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Response to different plant densities of mericlones and clones of CP 65-357 sugar cane variety

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Abstract

The employment of micro-propagation and meri-stem culture techniques permits the obtainment of massive quantities of sugarcane seed of high quality and of greater vigor, health and genetic identity. These characteristics make this the best material with which to create central seed beds for sugar cane. In this research the field behavior of mericlones and clones of CP 65-357 variety, using different plantation densities was evluated. Three planting densities (1, 2 and 3 plants) were evaluated in relation to the weight and number of usable stalks, and individual stalk weight. In all cases mericlones present significant differences in stem number, usable stem weight, total stem weight / plot, with respect to the traditionally propagated clones. This makes evident the increased vigor and plant yield that micro-propagation produces. When micropropagated sugarcane seed (mericlones) are used, the commercial plantation density can be reduced from three to two stems, with a significant decrease of the sugarcane crop plantation costs.

Key words: micro-propagation, mericlones, sugar cane, sugar cane seed, plantation density.

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