

**COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES****July 13 (Edition #155)**

Scouting for and Diagnosis and Quantification of Tar Spot  
Tar Spot Q & A  
Arrested Ear Development in Corn  
Time to Step Up Pasture Management Planning . . . In Case It Stays Dry  
Prickly Pasture Pests  
Right of First Refusals  
A Look at Long-Term Care Impacts on Farming Operations  
A Glimpse at Farming and Legal Issues in Scandinavia  
Hungry Beetles Invade Local Yards and Gardens

**Coshocton County Extension**  
724 South 7<sup>th</sup> Street, Room 110  
Coshocton, Ohio 43812  
Phone: 740-622-2265  
Fax: 740-622-2197  
Email: [marrison.2@osu.edu](mailto:marrison.2@osu.edu)  
Web: <http://coshocton.osu.edu>

Hello Coshocton County! Glad to see a little rain last week—it was appreciated, but sure would like to see some more showers pop up. The weather forecast is expected to be stay dry so here is hoping that the early forecast for next week stays true in bringing some rain our way.

During our pesticide re-certification and agronomy schools this past winter, we shared information on one of the newest corn diseases in Ohio—this being TAR SPOT of Corn. Today, I am including two articles on this disease. Now is a great time to scout your fields for diseases and weed escapes.

When farmers make their estate plans, I know many are concerned about long term care issues. The National Agricultural Law Center will be hosting a great webinar next Wednesday, July 30 at noon featuring Coshocton County's own Robert Moore discussing this issue. Check out the article titled "A Look at Long-Term Care Impacts on Farming Operations" for registration details.

Stay cool and hydrated this week as it is going to be a muggy one!

Sincerely,

***David L. Marrison***

**Coshocton County OSU Extension ANR Educator**

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information visit:  
[go.osu.edu/cfaesdiversity](http://go.osu.edu/cfaesdiversity).



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

## Scouting for and Diagnosis and Quantification of Tar Spot

By: Dr. Pierce Paul and Jorge Valle

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-22/scouting-and-diagnosis-and-quantification-tar-spot>

Tar spot is relatively easy to diagnose based on visual symptoms. So as the crop develops you should begin scouting fields to determine:

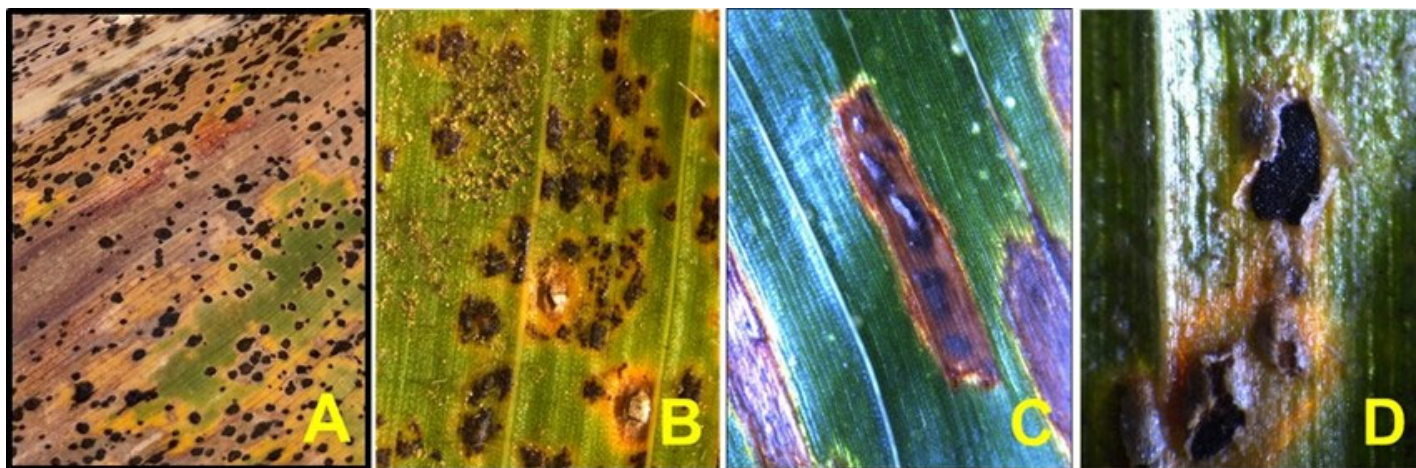
1. If tar spot is present
2. Estimate how much is there
3. Determine whether it is increasing over time
4. Decide whether you should consider making a fungicide application.

Walk down about 25-ft-of-row at 10 to 15 locations across the field and examine a pair of plants at every 10 steps for the present of tar spot. Make a note of the total number of plants examined and the total number with tar spot symptoms. Divide the last number by the first and multiply by 100 to estimate tar spot incidence. Repeat these steps every 5-7 days, particularly of conditions are wet and rainy, to determine if the disease in increasing over time.

**INCIDENCE = (number of plants with tar spot/total number of plants examined) x 100**

However, it may be difficult for untrained eyes to tell tar spot apart from a few other diseases. Yes, tar spot, as the name suggests, is characterized by the presence of raised, black, tar-like spots called stromata predominantly on leaf blades (A). However, not all raised, black, tar-like spots on a leaf are tar spot. Two other diseases that produce raised, blackish spots on leaves are southern rust (B) and common rust (C). Yes, it is true that rusts, as the name suggests, give leaves a typical yellowish-orangish rusty color, but this is the color of urediniospores, one of several types of spores produced by corn rust fungi. As the crop begins to dry down and temperatures drop, the rust fungi will produce a different type of spore called teliospores, and these develop in raised, blackish, structures called telia. Insect poop (frass) and dirt may also be confused with tar spot.

