

Corn *Planting* Dates

Many Factors Play Into Finding Right Planting Date For Best Yields

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Corn planting dates and their impact on harvest is one of the concerns of Dr. Jason Kelley, Extension Agronomist with the University of Arkansas Cooperative Extension Service.

"While corn planting dates may sound pretty generic and basic, it's the foundation to being able to grow a good corn crop," he reasoned. "There are many reasons why we plant corn early – less watering, less insect pressure, less foliar disease, early harvest; but really the last three years (2007-2009) early planted corn, in

impacts, the optimum corn planting date may be later than what we anticipate. Here at Marianna we consistently have been able to maintain near 100 percent of our yield potential when planting Bt hybrids as late of Mid-May."

One drawback is the hybrids out there may be not built for late plantings.

"That's the thing, at this particular location, we have very heavy corn borer pressure and with those earlier plantings, March plantings, there's not a whole lot of difference in yield between the Bt versus non Bt hybrids," he added. "We have several different Bt traits and all seem to control corn borers well, but the later you plant the more important the Bt technology be-



Dr. Jason Kelley, Extension Agronomist with the University of Arkansas, elaborates on his concerns with corn planting dates and their impact on harvest.

Photo by John LaRose, Jr.

this area of Arkansas has not done as well as slightly later planted corn."

In 2007 there was the big Easter freeze in early April; early planted corn came up quick that year, and a lot of it had to be replanted because it froze out. In 2008/2009 there was a lot of heavy rain with a cool, wet weather. Again a lot of those early plantings had to be replanted because of poor stands; or initial plantings were delayed later than intended because of wet soil conditions.

"After the 2007 year we realized we needed more information on corn planting dates" he said. "In 2007, we replanted a lot of corn well into April and had record yields, which showed many producers that with late planting and irrigation we can still have good corn yields. The last two years (2008 and 2009) with the cool, wet springs, those early plantings in March or even as late as April 1 really suffered with the cool wet weather. Here at Marianna irrigated corn planted as late as May 15 in 2009 was better yielding than earlier plantings even though they had the same stand. I think it's just the fact the corn grew off better, never struggled with the wet weather and just took off growing and yielded very well."

In 2010 with a warm and dry spring, those early plantings in March came up good, there were no stand issues, it looked excellent; but at harvest there just wasn't a whole lot of difference in Bt hybrid yields when planted on March 19, April 16, or May 13. This year, however, the later planted corn definitely had to be irrigated more.

"So we want to figure out the best planting dates when looking at the data for several years with different weather patterns," Kelley said. "We're trying to better define that planting window and determine at what point corn yields begin dropping. With irrigation, good adapted southern hybrids, foliar fungicides when needed, and Bt technology to reduce corn borer

comes. In our studies here, where we compared Bt to non-Bt hybrids, non-Bt corn yields started dropping after April 15.

Planting later doesn't mean that harvest will be later. The past year, there was only a two to three point difference in grain moisture at harvest between a middle March and middle April planting that were harvested the same day. So whether you plant early or a month later, the harvest date can be the same.

"With these later plantings emergence is much quicker, and plants are accumulating heat units very rapidly," Kelley said. "This year the early March plantings, on average, took about 75 days from planting to beginning of silking; a mid-April planting took 63 days, and a mid-May planting took 50 days from planting to silking. If you plant a month or six weeks later, the harvest is a little bit different, but definitely it's not going to be that four to six weeks difference."

With the early plantings there is more risk up front from lack of a good stand, but the later plantings show more risk later in the season – the potential in Arkansas of hurricanes and lodging.

"With early plantings, when it's 100 degrees in August things dry down fairly good," he said. "You get into middle of September or later harvest date, things aren't going to dry down nearly as fast and you have potential for hurricanes coming in causing real lodging problems. With later plantings, having the ability to harvest grain at high moisture and drying is a real asset to help avoid weather problems at harvest.

"Early planted hybrids tend to be shorter in height, but the later we plant the taller they get. Many times we don't think twice about plant height, but with later plantings plant height can increase a couple of feet, which makes the plant more prone to lodging problems later in the season."

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