

**COSHOCTON COUNTY AGRICULTURE & NATURAL RESOURCES****June 15 (Edition #151)**

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of Land (Part 2)  
Gary Graham Inducted into Maple Syrup  
Hall of Fame  
Name that Tree Workshop Slated for  
June 29

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Hello Coshocton County! Not very often do I wake up in the middle of the night from a thunderstorm, but the storms of early Tuesday morning jolted me awake. Lots of trees down across the county—so thankful for all the township trustees, power company employees, and first responders who assist so many. Hopefully all will have their power re-stored,

With the excessive heat, I went back into the archives and found a nice article on heat stress and beef cattle that Dr. Steve Boyles wrote a decade ago—still great information for today. Keep them cool, move the air and provide lots of cool water (for both humans and animals!).

With the delay in planting, I also included a reminder article on the prevent plant option as some of you may be considering this option. Congratulations also to our friend Dr. Gary Graham in Holmes County for being elected in the Maple Syrup Hall of Fame!

Be safe and hydrated. Have a great week!

Sincerely,

*David L. Marrison*

**Coshocton County OSU Extension ANR Educator**

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



By: [Ian M. Sheldon](#), Professor and Andersons Chair of ***Heat Ukraine: The Breadbasket of Europe***

By: Dr. Ian Sheldon, Professor and Andersons Chair of Agricultural Marketing, Trade, and Policy, Agricultural, Environmental, and Development Economics, Ohio State University

Source: <https://origins.osu.edu/read/ukraine-food-war-agriculture>

After Russia launched its [invasion of Ukraine](#) on February 24, 2022, international agencies such as the Food and Agriculture Organization (FAO) of the United Nations (UN) expressed significant concern about the war's impact on global agricultural commodity markets: the disruption to Ukrainian agricultural production and exports and the expected knock-on effects to the world price of staples such as wheat and to the food security of developing countries.

While one would expect an organization such as the FAO to be informed on food questions, the sheer number of stories in the popular media suggest the wider world had been unaware that Ukraine is so important to the world's food supply.

In fact, since the [collapse of the Soviet Union](#) in 1991, Ukraine has returned to its pre-revolutionary position as a major agricultural exporter of key commodities. It has a significant global market share by volume in wheat (10%), barley (13%), corn (15%), and sunflower oil (50%) and is ranked the fifth, second, third, and first largest exporter respectively of these crops.

Ukraine has close to 104 million acres of agricultural land, of which 79 million are currently cultivated, an area larger than Italy, making it one of the most highly cultivated countries in the world. It has several advantages in producing agricultural commodities: a favorable climate and high-quality soils, half of which are the fertile chernozem or black soils; lower costs of production than its European and North American competitors; and access to deep seaports on the Black Sea.

Ukraine's emergence as a principal player in global agricultural markets has evolved over the past two decades. Before its breakup, the USSR was an importer of grain largely due to a decision in the early 1970s to expand the livestock sector as a means of increasing consumption of meat and dairy products.

Through subsidies, as well as price and trade controls, meat production increased by over 60% between 1970 and 1990. However, the Soviet Union could not produce enough animal feed to support its growing livestock sector and, as a result, it became a major importer of animal feed to the benefit of North American and Australian farmers. During the late-Soviet period of 1987-91, 35 million tons of grain were imported per year.



[Wheat harvest on a collective farm near Lviv, Ukraine, 1991.](#) (top)

[Soviet propaganda in Ukraine promoting the agricultural developments of the ninth Five Year Plan from 1971-1975.](#) (Image by [daves archive1](#)) (below)





Following the collapse of the Soviet Union and its subsequent economic transformation, expansion of the livestock sector was reversed as subsidies were largely eliminated. Russia, Ukraine, and Kazakhstan all became net meat importers. At the same time, between them they ended up exporting 36 million tons of grain per year by 2010, with Ukraine accounting for 40% of those exports.

The grain trade turnaround in Ukraine has been impressive, but during the transition in the 1990s, its agricultural sector witnessed a significant drop in production as it moved away from a legacy of distorted prices, inefficient collectivization, and government intervention. It was not until the late 1990s that structural reforms in the agricultural sector really began to occur, with privatization and restructuring of collective farms.

Looking back to the collapse of the Soviet Union, it would have been rather optimistic to have forecast Ukraine's rise to being a major agricultural exporter, but land reform and technological change made it possible.



[A carriage transports hay near Ivano-Frankivsk Oblast, Ukraine in 2012.](#)

Land reform resulted in the development of large-scale, privately-operated farms with owners investing in new technology and introducing best management practices. The net result has been increased crop area, especially for corn and oilseeds, and higher productivity.

By 2018, cereal yields had increased by almost 40%. Ukraine re-established itself as the “breadbasket” of Europe. In the language of economist David Ricardo, Ukraine is now truly exploiting its “comparative advantage.”

