ULTRA NARROW ROW COTTON RESEARCH IN GEORGIA

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Abstract

Dryland and irrigated tests comparing ultra narrow row (UNRC) and conventional cotton were conducted at the Coastal Plain Experiment Station in Tifton, GA, the Southeast Georgia Branch Station in Midville, GA, and the Southwest Branch Experiment Station in Plains, GA. In all tests and locations conventional (36 or 38 inch row widths with populations from 33,000 to 44,000 plants per acre) and ultra narrow row (10 inch row widths with populations from 125,000 to 144,000 plants per acre) cotton were compared in replicated field trials.

Higher plant populations in UNRC resulted in higher fruit numbers during the squaring period in all tests. Fruit per acre were again counted at harvest and, with the exception of the Midville irrigated test, fruit numbers were higher in UNRC. Averaged across all locations, UNRC resulted in an additional 19985 fruit per acre. However, in every test, boll weights at harvest were lower in UNRC. Across all locations, boll weight in UNRC averaged 3.5 grams of seedcotton per boll while conventional cotton averaged 4.02 grams of seedcotton per boll. Conventional cotton, across locations, averaged 398030 bolls per acre. If each of these bolls contained an additional 0.52 grams of seedcotton per boll, the result (factoring in a 35% turnout) would be an additional 160 pounds of lint per acre. Therefore, more fruit per acre does not necessarily translate into more lint per acre. Higher lint yields were recorded in the conventional cotton in the Midville and Tifton irrigated tests. Lint quality data between the two systems were non-significant.

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