Ohio State University Extension

Northeast Ohio Agri-Culture Newsletter

Your Weekly Agriculture Update for Ashtabula and Trumbull Counties

September 25, 2018

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Hello, Northeast Ohio Counties!

Happy fall everyone! With harvest under way, it’s that time of year that I will be traveling around Ashtabula and Trumbull counties to conduct the annual weed survey in soybean fields. We use this survey to identify weeds that are prominent in the area and also to make sure that we don’t have any new weeds like Palmer amaranth or water hemp. So if you see someone in a blue F150 staring at your soybean fields, don’t worry it’s just me.

Double crop field peas have had issues with powdery mildew and corn earworm (see below). Keep scouting!

Lee Beers
Extension Educator
Ag & Natural Resources

Harvest has started in NE Ohio! Many farms started harvesting soybeans before the rain hit on Monday.
Wetter Than Normal Pattern into October
By Jim Noel, NOAA
Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2018-32/wetter-normal-pattern-october

There is no change from last week as an overall wetter than normal pattern will persist into the October harvest season.

The one thing that has changed is that temperatures after last week's hot weather do not look as warm into October. Temperatures are now more likely to be normal or maybe a degree above normal. It still looks like the first freeze is on track with a near normal arrival. Most places tend to be in the October 10-20 range in Ohio from northwest to south.

Looking further ahead in November, indications are for a warmer and not as wet period. Rainfall will likely be normal or possibly slightly below normal. Rainfall over the next two weeks will average 2-5 inches. Normal is about 1.5 inches.

Corn Earworm Making an Unpleasant Late-Season Appearance; Watch for Molds
By Kelley Tilmon, Andy Michel, Pierce Paul

Although western bean cutworm numbers were low this year, we have recently seen and also received reports about high corn earworm populations in late-planted corn and field peas. Corn earworm is a pest with many hosts including corn, tomatoes and certain legumes. In Ohio, it is typically considered a pest of sweet corn rather than field corn, but this past week substantial populations have been found in certain field corn sites in the northwest and northeast in late-planted fields. It is open to debate how well corn earworm can overwinter in most parts of Ohio, and the majority of our population probably

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immigrates each summer from more southern states. Dr. Celeste Welty, OSU vegetable entomologist, reports unusually heavy trap catches of corn earworm from early August through early September.

Corn earworms are damaging as caterpillars laid by moths on target plants. They vary quite a bit in color – with individuals that are dark brown, brown, tan, green, or even pinkish. Typically only one caterpillar is found per ear, but more may be found in heavy infestations. They enter corn ears at the tips where the majority of feeding occurs. This also opens the corn ear up to the potential development of ear rots. Chemical control of corn earworm in corn is virtually impossible once they have entered the ear, so at this point the scouting emphasis should be on assessing mold and disease levels in infested corn.

Feeding sites or exit holes when the caterpillar matures and leaves the ear leave holes in the corn husk, which provide a potential entry wound for pathogens like *Fusarium* and *Gibberella*. Some of these organisms can then be a further source for mycotoxins, including Fumonisins and deoxynivalenol, also known as vomitoxin. In some cases, damaged kernels will likely be colonized by opportunistic molds, meaning that the mold-causing fungi are just there because they gain easy access to the grain. However, in other cases, damaged ears may be colonized by fungi such as *Fusarium*, *Gibberella* and *Aspergillus* that produce harmful mycotoxins. Some molds that are associated with mycotoxins are easy to detect based on the color of the damaged areas. For instance reddish or pinkish molds are often cause by *Gibberella zeae*, a fungus know to be associated with several toxins, including vomitoxin. On the other hand, greenish molds may be caused by *Aspergillus*, which is known to be associated with aflatoxins, but not all green molds are caused by *Aspergillus*. The same can be said for whitish mold growth, some, but not all are caused by mycotoxin-producing fungi.

