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COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES









September 22 Issue (Edition #113)

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Hello Coshocton County! It is Farm Science Review Week. Even with the rain, it is great to have FSR in person once again this year. It was good to see a few of you at the review yesterday. If you are traveling over today or tomorrow, make sure to stop by the Ask the Expert tent to say hi!

I have placed three fall armyworm traps out across the county to monitor for another wave of this destructive pest. The numbers flared up beginning on Sunday especially in the trap outside of Fresno. Included in today's newsletter are two really good articles on this pest. Our cool temperatures this week may be a blessing in disguise for the control of the next generation of the fall armyworm. We will keep monitoring and keep you posted on control strategies.

Today marks the first day of Fall and this past week brought out the color orange. Of course, we have beautiful pumpkins being harvested but also orange showed up in area lawns and some fall forage oat fields—all caused by the rust fungus.

Stay dry and have a safe week. And.....on a personal note----Happy birthday to Emily Marrison!

Sincerely,

David L. Marrison

Coshocton County OSU Extension ANR Educator

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Predictions for Round 2 of Fall Armyworm

By: Andy Michel, Kelley Tilmon, Curtis Young, Mark Sulc & Aaron Wilson

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-32/predictions-round-2-fall-armyworm

"Could Ohio really face another generation of fall armyworm in the next few weeks?" This has been the most frequent question from many of our stakeholders—and rightfully so given the damage we have already seen in

forage and turf. Fall armyworm (FAW) is normally a tropical insect and can reproduce very fast in warm temperatures. In fact, our extension educators found fall armyworm egg masses in the field last week. Whether or not a new generation of caterpillars will cause damage largely depends on one factor: temperature.

A recent study compared fall armyworm development at different temperatures (see https://www.mdpi.com/2075-4450/11/4/228). Higher temperatures result in faster growth—at a constant 78.8oF, FAW can go from an egg to a damaging caterpillar (4th instar) in as little as 10 days. At colder temperatures (a constant 64.4oF), the time increases to 21 days. In addition, only 29% of the caterpillars in the study survived to pupation at the constant colder temperature. A more

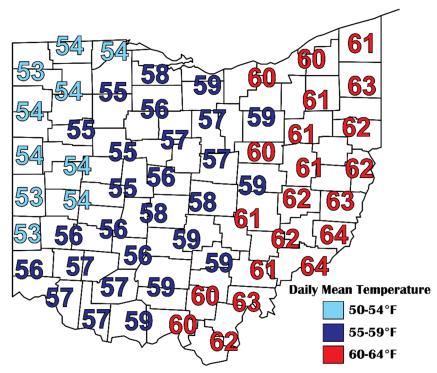


reasonable, minimum estimate given this time of year could be 14 days from egg laying until the damaging stage (assuming 71.6oF constant temperature). So, if egg laying started last week, then we could see larger caterpillars and damage towards the end of this week, if it remains somewhat warm.

Comparing these data to actual field temperatures (which cycle between daytime highs and nighttime lows) is a bit challenging, but we could use the daily mean temperature as a good guide. If average temperatures are

cool enough, this may help limit any damage from another generation. This map predicts the daily mean temperature forecasted on this Wednesday, September 22. Most areas of the state (if not all) will be below 64.4oF, (our magic mortality number). Thursday may be even colder. This brief cold period is critical as it arrives when many small larvae have hatched but are very sensitive to the cold. Bottom line: as we get colder temperatures, fewer caterpillars survive.

Because predictions are not certain, and we are still checking our adult trapping numbers, we urge everyone to stay vigilant. Watch your fields, especially the previously damaged forage and turf that may still need some time to regrow. Also keep in mind any early emerging winter wheat or cover crops. Most importantly, watch the temperatures to help determine if any fall armyworm larvae make it through the upcoming cold snap.



Re-Alert: Fall Armyworm, Part II?

By: Joe Boggs, Dave Shetlar, & Curtis Young Source: https://bygl.osu.edu/index.php/node/1867

Participants in the BYGL Zoom Inservice on Tuesday morning had a lengthy discussion about whether we'll experience a sequel to the Fall Armyworm (FAW) (Spodoptera frugiperda, family Noctuidae) saga in Ohio. Points were pondered and expectancies examined; however, the consensus was straightforward: never bet against insects!

