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TAMIL NADU AGRICULTURAL UNIVERSITY
CENTRE FOR PLANT PROTECTION STUDIES

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Sir,

Sub: Plant Protection – Pests Surveillance Programme – forecasting for February 2018 – Regarding.

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I furnish hereunder the pest status in the districts of Tamil Nadu on different crops.

PEST FORECAST FOR THE MONTH OF FEBRUARY 2018

Rice

The incidence of stem borer and leaffolder was prevalent in rice growing areas of Thanjavore, Thirunelveli, Thiruvannamalai, Dharmapuri, Thiruvarur and Kanyakumari districts. But the incidence was below threshold level in the field. Use any one of the chemicals chlorpyriphos 20 EC 500 ml/ac or cartap hydrochloride 50 SP 400 g/ac or chlorantraniliprole 18.5 SC 60 ml/ac. Green leafhopper incidence was noticed in a few fields at Thiruvarur district. Regular monitoring should be made through field visits and light catches. The incidence of tungro disease should be carefully monitored in these areas as the leafhopper act as vector for tungro disease. Insecticides like imidacloprid 17.8 SL 60 ml/ac or triazophos 40 EC 300 ml/ac can be recommended for the management of leafhoppers.

In Dindigul and other districts of Tamil nadu where rice crop at tillering stage, farmers are advised to monitor blast symptoms which appear as spindle-shaped lesions with gray center and brown margin. Older lesions are whitish to gray with necrotic borders. Farmers are advised to delay application of nitrogenous fertilizer and spray tricyclazole 75 WP @ 200 g/ac or carbendazim 50WP @ 200 g/ac immediately after observing initial infection of the blast disease.

In coastal and other areas of Tamil Nadu because of low tempareture during night, farmers are advised to monitor bacterial leaf blight disease and take up spraying of copper hydroxide 2.5 g / l of water for management.

Pulses

In blackgram and greengram, powdery mildew and leaf spot are expected in all pulse growing districts. The farmers are advised to spray propiconazole 500 ml/ha at initiation of the disease and 10 days later for the management of powdery mildew. For leaf spot, spraying carbendazim 500 g/ha or mancozeb 1000g /ha at initiation of the disease and 10 days later is recommended. Besides, placing 15 nos of yellow sticky traps /ha and spraying dimethoate 30 EC or methyl demeton 25 EC @ 2 ml/l along with neem oil @ 2 ml/l of water are recommended for the management of virus diseases.

Cotton

In cotton, grey mildew and *Alternaria* leaf blight are occurring in Perambalur, Coimbatore and Dharmapuri districts. The farmers are advised to spray carbendazim 2g/litre or propiconazole 1ml/litre at 15 days interval for the management of grey mildew. For *Alternaria* leaf blight, spraying of mancozeb or copper oxychloride 2g / litre at 15 days interval is recommended.

Sugarcane

Sugarcane wooly aphid incidence is observed in Erode district of TamilNadu. For the management of the pest, the farmers are advised to conserve the naturally occurring predators like *Dipha aphidivora* and *Micromus* spp.

Mango hoppers

In Krishnagiri, Salem and Dharmapuri districts, mango growers are requested to watch for the movement of mango hoppers during this season. If needed, spray dimethoate 1.6 ml/lit. of water, first spray at the time of panicle emergence and the second at two weeks after the first spray.

Banana

In banana, sigatoka leaf spot is observed in Coimbatore, Erode, Trichy, Tirunelveli and Theni districts. The farmers are advised to spray carbendazim @ 0.1 % (1 gram in% one litre of water) or propiconazole @ 0.1 % (1 ml per litre of water) or mancozeb @ 0.2 (2 gram per litre of water along with teepol (1 ml/litre) 3 times at 10-15 days interval. Besides, Fusarium wilt is also expected during this season. For new planting dip the suckers in 0.1 % carbendazim (1g/lit) for 30 min or *Pseudomonas fluorescens* 10g/sucker at the time of planting. Corm injection of 3 ml of 2 % carbendazim on 3, 5, and 7th month after planting. Drench infected plants with 0.1 % carbendazim (1 gram in one litre of water) at 2, 4th and 6th month after planting should be followed.

Papaya

Stem rot / Foot rot

Stem rot / Foot rot is expected in papaya growing districts of Erode and Coimbatore. For the management of the disease, the farmers are advised to take up soil drenching around the plants with copper oxychloride 0.25 % (2.5gram per litre of water) or Bordeaux mixture 1% or metalaxyl 0.1%.(2 gram per litre of water) 2-4 times at 15 days interval .

