# THE TURN ROW

JANUARY 30 2020

AUTAUGA QUALITY COTTON

## COTTON SEED VARIETY

By: Jeff Thompson & David Mullins

A cotton grower has a multitude of decisions to make over the course of a growing season. But none are more important than variety selection. Today's high cost of seed and technology requires that we choose those which can provide superior performance. Once seed is planted, the maximum genetic potential of a field has been determined. All other management practices and decisions only serve to help preserve and achieve this potential. There is no turning back from poor choices at that point. Studies have shown when comparing top performing varieties to inferior ones, there can be as much as a $200 per acre difference in return.

The selection process itself has become more difficult as the number of varieties to choose from have increased. A host of factors should be considered when searching for the most suitable ones. In this newsletter, we will briefly discuss some of these. Also, attached is a recommended planting list for both the Southeast and Southwest regions. We developed these to make the selection task easier after analyzing University variety test data on farm trial evaluations and personal field observations.

In recent years, we have been the beneficiary of new releases containing much greater genetic firepower than those of the older varieties. As a result, the yield bar has significantly been raised. Thus, the first and most important factor to look for in a variety is yield potential. Better yet, look for yield consistency, the ability to deliver superior yields across a wide range of environments, soils, planting dates, and rainfall patterns. These have finished near the top in multiple variety trials across a wide range of locations.

Maturity is another factor. This becomes more important when faced with weather delays at planting. In general, mid to full season varieties offer the most potential in the Southeast and parts of the Southwest. However, new genetics have given earlier maturing varieties greater stress tolerance hence the ability to withstand drought periods throughout the

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growing season. These days, we often find their yields to be comparable. Planting different maturities can be an effective way to maximize harvest capacity.

Of course, with all varieties now containing some type of transgenic traits, these must factor into the selection equation, as well. Concerning insect management, the question becomes whether to plant a two gene Bt or the newer three gene type. The former puts one at slightly more risk to resistant bollworms while the latter provides greater control. It was once thought yields were being sacrificed in making the switch. However, as we obtain more experience with three gene cotton, there is a sense this may not be the case. Keep in mind, however, there are some exceptional two gene cottons available, including the high-performing DP 1646, which should be on everyone's planting list. We are confident, if aware of the risk, it can be safely managed by careful scouting and being

prepared to treat if necessary. Until these three gene cottons have proven themselves superior, don't hesitate to use older technology.

Choosing the proper herbicide resistant package is dictated by weed species and pressure within a field. Of course, your choices are Extend, Liberty Link, or Enlist. Unfortunately, to best avoid crop injury, one or the other must be chosen. So, select the herbicide package most suitable. High yielding varieties can be found in each. Dicamba is more prone to drift, so some have chosen Extend (dicamba resistant) varieties to safeguard themselves from their neighbor.

Fiber quality cannot be overlooked. Fiber length, fiber strength, and uniformity are most influenced by genetics. Today, buyers are certainly looking for a longer and stronger fiber. Many have recently begun including small premiums in their contracts. Also, most marketing cooperatives advance members full government premiums. Thus, several cents can be had with a high-quality variety. Even though yield potential far outweighs any quality premiums, there are several varieties which can provide you both. Those in our recommended list do just that.

Lastly, don't put all your eggs in one basket. Instead, plant multiple varieties. As a rule of thumb, most acreage should be planted to proven performers. Nonetheless, we recommend gaining experience with some of the newer ones, but on a limited basis. The following recommended lists contains varieties we deem best fit to the criterion mentioned above. However, anyone who has had success with varieties not listed should, by all means, continue using them because one's own farm is the best test trial.

Until next time,

Jeff Thompson David Mullins

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# RECOMMENDED VARIETY LIST FOR 2020

# SOUTHEAST

The varieties below are listed from earliest maturity to latest. Some notes of interest are noted below each.

