CFAES

OHIO STATE UNIVERSITY EXTENSION

NORTHEAST OHIO AGRI-CULTURE NEWSLETTER

Your Weekly Agriculture Update for Ashtabula, Portage and Trumbull Counties

March 29, 2022

Great to see all those at our Ashtabula County Pesticide Recertification last night!

In This Issue:

Hello Northeast Ohio Counties!

We were reminded over the weekend that it is still March here in NE Ohio. Some locations in the area received 6 inches of snow. Check out the first article in today's newsletter for a weather update from our state Atmospheric Research Scientist Dr. Aaron Wilson

If you want to hear what weather Dr. Wilson is projecting for planting season and the rest of 2022 here in NE Ohio, tune in to tomorrows Ag Breakfast Webinar at 8:00 AM!
You can still register to attend here: https://u.osu.edu/neoab/

Stay safe and have a good week!

Lee Beers
Trumbull County Extension Educator

Andrew Holden
Ashtabula County Extension Educator

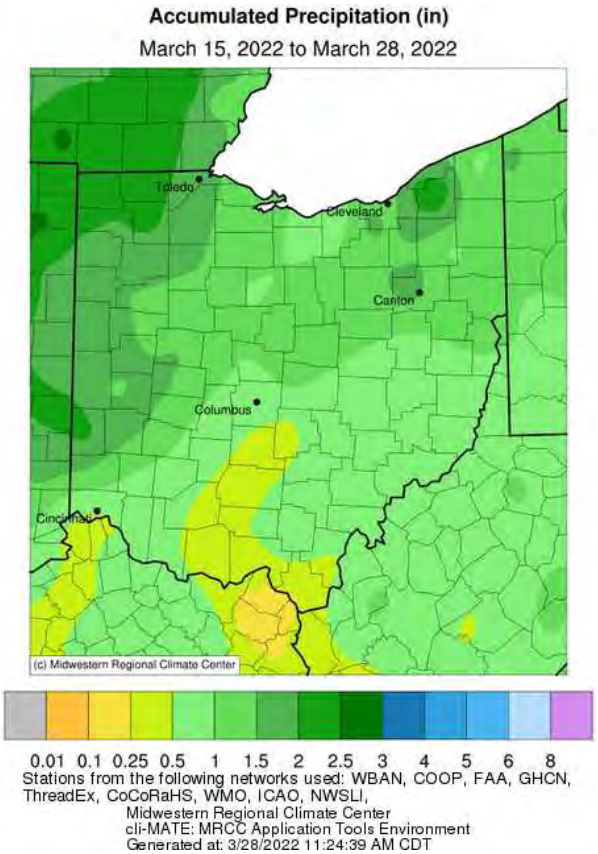
Angie Arnold
Portage County Extension Educator

Weather Update: Seasonally Chilly Conditions to End March and Start April

By Dr. Aaron Wilson
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-07/weather-update-seasonally-chilly-conditions-end-march-and-start

Summary

Despite this past weekend's chill and light snowfall across the state, March is still running 3-5°F above the long-term average (1991-2020). Our active weather pattern continues as well. We have seen the bulk of the precipitation shift a bit northward, with the heaviest precipitation over the last two weeks falling across northwestern counties (Figure 1). A scan of observations shows daily average 2" and 4" soil temperatures running in the low to mid 30s across the north to the low to mid 40s across southern counties, soil moisture running in the 80th percentile and above, and most rivers and streams at or above historical stream flows for this time of year. For the latest up-to-date conditions, seasonal outlooks, and monthly climate summaries, please visit the State Climate Office of Ohio.



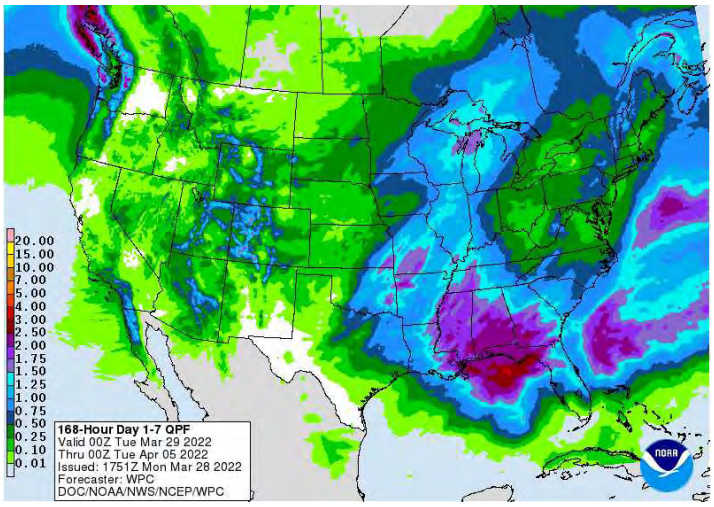


Figure 1). (Above) Accumulated precipitation for March 15-28, 2022. Figure courtesy of the Midwestern Regional Climate Center (https://mrcc.purdue.edu/).