Here are a few tips to help you tell the difference between tar spot, rust telia, and insect frass. Tar spot stromata do not rupture the leaf or have a split on the top. In addition, they cannot be easily broken or rubbed away with your fingers like rust or insect frass. Rust telia usually break or rupture the upper surface of the leaf tissue (D), and if rubbed, the spores are released, leaving your finger with a dark-rusty to blackish tinge.



Tar Spot  
Stromata

Southern Rust  
Telia

Common Rust  
Telia

Close-up of Ruptured  
Rust Telia



## **Tar Spot Q&A**

By: Pierce Paul

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2020-21/tar-spot-qa>

### **Q: Is tar spot a late-season disease in Ohio?**

A: No, tar spot can develop at any time during the growing season. For the first few years after it was first reported in Ohio in 2018, tar spot was detected primarily towards the end of the season, giving the impression that it would likely be a late-season disease in the state. However, in 2021, symptoms were seen at the R1 growth state in some fields, suggesting that under the right set of conditions (moderate temperatures and extended wet periods), tar spot could develop much earlier than previously observed, if the hybrid is susceptible and spores are available. This is similar to what is being observed in neighboring states where the disease is established and considered to be endemic. So far in 2022, tar spot has been reported on V5-V6 plants in multiple Corn Belt states. This is not at all surprising, given that plants of any age are susceptible to infection by the tar spot fungus.



### **Q: Is tar spot mainly a problem in NW Ohio?**

A: No, tar spot can develop anywhere in the state. From 2018 to 2020, tar spot was most frequently detected in fields in the NW corner of the state. However, in 2021 it was reported in more than 30 counties, including a few in the southern and eastern portions of the state. During the first few years, tar spot development in Ohio was likely driven mainly by spores blowing in from neighboring states. Consequently, the location and timing of symptom development depended on where and when spores landed and whether conditions were favorable for them to infect. Since fields in NW Ohio are closer to states from which spores are likely blowing in, tar spot tends to show up first and reach higher levels in that region. In addition, in 2021, some fields in the NW had more frequent rainfall during the months of July and August than fields in other areas, contributing to more tar spot in that region of the state; rain is one of the main drivers of tar spot. However, as the disease becomes established and widespread, fields in other regions of the state will be affected and symptoms will develop early, if the hybrid is susceptible and weather conditions are favorable.

### **Q: Why is rain or moisture so important for tar spot development and spread?**

A: Moisture is important for spore production, release, and spread, and infection of the plant. Moisture is needed for the spores to ooze out of the stomata in which they are produced and then splashed into the air and carried by wind to new plants or fields. Moisture is also needed for spores to germinate and infect leaves, and for symptoms to develop.

### **Q: Why do some fields under rotation with soybean and/or tillage still show symptoms of tar spot?**

A: Wind can carry spores over long distances between fields within counties and even between counties and states. So, the reason why 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 develop tar spot is because spores are picked up and transported from field to field within and across states. If these spores land on the leaves of a susceptible hybrid under wet, humid conditions, they will germinate and penetrate, and symptoms of tar spot will develop.

### **Q: Can tar spot be controlled with fungicides?**

A: Yes, based on data from neighboring states, fungicides do show promising results against tar spot. We continue to evaluate products and application timing for efficacy in Ohio. So far, fungicides with multiple active

ingredients (AI) tend to be more consistently effective than single-AI fungicides, but no fungicide will provide 100% control of tar spot. In addition, fungicides are most effective when applied as soon as symptoms begin to develop and before the disease spreads. Applications made between R1 and R2 tend to give the best results.

For more on tar spot:

<https://agcrops.osu.edu/newsletter/corn-newsletter/2021-30/tar-spot-more-widespread-cross-state-ohio-2021>

<https://agcrops.osu.edu/newsletter/corn-newsletter/22-2021/tar-spot-showing-early-year-note-diagnosis>

<https://cropprotectionnetwork.org/resources/articles/diseases/tar-spot-of-corn>

<https://agcrops.osu.edu/newsletter/corn-newsletter/2020-03/tar-spot-corn>

## **Arrested Ear Development in Corn**

By: Dr. Osler Ortiz

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-22/arrested-ear-development-corn-%E2%80%93-how-avoid-them>

The crop season in Ohio is rapidly gaining progress. Depending on planting dates and hybrid relative maturities corn crop can be anywhere between early vegetative and up to tasseling. However, a vast majority of the crop is expected to be around the mid-to-late vegetative stages (Figure 1).

At this point, field issues can happen and be seen later in the season. If you are familiar with 'abnormal ears', many ear symptoms can fall into that, but this is the time when at least one of them can be mitigated: arrested ears (Figure 2). The term 'arrested' is used because the development of these ears is interrupted or stopped prematurely due to external factors.

