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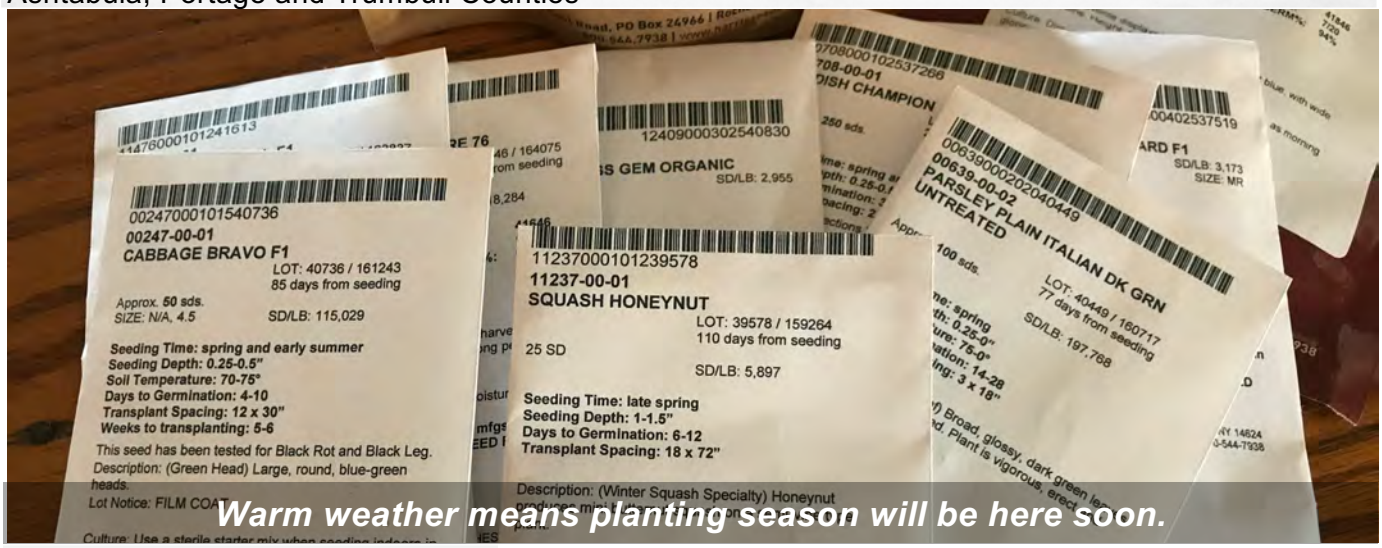
OHIO STATE UNIVERSITY EXTENSION

NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for Ashtabula, Portage and Trumbull Counties

March 2, 2021



Warm weather means planting season will be here soon.

In This Issue:

Hello Northeast Ohio Counties!

Every year about this time we get questions in our office about land rental rates. We are getting more inquiries than usual with the uptick in crop prices. We rely on your input to help landlords and tenants set a fair price for land in NE Ohio.

We need your help to supply accurate values. If you are a farmer that rents ground, or a landlord with a farmer tenant, please help us by completing the cash rent survey at the link below. Thank you! https://osu.az1.qualtrics.com/jfe/form/SV_eXIA7B6jbgSoRGC

Stay safe and healthy!

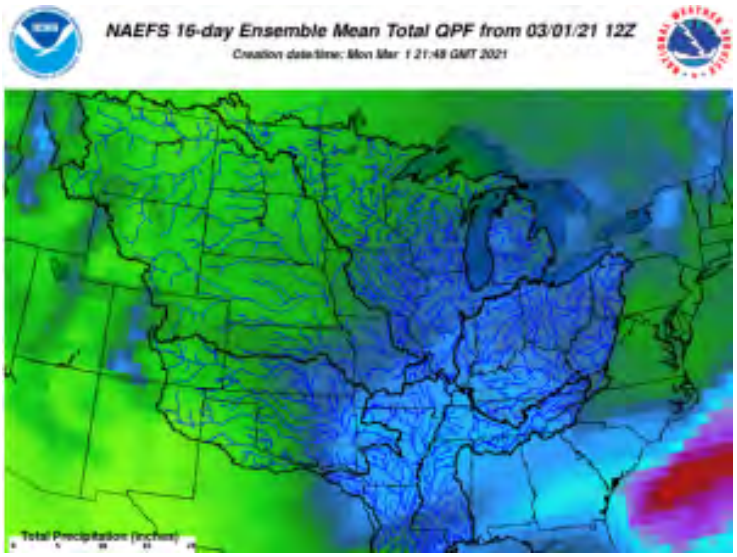
Lee Beers
Trumbull County Extension Educator

