

CHS3403 Principles of Plant Pathology in Cannabis and Medicinal Plant

Plant disease from insects and post-harvest

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...Topics...

- 1. Plant disease from insects**
- 2. Plant disease from post-harvest**

3. Plant disease from insects

3.1 Plant disease from insects

3.1.1 Plant damage caused by insects

Damage caused by chewing (chewing), licking and piercing (piercing and sucking), and damage caused by direct chemicals. Especially from sucking insects that release toxins from salivary glands into plant tissues while sucking.



3. Plant disease from insects

3.1.2 แมลงสำคัญที่ทำความเสียหายแก่พืช

1) Collembola

These include springtails, some of which feed on plants by causing tiny holes in the leaves, cotyledons and stems. These insects usually do not cause much damage.



2) Orthoptera

These include grasshoppers, crickets and cockroaches. These insects are biting insects. The destruction of the plant will be severe. When these locusts live together in swarms, such as the Patanga locust outbreak, Destroy the corn planted in various fields. in the areas of Lopburi and Saraburi provinces that caused a lot of damage, etc.



3. Plant disease from insects

3) Dermaptera

Including insects (earwigs) that occasionally damage the leaves and flowers. It usually does not cause serious damage to crops.



4) Isoptera

Including termites (termites or white ants), in addition to biting and damaging wood. Also found as an enemy that destroys the roots, stems, especially at the soil level. wilt the plant. If it is with seedlings, it can be fatal.



3. โรคพืชที่เกิดจากไร แมลงอื่นๆ

5) Thysanoptera

These include thrips. Thrips damage plants in the dry season. and in greenhouses, destroying leaves, flowers and pods, causing them to deform. The damaged tissue is seen as a silvery white blemish. Aphid infestations occur from time to time. The outbreak will disappear when it rains. In addition to directly destroying plants It has also been found that thrips can carry some disease-causing viruses as well.



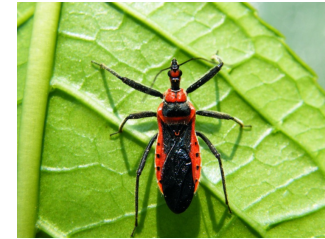
3. โรคพืชที่เกิดจากไร แมลงอื่นๆ

6) Hemiptera

These include plant bugs. These insects are the major pests that cause direct damage. by stabbing and sucking During this suckling Insects release saliva, which is toxic to the plant, causing the plant to have various symptoms. Some insects are carriers of major disease viruses.

Insects such aseapsid bugs, family Miridae∩ Capsidae

- aphids, family Aphididae
- white flies, family Aleyrodidae
- scale insects, family Coccidae
- mealybugs, family Pseudococcidae
- leafhopper, family Fassicidae



3. โรคพืชที่เกิดจากไร แมลงอื่นๆ

7) **Lepidoptera** including butterflies and moths (butterflies and moths), caterpillars of insects Will eat almost all parts of the plant. such as the bite of cabbage worms Cotton bollworms, worms, borer stems at various soil levels, etc.



8. **Coleoptera** Including beetles (beetles) both larvae and adults of insects. They destroy crops and harvested produce. Wireworms, for example, are worms of the family Elateridae that feed on grass, grain and other plants. Destruction usually occurs at the soil level of the plant. causes plants to wither and die, weevils destroy seeds, roots, leaves, stems and flowers, etc.



3. โรคพืชที่เกิดจากไร แมลงอื่นๆ

9) Hymenoptera These include bees, wasps, and ants. These insects do very little damage to plants. Destroy the plant only by piercing the spawn in the plant stem. and may be involved in the formation of nodule on the plant Ants destroy plants by involving aphid migration. and various shellfish aphids and may eat leaves, seeds and fruit



10) Diptera include flies The caterpillars destroy plants with mixed symptoms on different parts of the plant such as shrunken leaves, distorted knots, resulting in sterility, piercing stems, roots, leaves and tubers. Cabbage, head lettuce, etc.

4. Plant disease from post-harvest

4.1 Seed Pathology

- When plants are planted with seeds with pathogens, the pathogens will cause serious damage to the growing and growing plants.
- The diseased seedlings will also spread spores to other normal trees on the farm or places where there was no such disease before.
- The seeds of some diseases will not only directly destroy seeds and plants, but also cause harm to humans or animals.