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So, since it is not always easy to tell which mold is associated with which fungus or which fungus produces mycotoxins, the safe thing to do is to avoid feeding moldy grain to livestock. Mycotoxins are harmful to animals — some animals are more sensitive to vomitoxin while others are more sensitive to Fumonisins, but it is quite possible for multiple toxins to be present in those damaged ears. If you have damaged ears and moldy grain, get it tested for mycotoxins before feeding to livestock, and if you absolutely have to use moldy grain, make sure it does not make up more than the recommended limit for the toxin detected and the animal being fed. These links provides more information on ear molds and mycotoxin contamination and identification: 
https://agcrops.osu.edu/newsletter/corn-newsletter/2018-28/ear-rots-corn-telling-them-apart
https://ohioline.osu.edu/factsheet/plpath-cer-04

Ohio’s Top Conservation Farm Families Honored
From Ohio Department of Agriculture

“Ohio is very fortunate to have some of the most fertile ground in the country for growing a wide variety of crops, but none of that is possible if we do not implement conservation practices to take care of what we have,” said Ohio Department of Agriculture Director David Daniels. “These families have gone the extra mile in conserving soil, water, woodland and wildlife on the land they farm and we thank them for their dedication.”

The five families honored were: The Brause Family of Crawford County; Paul and Joanne Mechling of Ashtabula County; Chuck and Diane Hicks of Washington County; the Lohstroh family of Madison and Pickaway counties; and T. Wayne Vickers of Pickaway County “For 35 years we have been honoring farm families for their contribution to conservation and I am continually amazed how these families are dedicated to paying it forward for future generations,” said Kirk Hines, chief of the department’s Division of Soil and Water Conservation. “These producers are the best of the best and they provide an example for the rest of us to mimic in our effort to conserve our natural resources.”

Since 1984, the Conservation Farm Family Awards program has recognized 181 Ohio farm families for their exemplary efforts conserving soil, water, woodland, wildlife and other natural resources on the land they farm. Conservation farm families also host a variety of educational programs, opening their farms to schools, scout groups, farm organizations and others.
In addition to receiving $400 each from the Ohio Farm Bureau Federation, the families were also featured in the September issue of Ohio Farmer magazine and received plaques from ADS Hancor Inc. Ohio Farmer magazine has sponsored the Ohio Conservation Farm Family Awards since the program's inception. Nominations are sought annually between January and May, and Ohio farming families are encouraged to apply. For more information or to apply individuals can contact their local Soil and Water Conservation District (SWCD).

Area 1 Winner - Tim, Nathan, and Carrie Brause of Sunny Slopes Farm have more than 1,550 acres in Crawford County used for the production of corn and soybeans. The farm includes eight acres of quail buffers and 60 acres of tree plantings. In 1988 they restored 40 acres of marginal cropland into hardwood tree plantings and recently they restored an additional 21 acres of marginal cropland to hardwood trees. The Brause's also manage and produce maple syrup from their woodland acres. 100% of the cropland acres on Sunny Slopes Farm is no-till and they utilize cover crops, precision nutrient management, and 4R nutrient management. Nathan has been a supervisor with the Crawford SWCD for the last 13 years.
Area 2 Winner - Paul and Joanne Mechling of Snowy Oak Tree Farm have more than 365 acres in Ashtabula County. The woodlands on this farm are certified tree farms with the American Forest Foundation, inspected every 5 years to verify they are practicing sustainable forestry. Management plans have been written by a certified forester on all of the woodlands. Since 1974 they have planted more than 140,000 trees on reverted agricultural land. The Snowy Oak Tree Farm has worked with ODNR to build three wetlands and protect more than 11 acres of wetlands. Paul has been an Ashtabula SWCD supervisor since 1998.