- ST 4550 GLTP
  - » Early to mid-season maturity
  - » 3 Bt gene
  - » High gin turnout
  - » Bacterial blight susceptible
  - » Better suited to the northern areas of the region
- DP 1725 B2XF
  - » Early to mid-season maturity
  - » 2 Bt gene
  - » Requires less PGR management
- ST 5471 GLTP
  - » Mid-season maturity
  - » 3 Bt gene
  - » Bacterial blight resistant
  - » Verticillium wilt tolerance
  - » High gin turnout
- PHY 400 W3FE
  - » Mid season maturity
  - » Less PGR management
  - » New genetics but more consistent than PHY 480, which was the old PHY 444
  - » Bacterial blight resistant
  - » Root knot nematode resistant
- DP 1840 B3XF
  - » Mid-season maturity
  - » Yield and growth like DP 1538 but much better fiber quality
- DP 1646 B2XF
  - » Mid-full season maturity
  - » A proven performer
  - » Excellent fiber quality
  - » Superior yield potential, matches or exceeds any competition
- ST 5600 B2XF
  - » Mid-full season maturity
  - » Less PGR management
  - » Root knot nematode resistance
  - » Better adapted to the southern areas of the region.
- PHY 580 W3FE
  - » Full season maturity
  - » Bacterial blight resistant
  - » Root knot nematode resistant

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## RECOMMENDED VARIETY LIST FOR 2020

# SOUTHEAST CONT.

- DP 1851 B3XF
  - » Full season maturity
  - » Some bacterial blight resistance
- DP 2055 B3XF
  - » Full season maturity
  - » New introduction requires PGR management
  - » Bacterial blight susceptible

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## RECOMMENDED VARIETY LIST FOR 2020

# SOUTHWEST

- DP 1820
  - » Early-mid variety performs well with high end irrigation
  - » Excellent fiber quality/staple length
  - » BB resistant
- DP 1845 B3FX
  - » Mid to full variety
  - » Excellent fiber quality/fiber length
  - » BB moderate resistance
  - » Bollgard 3
  - » Companion variety to DP 1646 B2XF
- DP 1646 B2FX
  - » Mid to full variety
  - » Good combination of yield potential and fiber quality
  - » Long staple
  - » Has shown strong performance across a range of environments, but best fiber length can be attained with limited stress. Good for dryland and irrigated
- DP 1948 B3FX
  - » Mid to full variety
  - » Excellent fiber length and strength
  - » Bacterial Blight Resistant
  - » Great fit on dryland
  - » B3 technology
  - » Seed size relatively small; plant into moisture; avoid planting too deep

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# RECOMMENDED VARIETY LIST FOR 2020

# SOUTHWEST CONT.

- PHY 300 W3FE
  - » Early to mid variety
  - » Big seed with great seed vigor
  - » Works well on irrigated ground
  - » Storm tolerant
  - » Enlist Technology
- Phytogen 480 W3FE
  - » Mid Season Variety
  - » Works well on dryland and irrigated
  - » Root Knot Nematode resistant
  - » Bacterial Blight Resistant
  - » Enlist Technology
- Nexgen 4936 B3XF
  - » Medium maturing variety
  - » Bollgard 3 Xtendflex Technology
  - » Easily managed
  - » Works well on irrigated ground
- FM 1830 GLT
  - » Early to mid variety
  - » Consistent in both the High  and Rolling Plains.
  - » Verticillium wilt tolerance and resistance to bacterial blight.
  - » High gin turnout and an good fiber package.
- FM 2007 GLT
  - » Early to mid variety
  - » Very tough variety that performs well on dryland acres.
- Stoneville 5707
  - » Mid to full season variety
  - » Engineered for West Texas and Eastern New Mexico dryland and limited irrigation production, early-season vigor and mid- to full-season maturity. Resistant to bacterial blight, two-gene worm protection and herbicide tolerance to Liberty herbicide, Engenia herbicide and glyphosate.

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