

**FM 5013 – NEW STRIPPER FIBERMAX
VARIETY FROM AVENTIS**

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Abstract

Aventis Crop Science will release new stripper FiberMax cotton varieties in 2001, including FM 5013, tested as AVS9444. This variety began initial development in the former SeedCo breeding program, and was selected as an elite strain by Aventis Cottonseed Research, at the Lubbock, TX, breeding station. FM 5013 will be the first Aventis variety introduction in the stripper market and is targeted to very early season production in the northern High Plains. This variety provides adaptability to shorter season production management combined with excellent yield potential

Introduction

Aventis entered the stripper cottonseed market in 1999 with the acquisition of SeedCo Corporation's research and processing facilities. Germplasm from this pool includes the former High Plains breeding efforts of Coker, Deltapine, Southland, Summit, and Terra. Current varieties from this program were discontinued and breeding efforts focused on developing improved conventional genetics for the High Plains region. The breeding lines and germplasm (not finished varieties) of Ranger Seed Company were also acquired to enhance genetic diversity.

FM 5013, as 9444, was chosen for extensive testing in 1998 to evaluate a consistent and stable variety for the High Plains that offered a high fiber quality package in an early-maturing, storm-proof background.

Discussion

Variety Characteristics

FM 5013 characteristics, shown in Table 1, include normal leaf, early maturity, short stature and determinate, growth habit with large bolls. The vegetative growth rate is low and gin turnout high. FM 5013 is derived from a single plant selection in 1994.

Yield and Quality

Table 2 includes summary of variety characteristics, yield and quality over 23 locations compared to a High Plains standard variety. FM 5013 had 104% yield increase over the standard check with 23 locations combined. FM 5013 had 10% more bolls open when maturity differences were obvious in the test plots. All other characteristics are slightly better except storm resistance.

Strains tests conducted in 1999 indicate that FM 5013 has better yield, turnout, fiber strength and micronaire than the test mean at TAES test locations at Halfway. FM 5013 has a high probability of achieving profitable results in most years on the northern High Plains.

Summary

FiberMax 5013 is a storm resistant stripper cotton variety with consistently high yields while being significantly earlier than most stripper varieties. The fiber is slightly stronger than most stripper varieties while maintaining a fiber length of 34/32nds or longer and a premium micronaire value.

Table 1. Characteristics of FM 5013.

Leaf Shape/Smoothness	normal/hairy
Maturity	early
Storm Resistance	very good
Gin Turnout	high
Plant Height, Inches*	23.3
Fiber Length, Inches*	1.08
Fiber Strength, g/tex*	30.4
Micronaire Value*	4.4
Boll Size	large
Leaf Size	medium
Seed / Lb.	4700

*Average values obtained in multi year and location tests.

Table 2. FM 5013 comparison.

		Variety FM 5013	Check HS 26
Yield	(lbs/acre)	807.2	775.9
Yield	% of check	104	
# Yield	comparisons	23	
Turnout	(%)	25.7	24.4
Lint %		38.5	37.4
Storm Resistance	(0-9)	5.9	6.4
Plant Height	(inches)	23.3	23.7
Maturity	(%open)	44	35
Length	(inches)	1.08	1.07
Strength	(g/tex)	30.4	30
Micronaire	(units)	4.4	4.3
Release	(year)	2001	