

News Column for use 2/21/2022
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Checking Soil Temperature

How do you decide when is the right time to plant your garden? Do you go by what the calendar says? Or do you go by the weather/air temperature? How about going by the soil temperature? Soil temperature is a better way to measure when it is time to plant rather than using air temperature or the calendar. Just because the calendar says it's time to plant and you think it's warm enough outside, doesn't mean the soil is warm enough. Planting when the soil is too cold can cause seeds to rot and transplants to refuse to grow. One of the most neglected tools for vegetable gardeners is a soil thermometer.

Several vegetables can germinate and grow at cool temperatures. For example, peas will germinate and grow well at a soil temperature of 40°F. Although lettuce, parsnips, and spinach can sprout at a soil temperature of 35°F, they prefer at least 45°F for best germination and growth. Radishes also do well at a soil temperature of 45°F. Warm-season crops such as tomatoes, sweet corn, and beans prefer at least 55°F for germination, but others such as peppers, cucumbers, melons, and sweet potatoes need it even warmer, about 60°F.

Taking a soil temperature accurately is a bit of a science. First, you want to measure the temperature at the right depth for the vegetables you are planting. If you are planting seeds or new plants, take your measurement at the recommended planting depth for the specific vegetables. But if you are planting a mixed garden, where everything has a different planting depth, check the soil temperature at least 5-6 inches deep. Use a metal soil thermometer, which is sold in many garden and hardware stores.

Temperature variations throughout the day and night affect the soil temperature, with the lowest readings after dawn and warmest around mid-afternoon. Late-morning readings give a good average temperature. If taking the soil temperature in the middle of the morning isn't practical, take a reading before you leave for work and a second when you return home and take an average temperature from the two readings. Be sure to get a consistent reading for four to five days in a row before planting. You want to make sure the soil temperature is staying at a consistently warm temperature.

Once your soil has warmed up you are ready to start planting your garden, just don't forget to check the weather to make sure they aren't predicting any cold snaps soon. If you have any questions feel free to stop by or contact me in the Washington office, at 785-325-2121 or khatesohl@ksu.edu.