Area 3 Winner - Chuck and Diane Hicks of Washington County farm 365 acres with approximately 200 acres in soybeans, 105 acres in corn, 20 acres of hay and pasture. Chuck and Diane finish 60 head of cattle each year. Chuck is an avid promoter of no-till, he built his own no-till soybean planter and has since helped other producers in the county build their own. Chuck currently serves as a supervisor on the Washington SWCD board, is a member of the Washington County farm bureau and a United Producers INC, board member.

Area 4 Winner - The Lohstroh Family (George, Michelle, Jonathan, and Annie) farms approximately 1,000 acres in Madison and Pickaway counties. They raise corn, soybeans, pumpkins, wheat, hay, cover crops, and sorghum-sudan grass for baled silage. The farm also includes a 35 cow beef herd and a fall farm market offering pick-your-own pumpkins, hay rides, and educational tours for school groups. The Lohstroh’s utilize variable rate technology for precision placement of nutrients. They are active county farm bureau members.

Area 5 Winner - T. Wayne Vickers owns more than 1,300 acres in Pickaway County. The property includes 320 acres of land in the Conservation Reserve Program, 370 acres of woodlands, 250 acres of corn/soybean rotation and 80 acres of lakes and ponds. Wayne Vickers has planted more than 170,000 trees on his property and the property is home to the largest bur oak in the state. The Vickers have hosted tour groups through the local SWCD and the property has been used by Pheasants Forever to conduct youth programs.

Ag-note: The Benefits of Rotational Grazing
By Matt Blose, Marissa Friel, Courtney Hale, Maureen Hirzel, OSU Animal Science Undergraduate Students, and Brady Campbell, Program Coordinator, OSU Sheep Team

We are back at it again with our Ag-notes from the students of the 2018 Small Ruminant Production course. This week, students Matt Blose, Marissa Friel, Courtney Hale, and Maureen Hirzel provide us with a brief outline of the benefits of rotational grazing by providing insight on how to start and some important considerations you need to ask yourself prior to jumping into this type of management scheme.
In its simplest form, rotational grazing is described as moving grazing livestock from one paddock to another, allowing time for the previously grazed pasture to regrow prior to the next grazing event. There are many benefits to this strategy as rotational grazing allows producers to utilize their pastures more efficiently by decreasing feed costs, decreasing weed pressure present in a pasture setting, improving the health and performance of grazing flocks, and contributing to the sustainability of the grazing land.

One obvious benefit to this management scheme that was previously mentioned above is a decrease in total feeding costs. Rotational grazing can result in a decrease in feed costs as grazing livestock will be harvesting their own feed, which in turn will decrease the cost of labor and time in harvesting and feeding stored forages. When conducted at a high level of intensity, rotational grazing can also offer your grazing animals feedstuffs of high quality depending upon the maturity stage of plant growth. In turn, there will be an increase in animal gain as these animals will be consuming highly palatable and digestible forages.

In addition to the costs of feeding, rotational grazing will greatly benefit your land. Animals that heavily graze a specific area can benefit the land by consuming and or physically destroying weed populations. However, an important thought to consider is if your sheep are grazing a specific plant, is it considered a weed? Rotational grazing also allows for an even distribution of manure and organic matter being placed back onto the land. For example, in a continuous grazing scenario, organic matter distribution may be sporadic as higher levels of organic matter would be found in areas of shade or a water source as animals may have a preference for these types of environments.

So now that we have a basic understanding of rotational grazing, how do we start? First, you need to take into account several factors such as land availability, rotation schedule, number of animals being grazed, and forage availability. One consideration that may be of great benefit to you and your operation is to obtain some aerial images of your land to determine where you can make your pastures and how they will be split. Using Google Earth would be a simple way to easily plot your paddocks of interest. Once you have an idea of where you will be grazing your

While in this Ag-note the benefits of rotational grazing were demonstrated with sheep, the advantages remain similar for all grazing species.
flock, the next consideration is resources. Do you have enough fencing, both permanent and temporary, as well as an adequate water source? Will you be investing in a water line or will you be hauling water to your flock? Remember, water sources for grazing livestock should be within 800 feet for effective grazing management.