**Symptom:** arrested ears (ear development arrested or stopped prematurely).

**Causal factor:** applications of nonionic surfactant (NIS) formulations.

**Development timing:** during the ear size determination period, from V6–V12; and up to V16.

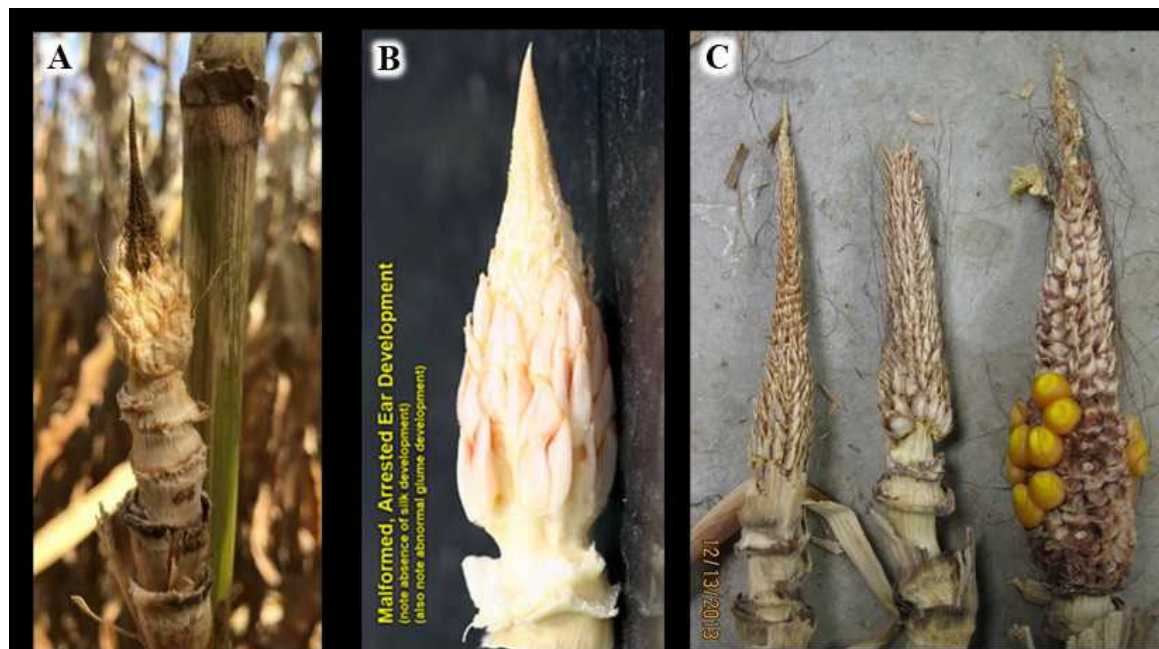


Figure 2. Arrested ear development likely caused by nonionic surfactant (NIS) applied during mid-to-late vegetative stages (V6 to V16, 6 to 16 collared leaves). Pictures: (a) Osler Ortiz, (b) Robert Nielsen, and (c) Peter Thomison.

From field observations, the timing of the causal factor for arrested ears coincided with the timing of pesticide spray applications (e.g., post-emergence herbicide; and pre-tassel fungicide and insecticide applications), which often include nonionic surfactants (NIS) in the tank-mix (note: NIS may be already included in some pesticide products). Researchers started to look closely at nonionic surfactants as the potential cause. Years later, results confirmed nonionic surfactants (not the pesticide!) as the cause when applied anywhere between V6 and up to V16 stage in corn. The percentage of plants affected depended on hybrid, the plant stage when applications were made (e.g., applications at V15 resulting in more arrested ears than V11 applications), and management conditions that promoted faster plant growth (e.g., water and nutrient availability).

The partial solution to this phenomenon is to avoid applications of nonionic surfactants (NIS) during sensitive development stages in corn: V6 to V18 (6 to 18 collared leaves). For this and other reasons, understanding and keeping track of crop growth and development through the season is critical, especially when considering field applications. Development staging misunderstandings and applications at the wrong time can be conducive to these and many other issues. When staging, it is recommended to use the leaf collar method. At later vegetative stages, younger leaves have often senesced, [staging using the split-stalk technique](#) will help.

Regarding abnormal ears in general, several complexities and questions still need answers but with the knowledge available, abnormal ears can be seen as result of an “expression triangle” where susceptible hybrids, conducive environmental conditions, and unfavorable management practices can conduct to abnormal ears. A classic example of this expression triangle is arrested ears. To learn more about this and other issues related to abnormal ears, a review of the literature is summarized here: <https://doi.org/10.1002/ajq2.20986>.

During the growing season, the crop’s exposure to unfavorable conditions can negatively affect ear formation and produce abnormal ears. Abnormal ears decrease yield and can reduce grain quality.