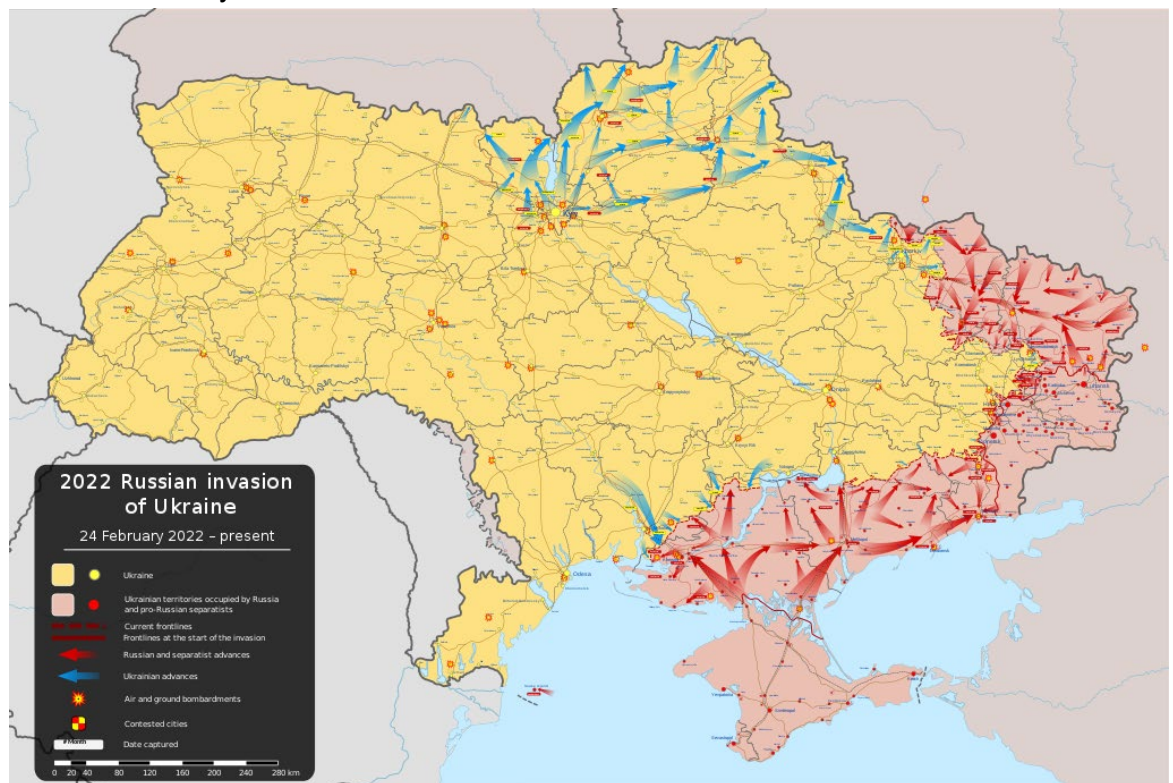
With Russia currently controlling a large portion of Ukraine's cultivated agricultural land in the south, as well as blockading ports on the Black Sea, a significant amount of grain for export is stranded in Ukraine.

There has also been a significant reduction in the

planting of spring crops this year.

Prior to the

invasion, 90% of Ukraine's exports went through the Black Sea ports at 5 million tons per month, a rate



[Map of the situation in Ukraine as of June 7, 2022. Yellow represents territory held by Ukrainian forces and red represents Russian held territory.](#)

currently down to 0.5 million tons per month, most of which is being transported by rail to Ukraine's western border.

Not surprisingly a market shock of this magnitude has affected both the volatility and level of grain prices. In turn, the increase in grain prices is having a significant effect on global food prices and hence food security. The G7 countries predict 43 million people are being pushed towards famine.

The UN World Food Program estimates that the cost of buying food will rise by \$23 per month – a significant increase to those living on \$1.90 per day, the World Bank definition of poverty. Countries in the Middle East and North Africa such as Egypt, Lebanon, and Tunisia are very dependent on grain imports from both Ukraine and Russia. The risk of food price inflation could stir up political and social unrest.



[Empty shelves at a supermarket in Germany, 2022. \(Image by 7C0\)](#)

In addition, other exporting countries are adopting “beggar-thy-neighbor”-type controls on grain exports to protect their own populations that will simply intensify the food price spike. Importantly, even before the invasion, global food markets were under pressure from the effects of the pandemic, climate change and an energy price shock. Disruption to Ukrainian agricultural production and trade is simply adding to what The Economist magazine recently described on its front-page as [“The Coming Food Catastrophe.”](#)

#### Learn More:

- Joseph W. Glauber and David Laborde, “How Russia’s Invasion of Ukraine Is Affecting Global Agricultural Markets,” AEI, May 2022. <https://www.aei.org/research-products/report/how-russias-invasion-of-ukraine-is-affecting-global-agricultural-markets/>
- International Food Policy Research Institute, <https://www.ifpri.org/landing/war-ukraine-blog-landing-page>
- Tom Philpott, “How War in the World’s Breadbasket ‘Changes Everything’,” <https://www.motherjones.com/food/2022/03/wheat-russia-ukraine-war-scott-reynolds-nelson-oceans-of-grain/>
- Franco Ordoñez, [“Russians wreak havoc on Ukrainian farms, mining fields and stealing equipment”](#)

## **Heat Stress and Beef Cattle**

By: [Stephen Boyles](#), OSU Extension Beef Specialist

Source: <https://u.osu.edu/beef/2012/06/27/heat-stress-and-beef-cattle/>

Originally posted on June 2012

High temperatures raise the concern of heat stress on cattle. Heat stress is hard on livestock, especially in combination with high humidity. Hot weather and high humidity can reduce breeding efficiency, milk production, feed intake, weight gains, and sometimes cause death. Livestock should be observed frequently and producers should take precautions when hot and humid weather is forecast. Work cattle early in the morning to decrease the risk of heat stress. A danger sign in cattle is panting. The panting mechanism in cattle does not appear to work as well as the one dogs’ have.