Figure 2). (Left) Precipitation forecast from the Weather Prediction Center for 8pm Monday March 28 – 8pm Monday April 4.

Forecast: Northwesterly flow will keep chilly temperatures and few scattered snow showers in the state for Tuesday. A warm front will push northward Tuesday night and Wednesday. Southerly winds in the 30-mph range will push highs into the 60s and 70s on Wednesday. With low humidity and breezy conditions, there will be an elevated fire danger across the southeast. Showers are likely Wednesday and Thursday as temperatures fall back closer to normal values. Sunshine returns for Friday and Saturday with highs in the 40s and 50s. Another round of showers could move in on Sunday. Overall, the Weather Prediction Center is currently forecasting 0.10-0.50" inch of liquid-equivalent precipitation over the next 7 days (Figure 2), a bit below average for this time of year.

The Climate Prediction Center's 6–10-day outlook for the period of April 3 – 7, 2022 and the 16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center indicate that temperatures are leaning below average for the period with near to drier than average conditions as well (Figure 3). Climate averages for this period include a high temperature range of 52-59°F, a low temperature range of 34-38°F, and average weekly liquid-equivalent precipitation of 0.55-1.0 inch.

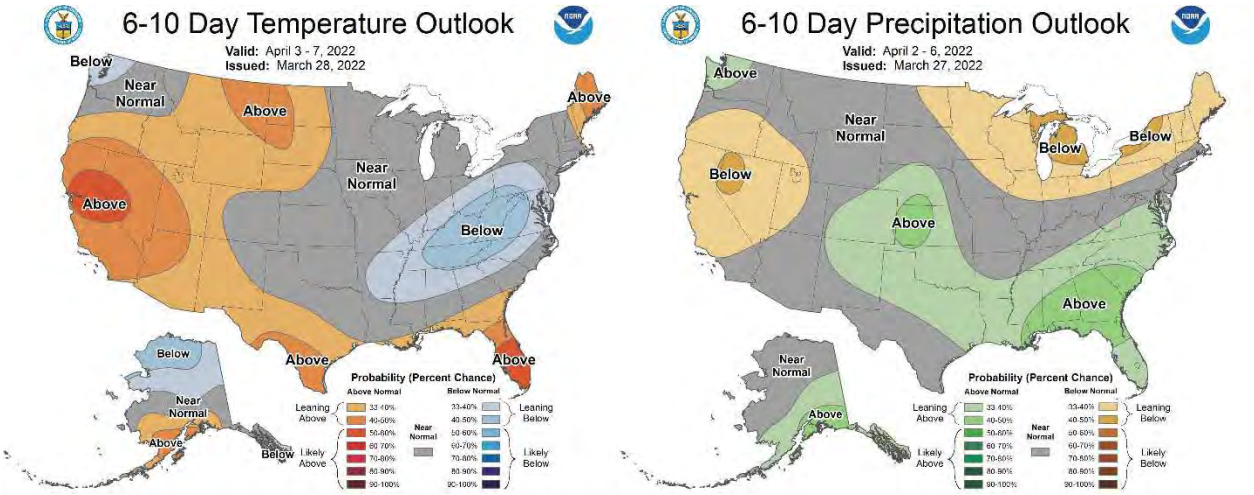


Figure 3) Climate Prediction Center 6-10 Day Outlook valid for April 3-7, 2022, for left) temperatures and right) precipitation. Colors represent the probability of below, normal, or above normal conditions.

Winter Wheat Stand Evaluation for 2022

By: Laura Lindsey
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-07/winter-wheat-stand-evaluation-2022

Between planting in the fall and Feekes 4 growth stage (beginning of erect growth) in the spring, winter wheat is vulnerable to environmental stress such as saturated soils and freeze-thaw cycles that cause soil heaving. All of which may lead to substantial stand reduction, and consequently, low grain yield. This year, many areas of Ohio have been wet and wheat plants look poor. However, a stand that looks thin in the spring does not always correspond to low grain yield. Rather than relying on a visual assessment only, we suggest counting the number of wheat stems to help estimate wheat grain yield.

