

## **PLANTING DATES**

Long term research has shown little yield difference in planting dates between April 1 and May 20. The “best” planting window varies yearly. Early planting while moisture exists increases the likelihood of planting in non-irrigated fields. However, early planting comes with risks, including possible seedling vigor and disease problems associated with cool periods, premature cutout related to the coincidence of early fruiting and drought, and late season boll rot due to expected rains in late August or early September. Boll rot is frequent in areas in which boll opening coincides with rainfall, high humidity, and overcast conditions.

Soil temperature is an important consideration for early planting. Generally, planting can safely proceed when the 4-inch soil temperatures reach 65° F for 3 days and warming conditions are projected over the next several days. Experience suggests that this is a very safe, conservative approach. Imbibed seed are often killed by temperatures of 41° F or below, while temperatures below 50° F can cause chilling injury to emerging seedlings.

Delaying planting until late April and early May has shown advantages in deep South Georgia. Irrigated cotton should usually be planted after May 1, since the risk of having adequate moisture for getting a stand is eliminated, the possibility of boll rot from August rains is reduced, and thrips pressure is lessened. Also, boll opening and harvest-time rainfall risks are reduced and harvest can be accomplished from late September through November, normally our most rain-free period. For irrigated cotton near the Florida border, a planting date centered around May 10 should be a good strategy for reducing boll rot. Only short to medium maturity varieties should be planted after May 20 to 25.

Many south Georgia producers grow both cotton and peanuts. The occurrence of tomato spotted wilt virus (TSWV) has resulted in a shift in peanut planting to mid-May and has also delayed the initiation of peanut harvest to mid-September. Competition for labor at harvest has often forced south Georgia producers to choose between the two crops, most often with cotton harvest being delayed. There is the possibility that early plantings (early to mid-April) of short season cotton varieties under irrigation may allow harvest prior to peanut maturity. Early planting and subsequent early harvest may also be an avenue to enhance crop quality, as one of the major factors influencing overall crop quality is delayed defoliation and harvest. Potential benefits of this concept depends on favorable weather in early September, but planting a portion of the total crop helps “spread the risk.” In some years, cotton that matures and opens in late August or early September is subjected to severe boll rot. In addition, unfavorable weather at boll opening may in fact undermine the attempt to capture quality with early planting of short season varieties. Thus, planting a major portion of ones crop in this way is not advised.

Weather prediction is an important part of agriculture. Ideally, an accurate understanding of future weather could guide planting so that fruiting coincides with abundant rainfall and that boll opening/harvest coincide with relatively rain-free periods. Unfortunately, neither accurate prediction nor control of weather exists. Weather--particularly rainfall--continues to be the single greatest factor influencing yield.

### **Double Crop**

Double-crop or "June" cotton is feasible in the Coastal Plain, especially in lower south Georgia where the growing season is long. Early, cool fall weather delays maturity and limits yield in

some years, but early June planted cotton has adequate yield potential under intensive management, especially with irrigation. Some UGA research shows a possible yield reduction of up to 30 percent when comparing full season cotton planted in early May to June planted cotton after wheat harvest. Grower experience indicates increasing risk past the first week of June. The obvious limitation is an early frost or at least cool temperatures in mid to late October which inhibit boll maturation. In addition, because of the brevity of the potential fruiting period, timely rain or irrigation is absolutely necessary. Growers should be aware of crop insurance specifications related to late or double-crop cotton. Research studies along with grower experience indicate the following precautions or adjustments should be made when planting either as a double-crop after small grains or extremely late (near or after June 1):

1. Irrigation is strongly recommended to insure a vigorous stand during the normally dry period in late May and early June. Likewise, dry weather is expected after mid-August and before boll maturity is completed.
2. Plant a short-season, fast-fruiting, early maturing variety.
3. Plant only 2 to 3 good quality seed/ft of row to alleviate the complications of late plantings and dense stands.
4. Protect the terminal bud from injury by thrips or worms. Generally, thrips pressure is less in late May and early June plantings as compared to April to mid-May planting dates. Also, prevent plant bug damage to avoid delays in fruiting.
5. Avoid crop injury by over-the-top sprays or other misuse of herbicides to prevent stress and delayed maturity.
6. Prevent fruit shed and fruiting gaps by good insect control, balanced nutrition, and irrigation.
7. Don't try to rush the crop by over fertilizing with N. Use minimum soil applied rates (usually 25 to 30 percent less than on full season) and monitor nitrate levels with petiole tests to detect need for late sidedness or foliar N application. P and K could be applied to the previous crop, except for sandy land, to save time especially if a starter is used to give N for early season growth.
8. Monitor the crop closely by plant mapping, square retention counts, etc., so that problems can be diagnosed and corrected to prevent further delays in maturity.
9. Use mepiquat containing (Pix, Mepex, Mepichlor, Topit, Pentia etc.) plant growth regulators if needed to prevent excess vegetative growth and boll rot, and to promote earliness.
10. Use ethephon (Prep, Finish, First Pick, etc.) harvest aid to promote boll opening, allow earlier harvest, and avoid freeze damage.