

David G. Hallauer
District Extension Agent
Crops & Soils/Horticulture

Planting Time Aid: Kansas Mesonet

For most crops, there is a ‘minimum’ soil temperature below which planting problems may result due to cooler than optimal conditions. For field corn, 50 to 55 degrees F (and trending upwards) is that range. Cucumbers and muskmelons should wait until soil temperatures approach 60 degrees F, while peas do well with soil temperatures at 40 degrees F. Waiting to plant until soil conditions are in these ranges provides the opportunity for plants to quickly germinate and begin growing with less potential for growth and development issues occurring when plants germinate in conditions that are less than desirable for optimum growth.

For individual sites, a thermometer can be a great tool to check temperature. If you don’t have a thermometer – or just don’t want to have to (or can’t...) mess with testing at mid-morning every day and then remembering results to see if there are trends, consider the soil temperature tool available from the Kansas Mesonet.

With stations in Silver Lake, Oskaloosa, Hiawatha, and Corning, data can be accessed to help us make sound planting decisions. For example, the Friday March 25 2:15 p.m. afternoon soil temperatures at those sites (respectively) are 43, 43, 42, and 44 degrees F. A deeper dig, however, shows soil temperatures in a *downward* trend since earlier in the week. Cool days plus moisture caused a drop in temperatures that will require some level heat for recovery before we get too excited about planting again. If you’re a real weather buff, you can even get charts at the site showing hour by hour changes as well.

Soil temperatures are just one part of the seed germination and early growth equation, but it is one we can account for with information from the Kansas Mesonet. Access the general mesonet page at: <https://mesonet.k-state.edu/>. From there, you’ll be able to see wind, air temperature, and 24-hour precipitation totals (also a good tool). Accessing the menu in the upper left hand corner takes you to additional options. Choose the Weather tab then Soil Temperature. The current soil temperature at each site will be in the circle on the map. Click on that circle to get specific mesonet site information and data sets. Want a ‘tour’? Give me a shout. I’m happy to walk you through what the Kansas Mesonet can do to aid in your planting decisions.