

PEST FORECAST FOR THE MONTH OF AUGUST 2019

Rice

Stem borer and whorl maggot incidence was prevalent in rice growing areas of Thanjavur, Coimbatore and Kanyakumari district in young crop at tillering stage. Chlorantraniliprole 18.5 SC @ 60ml/ac and Cartap hydrochloride 50SP 400g/ac respectively can be used for the management these insects. Leaf mite incidence is noticed in Thanjavur district and it can be managed by timely application of acaricide, dicofol 200ml/ac.

Preparation of rice nursery is in progress in Anamalai and Thondamuthur blocks of Coimbatore district and Bhavanisagar, Bhavani and T.N. Palayam blocks of Erode district. The farmers should treat the seeds with talc based formulation of *P. fluorescens* @ 10g/kg of seed (or) Carbendazim (or) Tricyclazole @ 2g/ litre/kg of seed and soak in one litre of water overnight in order to protect seedlings from diseases and to ensure uniform, healthy seedlings for transplanting. The next day, decant the excess water and allow to the seeds to sprout for 24 h. These seeds can be used for sowing in the nursery beds.

Pulses

Seed treatment with imidacloprid 600 FS @ 10ml/kg can be done to manage stem fly and whitefly for the ensuing black gram crop.

The leaf crinkle virus disease was spreading in few places of black gram and green gram growing areas of Coimbatore district, for managing this disease, spray methyl demeton 25 EC 500 ml/ha or dimethoate 30 EC 500 ml/ha or thiamethoxam 75 WS 1g /3 lit and repeat after 15 days, if necessary.

Oilseeds

In groundnut and sunflower, root rot is expected and hence, farmers are advised to soil drench with carbendazim @ 0.1% to manage the disease. To manage the groundnut leaf spot disease, foliar spraying of mancozeb or chlorothalanil 1000g/ha 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.

Horticultural crops

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 leafhoppers, thrips, whitefly, mealy bug 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. Red spider mite incidence was recorded in bhendi and tomato crops in Coimbatore district. The acaricides like propargite 2.5 ml/lit or fenazaquine 2 ml/lit can be applied for the management.

In tomato early blight incidence is expected. Hence, the farmers are advised to spray mancozeb @ 2 g/ lit of water, twice at weekly interval. For the management of powdery mildew incidence in bhendi, dust sulphur 10 kg /ac or apply wettable sulphur 2 g/lit immediately after noticing the incidence and repeat 15 days interval. Whiteflies, leaf hoppers are expected could be managed with imidacloprid (0.2 ml/lit) or dimethoate (2 ml/lit). In onion, leaf blotch is expected during the rainy season. The farmers are advised to spray mancozeb @ 2g /l or copper oxychloride @ 2.5 g/l for managing the leaf blotch incidence.

Papaya Ring Spot Virus

Papaya ring spot virus is observed in all the papaya growing districts of Tamil Nadu. For the management, the farmers are advised to raise two rows of maize as border crop one month prior to planting, place yellow sticky traps (12 nos./ha) swabbed with grease or castor oil to attract the aphids, spray neem

oil 1% or acephate 1.5 g/lit or imidacloprid 0.075% (7 ml / 10 litres of water) up to 4 months of planting, spray boron 0.1% (1 g/litre) and zinc sulphate 0.5 % (5 g/litre) in 3rd and 7th month to sustain yield of infected plants.

Banana nematode management

In banana, root lesion nematodes and root knot nematodes are observed in Coimbatore, Erode, Trichy, Tirunelveli, Dindigul and Theni districts which cause a yield loss of 15-20 per cent. The nematodes infested banana tree shows stunting and yellowing of leaves, blackish or reddish necrotic lesions on the roots. The root knot nematode infested field shows day wilting symptoms and root galls also noticed. The farmers are advised to apply FYM @10kg with neem cake 250g/tree and intercrop with marigold and *in situ* ploughing of sunnhemp at the time of flowering. Apply liquid formulation of *Pseudomonas fluorescens* @ 2lit/ha during 2, 4 and 6 months after planting through drip irrigation.

Special forecast on fall army worm in Maize and other crops

Fall army worm, *Spodoptera frugiperda* attack was reported in few districts on maize. In other districts almost maize crops has been harvested.

However the incidence of fall army worm has to be carefully monitored in other crops to know its alternate host plants in all the districts.

Integrated pest management packages for fall army worm

- a) Deep Ploughing in order to expose the pupae of fall army worm to sun light and avian predators thereby curtailing the chance of emergence of next brood and occurrence of the pest for the next season.
- b) Application of neem cake @ 100 kg per ac in soil at the time of ploughing to reduce the emergence of adults from pupae.
- c) Seed treatment with *Beauveria bassiana* 10 gram per kg of seed (or) imidacloprid 70 WS (or) thiomethoxam 70 WS @ 10 gram per kg of seed.
- d) Adopt a spacing of 60 x 25 cm for irrigated maize and 45 x 20 cm for rainfed maize. Closer planting always facilitates for quick movement or spread of the larvae in between plants
- e) Leave rogue spacing of 75 cm for every 10 rows of maize to facilitate easy spraying during cob formation stage and to minimize the damage during cob formation and maturity stages

- f) Use solar light trap / battery chargeable light trap / ordinary electric light fitted over a wide pot or bowl containing kerosene mixed water @ one per hectare at random places in the length and breadth of the field.
- g) Cultivation of short duration varieties of cowpea, sunflower, gingelly, sorghum and Marry gold as border crop to attract, conserve and enhance the activity of natural enemies like parasitoids and predators.
- h) Manual collection and destruction of egg mass as well as various stages of larvae at early stages of crop to reduce the population build up of the pest.
- i) Conservation of existing natural enemies like dragon flies, damsel flies, green lace wing flies and lady bird beetles by avoiding non-recommended insecticides, incorrect method of application, excess dosage and mixing of pesticides.
- j) Apply *Metarhizium anisopliae* formulation @ 1.0 lit/ac or 1 kg/ac
- k) Need based spraying of the following safer Insecticides: Azadirachtin 1 EC @ 2 ml/l or thiodicarb 75 WP @ 2 g/l or emamectin benzoate 5 SG @ 0.4 g/l or spinetoram 12 SP @ 0.5 ml/l

(Note: Hand sprayer / Battery operated hand sprayer should only be used)

Special forecast report on Coconut Rugose spiraling whitefly

The coconut rugose spiraling whitefly was noticed in various district coconut gardens of Tamil Nadu. The insects suck the sap and cause damage in the leaf fronts with copious honey dew secretions on the leaves. It induces development of sooty mould fungus and thereby leaves become completely black and reduced the photosynthesis rate. The following TNAU technologies can be adopted to manage the spiraling whitefly,

- Release of *Encarsia guadeloupae* @ 100 parasitoids /ac (10 leafbits/ac)
- Installation of yellow sticky traps (5 ft. x 1.5 ft.) smeared with castor oil @ 8 / ac
- Release of *Chrysoperla zastrowi sillemi* eggs @ 500/ac in young palms
- Pesticide holiday' to conserve the natural enemies fauna

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