Major management options are providing shade, improved ventilation and a sufficient quantity of water. Shade for livestock can be provided by trees, buildings or sunshades. The temperature can be further reduced by spraying cool water across the roofs of buildings where animals are housed. Ventilation can be provided for air movement by fans and windows. Sunshades should be high enough to allow air movement

Providing an adequate source of cool, clean drinking water is essential to help keep animal's internal body temperature within normal limits. It is thought that water temperature affects rumen temperature and thus blood temperature which affects brain centers that control feed consumption. Above-ground water lines should be provided shade by having taller grass cover them. Run lines in fields that are not be currently grazed to water troughs that are in fields being grazed. The manager should at least check the water temperature in the water trough. Temperature increases from 70oF to 95oF can increase total water requirements by about 2.5 times.

Producers using management intensive grazing might consider several options. One option is to rotate through fields at a more rapid rate. Taller grass tends to be a cooler surface to maintain cattle on than pastures with shorter grass stands. Another option is rotate cattle in the evening rather than the morning. The assumption is that the grass will be consumed in the evening and hopefully the "heat of fermentation" or digestion is mostly dissipated by mid-morning, thereby reducing the heat load produced by the animal. Another possible option is to graze paddocks that allow access to barns (shade) or trees during the heat of the day. This will reduce equal distribution of manure throughout the paddock but might be a suitable compromise during excessively hot weather.

A similar recommendation of feeding feedlot cattle in the evening rather than the morning may apply. Conversely, cattle may eat more during the night than during the day in hot weather. Cattle that look hot in the morning will not eat much that day. Any shift in feeding feedlot cattle needs to be done gradually. Keep in mind that concrete is hotter than dirt so you may need to check cattle more frequently that are predominantly on concrete than on dirt. However this situation is less of concern in Ohio where most feedlot cattle have access to some shade.

Producers sometimes talk about "hot" feeds and "cool" feeds. We must discern whether the discussion is about energy content or actual heat production. Corn and other concentrates are sometimes called "hot" feeds. This is in reference to their higher energy content compared to hay or straw (cool feeds). However, corn and other concentrates contribute less to the heat of fermentation or digestion than hay. Therefore cattle actually produce less actual heat when consuming corn than when consuming hay. Further increasing the concentrate portion of a feedlot finishing diet may lead to acidosis problems. One option is to feed more frequently so as to keep the feed fresher (especially silage) and to feed a greater part the diet in the evening rather than in the morning. Similarly high quality forage produces less heat of fermentation than low quality forage. This might be another argument for moving cattle to higher quality pasture or moving more frequently through paddocks. An excessive level of protein during heat stress may be detrimental. The excess nitrogen supplied by the protein must be detoxified and prepared for excretion (via urine). This is a biochemical pathway that is very high in energy demands.

Increased water consumption will increase excretion of urine. This will also increase the loss of certain minerals, such as sodium (a part of salt), potassium, and magnesium. Free choice trace mineral salt should be provide in a location that the animals will consume it. Loose salt will be more readily consumed than block salt. And to add to the fun, this hot spell could cause some areas to become "droughty." Livestock not only eat less during hot days, but high temperatures and dry weather reduce the amount of pasture grasses available for grazing, which can lead to inadequate feed intake or illness from consuming toxic plants and weeds that may be the only "greens" available for animals to consume.

The weather service issues special forecasts during extremely hot weather to alert livestock producers of dangerous weather. The warnings are based on a temperature-humidity index, which increases as the temperature and humidity increase. The danger level is indicated by an index value of 79, which is reached in various combinations of temperatures above 85 degrees in combination with high humidity. As temperatures increase, slightly lower humidity can still create dangerous and emergency conditions.

The emergency levels begin at an index level of 84 and occurs at temperatures in the 90 and 100 degree range, increasing in danger as the humidity level increases. Common sense is to work cattle in the early mornings to minimize heat stress on humans and cattle.



Cattle near the finishing point and bulls are more susceptible to heat stress than growing calves. They may need to be moved to pens with better air movement compared to others. Livestock producers should listen to local radio and television weather reports early in the day for warnings that heat stress may become a problem.

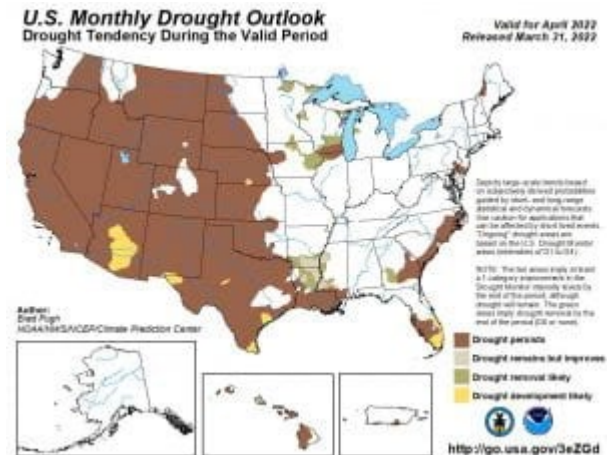
## **Be Mindful of Heat Stress to Maintain Stocker Calf Gains**

By: Dr. Jeff Lehmkuhler, University of Kentucky, Department of Animal & Food Sciences

Source: <https://u.osu.edu/beef/2022/06/15/be-mindful-of-heat-stress-to-maintain-stocker-calf-gains/>

As I am writing this, bluegrass has flowered, and I've seen fescue plants with flowers emerging. This spring has been a bit cool slowing grass growth, but warmer temperatures will certainly begin to kick grass growth into high gear within the next couple of weeks. Precipitation and soil moisture continues to be a struggle in the western half the United States as shown in the Monthly Drought Outlook figure from the National Drought Monitoring website. These continued drought conditions will continue to limit forage growth in these regions.

