Hello Northeast Ohio Counties!

The most obscene four letter word uttered recently has started with the letter R. Unfortunately, as we look at our extended forecast, wet weather is predicted to continue.

OSU Extension in Trumbull County is hiring for two positions, an ANR Educator and a Summer Student Assistant. Please help spread the word!

Stay Safe!

Lee Beers
Trumbull County Extension Educator
Andrew Holden
Ashtabula County Extension Educator
OSU Extension is Hiring an ANR Educator for Portage and Trumbull Counties

See below for job details and qualifications. If you are interested, please visit https://www.jobsatosu.com/postings/95459 for more information.

Ohio State University Extension (OSUE) seeks an Agriculture and Natural Resources (ANR) Educator to work collaboratively with county, area, and state teams of OSUE professionals and with local agency leaders and volunteers. Responsible for a broad range of basic to complex duties that could include, but are not limited to, providing guidance and/or leadership to developing and conducting a proactive applied research and education program in agriculture and natural resources to meet current and future needs in farm management, livestock and crop production, consumer horticulture, commercial horticulture, farmland use issues, food security, innovative agricultural business opportunities, environmental quality and sustainability, renewable energy, and bio-based products. Plan, teach, deliver, disseminate, and evaluate educational programs and applied research on relevant local issues. Give leadership to the development of pro-active educational programs using innovative educational methods. Maintain a high level of visibility and facilitate communications with a wide range of clientele to promote the understanding of agriculture and natural resource issues. Maintain a program of individual professional improvement in selected subject areas. Ensure diversity among potential clientele and learners, and equal access to programs and facilities. Work closely with local advisory committees, commodity groups and volunteers to conduct needs assessment and priority setting to determine emphasis of educational programs. Serve as an educational advisor and liaison for OSU Extension and the University to appropriate public issue and program-related organizations. Represent OSU Extension and the University with federal, state, and local agencies and educational institutions at the local community level. Identify, recruit, and develop the volunteer leadership necessary to carry out relevant parts of their programming. Give leadership to the Master Gardener Volunteer (MGV) programs in both Portage and Trumbull Counties, including providing volunteer management, educational training, and program development. Devote 25% of efforts to volunteer leadership and program implementation in Trumbull County in coordination with the county ANR Educator in Trumbull County.

An earned bachelor’s or master’s (if applicable) degree at the time of hire is required. Preference will be given to candidates with a degree in agriculture or natural resources or other educationally-related area (examples are: food science, biology, science education).
**OSU Extension Trumbull County is Hiring a Summer Student Assistant**

OSU Extension in Trumbull County is now accepting resumes for a part-time Summer Student Assistant. College students, or those that have just graduated are eligible to apply for this position. The candidate will assist with a variety of projects including the development and implementation of ANR and 4-H programming. During the summer this will typically entail monitoring research plots, fair setup and preparations, youth education, field days. This is a temporary position with a flexible end date, and working a maximum of 20 hours per week. Some evening and weekend hours are required. Pay range is $11.00 to $13.00 per hour.

If you are interested in applying for this position, please send your resume and cover letter to OSU Extension Trumbull County, 520 West Main Street, Cortland, OH 44410, or you can email an electronic copy to beers.66@osu.edu. For more information please contact Lee Beers or Ashlee Dietz at 330-638-6783.

**More Wet Weather Ahead**

By Jim Noel, NOAA
Source: [https://agcrops.osu.edu/newsletter/corn-newsletter/201917/more-wet-weather-ahead](https://agcrops.osu.edu/newsletter/corn-newsletter/201917/more-wet-weather-ahead)

After the wet spring which was forecast, we expected a transition in early/mid-June from the spring pattern to summer pattern with a relaxation of rainfall for a brief period. This appears to be happening. However, it won't last too long as we expect above normal rainfall to return for the second half of the month.

