

machines such as "Chisel Tooth injection tank" which is tractor mounted.

→ The Efficacy of Fumigents of soil fungicides depend on

- i) Temp will be $10-20^{\circ}\text{C}$ so that efficacy
- ii) Humidity should be more than 80% more

→ Chloropicrin & methyl bromide can also be applied with irrigation water but Carbofuran has low volatile ability so it only directly applied in soil without water & mix to the soil also

→ Disinfection of warehouses

These are the places where postharvest items or goods are stored. So by this method we can protect postharvest disease.

→ while storing in warehouses, wash the walls of warehouses with copper sulphate solution (1 pound copper sulphate mix in 5 gallon water)
1 Gallon = 5 liter.

If you want to use fumigents like chloropicrin, (1 pound per each ^{cubic} feet of warehouses) and then close the door of warehouses for 24 hours. so all material of infection would be killed.

Dusky rainy season, use linseed oil first before pasting or painting.

→ Soil Treatments

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Theory

→ Control of insect vectors:

Vector must be control well in time. By managing or controlling the disease, it is better to control the insect vector. Vectors can be controlled in two ways.

i) Insecticidal control

ii) Interference during acquisition/acquire + during transmission.

2 method is mostly recommended.

e.g. If we spray mineral oils by using (ii) method you can control cucumber mosaic virus & potato virus X effectively.

→ Disease control by immunizing/creating resistance in the host:

i) Conventional breeding method:

man selection, Pedigree method, backcross method

ii) By using Biotechnological tools & change DNA segment of host.

iii) Spray some biocontrol ^{microbes} strain or antagonists or some weak strain of virus is applied on plant, plant take it as the severe attack and make some resistance in it so plant become resistant to attack.

→ Some chemicals are also used which create immunity in plants like

1) Salicylic acid

2) Dichloroisonicotonic acid

3) Benzothiazol

Immunity ^{mechanism} create by this method

is technically called SAR (systemic acquired resistance) because this immunity move is system of plant & acquired by some foreign agent (chemical or microb) so acquired.

⇒ By using some molecular or biotechnological tool the resistant segment is taken from some other organisms.

i) Pathogen Drive Resistance

Gene is taken from pathogen & imbede or introduced in plant genome to create resistance.

ii) Plant Drive Resistance:

If gene is taken from some wild plant or weed & introduce in plant genome.

When these molecular techniques are not available or not possible so some other

methods like proper fertilizer & proper fertility of soil & proper sanitation, in

this way resistant can introduce or plant show some good resistant against plant.