Andrew Holden
Ashtabula County Extension Educator

Angie Arnold
Portage County Extension Educator

SPRING PLANTING OUTLOOK

By: Jim Noel
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-05/spring-planting-outlook



After a dry start to winter, the weather pattern has gotten more active. Even though the La Nina pattern in the Pacfiic Ocean is weakening the effect will likely continue through spring. This favors a normal to wetter than normal pattern for Ohio. The western corn and soybean belt will likely continue with the normal to drier than normal pattern through spring.

The greatest chances for wetness appear to favor the southern half of Ohio with closer to normal conditions in northern Ohio. The spring temperatures continue to favor warmer than normal overall.

The result of the warmer than normal temperatures and normal to wetter than normal conditions into spring is there could be some planting delays, but they do not look severe at this time. With the above normal temperatures, it favors a normal or slightly earlier than normal last freeze.

Indications for summer are for above normal temperatures and a trend for near normal precipitation to possibly below normal at some point in summer to early fall.

Please monitor the latest NOAA climate forecasts at:
https://www.cpc.ncep.noaa.gov

The latest river information can be found at:
https://www.weather.gov/ohrfc

The latest flood, drought and seasonal briefings from the Ohio River Forecast Center can be found at:
https://www.weather.gov/ohrfc/Briefings

The latest 16-day rainfall forecast can be found here:
https://www.weather.gov/images/ohrfc/dynamic/NAEFS16.apcp.mean.total.png

Soybean Gall Midge: How Do You Solve a Problem You Know Little About?

By Megan Sever
Source: https://acsess.onlinelibrary.wiley.com/doi/10.1002/crso.20094

A once-in-a-lifetime situation has arisen in the upper Midwest, but it's not the good kind farmers might hope for. Instead, it's that a new species of pest has evolved—scientifically fascinating, but for farmers on the ground trying to combat it and save their fields, it's terrifying. The soybean gall midge, a tiny bug identified as a new species in 2018, has already affected growers in Iowa, Minnesota, Missouri, Nebraska, and South Dakota. And it's threatening the $41 billion soybean industry in the U.S.

Soybean gall midge larvae are small white- to orange-colored maggots. Photo by Bruce Potter, University of Minnesota.

Scientists studying the soybean gall midge have far more questions than answers. Farmers, to date, have found *zero* management techniques to spare their crops—except for abandoning soybean crops altogether. But there is hope on the horizon, scientists say. They're throwing everything they can at the research—more than two dozen open lines of inquiry at last count, from basic life-cycle analyses to genome sequencing, says Justin McMechan, an entomologist and plant pathologist at the Eastern Nebraska Research and Extension Center of the University of Nebraska–Lincoln. Although there is still much more to learn, a clearer picture of these pests is starting to emerge.

Locations affected by soybean gall midges as of Sept. 4, 2020. Source: Soybean Gall Midge Alert Network.

New Species with Lots of Questions

Scientists think the soybean gall midge was first discovered in Nebraska in 2011, but it was thought to be an opportunistic pest that fed on diseased or injured plants. It was also initially confused with the well-known white mold gall midge because the larvae look similar. The white mold gall midge, however, feeds on fungi, not the plant itself, so it is not an economic pest. In 2018, experts realized that soybean gall midge was an economic pest when it was found invading otherwise-healthy soybean fields in 65 counties in Iowa, Minnesota,

Nebraska, and South Dakota. Even once it was identified, it took the chance catching of some adult bugs to get the pest genetically analyzed and morphologically described by Raymond Gagné of USDA and Junichi Yukawa of Kyushu University to confirm it as a new species of the genus *Resseliella*.