We made no predictions in our first Alert titled, "Fall Armyworms March Across Ohio," which was posted on August 30, partly because caterpillars were still producing damage. So, we focused on control and recovery. Also, we are navigating uncertain territory when it comes to predicting what will happen with the development of a subtropical or tropical insect such as FAW in a temperate region like Ohio.





We do know that FAW eggs, caterpillars (larvae), pupae, and adult moths cannot survive winters in Ohio. The outbreak occurred after the moths rode the winds into Ohio from sub-tropical zones in the southern U.S. and Mexico. Some of the moths were mated females with eggs (= gravid females), so they were poised to quickly initiate the damaging caterpillar stage.





We also know that FAW caterpillars pass through six instar stages with their size and appetite increasing with each molt. The 1st, 2nd, and 3rd instar caterpillars are small and secretive making them difficult to detect in turfgrass. They commonly hideout during the day and feed at night. In fact, the 1st instar caterpillars tend to feed within the leaf folds.

Soap solutions such as those used to drive burrowing caterpillars like black cutworms (Agrotis ipsilon) from their daytime burrows aren't particularly helpful for exposing small caterpillars, especially the first four instars. FAW caterpillars don't burrow. The main problem with detection is that early instars are simply too

small to easily spot beneath the turfgrass canopy during the day without a very close "on-hands-and-knees" examination of the turfgrass.

Also, the small caterpillars typically don't consume entire turfgrass blades. They feed along the edges allowing some blades to remain green while others simply turn brown and shrivel. The overall damage is a mixed bag and can easily be mistaken for summer moisture stress or other turfgrass maladies.

The elevated damage caused by the 4th instar caterpillars begins to reveal the presence of FAW in turfgrass. The damage accelerates during the 5th and 6th instar stages when the voracious caterpillars mow down entire turfgrass blades. That is why the FAW caterpillar damage in Ohio seemed to appear "overnight." The caterpillars had been with us for some time, but



they hadn't produced noticeable damage until the final instar stages.

Of course, armyworms are so named because of their habit of moving en masse to greener pastures once they've depleted their food supply. It is not uncommon for the caterpillars to move from field crops into nearby turfgrass or even vice versa. The caterpillars will continue eating turfgrass to the crowns until there is no more food or they complete their development, whichever comes first. If the plant food is exhausted, the armyworms will become meat-eaters with the larger caterpillars eating the smaller caterpillars to complete their development.

Predictions: It's All About Temperature

A scientific paper published in 2020 and titled, "The Effect of Temperature on the Development of Spodoptera frugiperda (Lepidoptera: Noctuidae)" [see Selected References below] provides key data regarding predicting what may happen next. The paper includes a table that shows the relationship between the speed of FAW development and ambient temperature.

The higher the temperature, the faster the FAW development. On the other hand, FAW's sensitivity to low temperatures means the race is on as to whether another generation of armyworms can develop into the damaging 4th, 5th, and 6th caterpillar instar stages before they're doomed by cold temperatures. The table shows that FAW larval mortality rises to 71% at an average temperature of only 18 C (64.4 F).

Temperatures in late-August were remaining at or slightly below normal. However, temperatures have been trending upward since then to remain above normal. In fact, long-range forecasts indicate that temperatures may remain above normal throughout the rest of September.

Another factor that may favor another round of armyworms is the large number of pupae observed at or around the time we posted our first Alert. Elevated temperatures have led to the rapid development of new adults emerging from heavily infested turfgrass. Mating occurred quickly and the females began laying eggs. Indeed, adult emergence and egg-laying are ongoing.



Once again, we can turn to the 2020 paper for information helpful in predicting "what's next." The aforementioned table shows that at 22 C (71.6 F), FAW development from eggs to adults can be completed in around 42 days.

Of course, the most crucial developmental points are the time required for the caterpillars to develop into the most damaging 4th, 5th, and 6th instar stages. The table shows that at 71.6 F, the 4th instar caterpillars can appear once eggs are laid in around 16 days; 5th instars around 19.5 days; and 6th instars around 25.5 days. On the other hand, caterpillar mortality will be 37% at this average temperature.

