Hello Northeast Ohio Counties!

If you haven’t started to scout your fields for weeds, this is the perfect week to do it. Palmer Amaranth and waterhemp are easily distinguished right now. If you think you have either of these weeds, give us a call and we will confirm the identification. Drink lots of water and stay safe out there, and Happy July 4th!

Have a good week everyone!
**Warmer Weather favored for the rest of the growing season** Hotter and drier than normal for much of July

By: Jim Noel


After a cool spring, we are playing catch up fast with a warm June. June will end up being 1-3 degrees above normal with rainfall 50-100% of normal. The warm weather will continue for the rest of the summer. Maximum temperatures will likely be 1-3 degrees above normal in July. However, overnight temperatures will be even warmer, some 3-6 degrees above normal. Expect high temperatures in July to commonly be in the 85-95 range with overnight temperatures in the 65-75 degree range.

Rainfall will be a tougher call for July. The climate models which have been tracking best tend to favor normal or below normal rainfall. Some pockets of above-normal rainfall will occur over small areas and seem to favor southern parts of the state. The driest areas appear to be northwest Ohio. Rain will likely be 50-110% of normal again in July. For the first two weeks of July, expect hot and drier than normal weather. Rainfall for the first two weeks of July will average 0.25 to 1.25 inches while normal is not far from 2 inches for that time.

Therefore, small pockets of drought could develop in July if we remain hot and dry for too long.

August and September continue to favor temperatures several degrees above normal. Rainfall will be scattered with areas of below and above normal driven very much on the local-scale due to thunderstorms.

The early outlook for fall harvest season signals above normal temperatures and rainfall going from below to above normal but averaging close to normal overall. There is no indication of an early freeze this fall at this time.

The NOAA Climate Prediction Center Week 3-4 outlooks can be found [here](https://www.cpc.ncep.noaa.gov/products/predictions/WK34/)

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16-day rainfall outlook

Northeast Ohio Agriculture

Ohio State University Extension

Ashtabula, Portage and Trumbull Counties
The 16-day rainfall outlooks can be found on the NOAA/NWS/Ohio River Forecast Center page at: https://www.weather.gov/images/ohrfc/dynamic/NAEFS16.apcp.mean.total.png

**Western Bean Cutworm Trapping Has Started in NE Ohio**
By Lee Beers

You may have noticed some green traps hanging next to some corn fields this year. Those little traps are used to detect western bean cutworm moths that lay eggs on corn plants, and the larvae eat the developing corn later in the summer. We have been monitoring this pest for several years now, and thankfully the numbers have never caused much concern. We’ll report the updated numbers in the traps here each week, so stay tuned!

**Looking for soybean fields with late season waterhemp**
By Mark Loux
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2020-20/looking-soybean-fields-late-season-waterhemp

OSU weed scientists and ag engineers are looking for soybean fields that have populations of waterhemp or Palmer amaranth surviving into July and August (after all control with herbicides has been attempted). We have a project involving the use of a drone to identify these weeds in mid to late season when they are evident above the soybean canopy. We need fields with more than just a few surviving plants. Populations consisting of a few good patches up though a Common waterhemp true leaves without singular hair in the leaf tip notch
disaster are fine. Contact Mark Loux – loux.1@osu.edu, 614-395-2440. Thanks in advance for your help.

**Double Crop Soybean Recommendations**
By: Laura Lindsey
Source: [https://agcrops.osu.edu/newsletter/corn-newsletter/2020-20/double-crop-soybean-recommendations](https://agcrops.osu.edu/newsletter/corn-newsletter/2020-20/double-crop-soybean-recommendations)

As small grains are harvested across the state, here are some management considerations for double-crop soybean production:

**Relative Maturity.** Relative maturity (RM) has little effect on yield when soybeans are planted during the first three weeks of May. However, the effect of RM can be larger for late planting. When planting soybean late, the latest maturing variety that will reach physiological maturity before the first killing frost is recommended (Table 1). This is to allow the soybean plants to grow vegetatively as long as possible to produce nodes where pods can form before vegetative growth is slowed due to flowering and pod formation.

Table 1. Recommended relative maturity (RM) ranges for soybean varieties planted in June and July in northern, central, and southern Ohio.

