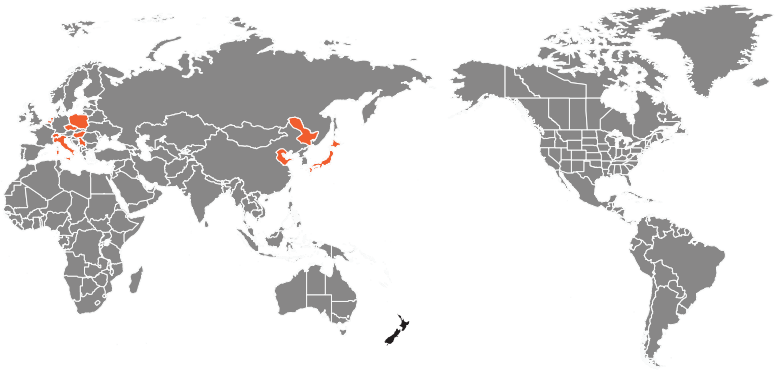
Asian brown rot *Monilinia polystroma*

BIOSECURITY FACT SHEET

What is it? Asian or 'Japanese' brown rot is caused by a fungus that is closely related to *Monilinia fructigena*. Although this and the other brown rot diseases are known on various continents, the introduction of another *Monilinia* species could be quite damaging for summerfruit and have serious trade implications on export markets.

Distribution. It was first identified in Japan and initially known only in that country. Recent reports have placed it in Hungary and China as well, although this species may be widely distributed in Asia and other countries in Europe.

For current distribution go to https://gd.eppo.int/taxon/MONIPO/distribution



Morphology. Asian brown rot cannot be distinguished with certainty from the other brown rot diseases except by laboratory examination. In the past, identification of the three more widespread brown rot species, *M. fructicola, M. fructigena and M. laxa,* has been primarily based on cultural growth characteristics on artificial media. Most recently the species have been distinguished by polymerase chain reaction technique.

Biology. Blossom blight can develop in the spring, particularly in moderately warm and moist weather. Infections occur on individual flowers generating brown lesions that can spread to other flowers in the cluster and into the twigs. Affected flowers wilt and collapse, and some fall to the ground, others remain on the tree and sporulation on the blighted blossoms under moist conditions provides inoculum for further spread. Infection of fruit can take place at any time during fruit development, but the disease is only severe in ripe or ripening fruit.

Dispersal. In the absence of natural barriers, it will spread by means of airborne conidia. Long distance dispersal would most likely occur through infected planting stock or fruit. The risk of introduction of this species is presumably similar to that of other brown rot species of *Monilinia.*

Symptoms. *M. polystroma* causes the same or very similar symptoms to those reported for *M. fructigena* so it is likely to be associated with blossom, twig and leaf blights, stem cankers and brown fruit rots. Brown rot infected mature fruit quickly develop into a brown decay. The first symptoms on ripe fruit are small, superficial, circular brown spots that quickly begin rotting. Eventually the whole fruit becomes discoloured and water is lost causing a mummified fruit to form. The fungus often spreads by growth from diseased fruit to healthy ones in the same cluster, or as conidia to other tissues.

Disease management:

- Disease incidence is significantly reduced by removing thinned, rotten and mummified fruit early in the season.
- The need to control other fungal pathogens must also be considered in a chemical application programme for brown rot.
- Understanding the interactions between pathogen, host and the environmental factors can help reduce the cost and damage to the environment due to the application of fungicide.

Source: CABI

***Photo** – Algirdas 2006*

Familiarise yourself with the common pests and diseases in your orchard so you can distinguish them from the attack of exotic organisms.

***Photo** – Jerzy Opiola*

To report any suspected exotic organism, call MPI on:

0800 80 99 66

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