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Rendimiento y calidad de fibra del algodón cultivado en surcos ultra-estrechos
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Abstract

Cotton (Gossypium hirsutum L.) production in rows narrower than the commonly used (rows 75 apart cm or more) is an alternative to increase yields and decrease production costs. This study, carried out in 2005 and 2006, was done in order to know the performance of two conventional (CIAN Precoz, small leaves; and Fiber Fiber Max 832, an okra leaf type) and one transgenic (NuCotn 35B) cotton varieties, grown in ultra-narrow rows (rows 50 and 35 cm apart) at the Comarca Lagunera, México. The 75 cm row spacing was included as a check, at a plant population of 100 000 plants ha-1. Seed-cotton and lint cotton yields, yield components (boll weight, lint % and seed index) and fiber quality (fiber length, fineness, strength and maturity index) were measured. There were year effects on yield, boll weight, seed index and fiber length; best values were obtained in 2005. There were not row spacing x year, varieties x year, and row spacing x varieties interaction. In both years the best yields were obtained by the 35 cm row spacing. On the average, this row spacing yielded 10 and 26 % more than the 50 and 75 cm row spacings, respectively. There were not yield differences among varieties. Fiber Max 832 showed the best fiber quality with a length of 29.7 mm, strength of 288.1 kN m kg-1) and fineness of 4.13 micronaire. Results show ultra-narrow row cotton appears to be a viable option to increase producer profits.

Keywords

Gossypium hirsutum, fiber quality, ultra-narrow rows, yield.



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