4. Plant disease from post-harvest

4.2 Fungal seed damage of plants grown from seeds is a disease

1. germination loss center Loss of germination of diseased seeds is common.
2. The seedling burns and rots. Seedlings born from diseased seeds are often burned.
3. Symptoms of growing plants such as black smut of wheat, sorghum.



4. Plant disease from post-harvest

4.3 Seed disease control

Seed Disease Control The main principle is to destroy the infection attached to the seed to keep the seed free from pathogens. This is done by

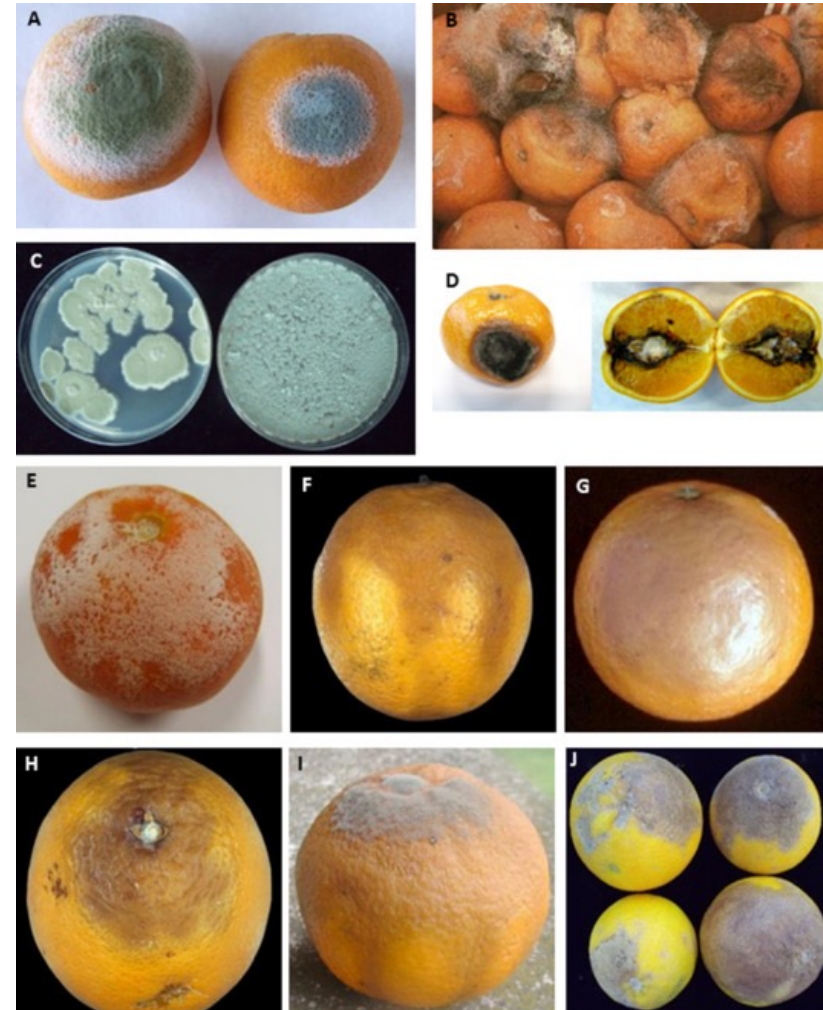
1. Mixing the seeds with suitable chemicals
2. Soaking in hot water or through hot steam
3. Keeping the seeds long enough before planting. so that short-lived pathogens die first



4. Plant disease from post-harvest

4.4 Post Harvest Diseases or Market Pathology

- It is a disease that occurs after harvested crops are in the process of storage.
- Transported to consumers or processing plants The nature and physiological conditions of the produce change.



4. Plant disease from post-harvest

4.5 Post-harvest disease control

1. Prevent diseases caused by farm bacteria
2. Harvest crops at an appropriate age.
3. Harvest plants carefully to avoid scratching or excessive injury.
4. Clean the storage facilities and keep the products clean.
5. The storage room is well ventilated, and the humidity and temperature are controllable.
6. Use chemical disinfectants to adapt to the storage of products.

