

TUSCARAWAS COUNTY AGRICULTURE & NATURAL RESOURCES

September 8, 2021

FALL ARMYWORM...damage has been observed in various locations throughout the county. The primary target has been alfalfa, but damage has also been observed on grasses. Management options are highlighted below. This OSU Extension C.O.R.N. newsletter (<https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/managing-forage-stands-damaged-fall-armyworm>) provides more details.

Pictures of two Tuscarawas County alfalfa stands seeded late July and damaged by Fall Armyworm:



Fall Armyworm feeding was evident in the established alfalfa field in the background.

Fields with minor to no damage seen.

If the hayfield or pasture shows any feeding damage at all and is reasonably close to having enough growth for harvest, cut or graze it as soon as possible. This is perfect timing to take the last cutting of the season (see article on that topic at <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-29/autumn-forage-harvest-management>). If there are large numbers of fall armyworms present (more than 2 to 3 per square foot) and they are $\frac{3}{4}$ -inch or larger, they will “harvest” the entire field for you while you sleep another night or two. So be aware of what is in your hayfield!

If your hayfield is not quite ready for harvest or is regrowing from a recent harvest, scout it now and continue to scout for fall armyworm every few days until you do harvest it. Be prepared to make a rescue treatment if fall armyworm numbers reach the threshold of 2-3 per square foot.

Fields with severe fall armyworm damage.

If an established hayfield or pasture has already been severely damaged by fall armyworm, cut it down and salvage what you can or mow off and remove the stems or graze it to prevent any windrows from smothering of the regrowth. This mowing will stimulate the plants to regrow. But be aware that fall armyworms have been seen to survive a cutting, so they could continue to devour the crown buds and any regrowth. Those surviving fall armyworms could also move to adjacent fields including soybean and corn (especially non-Bt corn hybrids).



Established alfalfa should recover from having the leaves being stripped off. Essentially, the fall armyworm took the best half of your last harvest. Cutting of the remaining stems will stimulate the fall regrowth process.

The speed of recovery will depend on how many crown buds in alfalfa were devoured by the insect. Regrowth will be slower if crown buds were fed on and new crown buds need to be initiated. Be patient, but it is also very important to stop the feeding from continuing.

Be on the alert for any second infestation from another generation that might occur yet this fall. The Ohio State University Extension entomologists and extension educators across the state are monitoring for further fall armyworm moth flights and which could potentially lead to another generation.

Established grass hayfields and pastures will likely show variable recovery depending on the extent of fall armyworm feeding on new tillers and the soil moisture situation. With severe feeding and dry soil conditions, permanent damage and loss of stand could occur. With more limited feeding and good moisture conditions, recovery should occur this fall.

New seedings made late summer with severe feeding by fall armyworm in the early seedling stages are likely to be completely lost. Going forward, if your new seeding has no signs of fall armyworm, be monitoring every few days for fall armyworm until frost.

It is essential to continue monitoring the forage stand and apply timely control of fall armyworm if 2 per square foot are present to prevent additional feeding. We have time for recovery this fall, assuming additional feeding does not occur, and the damage already done is not so severe as to have killed the stand.

FALL ARMYWORM...may also feed on corn, even those with Bt (as has been documented in states to the south). Although we have not seen any Bt resistance with fall armyworm in Ohio, we also don't often see fall armyworm at all. Now is the time to check corn ears for feeding damage. At this point, control would be difficult since the caterpillars are protected in the ears. So why is checking Bt corn important? If and when, we have a fall armyworm invasion again, we need to make sure that these traits are holding up as we expect. We have had a large enough issue with forage and turf—we don't need another issue in corn. Finally, keep in mind that most fall armyworm are pupating now which means adults will be flying soon.

(Source: OSU Extension C.O.R.N. newsletter: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/are-fall-armyworm-infesting-corn-too>)



LATE-SEASON POD FEEDING...by stink bug, grasshopper, and bean leaf beetle have been reported across Ohio. As we start to approach the end of the growing season the larger concern with these insects is the potential for pod feeding, rather than foliage feeding. Pod feeding directly impacts grain quality. Crop stage is also an important consideration. Late-planted fields or double-cropped soybeans which are still green when other fields are drying down can be "trap crops," attracting the insects that are leaving the other maturing fields. Such fields bear close watching.

