

Auglaize County ANR

News from OSU Extension

March 1st, 2024

Growing Degree Days (GDD) and Plant Phenology

Authors Amy Stone & Erik Draper Editor Jacob Winters

GDD are a measurement of the growth and development of plants and insects during the growing season. Development does not occur unless the temperature is above a base temperature. The temperature affects growth and development, depending on the weather, an organism's temperature may be a few degrees more or less than the recorded air temperature. A base temperature of 50 degrees Fahrenheit is considered acceptable for all plants and insects.



The purpose of the first GDD post would normally show that no matter where in Ohio, we all begin at zero on January 1st, but is that really the case this year? Will the days late in the 2023 where we experience some days where temperatures topped above 50F have an impact on plant and insect development in 2024? As you will notice in the chart, some locations have picked up some units in the first month of the year, where others have not.

We know that as temperatures warm, we will begin accumulating growing degree day (GDD) units. So far in February our recent warm weather had record breaking day time high temperatures in some areas of the state. Tracking GDD indicates when the plant blooms and insect activity will begin. Only time will tell if what we have seen has an increases in GDD will match what we are seeing early emergence of plants and insects this season. We will also be looking for your observations across the buckeye state as well. The one thing that we do know is that the sequence of events – both plant and pest development – consistently occurs in the same order no matter the weather. At the end of each month, there will be a GDD Summary Alert Posted to Buckeye Yard & Garden website (BYGL). While today's post has some areas seeing zeros - it is the start of the calendar year – we will have to see if that is true. 20 Ohio locations have been chosen across the state and will continue to be used for the monthly updates.

If you would like to check out your Ohio zip code, enter it on the BYGL, and ground truth what you are seeing with what the calendar says should be occurring.

	Zip Code	GDD
Bryan (Williams)	43506	0
Toledo (Lucas)	43615	0
Sandusky (Erie)	44870	0
Elyria (Lorain)	44035	1
Burton (Geauga)	44021	1
Jefferson (Ashtabula)	44047	1
Van Wert (Van Wert)	45891	1
Findlay (Hancock)	45840	0
Medina (Medina)	44256	3
Mt. Gilead (Morrow)	43338	4
Mt. Vernon (Knox)	43050	6
Steubenville (Jefferson)	43952	8
Dayton (Montgomery)	45417	5
Springfield (Clark)	45505	5
Columbus (Franklin)	43210	7
Lancaster (Fairfield)	43130	8
Marietta (Washington)	45750	13
Cincinnati (Hamilton)	45223	10
Hillsboro (Highland)	45133	11
Ironton (Lawrence)	45638	12

It's Time to Start Seeds

Author Carri Jagger

Editor Jacob Winters

March 19th will be the first day of spring. However today is the time to start planning your vegetable gardens. If starting a new garden or an existing garden that has not been tested in the last 3 years, soil testing the garden site is a great start. No more than a pint of soil per sample is needed. Sampling location should be evenly spread across the garden and each sample should include only the top 8 inches of soil.

Another gardening task to be thinking about is seed starting. Growing plants from seed is very rewarding and a lot of fun. They can be started indoors under a grow light or in a bright window. I like to use grow lights because they produce a consistent light source. Also, modern windows are designed reflect UV rays out to keep the home cool. When I first tried growing seedlings, I grew them in windows, and they do get a bit leggy, and they need turned often as they grow towards the light. A few seeds can and should be started indoors. Tomatoes, Peppers and Eggplant should be started in February and Broccoli, Brussel Sprouts, Cabbage, and Cauliflower can be started later in March.

Tip: keep the grow lights close to the seedlings this will keep the seedlings from stretching to the light.

When starting seeds, special seed starting kits can be purchased, however creativity is more fun. A simple egg carton or any type of container with labels will work, just make sure to poke holes in the container for drainage. Place the seed starting mix in containers and pre-moisten the soil. Pick out seeds and poke them in the soil one seed per cell. Make sure to label the seeds so that it isn't a mystery when it's time to transplant them. Lastly, cover the seeds with plastic wrap or a plastic dome as this will create a mini greenhouse to help hold moisture and heat until the seeds germinate. Once the seeds germinate take the plastic wrap or dome off and keep the container in a bright window or under grow lights. Trays may need to be turned if the plants start to stretch towards the light. Plants should also be given a little brush with your hand every day to help strengthen them up, this mimics the wind.

Once plants have gotten one set of true leaves transplant them to a larger container with one plant per container. When the temperatures start to warm up gradually introduce the plants to the outdoors where they will become hardened off. If you have questions please email me at jagger.6@osu.edu Carri Jagger OSU Extension Educator - Morrow County.

