Hello Northeast Ohio Counties!

It was quite a wet, cold start this morning, we had some freezing rain across the area slowing things down. The rest of the week looks like we’ll have even more freezing and thawing, good for getting the sap flowing for the local maple syrup producers.

Just a reminder if you haven’t already, to register for the Northeast Ohio Agronomy School. It’s coming up soon on February 20th so don’t miss out. The flyer is included at the end of this weeks newsletter.

Have a productive and safe week!
Northeast Ohio Agronomy School Returns February 20, 2019

OSU Extension will be hosting the Northeast Ohio Agronomy School again in 2019! A wide variety of topics will be discussed throughout the day including weed management, insect control, agronomic decisions for soybeans, and updates to the Tri-State Fertility guide. Speakers for this year's event include Mark Loux, Andy Michel, Steve Culman, Laura Lindsey, Anne Dorrance, Origin Malts, and presentations from our sponsors.

We're in a new location this year – The Agronomy School will be held at the Bristolville Community Center in Bristolville, OH. Cost for the program is $15/person and includes snacks, lunch, and handouts. Pesticide, fertilizer, and CCA credits will be available. For more information, or to register call 330-638-6783.

Double-Crop Soybean Yields after Barley in Northwest Ohio

By Eric Richer and Garth Ruff
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2019-03/double-crop-soybean-yields-after-barley-northwest-ohio

Several growers across the state had the opportunity to grow winter malting barley in 2018. We had the opportunity to work with eight of those growers from Northwest Ohio, in particular, to learn more about the viability of growing this newly, re-introduced crop. As a learning cohort of sorts, these growers agreed to share their yield and quality data results while participating in a simple, field-scale research project with these two objectives:

1) Determine the field-scale, simple averages for yield (grain & straw), harvest date and quality characteristics for barley grown in Northwest Ohio.

Simply put: Can we grow barley with high yield and good quality?

2) Compare the yield and plant/harvest dates for the same variety soybean as a i) first crop system, ii) double crop after barley system and iii) double crop after wheat system.

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Simply put: What will the double crop soybeans yield in this barley system?

The first objective from above was answered in an article we wrote in the CORN newsletter here https://agcrops.osu.edu/newsletter/corn-newsletter/2018-30/northwest-ohio-field-scale-barley-yield-results. To summarize, the barley data over nine sites in 2018 shows these averages for the variety Puffin: harvest date of June 26th, barley yield of 86.5 bushels per acre, straw yield of 1.01 ton per acre and barley quality of 11.6% protein, 98.5% germination, 87.5% plumpness and .45 ppm DON.

In this article, we would like to focus on the soybean data associated with this study. The data presented below was based on one growing season and should be interpreted as such.

Study Design
Each barley grower in the cohort was asked to plant a ‘paired-site’ field of first crop soybeans adjacent to their barley field with the goal of comparing yields of double crop soybeans after barley to the of first crop soybeans (check). Eight growers utilizing eleven different variety comparisons (sites) participated in these paired sites. Additionally, four growers utilizing five variety comparisons (sites) had a wheat field adjacent to or nearby these paired sites and planted double crop soybeans after wheat. One could consider the double crop soybeans after wheat a more important ‘check’ than first crop soybeans. It may depend on your perspective or whether you are a wheat grower or not.

Growers were asked to use the same soybean variety (Table 1) in each scenario to eliminate varietal differences. Soybeans maturities ranged from 2.5 to 3.5 and several trait platforms were used (non-GMO, Roundup, Xtend, and Liberty) based on the grower’s preference.

