



## Cotton Variety Selection

- Cotton variety selection has become more complex with the availability of varieties with different pest management traits.
- It is best to choose a cotton variety with proven high yield potential within a specific geography.
- Select multiple cotton varieties with different maturities so cotton will not all mature at the same time.

### Variety Selection

One of the first decisions cotton growers make each season is selection of which varieties they will plant. This decision has become more complex due to the availability of varieties with different pest management traits. Consequently, analyzing new varieties and technologies for their fit in each field has increased in importance. The goal for cotton growers still remains the same, selection of a cotton product that can add the most to the bottom line through adaptation, yield, and input costs.

### Pest Management Traits

New insect or weed management trait offerings can be alluring to growers. It is wise to evaluate any new variety or trait technology combination on a limited scale during its first year of release, unless the technological advance is so beneficial that it is worth the risk of planting a high percentage of the farm to the technology.<sup>1</sup> It is important to remember that with any new variety or trait package, specific management may be different than with previous products, whether they are related or not.



When possible, it is best to choose a cotton variety with proven high yield potential within the specific geography. It is also important to consider the stability and quality characteristics of a cotton variety. Multiple cotton varieties with different maturities should be selected so cotton will not all mature at the same time. Staggered planting may be used when the same cotton variety is selected for multiple fields.

The decision to use a trait package should be based on several variables that are fairly common in most crop production systems. Variables include:

- Changes in application cost and frequency associated with shifting pest pressures and inherent characteristics of the technology.
- Changes in inputs due to both trait and variety shifts.
  - Trait shifts - control of target pests, increased impact of secondary pests.
  - Variety shifts - adjustment of PGR applications rates and timings, changes in fertilizer application and timing.
- Changes in labor - labor requirements may change according to the system selected. Labor required may be to hand weed, operate machinery, and manage the crop.
- Change in yields - yield/fiber quality can be influenced by several factors including:
  - Improved control of target weed and insect pests.
  - Increased yield potential of new varieties.
  - Improvements in fiber quality.
- Risk management - new products may help to reduce a grower's production risks and should be carefully evaluated on limited acres during the first year.

Table 1 provides a worksheet to help determine which cotton agronomic traits are the best fit for a grower's operation. Importance can be ranked in the left-hand column with 1- very important, 2 - important, and 3 - unimportant.

# Cotton Variety Selection

## Sources

<sup>1</sup>Boman, R. *Choosing which cotton varieties to grow.* Oklahoma Cooperative Extension Service. PSS-2119. Web source verified 9/08/16. 140106013725.

Table 1. Worksheet to help determine best which cotton agronomic traits.			
Importance Ranking	Agronomic Trait	Primary Question(s)	Specific Need (circle one)
	Maturity	What maturity helps maximize yield potential in your area?	Early Midseason Full season
	Plant Height	Does cotton tend to grow short or tall on your ground? Do you need a compact plant for harvest?	Short Medium Tall
	Leaf Pubescence	Are there insects in your area that make smoothness important?	Smooth Semi-smooth Hairy
		Does leaf pubescence affect fiber grades?	Yes No
	Stom Resistance	Is fall out or harvestability more of a concern?	Average Good Very Good Excellent
	Fiber Qualities	Are there qualities that you need to maximize or others you should limit?	
		Length	Average Good Very Good Excellent
		Strength	Average Good Very Good Excellent
		Micronaire	Tendency : Low Medium High
		Turnout	Average Good Very Good Excellent
	Disease/ Nematodes	Does disease resistance help add yield potential?	
		Fusarium Wilt Resistance	Average Good Very Good Excellent
		Verticillium Wilt Resistance	Average Good Very Good Excellent

\* Importance Ranking = 1-Very Important, 2-Important, 3-Unimportant

**For additional agronomic information**, please contact your local seed representative. Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

### **ALWAYS READ AND FOLLOW PESTICIDE LABEL**

**DIRECTIONS.** Deltapine® is a registered trademark of Monsanto Company. All other trademarks are the property of their respective owners. ©2016 Monsanto Company.140106013725. 09062016CRB.