Hello Northeast Ohio Counties!

We had some rain last week, but harvest is still going strong. Check out the photo above from a corn yield contest field coming off today.

Tax season is right around the corner there will be a webinar held December 18th that focuses on issues specific to farm tax returns related to agriculture and natural resources and will highlight timely topics and new regulations to COVID-19 legislation. Details are in the first article.

Stay safe and have a great week!

Lee Beers  
Trumbull County Extension Educator

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**Agricultural & Natural Resources Income Tax Issues Webinar**

By: Barry Ward and Julie Strawser

Source: [https://u.osu.edu/ohioagmanager/2020/11/16/agricultural-natural-resources-income-tax-issues-webinar-2/](https://u.osu.edu/ohioagmanager/2020/11/16/agricultural-natural-resources-income-tax-issues-webinar-2/)

Tax practitioners, farmers and farmland owners are encouraged to connect to the Agricultural and Natural Resources Income Tax Issues Webinar (via Zoom) on Dec. 18 from 8:45 a.m. to 3:30 p.m. The event is sponsored by Ohio State University Income Tax Schools and Purdue University Income Tax Schools.

The webinar focuses on issues specific to farm tax returns related to agriculture and natural resources and will highlight timely topics and new regulations related to COVID-related legislation.

The program is an intermediate-level course for tax preparers whose clients include farmers and rural landowners. Farmers who prepare and file their own taxes will also benefit from the webinar.

Topics to be addressed and discussed during the Ag Tax Issues webinar include:

- COVID-19 RELIEF FOR AGRICULTURAL BUSINESSES
- TIMELY TAX ISSUES IMPACTING AGRICULTURAL PRODUCERS
- QBI ISSUES FOR FARMERS AND LANDOWNERS
- RETIREMENT AND SOCIAL SECURITY CONSIDERATIONS FOR FARMERS
- FORM 4797, SALE OF BUSINESS PROPERTY
- LIKE-KIND EXCHANGE ISSUES IMPACTING FARMERS
- GETTING OUT OF THE BUSINESS OF FARMING
- CURRENT UNICAP RULES FOR ORCHARDS AND VINEYARDS
- TAX ISSUES ARISING UPON THE DEATH OF A FARMER

The cost for the one-day school is $150, and applications have been made for the following continuing education credits:

- Accountancy Board of Ohio, CPAs (6 hours)
- Office of Professional Responsibility, IRS (6 hours)
- Supreme Court of Ohio, Attorneys (5.25 hours)

Registration includes the Agricultural Tax Issues Workbook. The deadline to register is Dec. 8 to ensure participants will receive the workbook in the mail before the workshop.
The live webinar will also feature options for interaction and the ability to ask questions about the presented material.

More information on the workshop, including how to register, can be found at go.osu.edu/agissues2020

Contact Barry Ward at 614-688-3959, ward.8@osu.edu or Julie Strawser at 614-292-2433, strawser.35@osu.edu with questions.

**Watch Vomitoxin Levels in Feed**

By: Erika Lyon


High vomitoxin levels are leading to the rejection of some corn at grain elevators this year. Vomitoxin detected in corn so far is enough that at some elevators, trucks are not permitted to leave scales until a vomitoxin quick test is completed. One central Ohio elevator has been rejecting corn at 5 ppm, with estimates of 10% of corn being rejected this season. The average level of vomitoxin in corn passing through central Ohio elevators is estimated at 2 ppm. What exactly does this mean for livestock owners who use this corn as a source of feed?

Vomitoxin, or deoxynivalenol (DON), is a secondary metabolite or mycotoxin produced by *Fusarium* molds that can cause health and productivity issues in livestock. The common source of DON in corn is the species *F. graminearum*, which is also occurs in other small grains such as wheat, barley and oats. Some livestock species, such as swine, are more sensitive to DON, while ruminants can typically transform the toxin into a less toxic product as it passes through their digestive tract (due to their rumen microbes). However, age and immune status among other factors can play a role in determining an individual’s sensitivity to the toxin as well. *Fusarium* molds that produce DON often develop under wet weather conditions. This particular mold initially enters plants through silks or wounds, and cool, wet conditions...
during the silking stage promotes spore production, increasing the inoculum load that can potentially infect more plants. Infections by the fungal species *F. graminearum* result in the development of Gibberella ear and stalk rots (see Figure 1 above) – corn from fields with this disease issue may need to be tested for potential contamination.

Reports from this year’s crop indicate contaminated corn is primarily located along the perimeter of fields – these areas often contain tree lines that tend to reduce dry down after rainfall or produce heavy dews that create optimal conditions for the *Fusarium* fungus to thrive. Delayed harvests when a significant amount of moisture is present also provides the right conditions for the fungus to further develop and produce the DON mycotoxin.

