

The time of emergence of all varieties vary, for instance Naidiri sprouts faster than most other varieties. Due to lack of irrigation facilities the **most important factor at the time of planting is the moisture content of the soil**. Take into consideration the weather forecast to help you plan your planting; it can be a useful guide with regard to the possibility of rainfall in your area.

A total of 4-5 tonnes of good planting material per hectare is encouraged to establish good crop.

Application of Blend A is essential at the time of planting in most soils. The exact quantity needed can be found from **soil test done for you free of charge at Sugarcane Research Institute of Fiji**. It is important to note Blend A fertilizer is placed on the sides of the drill. Care is to be taken to prevent contact between the fertilizer and the "eye buds", as fertilizer can burn the eye buds and young shoots.

The three eye bud sets are to be placed on the ground with the **eye buds on the side of the sett**. The next issue is how much soil to be placed over the sett? Amount of cover soil over the sett, increases or decreases the emergence time and number of shoots that would emerge. Normally, 50mm of cover soil is acceptable.

The soil cover if firmed will improve the germination but use of tractor to press the soil after planting is not encouraged as this not only may damage the planting material but also enhance weed germination.

Always use planting material that is **freshly cut prior to planting**. It is better to discard old planting material rather than use it and suffer major loss by establishing a poor crop over several seasons. **We need to make profit out of our effort in planting.**

It is essential to note that by following most of the above issues we have attempted to do as much as we can to increase our profits in establishing good crop of sugarcane for next few seasons.



Profit by Putting Planting First

How to plant cane to get maximum establishment

Planting cane is probably the most expensive operations in the sugarcane production. Major financial losses occur when the cane planted is not re-established well. To produce good plant crop there are at least three major issues to be considered:

- Land preparation
- Quality of planting material
- Pay attention to weather news

There is no one simple prescription for success. However, some basic steps followed correctly can improve cane establishment in grower's farms. It is essential to note that either poor land preparation or poor planting material or both will never match yields on a farm where good quality planting material is placed on soil conditions that is conducive to good germination.

What is that a grower needs to do?

We must do all that we can to ensure a good sugarcane crop or else we are eating away into our profits long before we have started to make money.

- **Plan your planting** well ahead so that you do have good quality seed cane and land that is well prepared.
- Start with **seed material that was produced for seed cane**, this is absolutely essential.
- **Prepare land** in order to provide the seed cane the best opportunity of germination, emergence and developing into a healthy crop.
- It is also very important to **listen to weather forecast** to assist in selecting time of planting, as we do not have irrigation facilities.



What type of planting material to be used?

Essentially, use plant material that is specifically produced for planting rather than cane that has been planted *for commercial purpose*. **Planting is important**, be certain to have quality-planting material at the time of planting. **Never use diseased planting material** as this will not only hinder germination and emergence but also proliferate diseases in disease free areas. **One of the easiest and quickest ways to reduce profits.**

How to produce quality planting material?

This is probably first most important step to establish good plant crop.

- **Grow disease free planting material** in homogeneous soil to obtain uniform crop.
- Grow cane in well-drained soils with as little slope and **not necessarily in the best of the soils**, preferably where irrigation is feasible.
- The site needs to be free of weeds and volunteers.
- **Apply fertilizer** to satisfy the plant's need **to produce average and not maximum yields**. Application of nitrogen 6-8 weeks prior to harvesting normally improves germination.
- Attempt to produce planting material with **internode spacing of 13 to 15 cms**.
- If cane is infested with pest use plants from other areas.

Lodged cane is normally not desired as planting material. Lodging of cane can be controlled to a large extent by crop management (exceptions are when cyclones and hurricanes occur). **Plant or ratoon late season** with the intention to have **planting material ready for April or May** with seed cane age of **7 – 9 months**. Nitrogen levels to be reduced to 70 - 80kg N/ha dependent on soil type. Growth can be controlled by slashing of seed cane to have the planting material ready at appropriate time.

The planting material should have some of the following attributes:

- Approximately 25 – 30 cms long (3 eye bud setts)
- Both ends cut without shattering
- Free of pest and diseases
- Actively growing
- Buds not damaged or dead
- Remove trash

Damage during transportation.

During transportation “eye buds” of the planting material are liable to damage. Manage planting material with **care during loading and unloading**. Always check for damage during planting and **do not plant material with damaged eye buds**.

Land preparation.

In today's agriculture, **excessive tillage is not the option** as this damages the soil structure and reduces organic matter, which reduces crop germination and emergence. Soils with **good structure and moisture holding capacity** can provide ideal conditions for good germination. Thus we need to prepare a suitable seedbed without excessive cultivation.



Figure 1. Poorly prepared field

Figure 2. Well prepared field – good plant crop established

When and how to plant?

In Fiji, we are fortunate that soil temperature rarely falls below 18 °C. The main window for planting is April to June and replant in September and October. Even though cane can be planted in Fiji during most times of the year however one needs to be careful with regard to planting in winter months as germination would be affected and emergence continues over a long period. It is also **extremely important that planting is synchronized with the milling season and plant cane should be 13 to 15 months old at first harvest**.