

# Organic Farming of Sugarcane

Sugarcane (*Saccharum officinarum*) is the second largest industrial crop in India. Sugarcane is a long-term crop of 10 to 12 months and therefore is responsible for being attacked by numerous pests. About 200 species of pests have been recorded in the sugarcane crop and damage the sugarcane crop at one stage or another stage of crop development. According to one estimate, sugarcane production has been reduced by 25-40 % due to pest damage. Wilt and Red rot are the most common disease of sugarcane, whereas estimated loss in crop production due to fungal or bacterial diseases is about 18-31 %.

## Adopt the following strategies for the management of various Sugarcane pests & diseases and plant nutrition to get higher yield and residue free farm produces

- Select disease free seed sets or tissue culture plants for sowing and cutting them into two or three eyed buds and giving them seed treatment with Monitor.
- Most of diseases in sugarcane are seed borne. The choice of healthy seed sets is the most important primary issue.
- Sugarcane trash can also be incorporated while making organic manure along with press mud by using of Debrista for preparing and decomposing organic matters.
- Crops like sun hemp and dhaincha are grown as green manure crop. Green manure crops can be grown as a sole crop and buried in the field at an age of 1.5 to 2 months (before flowering).
- At the time of field preparation, adopt stale seed bed technique i.e., Pre sowing irrigation followed by shallow tillage to minimize the weeds menace in field.
- The initial 30-120 days is the critical period of weed competition. Therefore, the weed management practice should be ensured for the first 3-4 months.
- Treat sugarcane sets into 45° c temperature under aerated steam with warm water and 95 % humidity for 4 hours which makes sugarcane sets free from pests and diseases.
- Use well decomposed manure which will indirectly reduce the infestation of termites.
- Sowing must be done only after deep ploughing before planting seed sets, especially if the previous crop is ratoon.
- Field should clean by removing the dried leaves and plant debris from the field and destroy it by burning or by dumping of leaves in mulching pit and covering with soil.
- Long-term crop replacement / Crop rotation should be done with paddy, groundnut and vegetable crops. So that soil borne diseases can be prevented.
- Crop like potato, mustard, lentil, pulses and winter vegetables can be grown as inter crop during autumn planted sugarcane i.e. Oct-Nov &, sunflower, soybean, green gram, groundnut etc. during Feb-March planted sugarcane to reduce the pest's population and to conserve bio agents.
- Hand-picking and destruction of top borer, stem borer because they compatible lays eggs during February-March.
- Using *Epiricania* for biological control of sugarcane *pyrilla*, and *Trichogramma* for biological control of borers.

## Major Pests



Early shoot borer



Internode Borer



Root borer



Top shoot borer



Sugarcane pyrilla



Whiteflies  
(*Aleurolobus barodensis*)

## Major Diseases



Red rot



Wilt



Whip smut



Pokkah Boeng



Nematodes

## Natural Enemies of Sugarcane Pests



*Trichogramma*



*Cotesia flavipes*



*Encarsia formosa*



*Epiricania melanoleuca*

# Recommended Products Per Acre of Land



Monitor  
500 gm



Sudozone  
500 gm



Yorker  
250 gm



Biosoft  
500 gm



Biofield Combo  
3 kgs



Antity  
500 ml



Lifeline  
500 ml



Mycozone  
100 gm



Saffron  
1 kg



Biofield  
1 litre



SmartZINC  
500 ml



Runoff 100  
250 ml



Vanguard 1500  
ppm-1 litre



Yellow / Blue  
Sticky Traps 40 nos



Solar Light Sticky  
Trap 1 no



NoMate Pheromone  
Traps 20 nos

## Application Method of Agriland Organic Products

Sr. No	Time of applications	Product	Dose	Type of applications	Benefits
1.	Pre-Sowing application	Debrista	250 gm / ton of farm waste	Apply either with FYM or with drip/flood irrigation	De-composting sugarcane trashes and leave
2.	At the time of sowing	Monitor Sudozone Yorker	250 gm/acre 1 kg /acre 250 gm/acre	Apply in soil	To control pant disease and plant parasitic nematodes
		Biofield combo Mycozone	3 kg /acre 100 gm /acre		Use for better sprouting of the seeds and the development of plant growth
3.	45 days after sowing	Biofield liquid	30 ml / 15 liters of water	Use as spray	For overall development and plant growth
		Runoff 100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray
		Smart Zinc	15 ml / 15 liters of water		Reduce zinc deficiency in plants and increase nitrogen solubility
		NoMate sticky traps	40 traps/acre	Install 1 foot above the crop canopy	Used for control of small sucking type pests
		Solar light trap	1 trap/acre		Used for monitoring and controlling the male insects during night and daytime
4.	60 days after sowing	Biosoft	15 gm / 15 liters of water	Use as spray	Use to control different borers infesting in Sugarcane
		Saffron	50 gm / 15 liters of water		It provide sulphur micronutrient and useful in control of powdery mildew and other aerial diseases
		Runoff 100	5 ml / 15 liters of water		For better spread and enhance product efficiency at the time of spray
5.	75 days after sowing	Antity	45 ml/15 liters	Use as spray	To control diseases like smut and pokkah boeng diseases
		Lifeline	45 ml/15 liters of water		Use for providing micronutrient and growth of plant
		Runoff 100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray
6.	90 days after sowing	Vanguard 1500 ppm	60 ml/15 liters of water	Use as spray	Used to control sucking type of pests
		Smart Zinc	15 ml / 15 liters of water		Reduce zinc deficiency in plants and increase nitrogen solubility
		Runoff 100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray
7.	105 days after sowing	Biofield liquid	30 ml / 15 liters of water	Use as spray	For overall devolvement and growth of plants
		Lifeline	45 ml/15 liters of water		Use for providing micronutrient and growth of plant
		Runoff 100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray

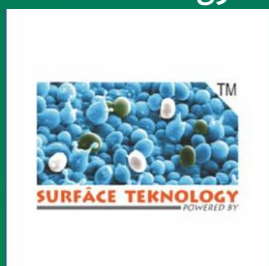
### Other important farming activities:

- After planting of sugarcane do lightly earthing up the soil and 135 to 150 days heavily earthing up the soil near planting area.
- Remove the lover dry leaves at 7, 8, & 9 months after planting. Disposal of sugarcane leaves can lead to effective control of scale, mealy bugs by parasite's pests.
- Do not burn sugarcane leaves in the field. Use Debrista instead of that, Debrista are fast decomposing bacteria, which are mixed with sugarcane trashes / leaves in the soil and cultivate it by rotavater.

### Note:

- Monitor insect population development and disease incidence in fields to determine if and when control measures are warranted. After treatment continue monitoring to take decision for scheduling next treatment for controlling the pest and disease and providing nutritional balance to crop.
- While applying organic products care should be taken for proper application of bio-pesticides, in terms of dose, volume, timing, coverage, and application techniques as per label claim.

Surface  
Technology



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We are the leading agri-biotechnology company in the nation, pioneering in the area of research and development of environmentally friendly plant protection products.



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