So, does this answer the million-dollar question regarding whether we'll see another round of damage by

FAWs? While we have said that you should never bet against insects, there are three very important things to consider. First, the paper cites data collected by holding caterpillars in a laboratory at a constant 71.6 F. What happens in the field is no doubt going to be different with a probability that developmental speed may take longer.

Second, we don't know if the population density of this developing generation will match the caterpillar densities that developed from the southern moths blown north into Ohio. Keep in mind that a percentage of the caterpillars will not make it. The researchers observed a caterpillar mortality rate of 37% at 71.6 F.



Finally, temperature-based larval mortality isn't the only factor that may affect the reappearance of late instar FAW caterpillars. Heavy bird predation was observed in several locations in Ohio with pupae being a favorite bird food meat item. Indeed, we learned that observing large flocks of birds pecking at turfgrass is a good way to locate a possible armyworm population.

Food Preference Observations on the 2021 FAWs

Entomologists are noting that there are some differences in the current FAWs attacking Ohio turf and crops. First, many professionals are finding that turf-type fall fescues (Festuca arundinacea) appear to be a preferred grass and the FAW larvae appear to be able to withstand the toxins normally produced by fescues with endophytes.

This population of FAW also relishes creeping bentgrass (Agrostis stolonifera) that is commonly used across

Ohio on golf courses. However, they focus their attention on the taller bentgrass on golf course aprons and roughs while ignoring close-cut bentgrass on collars, tees, greens, and fairways. Presumably, this is because of exposure to predators given that the caterpillars don't burrow and there's nowhere to hide, as well as less canopy to consume.

Surprisingly, some Kentucky bluegrass (Poa pratensis) lawns and athletic fields are escaping damage and it appears that this population of FAW may have difficulties eating and thriving on some of the Kentucky bluegrass cultivars. This has been observed with the black cutworm, a pest that rarely reaches outbreak levels in



turf. Black cutworm larvae can withstand the toxins produced by endophytic turfgrass cultivars, but the larvae can't survive on Kentucky bluegrass! The Ohio FAW populations appear to prefer alfalfa, wheat, and oats, but it largely didn't show up in the ears of field corn, like in previous years.

Finally, a review published in the journal "African Entomology" showed that FAW caterpillars have been recorded on host plants belonging to 76 plant families, but they most commonly feed on plants belonging to three families: Poaceae, Asteraceae, and Fabaceae. FAW in Ohio ignored creeping Charlie (Glechoma hederacea, family Lamiaceae) and only nipped yellow nutsedge (Cyperus esculentus, family Cyperaceae) after grasses were depleted. On the other hand, the caterpillars did very little feeding on crabgrass (Digitaria spp., family Poaceae) and common dandelion (Taraxacum officinale, family Asteraceae).

Don't Jump to Conclusions: Monitor and Diagnose!

Predictions on paper should never take the place of observing what's actually happening. Turfgrass that was affected by the first round of damage should be closely monitored. Keep in mind that FAWs do not destroy the crowns which are the meristematic growing point of turfgrass. In essence, the turfgrass suffered an extremely low mowing.

We're observing a healthy recovery of the damaged cool-season turfgrass. This is the time of the season when we see rapid growth of cool-season turfgrasses. On the other hand, another round of FAW feeding damage will delay a full recovery and could significantly stress the turfgrass.

However, don't become lazy with your diagnostics! It's important to separate FAW damage from symptoms produced by other turfgrass maladies. During the FAW outbreak, it was common for such things as drought stress as well as turfgrass diseases such as brown patch, gray leaf spot, or even rust to be mistaken for FAW damage. Unfortunately, it was also not uncommon for needless insecticide applications to be made based on the misdiagnosis. Remember that treatment without an accurate diagnosis is malpractice!

Treatment Options

We want to stress that treatments should not be preventive! Don't make an application unless there is a clear target. Insecticide applications must be weighed against environmental consequences as well as possible impacts on overall pest management strategies. For example, the collateral damage caused by indiscriminately killing beneficial insects can lead to other pest outbreaks. However, if FAWs are clearly in the crosshairs, there are effective treatment options.