Over the last week, rainfall has been all over the place. Northern Ohio and far southern Ohio saw above normal rainfall above 1 inch. Central sections and far northwest Ohio saw below normal rainfall below an inch.
For the remainder of June, expect temperatures to be near normal. However, there will be a lot of swings in those temperatures. For the week of June 11-16, temperatures will be slightly below normal. For the week of June 17-23, temperatures will remain slightly below normal. For the last week in June temperatures will likely swing to above normal. With those average temperatures, expect below normal maximum temperatures the next two weeks with above normal minimum temperatures. For the last week of June, both maximum and minimum temperatures will be above normal but plenty of moisture will keep maximum temperatures generally at or below 90.

Rainfall for the week of June 11-16 will average 0.50 to 1.5 inches which are actually close to normal. For the rest of June rainfall will go above normal after this week. For the next 16 days, rainfall will average 2-5 inches which are above the normal of too far from 2 inches. However, confidence is low in rainfall after this week. Weather models are all over the place with the transition to summer. There is the risk of some heavy rain events in late June of 5+ inches. The greatest risk is in northern Ohio for these heavy rain events.

The outlook for June is near or slightly above normal temperatures and above normal rainfall and humidity.

The latest observed 7-day 4-km hi-resolution rainfall estimates can be found here: [https://www.weather.gov/images/ohrfc/dynamic/latest7day.jpeg](https://www.weather.gov/images/ohrfc/dynamic/latest7day.jpeg)

The latest 16-day rainfall outlook can be found at [https://www.weather.gov/images/ohrfc/dynamic/NAEFS16.apcp.mean.total.png](https://www.weather.gov/images/ohrfc/dynamic/NAEFS16.apcp.mean.total.png)

The latest NWS Ohio River Forecast Center river conditions can be found at [https://www.weather.gov/ohrfc/](https://www.weather.gov/ohrfc/)

**Farmer researchers reap more benefits than just increased crop production**

By Riley Steinbrenner

Source: [https://www.agronomy.org/science-news/Farmer-researchers-reap-more-benefits](https://www.agronomy.org/science-news/Farmer-researchers-reap-more-benefits)

Farmers have been innovators and experimenters for millennia. They developed new types of crops and methods of farming.

Agronomic researchers – the scientists who study how our food is grown – have been working on their own fields. When they make new discoveries, they transfer the knowledge they’ve gained through workshops and publications to farmers.
A few decades ago, farmers and researchers began working together more closely. This “on-farm research” allows farmers a chance to work side-by-side with researchers. Collaborations like this allow for the testing of new agriculture products and methods in real-world conditions.

Laura Thompson and her team were interested to determine what motivated farmers to participate in on-farm research. So, their group at the University of Nebraska interviewed the 140 farmer-researchers in their network. The results, recently published in *Agronomy Journal*, can help future collaborations improve processes – and perhaps increase the number of farmers involved.

“Part of the goal was that we’d be able to document these experiences and motivations,” says Thompson. “The hope is that it will provide some guidance to others who are looking to start these programs.”

The Nebraska On-Farm Research Network started in 1990. Since then, participating farmers have taken a very active role. They conduct the research using their own equipment and resources. Conducting research on several farms allows for research in different environments versus a singular, university research station.

Farmers may also propose the research question. That was one of the motivators for participating. “We found that frequently their motivation was they wanted to find answers to a specific question,” says Thompson.

Research topics focus directly on what’s relevant to farmer-production questions. One example might be to compare the effects of two different fertilizers on crop production.

But, choosing the research question is often not solely the idea of the farmer or university educator. “We found that it was not so black and white usually,” says Thompson. “Choosing research projects was really collaborative.” Regardless of who came up with the question, the farmer’s overall satisfaction with the program was not affected.

Throughout the research process itself, Nebraska faculty provide technical expertise for running experiments. They also analyzed data collected by farmers.
Having this opportunity to work so closely with university faculty throughout the season, says Thompson, is another motivation for farmers' participation in the program.

