

INTERCROPPING IN SUGARCANE
SCOPE
COMPATIBLE CROPS
EXPERIENCES &
RESULTS

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WIDE ROW SUGARCANE

- 150 cm inter row spacing
- To facilitate mechanization of cane cultivation
- Facilitates intercropping
- Facilitates use of power tillers and small machinery for intercultural operations
- Facilitates easy movement of labour for field operations
- Yield can be maintained adopting appropriate agrotechniques

WR Sugarcane

DUAL ROW PLANTING

30 cm

150 cm



ROW LENGTH PER HECTARE

$$90 \text{ cm spacing} : \frac{10,000}{0.9} = 11,111 \text{ m}$$

$$150 \text{ cm spacing} : \frac{10,000}{1.5} = 6,667 \text{ m}$$

Seed rate of 75,000 two budded setts/ha

$$\text{No. of two budded setts / m length in 90 cm rows} : \frac{75,000}{11,111} = 6.75$$

$$\text{No. of two budded setts / m length in 150 cm rows} : \frac{75,000}{6,667} = 11.25$$

$$\text{Seed rate for 150 cm rows, if 6.75 two budded setts are planted / m length of row} : 6.75 \times 6,667 = 45,000$$

6.75 setts per metre length in WR -- yield reduction

because of lower stalk population Around 60,000 two budded setts
9 two budded setts per metre length of row

INTERCROPPING IN SUGARCANE

- **Initial slow growth –
3 months or more for canopy closure**
- **Wider row spacing**

Profitability depends on

- **Farmer's preference (Labour & Capital)**
- **Yield of base crop**
- **Yield of intercrop**
- **Price realized for the produce**
- **Highly erratic prices for the produce**
- **Marketability of the intercrop produce**

Practices to avoid reduction in yield of sugarcane

- Selection of intercrop of short duration with dwarf and compact canopy
- Planting geometry to avoid competition
- Meeting the nutritional needs of base crop and intercrop separately
- Applying major portion of nutrients to base crop after the harvest of intercrop

Reasons for low adoption of ICS

- **Affects tillering – Farmers come to the conclusion that ICS is deleterious**
- **Selection of competitive crops – leads to deleterious effect – weans away the farmers**
- **Adoption of high population for IC – reduction in cane yield – dissuades the farmer**
- **Fertilizers not applied to intercrop**
- **Unavailability of labour – drudgery in field operations**
- **Cane yield under ICS marginally lower – sugar factories do not encourage ICS**

Suggested Recommendations

- **Wide row spacing**
- **Select a location specific short duration crops such as onion, coriander (leaf) etc.,**
- **Meet nutrient requirement of main & intercrop**
- **Mechanization of operations**
- **Irrigation Management**