<table>
<thead>
<tr>
<th></th>
<th>Planting Date</th>
<th>Suitable RM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northern Ohio</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 1-15</td>
<td>3.2-3.8</td>
<td></td>
</tr>
<tr>
<td>June 15-30</td>
<td>3.1-3.5</td>
<td></td>
</tr>
<tr>
<td>July 1-10</td>
<td>3.0-3.3</td>
<td></td>
</tr>
<tr>
<td><strong>Central Ohio</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 1-15</td>
<td>3.4-4.0</td>
<td></td>
</tr>
<tr>
<td>June 15-30</td>
<td>3.3-3.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>July 1-10</td>
<td>3.2-3.5</td>
</tr>
<tr>
<td>----------------------</td>
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<td>---------</td>
</tr>
<tr>
<td>Southern Ohio</td>
<td></td>
<td></td>
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<tr>
<td>June 1-15</td>
<td>3.6-4.2</td>
<td></td>
</tr>
<tr>
<td>June 15-30</td>
<td>3.5-3.9</td>
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</tr>
<tr>
<td>July 1-10</td>
<td>3.4-3.7</td>
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</table>

**Row Spacing.** Double crop soybeans should be produced in narrow rows- 7.5 to 15-inch row spacing. The later in the growing season soybeans are planted, the greater the yield increase due to narrow rows. Soybeans grown in narrow rows produce more grain because they capture more sunlight energy, which drives photosynthesis.

**Seeding Rate.** Harvest population for mid- to late June plantings should be between 130,000 to 150,000 plants/acre. Harvest population for early July plantings should be greater than 180,000 plants/acre. Harvest plant population is a function of seeding rate, quality of the planter operation, and seed germination percentage. It depends on such things as soil moisture conditions, seed-soil contact, and disease pressure.

Figure 1 shows the partial economic return by seeding rate (grain price of $9.44/bu and seed cost of $0.43/1000 seeds) for double-crop soybean planted in Clark County, Ohio. In June, the optimum seeding rate was >250,000 seeds/acre, while in July, the optimum seeding rate was 213,000 seeds/acre. The average harvest population for soybean planted in June at 250,000 seeds/acre was 143,000 plants/acre (57% of the seeding rate) due to heavy rainfall after planting. The average population for soybean planted in July at 250,000 seeds/acre was 204,000 plants/acre (82% of the seeding rate).

Figure 1. Partial economic return by seeding rate for double-crop soybean planted in Clark County, Ohio.
GPS Isn’t Just for Road Trips Anymore
By: Kaine Korzekwa

When it comes to nifty farm gadgets and technology, there are many neat tools. Tractor guidance is definitely one of them, thanks to how it helps farmers better use their resources.

Tractor guidance allows farmers to be more precise when using a tractor to perform tasks in the field. These tasks include planting, spraying herbicide, and applying fertilizer. But how does this precision turn into savings for a farmer?

Amanda Ashworth of the United States Department of Agriculture’s Agricultural Research Service and a team of researchers worked to find out. Their results point to benefits for small farms, many of which do not currently use this tool.

“Precision agriculture technologies improved the on-farm efficiencies by up to 20% based on our work,” Ashworth says. “There is a lot of room for more adoption of the technology on small farms. This would possibly lead to economic and environmental savings.”

A farmer in a tractor makes a series of passes across a field to plant seeds or spray chemicals. Anywhere there is overlap in these passes is inefficient because it’s an unnecessary double application. In addition to overlap, gaps of the field not covered in passes are also bad. It’s a missed opportunity to improve crop production.

Tractor guidance uses GPS to help reduce these overlaps and gaps. It also allows researchers to track and record tractor movements. The researchers helped improve an existing calculation to best measure these overlaps and gaps. It particularly helped where the tractor turns around at the end of a row.
The team’s results suggest that tractor guidance reduces overlaps by up to 6% and gaps by up to 16%. Farmer’s profits are made on small margins, so a small decrease in fertilizer costs, for example, can be very beneficial. Also, fertilizer that runs off a field can harm waterways, so being able to apply just the correct amount can benefit the environment.

While many large crop producers use tractor guidance, they only make up about one fifth of farms in the United States. The rest are small farms. These smaller farms are often slower to learn about and adapt to these new technologies.

All combined, increases in efficiencies with tractor guidance on small farms could result in saving U.S. producers more than $10 million.

The precision tool has other benefits, too, such as letting drivers operate in low light to get more work done during the evening.

“Not all agricultural areas receive information on technology at the same rate, so there is work to be done here,” explains Ashworth. “The small farm systems have high potential for adoption, which would impact the greatest numbers of farms.”
The team’s new method for calculating the benefits of tractor guidance can be easily used on many small fields to gather more data. Their hope is that it can help more farmers learn about and adopt the tool since it can pay for itself - even on small farms.

Next, the researchers want to understand how field slope and objects in the way, such as trees or ponds, affect tractor guidance.

