

# Organic Farming of Papaya

Papaya (*Carica papaya*) is an herbaceous perennial in the family *Caricaceae* grown for its edible fruit. Papayas are plants of tropical regions, and for growth and fruit production, they need a warm climate. They cannot live with low temperatures. Diseases and pests cause an average of 40 to 60% yield losses in papaya crop. The most common pests are mealy bug, fruit fly, whitefly, aphids and red spider mite and diseases like foot rot, ring spot, powdery mildew, anthracnose and nematodes.

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

- A well-drained and fertile field should be selected for planting papaya.
- Do not plant papaya crop in one field continuously. Avoid monocropping.
- Deep ploughing the soil in summer for destroying soil borne pathogens and nematodes.
- Ploughing of orchard during November-December to expose pupae to sun's heat which kills them.
- Field should be cleaned 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.
- Nursery should be raised in nematode free sites.
- Transplant in rows at optimum depths under proper moisture conditions for better establishment.
- Maintain optimum and healthy crop stand which would be capable of competing with weeds at a critical stage of crop weed competition.
- Inter cultivation is recommended during the first year to check weed growth. Weeding should be done on regular basis especially around the plants.

- To suppress the weeds between rows, intercropping of leguminous crops after non-leguminous ones, shallow rooted crops after deep rooted ones are beneficial. No intercrops are taken after the onset of flowering stage.
- Earthing up is done before or after the onset of monsoon to avoid water-logging and also to help the plants to stand erect.
- Avoid taking mixed crop of tobacco, chilli, and tomato in papaya field or nearby.
- Rogue out the virus-affected plants from field to minimize spread of virus and spray biological or botanical insecticides to check insect vector.
- Prune heavily infested plant parts to open the tree canopy and destroy them immediately and preferably during summer.
- Application of Neem cake @ 400 g/plant one at planting and second after 60 to 80 days after sowing reduced the population of nematodes.
- Oil cakes of Neem, Mahua, Castor, etc. have shown special potential in reducing the nematodes.
- Prior to harvest, collect and dispose of infested and fallen fruits to prevent further, multiplication and carry-over of population.

### Major Pests



Papaya mealybug



Fruit fly



Whitefly



Aphid

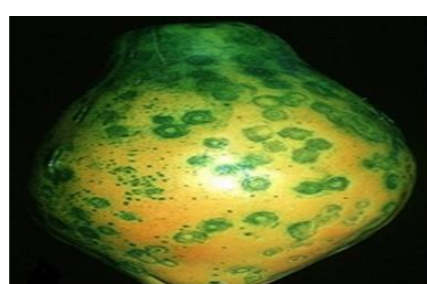


Red spider mites

### Major Diseases



Foot rot / Stem rot



Ring spot



Anthracnose



Mosaic



Nematode

### Natural Enemies of Papaya Pests



*Cryptolaemus montrouzieri*



*Acerophagus papaya*



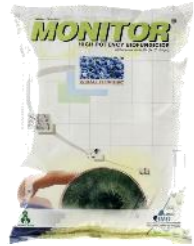
*Chartocerus spp.*



*Cheiloneurus spp.*



# Recommended Products Per Acre of Land



Monitor  
500 gm



Sudozone  
500 gm



Mr. Sulphur  
2kg/acre



Yorker  
250 gm



Biosoft  
500 gm



Biofield Combo  
3 kgs



Antity  
500 ml



Lifeline  
500 ml



Mycozone  
100 gm



Saffron  
1 kg



Biofield  
1 ltr



SmartZINC  
500 ml



Runoff100  
250 ml



Vanguard  
1500 ppm-1 ltr



Yellow / Blue  
Sticky Traps 40 nos



Solar Light Sticky  
Trap 1 nos



NoMate Pheromone  
Traps 20 nos

## Application Method of Agriland Organic Products

Sr. No	Time of applications	Product	Dose	Type of applications	Benefits
1.	At the time of Plantations	Monitor Sudozone Yorker	250 gm /acre 1 kg /acre 250 gm /acre	Apply in soil	For control of plant disease and plant parasitic nematodes
		Biofield combo Mycozone	3 kg /acre 100 gm /acre		For better rhizosphere acclimatization with soil and the development of powerful root masses
		Mr. Sulfur	2 kg / acre		It helps to reduce Sulphur deficiency and control powdery mildew and other air borne diseases
2.	45 days after sowing	Biofield liquid	30 ml /15 liters of water	Use as spray	For overall development and plant growth
		Runoff100	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 the Zn deficiency and enhance the enzymatic and metabolic activities in plants
		Nomate sex pheromones traps	20 traps /acre	Install 1 foot above the crop canopy	Used to monitor and control fruit fly
		NoMate sticky traps	40 traps/acre		Used for control of sucking pests
Solar light trap	1 trap/acre	Used for monitoring and controlling the male insects during night as well as daytime			
3.	60 days after sowing	Monitor	15 gm /15 liters of water	Use as spray	For the control of foot rot/stem rot of papaya
		Saffron	50 gm /15 liters of water		It provide sulphur micronutrient and useful in control of plant pathogens
		Runoff100	5 ml /15 liters of water		For better spread and enhance product efficiency at the time of spray
4.	75 days after sowing	Antity	45 ml/15 liters	Use as spray	Used to control diseases like ring spot, anthracnose diseases
		Lifeline	45 ml/15 liters of water		Use for providing micronutrient and overall plant growth
		Runoff100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray
5.	95 days after sowing	Vanguard 1500 ppm	60 ml/15 liters	Use as spray	Used to control sucking pests
		Smart Zinc	15 ml /15 liters of water		Reduce the Zn deficiency and enhance the enzymatic and metabolic activities in plants
		Runoff 100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray
6.	115 days after sowing	Biofield liquid	30 ml /15 liters of water	Use as spray	For overall development and plant growth
		Biosoft	15 gm/15 liters of water		For control of sucking pests and caterpillars
		Runoff100	5 ml/15 liters of water		For better spread and enhance product efficiency at the time of spray

### 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



ISO 9001:2015



IMO Approved



GeM Approved



DSIR Approved R&D Center



ZED Certification



CRISIL MSE 2 Rated Company



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



36, Prince Industry Estate,  
Mota-Motipura, 391520 (Samlaya),  
Taluka - Savli, District - Vadodara,  
Gujarat, India