs by 10%
- Work with WI Dept. of Ag, Ag Ext., and UW-River Falls and Univ. of Minnesota to grow unique varieties of high alpha hops and 2-row and 6 row barley, including organic
- Perform research on where the market is going; utilize local growers with excess land that are looking for additional revenue sources
- Assist local growers with harvesting, oasting and processing equipment and trellis development
- MHBC to buy 100% of all crops grown by Co-op members.

To This











Midwest Hops and Barley Co-op— Wisconsin Articles of Incorporation

- Filed on April 3, 2009 (Growing for 4 Years)
- Co-op has a cap of 25 Craft Brewers and 25 Growers
- Brewers and Growers must be based in the Midwest
- Board of Directors consists of 2 Growers, 2 Brewers and Managing Director
- Craft Brewers membership fee is \$2,000 for a large size craft brewer -over 2,750 bbls and \$1,000 for a small size brewer—under 2,750 bbls.
- Growers pay \$250 membership fee, no matter what size
- Each brewer and grower member receive one share
- Today, we have 6 Craft Brewers and 8 Growers
- The MHBC has applied for WI and USDA Ag Dept Grants

Hops Growers Need to Hit These Specs

- MHBC will assist growers with harvesting equipment—one member bought a WOLF!
- All hops must be dried (oasted)
- Moisture content should be between 8-10%, not lower
- Hops should be weighed and properly labeled
- The MHBC takes title when the hops are weighed and paid (100 #/variety minimum)
- All hops will be sent to Lime Lake Farms
- for processing, pelletized and packaged
- Brewers use mostly pelletized hops (only a few brews use fresh or wet hops)











WOLF Harvester Secured For Midwest Hops And Barley Co-op

Agricultural Engineering

Professional Harvesting Technology

Hop-Picking Machines – the professionals for the pro





Used WOLF Harvester Secured For Midwest Hops And Barley Co-op



Small Scale Hops Pelletizer

Pellet Pros Model PP220

Power: 220 Volt / Single Phase / 60 HZ AMERICAN motor

Amp Draw: 25 HP: 5 Weight: 292 Lbs. Production Capacity: Up to 110-220 Lbs. Per Hour(varies with product) Dimensions: 32"x16"x34" Material Use: All biomass and softer wood Price: \$2,395.00

The PP220 comes equipped with a 5hp American motor with a manufacturer's warranty of one year from the date of manufacture.

PP220 Replacement Die and Roller Set: \$279.00



Small Hops Bag Sealer Machines



AVN-150 x 74 \$289.00



Z300DX 250 x 187 \$175.00



11# or 44# Nylar bags

Barley Growers Must Hit These Specs

- Barley must be cleaned and graded.
- Barley should be at 95% germination.
- Total 2-row Protein Content should ave 11-13% and 6row should ave. between 12-13.5% protein
- Barley should be weighed and properly labeled.
- The MHBC takes title when the Barley is weighed and paid. MHBC will pay freight to malting facility.
- Barley will be sent to Briess Malting or International Malting for processing and bagging (125,000 # minimum)
- Craft Brewers use mostly 2-row barley (only a few brews use 6-row)



Local Craft Beer Examples From Wisconsin Craft Brewers Brewed With Indigenous Ingredients

<u>Local Acre</u>—Organic Golden Lager with Organic Barley and local hops--Lakefront Brewery, Milwaukee, WI

<u>Hop Harvest APA</u> Central Waters Brewery, Amherst, WI

<u>Cherry Lambic</u> Sprecher Brewery, Organic Barley and Hops Milwaukee, WI

<u>Honey Pils</u>—Golden Pilsner with locally grown honey and barley--South Shore Brewery, Ashland, WI



What Can The Co-op Expect?

2011 will be a pinnacle year for growing hops in Wisconsin, as harvesting and pelletization equipment is put into place
Growers continue to contact us for both hops and barley—we may be in a position to take on more growers in 2012
Wisconsin Craft Brewers continue to experience lower hop costs, with high demand for "locally-grown" hops
High Alpha hop prices are rising in demand, as brewers use more of these varieties in their growing ales and high IBU brews

• Brewers and growers need to unite in a organized cooperative, similar to small organic farms community supported agriculture (CSA's)-Buy Local!

Summary—Growing Hops & Barley In WI

- Growing Hops in Wisconsin can be accomplished with a little TLC. Demand is there, but prices have are stabilizing after declining two years now.
- Yields by hop variety won't be fully known until years 2011 & 2012.
- Specific hop varieties are what MHBC Brewers are looking for.
- Growing 2-Row Barley in Wisconsin is challenging, but demand is there at the right price.
- Growers need better participation from more Wisconsin Craft Brewers to guarantee a stable market.
- Midwest Hops and Barley Co-op continues to apply for DATCP & ADD grants for working capital to assist growers with harvesting options.
- Hop oasting, hop harvesting and pelletizing equipment will be secured to handle rising supply expected in 2011.

Midwest Hops and Barley Co-op Business Model

"Grow Local, Brew Local, Sell Local"

Thank You Growers and Brewers!! Let's Have A Craft Beer Today!!





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