Turfgrass managers had some success with pyrethroids such as bifenthrin (e.g., Talstar) during the first round of FAW. However, we also received reports from the agricultural markets that pyrethroids are not working well, so alternative chemistries should be considered.

FAW populations often develop resistance to insecticide categories that are extensively used in the agricultural markets. Since our populations arrive from more southern regions, some moths may have arrived here in Ohio after their ancestors had been exposed to several applications of pyrethroids, carbamates, and/or organophosphates.

If you did not see a rapid kill of a FAW population after the application of a pyrethroid during the first round, consider using an alternative. The diamides such as chlorantraniliprole (e.g., Acelepryn) or tetraniliprole (e.g., Tetrino) have excellent caterpillar-killing abilities. Both are registered for turfgrass usage and can be used at their lowest label rates for curative caterpillar control. Two combination products that contain a neonicotinoid plus a pyrethroid and seem to overcome any resistance are Aloft (clothianidin+bifenthrin) and Alucion (dinotefuran+bifenthrin).

Acelepryn is also the active ingredient in some over-the-counter granular grub control products (e.g., GrubEx) as well as several professional use products. Although the insecticide will not directly protect the turfgrass blades, the caterpillars will be killed as they contact the insecticide while crawling beneath the canopy. However, keep in mind that water must be applied to release the insecticide from the

granules. Although some of the active ingredient may be released by heavy dew, it's still best to follow label directions with irrigating after the applications.

Finally, azadirachtin-containing products are effective for control of all types of turfgrass-infesting caterpillars. Azatin O, Azaguard, and Neemex 4.5 are three such products and each is certified organic (OMRI). Note that Azatin XL is not registered for turfgrass use.

These alternative insecticides are often difficult to find in over-the-counter outlets, but none are restricted-use insecticides except for Aloft GC or certain formulations of pyrethroids that are used on golf courses. Those that are not restricted use can be purchased by homeowners through internet vendors, but you will need the proper equipment to apply these commercial products, and the ability to properly calculate rates used in small, non-commercial sprayers and spreaders.

Products based on various strains of the naturally occurring bacterium Bacillus thuringiensis (Bt) have also proven effective against FAW in agricultural sites. However, it's important to use products with armyworms on the label. All strains are not equal. Also, Bt is most effective against early instars which means close monitoring is critical for effective timing.

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Weather Update: Farm Science Review Week Weather

By: Aaron Wilson

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-32/weather-update-farm-science-review-week-weather

Summary

This past summer (June-August) ranks as the 13th warmest on record (1895-2021), with overnight lows near record levels (2nd warmest on record). Recent temperatures have been running 3-5 degrees F above average as crops continue to dry down and harvest is underway. Precipitation over the last 30 days has been seasonally-average in areas of west central and southeast Ohio, but dry elsewhere.

Forecast

High pressure that has been keeping our weather hot and dry has slid off to the east, with return southerly flow pumping plentiful moisture northward into the Ohio Valley. A strong cold front moving in from the west, the first major cold front of the fall season, will lead to increasing shower and thunderstorm development throughout the day on Tuesday, and especially on Wednesday as the system moves through the Buckeye

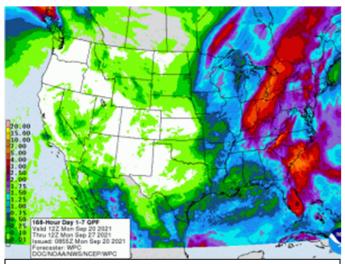


Figure 1). Precipitation forecast from the Weather Prediction Center for 8am Monday Sept 20 – 8a Monday Sept 27

State. High pressure will return starting Thursday throughout the upcoming weekend, with a chance of showers on Saturday. All in all, the state is looking at its first widespread heavy rainfall event in quite some time, with the <u>Weather Prediction Center</u> calling for 1.50-4.0+" of rain over the next 7 days (Figure 1). Temperatures will start out seasonally mild on Tuesday in the 70s, then fall into the upper 50s to mid-60s for highs (40s for lows) on Wednesday and Thursday.