<table>
<thead>
<tr>
<th>County</th>
<th>Pre-Plant Tillage</th>
<th>Variety</th>
<th>Maturity</th>
<th>Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defiance</td>
<td>No Till</td>
<td>SC 93-35</td>
<td>3.2</td>
<td>RoundUp</td>
</tr>
<tr>
<td>Fulton - 1</td>
<td>Full Till</td>
<td>R333R2 Brodbeck</td>
<td>3.3</td>
<td>RoundUp</td>
</tr>
<tr>
<td>Fulton - 2</td>
<td>No Till</td>
<td>Pioneer 33A81 PR</td>
<td>3.3</td>
<td>Plenish</td>
</tr>
</tbody>
</table>
One of the notable considerations for planting barley—especially for Northern Ohio—is the possibility of planting double crop soybeans 6-10 days earlier than one would normally plant after wheat. In 2018, the average planting date for first crop soybeans was May 22 with an average as planted seeding rate of 175,000 seeds/acre. The average planting date for soybeans after barley was July 1 with an average seeding rate of 187,000 seeds/acre. The soybeans planted after wheat had a July 7 average at an average seeding rate of 197,000 seeds/acre. In this production year across these sites, the double crop soybeans after barley only gained 6 days as compared to those sites that had double crop soybeans after wheat. Additionally, all growers in the cohort felt strongly that removal of the straw made for more effective double crop soybean planting.

Yield Results
All sites were harvested for yield, (Table 2) over nearly two months’ time due to challenging weather. All yields reported were standardized to 13% moisture. First crop soybeans yielded 59.3 bushels per acre with a 14.0% harvest moisture and had an average harvest date of October 17. The soybeans after barley yielded 36.6 bushels per acre with an 18.7% harvest moisture and had an average harvest date of November 17. Finally, the soybeans after wheat yielded 19.5 bushels per acre with a harvest moisture of 17.8% and an average harvest date of November 29.

<table>
<thead>
<tr>
<th>Description</th>
<th>1st Crop Soybeans (11 sites/varieties)</th>
<th>Soybeans after Barley (11 sites/varieties)</th>
<th>Soybeans after Wheat (5 sites/varieties)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulton - 3</td>
<td>Full Till Iowa 3051</td>
<td>3.1 Non-GMO</td>
<td></td>
</tr>
<tr>
<td>Fulton - 4</td>
<td>Full Till Pioneer 31T11</td>
<td>3.1 RoundUp</td>
<td></td>
</tr>
<tr>
<td>Fulton - 5</td>
<td>Full Till Rupp 31XT40</td>
<td>3.1 Xtend</td>
<td></td>
</tr>
<tr>
<td>Fulton - 6</td>
<td>No Till Pioneer 27T91 PR</td>
<td>2.7 Plenish</td>
<td></td>
</tr>
<tr>
<td>Hancock</td>
<td>Full Till Becks 3559XT</td>
<td>3.5 Xtend</td>
<td></td>
</tr>
<tr>
<td>Henry - 1</td>
<td>No Till NuTech 3361L</td>
<td>3.3 Liberty</td>
<td></td>
</tr>
<tr>
<td>Henry - 2</td>
<td>No Till Pioneer 92T50</td>
<td>2.5 Non-GMO</td>
<td></td>
</tr>
<tr>
<td>Paulding - 1</td>
<td>No Till AGI 3501XT</td>
<td>3.5 Xtend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>Range</td>
<td>Average</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Plant Date</td>
<td>May 22</td>
<td>May 1-June 7</td>
<td>July 1</td>
</tr>
<tr>
<td>Seeding Rate (sds/ac)</td>
<td>175k</td>
<td>160-190k</td>
<td>187k</td>
</tr>
<tr>
<td>Harvest Date</td>
<td>Oct 17</td>
<td>Oct 5-Nov 23</td>
<td>Nov 17</td>
</tr>
<tr>
<td>Harvest Moisture (%)</td>
<td>14.0</td>
<td>11.0-18.5</td>
<td>18.7</td>
</tr>
<tr>
<td>Harvest Stand (plants/ac)</td>
<td>113k</td>
<td>85-130</td>
<td>139k</td>
</tr>
<tr>
<td>Yield (bu/ac)</td>
<td>59.3</td>
<td>47-76</td>
<td>36.6</td>
</tr>
</tbody>
</table>

Barley Growing Considerations
The decision to raise a new crop like barley should be based on the information gathered by each producer, how that particular crop fits into each operation, having a contract and delivery point in place prior to planting, and the overall profitability of the enterprise. Barley may or may not be for your farm. It does allow a grower to add crop diversity to the rotation while using existing equipment (grain drill, sprayer, combine). However, growing a food grade, identity preserved (IP) crop requires specified quality standards and segregated storage as compared to commodity crops. Additionally, the planting and harvesting logistics for barley may not fit into all operations. The list of advantages and disadvantages is much more extensive but these could be observed as some of the most important.

