Technology Developed with Photos

1. STP and Bud chip: Potential and economical alternates for rapid seed multiplication in sugarcane.

Spaced transplanting Technique

Occurrence of higher mortality adversely affects stalk density and crop productivity. Besides, with the advent of new improved varieties, transportation of their bulk cane seed material and slow multiplication rate (ratio being 1:8 to 1: 10) is an important constraint to seed programme. Based on physiological understanding of germination (sprouting), tillering *vis-a-vis* inter-and intra-plant competition, a planting procedure, Spaced Transplanting Technique (STP), has been developed which saves the precious cane seed material, ensures higher stalk population (number of millable canes) with a uniform crop stand and higher average cane weight. It has also been a boon for rapid multiplication of seed cane.

Seed Requirement - 2 tha^{-1}
Seed multiplication ratio - 1:40

Fig 1 : Planting Material for STP

Fig 2: Planting of setts in nursery and Spaced Transplanting Technique raised cane plants

Bud Chip Technology

Bud chip technology reduces mass, quality and leads to quick multiplication of seed and optimizes initial shoot population. Scooped bud chips with a viable bud and root primordial is used as a planting material and raised their nursery under field conditions. The technique led to uniform crop stand, synchronized tillering, higher rate of tiller formation (>2.0 lakh) and their conversion into millable canes leading to higher population of millable canes (>1.2 lakh canes/ha), with higher average cane weight and finally higher cane yield (>100t/ha).

Seed Requirement=1 t ha^{-1}

Seed Multiplication Ratio =1: 60

; :3 Bud chip planting in nursery

Fig 4: Bud chip raised autumn and spring planted cane

Fig : 5 Crops Raised with Bud Chip Technology

Sugarcane Advisory and contingency plan (with photos)