“One of my biggest take-aways was how much the farmers emphasized the relationships with people,” says Thompson. “When we asked about their experience in research and what made it positive, the dominant reason they gave was the interaction with university people and other farmers.”

This collaboration with the university also increased farmers’ confidence in the results. They viewed the results as trustworthy and unbiased, regardless if the results were what they hoped for, says Thomson.

After the season, farmers, university faculty, and industry professionals attend an annual meeting to discuss their discoveries. Attendees also include farmers who did not participate in the program itself, but are interested in learning the results from their peers.

“Farmers doing the research are sharing the results with other people, and they often cited the reason for doing so was a desire to help other farmers,” says Thompson. “So that’s really powerful.”

In addition to sharing their results with other farmers, farmer researchers also, for the most part, put their results into practice. Seventy-five percent of interviewees had put their research results into practice on their farm operation, either by making a change based on their results, or by not making a change as the research confirmed their current practice. And, they were noticing positive economic gain by doing so, says Thompson. The farmers interviewed expressed they had realized economic gains as a result of implementing their research findings. The farmers expressed this value as an amount saved (on average $15.43 per acre) or profit gained (on average $31.25 per acre).

When it comes to why farmers enjoyed participating in on-farm research, however, it’s rooted in the peer-learning aspect.
“It’s important to have feedback between farmers and researchers,” says Thompson. “I think that as both farmers and researchers find value in on-farm research, these programs will continue to grow in the U.S. and internationally.”

To read the study, visit Agronomy Journal. The Nebraska On-Farm Research Network is sponsored by the University of Nebraska Extension in partnership with the Nebraska Corn Board, Nebraska Corn Growers Association, Nebraska Soybean Checkoff, and Nebraska Dry Bean Commission. Funding for this research was provided in part by the University of Nebraska—Lincoln Social and Behavioral Science Research Consortium.

**Ponding and Saturated Soils: Results of Recent Ohio Corn Research**

By Alexander Lindsey and Peter Thomison

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/201917/ponding-and-saturated-soils-results-recent-ohio-corn-research

Persistent rains during May and early June have resulted in ponding and saturated soils in many Ohio corn fields and led to questions concerning what impact these conditions will have on corn performance.

The extent to which ponding injures corn is determined by several factors including (1) plant stage of development when ponding occurs, (2) duration of ponding and (3) air/soil temperatures. Corn is affected most by flooding at the early stages of growth.
(see https://agcrops.osu.edu/newsletter/corn-newsletter/2018-15/young-corn-wet-feet-what-can-we-expect). Under certain conditions, saturated soils can result in yield losses. Saturated soil conditions can result in losses of nitrogen through denitrification and leaching. Additionally, root uptake of nutrients may be seriously reduced even if plants are not killed outright by the oxygen deficiency and the carbon dioxide toxicity that result from saturated soil conditions. Root growth and plant respiration slow down while root permeability to water and nutrient uptake decreases. Impaired nutrient uptake may result in deficiencies of nitrogen and other nutrients during the grain filling stage. Once the corn has reached the late vegetative stages, saturated soil conditions will usually not cause significant damage. Moreover, moderate temperatures should help minimize the level of stress.

Although standing water is evident in fields with compacted areas, ponding has usually been of limited duration (i.e. the water has drained off quickly within a few hours). In Ohio in 2017-2018, we observed a 10% yield loss when corn was flooded at V4 for 2 days and received 120 lbs N pre-plant + 60 lbs N sidedress (applied post-flood). When flooded for 4 or 6 days, yield loss increased to 15 and 33%, respectively, when receiving the same N regime. If the additional 60 lbs N was not side-dressed post-flood, yield losses increased to 30, 50, or 57% for 2, 4, or 6 days of flooding, respectively. According to Dr. Emerson Nafziger at the University of Illinois (http://bulletin.ipm.illinois.edu/?p=1240) “…At the time the crop reaches stage V13 (about head-high), it still has to take up 110 to 120 lb of N, and in years when June is wet, a common question is whether or not the crop might run out of nitrogen, leaving the crop short. While the need for 20 or more lb of N per week would seem to raise the possibility of a shortage, the production of plant-available N from soil organic matter through the process of mineralization is also at its maximum rate in mid-season. For a crop with a good root system growing in a soil with 3 percent organic matter, mineralization at mid-season likely provides at least half the N needed by the crop on a daily basis. This means that normal amounts of fertilizer N, even if there has been some loss, should be adequate to supply the crop."