Wheat Stem Count Method: Wheat stems (main stem plus tillers) should be counted at Feekes 5 growth stage (leaf sheaths strongly erect) from one linear foot of row from several areas within a field (Figure 1). In Ohio, Feekes 5 growth stage is generally early to mid-April, depending on the weather and location within the state.

Figure 1. Wheat main stem plus tiller totaling two stems. Measurement tool used to consistently count the number of wheat stems in one linear foot of row.

After counting the number of stems from several areas within the field, calculate the average. Then, use Figure 2 to estimate wheat grain yield. For example, if there was an average of 25 stems in a linear foot of row, median (50th percentile) yield is estimated to be 78 bu/acre with a range in yield of approximately 65 to 85 bu/acre (25th to 75th percentile). Figure 2 was generated using field data from 9 Ohio environments. We will continue to revise this figure as we conduct additional field research projects.

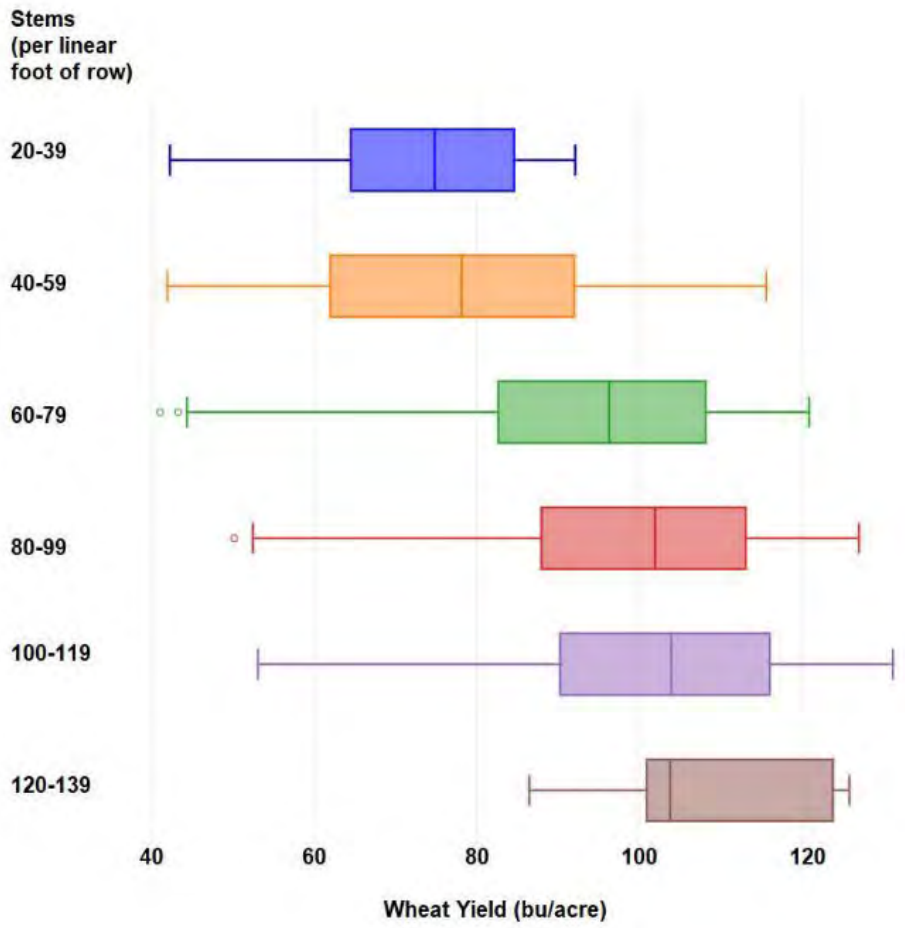


Figure 2. Box-and-whiskers plot showing minimum, 25th percentile, 50th percentile, 75th percentile, and maximum wheat grain yield for a range of stem count measurements from 9 environments in Ohio. Outliers are shown as a dot. Shaded area contains 50% of the yield range (25th to 75th percentile) for each given stem count range.

Limitations: While stand assessment methods can be useful, there are limitations. These yield estimates are made at Feekes 5 growth stage to allow time to plant an alternative crop such as corn or soybean. However, a large portion of the growing season still remains after Feekes 5. Stand assessments may predict high yields, but late-spring freezes, hot/dry conditions at grain fill, or disease may limit yield later in the growing season. Conversely, in some years, stand assessment may predict low yield, but yield could be high if growing conditions are favorable (low disease and long grain fill period).