Please see this OSU Extension C.O.R.N. newsletter (<https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/late-season-pod-feeding-bean-leaf-beetle-grasshopper-and-stink>) for additional information.

TAR SPOT...has been reported in 21 Ohio counties this year, from as far south as Clark County and as far east as Holmes County. In most of the effected fields, only a few stromata (black tar-like spots) are observed on a few leaves, but in other cases, large sections of fields are affected and there is evidence of an increase in disease severity (percentage of leaf surface covered with stromata) as the crop matures. Severely affected fields show premature drying and wilting of leaves. Another interesting observation is the different in the pattern of development of stromata among hybrids. Disease severity varies considerable among hybrids; some affected hybrids develop many small spots (stromata) that do not seem to increase in size over time, whereas other hybrids develop fewer, but much larger stromata.

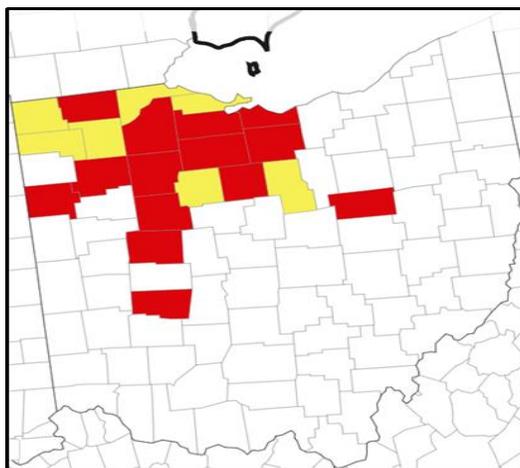


Among the many questions being asked by stakeholders are "how is the disease spread round?", "why so much more tar spot in 2021?" and "why are some fields under rotation with soybean and/or tillage still showing symptoms of tar spot". Fungal spores move around mainly by rain or wind, with rain being mostly responsible for short-distant spread within a field from crop residue and diseased leaves, whereas wind can carry spores over long distances between fields within counties and even between counties and states. However, the two means of spore movement do not necessarily work in isolation. Rain helps to stimulate the release of spores from crop residue, which are then carried by wind, and later washed out of the air and onto leaves by rain. So, the fact that some fields without a history of tar spot (did not have the disease previously) and some under rotation and tillage, with little or no corn stubble on the soil surface, still developed tar spot suggests that in 2021 wind was



likely the primary means of disease spread. Spores were likely picked up and transported from field to field within and across states, and the fact that some fields developed the disease quite early (before R1) allowed more time for it to spread to healthy plant within a field and between fields.

Map of Ohio showing counties in which tar spot has been reported during the 2021 growing season (red = reported and confirmed in the Paul Lab, yellow = reposted and awaiting confirmation). However, it should be noted that red or yellow does not mean that all fields in a highlighted county has tar spot, it means that the disease was found in at least one field in that county. In addition, the map does not show how severe the disease is in a given county. A single spot, on a single leaf, in a single field was sufficient for a county to be highlighted as being positive for tar spot.



For additional information about Tar Spot, please see this OSU Extension C.O.R.N. newsletter: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/tar-spot-more-widespread-cross-state-ohio-2021>.

OPEN HEIFER OPTIONS...are discussed by Kevin Laurent, Extension Specialist, University of Kentucky, in this OSU Extension Beef newsletter: <https://u.osu.edu/beef/2021/09/08/open-heifer-options-making-lemonade-out-of-lemons/#more-11293>. Open cows and open heifers are part of the business. What we choose to do with open females can affect our bottom line. This discussion focuses on replacement heifers and what options are available when the vet finds her empty.

Give her another chance or cull her? It may be tempting to give open heifers another chance especially if you have both a fall and spring calving season. The problem with this option is research shows that there may be upwards of 20% reduction in conception rates on heifers that failed to conceive in the first breeding season. Ask yourself, if she was a slow breeder as a yearling, what will her chances be of breeding back as a 2-year-old? If we choose to cull her, what is the best way to market a 900-1100 lb. open heifer?