Summary
In summary, much is yet to be learned on barley production in Northwest Ohio. Yield data from this growers’ cohort suggests that double crop soybean yield after barley can be significantly better than soybean yield after wheat. While this article contains just one year of data from eight growers, it will start to answer the question of whether winter barley is a viable option for farmers in Northwest Ohio. For information on management, visit [https://stepupsoy.osu.edu/winter-malting-barley](https://stepupsoy.osu.edu/winter-malting-barley) and search for the Extension.
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The authors wish to thank the cooperators from Defiance, Fulton, Hancock, Henry, and Paulding Counties who participated in this learning cohort. We hope to repeat it again in 2019 and if you are growing winter barley for harvest in 2019 and would like to be part of the cohort, send inquiries to richer.5@osu.edu or ruff.72@osu.edu

Ohio Agricultural Law Blog--In the Weeds: Taking a Closer Look at the Lake Erie Bill of Rights

By Evin Bachelor, Law Fellow, Agricultural and Resource Law Program

Lake Erie once again made headlines when the Ohio Supreme Court recently decided that a “Lake Erie Bill of Rights” (LEBOR) initiative could be placed on the Toledo ballot on February 26, 2019. The decision raised alarm in Ohio’s agricultural community and fears that, if passed, the measure will result in litigation for farmers in the Lake Erie watershed.

The OSU Extension Agricultural and Resource Law Program took a close look at LEBOR. Specifically, we wanted to know:

- What does Toledo’s Lake Erie Bill of Rights petition mean?
- What does the petition language say?
- What happened in the legal challenges to keep the petition off the ballot?
- Have similar efforts been successful, and if not, why not?
- Who has rights in Lake Erie?
- What rights do business entities have?

We examine all of these questions, plus a number of frequently asked questions, in a new format called “In the Weeds.” While many of our readers know of our blog posts and law bulletins, explaining this issue required something different. Using “In the Weeds” is a way for us to dig into a current legal issue more in depth.

For answers to the questions above and more, CLICK HERE to view the new “In the Weeds: The Lake Erie Bill of Rights Ballot Initiative.”
**Showers limiting days for spreading livestock manure**

By Alayna DeMartini  
Source: [https://cfaes.osu.edu/news/articles/showers-limiting-days-for-spreading-livestock-manure](https://cfaes.osu.edu/news/articles/showers-limiting-days-for-spreading-livestock-manure)

COLUMBUS, Ohio—Rain falls, and that might make some farmers happy, depending on the time of year. Then, a lot of rain falls, off and on, for months, and not only do fields fill up with water, but so do manure ponds and lagoons, and that might make some farmers a bit nervous.

Ohio had the third wettest year ever in 2018, and there’s been little letup since then, leaving farm fields across the state saturated. For farmers with a lot of livestock, spreading manure onto wet land as fertilizer is not an option right now, and manure ponds are filling up fast.

Because manure ponds and lagoons are outdoors and uncovered, they collect not only animal waste from livestock housed inside, but they also collect rainwater. Indoor pits located under livestock holding facilities, such as hog barns, also collect manure; those are also reaching capacity.

“Week after week and month after month have gone by, and there have been very few opportunities to get the manure applied,” said Glen Arnold, a manure management specialist with The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES).

Typically, farmers with a lot of livestock, such as dairy cows or hogs, pump out their manure ponds and pits in the fall, after harvest. The ponds then fill up through the winter, when farmers are limited in terms of spreading manure on fields as fertilizer due to runoff concerns. But harvest got delayed last year because of rain.
Even after harvest, there were few days when manure could be applied to fields because the land was already saturated with rainwater. And in Ohio counties with tributaries that flow into Lake Erie or Grand Lake St. Marys, state laws limit when farmers can apply manure or other fertilizer to prevent the nutrients from getting into the water.

With so few opportunities to spread the manure, many manure ponds, lagoons, and pits didn’t get fully emptied before winter arrived. And since then, opportunities to spread the manure have been few. It is very unusual for farmers to have so few days to apply manure, Arnold said.

