

# THE TURN ROW



FEB  
6  
2023

## VARIETY SELECTION

By: Jeff Thompson & David Mullins



As a cotton producer, you are faced with endless management decisions over the course of a growing season. Considering today's high cost of production, all are important but none more so than variety selection. Each variety carries its own genetic potential for yield and fiber quality. One must choose wisely as the difference between a high performer versus an inferior one can be as much as 200 pounds, or \$175 per acre at current prices.

In recent years, the selection process has been made increasingly more difficult with the rapid introduction of a new varieties and technological traits. In this month's Turn Row, we will highlight key factors to consider when choosing varieties. Also, we've included our recommended planting list for both the Southeast and Southwest regions. These recommendations are based on reviews of university variety trial data, on-farm evaluations, as well as personal observations. However, do not forego a variety that has worked well for you in the past but isn't on our list, as your own farm is a good proving ground.

### Selection Criteria

**Yield** – Obviously, the most important selection criteria is yield potential. As

mentioned, this may vary over 200 pounds per acre among varieties. Once seed has been planted the genetic potential of a field has been determined, since all other management practices will only serve to preserve and foster this potential. In addition, look for consistency that would be varieties which have delivered superior performance across a wide range



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of environments, soils, planting dates, and weather patterns. This is best seen in those performing well across multiple test sites.

**Maturity** – In the past, we've often sacrificed both yield and fiber quality when planting early season varieties. Today's early maturing varieties, however, are much more indeterminate in growth habit and have a higher degree of stress tolerance. Making them comparable to full season varieties in yield potential while at the same time maximizing the fruiting window. The choice between planting early, mid, and full season varieties can now be based on the calendar or as a means of maximizing harvest capacity without taking on any undue risk.

**Transgenic Traits** – Once limited to Bt technology for worm control, transgenic seed technology is now available for the control of resistant weeds, nematodes, and other insects. Most high performing varieties now have the three gene technology for increased bollworm control. DP 1646 is the only two gene variety still recommended. To this point it has continued to provide adequate control but understand the potential is there for greater bollworm escapes. This year the Thryvon technology will be commercially available for the first time. It is designed to control sucking insects



*In the weeks leading up to planting, it's customary to thoroughly inspect planting equipment and perform necessary maintenance to ensure everything is in good working order.*

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*Seedling vigor is obtainable when using good quality seed*



such as thrips and plant bugs. In limited planting last year, it performed very well. Your choice of herbicide package should be based on weed species present and their pressure. Your choices are Extended Flex (dicamba), Liberty Link (glufosinate), and Enlist (2,4, D) all of which are glyphosate tolerant, as well. I don't have to tell you it's critical to know what is where and where is what since they don't play well with each other and crop injury is a risk if misapplied.

**Fiber Quality** – Though often seen as secondary to yield performance, fiber quality should not be overlooked. Premiums are now being paid for higher qualities on forward contracts and recaps. With the latter these premiums can be several cents above those of lesser grade. The three quality factors most associated with plant genetics is staple length, strength, and to a lesser degree micronaire. Staple length of 34 is considered base grade on the loan chart but now discounted in the marketplace while 36 staple and above is preferred. To our good fortune, most currently available varieties will easily meet these criteria. As for strength, 30 grams per tex is the new norm replacing 28 grams of the past. The ability to capture a three or four cent premium versus a two or three cent discount by simple variety selection will go a long way in covering input costs.

In summary, we are very fortunate to have a host of



varieties to choose from which will satisfy the above selection criteria. We recommend planting multiple varieties so as not to put all your eggs in one basket. Devote most of your acreage to tried and tested varieties with a track record of high performance while planting the remainder in promising newer varieties in order to gain some experience.

#### Southeast Variety Recommendations (Listed from early to full season maturity)

DP 2012 B3XF – high yielder similar to DP1646 but earlier, less PGR requirements  
 DP 2127 B3XF – high yielding, good fiber quality, very indeterminate  
 ST 5091 B3XF – good seedling vigor, adapted to wide range of soils  
 ST 4990 B3XF – best in high yielding environments, less PGR, root knot nematode resistant  
 NG 3195 B3XF – high turnout, heat tolerant.  
 DP 2038 B3XF – one of DP's highest yielders  
 PHY 400 W3FE – compact plant growth, less PGR, root knot resistant, best on strong soil  
 PHY 443 W3FE – root knot and reniform resistant, high PGR requirement,  
 DG 3615 B3XF – storm tolerant, excellent seedling vigor  
 DG 3519 B3XF – manageable plant, reniform resistant  
 NG 4190 B3XF – widely adaptive to most soils  
 DP 1646 B2XF – proven, caution two gene technology, less than desirable stalk strength.  
 DP 2055 B3XF – good dryland cotton, full season maturity  
 New Varieties: Use on limited acreage.  
 DP 2131 B3TXF – contains Thryvon technology to control sucking insects, early-mid maturity.  
 DP 2211 B3TXF – contains Thryvon technology to control sucking insects, early maturing

PHY 411 W3FE – root knot and reniform resistant, mid maturing  
 ST 4595 B3XF – high yielder, requires less PGR management

#### Southwest Variety Recommendations

The small crop in the Southwest somewhat limited our exposure to newer, unproven cotton varieties. Nevertheless, here are a few that managed to stand out.

DP 2012 B3XF – overall good variety plus bacterial blight resistant.  
 DP 2020 B3XF – fruits early, handles heat stress well, comparable to 1646.  
 DP 2239 B3FX – mid maturity, strong fiber package, fits in many areas.  
 DP 2335 B3FX – mid maturity, solid performer in West Texas.  
 ST 4993 B3FX – good emergence and strong fiber quality.  
 ST 4990 B3XF – strong emergence and good fiber quality. stout variety.  
 NG 4936 B3XF – medium maturity, good yield potential & fiber quality.  
 PHY 400 W3FE – compact plant growth, less PGR, root knot nematode resistant.  
 PHY 443 W3FE – root knot and reniform resistant, high PGR requirement.

## CONTACT US

John Mitchell  
334.365.3369

Jeff Thompson  
334.365.3369

SOUTHEAST  
Mark Fraser  
334.322.7686

TEXAS/OKLAHOMA  
David Mullins  
806.549.4137