Forage availability is a key driver of stocker calf performance followed by forage quality. As we move through the spring months and begin to see temperatures increase, forage growth slows. Previous research demonstrates that the photosynthesis of plants is negatively impacted by increasing temperatures.



Photosynthetic rates of tall fescue can be reduced when temperatures reach 86F/77F degrees Fahrenheit, day/night. Areas in Kentucky had eight days in May during 2021 that had daytime high temperatures of 86 or higher. Several days in June, July and August are normally going to be 86 F or warmer. These warmer temperatures slow forage growth of our perennial cool-season forages. More importantly, research has demonstrated that soil surface temperatures can have a larger effect on photosynthesis than air temperature.

Close grazing or mowing exposes more soil to direct sunlight increasing soil surface temperature. Dr. Teutsch's research with tall fescue at the Princeton Extension and Research Center demonstrated that clipping forage weekly to 1" versus 4.5" height weekly increased plant crown sensor daily maximum temperature by 10 degrees Fahrenheit. Close clipping led to an increase in warm-season annual forages such as crabgrass due to the temperature stress on the cool-season forage. Reducing stocking density or implementing a managed grazing system to better manage forage residual heights may help cool-season forages be more persistent.

Be mindful of feeder calves that are not shedding winter hair coats. Studies show that lower hair coat scores, better shedding, improve daily gains during the grazing season. Several factors may be involved with shedding of winter hair including fescue alkaloids, genetics, plane of nutrition, and others. Recently, researchers from the southeast reported breed differences in hair coat scores when grazing tall fescue with Charolais-sired calves having less hair than Hereford-sired calves. Calves that don't shed will be more susceptible to heat stress. Ensure stocker calves always have access to clean water. As temperatures increase water intake will increase creating more demand on your water system. Ensure the floats and valves are in working order, that tanks are clean and not fouled with fecal contamination. Spring- and pond-fed tanks may accumulate sediment and should be cleaned out routinely.

Shade should be available during periods of heat stress. University of Missouri research demonstrated that stocker steers grazing Kentucky 31 tall fescue gain 0.3 pounds per day more when they had access to shade compared to those that did not have shade. Other studies have shown added performance when cattle have shade access during periods of high temperatures. Shade can either be natural from trees or man-made using structures with shade cloth. Shade cloth should have a minimum of 50% of light exclusion.

As forage quality and availability declines in mid-summer combined with increased temperatures, cattle performance may dip. To combat this, supplementation can increase the plane of nutrition of stockers sustaining higher performance. Strategies will be dependent on feed prices, target levels of gain, marketing windows, and other factors. A higher protein supplement, 20-28% crude protein, targeted a low rate of supplementation near 0.5% of body weight can increase protein intake to combat declining protein in the forage. If there is a need to increase supplementation rates to achieve either higher rates of gain or stretch forage, a low starch, highly digestible fiber coproduct feedstuff that is 14-16% crude protein can be utilized. Using commodity blends containing corn at 50% or less with soyhulls, distillers grains, corn gluten feed and other quality coproducts can be offered to boost energy and protein intakes of grazing cattle. Research would suggest at higher feeding rates of supplements that have minimal impacts on ruminal microbes every pound of supplement fed will lower forage intake by about ½ pound. Point is that at 0.5% to 1.5% of body weight supplementation levels, forage substitution won't be 1:1 with the supplement fed.

Consider these management factors for maintaining stocker gains during the summer. Take a few minutes to evaluate your current management and see if there are opportunities to adjust management to maintain or increase gains during the heat of the summer. Be sure to maintain animal health, keep internal parasites in check, utilize implants if your market allows, consider feeding an ionophore to combat coccidiosis and improve energy utilization from forages. Best of luck this summer and the markets appear to have some optimism looking at the futures prices. Consult with your veterinarian, feed dealer and county Extension agent for additional information.

## **Corn Growth and Development: Crop Staging**

By: Osler Ortiz & Alexander Lindsey

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-18/corn-growth-and-development-crop-staging>

One of the bottom-line activities in growing crops should be understanding and keeping track of crop growth and development. Crop growth is related to the increase in size. It is influenced by factors such as temperatures, water availability, stress, competition, and fertility. Crop development relates to the progress in stages, and temperatures primarily drive it.

Corn plants are first staged as vegetative (from emergence to tasseling) and then reproductive (from silking to physiological maturity). These vegetative or reproductive stages are assigned on a field basis when more than half of a subsample of plants are at the same stage. Despite different staging methods exist (e.g., horizontal leaf and leaf tip), the recommended is the Leaf Collar method for vegetative stages (V) and indicators of kernel development for reproductive stages (R) [Table 1].

Table 1. Vegetative and Reproductive Stages for corn. Adapted from Abendroth et al., 2011.

STAGES		COMMON NAME
Vegetative	VE	Emergence
	V1	First Collared Leaf
	V2	Second Collared Leaf
	V3	Third Collared Leaf
	...	...
	Vn	nth Leaf
	VT	Tasseling
Reproductive	R1	Silking
	R2	Blister

	R3	Milk
	R4	Dough
	R5	Dent
	R6	Physiological Maturity

When it comes to crop management, one should focus on development as a more precise crop reference instead of growth. At later vegetative stages (after V10), younger leaves have often senesced, and the split-stalk approach may need to be taken to accurately stage plants (i.e., plants do not stay at the V12 stage until tasseling). This video shows staging using the [split-stalk technique](#).

