

U Of A Division Of Agriculture Markets New Cotton Variety

FAYETTEVILLE, ARK.

A limited quantity of seed of a high yielding, high quality, non-transgenic cotton variety will be sold directly to producers by the University of Arkansas Division of Agriculture for planting in 2011, Mark Cochran, the Division's associate vice president for research and director of the Arkansas Agricultural Experiment Station, has announced.

The new variety, UA 48, "sets a new standard for fiber quality in upland cotton," Cochran said.

"We are offering UA 48 for licensure by a commercial seed company, but while that process is underway, we believe producers will benefit from a direct marketing program," Cochran said. To protect the rights of a future licensee, growers will not be allowed to save harvested seed for planting, he added. Patent and plant variety protection applications are pending.

"In performance tests in Arkansas and four other states, UA 48 has demonstrated a rare combination of early maturity, superior fiber quality and high yield potential," Cochran said.

Steve Stevens, a Desha County cotton producer and chairman of the Cotton Incorporated Arkansas State Support Committee, said the committee encouraged the Division of Agriculture to pursue a direct marketing program for UA 48.

"Some east-central and northeast Arkansas producers have to use conventional herbicides anyway, and they don't need the Bt trait (for bollworm and budworm protection) that bad on some acres, so the committee agreed this would be a good option for them," Stevens said. "It appears to have excellent yield and more than excellent fiber quality," he added.

A limited quantity of 50-pound bags of UA 48 will be sold at \$100 per bag. Orders may be placed with Rheta Pryor, 479-575-8426 (rpryor@uark.edu), Arkansas Crop Variety Improvement Program, 1091 W. Cassatt Street, Fayetteville, AR 72704. Seed will be treated with Maxim/Apron/Systhane40.

Cotton breeder Fred Bourland, based at the Division's Northeast Research and Extension Center at Keiser, developed UA 48 and has additional breeding lines with a similar genetic background, he said. Cotton Incorporated helps fund the breeding program.

"It is rare to get the combination of early maturity, high fiber quality and high yield in one variety," Bourland said. "Varieties having the most superior fiber quality usually are late-maturing and produce lower yields."

Three key measures of fiber quality – length, strength and uniformity of length – are "off the scale" in UA 48 compared to other upland cotton varieties, Bourland said. Upland cotton is the main species grown in the United States. UA 48 also has "low leaf and bract hair," which means cleaner lint for a higher grade and higher price for growers, he added.

Tom Barber, the Division's extension cotton specialist, said UA 48 seed, at \$100 per 50 pound bag, can be planted at a cost of about \$20 per acre compared to about

\$100 per acre for transgenic glyphosate-resistant varieties.

UA 48 provides a high yield, lower cost option for growers who have infestations of glyphosate-resistant weeds, Barber said. In those fields, the standard treatment of glyphosate (typically Roundup®) with a transgenic variety has to be supplemented with additional herbicides to control resistant weeds. With a non-transgenic variety no glyphosate would be applied.

"Conventional weed control will add some cost, and insecticide costs may be higher, but I think growers can capitalize by planting this variety on 10 to 15 percent of their acreage," Barber said. "The lower front-end cost for seed, with no technology fee,

UA 48 Cotton Variety Test Summary

Lint Yield, lb/A

All Sites	Keiser	Judd Hill	Marianna	Rohwer
1131	1048	1326	1124	1029

Equal to highest variety all locations 2009 TN and AR tests and Texas Strip Tests. Highest in 2009 conventional strip test at Biscoe, AR

Fiber Quality

Micronaire	Length	Unif. Index	Strength (g/tex)
4.8	1.28 inch	87.1	35.6

Highest fiber quality in each state variety test and strip tests.

Sets new fiber quality standard for high yielding upland cotton lines.

Disease Response

Bacterial Blight	Verticillium Wilt	Root-Knot Nem.	Fusarium Wilt
Highly Resistant	Tolerant	Tolerant	Resistant

Moderate resistance to tarnished plant bug.

Maturity

Short-season. Highest percent early open bolls and shortest plant height in 2009 Arkansas test.

Adaptation

Best adapted to silt loam soils.

means less financial risk from a stand failure or weather related damage where you have to replant."

UA 48 is a good choice for producers who can manage it for early maturity and implement conventional weed and pest control programs, Barber said. Early maturity makes it best adapted for the shorter growing season from just south of I-40 to the north, he said.

"It takes an early-maturity mindset. But any producer can benefit from that, because the quicker you get cotton in and out of the field, the less insecticide and other inputs will be needed," Barber added.

Bourland said UA 48 is best adapted for silt loam soils in shorter season areas in the northern part of the Delta. However, it also performed well in a non-irrigated test in Mississippi under drought conditions, he said.

"The fact that it held up well for late harvest under wet conditions in 2009 and in the high heat of 2010 gives us confidence that it is widely adapted," Bourland said. "Growing conditions in 2009 and 2010 were about as different as you will ever see."

UA 48 performance test results, an order form and other details are online at <http://aes.uark.edu/UA48.html>. Seed quality information will be posted when available. Δ

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