“Agriculture is moving toward using more technology for farm management decisions,” Ashworth says. “We want to get a better understanding of current technology applications and how well they work. This will help us have a better idea of how to improve, develop, and integrate different components for improved production efficiency.”

Read more about this work in Agricultural & Environmental Letters. This research was supported by the Foundation for Food and Agriculture (agreement: 58-6022-9-002

Cover crop tillage prior to a field-level experiment run with and without tractor guidance systems at the Dale Bumpers Small Farms Research Center, USDA-ARS Booneville, AR. Credit: Larry Huddleston
Managing Cucurbit Powdery Mildew
By Sally Miller
Source: https://u.osu.edu/vegnetnews/2020/06/27/managing-cucurbit-powdery-mildew-2/

Powdery mildew has begun to appear on pumpkins and other cucurbits in Ohio. Signs of infection are small circular powdery growths on either side of the leaf. These spots enlarge and can eventually cover most of the leaf surface and kill the leaves. Stems and leaf petioles are also susceptible, but the disease is not observed on fruit. In pumpkins, powdery mildew may also attack the “handles”, which can be further damaged by secondary pathogens. It is time to start scouting cucurbits for powdery mildew.

Powdery mildew is managed using disease-resistant varieties and fungicides. Pumpkin and squash varieties vary in resistance to powdery mildew; in general, the more susceptible the variety, the more fungicide needed. The choice of fungicide is important because insensitivity to overused fungicides is common. It is critical that a fungicide resistance management program is followed. Alternate fungicides in different FRAC (Fungicide Resistance Action Committee) groups, indicating different modes of action against the fungus. Fungicide applications should begin when the disease first appears and incidence is low.

Fungicides that are labeled for use against cucurbit powdery mildew can be found in the Midwest Vegetable Production Guide for Commercial Growers; product ratings and FRAC codes are on page 129. Vivando (U8), Quintec and fungicides containing FRAC 3 group active ingredients (Aprovia Top, Inspire Super, Luna Experience, Procure, Rally) have fewer reported failures due to fungicide resistance than others listed in the Guide and are recommended for Ohio (see table below – click too enlarge). These products should be tank-mixed with a protectant fungicide such as chlorothalonil (Bravo and similar products), copper- or sulfur-based products.

Our evaluations of efficacy of powdery mildew fungicides in Ohio in 2018 indicated that Inspire Super, Procure, Rally, Aprovia Top and Quintec provided very good control of powdery mildew on pumpkins in three locations. Bravo Weather Stik and Fontelis...
provided moderate control and Pristine, Merivon Xemium and Torino provided poor control.

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>FRAC code</th>
<th>PHI (days)</th>
<th>Efficacy</th>
<th>Labeled cucurbits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aprovia Top</td>
<td>3+7</td>
<td>0</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Bravo Weather Suk</td>
<td>M5</td>
<td>0</td>
<td>Fair</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Fontelis</td>
<td>7</td>
<td>1</td>
<td>Fair</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Inspire Super</td>
<td>3+9</td>
<td>7</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Luna Experience</td>
<td>3+7</td>
<td>7</td>
<td>Good</td>
<td>Cantaloupe/musk melon</td>
</tr>
<tr>
<td>Microthiol Dispers (sulfur)</td>
<td>M2</td>
<td>0</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
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<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Miravita Prime</td>
<td>7+12</td>
<td>7</td>
<td>Fair</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Procure</td>
<td>3</td>
<td>0</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Quintec</td>
<td>13</td>
<td>3</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
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<tr>
<td>Rally</td>
<td>3</td>
<td>0</td>
<td>Good</td>
<td>Cantaloupe/musk melon, cucumber,</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>pumpkin, squash, watermelon</td>
</tr>
<tr>
<td>Vivando</td>
<td>U8</td>
<td>0</td>
<td>Good</td>
<td>Cantaloupe/musk melon</td>
</tr>
</tbody>
</table>

A list of products for powdery mildew management in organic cucurbits prepared by Dr. Meg McGrath of Cornell University can be found here.

**OSU Income Tax Schools Summer Update Federal Income Tax & Financial Update Webinar**

By: Barry Ward, Director, OSU income Tax Schools

Significant tax related changes as a result of the new legislation passed in response COVID-19 have created some questions and perhaps consternation over the past few months as taxpayers and tax professionals wrestle with how these many changes may affect tax returns this year and beyond. OSU Income Tax Schools is offering a Summer Update to address these issues and other important information for tax professionals and taxpayers.

The OSU Income Tax Schools Summer Update: Federal Income Tax & Financial Update Webinar is scheduled for August 13th and will be presented as a webinar using the Zoom platform.