From planting to physiological maturity, plant structures initiate and grow at different stages (Figure 1). In the case of modern hybrids, it is common to see silks emerge (R1) before tassels fully emerged (VT) as this can improve pollination. Adverse conditions such as drought, heat, off label applications during any of these processes can negatively impact the crop and ultimately affect yields.

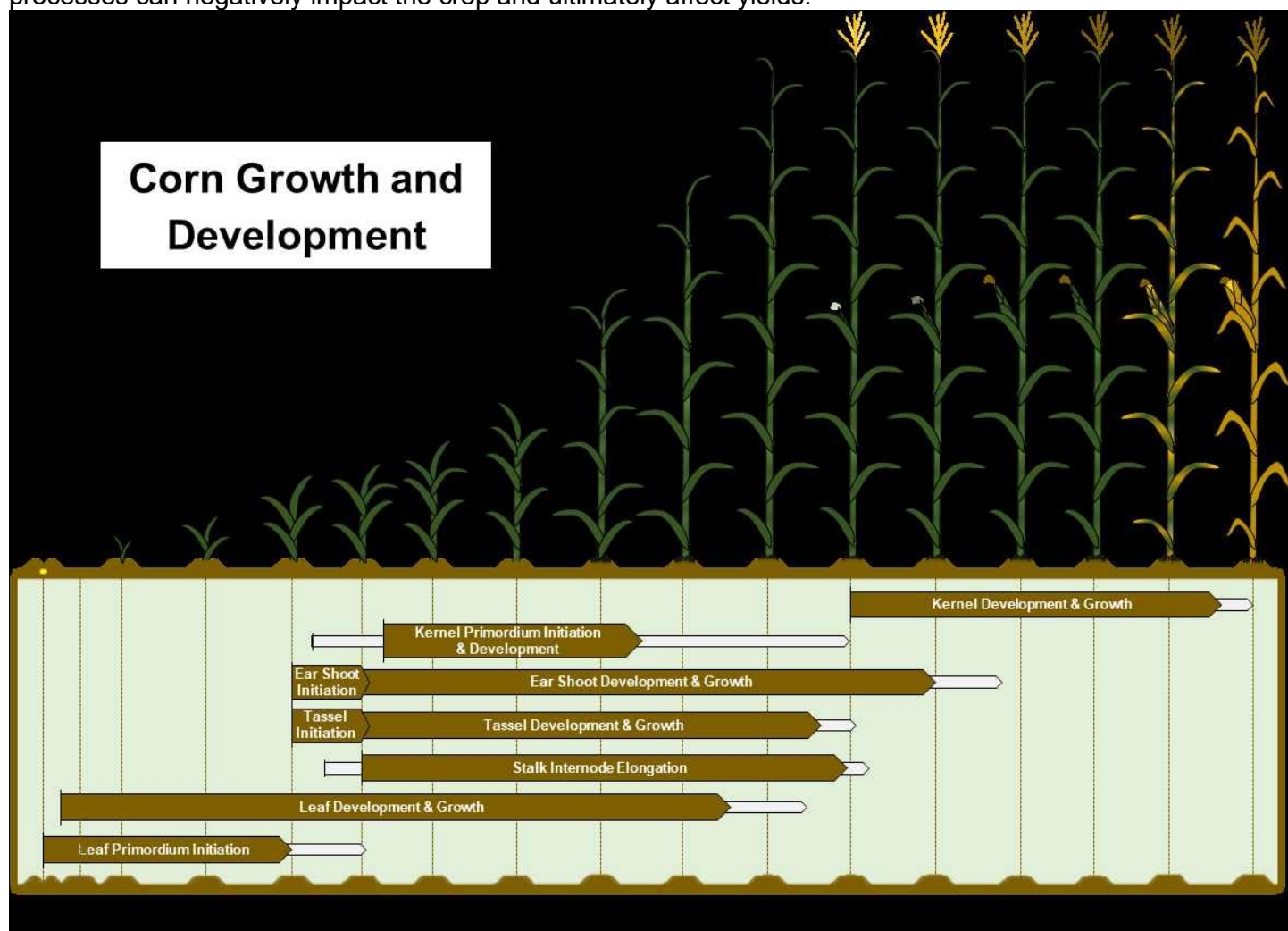


Figure 1. Corn growth and development from planting and germination (G) to physiological maturity (R6). Brown arrows indicate the primary period, and gray arrows indicate possible variations for each event. Source: Orteza et al., 2022 (Crop, Forage & Turfgrass Management, accepted, in production).

An adequate understanding of stages in corn is essential when planning different activities in the growing season—for example, fertilizer, herbicide, insecticide, and fungicide applications. Additionally, a good follow-through of corn staging can help understand when critical events occur, for example, drought stress linked to a reduction in kernel fill (i.e., kernel weight) towards the end of the season.



## References:

Abendroth, L. J., R. W. Elmore, M. J. Boyer, & S. K. Marlay. (2011). Corn Growth and Development. PMR 1009. Iowa State University Extension, Ames, Iowa. <https://store.extension.iastate.edu/product/Corn-Growth-and-Development>.  
Ortez, O., A. J. McMechan, T. Hoegemeyer, I. A. Ciampitti, R. L. Nielsen, P. Thomison, L. J. Abendroth, & R. W. Elmore. (2022). Conditions Potentially Affecting Corn Ear Formation, Yield, and Abnormal Ears: a Review. Crop, Forage & Turfgrass Management Journal (accepted, in production).

