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Short-season corn for low-yielding environments in the south

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Inoculating short-season corn with A. flavus. Photo courtesy of Joey Williams.

Corn grain yield in the Mid-South can often be reduced significantly by abiotic factors such as heat and drought. Prior research indicates that corn is extremely susceptible to stress from abiotic factors during tasseling and the transition to reproductive growth stages. This stress may be mitigated if short-season hybrids tassel in less time and transition into reproductive growth stages while the weather is still cooler and wetter.

In a recent *Crop, Forage & Turfgrass Management* article, researchers sought to modify hybrid selection by comparing short-season hybrids to standard full-season hybrids. They tested hybrids with relative maturities ranging from 92 to 120 days and reported significant yield reductions from short-season corn hybrids in high-yielding environments compared with standard hybrids. However, short-season corn hybrids may be advantageous in low-yielding environments.

Pooled over all locations, grain yield was increased by 0.8 bu ac^{-1} for each increase in relative maturity day. This research demonstrates that growers in the Mid-South should continue to select full-season corn hybrids with relative maturities of 110 days or greater to maintain maximum grain yield.

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Williams, J.J., Whittenton, J.B., Ali, O.N., Buehring, N.W., Varco, J.J., & Henry, W.B. (2020). Short-season corn hybrids to avoid heat and drought stress in the Mid-South USA. *Crop, Forage & Turfgrass Management*, *6*, e20010. **https://doi.org/10.1002/cft2.20014**

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