Once you have established your plan, you are ready to go. However, once your flock is out to pasture, the work certainly does not stop here. You must be cautious as you monitor the growth and regrowth of your pastures. As we approach fall like temperatures, forage growth patterns will begin to change. As a result, the cool season forages will slow in growth and in turn will require a longer period of time needed for adequate regrowth to occur prior to the next grazing event. Collecting soil samples on an annual basis would also be beneficial, especially when considering to plant or inter-seed new forages into your pastures.

Keep in mind that rotational grazing is simply an organized method of managing grazing livestock. The information provided above is an outline of the benefits and keys considerations to help aid in the success of this management system.

Follow this link to view the single page Ag-note: Benefits of Rotational Grazing

'High-yield' farming costs the environment less than previously thought -- and could help spare habitats

Agriculture that appears to be more eco-friendly but uses more land may actually have greater environmental costs per unit of food than "high-yield" farming that uses less land, a new study has found.

There is mounting evidence that the best way to meet rising food demand while conserving biodiversity is to wring as much food as sustainably possible from the land we do farm, so that more natural habitats can be "spared the plough."

However, this involves intensive farming techniques thought to create disproportionate levels of pollution, water scarcity and soil erosion. Now, a study published today in the journal Nature Sustainability shows this is not necessarily the case.

Scientists have put together measures for some of the major "externalities" -- such as greenhouse gas emission, fertiliser and water use -- generated by high- and low-yield farming systems, and compared the environmental costs of producing a given amount of food in different ways.
Previous research compared these costs by land area. As high-yield farming needs less land to produce the same quantity of food, the study’s authors say this approach overestimates its environmental impact.

Their results from four major agricultural sectors suggest that, contrary to many people’s perceptions, more intensive agriculture that uses less land may also produce fewer pollutants, cause less soil loss and consume less water.

However, the team behind the study, led by scientists from the University of Cambridge, caution that if higher yields are simply used to increase profit or lower prices, they will only accelerate the extinction crisis we are already seeing.

"Agriculture is the most significant cause of biodiversity loss on the planet," said study lead author Andrew Balmford, Professor of Conservation Science from Cambridge’s Department of Zoology. "Habitats are continuing to be cleared to make way for farmland, leaving ever less space for wildlife."

"Our results suggest that high-yield farming could be harnessed to meet the growing demand for food without destroying more of the natural world. However, if we are to avert mass extinction it is vital that land-efficient agriculture is linked to more wilderness being spared the plough."

The Cambridge scientists conducted the study with a research team from 17 organisations across the UK and around the globe, including colleagues from Poland, Brazil, Australia, Mexico and Colombia.

The study analysed information from hundreds of investigations into four vast food sectors, accounting for large percentages of the global output for each product: Asian paddy rice (90%), European wheat (33%), Latin American beef (23%), and European dairy (53%).

Examples of high-yield strategies include enhanced pasture systems and livestock breeds in beef production, use of chemical fertilizer on crops, and keeping dairy cows indoors for longer. The scientists found data to be limited, and say more research is urgently needed on the environmental cost of different farming systems. Nevertheless, results suggest many high-yield systems are less ecologically damaging and, crucially, use much less land.

For example, in field trials, inorganic nitrogen boosted yields with little to no greenhouse gas "penalty" and lower water use per tonne of rice. Per tonne of beef, the team found greenhouse gas emissions could be halved in some systems where yields are boosted by adding trees to provide shade and forage for cattle.
The study only looked at organic farming in the European dairy sector, but found that -- for the same amount of milk -- organic systems caused at least one third more soil loss, and take up twice as much land, as conventional dairy farming.

Co-author Professor Phil Garnsworthy from the University of Nottingham, who led the dairy team, said: "Across all dairy systems we find that higher milk yield per unit of land generally leads to greater biological and economic efficiency of production. Dairy farmers should welcome the news that more efficient systems have lower environmental impact."