The <u>Climate Prediction Center's</u> 6–10-day outlook for the period of September 25-29, 2021 and the <u>16-Day Rainfall Outlook from NOAA/NWS/Ohio River Forecast Center</u> indicate temperatures are leaning below average with near to below average precipitation (Figure 2). Climate averages for this period include a high temperature range of 74-78°F, a low temperature range of 54-58°F, and average rainfall of 0.50-0.75 inches.

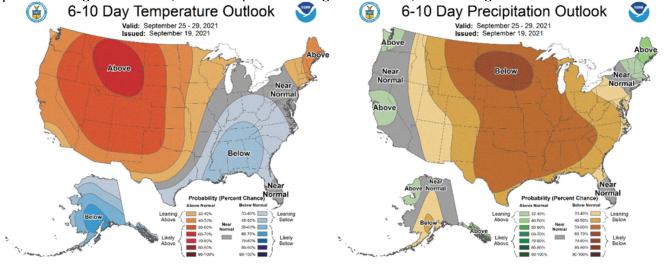


Figure 2) Climate Prediction Center 6-10 Day Outlook valid for September 25-29, 2021, for left) temperatures and right) precipitation. Colors represent the probability of below, normal, or above normal conditions.

Life in a Time of Glyphosate Scarcity - Part 2

By: Mark Loux

Source: https://agcrops.osu.edu/newsletter/corn-newsletter/2021-32/life-time-glyphosate-scarcity-%E2%80%93-part-2-%E2%80%93-fall-burndown

Recap – some brands of glyphosate will be in short supply for the near future, and we've also learned that glufosinate may be subject to this also. A glyphosate shortage will have more impact in spring than in fall really, assuming it persists that long. We covered burndown for no-till wheat last week, but this shortage affects fall herbicide decisions also. Some of our <u>past articles</u> on fall-applied herbicides are still current for the most part, and they present glyphosate and non-glyphosate options.

We suggest keeping the cost of fall applications low, avoiding use of most residual herbicides, starting with at least 0.5 lb ae of 2,4-D, and then adding one of the following herbicides:

- ➤ Glyphosate rates as low as 0.38 lb ae/A can be enough in many fields. Increase rate for perennials and weedy fields.
- ➤ Dicamba base rate of 0.25 lb ai/A. Available as premixes with 2,4-D. Our experience is that cold weather affects dicamba more than some other herbicides. This mixture can be less effective on deadnettle and a few other weeds than the other mixtures here, so fields may not look quite as clean in April
- Metribuzin or Simazine weaker on dandelion and other perennials than the others listed here but basically get the job done. Metribuzin can be used before corn or soybeans, simazine only before corn
- any of a number of short-residual ALS-inhibiting herbicides/premixes containing tribenuron and/or rimsulfuron (Basis, Express, Audit, Panoflex, Nimble etc). Most of these can be used before corn or soybeans.
- Canopy/Cloak and other chlorimuron-containing products. These can be used prior to soybeans only and are really the only herbicides on this list that provide a combination of burndown and decent residual activity into spring. Rates at the low end of the rate range are adequate for this.

What is evident from this list it that glyphosate does not have to be an essential component of fall herbicide treatments, and there are other low-cost options. Grasses, and especially perennial grasses, may require the use of glyphosate. We have been hearing a lot about annual bluegrass, because it has been tough to control in the spring. Fall-applied herbicides are effective on this weed, and glyphosate is not the only option (herbicide ratings here). Alternatives to glyphosate for annual bluegrass include Canopy/Cloak, Autumn Super, and Basis and its generic equivalents. Clethodim can be used for control of grasses in fall, but cold weather and mixing with 2,4-D reduce its effectiveness. Although we have not really used it in the fall much, Gramoxone plus 2,4-D is another option for control of most annuals. Activity would be affected by cold and cloudy weather, and we consider this treatment generally more variable and expensive than those listed above. Gramoxone has activity on bluegrass, although is potential for regrowth if warm weather persists into late fall. Note – this information refers to annual bluegrass, not rough bluegrass, which is a completely different animal and requires decent rates of glyphosate.

