

**Advantages of cane tops as a planting material in spaced transplanting technique of sugarcane**

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**Abstract**

The objective of the study was to evaluate the cane tops as the planting material in spaced transplanting technique (STP) of sugarcane to eradicate the normal seed cane requirement of sugarcane cultivation. A field experiment was conducted from 1<sup>st</sup> September to 1<sup>st</sup> November 2009 at the Sugarcane Research Institute, Uda Walawe. Three types of single budded setts (T1, T2 and T3) obtained in each cane top left behind after harvesting the millable canes (T1 was the 1<sup>st</sup> setts with the 1<sup>st</sup> bud which is closed to the detached end in the cane top; T2 was the setts with the 2<sup>nd</sup> or middle bud; T3 was the setts with the 3<sup>rd</sup> or immature bud close to the epical bud of the same cane top) and the single budded setts obtained in the millable portion of the same cane (T4) were planted as the four treatments in a nursery. Each nursery bed was divided into 4 identical plots of about 0.25 m<sup>2</sup> to allocate 4 different types of single budded setts (T1, T2, T3 and T4) in RCBD design. Four main nursery beds were used as 4 replicates including 16 experimental plots. Germination counts were taken and germination and survival percentages of shoots were calculated. T1 and T2 which required significantly low nursery area produced significantly greater number of shoots (about 1200 shoots m<sup>-2</sup> of nursery area) and had significantly high germination and shoot survival rates (about 90%) were more suitable to produce the settlings for STP technique of sugarcane. A 230 m<sup>2</sup> nursery which planted 282600 single budded setts obtained from 94200 cane tops in a hectare of harvested sugarcane land provided about 200000 shoots to transplant in 16 ha of sugarcane field. Accordingly, standard seed cane requirement to cultivate sugarcane could be successfully eliminated in this technique with the financial benefit of about Rs. 271000, if the settlings for STP technique are produced in nurseries established with single-budded setts taken from cane tops collected in a hectare of harvested sugarcane land.

**Keywords:** Sugarcane, cane tops, single budded sets, settlings

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