## **Reminder: Replanting Decisions in Corn and Soybeans...What to Consider**

By: Osler Ortez, Laura Lindsey & Alexander Lindsey

Source: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-18/reminder-replanting-decisions-corn-and-soybeans%E2%80%A6what-consider>

Unfavorable weather during the months of April, May, and early June has negatively affected corn and soybean acres establishment in the state. If considering replanting fields, a C.O.R.N. Newsletter article released in mid-May has several steps and considerations that can help the decision.

Read the article here: <https://agcrops.osu.edu/newsletter/corn-newsletter/2022-14/replanting-decisions-corn-and-soybeans%E2%80%A6what-consider>

If soil crusting/emergence is a concern, it may be more beneficial to consider using a rotary hoe to improve emergence than re-planting. For agronomic crops, we are approaching the period where gains in stands won't offset yield losses caused by a shortened growing season. Other considerations are to consult with your crop insurance agent and seed company reps on any replanting policies or assessments required prior to implementing this practice.

## **Evaluating the Prevent Plant Option**

by: Eric Richer & Chris Bruynis, OSU Extension Educators

Source: <https://u.osu.edu/ohioagmanager/2022/06/09/evaluating-the-p...ent-plant-option/>

Planting progress goes differently every year and in each part of the state. This year is no different in Ohio. Some places got in early and are finished. Others had their 'normal' planting progress with 'normal' Mother Nature breaks, perhaps with some re-plant needed. And still others have not had ideal conditions all spring to plant. As such, we have received some recent calls regarding the mechanics and economics of utilizing the Prevent Plant through crop insurance this year in certain parts of the state. First and foremost, we are not crop insurance agents, so speaking with your agent is of utmost importance. In this article, we will walk through an example on the economics of electing Prevent Plant.

In Ohio, once you arrive at the final plant date of June 5 for corn (already passed) and June 20 for soybeans, you basically have 3 options in a corn scenario:

Your first option is to plant the corn crop no matter what the date is on the calendar. Up until the final plant date, you are eligible for your full guarantee at the level you have selected. This article will reference the 2022 Ohio Corn Production Enterprise Budget, the 20-year USDA-NASS Trendline Ohio corn yield of 184 bu/ac as the Actual Production History (APH) and \$5.90/bu 2022 base price for corn. So for your full guarantee at 80% coverage: 184 bu/ac APH x \$5.90 x 80% coverage = \$868/acre. If you elect to plant corn after June 5, you will incur a 1% reduction in your guarantee up through June 25. If you plant your corn after June 25, you can choose not to insure your corn crop or you can insure at the policy's prevent plant revenue level. For example, if you plant corn on June 8, the guarantee formula (184 APH, 80% coverage) would be: 80% x 184 bu/ac x \$5.90 x 97% = \$842/acre. Planting dates need to be recorded, as these rules apply on field-by-field and acre-by-acre basis.

Secondly, you can elect to switch your intended corn acres to soybean acres. You will be charged for the soybean insurance premium, not the corn premium. A key agronomy question: Did you apply chemistry that does not allow you to plant soybean? June weather (local and regional), supply/demand economics, geo-

political issues, trade policy and input options increase the complexity of this decision.

Your last option is to file for Prevent Plant, assuming you did not get corn planted by June 5. The mechanics of prevented plant deserve a review to ensure understanding. New in 2021, is that there must have been a crop planted, harvested, and insured on the acres in question in one of the last four years to qualify for prevent plant. Consult your crop insurance agent to determine your total eligible acres for each crop, as this is a key question. Prevent plant covers Yield Protection (YP), Revenue Protection (RP) and Revenue Protection with Harvest Price Exclusion (RPHPE) policies and references the February new crop corn pricing period (aka base price) of \$5.90/bu for the 2022 corn crop (\$14.33/bu for soybean). To be very clear, prevent plant indemnities will not be re-adjusted to a higher harvest price; prevent plant indemnities are based on the February (base) price only. A corn policy has a standard 55% Prevent Plant guarantee (buy-up available to 60%) and soybeans a standard 60% guarantee (with buy-up available to 65%). To further be eligible for Prevent Plant, at least 20 acres or 20% of that unit must not get planted (the lesser of the two). Prevented Plant does not affect your yield history as long as you do not plant a second crop. Also, prevent plant claims can be denied if not common to the area.

So, to continue our example from above, the indemnity for prevented plant corn would be: 184 bu/ac x \$5.90 x 80% coverage x 55% prevent plant rate = \$477/acre. Please remember that this calculation can vary widely based on coverage level elected (50-85%), prevent plant buy up (55% to 60% for corn) and your farm/field's APH. . In our example, this \$477/acre would also be the amount at which you could chose to insure a corn crop planted after June 25 (versus no insurance at all).

To be sure, there are costs besides the premium that are associated with Prevent Plant. Are there 'restocking fees' associated with returned seed or other inputs? How much fertilizer has already been applied? What are the year-long weed control costs? Does my applied chemistry limit my options? If utilizing cover crops, what will their cost be? Will there be enough to address Fixed Costs of Land, Labor, Management? And finally, are their opportunity costs (marketing) missed because of taking Prevent Plant? While this article is not intended to address all these questions, they are questions you should raise and probably already have.