Sixteen of the 56 known species of *Resseliella* live in North America. *Resseliella maxima*, the soybean gall midge, is a tiny fly: Adults are only one-quarter of an inch long and really hard to find, according to McMechan, who is as close to an expert on the soybean gall midge as anyone. He is leading the research into the pest.

One of the first research questions was about the soybean gall midge's basic biology, its life cycle, says Erin Hodgson, an extension entomologist at Iowa State who collaborates with McMechan. When you have a new species, you start at the very beginning, she says.

An emergence cage (left) can be used to trap adult soybean gall midges (right) in the field after they emerge in June. Photos by Justin McMechan.

So far, scientists have learned that the soybean gall midge's life cycle is a complete metamorphosis: egg, larva, pupa, and adult. They emerge as adults in June, fly to the next soybean plant, and lay eggs into the cracks or crevices, "what we call fissures," in soybean stems, McMechan says. "Those eggs hatch—we don't know the time frame to hatch, but it's estimated to be a couple of days based on other species."

Once they hatch, they go through three instars, or stages. The first two are white maggot-like larvae. "That can be troubling for identification because they look similar to other things we find in soybean" like the white mold gall midge, McMechan says. In the last stage, they turn orange. "And that orange on soybeans is a pretty diagnostic feature for soybean gall midge," he says, even though the white mold gall midge also turns orange as it synthesizes carotenoids. After turning orange, the soybean gall midge larvae fall off the plants to pupate, after which they again emerge as adults.

Soybean gall midges are only damaging to soybean plants as larvae. The active larvae eat the soybean stem tissue, causing infested plants to wither and die. The pests appear to produce two or three generations each growing season, Hodgson says. They seem to mature at different rates, and adults emerge nearly every day during most of a growing season, starting the life cycle over again continuously. That is "a bad scenario"

for growers, McMechan says, because it makes the pests difficult to treat with insecticides. It also makes it harder for researchers to track.

Even though adults are delicate and poor flyers—and thus only fly to the next row or so of soybeans—they can be blown on the wind from one field to the next, spreading infestations locally. Also, because the adults don't travel far, they start infesting plants at the edge of a field and work their way inward. If a field is infested, McMechan says, you'll know it by looking at just the outside few rows of plants.

Open Questions

Entomologist Justin McMechan (University of Nebraska–Lincoln), principal investigator of a 12-state project researching the soybean gall midge, says his team has at least 26 research objectives about the new pest. Number 27 might be: Where do we even begin?

McMechan and his collaborators started with trying to answer basic questions about biology and ecology. They also want to figure out things such as what environmental factors affect the midges, like why was infestation lighter in 2019 than 2018 and 2020? Does soil type matter? Does wetter weather or drier weather make a difference? Warmer or cooler? Among these questions, though, are some "really exciting" lines of inquiry, McMechan says, like how genetics might change the picture entirely. Here are two examples of cutting-edge research.

How Does a New Species Suddenly Emerge? (Or Did It Even?)

Toxicologist Ana Maria Velez Arango of the University of Nebraska–Lincoln (UNL) is using mitochondrial DNA to understand the soybean gall midge's population structure. She and her team have collected insects from soybean, sweet clover, and alfalfa fields in Nebraska and are getting samples from Minnesota and Iowa to compare their mitochondrial DNA to see if the insects on all three plant types are the same or different biotypes. This line of research may also explain how the soybean gall midge emerged, McMechan says; for example, was it on sweet clover and alfalfa for years and just shifted to soybeans, and if so, why and what was the original host? Or is it truly a brand-new species, and if so, how did it develop?

Velez and her team are also using the genetic data mentioned above to determine how much gene flow happens between the populations. For example, she says, is a southern population mating with a northern population? Are adjacent populations mating? Knowing that would help entomologists know how much the insects are moving, she says.

