



Field Notes for The Week Of

1-23-2023

Tracking Growing Degree Days in The Depths of Winter

Is it spring yet? This is a question that I wish the answer was clear and strait forward yes! Unfortunately, we are just about halfway through winter but positive signs of spring are starting to pop up. The days are getting longer and for me, that is a gift in itself, sunsets will be around 6:00 PM by the last few days of the month. I would say that our soils would start thawing out and warming up come February but with the extremely warm January, our soils are never frozen, and the temperature of the soil is still above freezing on most days. With these warm temperatures, I would like to remind producers, gardeners, and home keepers that we are accumulating growing degree days. GDD calculations are used to predict the germination of plants be that ornamental or wild species, more importantly, GDDs are used to predict egg laying and potential destruction from pests such as alfalfa weevil, seed corn maggots, white grubs, and many more that feed on our plants and even animals. Currently, Adams County has accumulated 29 growing degree days, this is calculated by taking the sum of the high temperature and the low temperature (24-hour period) and dividing by 2, and subtracting the species' minimum growing temperature (this is different for every species). For example, Alfalfa weevil larvae feeding will be at 200 growing degrees days and its minimum growing temp is 48°F. For example, last week we reached a 62°F high and a low of 41°F low = $62 + 41 = 103 / 2 = 51.5 - 48 = 3.5$ growing degree days accumulated in one 24-hour period. Calculating growing degree days can be a very helpful tool to prepare to take control of certain species of pests that can cause harm to crops, livestock, and even humans. Many people ask me why certain species bloom earlier or later than normal, the growing degree calendar can be a helpful resource to plan for those early emerging perennials and even annual plants and insects. You can find the calendar at <https://weather.cfaes.osu.edu/gdd/> here are some things you can prepare for as our warmer-than-normal winter marches on.

- Silver Maple trees will begin bloom at 34 growing degree days (could potentially be the end of the month)
- Red maple tree's first bloom will occur at 44 growing degree days.
- White pine weevil adults will emerge at 84 growing degree days.
- Eastern tent caterpillar eggs hatch at 45gdd.
- Seed corn maggot egg laying begins at 300 GDD, and feeding begins at 400+ GDD, this can be a key pest for early planted corn and soybeans.
- Alfalfa weevil egg laying at 200 GDD and Larvae emergence at 300GDD.
- Soybean aphids egg hatch at 154 GDD.