2021 Ladies on the Land Workshops

2021 Ladies on the Land Workshops

Source: https://farmoffice.osu.edu/news/2021-ladies-land-workshops

Do you own, lease, or manage land? Would you like to increase your confidence, communcation skills, and learn more about farmland leasing issues? If so, join OSU panelists for an interactive farmland leasing workshop for women involved in all stages and aspects of agriculture. In person workshops in three locations will be on October 19, 20 and 21 and a two-evening virtual workshop will be on November 8 and 9. To learn more and register, visit go.osu.edu/ladiesontheland.



Join Farm Office Live from Farm Science Review

By: Peggy Kirk Hall

Source: https://farmoffice.osu.edu/blog/wed-09152021-925am/join-farm-office-liveosus-

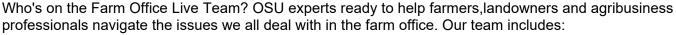
farm-science-review-september-23

Farm Science Review is back! OSU's Farm Office Team will be there, and we'll broadcast the next Farm Office

Live from our farm office at the Review. We can't promise we'll be able to ignore biscuits and gravy, pork tenderloins, bahama mamas, or milkshakes during Farm Office Live, but we can promise you updates on recent developments in the world of farm management and agricultural law.

The broadcast will be on Thursday, September 23 beginning at 10 a.m. Here's what's on the agenda:

- · Carbon market programs and carbon agreements
- · Legislative update
- · 2022 crop budgets
- · 2020 Farm Business Analysis program results from crop farms
- · Ohio cash rental rates
- Dairy Market Volatility Assistance Program
- · Highlights of FSR and upcoming programs



- Peggy Kirk Hall Agricultural Law
- · David Marrison Farm Management
- · Dianne Shoemaker Farm Business Analysis and Dairy Production
- · Barry Ward Farm Management and Tax

To learn more and register for Farm Office Live, visit https://farmoffice.osu.edu/farmofficelive. Recordings of our previous Farm Office Live webinars are also available at that site.

The Ag Law Roundup: Your Ag Law Questions Answered

By: Peggy Kirk Hall, Associate Professor, Agricultural & Resource Law Friday, September 17th, 2021 Source: https://farmoffice.osu.edu/blog/fri-09172021-1131am/ag-law-roundup-your-ag-law-questions-answered

It's time to round up another batch of legal Q&A. Here's a sampling of questions from around the state that we've recently received in the Farm Office.

My township recently notified me of having noxious weeds. They identified "ragweed" as the problem, but the Ohio Revised Code's list of noxious weeds doesn't list "ragweed." What are my rights? Under Ohio law, you have five days to respond to the township trustees to explain that no action need to be taken because no noxious weeds exist on the property and that plants were incorrectly identified as noxious weeds. Therefore, your conversations with the township trustees should have met the legal requirements because you notified them that plants were incorrectly identified as noxious weeds. Having a written record is always best, just in case there is ever a dispute, so you may want to follow up with the townships trustees in an email, just to confirm that no action need to be taken.

I read that each landowner has a ten foot right of access on either side of the fence row. How does that work? The ten foot right of access is for a situation where one neighbor hasn't shared in the construction of the line fence. If a landowner chooses to build a line fence and the adjoining neighbor doesn't share in the construction of the fence. Ohio Revised Code Section 971.08 allows the landowner to enter the neighbor's property for up to ten feet for the length of the fence to build and maintain the fence. A landowner who stays



within that ten feet strip cannot be held guilty for trespassing, but can be liable for any damages caused on the neighbor's property, including damages to crops.

A neighbor is spraying herbicides on the fence row where an adjoining neighbor is raising organic livestock. Is there anything the livestock operator can do? There could be a spray drift issue if the herbicides are coming over onto the organic producer's property. The most common legal action for dealing with spray drift is negligence, and another legal theory is trespass. If the drift causes harm, there would be a legal claim under either of those theories and the sprayer could be liable for harm caused by the drift. Before moving right to a lawsuit, however, a letter from an attorney that explains the potential liability for the drift could be helpful. Losing the organic certification would be costly, and an attorney would likely point that out. Those types of letters don't take a lot of time and wouldn't be as costly as filing a lawsuit. Additionally, the sprayer's insurance policy might address negligence for spray drift and could provide a mechanism for compensation to the livestock producer.

