Ohio Malt

By: Andrew Martahus of Haus Malts
What is Malting?

Steep

Germination

Kilning
Which Grains can be Malted?

**Common**
- Barley
- Wheat
  - Spelt
- Rye

**Uncommon**
- Corn
- Rice
- Millet
- Buckwheat
- Quinoa
- Amaranth
- Triticale
- Oats
Availability of Grains in Ohio

• Commodities
  • Corn
  • Soft Red Wheat

• Contract Grown
  • Spelt
  • Rye
  • Specialty Wheat

• Ohio Barley
  • Historically grown in Ohio
  • OSU breeding program
    • Test plots
    • New varieties adapted for Ohio
  • Ohio Certified Seed
    • Maja
  • Haus Malts Contracts
    • 5 fields of winter barley
    • 2 fields of spring barley
### Current Barley Trials

- **Ohio**
- **Eric Stockinger at OSU**
- **New York**
- **Cornell**
- **Pennsylvania**
- **Pennsylvania State**

### Table: Barley Trials Results

<table>
<thead>
<tr>
<th>Accession</th>
<th>Kernel Weight (mg)</th>
<th>Color (% ON)</th>
<th>Malt Extract (%)</th>
<th>Wort Clarity (%)</th>
<th>Barley Protein (%)</th>
<th>Wort Protein (%)</th>
<th>S/T (%)</th>
<th>DP (mS/cm)</th>
<th>Alpha-amylase (mg/kg)</th>
<th>Beta-glucan (g/L)</th>
<th>FAN (%)</th>
<th>Quality Score</th>
<th>Overall Rank</th>
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For Wort Clarity: 1 = clear, 2 = slightly hazy, 3 = hazy. Wort Color was not determined (ND) on hazy samples.
Small Grain Farming

Challenges
1. Competition with Corn and Soybean
2. Growing rain and temperature
3. Disease pressure
4. Higher quality

Benefits
1. Double crop
2. Winter cover crop
3. Soil quality
4. Lower fertilization
5. Straw market
6. Relationship with buyer and end user
7. Natural manure on fall crop
Benefits to Us

• Sustainability
• Decrease transportation
• Keep $ in Ohio
• Control of varieties
• Personal relationships with farmers
• Transparency in supply chain
Farm to Malt – Quality Checkpoints

- Malt quality barley
  - Most Important: Protein, RVA/Falling Number, DON, Germination
  - Others: Weed seeds, Plumpness, Weathering, Moisture, etc.

- Seed cleaning
  - Uniform kernel size, removal of straw, foreign seeds

- Malting
  - Process control
  - Removal of rootlets and broken/undersized grain
  - Friability, moisture, and color
What Has Us Excited

• Access to different varieties
• Custom flavor profiles
• Ability to move quickly and respond to changes in local demand
• Freshness
• Unique grains
• Building a local supply chain
Progress of Haus Malts

• Initially finding farmers
  • Eric Stockinger, Brad Bergefurrd, Ohio Seed Improvement Association, Great Lakes Brewing

• Farmers reaching out
  • Specialty crop, economics, winter cover crop, malting themselves

• Current Farms
  • Winter barley: 1 in Smithville, 2 in Pemberville, 2 in Spring Valley
    • Wintmalt and Scala
  • Spring barley: 1 in Trumbull County and 1 in Garretsville
    • TBD: Synergy, New Dale, Full Pint, etc.
Progress of Haus Malts Cont.

- 2\textsuperscript{nd} batch of base malt bagged 1/10/2016
- 2500 lbs of spelt for batch 3
- Test batch brewed at Nano Brew
- Continuous improvements on our kiln, process control, and recipes
- Addition of next bin and pilot kiln
# Malt Houses in Ohio

<table>
<thead>
<tr>
<th>Malt House</th>
<th>Location</th>
<th>Batch Size</th>
<th>Malt Styles</th>
<th>Distribution Range</th>
<th>Production</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haus Malts</td>
<td>Cleveland</td>
<td>4,000 lbs per bin</td>
<td>Pilsner to dark Munich, smoked, and caramel</td>
<td>Delivery in Cleveland and shipment around Ohio</td>
<td>Started 12/2015</td>
<td><a href="mailto:andrew@hausmalts.com">andrew@hausmalts.com</a> or 216-570-1108</td>
</tr>
<tr>
<td>Little Miami Farms</td>
<td>Spring Valley</td>
<td>2,000 lbs (planned)</td>
<td>Base and custom</td>
<td>Cincinnati and Dayton</td>
<td>Planned to start Q3 2016</td>
<td><a href="mailto:Jamie@littlemiamifarms.com">Jamie@littlemiamifarms.com</a> or 937-532-9569</td>
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<tr>
<td>Ohio Malting Company</td>
<td>Wakeman</td>
<td>4,000 lbs (planned)</td>
<td>Base</td>
<td>N/A</td>
<td>March 1st, 2016</td>
<td><a href="mailto:ohiomaltingcompany@gmail.com">ohiomaltingcompany@gmail.com</a> or 440-774-9463</td>
</tr>
<tr>
<td>Rustic Brew Farm</td>
<td>Marysville</td>
<td>2,000 lbs (planned)</td>
<td>Pilsner to Pale Ale</td>
<td>Columbus and shipment in Ohio</td>
<td>Q1 2016</td>
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<tr>
<td>Sweet Acres Malt</td>
<td>Goshen</td>
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<td>Base</td>
<td>Cincinnati and Dayton</td>
<td>N/A</td>
<td><a href="mailto:camille29alexis@hotmail.com">camille29alexis@hotmail.com</a> or 513-763-0487</td>
</tr>
</tbody>
</table>
Thanks for Listening

Q&A period after presentations