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Take Note of Soil Temperature

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Abstract
Soil temperature is important in all seasons, but especially so in the spring as crop emergence takes center stage. Corn seed planted in soil at 50 degrees F requires about 21 days to emerge. Only seven days elapse from planting to emergence when the soil temperature is 70 degrees.

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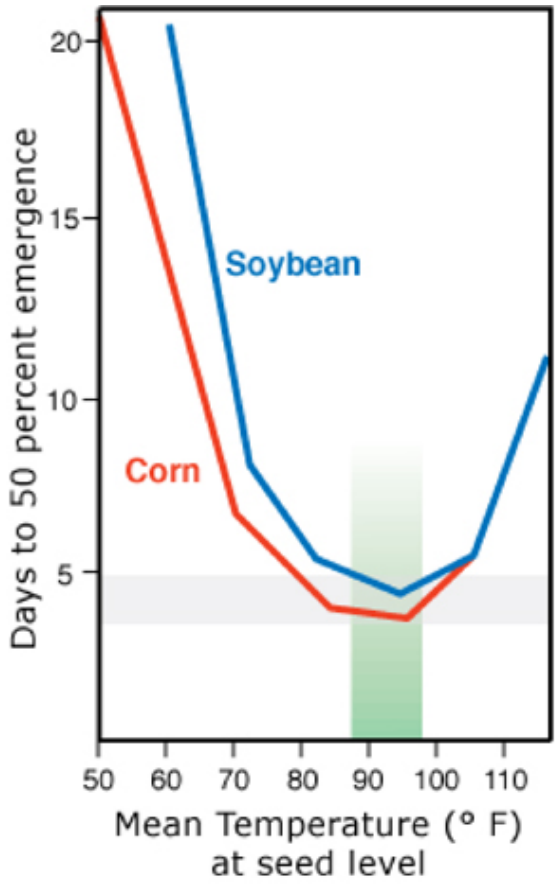
Take Note of Soil Temperature

by Elwynn Taylor, Department of Agronomy

Soil temperature is important in all seasons, but especially so in the spring as crop emergence takes center stage. Corn seed planted in soil at 50 degrees F requires about 21days to emerge. Only seven days elapse from planting to emergence when the soil temperature is 70 degrees.

Insects, earthworms, weeds and the micro-organisms that influence the fate of nitrogen in our fields are directly impacted by soil temperature. Central Iowa soil temperature in late April is normally 47 to 62 degrees; the long term average is 57 degrees F. The cooling of soils in the third week of April this year appears to be of brief duration and will not likely result in serious setbacks or direct damage to seed already in the soil. Current soil temperatures, for the past three days, is available by county at http://extension.agron.iastate.edu/NPKnowledge/



Temperature and the days to crop emergence.

Risk oriented?

Want to know what the chance is that soil temperatures will be 50 degrees F or less on Oct. 24? (In Ames, it is 100 percent.) Wondering what's the chance of soil temperature falling below 50 degrees F on May 5? (In Ames, it is 29 percent or about one year in five.) Use Risk Tables available through the Department of Agronomy to calculate soil temperature risks for your area.

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