## References

- Schmitz, G.L., Fassler, N.T., Fellows, G.M., Shirley, A.M., Chamblee, R. W., Finch, C. W., Storr, M. A., Vassalotti, P. M., Klingaman, T. D., Thomas, W. E., & Rathmann, D. P. 2011. Arrested ear development in corn caused by a component of certain surfactants. *Agronomy Journal*, 103(6), 1697–1703. <https://doi.org/10.2134/agronj2011.0048>
- Orteza, O. A., McMechan, A. J., Hoegemeyer, T., Ciampitti, I. A., Nielsen, R., Thomison, P. R., & Elmore, R. W. 2022. Abnormal ear development in corn: A review. *Agronomy Journal*, 114, 1168– 1183. <https://doi.org/10.1002/ajq2.20986>
- Orteza, O. A., McMechan, A. J., Hoegemeyer, T., Ciampitti, I. A., Nielsen, R. L., Thomison, P., Abendroth, L. J., & Elmore, R. W. 2022. Conditions potentially affecting corn ear formation, yield, and abnormal ears: A review. *Crop, Forage & Turfgrass Management*, 8, e20173. <https://doi.org/10.1002/cft2.20173>
- Orteza, O. A., McMechan, A. J., Hoegemeyer, T., Rees, J., Jackson-Ziems, T., & Elmore, R. W. 2022. Abnormal ear development in corn: A field survey. *Agrosystems, Geosciences & Environment*, 5:e20242. <https://doi.org/10.1002/agg2.20242>
- Rees, J., Elmore, R., Jhala, A., Jackson-Ziems, T., & Sivits, S. 2020. Corn Ear Development Impacts from Post-emergence Pesticide Applications. The University of Nebraska Extension, CropWatch. <https://cropwatch.unl.edu/2020/corn-ear-development-impacts-post-emergence-pesticide-applications>

## **Time to Step Up Pasture Management**

By: [Haley Shoemaker](#), OSU Extension AGNR Educator, Columbiana and Mahoning Counties

Source: <https://u.osu.edu/beef/2022/07/13/summers-here-nows-the-time-to-step-up-those-pasture-management-practices/>

It can be tempting to set pasture management on cruise control once summer rolls around – plants are still lush and green from the springtime, and tasks such as making hay tend to bump grazing rotations down the priority ladder. However, if a producer has grazed for any amount of time, they know all too well the impact hot and dry weather can have on a forage stand if managed improperly. As the traditional July heat builds and we head into a period of slower growth and increased recovery time for our pastures, there are some tried and true management practices that can maintain pasture productivity and success for grazing seasons to come.

## **Resist the urge to overgraze**

There’s a long-held principle within the grazing community known as “take half, leave half”. In essence, this means that grazing should ideally begin once a pasture reaches an average of 8-10 inches of plant height. Once that forage is grazed to approximately 4 inches (think pop can height), cattle should be moved to the next

pasture. One of the primary benefits here is the preservation of root mass – when at least half of the leaf area of the plant is left, photosynthesis can still occur, and plants have the chance to continue growth.

Allowing cattle to overgraze and remove excessive amounts of leaf area not only leads to decreased root mass and energy reserves within the plant, but also leads to increased soil temperatures, which can prove especially challenging for our cool season grasses. Essentially, when a grazing system works as it should, the leaf acts as the barrier between the sun and soil, taking up sunlight as needed, and providing shade and helping to prevent evaporation of soil moisture.

### **Keep it moving . . . but not too fast**

We've probably all felt the urge to speed up our rotation when the days are long, hot, and dry. Yet, while moving cattle through pastures at a slower pace during these periods may seem counterintuitive, it is actually recommended in order to give plants adequate time to rest and recover. The key to avoid grazing yourself out of pasture space is to first determine the number of lots or paddocks needed. There are a multitude of calculations and formulas dedicated to just this topic, however in this case number of pasture breaks can be calculated by dividing the days of rest needed for recovery by the number of days cattle will spend grazing + 1. Studies have shown that pastures tend to need upwards of 35 days to fully recover to proper grazing height during the summer months, and that beef rotations may last anywhere from 3 to 5 days in length. However, the days needed to graze to 4 inches can vary slightly between herds depending on development stage of cattle grazing and size of the paddock.

All this considered, it is still important to remember that even the best laid plans are subject to weather patterns and the ability of our pastures to recover during those dry spells, even with appropriate recovery time. If it becomes evident that turning cattle out according to the grazing schedule will cause unnecessary stress to the pasture or lead to overgrazing, stored forage or a sacrifice lot may need to be fed or utilized in order to meet nutritional needs.

### **Use summer to plan ahead for fall and winter grazing**

The benefits of grazing don't have to end in August – in fact, that's when our pastures can work on getting their "second wind." Stockpiling, the practice of allowing forage to build up for use during the winter months, requires a little pre-planning on the producer's part, however can pay off in the long run through less reliance on stored forage throughout those cold months, and more bang for your buck in terms of pasture usage. The key to successfully setting up your pastures for stockpiling is to remove cattle before the cold sets in, and before pastures go dormant – typically in the early to middle parts of August. When the cattle are pulled off, this can serve as the "last pass" for the season, or if needed, pastures can be clipped down to 3-5" to spur the regrowth needed for stockpiling. It is worth noting that forage variety does matter when considering the timing of grazing stockpiled forages. Common pasture grasses such as orchardgrass or tall fescue can hold up into the early winter and beyond, whereas legume species such as alfalfa or red clover are not as tolerant of sustained cooler temperatures and should be grazed during fall.

Summer is a busy time on all fronts but investing in your pastures during these months can save time and precious dollars down the road in the form of reduced feed costs. After all, everything needs to pull its weight in some way on the farm, so why not do yourself a favor, and set up your pastures to work for you?