If the rain has been paired with strong winds, root lodging may occur. Yield losses of 4, 10, and 15-25% have been reported for 100% root lodging at V10, V13-15, and V17-R1, respectively in Wisconsin. Results from Ohio in 2018 suggest these values may be greater than previously reported (8, 37, and 58% yield loss when root-lodged at V10, V13-14, and VT-R1, respectively). This trial will be repeated in 2019 in Ohio.

Disease problems that become greater risks due to ponding and cool temperatures include Pythium, corn smut, and crazy top. Fungicide seed treatments will help reduce stand loss, but the duration of protection is limited to about two weeks. The
fungus that causes crazy top depends on saturated soil conditions to infect corn seedlings. There is limited hybrid resistance to these diseases and predicting damage from corn smut and crazy top is difficult until later in the growing season. However, the economic impact of these latter two diseases is usually negligible.

References

**Bruising and Cattle**
By: Steve Boyles, OSU Extension Beef Cattle Specialist
Source: http://u.osu.edu/beef/2019/06/05/bruising-and-cattle/

Cattle bruising is an animal well-being concern as well a loss in economic value. When loaded, 60% of cattle are in the middle portion of a trailer, 30% in the rear compartments and 10% in the nose. Cattle rarely change position while a trailer is in motion, and the cattle typically position themselves at right angles to the direction of travel to try to compensate for the trailer movement and focus energies on keeping their balance. Road conditions can have an impact on carcass bruises as well as driver experience. In one study, it was observed that ‘low’ space stocking rates caused lower carcass weights compared to ‘medium’ and ‘high’ space stocking rates. However, the ‘medium’ space stocking rate resulted in the lowest bruising rate; the ‘low’ and ‘high’ space stocking rates had 4 and 2 times greater bruise scores.

Helen Kline (2018, Colorado State) conducted a study in five commercial slaughter facilities, located in multiple regions of the U.S. Individual carcasses were followed through the slaughtering process and were evaluated for bruising, weight of bruised meat and location of bruising. In Kline’s study she found that 28.1% of carcasses observed were visibly bruised. Regions of the carcass that had the highest bruise incidence were the round, rib, and loin beef cuts, respectively. However, some carcasses had deep tissue bruises that were not visible on the surface of the carcass, but trim loss was collected once these bruises were exposed and averaged 2.2 pounds per carcass. Cattle in the top deck compartment of a trailer were less likely to be bruised when compared to cattle in the belly compartment (P = 0.03). Although the study focused on transport other events in the supply chain are critical control points prior to transport were implicated.
Beef Up Your Farm with Better Pastures Program!

The Geauga Soil and Water Conservation District, Geauga County Ohio State University Extension, and the USDA Natural Resources Conservation Service are teaming up with Heritage Meats in Middlefield for a pasture and hay management program with a special focus on beef! Join us on Saturday, June 15, 9:00 am - 3:00 pm for this unique pasture walk focusing on beef at 7952 Parkman Mespo Road, Middlefield, 44062 (Trumbull County) to explore animal nutrition, rotational grazing, and pasture and hay management. Gain ideas and inspiration from some of the buckeye state's most "moo"ving presenters including the Ohio Department of Agriculture's Grazing Specialist, Bob Hendershot, and Administrator, Martin Joyce, along with County Extension Educators Rory Lewandowksi of Wayne County and Les Ober of Geauga County. Beef and dairy farmers are encouraged to attend, but anyone interested in better pastures, regardless of acreage, is welcome.

