

Early cotton planting requires irrigation

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Cotton growers can produce more cotton if they plant early, but not without irrigation. That's the finding of an article published in the September-October 2010 *Agronomy Journal*, a publication of the American Society of Agronomy.

Bill Pettigrew, a scientist with the USDA-Agricultural Research Service in Stoneville, Mississippi, tested the performance of cotton under irrigated and non-irrigated plots, with half the plots being planted early (first week of April) and half being planted in the more tradition time period, around the 1st week of May.

Previous research indicated that planting earlier in the year increased cotton yields. This is likely because the peak blooming period shifts closer to the longest day of the year (in June), avoiding the typically drier months of the year, July and August. The additional sunlight associated with longer days also allows the plants to take in more sunlight during their growing season.

However, most of this research was done on irrigated crops. Pettigrew's study found that while early planting does increase yield, it does so only with irrigation. Early planting increased cotton production in of two of the four years of the study with irrigation. However, the non-irrigated plots never saw increased production from early planting, and even saw a 13% decrease in yield one year.

Conducted from 2005-2008, the only year that irrigation did not increase yield was 2005, when the study area was hit by [Hurricane Katrina](#).

Pettigrew concluded that early planting clearly needs irrigation to increase cotton yields. This attribute implies that if [Mississippi Delta](#) producers don't have [irrigation](#) capabilities, they should probably not adopt an early planting strategy.

The results from this research can be used by cotton researchers, extension specialists, consultants and producers as an unbiased source of information to aid in making cotton production decisions.

More information: The full article is available for no charge for 30 days following the date of this summary. View the abstract at [www.agronomy.org/publications/ ... abstracts/102/5/1379](http://www.agronomy.org/publications/...abstracts/102/5/1379)

Provided by American Society of Agronomy

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