### ***Planning...In Case It Stays Dry***

By: Victor Shelton, Retired NRCS Agronomist/Grazing Specialist

Source: <https://u.osu.edu/beef/2022/07/06/planning-in-case-it-stays-dry/>

As I write this on July 1, the weather certainly has changed. Some areas that were very wet for so long this spring are now dry. Ideally, a nice rain about every seven to 10 days would be what I would order if I could. Much more than 10 days and we are starting to be on the dry side. It is true that a drought is only about 14 days away at any point in time.



You can always reduce drought risk by making sure you are maintaining good soil cover, not over grazing and keeping the ground cool. This is easily done by maintaining at least 4 inches of live growth for cool season forages and 6 inches or more for warm season forages. That stop grazing height is the shortest forage left, not the tallest. If it is the tallest, you have already overgrazed it. If so, stop and let it rest as long as possible before grazing again.

Overgrazing when your area enters into droughty conditions or possible droughty conditions reduces the resilience of the plant. Most cool season forages have about as much active live roots below ground as they have growing forage above ground. Shortly grazed forage will therefore be less drought tolerate due to shorter roots lacking the ability to get to deeper moisture. Overgrazing also reduces livestock intake, yield potential, and the quality of the stand while stressing the forages.

If you do have any moisture, then it is an ideal time to plant some brassicas for late summer and fall use. Forage type brassicas are highly productive and digestible and usually can be grazed within 75 days after seeding, sometimes earlier. Brassicas need moisture to get started and for speedy growth and good yield. Summer seeded brassicas — seeded now to August — can help supplement forages and also help extend the grazing season. Turnips and rape can be planted almost the whole growing season as long as sufficient soil moisture is present. They mix well with Italian ryegrass for fall/winter grazing or with sorghum-sudangrass or millets for summer grazing. The common purple top turnip can yield over 10,000 pounds per acre of dry matter and provide an average 12-20% crude protein.

Brassicas do best when planted into a firm seedbed at a very shallow depth (1/4 inch or less), which means barely scratching the surface (if no-till drilling them) and good control of any growth is essential. Tilled ground should be cultipacked, broadcast seeded and then cultipacked again after seeding. Most brassicas are seeded at about 4-pounds per acre.

When possible, the ability to graze some dry forage and some brassicas at the same time is optimal. Brassicas contain a lot of water and crude protein but lack much fiber, and gains will be best when grazed with some dry material available to help maintain that rumen mat. Turnips will regrow if the growing point at the top of the bulb is not removed. Ideally, leave at least 4-6 inches of growth if you want to graze it again. Kale can be seeded for fall/winter use with a light seeded cereal rye which can provide some good fall grazing and then more grazing the following spring. Oats are another option to mix with turnips for spring or fall use. I love the mix of oats, turnips and cereal rye for a later summer seeding. You can get a lot of really good grazing in the early fall out this mix and also into the late fall and still have the cereal rye for spring grazing, all while providing great cover, some allelopathic weed control and soil building benefits. Get seed now if you are thinking about doing this.

We still have a couple more weeks where warm season annuals such as sorghum-sudangrass, sudangrass and millets could be planted. The southern half of Indiana could extend this planting period to the end of the month as long as some moisture is available. I would strongly recommend a brown midrib variety of the sorghum-sudangrass for higher digestibility. Besides brassicas, cowpeas mix fairly well with these warm season annuals and add nutritional value. You only get one grazing or harvest from the cowpeas and they are best utilized by strip grazing in daily or small allocations.

More diverse mixes of annuals can also be utilized for grazing. Sometimes planting a forage crop after wheat is better than double crop soybeans and can certainly be a nutrient and soil builder for the next crop. The more diverse mixes could include soybeans, cowpeas, sorghum-sudangrass, pearl millet, foxtail millet, turnips, daikon radishes, kale, and sunflowers.

We are just a few weeks away from the start of the fall seeding period for cool-season grasses. With this in mind, it would be good to start thinking ahead about seed, fertility, lime and land preparation. I would strongly suggest that you assess the present stand before starting this endeavor this year due to inputs – if you can wait, wait.

If a new seeding is happening and the land is presently pasture or hay ground, then taking a late cutting or grazing it shorter than normal is a good place to start. If you are going to be establishing new grass, then it is best to completely kill out the existing stand completely. Trying to inter-seed grass into grass is normally a waste of time, money and of course seed purely because of competition of the existing vegetation. This is especially important if you want to move away from endophyte infected tall fescue.

Shop and choose a high-quality seed, named varieties and from reputable companies. Do the math and seed at pure live seed (PLS) rates. Take the amount of seed needed (4 lbs./Ac PLS) and divide it by (percent purity x percent germination); 4 lbs. divided by (.95x.80) = 5.26 pounds of seed needed per acre. A well established and managed forage crop should last for many years so take the time to do it right and it will pay you back in dividends for a long time.

I'm already seeing some white snakeroot. This is a poisonous plant that can be found on the edges of pasture, especially associated with some shade. It generally is avoided by livestock unless there is little else to eat.

Also watch for drought-stressed forages that may be higher in prussic acid, especially sorghum Sudan's, Sudangrass, and Johnsongrass. If in doubt or concerned, test before grazing. If it is wilted, it is probably safer to wait.

Remember, it's not about maximizing a grazing event, but maximizing a grazing season! Don't get carried away with the hay, just manage advantageous grazing avenues — yep, keep on grazing!