Option 1: Sell at the sale barn. Obviously, the easiest option, but be prepared for a pretty severe discount mainly because there are simply not that many heifers of that weight class at the sale barn



on any given day. Remember, the cattle market moves in load lots of 48-50,000 pounds. It may take order buyers several weeks to assemble 45-50 open heifers of that weight class to make a load.

Option 2: Feed them. Open replacement heifers are still of an acceptable age to be finished for slaughter. Most heifers at pregnancy check time are about 18 months of age and can be easily finished with 3-4 months of additional feeding. Local beef is in big demand and if slaughter space can be scheduled this may be an acceptable option.

Option 3: Retain ownership and send them to the feedlot. This is one option that most small to medium size cow calf producers have probably not considered. Recent data from the PVAP-Feedlot program on 18 open replacement heifers showed an average profit of \$132 per head while feeder calves on the same load lost \$98 per head. The primary reason for this difference is due to the discounted starting value of the open replacement heifers, however as you can see in the following table, the replacement heifers outgained and out graded the feeder calves.

Type	No Head	Start Wt.	Start Price (\$/cwt)	Final Wt.	Average Daily Gain	% Prime and CAB	Profit/Head (\$)
Replacement Heifers	18	1054	92.06	1517	3.99	83	131.64
Feeder Calves	45	733	125.27	1230	2.89	18	-97.89

There appears to be great potential for producers to pool open replacement heifers in late summer and send to the feedlot as opposed to selling at a discount. But there are some additional factors to consider.

Considerations for retaining ownership and finishing open replacement heifers:

- Be mindful of the age of heifers. Heifers that are skeletally mature may be downgraded to Commercial or Utility grade and severely discounted. Try not to feed heifers that are older than 20 months.
- Manage heifers much like feeder calves. Make sure to booster respiratory vaccines and deworm before shipping to the feedlot.
- If you choose to feed heifers on your farm and have never finished cattle, take advantage of upcoming Master Finishing programs that will be offered this fall.

TO REMAIN... economically viable, a beef cow must produce and wean a calf annually. One of the first steps in determining if a female will do that in 2022 is confirming yet this year that she is, indeed, with calf. No one plans for a cow or heifer to remain open, yet we all have some that fail to breed in a timely fashion, or at all. Considering the value of cull cows and cull bulls presently, the

reproductive and ultimately the economic efficiency of a beef herd can easily be enhanced with a post breeding pregnancy examination for every cow and heifer.

During the fifth session of the 2021 Ohio Beef Cattle Management School that was hosted via ZOOM by the Ohio State University Extension Beef Team this past winter, a portion of the program included discussion on the economic significance of confirming pregnancy in beef cows and the various diagnostic methods that are available.

Please click this link (<https://u.osu.edu/beef/2021/09/08/preg-checking-greater-economic-return/>) to access the recording.

HARVEST AID OPTIONS...for corn and soybeans include herbicides, frost, or both, as described in this OSU Extension C.O.R.N. newsletter: <https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/harvest-aids-corn-and-soybeans>.

Weedy fields should generally be harvested as late as possible to give maximum time for weeds to die and dry down and rot. Vines can be especially problematic, and burcucumber seems to be having a good year based on comments we have received. Our experience is that a combination of herbicide, time, and frost can be the most effective way to mitigate problems with vines. They need to become rotted and brittle enough to be prevent them from tangling up harvesting equipment.

One of the problems with preharvest herbicide applications is how to apply in mature crop, and how to maximize coverage of weeds with low-volume aerial applications. Low spray volume limits the effectiveness of contact herbicides labeled for this use – Gramoxone, Aim, Sharpen (soybeans only). Gramoxone can be effective for dessication of some weeds when applied by ground equipment in the recommended volume of 20 gpa. Sharpen and Aim are not likely be effective enough across a range of weed species unless mixed with another herbicide. Systemic herbicides will generally be the better choice in low-volume applications. Glyphosate and dicamba are labeled for use in corn and soybeans, and 2,4-D is labeled for use in corn only.

Information on preharvest herbicides is listed at the end of the corn and soybean herbicide description sections in the Weed Control Guide for Ohio, Indiana, and Illinois, and [here](#). The crop must be physiologically mature at time of herbicide application. Labels specify what the measure of this is – black layer formed, dented, % of pods with mature brown color, etc. The minimum interval between application and harvest to avoid residue problems is also specified, and ranges from 3 to 15 days.

