

Yotsapon Tansomrot 2009: Kamphaeng Saen Sugarcane Varietal Trials in Khon Kaen and Kalasin Provinces. Master of Science (Agronomy), Major Field: Agronomy, Department of Agronomy.
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Kamphaeng Saen sugarcane varietal trials for well-growing character, high yield and high sugar content were conducted in Khon Kaen and Kalasin provinces. From 9 Kamphaeng Saen varieties tested at varietal trial at Ban Koh Rai, Tumbon Songpuei, Amphor Phuvieng in late rainy season planting, 5 outstanding Kamphaeng Saen varieties were observed namely ; Kamphaeng Saen 00-103, 00-148, 01-1-25, 01-3-5 and 01-4-29. In Kalasin Province, 2 trials from two locations were conducted. From 6 Kamphaeng Saen varieties tested at varietal trial at Ban Nong Wang Nua, Tumbon Poo Por, Amphor Mueng, 5 outstanding Kamphaeng Saen varieties were observed namely ; Kamphaeng Saen 00-58, 00-105, 00-148, 01-1-25 and 01-3-5. From 15 Kamphaeng Saen varieties tested at varietal trial at Ban Nong Wang Tai, Tumbon Kamin, Amphor Mueng, 4 outstanding Kamphaeng Saen 00-148, 01-1-12, 01-1-25 and 01-41-5. The important yield components of varietal trial at Ban Koh Rai, Tumbon Songpuei, Amphor Phuvieng, Khon Kaen province were weight per stem, stem length, stem number per stool and internode length, while those of varietal trial at Ban Nong Wang Nua, Tumbon Poo Por, Amphor Mueng, Kalasin Province was stem diameter which had negative correlation coefficient with sugar yield. For varietal trial at Ban Nong Wang Tai, Tumbon Kamin, Amphor Mueng, Kalasin Province which had low germination percentage due to drought condition, the important yield components were stem length and stem number per rai. From the study of direct and indirect effect of each yield component to cane yield revealed that stem length had high direct effect to cane yield, in which that in ratoon cane was higher than that in plant cane Ban Koh Rai, Tumbon Songpuei, Amphor Phuvieng, Khon Kaen province. Nevertheless, stem length had negative indirect effect through stem weight in ratoon cane. At Ban Nong Wang Nua, Tumbon Poo Por, Amphor Mueng, Kalasin province, each yield component had rather low effect to cane yield in plant cane. In ratoon cane, stem length had high positive direct effect, while stem weight had high negative direct effect to cane yield.

Student's signature

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