

COTTON GERMPLASM LINES RELEASED BY THE UNIVERSITY OF ARKANSAS IN 2008**Fred Bourland****University of Arkansas - Northeast Research and Extension Center****Keiser, AR****Don C. Jones****Cotton Incorporated****Cary, NC****Abstract**

Arkot 9704, Arkot 9706, and Arkot 9721 are three conventional cotton germplasm lines that were released from the University of Arkansas in 2008. In 15 Arkansas tests (over four years and four locations), Arkot 9704 and Arkot 9706 produced lint yields and fiber quality equal to commercial conventional cultivars (PSC 355 and SG 105). Both produced yields with a greater reliance on lint weight per seed (lint index) and less reliance on number of seed per area. This combination of yield components should produce more stable yields. Both lines were evaluated in the 2006 Regional Breeders Network Test (www.cottonrbtn.com). Compared to the check cultivars, Arkot 9721 produced poorer lint yields (8.5% lower) but improved fiber quality (significantly higher fiber length and length uniformity; significantly lower micronaire). All three germplasm lines are resistant to bacterial blight. Arkot 9704 and Arkot 9706 demonstrated higher resistance to root-knot nematode than PSC 355. Small quantities of seed of these lines will be made available for breeding purposes.