For more information about seed starting visit:

https://www.youtube.com/watch?v=Hn7ZmY_asvQ&t=3s

<https://www.youtube.com/watch?v=mcekh8UkQQE>

<https://extension.unh.edu/resource/starting-plants-seed-fact-sheet>



Managing Mud: Strategies for Reclaiming Disturbed Areas

Author Dr. Chris Teutsh UK Research and Education Center at Princeton

Editor Jacob Winters

Hoof damage from livestock during the winter months can result in almost complete disturbance of desired vegetation and soil structure in and around heavy use areas. Even well-designed hay feeding pads will have significant damage at the edges where animals enter and leave. Highly disturbed areas create perfect growing conditions for summer annual weeds like spiny pigweed and cocklebur. Weed growth is stimulated by lack of competition from a healthy and vigorous sod and the high fertility from the

Fig. 1. hay feeding area with almost complete disturbance.



concentrated area of dung, urine, and rotting hay. Regardless of the reclamation strategy that is employed, it is important to create an environment that will allow seeds to germinate quickly and uniformly, resulting in rapid canopy closure. This will help to inhibit weed seeds from germinating. Creating this environment starts with making sure that soil fertility is in the medium to high range, soil pH is 6.0 to 6.4, and preparing a fine, but firm, seedbed.

The first strategy is to seed cool-season grasses or a mixture of grasses and legumes in the spring. While this is commonly done, results are usually less than spectacular in most years. Seedlings are normally delayed until late spring or early summer. Consequently, seedlings do not have time before the hot summer months set in. The second reason is that summer annual weed pressure is usually very high. Summer annuals weeds like foxtail, goosegrass, spiny pigweed, and cocklebur, compete with cool-season seedlings for light and water, often causing stand failures. There are several things that can be done to enhance, but by no means guarantee, success. Plant forages that are well adapted to Ohio and the soils and drainage found on your farm. Tall fescue, and red clover are adapted and versatile forage species for pastures, most adapted varieties for Ohio can be found in the Ohio Agronomy Guide.

While legumes are an important part of grassland ecosystems, herbicide options for controlling weeds in grass-legume mixtures are limited. Leaving legumes out will allow you to apply selective herbicides to control broadleaf summer annual weeds. For specific herbicide recommendation, you can visit with your local Extension office.

Seeding rates are normally given as a range. For spring seedings, make sure and use the high end of this range. Rapid canopy closure is critical to suppressing summer annual weeds.

Spring seeded cool-season forages should be planted starting in early to mid-March. Early plantings will have more time to emerge and form a canopy that can shade summer annuals weeds. Early planted grass seedlings will also have additional time to develop a root system that can sustain the new planting during the summer months.

If drilling, cut seeding rates in half and plant in two directions. This will aid in obtaining quicker canopy closure, helping to reduce the germination of weed seeds.

Small seeded cool-season forages should not be planted deeper than $\frac{1}{2}$ inch. Make sure to check and recheck your seeding depth. Seeding deeper than $\frac{1}{2}$ inch will delay emergence, result in uneven stands, and in many cases cause complete stand failure.

Once seedlings have four collared leaves, some herbicides can be applied. Always consult and follow label directions. For the most up to date information on using herbicides on new seedings, contact your local Extension office.

(next page ->)

Summer annual weeds compete very aggressively for light, water, and nutrients with cool-season grass seedlings. If not controlled, plantings will likely fail. The most effective control of competition is to flash graze paddocks before weeds get well established. Flash grazing is accomplished by placing a large number of animals in small areas for a short period of time. This reduces selective grazing and increases grazing uniformity.

The second strategy involves planting a summer annual grass in late spring or early summer. This strategy has a much higher probability of success than planting cool season grasses in late spring. Summer annual grasses, especially sorghum-sudangrass or sudangrass, have very rapid emergence and canopy closure. This will prevent summer annuals weeds from germinating and provide forage for grazing or harvesting during the summer months. Perennial cool-season grasses can then be reseeded under more ideal conditions in late summer or early fall. The following tips will help to enhance your chances of success when using warm season annual grasses.



Always plant forages that are well adapted to Ohio and the soils and conditions on your farm. Summer annuals that can be used to reclaim hay feeding areas are also listed in the Ohio Agronomy Guide. Seed at the high end of rates given as a range. Even with summer annuals, rapid canopy closure is critical for reducing unwanted weed competition.

For summer annual grasses to germinate and rapidly emerge, soil temperatures at planting should be at least 60 degrees F. This should allow plenty of time to let hay feeding areas dry out and to get them smoothed up prior to planting. If there is a delay in planting the summer annuals after final tillage, it may be a good idea to do one more pass of light tillage to disturb any weed seedlings that may have germinated.