Extension and Ag Researchers Work Toward Agroecosystem Resilience

By: Aaron Wilson, Greg LaBarge, CPAg/CCA, Robyn Wilson
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2022-07/extension-and-ag-researchers-work-toward-agroecosystem-resilience

Introduction: The eastern Corn Belt Region (ECBR) of the United States (Figure 1) has experienced increasing temperatures with more extreme precipitation events in recent decades. Current climate projections show these trends will likely continue and intensify in the future. As a result, land use and management adaptations impacted by the agricultural, policy, and technological sectors will be needed to meet food production challenges and secure the economy. Thus, stakeholders at household, firm, industry, community, and regional levels need more information and a better understanding of the system-wide implications of these changes.

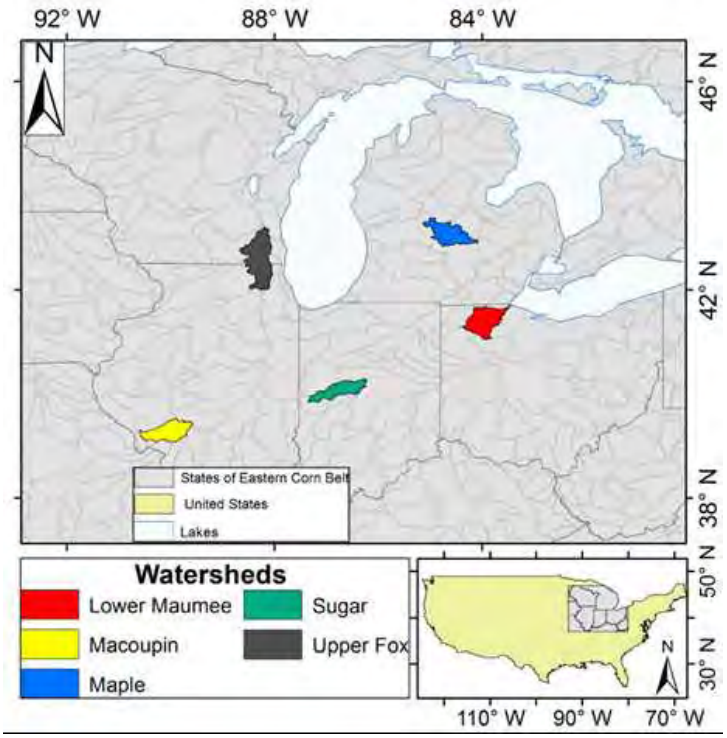


Figure 1: Eastern Corn Belt Region of the U.S. and key River Basins evaluated in the study.

Researchers and extension professionals at The Ohio State University are working together to unwrap some of the complexity involved in this grand challenge through a project linking expected local climate change, farmer decisions, and ecosystem, economic, and policy outcomes. Since the ECBR agroecosystem is managed with agricultural production, conservation, and societal well-being goals in mind, a linked set of climate systems, regional economy, and agroecological models are used to evaluate policy and program impacts. Using results from one model to inform input into another model provides a means to project decision impacts on the sustainability and resilience of this region under varying future scenarios. Here we summarize the main findings to date. For larger versions of the figures below, videos explaining the project components in more detail, and our stakeholder engagement process, please visit Agroecosystem Resilience Project.

Climate Future: Figure 2 summarizes the mean changes in temperature and precipitation throughout the remainder of this century given different climate scenarios (low or high degree of change – think range or possible change). In both scenarios, temperatures rise, the growing season lengthens, and precipitation increases and becomes more intense across the ECBR, though there are regional differences. These changes impact farmer decisions such as when to plant and harvest, what crops and varieties to grow, and nutrient application timing decisions. The climate scenarios identified increase crop stress, accelerate plant growth, and increase potential weed, insect, and disease pressure. It will also likely affect the size of equipment farmers will use, whether to take advantage of the longer growing seasons with double cropping, and potentially lead to more erosion and nutrient loss in the absence of mitigation. [Click here or on the infographic for a larger version]