Advanced registration and payment is required by Tuesday, June 11th to reserve your seat and guarantee your lunch. Cost is $12 per person and includes a delicious farm-to-table lunch featuring grass fed burgers and sides provided by Heritage Meats! To register visit geaugaswcd.com for the registration form and mail with check payable to OSU Extension, PO Box 387, Burton, OH 4402. Call 440-834-4656 or email ward.714@osu.edu with registration questions. For more information or special accommodations call 440-834-1122 or email gprunty@geaugaswcd.com. Don't miss out... greener pastures ahead.
## Extended Forecast – NOAA, Weather.gov, Zip 44410

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## Extended Forecast – NOAA, Weather.gov, Zip 44047

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Northeast Ohio Agriculture

Ohio State University Extension
Ashtabula and Trumbull Counties
Upcoming Event

Beef Up Your Farm with Better Pastures Program
June 15, 9:00 am - 3:00 pm
7952 Parkman Mespo Road,
Middlefield, 44062

Untold Stories of the Garden with Danae Wolfe
June 24th - Ashtabula Co. District Library - FREE

Lee Beers
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520 West Main Street
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330-638-6783
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CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information: http://go.osu.edu/cfaesdiversity.
Learn more about pasture and hay management as we focus on beef in this exciting program featuring Heritage Meats in Middlefield! This unique pasture walk will explore animal nutrition, rotational grazing, and pasture and hay management. Gain ideas and inspiration from some of the buckeye state’s most "moo"ving presenters including the Ohio Department of Agriculture’s Grazing Specialist, Bob Hendershot, and Administrator, Martin Joyce, along with County Extension Educators Rory Lewandowski of Wayne County and Les Ober of Geauga County. Beef and dairy farmers are encouraged to attend, but anyone interested in better pastures — regardless of acreage — is welcome. Don’t miss out... greener pastures ahead!

REGISTRATION: Cost is $12 per person and includes lunch. Don’t miss this farm-to-table experience featuring grass fed burgers & sides provided by Heritage Meats! ADVANCED REGISTRATION & PAYMENT IS REQUIRED by TUESDAY, JUNE 11th SPACE LIMITED - RESERVE YOUR SEAT & GUARANTEE YOUR LUNCH. Registration questions? 440-834-4656 For special accommodations call 440-834-1122 or email gprunty@geaugaswcd.com. USDA is an equal opportunity employer, provider, and lender.

To register, mail form and check payable to OSU Extension, PO Box 387, Burton, OH 44021

**Beef Up Your Farm REGISTRATION**

Name(s): _____________________________________________

Address: _____________________________________________

Email: ____________________________ Phone: ____________________________
Untold Stories of the Garden with Danae Wolfe

MONDAY, JUNE 24TH, 2019  6:00 - 7:30 P.M.

From steadfast survival and reproduction to pollination and even charming tales of maternal care, insects and spiders keep our gardens buzzing with adventure. Join bug and botanical portrait photographer, Danae Wolfe, on a journey through your garden to discover the stories of insects and spiders. Uncover the fascinating tales of the curious creatures among our plants and explore how to capture incredible images of bugs on any budget.

Danae Wolfe is the educational technology specialist for Ohio State University Extension where she teaches faculty and staff about digital engagement and innovation. In her free time, she is a macro photographer focused on insect and spider conservation and storytelling.

Location: 4335 Park Ave, Ashtabula, OH 44004  Cost: FREE  https://go.osu.edu/Cq5
Contact information: Call Ashtabula Extension Office at 440-576-9008 or email Holden.155@osu.edu

Co-Sponsored by the Ashtabula County District Library and Ashtabula County Master Gardeners

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