We are in the process of buying a farm property to raise horses and relocate a small craft brewery to the location and grow hops and barley for the brewery. Can you provide information to help navigate the legal issues in doing this? Let's start with two separate issues—the liquor licensing issue and the zoning issue. You may already know that Ohio has a relatively new licensing law that eases the liquor license process for small brewers—the A-1c license, explained at https://www.com.ohio.gov/liqr/permitclasses.aspx. That would allow you to brew and sell onsite if you meet the license requirements.

The zoning question is not as straightforward and instead is an "it depends" answer. Ohio zoning law does specifically exempt wineries from local zoning regulation, if the winery is growing grapes. There is not a similar specific exemption for breweries, though. In some situations, the agricultural exemption from zoning authority applies and prevents the township from prohibiting an agricultural use if it meets the definition of "agriculture." Some of the activities you describe, growing hops and grains and raising horses, do fit within that definition. Processing and marketing activities, like making and selling beer on-site, only fit within that definition if they are "secondary to" the growing/production activities. Showing that the brewery would be a "secondary" use to the primary production activities could be difficult, and there aren't clear standards on how to prove which is primary and which is secondary. Some townships have examined amount of the property dedicated to the different uses, some have examined financial returns of the different uses, some have looked at amount of time... it's a bit gray and open to interpretation.

The other way to be exempt from zoning regulations would be to prove that the brewery is "agritourism." This requires first showing that the activity is a cultural, recreational, entertainment or historic activity that is "agriculturally related" to the property and that the property qualifies as a "working farm" that is engaged in commercial agricultural production. Townships vary on how closely they examine these different components, but it seems that many are becoming more strict about what is and is not "agriculturally related" to the property. If none of the exemptions apply, whether you could engage in the land use would depend on your district zoning provisions. You'd want the zoning district to allow a brewery activity as a permitted use in the zoning district, or to be able to seek a "conditional use" permit for it.

If someone has a hornet's nest in the yard in a neighborhood with a sidewalk, is there concern if the hornets were to attack someone walking by? This is one of those "maybe" answers. We don't have clear legal guidance or court cases on liability for stings in Ohio, and my guess is that's because the cases may settle out in the insurance process. The hornet nest, though, is probably a natural situation that is less likely to result in liability on the landowner's part than a manmade condition, especially if the nest is out in the open and easily seen. The law expects people to bear responsibility to protect themselves from open and obvious natural dangers. However, the fact that the landowner knows it is there could be problematic given the neighborhood situation, as in "you should have done something about it because you knew people would be walking by," especially if it's not easy for passers-by to detect it or if the landowner knows someone in the neighborhood is allergic to bees. To avoid the risk of potential harm or problems, the landowner could consider either putting up a sign warning about the nest or have it removed. The cost of removal would probably be less than an injury claim or a lawsuit. The landowner may also want to talk with her insurance

agent to see if there would be coverage for an incident—likely not, but it's worth an ask. That might bring the landowner some peace of mind if he or she allows it to remain.

If you have an agricultural law question, send it to aglaw@osu.edu and we'll do our best to provide an answer. We can't give you legal advice, of course, but we can explain the laws that apply to the situation. Also be sure to check for answers in our law bulletins on the Ag Law Library, here on the Farm Office website.

Rusty Shoes Syndrome

By: Joe Boggs

Source: https://bygl.osu.edu/index.php/node/1851

Rust on turfgrass has been a hot topic during recent Tuesday morning BYGL Zoom Inservices. Amy Stone (OSU Extension, Lucas County) reported that she's getting numerous reports of "rusty shoes" in her part of Ohio. Dave Shetlar (Professor Emeritus, OSU Entomology) noted that the shoes worn by participants in a recent outdoor turfgrass training event held in the central part of the state acquired an ocherous glow. The tangerine dream shoes pictured at the top of this Alert were worn by yours truly (Adidas rust?). The toes below are those of my better half.



According to the Compendium of Turfgrass Diseases, 3rd edition (American Phytopathological Society), 40 different rust diseases have been identified on turfgrass. However, the 4 most common rusts on cool-season turfgrass in Ohio and the fungi behind the infections are leaf rust (Uromyces dactylitis), yellow striped rust (Puccinnia striiformis), crown rust (P. coronate), and stem rust (P. graminis).