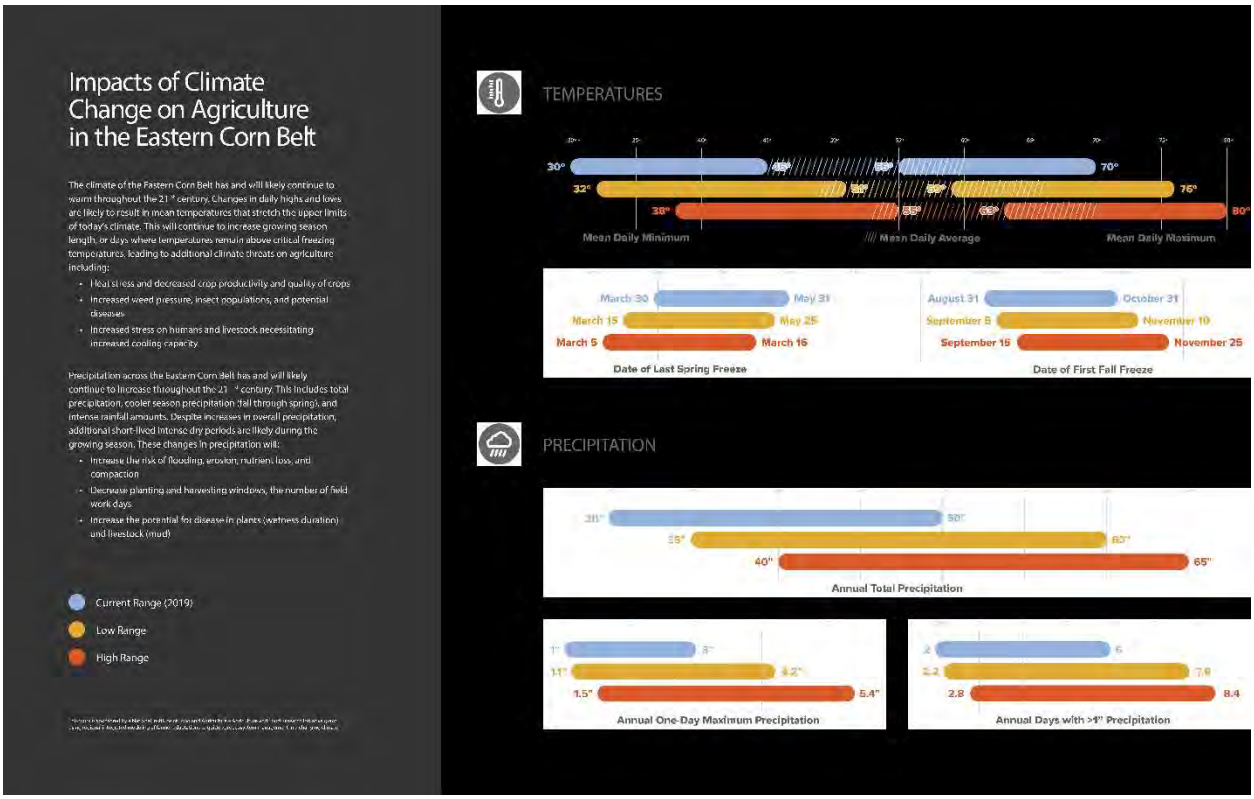


Figure 2: Infographic showing change in climate across the Eastern Corn Belt Region of the U.S. Current ranges are indicated in blue with a Low (yellow) and High (red) range of change indicated for key temperature and precipitation variables.

***Farmer Decisions*:** Farmers across the region were presented with a range of climate scenarios in a mail survey. The questions asked how they intended to adapt to climate variability and what differences among farmers cause changes in intended adaptations. Figure 3 shows a second infographic based on these results and the following are the key takeaways from the 918 viable surveys returned:

- Most farmers (51%) believe that the climate is changing but mostly due to natural changes, while 42% believe there is a lot of disagreement among scientists about whether the climate is changing.
- While respondents have experienced climate impacts (e.g., warmer winters, variable planting dates, variable rainfall), the experience of these impacts is still varied across the farming population and only of slight concern to most farmers.
- Most farmers (55%) report planting more resilient varieties of crops already grown as a form of adaptation. Approximately one-quarter report other past adaptations such as outsourcing activities, seeking off-farm employment and installing more drainage tile.
- Future adaptations of greatest interest include continuing to plant more resilient varieties of crops that they already grow, continuing to outsource some activities on the farm (e.g., fertilizer application, etc.), and changing tillage practices (e.g., adopting no-till or conservation tillage).
- In terms of explaining future adaptation, a consistent trend is that adaptation is more likely on larger farms. Farmer characteristics (e.g., climate concern, prior experience with climate impacts) help explain whether someone is likely to engage in *some* adaptation, but such characteristics were not as useful at understanding specific adaptations (beyond land retirement).
- Finally, the expected future changes in climate and shifts in conservation payments helped explain what specific adaptations were selected (e.g., drainage tile more likely to increase when the future is characterized by later planting dates and more rainfall).

