

Pavit Junhom 2014: Comparison of Yield and Yield Components of Sugarcane Clones from Different Crosses in First Ratoon Cane. Master of Science (Agronomy), Major Field: Agronomy, Department of Agronomy. Thesis Advisor: Associate Professor Rewat Lersrutaiyotin, D.Agr. 181 pages.

Evaluation of yield and yield components in first ratoon cane in non-selected 120 hybrids from 12 crosses, each cross had 10 hybrids, and effect of yield components to cane yield of first ratoon cane by path-coefficient analysis were conducted. The analysis was done in all hybrids, in hybrids having the same female parents, in hybrids having the same male parents and in hybrids of each cross. RCBD with 3 replications was used. Each plot had 1 row of 1.5 m. in length and 3 stools at Cane and Sugar Research and Development Center, Kasetsart University, Kamphaeng Saen campus, Nakhon Pathom province. Data collected at harvesting of 11 month of sugarcane were cane yield, stem length, weight per stem, stem number per stool and stem diameter. The outstanding crosses in first ratoon cane were cross between Kamphaeng Saen 98-024 and KU 60-1 and cross between KU 60-1 and Kamphaeng Saen 01-41-5. Female parents tended to have higher effect to yield components than male parents. Stem length and weight per stem were the yield components having high total effect to cane yield of first ratoon cane in hybrids of each cross, in which stem length also had high direct effect to cane yield. On the other hand, stem diameter had low direct stem but had rather high indirect via weight per stem and stem length. Difference in yield components between plant cane and ratoon cane was low in stem diameter. On the other hand, the higher levels of yield components in plant cane than in ratoon cane was observed to be about 20 percentage in stem length. Weight per stem by random at 10 month were higher than those from the plot about 10 percentage, while those by random at 11 month were higher about 7 percentage

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Student's signature

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Thesis Advisor's signature