Could Different Varieties of Soybeans Be Resistant?

This past summer, entomologist Erin Hodgson (Iowa State) and others planted historic species of soybeans in small plots in Iowa and Nebraska to see how different varieties

fare against the soybean gall midge. She's working with George Graef, an agronomy and horticulture professor and head of the soybean-breeding program at UNL, to see if the plant germplasm in these historic no-longer-grown varieties might tolerate midges. Preliminary results from this summer indicate a wide range of damage to the plants, she says, with some holding up better than others.

Germplasm screening, as this line of research is called, is a technique that "holds a lot of promise," she says, because "a lot of midges in other crops are managed through host-plant resistance. When the larvae feed inside the plants, it's really hard to manage them. But hopefully with genetic selection, variety screens, we will be able to grow a better host plant that tolerates midges." The goal would be to find a plant with some characteristic that makes it more tolerant to the midges or that makes it less attractive for the soybean gall midge. For example, some alfalfa breeds are hairy and some pests avoid them because they don't like hairy plants. You never know if that could be the factor for soybeans and the gall midge. Then, once scientists know what characteristics are important to resistance, they could breed the plant that has those characteristics with some high-yielding soybean plant to create a hybrid breed that is both high yielding and resistant to the midge.

Though the adults are fragile, the mature larvae must be pretty hardy, as soil cores have shown that the larvae overwinter predominantly in the top inch and a half of soil in fields planted with soybean the year before. "My guess is that the population suffers greatly over the winter … but they quickly multiply come summer," McMechan says. Though scientists have learned a lot in the two years since the species was identified, there are still many unanswered questions.

For example, Hodgson says, "it's frustrating that we haven't figured out what conditions [the soybean gall midges] need to complete a life cycle, mate, and start it all over again. We haven't been able to replicate it," predominantly because entomologists haven't been able to generate or maintain a soybean gall midge colony in the lab. So scientists don't have even a basic understanding of "how long a generation takes, how many offspring each female can produce, why she picks certain plants—it's disappointing that we still don't know some of those basics," Hodgson says.

However frustrating it is for the scientists studying the little pest, they know it's far more frustrating for the growers dealing with it.

Identifying and Reporting Infestation
What should growers do when they find evidence of soybean gall midges in their fields? As of right now, scientists have no answers for management techniques. Nothing that's been tried has consistently worked to kill the soybean gall midges. McMechan recommends looking at the edges of fields once soybeans reach V2 stage and later. If you see dying plants or cracked, brittle, blackening stems near the base of the soybean plants at the edges of the fields, peel back the outer layer of the stem. Chances are you'll see larvae.

Crop damage caused by soybean gall midge. Photo by Justin McMechan.

The soybean gall midge larvae are the same size as the white mold gall midge larvae, and both are orange in later stages, says Bruce Potter, an entomologist and integrated pest management specialist at the Southwest Research and Outreach Center of the University of Minnesota. The best way to tell them apart in the field is to look at damage patterns, which are distinctive, Potter says. The white mold gall midge larvae and damage can be found throughout a field, anywhere the fungus itself is found on a plant. The soybean gall midge larvae are found only in the plant stem from the ground surface to 6 to 8 inches high and, so far anyway, only at the edges of fields, working their way inward, he says.

Within about three weeks of adult emergence in June each year, infested soybean plants will start to wither as the larvae feed off the stems. (Adults do not feed on soybeans.) If growers see withering only at the edges of their fields or see the larvae on plants, they should call their local extension offices, Potter says.
In 2019, farmers lost 17 to 31% of yields from impacted acres, McMechan says. "That's [financially] catastrophic," putting fields at a loss. But what also worries him is what the yield losses might look like from damaged but not-yet-dead plants. Scientists have no information on that yet.

So, if growers can estimate their total or partial yield losses at various distances into the field, that would help too, McMechan and Hodgson say. Right now, it's really hard to tell what yield losses will look like for an infested field. Scientists are asking all growers affected by the soybean gall midge to enter their field "injury scores" at this website: https://soybeangallmidge.org/.