[Click here or on the infographic below for a larger version.]

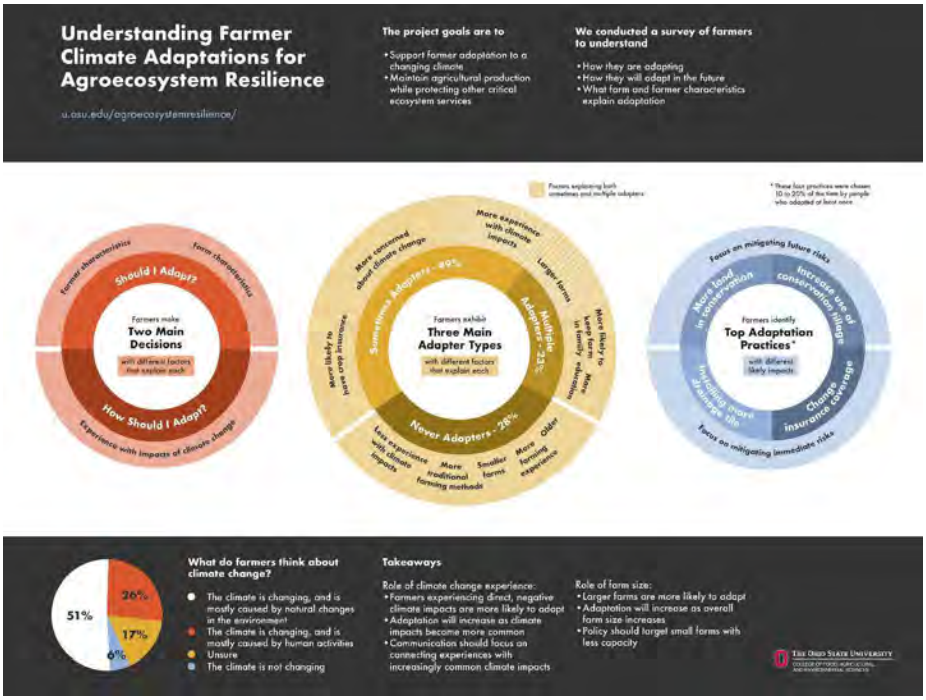


Figure 3: *Infographic showing the Main Adapter Types (yellow -middle), Main Decisions facing farmers (red – left), and the Top Adaptation Practices (blue -right) given expected climate future. Farmer thoughts on climate change are provided in the inset at the bottom of the graphic.*

Regional Model, Ecosystems Services, Optimal Policies: Work on the integration of all these components into a regional agroecosystem model continues. Our current work focuses on establishing models to address policies by state and local governments that augment federal policy requirements and incentives and/or address issues that have not been addressed in federal policy. We have conceptualized, and are preparing to simulate, a carbon-trading scheme that, combined with aggressive carbon sequestration efforts, can reduce the costs of reducing net carbon emissions in the region. These efforts have been guided by suggestions from our Stakeholder Advisory Group, made up of local and regional commodity, agribusiness, and policy experts.

Extension and Engagement: We continue to disseminate climate related results to diverse stakeholders including those attending Ag meetings, private consulting and insurance firms, Farm Science Review, and through the North Central Climate Collaborative. In addition to the infographics above, we have created a series of educational videos with a second round focusing on ecosystem services and the policy assessment being developed. Participants have reported increases in their knowledge of climate and agriculture, including awareness of changes that are happening, challenges farmers will face, and ways they can reduce negative impacts on their farming operations. We encourage everyone to check back with us at Agroecosystem Resilience Project as we complete this project in the coming year.

Project Leads

Robyn Wilson – Project Leader, School of Environment and Natural Resources/School of Communication, Farmer behavioral modeling, wilson.1376@osu.edu
Gregory LaBarge – OSU Extension, Stakeholder Advisory Team coordination & farmer/stakeholder engagement, labarge.1@osu.edu
Aaron Wilson – Byrd Center/OSU Extension/State Climate Office of Ohio, Climate projections and Education Outreach, wilson.1010@osu.edu
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Scholarships Available for Ashtabula County Students