“You’re sitting there with a large amount of manure that needs to be applied to the land, and all you’re seeing is rain. I would say it’s a top concern,” said Sam Custer, Ohio State University Extension educator in Darke County, which has a significant number of hog producers. OSU Extension is CFAES’ outreach arm.

Arnold and Custer are working with farmers to consider options and find additional times during the growing season to apply manure. Last year, they field-tested a method found to be effective for applying manure in the spring on fields with growing corn.

For now, farmers can pay the expense of pumping and transporting their manure to other ponds with more space; expand their ponds; or just wait, hope the rain stops, and then begin spreading their manure onto drier fields.

**Grain Marketing Webinars Offered**

**Source:** [https://u.osu.edu/ohioagmanager/2019/02/11/grain-marketing-webinars-offered/](https://u.osu.edu/ohioagmanager/2019/02/11/grain-marketing-webinars-offered/)

Do you want to do a better job of pricing your corn and soybeans? Is grain marketing a confusing and daunting task? If so, this webinar is for you!

Ohio State University Extension is offering a two-session webinar focused on helping farmers become better grain marketers. Participants will have a better understanding of risk, marketing tools, and the development of written marketing plans. These workshops are funded through a North Central Risk Management Education Grant. Additional information can be found at [http://go.osu.edu/grainplan](http://go.osu.edu/grainplan)

Participants will learn to identify their personal risk tolerance and their farm’s financial risk capacity. Both of these are important in developing a successful grain marketing plan. Participants will also learn how crop insurance products effect marketing decisions and effect risk capacity. Grain marketing consists of understanding and managing many pieces of information. Information on the different grain marketing contracts will be presented. These include basis, hedging, cash, futures, and option contracts. Additionally, participants will be
provided an example of a grain marketing plan and the fundamental principles that should be included.

The courses will be offered on two consecutive Tuesdays, starting on March 12, 2019. For specific times, as well as program registration instruction, go to http://go.osu.edu/grainwebinar. Cost for the program is $30.00.

To request additional information or have questions answered, contact Amanda Bennett at 937-440-3945 or at bennett.709@osu.edu

**Chili Cook-Off & Family Fund Night to be held on March 1st in Jefferson**

The Ashtabula County 4-H Camp Counselors will be holding their 5th Annual Chili Cook Off and Family Fun Night on Friday, March 1, 2019 at the Ashtabula County A-Tech Cafeteria – Building B. The event will be held from 5:30 to 7:30 p.m. and your $5 ticket includes chili, cornbread, dessert and beverage and a vote for your favorite chili.

The evening will be full of fun activities for the whole family. There will also be a basket palooza. Pre-sale tickets can be purchase from any Camp Counselor or at the O.S.U Extension Office. Enjoy a variety of chili while helping a group of hard working youth. All proceeds benefit the Ashtabula County 4-H Camp Counselors program. For more information contact the O.S.U. Extension Office, Abbey Averill 440-576-9008 or averill.10@osu.edu

**Trumbull County Farmer Lunch Series**

OSU Extension Trumbull County, Trumbull County Soil and Water Conservation District, and the NRCS have combined efforts to offer a farmer lunch seminar series that will cover a variety of topics relevant to NE Ohio. Each program will start with lunch at 11:30A.M. sponsored by the Trumbull County Holstein Club followed by a 1-hour presentation. Cost for individual programs is $10/person. If you would like to register for all four programs, the cost is $35/person.

*Wednesday, February 20, 2019 – NE Ohio Agronomy School in Bristolville, OH*

Tuesday, March 5, 2019 – Climate Impacts for Ohio Agriculture
  - Aaron Wilson, OSU Byrd Polar and Climate Research Center
  - Our changing climate has already influenced how Ohio farmers operate. Learn how predicted climate changes will continue to drive changes in Ohio agriculture. CCA credits available.
Tuesday, April 2, 2019 – Tillage Affects on Soil Health

- Steve Culman, Assistant Professor, State Specialist in Soil Fertility
- New tillage technologies are arriving each year, but are they hurting your soil health? Learn how tillage, and other practices can improve or hurt your soils health. CCA credits available.

