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EFFECT OF ROW SPACING ON SOME SUGARCANE VARIETIES YIELD AND JUICE QUALITY

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ABSTRACT

Two field experiments were conducted at Mattana Agricultural Research Station, Luxor Governorate, Egypt (latitude of 25° 17' N and longitude of 32° 33') in two successive seasons of 2015/2016 (plant crop) and 2016/2017 to find out the suitable row distance for the new promising varieties. Each trait included nine treatments which were the combination between two promising varieties i, e G2003-47 and G2003-49 in addition to the commercial variety GT.54-9 and there row distances i. e 80, 100 and 120 cm. Split plot design with three replications was used to find out the optimum row distance for the studied varieties which attained the best yield and quality characters. Variety GT54-9 recorded the highest values of number of millable cane/fad (10^3), millable cane height in the plant cane and ratoon crops, cane and sugar yield in the plant cane. The highest juice quality traits were obtained by variety G2003-47. Planting sugarcane varieties at 120 cm row spacing recorded the highest values of number of millable cane/fad (10^3) (51.33 and 53.31 millable cane/fad (10^3) for the 1st and 2nd season, respectively. The highest value of number of millable cane/fad (10^3) was recorded when variety GT54-9 was planted at 120 cm row spacing.

Key words:first ratoon , plant cane, row spacing, Sugarcane, varieties.