Lecture No. 25 & 26 STUDY OF NON-INSECT PESTS

MITES

Order : Acarina Class : Arachinda

Plant pests belong to the orders Tetranychidae (spider mites), Tenipalpidae (false spider mites), Tarsonemidae (tarsonemids), Eriophyidae (blister or gall mites) and Eupodidae (eupodids). Of these spider mites are the most important and prevalent. Mites normally feed on the undersurface of the leaves but the symptoms are more easily seen on the uppersurface. Tetranychids produce blotching on the leaf-surface, tarsonemids and eriophyids produce distortion, puckering or stunting of leaves and other parts of the plant. Some species of eriophyids produce distinct galls or blisters.

Family : Tetranychidae

1. Tetranychus cinnabarinus, Tetranychus neocaledonicus, Tetranychus ludeni: This species has a world-wide distribution. Its infestation recorded on cotton, castor, pulses, groundnut, daincha, sesbania. Brinjal, cotton and bhendi are the worst sufferers.

Symptom of damage: Undersurface of the leaves get covered with strands of webbing which affect photosynthesis and so the yield. Chlorotic spots coalesce into pale or silvery patches. Eventually the leaves dry up and fall off. Growth, flowering and fruit setting in the plants are greatly affected. Both nymphs and adults cause the damage.

2. *Oligonychus indicus*: It is a serious pest of sorghum, maize, sugarcane and some cereals.

Symptom of damage: White or red patches on the lower surface of leaves of sorghum and sugarcane. Both nymphs and adults cause the damage.

3. Oligonychus oryzae: It infests rice. White spots on lower surface of leaves which coalesce leading to development of white or silvery patches. It is severe during summer.

Family: Tarsonemidae

4. Polyphagotarsonemus latus (yellow mite, broad mite, chilli muranai mite): These are pests of chilli, cowpea, greengram, horsegram, sesamum, lablab, jute and cotton.

Symptom of damage: Sudden curling and crinkling of leaves followed by development of blister patches. Severe stunting of growth and death of plants.

Family Eriophyidae

5. Aceria cajani: It is a vector of sterility mosaic of pigeonpea.

6. Aceria sorghii: Leaf crinkling, general chlorosis and choking of terminal leaves. Host plant is sorghum.

Management of mite pests

Cultural: Avoid monocropping, do intercropping using non-host crops, clean culture.