**Upcoming Events**

**Trumbull County Farmer Lunch**
March 5, 2019 – Climate Impacts for Ohio Agriculture
April 4, 2019 – Tillage and Soil Health

**Northeast Ohio Agronomy School**
February 20, 2019 – Bristolville Community Center

**Ashtabula County Dairy Banquet**
March 23, 2019 -New date-

**Pesticide Applicator Training Dates**
Ashtabula County – February 28, 2019

**New Pesticide Applicator Training**
Trumbull County – March 12, 2019

**New Fertilizer Certification Training**
Trumbull County – February 23, 2019  9A.M. to 12P.M

**Prune Into March**
Trumbull County – March 2, 2019

**March In Prune Out**
Geauga County – March 30, 2019

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The Northeast Ohio Agronomy School is back for 2019! A wide variety of topics will be discussed throughout the day including weed management, insect control, agronomic decisions for soybeans, and updates to the Tri-State Fertility guide. Speakers for this year’s event include Mark Loux, Andy Michel, Steve Culman, Laura Lindsey, Anne Dorrance, Origin Malts, and other presentations from our sponsors. See the back for more information on topics.

We’re in a new location this year – The Agronomy School will be held at the Bristolville Community Center in Bristolville, OH. The community center is in the old fire hall at the intersection of OH-88 and OH-45, right across the street from the library. Cost for the program is $15/person and includes snacks, lunch, and handouts. Pesticide, fertilizer, and CCA credits will be available. For more information, or to register call 330-638-6783. Registration deadline is February 18.

February 20, 2019 9:00A.M – 3:30P.M
Bristolville Township Hall
1864 Ohio State Route 88
Bristolville, OH 44402
(Old fire hall at corner of OH45 and OH88)

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CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, visit cfaesdiversity.osu.edu.
For an accessible format of this publication, visit cfaes.osu.edu/accessibility.
New Field Crop Fertilizer Recommendations
• Steve Culman, OSU Assistant Professor of Soil Fertility
• This talk will highlight major changes and findings of extensive state-wide on-farm fertilizer field trials

Stink Bug Management in Soybeans
• Andy Michel, OSU Associate Professor of Entomology
• Dr. Michel will cover stink bug identification and management as well as tools to estimate insect defoliation in soybean.

Preventing Waterhemp and Palmer Amaranth from Ruining Your Life
• Mark Loux, OSU Professor of Weed Science
• Dr. Loux will discuss strategies to prevent waterhemp and Palmer Amaranth from becoming established in NE Ohio.

Soybean Disease Update
• Anne Dorrance, OSU Professor of Plant Pathology
• Dr. Dorrance will discuss diseases that are popping up in Ohio with the wet weather, and what are some new recommendations to control their spread.

Yield Limiting Factors in Soybeans, and Agronomic Management of Barley
• Laura Lindsey, OSU Assistant Professor Hort and Crop Science
• What is holding back your soybeans from increasing yield? Dr. Lindsey will discuss how to increase your soybean yield and also talk about agronomic decisions for growing barley.

Malting Barley in Ohio – A Growing Opportunity
• Whitney Thompson, Origin Malts
• Origin Malt and Malting Seed Producers are excited to continue building their network of barley growers in the State of Ohio. The talk today will address information about Origin Malt, malting barley best practices and how to become a malting barley grower.

Sponsor Talks at Lunch

Lunch has been generously sponsored by WI Miller and Sons
Fertilizer Applicator Certification Training

Do you apply fertilizer to 50 acres or more for crops that are primarily for sale? If so, you are required by Ohio law to attend a training session or take a test to become certified. OSU Extension offices in Ashtabula and Trumbull Counties are offering training sessions (no test) that will meet all certification requirements. Pre-Registration is required a week in advance. Cost for this training session is $35/person and includes training materials, and handouts. To register, complete the back portion of this flyer and mail with check to the location you plan to attend. Please make checks payable to OSU Extension.
2019 Fertilizer Applicator Training
Trumbull County

Name ______________________________________________
Address _____________________________________________
City __________________  State_____  Zip_________________
Phone ____________________Email  ____________________
Number of People Attending: __________ X $35/person __________

Please make checks payable to: OSU Extension

Please mail to the location you plan to attend.

OSU Extension Trumbull County, 520 West Main Street, Cortland, OH 44410

For questions, contact Lee Beers at 330-638-6783 or by email at beers.66@osu.edu