PEST AND DISEASE FORECAST FOR THE MONTH OF SEPTEMBER 2016

Generally, the pest and diseases incidence were found below economic threshold level in Tamil Nadu. Hence, the farmers are advised to monitor the crop for pest activities by setting light traps and pheromone traps in their fields.

Rice

If thrips incidence is noticed in samba crop nursery, spray phosphamidon 40 SL 50 ml in 20 litres of water. Mealy bug incidence is being recorded in direct seeded rice in some locations of Nagapattinam and Thiruvarur districts. Due to water scarcity the incidence may increase and spread to neighbouring fields. Hence, farmers are advised to spray Buprofezin (25 SC) @200 ml or Thiamethoxam (20 WDG) @100 g or Dimethoate (30 EC) 400 ml / /200 lit of water for one acre. To manage rice leaf folder and stem borer problem, set up light trap @ 1 / acre to attract and kill the adult moths and if needed, spray Neem seed Kernel Extract 5% (or) spray any one of the following insecticides; phosalone 35 EC 1500 ml/ha (or) quinalphos 25 EC 1000 ml/ha (or) phosphamidon 40 SL 1250 ml/ha.

Due to the abnormal weather prevailing in the coastal districts as well as in other parts of rice growing area of Tamil Nadu, there is a possibility for the outbreak of rice blast and false smut diseases in paddy. Hence farmers are advised to monitor the rice crops for the above diseases. The blast symptoms appear as spindle-shaped lesions with white to gray-green darker borders. Older lesions are whitish to gray with necrotic borders. Farmers are advised to do delayed application of nitrogenous fertilizer and spray immediately after observing initial infection of the blast disease with carbendazim 50WP @500 g/ha. Brown spot incidence was found in many rice growing districts. Hence, farmers are advised to spray mancozeb (2.0g/lit) particularly nursery for machine planting and the same dose in transplanted rice 2 to 3 times at 10 - 15 day intervals, based on the intensity of disease.

Sugarcane: Red rot disease incidence was noticed in some villages of Kattumanarkoil Taluk, Cuddalore district

Red rot management strategy

1. Red rot disease incidence was noticed in CoC 24 variety. Ratoon crop in red rot disease infected field may be avoided. In future, planting of CoC 24 variety may be avoided.
2. Wherever the disease is just noticed, the affected clumps should be uprooted and burnt outside.
3. In that area, soil drenching with Carbendazim @ 1g/lit of water should be done.
4. The irrigation interval in a red rot affected field must be lengthened. Frequent irrigation hastens the spread of the disease while delayed irrigation (once in 15 days during tillering and growth phases and once in 25 days during maturity phase) restricts the spread of the disease.
5. As far as possible, avoid the flow of irrigation water from affected to healthy crop.
6. Red rot affected fields should not be allowed for ratooning even if the incidence of the disease is very negligible (below one per cent).
7. If a disease free field is allowed for ratooning (with a red rot susceptible variety), immediately after stubble shaving, the cane furrows should be drenched with Carbendazim @ 1 g/litre of water (about 300-400 lit of solution is required for an acre). Ensure that there is sufficient soil moisture in the field at the time of soil drenching and drenching has to be done when the cut ends are fresh. (Soil drenching in dry field and in old stubbles will be of little use).
8. Burn the trashes in red rot affected field (after harvest) by spreading it uniformly in the field.
9. The red rot affected field must be crop rotated with rice for one season.
10. Crop nurseries may be raised in upland areas of disease free village.
11. Adopt sett treatment with Carbendazim before planting (Carbendazim 50 WP @ 50 g along with one kg of urea in 100 lit of water per acre for 5 minutes).
12. A close watch may be given in the nurseries and ensure complete freedom from red rot disease before seed cane cutting.

13. If the nursery crop is affected by red rot, (even by 1 per cent), it should be rejected for seed purpose and may be treated as bulk crop.

Sugarcane – Top borer(s) damage was noticed in Kallakuruchi area in Villupuram District. The following management practices may be adopted to reduce the damage.

- The matured sugarcane crop affected by internode borer (INB) and top shoot borer (TSB) should be harvested at the earliest and crushed.
- Top most priority should be given for harvesting the affected canes. This would help to avoid further multiplication of the pest and also spread to other young crops which are in grand growth phase.
- The farmers are suggested to monitor the moths of inter node borer and top shoot borer in the crops at grand growth phase by installing sex pheromone trap @ 20/ha.
- Release of egg parasitoids, *Trichogramma chilonis* @ 2.5 CC/ha and *Trichogramma japonicum* @ 2.5 CC/ha at fortnightly intervals so as to reduce the damage of INB TSB, respectively. Water logging should be avoided in the fields. Detrashing should be done for the crops at grand growth phases at 5^{th} and 7^{th} month after planting. Propping should be done to avoid the incidence of borer complex.

Cotton

To manage cotton bollworms, set up pheromone trap @ 5 / acre. If needed spray indoxacarb 14.5 SC 200 ml / ac (or) triazophos 40 EC 800 ml / ac. Farmers of Tirupur district and Perambalur districts are advised to go for soil drenching with 0.1% carbendazion to mange cotton root rot.

Groundnut

Set up light traps to monitor the movement of leaf miner. If adults are attracted to light trap spray immediately dichlorvos 76 WSC 500 ml / ac. (or) chlorpyriphos 20 EC 500 ml / ac. (or) phosalone 35 EC 300 ml / ac (or) diflubenzuron 25 WP 400 g/ha (or) monocrotophos 36 WSC 500 ml/ha (or) methydemeton 1000 ml/ha. In Villupuram and Cuddalore districts, leaf spot incidence was noticed. To manage this disease, spray carbendazim 500 g (or) mancozeb 1000 g / ha. If necessary give the second round 15 days later.

Sucking pest management in Agricultural and Horticultural crops

There is a possibility for multiplication of sucking pest like jassids, thrips, whitefly, spiralling whitefly and different species of mealybug including papaya mealybug in Agricultural and Horticultural crops.

Hence, farmers are advised to setup the yellow stickly traps to monitor the sucking pests @ 5 traps / acre and if needed, they can spray neem seed kernel extract 5% (or) fish oil rosin soap @ 1 kg in 40 litres of water. Spray systemic insecticides like methyl demeton 2 ml/l or imidacloprid 17.8 SL / 0.2 ml / l or dimethoate @2 ml / l to manage the insect vector, whitefly.

To monitor fruit borers in vegetables: Integrated pest management of fruit borer:

1. Set up pheromone traps for *Helicoverpa armigera / Spodoptera litura* @ 12 no. / ha.
2. Collection and destruction of damaged fruits and grown up caterpillars.
3. Spray *Bacillus thuringiensis* @ 2 g / lit.

This is for the favour of your kind information. Necessary control measures may please be adopted.

Further contact:

1. The Director,
   Centre for Plant Protection Studies,
   TNAU, Coimbatore – 641 003.
   Phone No: 0422-6611237.
2. The Professor and Head,
   Department of Agrl. Entomology,
   TNAU, Coimbatore – 641 003.
   Phone No: 0422-6611214 / 6611414.
3. The Professor and Head,
   Department of Plant Pathology,
   TNAU, Coimbatore – 641 003.
   Phone No: 0422-6611226.