

Influence Of Planting Date On Peanut Yield

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We continue to evaluate the affect of planting date on peanut yield and grade. Prior to tomato spotted wilt virus (TSWV) becoming a major production issue in the early to mid 1990's, producers planted based on the calendar and weather factors, especially soil temperature. TSWV forced us to plant later, creating logistical problems with cotton planting and harvesting. We went from spreading our planting dates uniformly over a 5-6 week period to planting 75-80 percent of our acreage in a 2-3 week period. This has resulted in logistical problems at harvest. Another complicating, and more negative affect on planting later has been the cold weather in late October that has shut down the pod maturation process, robbing yield and grade. In two of the last three years (2006 and 2008) we have had well below normal and near freezing temperatures beginning around October 20. Therefore, we need to consider planting some of our acreage earlier than we have the past few years.

We now have several cultivars with much better levels of resistance to TSWV than Georgia Green. Our research has shown that we can plant these cultivars in late April and early May without suffering the yield loss associated with TSWV severity we see when planting Georgia

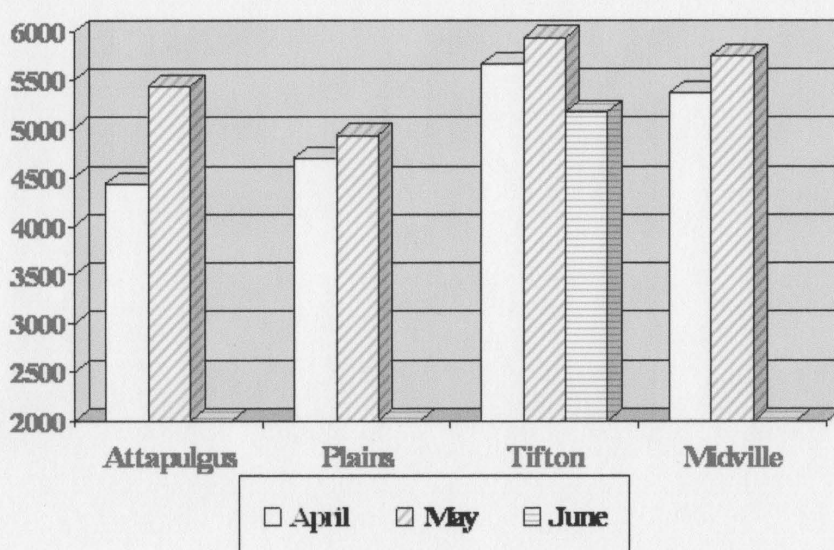
Research and Education Center near Plains in Sumter County, Southeast Georgia Research and Education Center near Midville in Burke County, and the Coastal Plain Experiment Station's Ponder Farm near Ty Ty in Tift County. Figure 1. shows peanut cultivar response to planting dates at each location. The data from 2008 correlates very closely with the results from planting date trials in 2006 and 2007. We still see the highest yields when planting in the middle of May.

Planting dates in 2008 at the locations above were: Attapulgus, April 10 and May 15; Plains, April 21 and May 20; Tifton (Ty Ty) April 18, May 12, and June 3; and Midville, April 22 and May 27. The yield data are averaged over 12 cultivars at Attapulgus, 15 cultivars at Plains, 15 cultivars at Ty Ty, and 15 cultivars at Midville. At all four locations AT 215 improved dramatically in yield at the later plantings. In fact, at the Ty Ty location AT 215 had the 3rd best yield at the early June planting.

The cultivars with the highest level of resistance to TSWV performed best at the April planting at all locations. These cultivars were: Florida-07, Georgia-06G, Tifguard, Georgia Greener, and Georgia-07W. They were followed closely by AP-4 and AT 3085RO.

The April 10 planting at Attapulgus was too early. Two days after planting there were three

Figure 1. Peanut Yield Response (lbs/A) to Planting Date when Averaged over Cultivars, 2008.



Green in mid to late April. We still, however, need to be cautious of climatic factors and weather conditions before planting. If we plant a cultivar with very good resistance to TSWV around April 25th and there is a cold front that drops the 4-inch soil temperature down below 65 degrees we can still see delayed emergence, rendering even a resistant cultivar more at risk for injury from TSWV.

In 2008 we conducted planting date trials at four University of Georgia, College of Agricultural and Environmental Sciences, Research and Education Centers in Georgia. Those locations were: Attapulgus Research and Education Center in Decatur County, Southwest Georgia

straight days where the minimum temperature reached in the mid 30's. There was no emergence at 15 days after planting and by 21 days after planting there was less than 50% emergence. Soil temperature is still a critical factor when deciding when to plant, even with cultivars with high levels of resistance to TSWV.

Finally, if you are planting Georgia-02C, plant it by NO LATER than May 15. The recent cold snaps in late October have not allowed it to reach optimal maturity, resulting in lower yield and grades. Δ

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