Managing the Infestation

So far, Hodgson says, farmers have tried various insecticidal seed treatments, foliar pyrethroid insecticides (and changing the timing of these treatments), tilling fields to try to destroy pupae, planting fields 20 ft in from the edges, changing planting dates (both earlier and later), and probably many more techniques to try to manage the pests. “We haven’t seen anything really work,” she says, short of abandoning soybeans and only planting corn, which some farmers have done. Anecdotally, it looks like pyrethroids have at least limited success, Potter says, but there are three problems: one, these only work for about 10 days, which isn’t long enough to kill off the soybean gall midges because of their long life cycles; two, the larvae are largely protected from the pesticides inside the stems; and three, scientists don’t recommend repeated or blanket applications because soybean aphids and spider mites become resistant to the treatments—and those insects are even bigger concerns than the soybean gall midge, he says. Plus, Hodgson adds, you don’t want to kill off pollinators and you don’t want to spend the money to spray insecticides when they aren’t doing any good.

Female adult soybean gall midge. Photo by Justin McMechan.

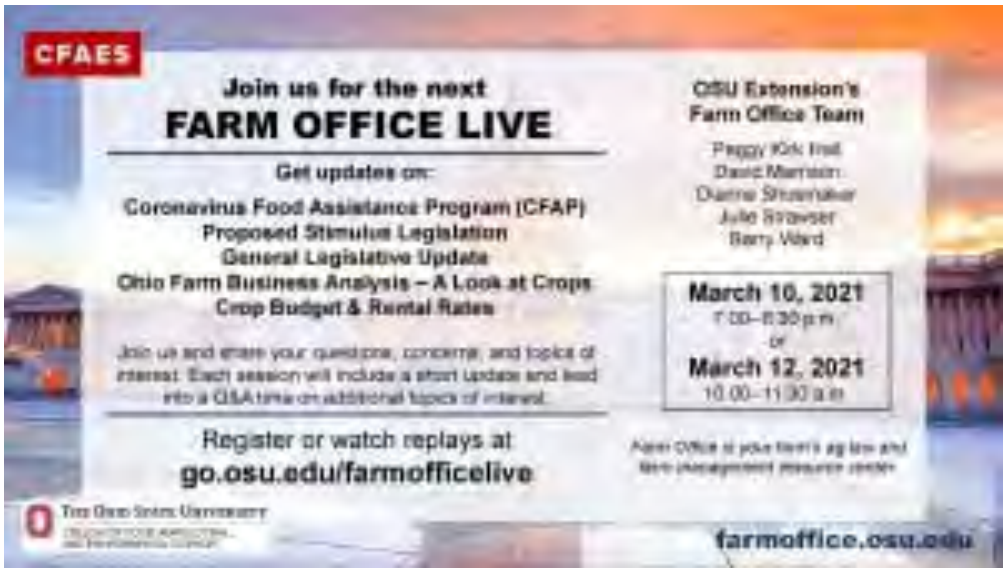
McMechan encourages farmers to keep trying to manage the pest—integrating multiple tactics. Just because one approach didn’t work in one place doesn’t mean it won’t in another. Potter agrees, especially recommending trying different cultural management techniques.

Deep into the second full year of research, the scientists say they are hopeful they’ll have a few more answers—or at least *suggestions* for next year — this winter. This year’s research and data should be published before spring, McMechan says, “and we’re approaching a band-aid fix in the next year or two, which is some acceptable level of control with probably every year some surprises geographically.”

Farm Office Live Continues!

By: Barry Ward, David Marrison, Peggy Hall, Dianne Shoemaker – Ohio State University Extension
Source: https://u.osu.edu/ohioagmanager/2021/03/02/farm-office-live-continues/

"Farm Office Live" continues this winter as an opportunity for you to get the latest outlook and updates on ag law, farm management, ag economics, farm business analysis and other related issues from faculty and educators with the College of Food, Agricultural and Environmental Sciences at The Ohio State University.



