

Pest and Disease management :-

Pest and Pest control in organic farming :-

- Crop pest include - insect, weed, plant pathogens etc.
- Pests is an undesirable animals or plants species.

various pest :-

→ Fungi & virus

① Ascochyta atropae :- leaf necrosis
 Formation of greyish white irregular spots,

② Cercospora atropae - leaf spot
 round to angular brown spots with chestnut coloured margins on both side of leaves

③ Phytophthora nicotianae - Phytophthora
 ↓ Root rot

In Belladonna plant - drooping of young leaves, and branches, yellowing of older leaves and drying of whole plant portion.

virus :- T.M.V. - Tobacco mosaic virus } effect digitalis
 Tobacco ring spot }
 Cucumber mosaic } → hyoscyamine
 & its strain }
 Virus generally affects → Rauwolfia, tobacco, datura, eucalyptus

Other virus →

yellow vein mosaic
infect transmissible virus
Distortion mosaic virus
Rugose leaf curl V

②

Insects

Agrotis species, Heliothis armigera,
Odontotermes obscurus, Flea beetle
(Mendax)

Plantha viridicalis }
Diaphana nilgirica } (Rauwoofia)
Indomita cutacely }
~~Lipidoptera~~ Larvae

Dill Fruit → Papilio machon
Myadaphis cerasanth

Belladonna leon, its leaf decto - Gonolepta
- um spec
Agrotis flammaria

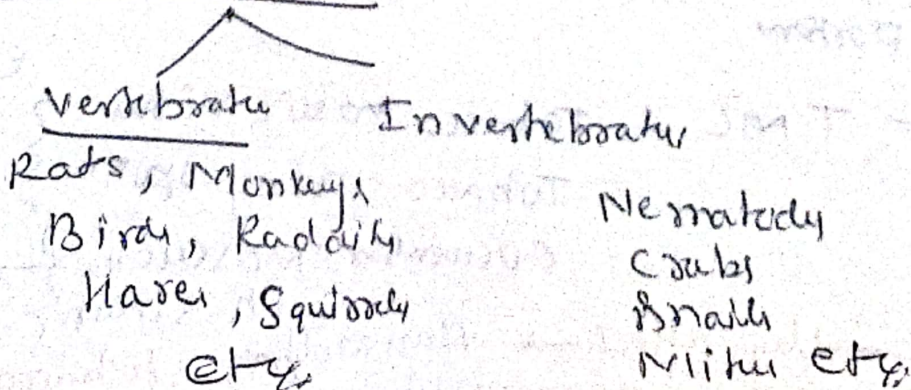
Other Grasshopper, Spiders, ticks, mites etc.

③

Weed

Ragweed, Medicinal tea, yellow
deck
Parthenium, western
Poisonous
Oak
Rudra etc.

④ Non insect Pest



Pest Control:-

- Method for
- Mechanical Control Pest
 - Agricultural "
 - Biological "

1) Mechanical Method:-

→ hand picking

→ Pruning

→ Burning

→ Trapping of Pest - Mouse trap / Rat trap

→ " " Fly / g insect -

Containers formulated with Fly wing funnel shaped
oil etc.

2) Agricultural Method:-

→ Production of Pest resistant species - are
resistant to fungal and bacterial attack.

→ use of deep ploughing to eradicate weeds

→ crop rotation

3) biological Pest Control:-

(a) → Importation or classical biological Control

→ which introduce pest's natural enemies
to the location

(b) augmentation - It involves supplemental

release of natural enemies, boosting
the naturally occurring population

(c) Conservation - Conservation of existing
natural enemies in the environment.

- Biological Pheromone - It is a chemical substance produced and released by some female insects and capable of eliciting a sexual response from the opposite sex, which could be properly exploited for biological control of pests. Such substance is called as sex pheromone. Ex XI - 7,8-epoxy-2-methyldecane from gypsy-moth.

④ Natural Insecticide & Pesticide -

- Azadirachtin - from Neem - Insecticide
- Laminarin / Kelp / brown algae → Antibacterial
Anti fungal
- Pyrethrin from Leaves of }
Chrysanthemum } → Insecticide
Cineraria folium }
- Quassia from tree }
Quassia amara } → Insecticide
- Spinosad from the soil
bacterium - Saccharopolyspora }
spinosa } → Insecticide
- Ethylene - Insecticidal fungicide
against fruit fly
- Paraffin - "

- Fatty acid (soft soap) - Insecticide agent
- not, mitic
Thrips & aphids

- Kieselgur - Mechanical Insecticide

- Lime sulfur - Fungicide
 $(Ca(OH)_2 + S)$

- $Ca(OH)_2$ - acaricide
S