Ring Spot Virus

Papaya ring spot virus is observed in all the papaya growing districts of TamilNadu. For the management of the disease, 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 per 10 litres of water) up to 4 months of planting, spray boron 0.1%(1 gram per litre) and zinc sulphate 0.5 % (5 grams per litre) in 3rd and 7th month to sustain yield of infected plants.

Tomato

Incidence of fruit borer was noticed in tomato, for the management of fruit borer in tomato, Set up pheromone traps @ 12/ha and release *Trichogramma chilonis* @ 50,000/ha/release, coinciding with flowering time. Based on ETL of 10% damage, spray azadirachtin 2.0 ml/lit.of water or indoxacarb 0.5/lit.of water or flubendiamide 0.5g/lit.of water.

Early leaf blight disease is predominant in tomato growing areas. For the management of this disease, remove and destroy the infected crop debris. Spray the crop with chlorothalonil (2g/l) or mancozeb (2g/l) or copper hydroxide (2g/l) at fortnight intervals for effective disease control.

Onion

Purple blotch disease is predominant in onion growing areas. For the management of this disease, remove and destroy the infected crop debris. The field should be well drained. Three foliar sprayings with copper oxychloride 2.5g/l or chlorothalonil 2g/l or mancozeb 2g/l.

In vegetables like tomato, brinjal, bhendi, cucumber and gourds, root knot nematodes and reniform nematodes are expected in intensive cultivation areas of Tamil Nadu. The nematode infested field shows day wilting symptoms and also galls in the root. The farmers are advised to apply neem cake @400kg/ha and intercrop with marigold and also apply *Purpureocillium lilacinum (= Paecilomyces lilacinus*) @ 2.5kg/ha mixed with 100 kg FYM.

Carrot

In carrot, root knot nematodes are expected in hill areas like Ooty and Kodaikanal and cause yield loss of 15-20 per cent. The nematode infested plant shows day wilting and formation galls on main and side roots. Forking of tubers also noticed under heavy infestation. The farmers are advised to apply neem cake @400kg/ha and intercrop with marigold and also apply *Purpureocillium lilacinum* (= *Paecilomyces lilacinus*) @ 2.5kg/ha mixed with 100 kg FYM.

Cashew -Tea mosquito bug

Incidence of tea mosquito bug is expected in cashew and guava in Cuddalore district. Monitor bugs at regular intervals and farmers are advised to install yellow sticky traps and spray imidacloprid (0.6 ml/lit.of water) or thiamethoxan (0.6 g /lit.of water) would reduce the incidence.

Root Rot disease of Jasmine

Root rot disease caused by *Sclerotium rolfsii* is wide spread in Krishnagiri district. The pathogen propagules survive in soil and spread easily through irrigation water and farm operations and so severely wilt affected plant has to be removed. Soil drenching with copper oxychloride @ 2.5 g/lit. or trifloxystrobin + tebuconazole @ 0.75 g/litre or Difenoconazole @ 0.5g/l. around the infected plant and surrounding plants. Mix talc based formulation of *Trichoderma asperellum (T.viride*) @ 2.5 kg along with 50 kg FYM and to and soil application (100 – 150 g) to individual plants

Sucking pests' management in Horticultural crops

Due to dry weather leaf hoppers, thrips, whitefly, spiraling whitefly are anticipated. Hence, farmers are advised to monitor the sucking pests by installing yellow sticky traps @ 5 / acre and if need be neem seed kernel extract 5% (50 g/lit. of water) or fish oil rosin soap @ 25 gm/lit. of water is to be applied.

Incidence of papaya mealybug *Paracoccus marginatus* is anticipated in tapioca, papaya, mulberry and ornamental plants, which could be managed by releasing inocualtive release of *Acerophagus papayae.*

Coconut-Rugose spiralling whitefly

Spiralling whitefly incidence is reported in **Thanjavur**, **Coimbatore** and **Thiruppur** districts hence farmers are advised to

i. Conserving the natural enemies like *Encarsia* parasitoids, chrysopids and coccinellids in coconut ecosystem by avoiding insecticides.
ii. Placing yellow sticky traps @ 25/ha smeared with castor oil/ horticultural mineral oil can be used for monitoring the population.
iii. Spraying water forcibly on the under surface of the palms 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) would be helpful in minimising the population build up.
v. Spraying with boiled maida paste @ 25 g/ lit. of water will remove flakes of sooty mould from the upper surface of the leaves.

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