Each Farm Office Live begins with presentations on select ag law and farm management topics from our specialists followed by open discussions and a Q&A session. Viewers can attend "Farm Office Live" online each month on Wednesday evening or Friday morning, or can catch a recording of each program.

The full slate of offerings remaining for this winter are:

- March 10th 7:00 – 8:30 pm
- March 12th 10:00 – 11:30 am
- April 7th 7:00 – 8:30 pm
- April 9th 10:00 – 11:30 am

Topics to be addressed in March include:

- Coronavirus Food Assistance Program (CFAP)
- Proposed Stimulus Legislation
- General Legislative Update
- Ohio Farm Business Analysis – A Look at Crops

- Crop Budget & Rental Rates

To register or view past recordings, visit https://go.osu.edu/farmofficelive
For more information or to submit a topic for discussion, email Julie Strawser at strawser.35@osu.edu or call the farm office at 614-292-2433. We look forward to you joining us!

Pesticide and Fertilizer Recertification Update

Happy New Year! I'm sure some of you have received your private pesticide license renewal from the ODA, and are wondering how to get recertified. Admittedly, we are behind this year as we try to navigate changing guidelines from the state, county, and OSU on holding meetings. Hitting a moving target is a little challenging! We will make sure that everyone will get recertified one way or another.

While we prefer in-person programs, that is not possible in the near future. We have been granted permission by the ODA to hold virtual live meetings for pesticide recertification, and we have four sessions scheduled for the upcoming months. You can find those dates below, and registration links as well. These are live events and not recorded. We realize that not everyone has a computer, or reliable internet so we are working on some in-person events later this spring. We will provide updates on those in-person events when those are available.

Thankfully, the deadline for applicators with an expiration in 2020 and 2021 has been extended to July 1, 2021. We hope with the option of having recertification in warmer weather, we can move outside and get together in person. If you have any questions please give us a call and we will answer any questions you have.

- Normal/Agronomy
  - Date: March 10, 2021, Time: Daytime 10AM – 2PM
  - All categories, CORE and Fertilizer
- Normal/Agronomy
  - Date: April 7, 2021, Time: Daytime 10AM – 2PM
  - All categories, CORE and Fertilizer

You can register now at https://go.osu.edu/NEOPAT21

Extension Talk: Upcoming Master Gardener Programs

By: Andrew Holden

Hello Ashtabula County! It's interesting how three weeks of harsh cold and snow can make 50 degrees feel like 80! The warmer weather has been melting snow

and making me think of the spring weather to come. While I know from history that we still have some winter to go here in Northeast Ohio, I cannot help but think about spring on the horizon. For today's article I will be sharing some online programs that will get you thinking and planning for spring as well. These programs include gardening for beginners, chimney swifts, and native pollinators! Check out all three programs bellow and sign up today!

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The Ashtabula County Master Gardeners are holding 'The Beginning Gardener Series' online starting in March. The series is a 5-part event that will be held on Tuesday, March 16Th - April 13Th with each event starting at 7:00 P.M. The program schedule is as follows: Tuesday, March 16th – Types of Gardens and Site Selection, Tuesday, March 23rd – Soil Test and Preparation, Tuesday, March 30th – Plant and Seed Selection, Tuesday, April 6th – Plant Care Through the Season, Tuesday, April 13th – Garden Pest Management. The program is free to attend and will be held online via Zoom. Each program will be about 30 minutes long, with time to ask questions at the end. You can sign up today at: https://go.osu.edu/bgs21

Learn vegetable and flower gardening basics from the Ashtabula County Master Gardeners! If you are wanting to plant a garden for the first time, or looking to improve your basic gardening skills, this series is for you! From types of garden, to plant care, to pest management, you will have the knowledge to help you grow fresh produce and flowers in no time!

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The Ashtabula County Master Gardeners is holding an online presentation on Chimney Swifts with Judy Semroc from The Cleveland Museum of Natural History. The presentation will be Tuesday, March 9th and starts at 7:00 PM. This program discusses the natural history, behavior, human benefits, and reasons for this species' marked population decline. Learn how our help is needed now and how you can be part of the solution. Chimney Swifts are amazing birds feeding on countless flying insects, especially mosquitoes - they eat one third of their weight in insects every day! Since they can only perch vertically, human-made structures such as chimneys, silos, and towers are vital to their nesting success and survival. Their population has declined by 65% since the mid-1960's and is still experiencing a decline. Now is the time to help this awesome species!