Ashtabula County OSU Extension and the Ashtabula County Agricultural Scholarship Committee are pleased to announce that applications are now being accepted for a minimum of thirteen scholarships for the 2022-2023 school year to Ashtabula County students enrolled in either an accredited full four-year college or an accredited two-year technical institute. The Ashtabula County Agricultural Scholarship Fund was founded on April 29, 1952 to promote interest in the study of agriculture, family and consumer science, environmental sciences or natural resources in an accredited full four-year college or an accredited two-year technical institute. This fund awards scholarships to students attending an accredited four-year college or two year technical school. Each year the general scholarship fund awards at least two $1,000 scholarships. The committee also works with local organizations and farm families to offer many additional scholarships. Students are encouraged to apply for the scholarships which they meet the eligibility requirements. The scholarships are for a one year period. A student may apply and be awarded a scholarship three separate years from the scholarship fund. Application forms with complete instructions for applying are now available and can be received by stopping in at the Ashtabula County Extension Office or by calling 440-576-9008. Applications can also be accessed at: http://go.osu.edu/agscholarship. The application deadline is **May 1st** and no late applications will be considered. More information can also be obtained by emailing ashtabulacountyagscholarship@gmail.com

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Ashtabula County OSU Extension and the Ashtabula County Cattlemen's Association are pleased to announce they will be awarding two youth beef scholarships for the 2022-2023 school year. One $1,000 scholarship will be awarded to a deserving 2022 High School Senior who will be attending an accredited full four year college or an accredited two year technical institute in 2022-2023. In addition, one $500 scholarship will be awarded to a current College Student who is currently attending an accredited full four year college or an accredited two year technical institute. Applicants must be resident of Ashtabula County. The first preference by the Ashtabula County Cattlemen's Association is the scholarships be awarded to deserving students who have been involved in the beef industry as a youth. Applications must be received by the Ashtabula County Cattlemen's Association by **May 1st,** 2022 by 4:30 p.m. for consideration for the scholarship. No late applications will be considered. The application can be obtained at: www.Ashtabula.osu.edu. Additional information can be obtained by calling the Ashtabula County Extension office at 440-576-9008.

NORTHEAST OHIO AGRONOMY BREAKFAST WEEKLY WEBINAR SERIES

The Ohio State Extension Offices of Northeast Ohio is excited to offer The Northeast Ohio Agronomy Breakfast - Weekly Webinar Series. Start the morning off right with a quick one-hour presentation each Wednesday starting on February 23, 2022. Each webinar will cover a different topic and offer time to ask questions to the speakers. **There is no cost to attend**, and everyone is welcome to join. You can register easily online at Register at: https://u.osu.edu/neoab/ For any question or for help with registration or zoom, contact Andrew Holden at the Ashtabula County Extension Office at 440-576-9008.

This series will feature a variety of experts on a variety of important agronomic topics, including grain bin fires and safety, farm drainage, corn leaf dieses, soybean disease, and 2022 weather outlooks!

Schedule:

- ❑ March 30th, 8:00 AM – Dr. Aaron Wilson on 2022 Weather Outlook

Register or watch recordings here: https://u.osu.edu/neoab/

The Portage County Extension Office is Seeking a Summer Intern

Join OSU Extension in Portage County! We have a COLLEGE STUDENT INTERN position open in Portage County at Ohio State University Extension. Students will support educational programs and community engagement in 4-H Youth Development along with Agriculture and Natural Resources. The intern will work directly with Extension professionals and staff in to address community-based issues. Ohio State or Non OSU students can apply at http://go.osu.edu/portageintern or call 330-533-5538 or email barrett.90@osu.edu with questions regarding a summer of learning, opportunity, and fun working with the staff and residents of Portage County!

Upcoming Extension Programs

The following programs have been scheduled for NE Ohio farmers. Check back each week as more programs are added to the calendar

NE Ohio Agronomy Breakfast Webinar Series Register at https://u.osu.edu/neoab/
March 30th, 8:00 AM – Dr. Aaron Wilson on 2022 Weather Outlook

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OHIO STATE UNIVERSITY EXTENSION

NORTHEAST OHIO AGRONOMY BREAKFAST WEEKLY WEBINAR SERIES

STARTING FEB 23

The Ohio State Extension Offices of Northeast Ohio are excited to offer *The Northeast Ohio Agronomy Breakfast - Weekly Webinar Series*. Start the morning off right with a quick one-hour presentation each Wednesday starting on February 23, 2022. Each webinar will cover a different topic and offer time to ask the speaker questions. There is no cost to attend, and everyone is welcome to join. For any question or for help with registration or zoom, contact Andrew Holden at the Ashtabula County Extension Office at 440-576-9008.

