

TEAM VISIT FOR MONITORING TOBACCO FIELDS IN NLS AREA ON 21.12.2015

ICAR-CTRI team of Scientists Dr. C. Chandra Shekar Rao, Dr. S. Kasturi Krishna, Dr. Raghupathi Rao and Dr. K. Suman Kalyani, have monitored different villages viz., Devarapalli, Gopalapuram, Chityala, Gowavaram, Dippakayalapadu, Kannapuram, Buttayigudem, Muppinavari gudem, Routugudem under the jurisdiction of Tobacco Board five auction platforms viz., Devarapalli, Gopalapuram, Koyyalagudem and Jagareddygudem I & II . Viral diseases viz. CMV, TMV and leaf curl diseases were observed up to 5-8% in some fields but in few fields the incidence was 20-25% at Gauravaram, Kannapuram and Gopalapuram villages. In rest of the fields incidence was 2-3%. In some the where the incidence is mild are recovering.



The following recommendations were suggested for control of leaf curl and mosaic diseases.

Whitefly (*Bemisia tabaci*)/Leaf curl

This virus is transmitted through whitefly. With mild types the leaves show slight wrinkles and drooping. In case of severe types the leaves and stem curls and leaves become thick and sprinkled and unfit for curing. Sometimes enations are also seen on under side of the upper leaves.

Diseased leaves show vein clearing, puckering of leaves, downward curling of leaf margins; leaves become brittle; thickening of veins. Since whiteflies spread disease, conditions such as too much bushy vegetation around tobacco fields serve as breeding places for whiteflies and thus spread the disease. Growing of brinjal, sunflower nearby tobacco fields also encourage build-up of whiteflies.

Control Measures

1. Remove and destroy alternative weed hosts around tobacco field.
2. Avoid leaf curl infected tobacco seedlings for transplanting.
3. Remove and destroy leaf curl infected plants if they are less than 2% in transplanted crop.
4. Install yellow sticky traps of 12 X 15 cm size @ 12/ha for monitoring.
5. Spray imidacloprid 200 SL @ 2.5 ml or thiamethoxam 2g/10 litres of water ten days before pulling in the nursery, 2-3 times 10 days after transplanting in the field at an interval of 10 days.

CMV / Tobacco aphid (*Myzus nicotianae*)

Cucumber Mosaic Virus is being spread by aphids. The diseased plants form into rosette and will not be suitable for curing. Aphids suck the juice from the plant and excrete gummy substance on the plants which is affected by fungus.

1. If the field contains 2 % heavily infested plants, spray imidacloprid 200 SL @ 2.5 ml or thiamethoxam 2g or pymetrozin 50 WG. 4 gm or Flonicamid 50 WG. 4 gm in 10 litres of water. If it is power sprayer, double the quantity of pesticides.
2. Ten days after first spray, only aphid infested plants are to be sprayed with one of the above insecticides.
3. Observe one week pre-harvest interval after the pesticide spray to ensure residue free tobacco.



Tobacco Mosaic Virus : *Mormor tabaci*

The leaves infested with tobacco mosaic virus show characteristic mottling and dark or light green patches and seedlings are stunted. This is a contagious disease. This disease spreads through contact by labour and implements used for interculture. If the plants are infected in the early stages they show stunted growth reducing the yield and quality considerably. If the disease occurs when the crop is full grown, the tobacco yields are not affected. Unclean cultivation, indiscriminately touching diseased and healthy plants, use of tobacco products by workers while working in field, presence of susceptible weeds and crop plants near fields are some of the factors responsible for disease development.

Control Measures

- Workers should disinfect their hands with soap and running water before weeding or handling seedlings.
- Workers should not chew or smoke while at work in nursery.
- Diseased seedlings should be removed and destroyed.
- Roguing the diseased plants early in the season and replace with healthy seedlings
- Prophylactic sprays with virus inhibitors of plant origin like neem leaf extracts @ 1% dilution on 30th, 40th and 50th day of planting tobacco are useful.