## **Prickly Pasture Pests**

By: [Christine Gelley](#), Agriculture and Natural Resources Educator, Noble County OSU Extension

Source: <https://u.osu.edu/beef/2022/07/13/prickly-pasture-pests/>

Horsenettle is a member of the tomato family, and the berries are not safe to eat.

A couple pesky and prickly weeds that often go unnoticed until mid-summer in pastures and hayfields are common cocklebur and horsenettle. Both have the potential to cause toxicities if consumed in high enough amounts. As mentioned in prior articles, the most common situations where animals are poisoned by toxic plants occur when there isn't enough good forage to eat. Overgrazed pastures or forced feeding of hay containing toxic plants are more often the cause of a poisoning than the plant itself. The amount of plant material that must be consumed to create a negative reaction depends on the species, age, and stage of the animal and the plant.

Horsenettle is a member of the Solanaceae (tomato) family. Its leaves and flowers are similar in appearance to tomatoes, except the leaf midvein on the underside of the leaf is lined with sharp spines. The berries of the plant will appear similar to yellow cherry tomatoes when mature. Although they look safe to eat, they are not. While all parts of the plant can be toxic, the berries are most problematic. Horsenettle is an opportunistic and persistent perennial plant.



Cocklebur, a growing concern in Ohio pastures, can be toxic to livestock. Cocklebur is a summer annual weed from the Asteraceae (daisy) family. Unlike many of its relatives, cocklebur looks nothing like a daisy. The mature leaves of the plant look similar to the leaves of a sycamore tree, with irregularly lobed and toothed leaf margins. The flower it produces is usually unnoticed because it is green. The fruit it produces is a cluster of egg-shaped burs that easily catch on and hitch a ride on the hide of animals that pass by. Cocklebur can be especially damaging to animals with





fiber value, such as sheep.

Neither plant is appealing from a grazing perspective due to the hairy leaves and prickly plant tissue, but extremely hungry animals or those without grazing experience may be tempted to taste them. Poisonings are more common when the plant tissue is unavoidable in hay. Although the drying process of haymaking reduces the toxins present in the plant tissue, they are not eliminated.

Mowing is not very effective for cocklebur or horsenettle due to their ability to flower and produce seed so low to the ground. Tillage can be tempting, but will often stir up additional weed seed in the soil bank. Herbicides containing aminopyralid, clopyralid, 2,4-D, dicamba, metsulfuron methyl, triclopyr, and/or glyphosate are generally effective either as broadcast sprays or targeted sprays for cocklebur, but horsenettle is susceptible to fewer herbicides. Aminopyralid, metsulfuron methyl, triclopyr, and glyphosate provide 80 percent or better control on horsenettle.

Outside of herbicide application, planting a summer cover crop may provide enough competition to smother both of these weeds by creating shade and utilizing water and nutrients more effectively. This may be best accomplished with the use of a no-till drill to seed an annual grass species. Multiple growing seasons of this practice may be required before a noticeable difference is seen. Keeping up with soil fertility should always be a priority as well to allow desirable plants to thrive and reduce the window of opportunity for harmful plants such as these to establish.

## ***Right of First Refusals***

By: Robert Moore, Attorney and Research Specialist, OSU Agricultural & Resource Law Program

Source: <https://farmoffice.osu.edu/blog/fri-07082022-358pm/right-first-refusals>

A Right of First Refusal (ROFR) is a contract between the owner of the real estate and the person who is receiving the right to purchase (Holder). If the owner wishes to sell or transfer the property, the Holder has a legal right to purchase the property subject to the terms and conditions of the ROFR. If the Holder does not exercise their right to purchase the property, the owner can transfer the property to the third-party buyer. A ROFR can be an effective way to help keep land ownership in the family.

A ROFR can be established in a number of ways including on a deed. However, in most situations the best method of creating a ROFR is a stand-alone document that is recorded with the county recorder. By using a separate document, the terms and conditions of the ROFR can be clearly expressed to avoid future confusion or conflict.



There are a number of terms and conditions to include in a ROFR. Perhaps the most important term is how to determine purchase price. One way to establish the purchase price is by matching a bona fide offer. Upon receiving an offer to purchase the land, the owner offers to sell the land at that same price to the Holder. If the Holder declines to purchase the land at that price, the owner is free to sell to the third party at that price.

Another way to establish the purchase price is by appraisal. If the appraisal method is used to establish the purchase price, a multi-step approach should be considered to avoid the effect of an outlier appraisal. For example, the owner can obtain an appraisal first. If the Holder objects to the owner's appraisal, the Holder can obtain an appraisal of their own. If the two appraisals do not match or not within a certain percentage of each, the owner and Holder agree on a third appraisal. After the third appraisal is conducted, the middle appraisal of the three establishes the purchase price. Also, any qualifications for appraisers, such as a licensed or unaffiliated with the parties, should be included in the terms.

Sometimes both the offer matching and appraisal will be used in a ROFR to establish the purchase price. Terms may include using the lesser of an offer and an appraisal for the purchase price. Or, if there is no offer and the owner would like to sell, then the appraisal method is used to establish the purchase price. The important thing is to make it very clear how the purchase price is established to avoid disputes between the owner and potential buyer.