**Webinar Content:**
New tax provisions implemented by the CARES Act and Families First Coronavirus Response Act and how to account for them such as the new net operating loss rules,
the payroll tax credit, etc. Paycheck Protection Program Loan Issues: loan applications, forgiveness issues and the IRS ruling on loan expenditures that are forgiven under PPP are not tax deductible and how to account for them in preparing a return, etc.

Dealing with the IRS in these difficult times. Also, what it means to the practitioner as to “dos” and don’ts” regarding the announcement that beginning this summer the IRS will allow the electronic filing of amended returns.

The "Hot IRS Audit Issues – Pitfalls for S Corporations and Partnerships”. Basis of entities as to the rules and related rulings, how to track basis in these entities, creation of basis where none had been computed in prior tax years, losses in excess of basis and when they are not allowed, definition of an excess distribution, taxation of excess distributions, distribution of appreciated property, conversion of C corporations to S corporations – do and don’ts, computation of the Built-In Gains Tax, inference and imputation of a reasonable wage for purposes of the computation of the qualified business income deduction, etc.

Other rulings, developments, and cases.

Webinar personnel:
John Lawrence, CPA, John M. Lawrence & Associates: Instructor
Barry Ward, Director, OSU Income Tax Schools: Co-Host & Question Wrangler
Julie Strawser, Program Assistant, OSU Income Tax Schools: Co-Host and Webinar Manager

Details:
OSU Income Tax Schools Summer Update
Federal Income Tax & Financial Update Webinar
(Zoom Webinar)
August 13th, 2020: 10am – 3:30 (Lunch Break: Noon – 12:50pm)
Cost: $150
Registration information and link to the registration page can be found at:
https://farmoffice.osu.edu/osu-income-tax-schools
This workshop is designed to be interactive with questions from the audience encouraged.

Continuing education offered:
Accountancy Board of Ohio (5 hours)
IRS Office of Professional Responsibility (5 hours)
Continuing Legal Education, Ohio Supreme Court (4.5 hours)

Andrew’s Monthly News Article
Hello, Ashtabula County! Is your corn going to be knee high by the fourth of July? While this old saying isn’t the most accurate indicator of growing conditions, it is easy for me to say that the corn in the county looks much better than this time last year and most fields will certainly be ‘knee high’ by this Saturday. In this time of social distancing I have been taking more drives around the county and admiring the sights and sounds of Ashtabula, especially the agriculture. I encourage everyone to do the same and appreciate the great agriculture being grown in our county. You may be happily surprised by what you find, like fresh strawberries being sold on the side of the road! No matter what you’re doing I wish everyone a safe and happy Independence Day this weekend.

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Today I will share some information regarding our office and our current availability at the time. As Ohio State Extension continues with our reopening plan, changes are happening often so keep an eye out for updates as time goes on. As of today, our office is open by appointment only. That means you must call ahead and schedule a time to come in. If you would like to meet with me, buy a soil test, plot book, or anything else that requires meeting in person, you can give the office a call at 440-576-9008 and set up a time to do so. Like other county buildings we will be asking visitors to bring and wear a mask while they are inside, all employees will be doing so as well. We are committed to the health of our community and have cleaning protocol in place to make sure our office is safe for visitor. If you don’t need to meet in person remember you can reach me via phone or email (Holden.155@osu.edu) any time to have questions answered and to receive information.

*****

Finally, join OSU Extension Master Gardeners, Ashtabula Soil & Water Conservation District, and the Ashtabula County Beekeepers Association for the 2020 Virtual Pollinator Symposium. We have online presentation lined up every Wednesday at 7:00 PM about different pollinator topics! This week is Bee Aware! Native Bees: 500 and Counting: Rose Mary Burns of the Ashtabula County Master Gardeners will introduce you to our local hardworking pollinators. Come away knowing where to find them, when to see them, and what you can do to help them thrive. To sign up and learn more about this event please visit www.go.osu.edu/neops.

*****

Andrew Holden is an Agriculture & Natural Resources Extension Educator for Ohio State University Extension. Andrew can be reached at 440-576-9008 or Holden.155@osu.edu

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PESTICIDE COLLECTION DAY:
ODA CLEAN SWEEP

Tuesday, August 25th, 2020 - 9:00 AM to 3:00 PM

Location: Perry Coal and Feed  4204 Main St, Perry, OH 44081

Cost: Free

Details: Pesticide Collection for all Commercial and Private Agricultural Applicators (Nurseries, Farms, Grape Growers, Christmas Tree Growers)
Not intended for homeowners

Contact information: Thomas deHaas – OSU Lake County Extension, ANR Educator dehaas.2@osu.edu or 440-853-2630

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