## OHIO STATE UNIVERSITY EXTENSION

April 17, 2018
FOR IMMEDIATE RELEASE
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## Late Spring- How are Soil Temps?

With the winter that will not give up here in Southern Ohio, and most of the midwest, it seems like spring will never get here. Many are itching to get fertilizer on, herbicides applied for burndown, and planters rolling. However, despite the fact it is the third week of April it may be more than wet conditions that are delaying all of the above. The soil temperatures at planting time are very important for a successful crop season.

The following is part of a post in this week's C.O.R.N. newsletter written by Aaron Wilson and Elizabeth Hawkins with OSU Extension. You can see the entire post at <a href="http://corn.osu.edu">http://corn.osu.edu</a>

The calendar says it is time for spring field activity in Ohio and farmers are eager to prep fields and plant this year's crops. However, average temperatures across Ohio have remained cooler than usual with the previous 30-day period (March 16 - April 15, 2018) running 2 to 6 degrees Fahrenheit below normal (based on 1981-2010). Combined with precipitation up to twice the normal amount in some areas, the weather is certainly not cooperating with ideas of an early jump on planting.

Late last week, Ohio experienced a strong warm up in air temperatures, which definitely warmed the first few inches of the soil surface (see "OARDC Branch Station Two Inch Soil Temperatures by Greg LaBarge). But how do the present conditions compare with the long-term mean? These soil temperatures are based on the weekly average for April 9-15, 2018. In addition, a long-term mean for the same 7-day period for 2000-2017 was calculated, and the differences between 2018 and the long-term mean are also displayed for each station. For Piketon and Jackson the soil temperatures at Piketon was 52.1 degrees F, which is 4.5 below the average and Jackson was 50.8 F which is 3.4 below the average.

Of course, soil temperatures can vary considerably based on soil type (e.g., sandy vs. clay) and other factors. Compared to the long-term mean (2000-2017), both two-inch and four-soil temperatures are running 2-7 degrees colder than the long-term mean. In fact, for all stations analyzed, 2018 ranks within the top 5 coldest average 2" soil temperatures for this same period in April. This is consistent with the cooler-than-normal air temperatures that have recently impacted Ohio.

Making the decision to plant into cold soils can increase the risk of slow emergence and uneven stands, since both corn and soybean seeds germinate more slowly in cooler soils. Corn seedling

injury due to imbibitional chilling may occur when soil temperatures fall below 50 degrees F. For this reason, it is important to look at the next 24-36 hours to determine the risk of soil temperatures dropping below that threshold. Soybean seeds absorb water more quickly than corn and as a result the risk of injury is greatest close to planting. Because of this, the 24 hours following planting are critical.

Soil temperatures are an important variable that you should consider to when making the decision to head to the field. With all the pressure to get started planting, it is important to take the time to be sure you are setting your 2018 crop up for success.

## **Master Gardener Event**

Mark your calendars for Thursday, April 19, 2018 at 7:00 p.m. to be at the Mt. Orab campus of Southern State Community College. The class will be in Room 107 with Denise Ballinger, president of the Mason County Master Gardeners Association. Denise will share her knowledge of the Monarch Butterfly and her experiences with raising and releasing hundreds of Monarchs each year. As always, these events are free and open to the public. Plan to attend.

## **Dates to Remember**

May 14 Pesticide and Fertilizer testing at Old Y at noon. Pre-register at <a href="http://pested.osu.edu">http://pested.osu.edu</a> or call 800-282-1955.