Schedule:

- ❑ February 23rd, **9:00 AM** – Peter Dahl speaking on Grain Bin And Dryer Fires
- ❑ March 2nd, 8:00 AM – Jason Hartschuh speaking on Corn Leaf Disease and Tire Pressure
- ❑ March 8th-9th, 8:30 AM - 4:30 AM - **Conservation Tillage and Technology Conference***
  *More information on this separate event can be found here: https://www.allenswcd.com/cttc/
- ❑ March 16th, 8:00 AM – Dr. Horacio Lopez-Nicora on Soybean Disease
- ❑ March 23rd, **8:30 AM** –Dr. Vinayak S. Shedekar on Farm Drainage
- ❑ March 30th, 8:00 AM – Dr. Aaron Wilson on 2022 Weather Outlook

Location: Online via Zoom **Cost: Free**

More info: Contact Andrew Holden at 440-576-9008 or Holden.155@osu.edu

Register at: u.osu.edu/NEOAB

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ASHTABULA AND PORTAGE COUNTIES PRESENTS

Pigweed Identification and Management

Pigweeds have become resistant to an increasingly high number of pesticides and can produce over 1 million seed per plant. These factors result in them having the potential to cause major issues to agronomic production in our area. Both Palmer amaranth and Waterhemp have recently been found here in NE Ohio Counties. Keeping these weeds from spreading and negatively impacting our crop yields will require local producers to take a proactive approach to managing them.

Two programs on identification and management will be offered in both Ashtabula and Portage Counties. Both sessions will be presented by Andrew Holden and Angie Arnold, Agriculture and Natural Recourses Educators for Ashtabula and Portage Counties, respectively.

There is no cost to attend this program, but we ask you to please RSVP as space is limited

ASHTABULA COUNTY

DATE: March 31, 2022
TIME: 6:00 PM – 7:30 PM
LOCATION: OSU Extension – Ashtabula County Office 39 Wall Street, Jefferson, Ohio 44047
COST: Free, RSVP by calling 440-576-9008

PORTAGE COUNTY

DATE: April 6, 2022
TIME: 1:00 PM – 2:30 PM
LOCATION: 705 Oakwood St. Suite 101, Ravenna OH 44266
COST: Free, RSVP by calling 330-296-6432

For more information, call Andrew Holden at 440-576-9008 or email at Holden.155@osu.edu

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DATE:
May 21, 2022

TIME:
10:00 a.m.– 4:00 p.m.

LOCATION:
520 W. Main St.
Cortland, Ohio 44410

Registration is required for this event.
Please register online at:
https://go.osu.edu/smallruminant2022
Registration is due by May 13th

Questions? Call us at
330-638-6783

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ASHTABULA AND TRUMBULL EXTENSION PRESENT

Small Ruminant School 2022

Join OSU Extension and Countryside Veterinary Service on May 21, 2022 for a day to learn about maintaining a healthy herd of small ruminants. We will discuss general health and wellness, how to assist with kidding, zoning requirements, housing, nutrition, pasture management, and everything else you need to know for successfully raising goats and sheep. Cost for this program is $45/person; you can add a lunch for $15/person. Cost includes many handouts and light refreshments. One child (under 12) can attend for free with parent or guardian registration! To register for this event, please visit the link listed to the left.

Agenda:

10:00AM – Welcome & Introduction – Noelle Barnes
10:45AM – Housing/Zoning & Ownership – Andrew Holden
11:30AM – Lunch (prepaid or on your own)
12:30PM – Having a Successful Kidding/Raising Kids – Dr. Jessica Bittner, DVM
1:15PM – Health & Wellness – Noelle Barnes
2:30PM – Break
2:45PM – Pasture Management/Feeding Strategies – Dr. Brady Campbell
3:30PM – Marketing – Andrew Holden
4:00PM – Wrap Up

EVENT SPONSOR: Countryside Veterinary Service – Large Animal

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The Ohio State University Extension

Last Chance Virtual Pesticide and Fertilizer Applicator Recertification

Private Pesticide and Fertilizer Applicator Re-certification:

The 3-hr. pesticide re-certification session will offer 3 credits for CORE and All Categories (1-7). One-hour fertilizer sessions will be held for those who need to renew their Fertilizer Application Certification.

DATE: March 30th , 2022

TIME: 5:00 PM – 9:00 PM (Pesticide Recert begins at 5PM, Fertilizer Recert is 8PM - 9PM)

COST: $35.00 for Pesticide Only & $10.00 for Fertilizer Only ($45.00 for Both)

To register: https://go.osu.edu/2022recertificationpatfact

Be sure to select the correct date when registering. If you have any issues, please call the Trumbull County Extension Office, 330-638-6783

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