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Late planting may sustain corn yield and reduce irrigation

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Corn plants at the productive stage grown at Bushland, TX. The picture shows no difference in plant height between late June planting (left) and mid-May planting (right). Photo courtesy of Qingwu Xue, Texas A&M AgriLife Research, Amarillo.

Corn production relies on irrigation from the Ogallala Aquifer in the Texas High Plains. With declining water supplies from the aquifer, corn production in the area faces challenges. Therefore, it is imperative for land managers to develop management strategies for decreasing production risks under reduced irrigation capacity.

In the High Plains area, the normal corn planting date ranges from mid-April to May. However, adverse weather conditions can delay planting to June or later. Currently, there is little information for corn performance on different planting dates in the area, especially for early-maturity hybrids.

A recent *Crop Science* article highlights a two-year study (2013 and 2014) that used four planting dates and four to six hybrids under full irrigation. Results showed that high corn yield (15 Mg ha^{-1}) can be achieved with long-season hybrids when planted before mid-June, but short-season hybrids were a better choice after mid-June. Compared with mid-May planting, planting in late June reduced crop water use by 25% but did not affect water use efficiency. These results demonstrate that relatively delaying corn planting can potentially sustain corn yield and reduce irrigation requirements. These findings could lead to reducing water withdrawals from the Ogallala Aquifer while maintaining sustainable irrigated crop production.

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Jiang, W., Thapa, S., Jessup, K., Hao, B., Hou, X., Marek, T., … Xue, Q. (2020). Corn response to later than traditional planting dates in the Texas High Plains. *Crop Science*, *60*. **https://doi.org/10.1002/csc2.20042**

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