

# Control of *Neofabraea* spp. in organic fruit production

## Problem

During storage, this disease causes significant damage. Infection occurs in the field, but symptoms become evident after a few months (Pictures A-D). Crop losses can exceed over 50 percent.

## Solution

Precautionary measures and the correct placement of the orchard (aeration) make it possible to reduce the pressure of this disease.

## Benefits

A proper harvesting process combined with proper treatment before storage can help prevent disease spread (see below).

## Practical recommendation

- The risk of infection of *Neofabraea* spp. can be decreased by avoiding the use of susceptible varieties (e.g., pinova) as well as prolonged wetting of the trees, especially in the last months before harvest.
- All agronomic measures that promote a dry environment help reduce infection, for example:
- Use drip irrigation systems instead of overhead irrigation systems
- Keep flower strips not too high
- Experimentally, it has been observed that the use of physical barriers (single-row nets) from mid-July until before harvest considerably reduces the attack of this disease (Picture E).
- Carry out copper-based treatments, and corroborants (Ulmasud) can be used to increase plant resistance to the disease. It is advisable to carry out treatments when the leaves are dry.
- Laminarin treatments can also be carried out in combination with copper.
- An early and short harvest reduces the risk of infestation (observe the harvest windows depending on the variety chosen). The riper the fruits become, the more susceptible they are to infection by *Neofabraea* spp.
- Hot water treatments are recommended before storage (Picture F).
- It is recommended to store apples in small storage cells. (Picture G).
- For optimal and effective marketing/sales of the product, it is advisable to avoid prolonged storage in a cell. It is also advisable not to repeatedly enter the cell, as this encourages the spread and increase of the disease.

## Applicability box

### Theme

Crop production, Pest and disease control

### Keywords

Temperate fruits, Disease control, Precautionary measures, Sensitive varieties, Physical barriers

### Context

Place the orchard in well-ventilated, moisture-free locations

### Application time

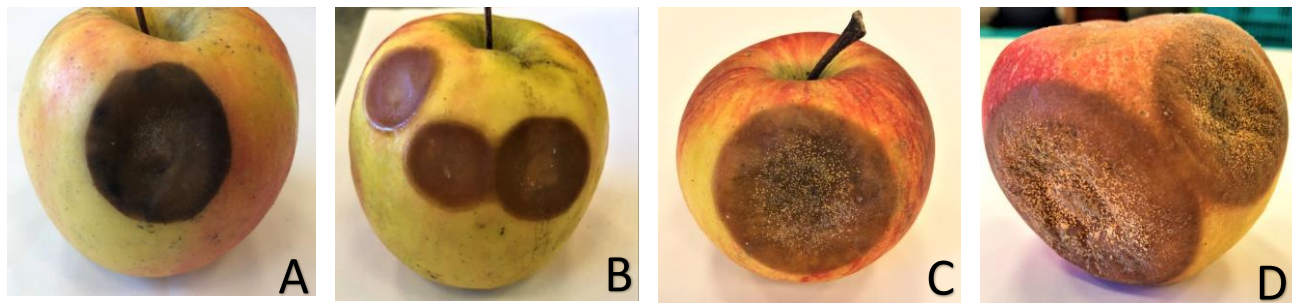
Summer period

### Period of impact

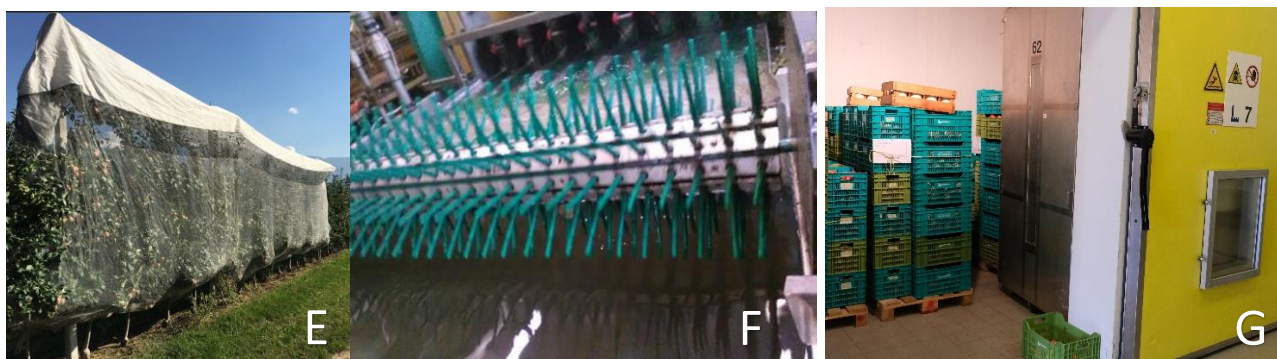
Before harvesting and during storage

### Equipment

Physical barriers during the summer and hot water treatments before storage



Pictures A-B. brown circular spots with slight depression inwards are observed, Picture C. The brownish spot expands rapidly, reaching a diameter of 2-4 cm, and the fungus' fruit (whitish pustules) appear on it, Picture D. The flesh is soft and light brown in colour and the rot has a wedge-shaped pattern directed towards the centre of the fruit.



Picture E. use of physical barriers to reduce the spread of spores, Picture F. machine for carry out hot water treatments, Picture G. Small storage cell. Photos A-D: Josef Telfser, Photos E-G. Alfredo Mora V. Research Centre Laimburg.

## Further information

### Weblinks

- Kelderer, M., Casera, C., Lardschneider, E., Rainer, A. 2010. Controlling Gloeosporium rot on Pinova apple fruits. Part 1: Preharvest acid clay sprays versus postharvest hot water dipping treatments. 14th International Conference in Organic Fruit-Growing – Ecofruit, Fördergemeinschaft Ökologischer Obstbau e. V. Weinsberg, Stuttgart, Deutschland, 78-85.
- Check the Organic Farm Knowledge platform for more practical recommendations.

## About this practice abstract

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