



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

Course name :

**Crop Production Technology-II
(ASAG 2204)**

Course credit :

(2-1-0)

Experiment 2

Topic: Sowing Methods of Sugarcane



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

2.1 Aim

- To know about the sowing methods of sugarcane

2.2 Materials required

- Tractor, Ladder/plank, Spade, hand hoe, rake, measuring tape, seed, fertilizers and water etc



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

1.3 Method

- There are 11 methods of sowing which are followed in sugarcane which are described as follows. The sowing method is determined by the crop to be sown.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

- **2.3 .1 Planting in flat beds**
- It is very popular method on Northern India and in parts of Maharashtra.
- Shallow furrows of 8-10 cm deep are made.
- Distance between two rows should be kept 75-90 cm.
- Generally 3 budded setts are used to plant in the end to end planting system.
- The furrow is covered by 5-7 cm of soil and field is leveled by planking.

- **2.3 .2 Ridge and Furrow Method:**
- The method is adopted in areas with moderate rainfall but have drainage problem.
- Deep furrows are opened in 'V' shape, 10-15 cm deep in N. India, 20 cm in S.I.
- It is also practiced in Eastern UP, & in Peninsular India particular in heavy soils.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

- **2.3 .3 Trench Method or Java method**
- In some coastal areas as well as in other areas where the crop grows very tall and the strong winds during rainy season cause lodging of cane, trench method is adopted to save the crop from lodging.
- Trenches at a distance of 75-90 centimeters are dug with the help of ridger or by manual labour.
- Trenches should be about 20-25 centimeters deep.
- After this already prepared mixture of fertilizers (NPK) should be spread uniformly in the trenches and mixed thoroughly in the soil.
- The setts are planted end to end in trenches.
- The tractor-drawn sugarcane planter is suitable device for planting cane in trenches.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

- **2.3 .4 Rayungan method**
- It is Indonesian term meaning-a developed cane shoot with single sprouted bud. A portion of field is selected for Rayungan production is left at harvesting time.
- The top of the cane is cut off which results auxiliary buds begin to sprout.
- For quick and effective sprouting, fertilizer especially nitrogen in heavy dose is applied and field is irrigated.
- After 3-4 weeks sprouted buds are separated in single bud setts and transplanted on ridges.
- It is costly hence is not commonly adopted in India however is usually used for filling gap.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

- **2.3.5 Distant Planting Method**
- It was developed at Indian Institute of Sugarcane Research (IISR) Lucknow.
- Single budded setts are planted in nursery @ 20 q/ha or 18000 setts/ha.
- After 45-60 days single budded setts are planted in main field at 90cm×50cm.

- **2.3 .6 Pit Planting**
- Method is very popular in Tillah soil in Assam and also in Kerala hilly tracts.
- Pits are made at interspacing of 20-30cm in rows along the contours with row to row spacing of 75 cm,
- Organic manure is placed at bottom of pits.
- Cane setts are placed in the triangle in pits and covered with soil.
- System can be used in rain fed agriculture



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

2.3.7 Skip Furrow Planting

- It is common in Orissa.
- It is hybrid of flat and trench method.
- Trenches are dug 45 cm apart & gap of 90 cm is left after each two rows

2.3.8 Sabling or Sprouting Method

- Plants are sown in fertile soil with wide spacing, shallow planting, frequent irrigations and adequate fertilization.
- Tillers soon after they develop their own roots are separated from the mother plant and planted separately.
- It is very successful in Java and Cuba.

2.3 .9 Tjeblock Method

- Improved over Rayungan method because it takes care of proper availability of energy and nutrient to all the buds.
- Here stalks are cut off at its half length and planted vertically with node in the soil for rooting.
- Planted ones and the mother stalks are adequately irrigated and fertilized.
- Now the upper buds of both Tjeblocks and mother cane, which sprout in due course of time, are planted by cutting them into setts, as rayungans.



Centurion
UNIVERSITY
*Shaping Lives...
Empowering Communities...*

2.3.10. Bud transplanting

- Sugarcane buds with half of its stalk can be planted in small polythene bags filled with organic manure and soil.
- After sprouting they can be transplanted in the main field.
- The polythene is tore at the bottom for the easy rooting. There is less mortality about 5 % only.

2.3.11 Algin method of sugarcane planting

In this method, Upper most nodes are collected while striping the canes for crushing.

planted in wheat field in rows after every 4 rows of wheat at 90 × 50 cm

The method was developed by Allahabad Agriculture Institute, Allahabad.



Centurion
UNIVERSITY

*Shaping Lives...
Empowering Communities...*

2.4 Steps

**main field preparation for -----
crop**

a) Seed rate

b) Seed treatment

c) Fertilizer and manure application
RDF-----

FYM-----