Sugarcane Seed Production | Sugarcane Planting Methods | Sugarcane Farming / Sugarcane Cultivation

Non- availability or limited availability of quality seed of improved sugarcane varieties to sugarcane growers is a huge drawback in improving production and productivity levels.

Stem cuttings or setts are the seeds used in commercial sugarcane planting and each sett may contain one, two or three buds. Varietal deterioration of popular sugarcane is the gradual loss of yield potential and is caused by diseases, drought, soil condition etc. Tissue culture method is suitable for rapid seed multiplication of new varieties. As for sustainable sugarcane initiative, it reduces the bulk of the cane material and applying drip irrigation in growing the seedling facilitates higher yields.

Stages of seed production

In the first stage, seed cane varieties are used to raise primary nursery. Seed cane is subjected to heat and treated with fungicide. The second stage involves collecting seed material from primary nursery to raise secondary nursery. Harvesting is done at 6-8 months to raise commercial nursery.

Third stage involves raising commercial nurseries from the secondary stage. Heat treatment will render it free from diseases for about five years.

Heat therapy

Hot water, moist air and aerated steam treatments are used . Long hot water treatment involves treatment at 50°C for 2

hours while short hot water treatment occurs at 52°C for 20 minutes.

In aerated steam treatments, setts are placed in trays and kept inside the chamber of the unit. Steam and air are passed inside the treatment chamber and the setts are treated for one hour at 50°C and is very effective against grassy shoot disease.

Transplanting seedlings

NPK fertilizer at a ratio of 275:62.5:113.5 is applied to the nursery . Apply 50kg nitrogen and 75 Kg potassium one month before harvesting nursey cane. Transplanting is done at 4-5 weeks after sowing the setts at a spacing of 90 by 90 cm. Setts are treated with fungicidal solution at each stage.

Poly bag transplanting uses polythene bags of size 6 by 4 foot with small holes at the bottom.