



QUALITY SEEDCANE

The need for quality seedcane

The first step in any business is to have good quality raw material. The business of sugarcane farming is no exception. Thus to improve profitability from cane farming one needs to commence with good quality planting material or else potential yields would never be achieved.

The need to achieve potential yields and control diseases is valid reasons for seedcane production. A seedcane nursery provides sugarcane growers with disease-free seedcane which could be the single most important factor to increase sugar and cane yields. Quality planting material helps to provide seedcane that germinates well, varietal purity and free from diseases and pests. These healthy planting materials can be produced in well-managed seedcane nurseries.

The industry should provide necessary funding and land to SRIF so it is responsible for providing disease-free seed in each mill area. These seedcane varieties are to be DNA fingerprinted to ensure correct identification and that they are true-to-type.

Nurseries

There are primary and secondary nurseries. The *primary nursery provides planting material free of serious diseases for planting of secondary nurseries and has been hot water treated.* In this type of nurseries rotation of plant crop, first ratoon and a fallow break is essential.

A primary nursery should be situated on specially allocated areas in the estate or in a sector. Select a plot that is well drained, flood-free and has no record of major sugarcane diseases or problem weeds

within the last two crop cycles.



The nursery should be divided into three areas of equal size. One part to be under fallow, one third will have plant cane and the final third first ratoon.

After the plant and first ratoon has been harvested for seedcane, the re-growth from first ratoon is eradicated and fallowed. The section that was earlier fallowed would be planted and the plant crop goes into first ratoon. This process goes on.

Nursery management

An important factor in the management of nurseries is that it must be kept weed and volunteer free.

The cane should be kept stress free by irrigation which is absolutely essential and by applying appropriate amounts of fertilizer rather than maximum amounts.

The cane in the primary and secondary nurseries needs to be inspected every month and all diseased stools and volunteers to be rouged out.

Nursery size

The size of nursery is dependent on estimated yield of seedcane from the

....always commence with good quality planting material....

nursery, the area to be planted and rate of planting material to be used in commercial fields. Thus nursery size would vary for each mill. At planting material rate of 5 t/ha and planting approximately 5% of 60000ha would warrant 120 hectares of land at each mill to have primary, secondary and fallow plots.



Seed production time

With main planting happening around April and May and knowing that young seedcane germinates better than old (seed to be ideally 7-8 months old), it is best to establish nurseries around September/October.

Choice of variety

Different varieties are recommended on different soil types and growers should be aware of advantages of having few varieties on their farms. Thus planning is essential in advance to ensure the needs for the following two years. It is essential to remember that varieties chosen will influence yields for next several years.

Hot water treatment

Recent studies have shown substantial levels of RSD in all mill areas. Hot-water treatment varies depending on the disease or pest that is of concern. The temperature/time combinations most commonly used are close to the thermal death point of sugarcane.

Thus it is crucial that the temperature is not exceeded or germination will be affected. To obtain effective control of

ratoon stunting disease the treatment consists of maintaining a water treatment of 50°C for three hours.



This time is taken into account when the temperature again reaches 50°C after cane has been immersed in the tank. Time and temperature needs to be controlled as this may reduce germination or RSD bacteria may survive the treatment. RSD is a reasonably simple disease to manage and control, provided all routine precautions are taken. All implements that are used to cut the leaves or stalks of cane in the seed plots should be disinfected thoroughly before entering the plot.

RSD can spread rapidly through mechanical harvesting. Thus it is essential that harvesters are thoroughly cleaned before moving to the next field. This may be best controlled by FSC field staff.



*Sugarcane appeals.....
SRIF technologies is to be applied
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