CHARACTERIZATION OF SUGAR CANE VARIETIES (*Saccharum officinarum*) FOR THE PRODUCTION OF SUGAR CANE JUICE

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This study aimed to make physicochemical determinations of twenty (20) varieties of sugar cane for the purpose of production of sugarcane juice. To this were made to determine yield, ºBrix, titratable acidity (%) and pH using the Durbin statistic to select the best varieties. The varieties were planted in March 2006 in an APTA Regional Experimental Station area, located in Monte Alegre do Sul - SP. The samples were initially weighed and then divided into three equal batches, and extracted into an electric mill. It was adopted the experimental design in randomized blocks with 20 (twenty) and treatments 3 (three) repetitions, totaling sixty (60) plots to the analysis of physico-chemical data (yield, acidity, ºBrix). Ten of these varieties were used with the highest Quality Factor (QF). It was adopted for the Durbin statistical experimental analysis an incomplete randomized block design, and t = 10, k = 3, n = 120 blocks, r = 36, λ = 2. The sugar cane yield of varieties were 53.10 ± 2.76%, with a minimum of 47.39 ± 0.93% (IAC 87-3396) and maximum value of 58.05 ± 1.09% (IAC91-2205), according to the open literature. In physical-chemical determinations, the V12 variety (IACSP93-3046) presented significantly higher results compared to the other varieties. The second in the quality factor, V10 (IACSP93-6048) had a better sensorial evaluation related to flavor, color and overall impression attributes, compared to V12. It was observed a similarity of varieties V10 and V6 in relation to physical-chemical parameters, with a slight difference in total acidity, with means of 0.07 ± 0.00% and 0.10 ± 0.01%, values that significantly interfere in the of ratio value. The IACSP93-6048 variety was the most suitable for obtaining juice for consumption, followed by IAC91-3111 variety, which also had satisfactory results in the experiments.