



WATCH IT GROW

CROP UPDATE REPORT

DATE: May 1st, 2024

Planting In Cool Soils

As we begin to approach the end of April and early May soil temperatures in the area continue to remain below the ideal levels. Which raises the questions of how long should I wait before beginning planting?



When considering when to start spring seeding it is important to look at a multitude of factors that will all influence the crops germination rates and timing. The presence of proper soil conditions should be a main consideration followed by the weather conditions. Monitoring the long-term weather forecast but most importantly the weather immediately following planting as the first 48 hours following planting are critical. For example, corn absorbs approximately 30% of its weight in water before gemination, ensuring the seeds 'first drink' is warm water is important to preventing inhibition chilling which can negatively affect germination rates and emergence times. In most cases this means waiting till soil temperatures are at or above 10° C (50° f) and remember corn starts germinating at 8° C (46°f) but won't have upward growth till 15° C (60° f). If you do begin planting when soils are cooler than recommended, consider using a flex variety and increase your planting rate to accommodate for a potential of a lower germination rates. Check RealAgriculture's video for information of planting and soil temperatures

<https://youtu.be/TGWCM8aLT4Y>

Planting soybeans into cooler soils does not require a change in seeding rate but does come with the recommendation of using fully treated seed and a low salt content starter fertilizer in furrow to prevent seed damage if germination times are longer than ideal. As always it is recommended to consult your agronomist and tailor recommendations to your specific geological area and growing conditions. It is best to avoid blanket statements and to look at the real-life data.



Checklist For Planting into Cool Conditions

<u>Corn</u>	<u>Soybeans</u>
<ul style="list-style-type: none"> ✓ Proper soil conditions ✓ Long term forecast looks good ✓ Soils temperatures are at least 10° C ✓ Consider switching to a flex variety ✓ Increase seeding rate 	<ul style="list-style-type: none"> ✓ Proper soil conditions ✓ Long term weather forecast looks good ✓ Soils temperatures are at least 10° C ✓ Check the day length of the variety ✓ Use fully treated seed

When thinking about planting into cooler soils ensure you are planting into a good uniform seedbed, choosing the correct variety, planting your lighter well-drained soil first, and looking at the long-term forecast.

Check out this article by the University of Nebraska for more information [https://cropwatch.unl.edu/2018/cold-soil-temperature-and-corn-planting-windows#:~:text=Planting%20into%20cold%20soil%20\(below,or%20negate%20normal%20plant%20development](https://cropwatch.unl.edu/2018/cold-soil-temperature-and-corn-planting-windows#:~:text=Planting%20into%20cold%20soil%20(below,or%20negate%20normal%20plant%20development)