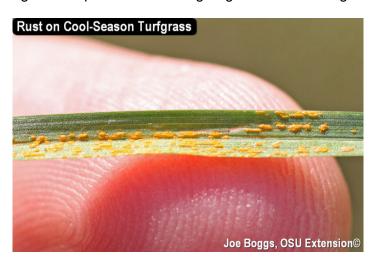


These fungal pathogens and associated diseases have the potential to cause serious harm to turfgrass. However, rusts on Ohio turfgrass seldom progresses beyond a nuisance with lawnmowers, lawn edgers, shoes, toes, small children, dogs, etc. acquiring an orange patina.

Historically, rusts on turfgrass were associated with perennial ryegrass (Lolium perenne) and Kentucky bluegrass (Poa pratensis). There was a time when rust provided an almost sure-fire way to identify perennial rye mixed with turf-type tall fescue (Festuca arundinacea). Ryegrass had orange blades at this time of the year. However, tall fescue, as well as fine fescues (Festuca spp.), are now included in the turfgrass orange marmalade.

It's no accident that turfgrass may acquire an orange glow at this time of the year. Rust infections proliferate on cool-season turfgrass that's growing slowly during the dog days of summer. There's a reason they are called "cool-season." Rapidly growing turfgrass in the spring and fall presents a moving target to the rust fungi.





The same perspective applies to nutrient-starved turfgrass. We are approaching an optimal time of the growing season for making a turfgrass fertilizer application. If a soil test has revealed there are no soil nutrient deficiencies, an application in early September that provides nitrogen will help the turfgrass grow past the orange-grasp of rust. A slow-release form of nitrogen is recommended so the macronutrient is available over a longer period.

Of course, if a little bit is good, a lot is not better! While rust, as well as dollar spot, tends to occur most often on turfgrass suffering from a nutrient deficiency, other diseases such as brown patch and Pythium blight can be made worse by over-applications of nitrogen. Thus, it's important to pay close attention to product application recommendations including using the proper fertilizer equipment settings.

Fungicide applications made before fungal rust infections become rampant can help slow disease development. However, the time and expense are seldom justified. Rust on turfgrass is usually a fleeting late summer problem and can be better managed by satisfying the nutrient needs of turfgrass in the early fall.

Friends of the Coshocton County Jr. Fair Livestock Auction

The Friends of the Coshocton County Jr. Fair Livestock Auction was formed in 2019 as a fund-raising entity to support the hard work of the 4-H and FFA Youth showing and selling their livestock projects by establishing a pool of funds that will increase the overall sales at the auction. This fund enables individuals, businesses, and organizations to show their support for this special group of hardworking Coshocton County youth even if they are unable to attend the auction in person.

The lessons learned and experiences of raising and selling a livestock project is a valuable experience for young people. We suspect that many of you participated as a youngster or assisted your own family members with their projects in years past. The fund enables you to give this year's sellers an experience they will value for years to come.

In 2020 when the auction was virtual only, due to the coronavirus restrictions, the group raised over \$11,000 and was able to purchase or add-on to the price of over the 100 sellers. The funds were used to support the sale of every type of species sold in the auction. Dozens of "Thank you Cards" were received from kids, demonstrating the appreciation the youth have for this group's support. This year the Jr. Fair Sale will return to its traditional live, in-person, auction on Thursday, October 7. We expect there to be approximately 300 projects in this year's sale rings. The funds will be used to purchase these animal projects, or add-on to the purchase price of projects that are sold at below average levels for the class.

Please consider making a generous donation to a worthwhile local project to benefit the young people of Coshocton County. Questions about the funds may be directed to Sally Ellis at 740-545-6002 or740-202-3429 or Carol Hadrosky at 740-610-3586. Contributions may be sent to: Friends of the Coshocton County Jr. Fair Livestock Auction, c/o Carol Hadrosky, 603 S. 13th Street, Coshocton, OH 43812, and need to be received by Thursday, September 30th. Thank you in advance for your consideration!