Conservation expert and co-author Dr David Edwards, from the University of Sheffield, said: "Organic systems are often considered to be far more environmentally friendly than conventional farming, but our work suggested the opposite. By using more land to produce the same yield, organic may ultimately accrue larger environmental costs."

The study authors say that high-yield farming must be combined with mechanisms that limit agricultural expansion if they are to have any environmental benefit. These could include strict land-use zoning and restructured rural subsidies.

"These results add to the evidence that sparing natural habitats by using high-yield farming to produce food is the least bad way forward," added Balmford.

"Where agriculture is heavily subsidised, public payments could be contingent on higher food yields from land already being farmed, while other land is taken out of production and restored as natural habitat, for wildlife and carbon or floodwater storage."

**Spotted Wing Drosophila: Fall Update**

By Jim Jasinski, Celeste Welty


Several Extension educators, specialists, and growers have been diligently trapping for spotted wing Drosophila (SWD) in berry crops at multiple sites across 20 counties in Ohio since June. In general, SWD populations at most locations have peaked at this point, but they can remain abundant for several weeks longer. Even after the first frost, some SWD adults are usually active in the field.

At some monitoring sites where growers have been spraying through the season, we are still able to trap SWD adults. Adults are also being trapped at sites where fruit is no longer being produced. While this is concerning to growers with fruit still in the field, there doesn’t seem to be any significant fruit infestation or damage, which is good news. If you haven’t kept up on your spray schedule and still have fruit out in the field, it is strongly recommended that you check...
your fruit with a simple salt water test to see if you have any infested fruit. Here are the directions from an OSU factsheet (https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/1/8311/files/2017/04/SWD-salttesthandout-updated-pnd335.pdf) or via an OSU IPM YouTube video (https://www.youtube.com/watch?v=MtMXHxicSV6).

Our closing message is that if there is still fruit on your farm worth harvesting, keep up on your spray schedule in order to protect those fruit from infestation. If you deem it necessary to spray for another few weeks, it is important to keep an eye on the PHI of products used. Most PHI’s range between 0-7 days, but some products labeled for grapes have a 30-day PHI. Here is the complete list of insecticide PHIs and maximum number of applications allowed: https://cpb-us-w2.wpmucdn.com/u.osu.edu/dist/1/8311/files/2017/02/SWD_insecticideOptions2018-1ppr7m8.pdf.

2018 Ashtabula County Beef Banquet Tickets
OSU Extension and the Ashtabula County Cattlemen’s Association will be holding the 29th Ashtabula County Beef Banquet on Saturday, October 27 at the Lenox Community Center beginning at 7:00 p.m. Banquet activities will include a prime rib dinner; business meeting; election of two members to the Ashtabula County Cattlemen’s board of directors; entertainment; door prizes; and fine fellowship.

Tickets for the banquet can be purchased from the Directors of the Cattlemen’s Association. Directors are: Bart Kanicki, Pierpont Township; David Nye, Hartsgrove Township; Zach Ward, Austinburg Township; Dr. Bryan Elliott, Cherry Valley Township and Garret Love, Linesville, PA.

Tickets are $25 per person. Call the Ashtabula County Extension office at 440-576-9008 for more information. Pre-reservations should be made by October 19, 2018. A program flyer can be found at: http://go.osu.edu/ne-events

Upcoming Events

Ashtabula County Master Gardener Recognition Banquet

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October 15, 2018

**Ashtabula County Beef Banquet**  
October 27, 2018

**Trumbull County Farmer Lunch**  
December 4, 2018

**Ashtabula County Dairy Banquet**  
March 26, 2019

**Pesticide Applicator Training Dates**  
Lake County “Early Bird” – November 8, 2018  
Trumbull County – January 16, 2019  
Geauga County – February 1, 2019  
Ashtabula County – February 28, 2019  
Geauga County “Last Chance” – March 28, 2019