

PEST FORECAST FOR THE MONTH OF SEPTEMBER' 2018

Rice

Thrips and stem borer incidence was prevalent in tillering stage of rice crop in Thanjavur district. Stem borer incidence was recorded in Coimbatore and Kanyakumari district. Thrips can be managed with spraying of dichlorvos 200ml/ac. Chlorantraniliprole 18.5 SC @ 60ml/ac or cartap hydrochloride 50SP 400g/ac can be used for the management of stem borers. During this month rice tungro disease incidence may appear in the transplanted crop. To control the green leafhopper which transmits rice tungro disease insecticides like imidacloprid 17.8 SL @ 60ml/ac or triazophos40EC @ 300ml/ac can be recommended.

Millet

A new invasive insect on maize crop

The incidence of an invasive pest fall army worm, *Spodoptera frugiperda*, a native of USA was observed in various parts of Tamil Nadu. The insect pest attack is reported in maize crops at Coimbatore, Dindigul, Madurai, Theni, Thiruvannamalai, Dharmapuri, Thirunelveli and Thanjavur districts. The larvae feed on the growing points by remaining inside the leaf whorl. The symptoms of damage are scrapping of leaves, pin holes, small to medium elongated holes, parallel shot holes, and irregular shaped holes on leaves, loss of top portion of leaves, presence of chewed up fresh material and fecal pellets in the leaf whorl, drooping of leave portion above the feeding area and feeding on tassel.

Contingent control measures

1. Use light trap @ one/ha to monitor the adult moth activity in and around maize fields
2. Collection and destruction of egg masses and different stages of larvae
3. As there are no label claims of registered insecticides for *S. frugiperda*, the following botanical and synthetic insecticides recommended as per IRAC Modes of Action, for *S. litura* were screened in the preliminary trials and found effective.

Insecticide	Quantity/ac
Azadirachtin1%EC (10000 ppm)	400ml
Thiodicarb 75 WP	400g
Flubendiamide 480 SC	60 ml.
Chlorantraniliprole 18.5% SC	60 ml
Emamectin benzoate 5% SG	80 ml
Spinosad 45 SC	80 ml

4. Any one of the above insecticides may be used in rotation based on the intensity and availability. Insecticides having same mode of action should not be used repeatedly.
5. Spray nozzle should be directed towards the leaf whorl, wherein larval instars usually feed on.
6. Avoid growing maize after maize crop
7. Ensure thorough ploughing to expose pupae to natural enemies and avian predators. Apply neem cake @ 100 kg/ac to control the pupae.

In maize, leaf blight incidence may appear during the period. Farmers are advised to spray mancozeb or zineb @ 2g/lit to control this disease.

Pulses

The short duration pulse crops, black gram and green gram are in vegetative as well as flowering stage. The incidence of spotted pod borer will appear during this stage. Flower webbing and damage in young pods can be monitored and use the chemical chlorantraniliprole 60ml/acre for the management.

Groundnut

Pod borer was noticed in Palani block of Dindigul district groundnut crop. Malathion 5 % dust formulation can be applied @ 10 kg/ac for managing the pod borer. To manage leaf spot and rust diseases, foliar spray of tebuconazole 1ml/litre (twice) at 15 days interval is recommended.

Cotton

Seed treatment with imidacloprid 600 FS @ 10ml/kg of seed can be done to manage sucking pests like aphids, leafhopper and whitefly during this sowing season. Stem weevil incidence can be minimized by soil earthingup with neem cake @ 100kg/ac.

Insect pests in horticultural crops

Fruit borer and pin worm incidence is noticed in tomato growing areas. The pest can be managed by setting pheromone traps @ 5/ac and egg parasitoid *Trichogramma chilonis* @ 20,000. Spraying of any one of the chemical azadirachtin 2.0ml or indoxacarb 0.5ml or flubendiamide 0.5g per litre of water.

Sucking pest like whitefly, mealy bug, thrips and spiraling whitefly are expected in horticultural crops viz., guava, tomato, brinjal and bhendi. Hence, farmers are advised to monitor the sucking pests by installing yellow sticky traps @ 5/ acre and if needed spray NSKE 5% (50 g/lit. of water) or fish oil rosin soap @ 25 g/lit.of water.

Banana

Erwinia rot

Soil drenching of copper oxychloride @ 40 gm /10 lit + streptomycin sulphate 3 gm/ 10 lit or sodium hypochloride @ 6gm per plant reduces erwinia rot incidence.

Sigatoka leaf spot

To manage sigatoka leaf spot disease in banana, the farmers are advised to spray mancozeb @ 2.5g/litre or propiconazole @ 1ml/litre along with teepol (1 ml/litre) 3 times at 10-15 days interval.

Coconut

Rugose spiraling whitefly incidence continues in various coconut growing areas of Tamil Nadu. Wherever, the natural enemies are used the population was reduced. Hence farmers are advised to,

- i. Conserve the natural enemies like *Encarsia* parasitoids, chrysopids and coccinellids in coconut ecosystem by avoiding insecticides. The parasitoid *Encarsia* is found effective in controlling these insects at Aliyar Nagar areas. The parasitoid *Encarsia* is available at Coconut Research Station, Aliyar Nagar. Chrysopids can be obtained from the Department of Agricultural Entomology, TNAU, Coimbatore.
- ii. Placing yellow sticky traps @ 10/ac smeared with castor oil/ horticultural mineral oil can be used for monitoring the population.
- iii. Spraying water forcibly on the under surface of the leaves would have a significant impact in reducing the population build up of the target pest to certain extent.
- iv. If needed, spraying with neem oil @ 3% (30 ml/lit.of water) or NSKE @ 5% (50g/lit.of water) can be done to minimise the population build up.
- v. As far as possible insecticides can be avoided.

Eriophyid mite incidence has been recorded widely in Pollachi block. Profenophos or triazophos @ 5 ml/lit can be sprayed on the buttons or young nuts for the management of eriophyid mite.

To manage leaf blight and leaf spot diseases, root feeding of carbendazim 2 g or hexaconazole @ 2 ml+100ml water (3 times at 3 months interval) and application of 200g *Pseudomonas fluorescens* along with 50 kg of FYM + 5kg of neemcake palm/year.

Nematode management in vegetables

In vegetables like tomato, brinjal, bhendi, beans and field bean, root knot nematodes and reniform nematodes are expected at intensively cultivable areas of Krishnagiri, Dharmapuri, Theni, Dindugal and Coimbatore vegetable areas. The nematode infested field shows wilting symptoms and also galls in the root. The farmers are advised to apply neem cake @150kg/ac and also apply *Purpureocillium lilacinum* (= *Paecilomyces lilacinus*) @ 1 kg/ha mixed with 40 kg FYM.

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