Once the "Net to Prevent Plant" is known (ie PP Indemnity minus all fixed costs plus any variable costs), the simple economic comparison to make is against your farm's estimated Return Above Total Costs. According to the 2022 Ohio Corn Enterprise Budget, for trendline yields and costs, the Return Above Total Costs is \$232/acre. As planting date gets later and later, you will have to evaluate how much of a yield (ie revenue) reduction you will need to plug into your enterprise budget.

In the end, every farmer and situation is unique. It is important to run the numbers for yourself to make an informed farm management decision.

## ***The Perils of Partition – The Forced Sale of Land (Part 2)***

The Perils of Partition – The Forced Sale of Land (Part 2)

By Robert Moore, Attorney/Research Specialist

Source: <https://farmoffice.osu.edu/blog/thu-06092022-920am/perils-partition-%E2%80%93-forced-sale-land-part-2>

In the prior post, we explained partition and the risk it poses to family farmland. Fortunately, there are a few strategies that can be implemented to avoid partition.

One strategy that can prevent partition is the use of a Limited Liability Company (LLC). The concept of using the LLC is to replace the multiple owners of the land with one LLC owning the land. Then, those same owners own the LLC rather than the land. Partition rights only apply to real estate, not to business entities. So, instead of three people owning the land, three people own an LLC that owns the land. Since there are no partition rights with an LLC, no one owner can force the sale of the land.

Consider the following example. Andy, Betty and Charlie are siblings and own a farm together. Each is aware of partition rights and wants to prevent any of the owners, including future owners, from exercising their partition rights. They establish an LLC and transfer the land into ABC Family Farms LLC. The LLC operating agreement states that land can only be sold with the consent of all members.



The three owners of the land have eliminated the threat of partition to the family farmland. The legal owner of the farmland is now the LLC, not the three siblings. Andy, Betty and Charlie are the owners of the LLC but Ohio law does not provide for partition rights of an LLC. Additionally, as added protection, the siblings require unanimous consent before any of the land in the LLC can be sold. By placing the land in the LLC, the three owners have ensured that the only way the farm will leave the family is by joint agreement of the family. A well-designed LLC can make it nearly impossible for land to leave the family without the agreement of the family.

The above example illustrates how an LLC prevents partition by the owners and family members, but LLCs also protect against creditors and lawsuits. Let's assume Andy has financial problems and creditors have filed and won lawsuits against him. Without the LLC, the creditor could force the sale of the land through foreclosure on Andy's share. However, Ohio law only allows creditors to attach to an LLC owner's interest. This means that a creditor is entitled to an owner's share of the LLC profits but cannot force the sale of the assets owned by the LLC. In this example, Andy's creditors are entitled to receive his share of the profits from the LLC but cannot force the sale of the land. An LLC can prevent an owner's financial problems or lawsuits from causing the sale of family farmland.

LLCs are often used in estate and succession planning to protect the family farmland. Instead of multiple family members inheriting land (and the risk of partition), mom and dad may establish an LLC for the farmland. Then, the children inherit the LLC without the partition rights. By transferring the land via an LLC, mom and dad do not need to worry that one child or their creditors will force the family farmland to be sold.

Consider the following example. Mom and Dad want their three children to inherit their farmland. They would like their children to own the farmland together as it is too difficult to divide up the land equitably. Mom and Dad are aware of partition rights and want to make sure that no co-owner can force the sale of land against the family's wishes. Mom and Dad transfer their land to an LLC. Their three children will inherit the LLC with the land. Because each child will own an interest in the LLC, and not an interest in the real estate directly, partition rights are not available. Mom and Dad also established the LLC with the requirement that any transfers of land require unanimous consent of all the members.

This example illustrates how LLCs can be incorporated into estate plans to minimize the risks of partition. By having multiple heirs and beneficiaries inherit the LLC, and not the land itself, the land will not be transferred out of the family due to partition. We often think of using LLCs for liability protection but LLCs may be even more valuable to protect against partition rights.

Another way to protect against partition rights for heirs is to use a trust. With this strategy, the land is owned by a trust rather than the beneficiaries. Since the beneficiaries do not legally own the land, they are not entitled to partition rights. The disadvantage to this strategy is that the trust beneficiaries will not be able to use the assets as collateral nor to build their wealth.

Consider the following example. Mom and Dad want their children to have the benefit of their land upon inheritance but want to be 100% sure that their children do not sell the land before their grandchildren can inherit it. Mom and Dad establish a trust that holds the land for their children's lives. During the children's lives, the children receive the rent but do not own the land. Thus, the children cannot take action to sell the land. Upon the death of the children, the grandchildren will receive the land.



While the land is in trust, the children do not own the land. Thus, they do not have partition rights and cannot force the sale of the land. The grandchildren are nearly certain to inherit the land. On the other hand, the land is not available as collateral for a loan and the other benefits of ownership are not available to the children. As the example shows, trusts are an excellent method to avoid partition. However, trusts also severely restrict the rights of the beneficiaries while the land is held in trust. A careful analysis of the benefits and disadvantages of using a trust to avoid partition must be carefully considered.

In conclusion, before allowing land to be owned jointly, the owners should consider the risks of a forced sale of the land through partition. Partition can be avoided by using LLCs or trusts to hold the land. Be sure to consult an attorney to determine the best course of action to address the perils of partition.

