



# Powdery Mildew of Peach & Apricot

## Symptoms:

- Infected leaves are completely coated with the thick, white, powdery mycelium and spores of the fungus.
- Mature leaves show comparatively more resistance to the fungus.
- White powdery masses contain conidia of the fungus that are produced on the leaf surface. This whitish growth is also observed on infected fruit.
- Affected twigs show stunted growth and the lateral buds differentiating into blossom buds may be destroyed.
- Within each lesion, mycelium and spores are present.

*C.O. Sphaerotheca pannosa*

*Podospaera clandestina*





# Colonies of Powdery Mildew on Peach



# Distortion of Peach Leaves by Powdery Mildew



# Powdery Mildew on Apricot Leaf



# Epidemiology

- Warm weather with relative humidity of 43-100% is favourable for disease development.

## **Disease cycle:**

- Normally, this fungus overwinters on the peach buds, like apple powdery mildew.
- **Control:** Spray Topas @ 0.5 ml/litre of water.

# Root Rot of Apricot

- The disease is widespread among stone fruit production orchards. Great losses have been found in nursery.
- **The causal organisms:**
- *Rhizoctonia solani*
- *Pythium sp.*
- *Fusarium spp.*
- **Disease symptoms:**
- -If plants are infected after emergence, they will be wilted.
- -Infected plants appear with yellow leaves.
- -Its easy to pull out the infected plants.
- **Control:**
- -Avoidance of excessive irrigation water.



# Phytophthora Crown, Root, and Collar Rot of Peach and Apricot

Apple, cherry, peach, and apricot trees are susceptible to *Phytophthora* collar and root rot.

## Symptoms

- Yellowing/wilting of leaves and premature leaf drop.
- Gum exudation on the trunks and sometimes on the lower limbs occurs.
- Dark sunken cankers form on lower trunk extending below the soil surface.
- Bark shows brown-black color and water-soaking symptoms.
- Orange-brown necrosis of the inner bark of crown and woody roots is evident which turns dark brown when the tree dies.
- Gradual decline of infected trees occurs.

# Phytophthora Collar rot



# Die back of Apricot

- Die back is one of the most destructive diseases of apricot.
- **The causal organisms:**
- *Botryodiplodia* sp., *Alternaria* sp.
- **Symptoms:**
- Die back may be seen in apricot trees of almost any age, but its incidence increases rapidly from year to year as the trees grow.
- A zone of discolored sapwood may be found extending upward and downward from the canker.
- Leaves may wilt suddenly followed by death of that part of the branch.
- **Control:**
- -Pruning of wounded parts.
- -Trees should be pruned soon after harvest.
- -Spray of Topsin M @ 1gm / liter of water.

# Brown Rot of Stone Fruits

## Blossom and twig blight

- Infected blossoms wilt, turn brown, and usually cling to the twig.
- Infection extends into the peduncle and twig resulting in a necrotic area in the woody tissue called as canker.
- Under humid conditions, ash-gray-brown colored sporodochia bearing conidia form on the surface of diseased blossoms and twigs.
- A gummy substance usually exudes from the cankers, causing the blighted flowers to adhere to the twig.
- **C.O.** *Monilinia fructicola*



- Diseased fruit become shrivelled "mummies" and cling to the branch.
- The fungal infection extends from the fruit into the twig and branch.



# Apricot brown rot (shoot blight)



# Fruit Rot

- During 2 to 3 week period before harvest, fruit susceptibility to brown rot increases.
- Increased susceptibility is correlated with an increase in sugar content as the fruits ripen.
- Initially, tan-brown, circular spots are visible on the fruit.
- **Epidemiology:**
- Temp. 24°C + 5 hours wetting