Once warm-season annual grasses are established, some herbicides can be applied to control summer annual broadleaf weeds. If cool-season perennials are to follow in the fall, make sure and check the label for reseeding restrictions prior to application. Always consult and follow label directions and contact your local extension office for further clarification.

Allow taller growing summer annuals like sorghum-sudangrass and pearl millet to reach a height of 18-24 inches before grazing and stop grazing at 8-10 inches. Regrowth can be stimulated by applying 40-60 lb N/A after each grazing except the last.

Allow taller growing summer annuals to reach a height of 30 to 40 inches before mowing. This will optimize yield and forage quality. If regrowth is desired, do not mow closer than 6 inches. Apply 40 to 60 lb N/A after each cutting except the last.

Pastures with summer annuals should be sprayed with a non-selective herbicide in late summer to control any remaining summer annual grass and any weeds that have germinated. Use a no-till drill to plant cool-season grasses into the killed pasture area.

For more information see <http://forages.ca.uky.edu/>

✓ Strip graze remaining stockpiled tall fescue.
✓ Frost seed 6-8 lb/A of red clover + 1-2 lb/A of ladino clover onto closely grazed pastures.
✓ Consider applying 40-50 lb N/A in mid to late February to some pastures to stimulate early growth.
✓ Service and calibrate no-till drills.
✓ Apply any needed lime and fertilizer according to soil test results.

Mark your Calendar!

Local Agriculture and Natural Resources Events & Deadlines



OSU Extension

- Auglaize County 4-H Leadership Banquet
 - March 4th 7 pm
 - Auglaize Fairgrounds
- Mercer County Final Pesticide and Fertilizer Applicator Training
 - March 5th 9 am to 1 pm
 - Celina Eagles
- Woodland and Wildlife Conference
 - March 6th 8:30 am
 - Mid-Ohio Conference Center Mansfield, OH
- Battle for the Belt Licking County
 - March 6th 8:45 am
 - OSU Newark
- West Central Ohio Livestock Outlook Day
 - March 7th 9 am
 - Mercer County Fairgrounds
- High Tunnel Workshop
 - March 7th 9 am
 - OSU South Centers Piketon OH
- Final Cover Crop Round Table
 - March 7th 6:30 pm
 - Auglaize Extension office
- Battle for the Belt Fayette County
 - March 8th 8:45 am
 - Rusty keg, 1801 Columbus Ave. Washington Court House
- Ohio Beef Cow/ Calf Workshop
 - Topic : Optimizing herd Reproduction and Genetics
 - March 8th 9 am
 - Licking County extension
- Final Auglaize County Final Pesticide and Fertilizer Applicator Training of the year
 - March 8th 9am to 1pm
 - County Admin building Wapakaneta



- **All About Goats!**
 - Topic: Getting started with goats
 - March 11th 7pm
 - Webinar
 - Register @ go.osu.edu/allaboutgoats
- **Conservation Tillage & Technology Conference**
 - March 12th and 13th
 - Ada OH
- **Farm office Live**
 - March 15th 10am
- **Battle for the Belt Hardin County**
 - March 20th 8:45 am
 - Hardin County Extension Office
- **Final Local Dairy Luncheon of the season**
 - March 20th 10 am
 - Speedway Lanes New Bremen Ohio
- **All about Goats!**
 - Topic: Live Animal Evaluation
 - March 25th 7pm
- **Final Water Quality Wednesday of the year**
 - March 27th 10 am
- **St Mary's Rotary Ag Day**
 - March 27th 11:30 am
 - St Marys Eagles
- **Small Farm Conference**
 - April 6th
 - Senecaville OH
 - Register @ go.osu.edu/2024osusmallfarmconference by March 28th
- **Manure Mondays returns every Monday in March at 2 pm**
- **Entomology Thursdays continue ever Thursday at 9 am**



Farm Service Agency

March 1 --- Primary Nesting Season begins.

March 15 - Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) election and enrollment application deadline for 2024 crop season.

March 15 - Deadline to obtain 2024 NAP coverage on spring planted crops.

March 15 - Deadline to purchase NAP coverage for hemp. NAP will be available for 2024 to provide insurance-type coverage due to adverse weather conditions. NAP provides coverage against loss for hemp grown for fiber, grain, seed, or cannabidiol (CBD) for the 2024 crop year where no permanent federal crop insurance program is available.

March 31 - Final Availability for 2023 crop wheat, barley, oats, honey loans and LDPs.