

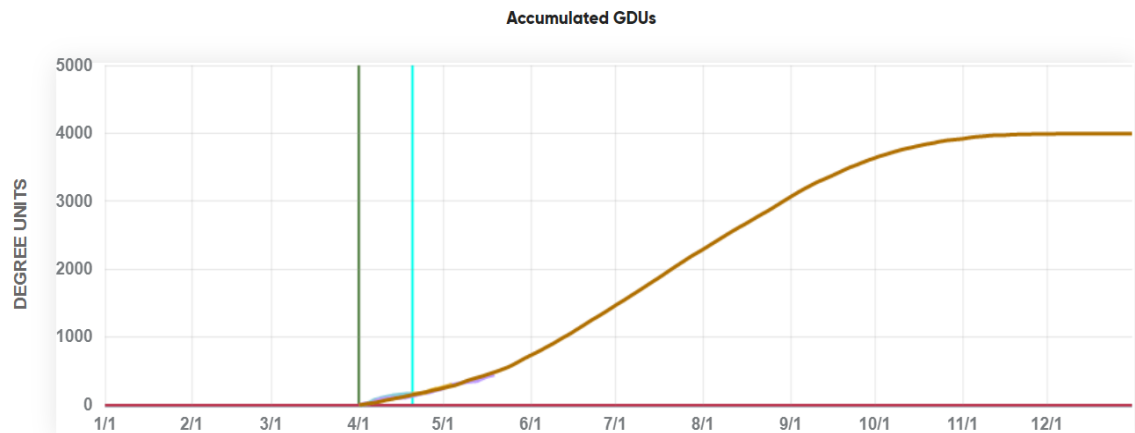
AGRONOMY UPDATE

April 20, 2021

What will the cold temperatures do to planted corn?

- Depending on your planting date:
 - Corn planted 1st week of April is most likely emerged or just spiking. It takes about 125 GDU's for emergence on corn.
 - We'll likely see frost damage on leaves of corn plants that have emerged.
 - Recovery potential from frost injury on VE-V2 corn is good because the growing point is still below ground.
 - Corn planted after Easter (April 4th or later) is most likely close but still not emerged.
 - Keep in mind the growing point on corn is still below ground. It will take sustained temperatures of 20-25° F to penetrate the soil to kill the plant. It would take a hard freeze to go deep enough to kill the growing point. With our current forecast we should be OK.

Troy, Missouri April 1st through the 20th



Year-to-Year Comparisons From 4/2 to 4/19

Season	Total GDUs	GDUs from Normal
2021	168	+29
2020	123	-16
2019	186	+47
Normal	139	-

What will the cold temperatures do to planted soybeans?

- If soybeans have emerged, then there is concern as the growing point is above ground at emergence.
- Temperatures below 32° F can cause frost damage to emerged soybeans plants.
- Temperatures below 28° F for an extended period of time (> 4 hours) can be lethal, especially on lighter-textured soils.
- Our current forecast (thankfully) is not calling for temperatures to stay below 28° F for more than a couple hours...time will tell.
- Soybeans that have just cracked the soil surface will be more tolerant to freezing temperatures than plants that have fully emerged with the cotyledons above ground.
- Soybeans underground should be protected. As mentioned with corn, and our forecasted low temps, we shouldn't see much penetration of the freeze into the soils.
- If you have soybeans still underground, we recommend taking a look to see how close they are to the soil surface in case we do see any freeze penetration in the ground.

What will the cold temperatures do to wheat?

- Fortunately, most of our wheat is just at jointing stage, so we still have a high tolerance to freezing temperatures.
- It takes 24° F for 2 hours to cause significant freeze damage to wheat at jointing stage. With the current forecast the wheat should be fine.

Of course, this is all relative to our current forecast and we know that can always change. Following this cold spell, it is recommended 3-5 days above 70°F to evaluate regrowth and any replant concerns. If you have any questions, please contact Jessica or Shannon – we would be happy to help.