



**2011 Georgia Cotton Varieties Planted and Shifts in Seed Technology 1**

**2011 Georgia Cotton Varieties Planted and Shifts in Seed Technology (Shurley, Collins, and Whitaker).**

Since the elimination of single-gene Bt seed technology from the market after the 2009 season, there has been a major shift in varieties and seed technology planted by Georgia cotton producers. Cotton seed including technology fees, depending on the number of seed per bag, can cost over \$500 to almost \$600 per bag. Seed and associated tech fees can cost approximately \$80 per acre. So, the decision on variety and technology is a major one, not only from an expense standpoint, but it also determines the herbicide and insecticide management regime for the upcoming growing season.

In 2009, Georgia producers planted 82.5% of the crop to one variety—DP 555 BR. Other varieties and technologies were planted on a much smaller amount of acreage.

| Top 12 Varieties Planted By Crop Year         |       |              |       |              |       |
|---|-------|--------------|-------|--------------|-------|
| Percent of Georgia Acreage Planted by Variety |       |              |       |              |       |
| 2009  |       | 2010         |       | 2011         |       |
| Variety                                       | %     | Variety      | %     | Variety      | %     |
| DP 555 BR                                     | 82.53 | DP 555 BR    | 24.74 | DP 1050 B2RF | 25.03 |
| PHY 370 WR                                    | 2.74  | DP 0949 B2RF | 12.52 | DP 1048 B2RF | 16.38 |
| DP 0935 B2RF                                  | 2.61  | PHY 375 WRF  | 8.40  | PHY 375 WRF  | 12.98 |
| DP 0949 B2RF                                  | 2.14  | PHY 370 WR   | 8.36  | PHY 565 WRF  | 10.76 |
| ST 5458 B2F                                   | 1.07  | FM 1740 B2F  | 7.01  | FM 1845 LLB2 | 6.21  |
| PHY 480 WR                                    | 0.85  | DP 0935 B2RF | 5.63  | DP 0912 B2RF | 6.05  |
| FM 1740 B2F                                   | 0.84  | FM 1845 LLB2 | 4.77  | DP 1034 B2RF | 3.71  |
| PHY 485 WRF                                   | 0.68  | DP 1048 B2RF | 4.76  | FM 1740 B2F  | 3.54  |
| PHY 375 WRF                                   | 0.59  | DP 1050 B2RF | 4.62  | DP 1137 B2RF | 3.29  |
| FM 1845 LLB2                                  | 0.47  | PHY 480 WR   | 2.75  | DP 0949 B2RF | 2.73  |
| DP 434 RR                                     | 0.43  | FM 1735 LLB2 | 2.30  | ST 5458 B2RF | 2.68  |
| PHY 440 W                                     | 0.38  | PHY 565 WRF  | 2.00  | FM 1773 LLB2 | 1.17  |

Source: *Cotton Varieties Planted*, USDA-AMS Cotton Program, Memphis, TN.

Single-gene Bt technology (B or BR varieties) began to be phased out in 2010. Single-gene varieties for 2010 planting were limited to 2009 end-of-season remaining seed inventories. DP 555 BR still accounted for about 25% of Georgia cotton acreage in 2010. Acreage of the new “09” and “10” Deltapine (DP) varieties increased. DP 0949 B2RF increased 10 percentage points and DP 1048 B2RF and 1050 B2RF accounted for over 9% of acres in 2010.

Phytogen (PHY) Widestrike® varieties (W, WR, and WRF) and FiberMax (FM) Liberty-Link® (LL and LLB2) and B2F varieties also increased significantly beginning in 2010 as acreage of DP 555 BR decreased. Among the top 12 varieties, PHY varieties accounted for 21.5% of Georgia acreage compared to only 5.2% in 2009. FM varieties accounted for 14% of acreage among the top 12 in 2010 compared to only 1.3% in 2009.

This season (2011) the top variety planted in the state was DP 1050 B2RF—accounting for 25% of Georgia acreage. This was followed by DP 1048 B2RF, PHY 375 WRF, PHY 565 WRF, and FM 1845 LLB2 rounding out the top 5.

There are many factors that determine a producer’s decision on which seed variety and technology to plant. Among others, these factors include performance (yield and fiber quality), cost, availability, weed and insect management, and more recently, management of glyphosate-resistant Palmer Amaranth.

In 2009, prior to the scale-down and elimination of DP 555 BR and other single-gene Bt varieties, BR technology comprised 83% of Georgia acreage. This was almost entirely DP 555 BR. Two-gene cottons (B2 and W) comprised approximately 14% of acreage. As DP 555 BR was eliminated, acreage began to shift to B2 and W varieties. In 2010, BR cotton’s declined approximately 57% and B2 and W cotton’s increased an almost equal amount at 58.5%.

| <b>Georgia Cotton Acreage, % Planted By Seed Technology Type</b> |             |             |             |
|--|-------------|-------------|-------------|
| <b>Technology Type</b>   | <b>2009</b> | <b>2010</b> | <b>2011</b> |
| RR   | 0.63        | 0.00        | 0.00        |
| RF   | 0.96        | 0.90        | 0.35        |
| BR   | 83.03       | 25.60       | 0.37        |
| B2R  | 0.32        | 0.00        | 0.00        |
| B2RF   | 7.93        | 40.70       | 65.20       |
| LL   | 0.00        | 0.00        | 0.02        |
| LLB2   | 0.77        | 8.10        | 8.37        |
| W  | 0.38        | 0.90        | 0.54        |
| WR   | 3.59        | 11.20       | 0.33        |
| WRF  | 1.27        | 11.90       | 24.33       |
| Conventional   | 0.10        | 0.00        | 0.00        |
| Not Specified  | 0.80        | 0.70        | 0.48        |

Source: *Cotton Varieties Planted*, USDA-AMS Cotton Program, Memphis, TN.

This season, 65.2% of Georgia acreage was planted to B2RF (Bollgard II® Roundup-Ready Flex®) technology. This was followed by WRF (Widestrike® Roundup-Ready Flex®) technology at 24.3%. Liberty-Link® (LL and LLB2) varieties accounted for 8.4% of acreage in 2011 compared to less than 1% in 2009. Availability and use of W and WR varieties has decreased and WRF increased.

In tandem with the loss of DP 555 BR, cotton producers have also faced the increasing challenge of glyphosate (Roundup®) resistance. Although Roundup-Ready® technology still comprises the majority of Georgia acreage, resistance and the loss of DP 555 BR have likely contributed to the shift of some acreage to LL (glufosinate-tolerant or Ignite®) and W technologies. Ignite® herbicide is occasionally used on Widestrike® cotton although not recommended by UGA and not endorsed by Dow AgroSciences or Bayer CropScience.

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