Timelines should be included in the ROFR. Timelines should be included for:

- Number of days to provide an offer to the Holder
- Number of days to establish the purchase price by appraisal
- Number of days to accept or reject an offer by the Holder
- Number of days to close the purchase

An additional term to consider is what transfers are exempt from the ROFR. The owner of the land may want to be able to transfer to their family or spouse without triggering the ROFR. Therefore, the ROFR should specifically state any transfers that are exempt. The most common exempt transfers are those transfers to descendants and spouses.

Another important provision is the length of term of the ROFR. The ROFR should have a limit on its term whether it be a number of years or for the life of the owner. A ROFR that goes on generation after generation can cause big problems for a future owner because the Holder or their heirs may be difficult to find and/or cooperate.

Consider the following example of a common way in which a ROFR is used.

Mom and Dad want to gift five acres to their daughter, Jane, so that she can build a house. Mom and Dad's only concern is that they do not want the five acres to leave the family because it sits in the middle of their farmland. Mom and Dad gift the five acres to Jane and enter into a ROFR at the same time. The ROFR requires Jane to offer Mom and Dad the first chance to buy the five acres before Jane transfers it. An exception is made that Jane may transfer the land to her children without triggering the ROFR. The purchase price is established by a three-step appraisal price with the appropriate timelines included. The ROFR will be in effect for the next 30 years and then will expire.

The ROFR gives Mom and Dad the assurance that Jane will not be able to simply sell the property to someone outside of the family. Without the ROFR, Mom and Dad may be reluctant to gift the land for fear of Jane transferring the land to someone else. The ROFR allows Jane to have full ownership of the property and the discretion to build a house as she wishes but also protects Mom and Dad from having an unwanted neighbor.

ROFRs can be effective in real estate transfers, particularly among family members, and in estate planning. Keep ROFRs in mind the next time you are considering transferring real estate or as you design your estate plan that includes real estate. A ROFR should be drafted with the assistance of an attorney to be sure that all the important terms and provisions are included, and it is executed and recorded property.

## ***A Look at Long-Term Care Impacts on Farming Operations***

By: Peggy Kirk Hall, Associate Professor, Agricultural & Resource Law

Source: <https://farmoffice.osu.edu/news/webinar-long-term-care-impacts-farming-operations>

Do you worry about the possibility of long-term care needs and how those needs might affect your farming operation or family farmland? We'll examine that issue in an upcoming webinar for the National Agricultural Law Center. Join OSU Attorney and Research Specialist Robert Moore for the webinar, "Long-Term Care Impacts on Farming Operations."



Long-term care costs can be a significant threat to family farming operations. Nursing homes can cost around \$100,000 per year, an expense that some farms cannot absorb while remaining viable. That's why many farmers believe long-term care will force the sale of farm assets, including farmland. But statistics and data indicate that, on average, this may not be the case and that the average farmer can likely absorb the costs of long-term care. However, few farms can withstand the outlier scenario: where many years are spent in a long-term care facility.

In this webinar, Robert Moore will explore the costs and likelihood of needing long-term care. Using this data, he will analyze normal scenarios and the dreaded outlier scenarios of long stays in nursing homes. By understanding the actual risks of long-term care costs, we can better understand and assess strategies that can mitigate long-term care risks. Robert will review several strategies attorneys can use to lessen the exposure of farm assets to long-term care costs.

The National Agricultural Law Center (NALC) will host the webinar at noon on July 20. OSU's Agricultural & Resource Law Program is a research partner of NALC, and Robert's work is the result of funding provided by the USDA National Agricultural Library through our partnership with NALC. There is no fee for the event, but registration is required. Register at <https://nationalaglawcenter.org/webinars/longtermcare/>.

### ***A Glimpse at Farming and Legal Issues in Scandinavia***

By: Peggy Kirk Hall, Associate Professor, Agricultural & Resource Law

Source: <https://farmoffice.osu.edu/blog/tue-07122022-938am/glimpse-farming-and-legal-issues-scandinavia>

I had the good fortune recently to attend the International Farm Management Congress in Copenhagen, Denmark, along with the pre-conference tour of farms through Norway and Sweden. It was not only a beautiful trip, but an opportunity to view farming practices and legal issues in other parts of the world. Some practices and issues were surprisingly familiar while others were quite different. As I visited farms interacted with farm operators and agricultural business owners, I developed a list of observations about the similarities and differences. Here are a few of those observations.

**Farmland should stay in the family.** Very old “allodial” and “concession” laws in Norway and Sweden prevent agricultural property from being sold outside the family or divided into smaller parcels and grant the eldest heir the right to inherit the property. It works. We visited several farms that had been in the same family for 12 to 14 generations.

**Environmental compliance and sustainability goals present both challenges and opportunities.** Norway, Denmark, and Sweden have aggressive goals to reduce carbon emissions. While some businesses noted the challenges of complying with air and water regulations, they were committed to change because consumers want “more sustainable” products and experiences.

**Agritourism includes sleepovers.** We visited several farms that capitalize on people's desires to be on a farm, but they also include opportunities to stay over in a hotel or “caravan park” (campground) on the farm, and several also offer spa experiences. The “farm stay” concept that is so common in Scandinavia is just now beginning to spread across the U.S.

**Animal welfare laws concern livestock operators.** As we see here in the U.S., new regulations on livestock housing have affected the bottom line of operators forced to make housing changes. Several operators noted the financial challenges of complying with new requirements, with some choosing not to continue under the new laws.





