

Delayed Corn Planting in the Central Corn Belt

OVERVIEW. When corn planting is delayed due to inclement weather and poor field conditions, you can still take advantage of the compressed growing season and achieve reasonable yield results by adjusting your hybrid selection and managing cropping activities with later planting dates.

WHAT YOU SHOULD KNOW.

- Corn planted after May 1 requires fewer growing degree days (GDD) to reach physiological maturity. When planting is delayed after May 1, the necessary GDD requirements are typically reduced by 6.8 GDD per day for every day of delayed planting. This adaptability of corn offers full-season hybrids a larger planting window with the ability to still reach maturity (about 32% moisture) before frost typically occurs. For most full-season hybrids in the Central Corn Belt, planting can be delayed until at least June 1 (see Table 1).
- Planting should take priority over other activities. Remember that nitrogen can be sidedressed up to the eight-leaf stage and postemergence herbicides can be substituted for preplant and/or preemergence herbicides and still provide effective weed control.

ACTION STEPS.

- 1. Prioritize planting by hybrid:** Plant the fullest-season, latest-flowering hybrids first. Plant early-flowering, short-season hybrids last.
- 2. Do not work wet soils:** Tilling wet fields can result in poor seed-to-soil contact and cause corn plants to leaf out underground. This will reduce yields far more than a short planting delay.
- 3. Plant for a uniform stand:** Maintain recommended planting speed for your target plant spacing. If conditions indicate a prolonged cool, wet period after planting, increase planting populations 5 to 10 percent to compensate for potential emergence problems and seedling diseases.

NOTES:

Table 1. Yield potential for a range of planting dates and final plant populations (Nafziger, 2020).

Planting Date	Plant Stand, '000s per Acre						
	20	23	26	29	32	35	38
Yield, Percent of Maximum							
April 1-10	84	88	91	94	97	98	99
April 11-20	84	89	92	95	97	99	100
April 21-30	84	88	92	95	97	99	99
May 1-10	83	87	90	93	95	97	98
May 11-15	81	85	89	91	93	95	96
May 16-20	79	83	87	90	92	93	94
May 21-25	78	82	85	88	90	91	92
May 26-31	75	79	82	85	87	88	89
June 1-5	73	76	79	82	84	85	86

Data from Nafziger, E. 2020. Replanting corn and soybeans. farmdoc daily (10):89. Dept. of Ag. and Consumer Econ., Univ. of Illinois, Urbana, IL. <https://farmdocdaily.illinois.edu/2020/05/replanting-corn-and-soybeans.html>

30 SECOND SUMMARY

- Most full-season corn hybrids are adaptable to later planting.
- If planting is delayed, prioritize planting fullest-season, latest-flowering hybrids.
- Don't be tempted to plant into wet soils to avoid delay. This can cause more issues with yield than a brief delay will.