## ***Gary Graham Inducted into Maple Syrup Hall of Fame***

by: [Kevin Lynch](#), The Daily Record

Source: <https://www.the-daily-record.com/story/news/2022/06/06/osu-extension-educator-gary-graham-named-maple-syrup-hall-fame/7461408001/>

Agriculture and Natural Resources Educator [Dr. Gary Graham](#) of the Holmes County office of [Ohio State University Extension](#), has been recognized by the International Maple Syrup Hall of Fame for his decades dedicated to maple syrup production in North America.

Graham was inducted into the Maple Syrup Hall of Fame on May 14, in Croghan, New York. The Maple Hall of Fame was established in 1977 by the North American Maple Syrup Council to recognize those who have excelled in research, development, education, leadership and promotion within the North American maple syrup industry.

Graham, also known as 'Dr. Sticky Sweet' enjoyed punning around about the induction, but admits it is a great honor. "I was totally surprised. I never anticipated anything like this," Graham said. "To the people that work in the maple syrup industry, this is the pinnacle of awards. They select two people a year, and there are thousands of deserving people who are influential in the maple syrup industry. So when they called me to let me know I was inducted, I asked if they were sure it was me they wanted."



To be inducted into the Hall of Fame is the highest honor one involved in the maple syrup industry can obtain. Graham will join five fellow Ohioans previously inducted into the Hall of Fame, including: Ture Johnson of Burton in 1981; Paul Richards, Chardon in 1988; Dr. Randy Heiligmann, Dublin in 2002; Bill Brown, Fredericktown in 2008; and Debbie Richards, Chardon in 2015.

"This is a great honor, and it is kind of neat to get this on my way out of the system," he said. "They are rewarding me for 22 years of doing educational research, outreach and promotion. That's been in kind of my role to get more knowledge out there and promote the product wherever I go."

Graham related that the guy from the Hall of Fame told him that he came across as one of the biggest promoters of maple syrup. He noted that Graham has taught in several states and provinces, and one of the things he is always promoting is the different uses for maple syrup.

"I was taken aback, and really pleasantly surprised," Graham added. "This is really a great honor." Through his 38 years as a public servant, he says that working with the maple syrup producers has been the most rewarding. "I have a lot of friends in the maple world," Graham said. "While there are only 17 states in the U.S. that have big production, along with all the Canadian provinces, I have been to every province and to every state except for Iowa, which isn't a very big production state. But what I've found is my greatest experience is working with the people. In all my public service, working with the maple producers has been the absolute most

fun. They're a great group of people. "It truly is a sweet gig, if you can get it," he said with a laugh.

Graham's path to the HOF was not very direct. He grew up working on the family farm and the family's diesel truck repair shop, then, worked for a John Deere dealership and local school district as a bus mechanic. His love of time being outside in the woods kept calling at him. At the age of 27, Graham stopped turning wrenches and started turning the pages of college books. He graduated in 1993 with a Bachelor of Arts degree in secondary education from the University of Akron. He completed his Masters of Science degree from Miami University of Ohio in environmental sciences and resource conservation in 1995, which is when he started working for Ohio State University Extension. Graham finished his Ph.D. in natural resources from The Ohio State University in 2005 and was appointed to The Ohio State faculty in 2007.

### ***"Name that Tree" Workshop Slated for June 29***

Have a tree that you pass on a regular basis that you always wonder 'what is that? Or do you own a woodland and want to know exactly what trees you have? If so, OSU Extension and Clary Gardens will be hosting a **"Name that Tree Program"** on Wednesday, June 29 from 10:00 to 3:00 p.m. at Clary. This one-day workshop is designed to give participants in-depth training and practice on identifying trees using leaves and other common characteristics. The class begins in a new outdoor event pavilion with some introductory identification clues and samples that we use to work through a dichotomous key. The afternoon is spent out in the woods practicing (expect moderate walking). The registration fee for this program is \$40 per person. This registration fee includes the program, light refreshments, lunch, and handouts. There is limited seating so pre-registration is due by June 21. For more information about this program, contact the Coshocton County Extension office at 740-622-2265.





# "Name That Tree" Workshop

**Wednesday, June 29, 2022**

**10:00 a.m. to 3:00 p.m.**

**Clary Gardens**

**588 West Chestnut Street**

**Coshocton, Ohio 43812**



Have a tree that you pass on a regular basis that you always wonder 'what is that? Own a woodland and want to know exactly what trees you have? Then this **Name That Tree Workshop** is for you! This one-day workshop is designed to give participants in-depth training and practice on identifying trees using leaves and other common characteristics. The class begins in a new outdoor event pavilion with some introductory identification clues and samples that we use to work through a dichotomous key. The afternoon is spent out in the woods practicing (expect moderate walking). This workshop is being co-hosted by OSU Extension and Clary Gardens

## Class Agenda

9:30 a.m.	Registration
10:00 a.m.	Introduction to Tree ID
11:15 a.m.	Using a Key to ID
12:00 noon	Lunch (provided)
1:00 p.m.	Hands-On ID in the Woods
3:00 p.m.	Wrap-Up & Adjourn

**REGISTRATION INFORMATION:** The registration fee of \$40 includes the program, light refreshments, lunch, and handouts. **There is limited seating so pre-registration is due by June 21.**

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

Email \_\_\_\_\_ Phone \_\_\_\_\_

**\$40 per person registration**    **\_\_\_\_\_ # of attendees @ \$40 each**

Please make checks payable to OSU Extension and mail to OSU Extension, 724 South 7<sup>th</sup> Street, Room 110, Coshocton, Ohio 43812. For more information, call 740-622-2265.