ROADWAY LAWS...for farm machinery are discussed in this OSU Extension Ag Law publication: <https://farmoffice.osu.edu/sites/aglaw/files/site-library/Roadway%20Law%20Bulletin.pdf>. I encourage you to review and be familiar with the information contained in this publication.



NOXIOUS WEEDS... are plants that can injure agricultural crops and livestock due to their invasiveness, toxicity, and other harmful characteristics, and can also negatively impact people and ecosystems. Like most states, Ohio has established processes for minimizing the negative impacts of noxious weeds. This OSU Extension Ag Law Bulletin (<https://farmoffice.osu.edu/sites/aglaw/files/site-library/NoxiousWeedLawBulletin.pdf>). This OSU Extension Ag Law Bulletin (https://farmoffice.osu.edu/sites/aglaw/files/site-library/LawBulletins/Noxious_weed_law_procedures.pdf) describes in more detail the legal procedure for controlling noxious weeds.

C.O.R.N. LIVE...produced by OSU Extension returns September 16th from 8am – 9am and will feature a preview of the crop plots at the Farm Science Review. Nate Douridas, Farm Manager of the Molly Caren Ag Center, site of the Farm Science Review, will give an update on harvest as they begin to open fields for field demonstrations. He will give an early look at yields and moisture and what to expect during the field demonstrations this year. Then join us for a walk through the Agronomic Crops Plots. These plots demonstrate research conducted on farms around the state and offer CCA credit opportunities during the show. There is also an opportunity to learn about current and future advances in on-farm technology from the Digital Ag team. Join us online next Thursday, September 16, from 8-9am and be more prepared to make the most of your visit to Farm Science Review this year! Please register at <http://go.osu.edu/cornlive>. 1 CCA CEU in Crop Management has been applied for.



FARM SCIENCE REVIEW...will be held at the Molly Caren Agricultural Center on September 21, 22, and 23. Stop by the Extension office to purchase pre-sale tickets.



WHEAT MANAGEMENT TIPS...are presented in this OSU Extension C.O.R.N. newsletter:
<https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/wheat-management-fall-2021>. A few highlights:

- Select high-yielding varieties with high test weight, good straw strength, and adequate disease resistance. Do not jeopardize your investment by planting anything but the best yielding varieties that also have resistance to the important diseases in your area. Plant seed that has been properly cleaned to remove shriveled kernels and treated with a fungicide seed treatment to control seed-borne diseases. The 2021 Ohio Wheat Performance Test results can be found at: <https://ohiocroptest.cfaes.osu.edu/wheattrials/>
- Optimum seeding rates are between 1.2 and 1.6 million seeds/acre. For drills with 7.5-inch row spacing this is about 18 to 24 seeds per foot of row. When wheat is planted on time, actual seeding rate has little effect on yield, but high seeding rates (above 30 seeds per foot of row) increase lodging and risk of severe powdery mildew development next spring.
- Plant after the Hessian Fly Safe Date. Planting before the Fly Safe Date increases the risk of insect and disease problems, including Hessian fly and aphids carrying Barley Yellow Dwarf Virus. This disease is most damaging when plants are infected by the virus in the fall. The best time to plant is within 10 days after the Fly Safe Date



- Planting depth is critical for tiller development and winter survival. Plant seed 1.5 inches deep and make sure planting depth is uniform across the field. No-till wheat seeded into soybean stubble is ideal, but make sure the soybean residue is uniformly spread over the surface of the ground. Shallow planting is the main cause of low tiller numbers and poor winter survival due to heaving and freezing injury.
- Follow the Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat, and Alfalfa (https://agcrops.osu.edu/FertilityResources/tri-state_info). Apply 20 to 30 lbs. of actual nitrogen per acre at planting to promote fall tiller development. A soil test should be completed to determine phosphorus and potassium needs. Wheat requires more phosphorus than corn or soybean, and soil test levels should be maintained between 30-50 ppm (Mehlich-3 P) for optimum production. Do not add any phosphorus if soil test levels are higher than 50 ppm.
- For no-till wheat, select burndown herbicides to control existing weeds prior to planting. For more information on herbicide options, see: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-30/burndown-herbicides-no-till-wheat>