# Sporulation of *Monilinia fructicola* on Peach Fruit

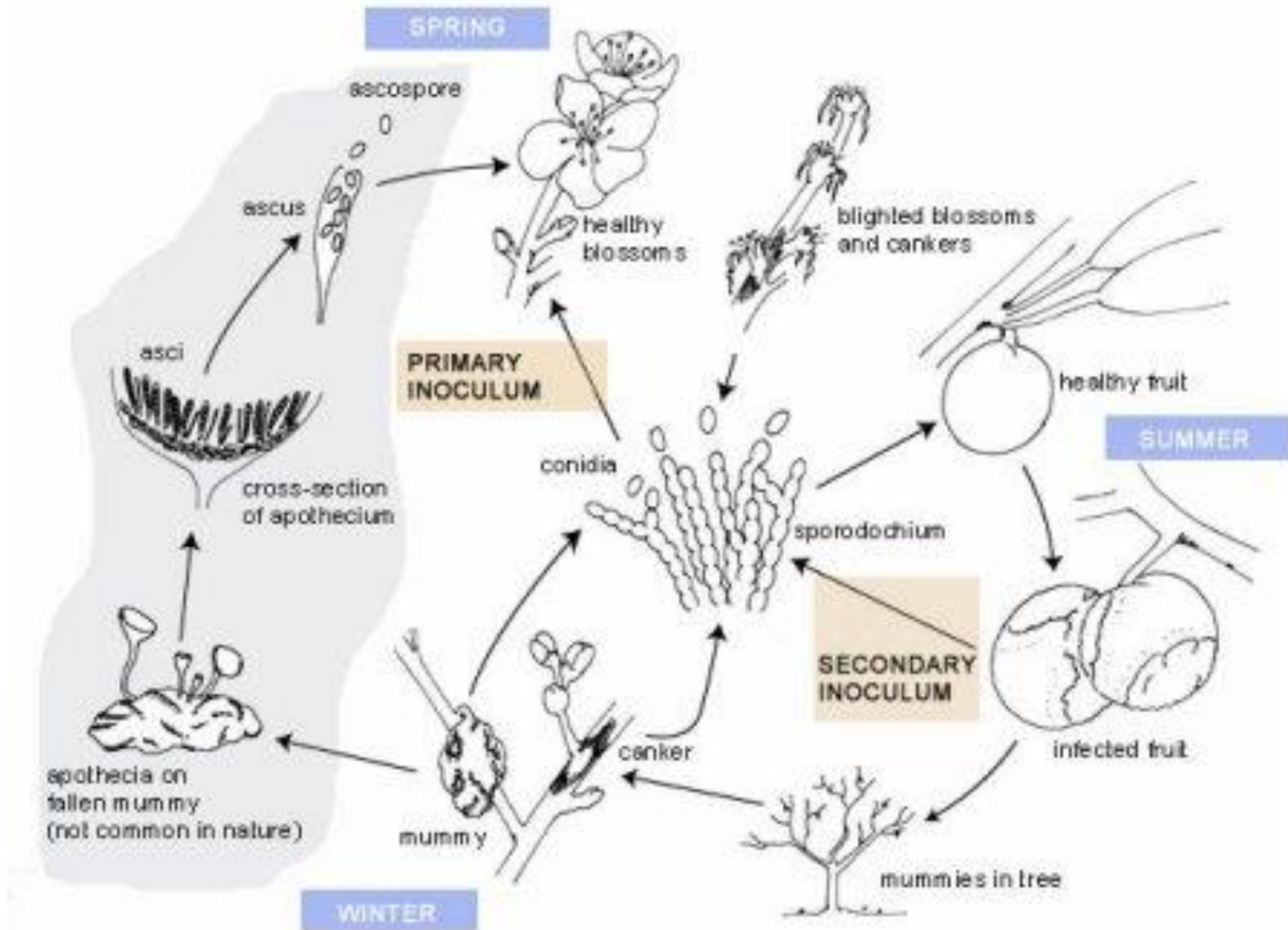




# ***Brown Rot on Peach, Cherry, Plum and Apricot Fruit***



# Disease cycle of *Monilinia fructicola*



Drawing courtesy Vickie Brewster

# Control

- Proper sanitation measures need to be adopted.
- Spray of Benlate 50 WP or Topsin-M @ 1 gm / liter of water should be done.

# Peach leaf curl

## Symptoms:

- Crumpled, thickened and distorted leaves, often red in colour are evident.
- A white bloom of fungal spores on affected leaves is formed.
- Diseased leaves fall rapidly, leading to defoliation and loss of vigour.
- Shoots and fruits are occasionally attacked.



# Peach Leaf Curl Symptoms



- **Epidemiology:** Cool conditions favour the disease development.
- **Temp.** 10-21°C.
- **Control:**
- Removal of infected parts.
- Good orchard management.

# \*Sources

- 1. Recommended books.
  - 2. Latest research articles downloaded from Google.
  - 3. Google images.
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- \*Solely for academic purpose and guidance of students.