This program in online via zoom and is free to attend. Sign up today at: https://go.osu.edu/cs21

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The Northeast Ohio Pollinator Symposium is holding another great online education series. There will be five excellent presentations on a variety of local pollinator subjects. We have already held the first two events, but you can watch the recordings on our website: www.go.osu.edu/neops Those recordings are "Why Native Plants Matter to Bees and Other Wildlife" and "Invasives: Identification, Eradication, and Native Alternatives."

The remaining three events start at 7 P.M. and will be around one hour in length. Topics include:

- March 3rd - "Who are the (Non-Bee) Pollinators in Your Neighborhood?"
- March 17th - "Harvesting and Planting Native Seeds"
- March 31st - "Our Pollinator Picks for Your Native Garden"

To register and to find more information go to: www.go.osu.edu/neops or Email me (Holden.155@osu.edu) with any questions.

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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

Sponsors for 2021 AG Day Sought

Every spring around 1,000 first graders from all Ashtabula County Schools descend on the Ashtabula County Fairgrounds to participate in Ashtabula County's "Ag Day." Coordinated by OSU Extension and the Ashtabula County Farm Bureau, the primary goal of Ag Day is to educate first graders on where their food comes from and to showcase the different types of agricultural commodities which are being produced in Ashtabula County. Due to the pandemic, last years Ag Day was postponed, with the plan of offering this years Ag Day to two classes. As the pandemic continues into 2021 there are still decisions that will be made to ensure both safety and great agricultural education is provided.

What will Ag Day 2021 look like? Currently there are some unknowns, but we are excited to be serving both Ashtabula County's first and second graders. Due to the unknowns when it comes to in person gatherings, we are working hard to be prepared for any situation. Our first choice would be to have all schools attend the event in person at the fairgrounds. This would be accomplished over two days (May 13 & 14, 2021). While we are preparing for in person, we know that for many reasons this may not be possible. That is why we are creating an Ag Day- classroom edition that can be done in classrooms or virtually online. This will include videos we are making from stations we would normally have and supplies that will be sent to the schools to provide the hands-on activities. Regardless of if we hold Ag Day online or in person, the online content and activities will enhance the Ag Day experience for years to come and offer the ability to educate students about agriculture beyond our one-day event. We plan on making a final decision in March and will continue to prepare for any situation.

Ashtabula County's Ag Day program has become a community supported effort as over 300 volunteers and donors help to make this day a reality for the students. The cost of

hosting this event is nearly $22,000 (both monetary and in-kind) and without the support of many this program would not be possible.

We are asking you to considering becoming a donor for the 2020 Ag Day and are offering 5 levels of sponsorship:

Platinum Sponsorship - $1,000 and over

Gold Sponsorship - $500 to $999

Silver Sponsorship - $250 to $499

Bronze Sponsorship - $100 to $249

Friends of Ag Day - $1 to $99

For 2020, we are asking all Ashtabula County farms, agribusinesses, and supporters of Ashtabula County Agriculture to consider donating to help us educate our youth about agriculture. Your gift to this program is 100% tax deductible. Donors are recognized in a variety of manners.

A sponsorship letter can be obtained by calling the Ashtabula office at 440-576-9008 or emailing Andrew Holden at Holde.155@osu.edu. If you are interested in volunteering at this year's program or would like to be a sponsor, please contact Abbey Averill at 440-576-9008.