Symptoms of vomitoxins in livestock include, as its name suggests, acute temporary nausea and vomiting, along with fever and other immunological and productivity issues. Livestock may also refuse contaminated feedstuffs. Feed refusal, ketosis, reduced milk production, diarrhea and displaced abomasum can occur at levels as low as 1.5 – 2.5 ppm of the total ration dry matter for cattle, even though ruminants are less sensitive to vomitoxin compared to non-ruminants such as swine. Of course, we would rather not get to the point of seeing symptoms, so testing of suspected feedstuff can be a key step in identifying a problem. Visual inspections can help identify mold issues but are often not enough for detecting mycotoxins – mycotoxins can be present even if no mold is observed.

The Food and Drug Administration has set the following advisory levels for vomitoxins (on an 88% dry matter basis):

- For ruminating beef and feedlot cattle >4 months old: 10 ppm on grains and grain by-products; 30 ppm for distillers grains, brewers grains, and gluten feeds / meals derived from grains; total ration should not exceed 10 ppm and 50% of the diet
- For ruminating dairy cattle >4 months old: 10 ppm on grains and grain by-products; 30 ppm for distillers grains, brewers grains, and gluten feeds / meals derived from grains; total ration not to exceed 5 ppm
- For chickens: 10 ppm on grains and grain by-products, not to exceed 50% of diet
- For swine: 5 ppm on grains and grain by-products, not to exceed 20% of diet
- All other animals: 5 ppm on grains and grain by-products, not to exceed 40% of their diet
Grains exceeding advisory levels can be diluted with uncontaminated corn and other feedstuffs during rationing to reach the diet percentages listed above. Keep in mind that DON also becomes more concentrated in distilled by-products.

Development of the *Fusarium* fungus, and subsequently DON, will cease when moisture levels fall below 22 percent – a general recommendation is to store feedstuffs at moisture levels below 13% to prevent mold development. Ear corn can be stored at 18 to 20% whole ear moisture only when good air circulation is provided. Although growth and development of the mold stops at this point, DON mycotoxins already produced when moisture levels were greater will still be present in the grain and do not degrade significantly over time.

Care should be given to minimizing conditions that promote condensation in storage such as temperature changes. Removal of lighter, scabby kernels will also allow for better storage of grain. Heat processing and ensiling do not remove mycotoxins, but using silage preservatives or additives can prevent further mold development in storage. High DON levels may warrant the use of a mycotoxin inhibitor – however, these may not be cost effective if DON is present at low levels, and keep in mind that while some inhibitors are effective when applied at the appropriate rates, not all inhibitors are equal in performance.

If you suspect contaminated feed or have symptoms of which the cause cannot be determined, work with your veterinarian and nutritionist and test samples of feed for DON and other potential mycotoxins. For more information on testing for vomitoxin, visit Penn State’s “Mold and Mycotoxin Problems in Livestock Feeding” available at https://extension.psu.edu/mold-and-mycotoxin-problems-in-livestock-feeding and read Pierce Paul’s article “Corn Testing Positive for Vomitoxin: How Reliable was the Sampling?” available at https://agcrops.osu.edu/newsletter/corn-newsletter/2016-36/corn-testing-positive-vomitoxin-how-reliable-was-sampling.

ADDITIONAL REFERENCES & RESOURCES


ynivalenol%20(DON)%20in%20complete%20feeds. 40% of the diet.


**Tap Your Potential: A Training to Grow Farmer Leadership in Watershed Management**

This free, virtual training will help farmers feel empowered to get involved in local efforts to protect soil, water, and farming legacies.

**About This Training**
Farmers are among our best stewards of soil and water resources. Their influence can extend even beyond the farm gate as leaders in local efforts to improve soil and water health and protect farming legacies.

This training will help farmers like you tap your leadership potential and make a difference for your farm and community. Through engaging presentations, discussions, and activities, you will learn the basics of watershed management and how farmers can be proactive players in water quality solutions. Farmer leadership takes many forms, and this training will help you identify the right level of leadership for you.

We will focus on efforts in the Upper Scioto watershed, but farmers in other parts of Ohio would also benefit from the training. The Upper Scioto includes Delaware, Marion, Crawford, Union, Logan, Auglaize, and Hardin Counties.

**The Details**
When: The training takes place in 3 parts over the course of 3 mornings in December 2020:
- Tuesday, December 8th at 9am-11am EST
- Thursday, December 10th at 9am-11am EST
- Tuesday, December 15th at 9am-11am EST
Where: This will be a virtual training on Zoom. The link will be emailed to you prior to the first day.

Cost: Free

What you need to participate: You will need a desktop or laptop computer (recommended) or mobile device, along with a reliable internet connection, to participate. We also recommend using earbuds or earphones.

The Organizers: This training is a collaborative effort between American Farmland Trust, City of Columbus, Ohio State University, University of Wisconsin-Madison, Iowa State University, University of Kentucky, and University of Arkansas.

*This is a pilot training. Participants will help shape not only the future of their communities, but also an experience that will benefit farmers across the Midwest.