**Cooperative models are thriving.** We visited a cooperative for fruit and vegetable producers in a mountain region of Norway, a sheep farm that developed a slaughterhouse to manage processing for other local livestock operators, and a start-up processing facility for pea and legume growers in Sweden, all using cooperative business structures similar to ours here in the U.S.

While some of the issues vary in Scandinavia, the attachment to farming is not all that different. One of my favorite quotes from the trip illustrates the similarity. The father in a father-son operation stated to us: “We are proudly farming, growing wheat and potatoes and having chickens.” Proudly farming—a practice shared by U.S. and Scandinavia farmers alike, in the midst of varying legal issues and opportunities.

Learn more about the International Farm Management Association at <https://www.ifma.network/>. The next IFMA Congress takes place in 2024 in Saskatchewan, Canada.

### ***Hungry Beetles Invade Local Yards and Gardens***

From the calls we have received in the Extension Office, Japanese beetles have begun to feed on plants in our area. Beetles are easily recognized by their relatively large size, about a half inch in length, and showy colors. The fore wings, also called hard wing coverings, are bronze to coppery-brown in color. The head and the middle part of the body are a metallic green.

Japanese beetles are voracious leaf feeders. They have been known to feed on 350 plant species. Their favorite plants include rose, hollyhock, hibiscus, linden, maple, viburnum, grape, raspberry, apple, and cherry.

The Japanese beetle was accidentally introduced into the United States on horticultural nursery stock in 1916 in New Jersey. It has continued to expand its range to every state east of the Mississippi River, except for Florida. In recent years, significant populations have begun to appear west of the Mississippi moving into the states of the Great Plains. So far, it has not crossed the Rocky Mountain Range.

Japanese beetles have four developmental stages: egg, larva, pupa, and adult. The larvae are a greyish white in color, one inch in length, and appear as a curved or C-shaped grub. Grubs live in the soil feeding on plant roots of grasses, shrubs, and ornamental plants. Dead spots can form in lawns if populations are large enough. Adults like moist soils to lay eggs, so yards, gardens, and mulched areas are ideal egg laying sites. Grubs do not move far from their hatching spot.



Adults will emerge from the soil in late June to mid-July. Beetles will feed on outer leaves, flowers, and over-ripe and wounded fruit. Beetles will eat the tissue between veins leaving only the major veins, often described as a skeletonized leaf.

Beetles prefer plants with broad leaves. Even though they generally do not feed on leaves of field and sweet corn, they will eat the silks. The silks may be completely devoured if the populations are large enough on a given ear, which may interfere with pollination.

Japanese beetles also feed on soybean, but the damage is seldom severe enough to justify an insecticide. However, country homes that are near soybean plants often have more problems since the beetles can easily move from fields to nearby trees and gardens.

Beetles are most active in the afternoon and full sun. Besides eating, they will also mate during this time and lay eggs. Grassy areas are their preferred egg-laying site. Eggs will be laid 2 to 4 inches deep in the soil and hatch in about two weeks. Eggs and larvae need moist conditions to survive. Egg and larval populations can be diminished if a long dry spell occurs in mid-July.

Newly hatched grubs will grow quickly and will move to 1 to 2 inches below the soil surface by the time they

reach their maximum length. Grubs will move deeper in dry soils. As soil temperatures cool in the fall, they will move 4 to 6 inches from the surface to overwinter but have the capacity to move deeper to get below the soil freeze line.

The grubs will become inactive once the soil temperature reaches 50°F. The grubs will become active again in the spring when the soil temperatures rise above 50. At this time, they will move back closer to the soil surface and feed for 3 to 5 weeks. After this feeding period, they will pupate and begin to emerge as adults in late June.

Control options for Japanese beetles can be as easy as removal by hand if populations are low. The removal of the first beetles that arrive in an area will often reduce populations. These early beetles act as scouts and inform other beetles of good feeding areas.

Japanese beetle traps generally are not an effective control method for a single yard. The pheromone bait used in these traps may actually bring more beetles to an area than are captured in the trap. There has been some evidence that traps may reduce future beetle populations if strategically placed in a neighborhood away from susceptible plants.

Many insecticides are effective in controlling Japanese beetles. Retail products vary by name, but the active ingredients should be cyfluthrin, bifenthrin, deltamethrin, lambda cyhalothrin, esfenvalerate, permethrin, and carbaryl.

Pyrethroid products, such as permethrin and bifenthrin, should be effective for 2 to 3 weeks. Carbaryl (Sevin) provides protection for about 10 to 14 days. Neem oil and products containing spinosad are organic insecticide options. Whatever product is selected, it must have Japanese beetle control listed on the label. Read and follow all label directions. Do not apply insecticide at a higher rate than listed on the label.

Japanese beetle activity will continue through July and early August. Beetles survive about 30 to 45 days after emergence. Several control methods may be used depending on population levels and the species of plant under attack. The U.S. Department of Agriculture Animal and Plant Health Inspection Service has an excellent bulletin for homeowners:

[https://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/jb/downloads/JBhandbook.pdf](https://www.aphis.usda.gov/plant_health/plant_pest_info/jb/downloads/JBhandbook.pdf)

The Ohio State University Extension also has information at the following URL's:

<https://ohioline.osu.edu/factsheet/ENT-46>

<https://bygl.osu.edu/node/2010>