If you have never experienced Ag Day, please check out this short video from Ag Day 2019: https://youtu.be/3Aw_P2-fi8k

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OHIO STATE UNIVERSITY EXTENSION

2021 OSU Winter Grape School

Thursday, March 4th, 2021

Virtual Event on Zoom

2:00 to 4:30pm

Followed by monthly meeting of Tri-County Grape Growers

Program:

2:00pm: Dr. Imed Dami, Research Program Update

2:45pm: Dr. Melanie Lewis Ivey, Research Program Update

3:30pm: Dr. Dough Doohan, Research Program Update

4:30pm: Tri-County Grape Growers Monthly Meeting

Private & Commercial Applicator Credit

2 Hours Pesticide Education Credit

Registration Link

https://osu.zoom.us/meeting/register/tJAldeuhpj8iHtBuTeQRXVRyFTTt9bzhGnQX

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COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

GROWING PRACTICES FOR SMALL SCALE FRUIT AND VEGETABLE FARMS

Workshops To Take Place on zoom

Tuesdays | March 9th to April 20th

6:30 PM - 8:30 PM

TRUMBULL SOIL AND WATER CONSERVATION DISTRICT
Committed to Conservation

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

TRUMBULL NEIGHBORHOOD PARTNERSHIP

HAVE YOU TRIED GROWING COVER CROPS?

- PLEASE JOIN US FOR A VIRTUAL, INTERACTIVE ROUND-TABLE DISCUSSION ON MARCH 4TH @ 6:30PM.
- A PANEL OF FARMERS THAT ARE UTILIZING COVER CROPS WILL BE ON HAND TO SHARE THEIR EXPERIENCE.
- TO REGISTER EMAIL ANTHONY AT: ALERCH@PORTAGESWCD.ORG OR CALL (330)235-6815

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OHIO STATE UNIVERSITY EXTENSION

The Ashtabula County Master Gardeners Present

The Beginning Gardener Series

TUESDAYS, MARCH 16TH - APRIL 13TH, 7:00 P.M.

Learn vegetable and flower gardening basics from the Ashtabula County Master Gardeners! Join us for this 5-part webinar series every Tuesday at 7:00 PM starting March 16th. Each program will be about 30 minutes long, with time to ask questions at the end. If you are wanting to plant a garden for the first time, or looking to improve your basic gardening skills, this series is for you! From types of garden, to plant care, to pest management, you'll have the knowledge to help you grow fresh produce and flowers in no time!

Tuesday, March 16th – Types of Gardens and Site Selection
Tuesday, March 23rd – Soil Preparation and Testing
Tuesday, March 30th – Plant and Seed Selection
Tuesday, April 6th – Plant Care Through the Season
Tuesday, April 13th – Garden Pest Management

Location: Online via zoom **Cost:** Free

Details: Sign up today at: https://go.osu.edu/bgs21

Contact information: For any questions or assistance signing up, please contact Andrew Holden at Holden.155@osu or call 440-576-9008

Ashtabula.osu.edu

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We Sustain Life

CFAES

2021 Ohio Land Grant Hemp Conference: Looking Back to Plan for the Future

Hemp production in Ohio continues to rise and with it, new information emerges. Join the *2021 Ohio Land Grant Hemp Conference: Looking Back to Plan for the Future*, brought to you by OSU Extension and Central State University.

This two day conference will cover a wide range of topics related to the hemp industry. On March 5th, join OSU as we hear from industry leaders regarding the fiber industry, pest management, economics, and more. On March 6th, CSU will be hosting a virtual trade show that will highlight hemp processors, seed & clone companies, equipment, irrigation, and more!

While this event is free, **registration is required**. Deadline to register is March 3rd at 11:59 PM. If you have any questions, please contact Cindy Folck at afolck@centralstate.edu or Teresa Funk at funk.67@osu.edu.

Date: March 5th and 6th, 2021

Time: OSU Virtual Series, March 5th:
9:00 AM- 11:30 AM,
1:00 PM- 4:00 PM EST
CSU Virtual Trade Show, March 6th: 1:00 PM-5:00 PM EST

Fee: Free!

Registration:
go.osu.edu/2021hempconfregistration

Deadline to register is March 3, 2021 at 11:59 PM.

If you have any questions, please contact Cindy Folck at afolck@centralstate.edu or Teresa Funk at funk.67@osu.edu.

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Central State University 1887

—We Sustain Life—