# **Agronomy Profile**





# 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.
- Do not work wet soils: Tilling wet fields can result in poor seed-tosoil 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.

#### For more information, contact:



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Table 1. Expected Corn Grain Yield Due to Various Planting Dates and Final Plant Populations

Planting	Plant Stand, '000s per Acre							
Date	10	15	20	25	30	35	40	
Yield, Percent of Maximum								
April 1	56	66	76	84	91	96	99	
April 10	59	69	78	86	92	97	100	
April 20	61	71	79	86	92	96	99	
April 30	61	70	79	85	90	94	96	
May 10	60	69	76	82	87	90	92	
May 20	56	65	72	77	82	84	85	
May 30	51	59	66	71	75	77	77	
June 9	45	52	58	63	66	68	68	

Data from Emerson Nafziger, University of Illinois. Used by permission from the Illinois Agronomy Handbook, 24th Edition (2009), Publication C1394, University of Illinois Extension.



- Most full-season corn hybrids are adaptable to later planting.
- If planting is delayed, prioritize planting fullestseason, 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.

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