Agenda at a Glance

December 8th | Module 1: The What, Why, and How of Farmer Leadership to Protect Water

What we’ll cover:
- Leadership principles
- Forms of farmer leadership
- Support for farmer leadership

Speakers: Mark Wilson, American Farmland Trust; Rebecca Power, University of Wisconsin-Madison Division of Extension

December 10th | Module 2: Watershed Issues that Need Farmer Leadership

What we’ll cover:
- Water quality issues in the Mississippi River Basin and Ohio’s Upper Scioto watershed
- How monitoring and modeling are used to protect watersheds
- Solutions farmers can do to help address water quality problems

Speakers: Mark Wilson American Farmland Trust; Brian Brandt, American Farmland Trust; Asmita Murumkar, Ohio State University; Lorraine Winters, City of Columbus; John Matthews, Ohio EPA

December 15th | Module 3: Understanding Successful Approaches to Watershed Management
What we'll cover:
- Basic terms and approaches in watershed management
- How farmers fit into watershed management
- How local efforts can help achieve bigger goals

Speakers: Mark Wilson, American Farmland Trust; Brian Brandt, American Farmland Trust; Deanna Bobeck, Civil & Environmental Consultants, Inc.; Lorraine Winters, City of Columbus; Rebecca Power, University of Wisconsin-Madison Division of Extension

Register today at: https://forms.gle/Np6zAHTpjV6nRPB29

**Crop Diversification can Improve Environmental Outcomes without Sacrificing Yields**


A new study shows diversifying agricultural systems beyond a narrow selection of crops leads to a range of ecosystem improvements while also maintaining or improving yields. But a professor of agronomy at Iowa State University who co-authored the study said some marketing and agricultural policy considerations will have to change for farmers to adopt diversification practices more widely.

The study, published last week in the academic journal *Science Advances*, analyzed the results of 5,188 separate studies that included 41,946 comparisons between diversified and simplified agricultural practices. An international team of researchers carried out the study, known as a meta-analysis, and looked for patterns in the mountains of data collected in previous field studies. The results showed that in 63% of the cases examined, diversification enhanced ecosystem services while also maintaining or even improving crop yields. The researchers described this as a "win-win" result. "The overall conclusion is there's a lot to be gained from diversifying cropping practices," said Matt Liebman, a professor of agronomy at Iowa State and co-author. "Across many different countries in many different climates and soils, with many different crops, the general pattern is that with diversification, you maintain or increase crop yields while gaining environmental benefits."

Agriculture in the Midwest is dominated by just a few crops, mainly corn and soybeans. But the study looked at a range of farming practices aimed at introducing more diversity to cropland. Those diversification practices include crop rotations, planting prairie strips within and along fields, establishing wildlife habitat near fields, reducing tillage and
enriching soil with organic matter. Such measures improve water quality, pollination, pest regulation by natural enemies, nutrient turnover and reduced negative climate impacts by sequestering carbon in the soil.

"My colleagues and I wanted to test if diversification is beneficial for both agricultural production and ecosystem services. The current trend is that we simplify major cropping systems worldwide. We grow monocultures on enlarged fields in homogenized landscapes. The results of our study indicate that diversification can reverse the negative impacts that we observe in simplified forms of cropping on the environment and on production itself," said lead author Giovanni Tamburini at the Swedish University of Agricultural Sciences and University of Bari.

**Changes in policy needed**

Liebman said barriers related to government ag policy, market considerations and the dissemination of data discourage farmers from adopting many of the diversification practices examined in the study. But showing that such practices do not depress yields, and in some cases increase them, might encourage farmers to consider the practices. Many current policies and market conditions incentivize farmers to focus on a few highly productive and profitable crops. In Iowa, that means corn and soybeans are grown on the majority of cropland. But Liebman said rethinking those considerations, as well as working with farmers to transfer knowledge that allows them to gain confidence with diversification, could lead to wider use of the practices.

The meta-analysis approach allowed the research team to combine data from thousands of other studies that tested how crop diversification affects yields. The researchers used innovative data analytics to find patterns in those results, Liebman said. The approach allowed the research team to gain a new level of insight that isn't possible with individual experiments.

"What our study suggests is that if we want improved water quality and enhanced wildlife habitat and if we want to continue to work on the soil erosion problem, diversification offers a lot of options to us," Liebman said.
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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](http://go.osu.edu/cfaesdiversity).
Thursday, November 19th, 7:00 P.M.

Join OSU Extension Ashtabula County as we host Dr. Tom Blaine, OSU Associate Professor, who will share the history and trends of climate change. Learn what it means for your agricultural fields, garden, or woodlands through the year 2050.

Dr. Blaine holds BA, MS, and PhD degrees from the University of Kentucky and was on the graduate faculty at Texas A&M University before joining Ohio State University Extension in 1995. Dr. Blaine conducts research and develops educational materials that deal with the economic dimensions of environmental issues ranging from global climate change to recycling, preservation of farmland and green space, protection/improvement of Lake Erie water quality, and local food production and consumption in areas referred to as “food deserts.”

To register and receive your digital invitation to this free event, please visit go.osu.edu/ashtabulaclimate2020

Cost: Free!
Contact: Andrew Holden, Call: (440)-576-9008, Email: Holden.155@osu.edu