Fact sheet

Plant Health AUSTRALIA

Apple brown rot

What is Apple brown rot?

Apple brown rot (*Monilinia fructigena*) is a fungal pathogen of apple and pear trees. This pest develops similar symptoms to Brown rot in stone fruits (*M. fructicola*), which causes serious economic problems in stone fruit in Australia, and Apple brown rot is predicted to have a similar impact on Australian pome fruit if it becomes established. Apple brown rot is primarily present throughout Europe, where it can cause losses of about 35% in apples, especially during the warm and humid summer months.

Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org

Stem blight symptoms of infection, including blossom rot

What does it look like?

Infected fruit typically develop spreading, firm, brown spots that rapidly develop into rotting. These rotting areas will normally be surrounded by conidial pustules, often in concentric circles. These pustules resemble small, raised white-cream spots. Within five days of infection, the entire fruit can be rotted and covered with pustules. Infected fruits become mummified and tend to remain on the tree.

Symptoms can spread to the stems resulting in blighted twigs developing into cankers. Leaves may turn dark brown and remain attached instead of abscising. Cankers are generally restricted to the twigs and do not extend into the previous year's wood.

At harvest, apparently healthy fruit may be contaminated with spores and decay during storage and marketing.

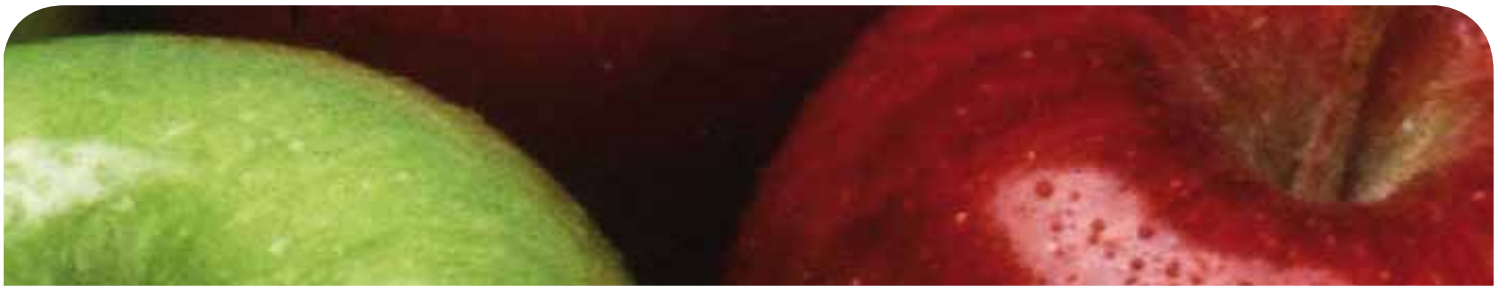
Pavel Šinkyrik

Concentric circles of conidial pustules on rotting fruit

What can it be confused with?

Apple brown rot produces similar symptoms to other Brown rot species that are present in Australia, however Apple brown rot produces more severe symptoms in apples and pears than other species. Pustule development in concentric circles on the fruit surface may suggest the presence of Apple brown rot.

Infected fruit can become mummified



What should I look for?

The development of brown rotting areas of apple or pear fruit, particularly when surrounded by pustules. Mummified fruit and brown leaves that remain on the tree are further signs of Apple brown rot infection.

How does it spread?

Fungal spores can be spread by wind and rain, and the pathogen can also be spread with infected plant material. Fruit-to-fruit contact will spread the pathogen within a single tree.

Where is it now?

Apple brown rot is found in most temperate regions of Europe, Asia, North Africa and some South American countries.

How can I protect my orchard from Apple brown rot?

Source plant material only from clean, accredited suppliers, and preferably material that is certified. Check your orchard frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common pome fruit pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline

EXOTIC PLANT PEST HOTLINE
1800 084 881

Michal Maňas

Apple brown rot can also infect stone fruit, such as this apricot

Radek Sotolář

Rotten fruit will occasionally fall to the ground and remain as a source of inoculum for further infections

Conidial pustule formation does not always occur in concentric circles