

Organic Farming of Tomato

The tomato is the edible berry of the plant *Solanum lycopersicum*, commonly known as a tomato plant. Various pest and diseases cause major losses in yield of tomato crops. Some Major pests like tomato leaf miner, fruit borer, white fly, leaf eating caterpillars and root knot nematode, where is diseases like damping off, fusarium wilt, bacterial leaf spot, leaf curl, and mosaic are causing damage to the tomato crop. The average losses estimated by the action of pests and diseases represent about 28 - 34.4 % of the yield. The tomato is consumed in diverse ways, raw or cooked, in many dishes, sauces, salads, and drinks, So it is very important to control the above pests and diseases otherwise it can cause heavy loss to tomato production as well as other related food processing industries.

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

- Destruction of debris, crop residues, weeds, and other alternate hosts.
- Use resistance variety of tomato according to locality.
- Deep ploughing in summer to expose soil borne pathogens in heat.
- Adoption of proper crop rotation at every season per year.
- Add well rotten farmyard manure (FYM) @ 8-10 t/acre or vermicompost @ 5 t/ acre. Incorporate at the time of field preparation at 1 week (vermicompost) or 2 to 3 weeks (FYM) before transplanting.
- Field should be weed free before 30 days crop stage. Two hoeing's between the rows plus hand weeding within the row at 15 and 30 days after planting.
- Mulching with black Low-Density Polyethylene (LDPE) sheets of 30-micron thickness by burying both the ends into the soil to a depth of 10 cm will avoid weed growth.
- Judicious and proper application of manures and fertilizers at proper time can directly manage the insect pests. Excessive use of nitrogenous fertilizer attracts pests.

- Leaf curl disease is caused by virus and are transmitted by whiteflies. Alternate spray of Vanguard and Biosoft will help to control insect vectors.
- Collect and destroy the infested pant by viruses and buried in a deep pit to reduce the spread of virus to other plants of the filed.
- Ecological engineering of tomato with raising African marigold nursery 15 days prior to tomato nursery serves as a trap crop for ovipositing females of *Helicoverpa*.
- Install 20 pheromone traps per acre on a mass basis for the trapping of the moth of *Tuta absoluta* (tomato leaf miner) 30 to 35 DAS.
- Set up yellow/blue sticky traps 15 cm above the crop canopy for monitoring and mass trapping of white fly, thrips, aphids, jassids @10-20 traps per acre area.
- Destroying the plants immediately after the completion of the crop instead of heaping them on the ridges of the field, which helps in maintaining / reducing infestation of pests like fruit borer to the newly planted crop.

Major Pests



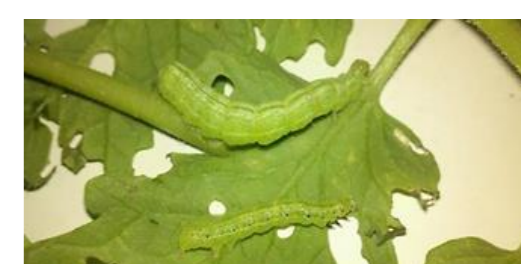
Leaf miner



Fruit borer



White fly



Leaf eating caterpillar

Major Diseases



Damping off



Fusarium wilt



Bacterial leaf spot



Leaf curl



Early blight



Root knot nematode

Natural Enemies of Tomato Pests



Ladybird Beetle



Chrysoperla



Encarsia spp



Trichogramma

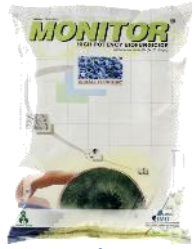


Telenomus spp



Anthocorid bugs

Recommended Products Per Acre of Land



Monitor
500 gms



Sudozone
500 gms



Yorker
250 gms



Biosoft
500 gms



Biofield Combo
3 kgs



Antity
500 ml



Lifeline
500 ml



Mycozone
100 gms



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 nursery seed bed preparation	Monitor Sudozone Yorker	20 gm/sq.m 40 gm/sq.m 20 gm/sq.m	Application in Seed bed	For control of plant diseases and plant parasitic nematodes
		Biofield combo Mycozone	50 gm/sq.m 05 gm/sq.m		For better sprouting of the seeds and the development of powerful root mass
2.	At the time of transplanting	Monitor Sudozone Yorker	250 gm/acre 01 kg/acre 250 gm/acre	Apply in soil	Use to control plant disease and plant parasitic nematodes
		Biofield combo Mycozone	03 kg/acre 100 gm/acre		NPK bacteria enhance the plant growth, whereas Mycozone produces profuse root and nutrient solubilisations and mobilizations
3.	35 days after transplanting	Biosoft	15 gm/15 liters	Use as spray	For control of fruit borer, leaf eating caterpillars and sucking type of pests
		Biofield liquid	30 ml/15 liters		For overall development and growth plants
		Runoff	05 ml/15 liters		For better spread and enhance product efficiency at the time of spray
		NoMate Sex Pheromones traps	20 trap/acre	Install 1 foot above the crop canopy	Used to monitor and control of <i>Tuta absoluta</i> (tomato leaf miner)
		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			
4.	55 days after transplanting	Vanguard 1500 ppm	60 ml/15 liters	Use as spray	Use to control for sucking types of pests
		Smart Zn	15 ml/15 liters		Reduce the Zn deficiency in plant and increase the nitrogen solubilisation
		Saffron	50 gm/15 liters		It provide sulphur micronutrient and useful in control of powdery mildew
		Runoff	05 ml/15 liters		For better spread and enhance product efficiency at the time of spray
5.	75 days after sowing	Monitor	250 gm/acre	Use as soil drenching	Use to control pant disease and plant parasitic nematodes
		Yorker	250 gm/acre		
		Biofield liquid	500 ml/acre		For overall development and plant growth
6.	85 days after sowing	Antity	45 ml/15 liters	Use as spray	Use to control the diseases like bacterial leaf spot and early blight
		Lifeline	45 ml/15 liters		Use for providing micronutrient and plant growth
		Runoff	05 ml/15 liters		For better spread and enhance product efficiency at the time of spray
7.	95 days after sowing	Vanguard 1500 ppm	60 ml/15 liters	Use as spray	Use to control for sucking types of pests
		Saffron	50 gm/15 liters		It provide sulphur micronutrient and useful in control of powdery mildew
		Runoff	05 ml/15 liters		For better spread and enhance product efficiency at the time of spray

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.



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