

Removal of Infected Carnation Plants

Gösta I. Nilsson

In bulletin 226 (1) the mapping of wilted areas of the greenhouse was suggested as Step 1 in wilt control of carnations. In this article we will discuss Step 2, removal of infected plants.

To control wilt effectively it is important to remove all wilted plants as soon as they show symp-

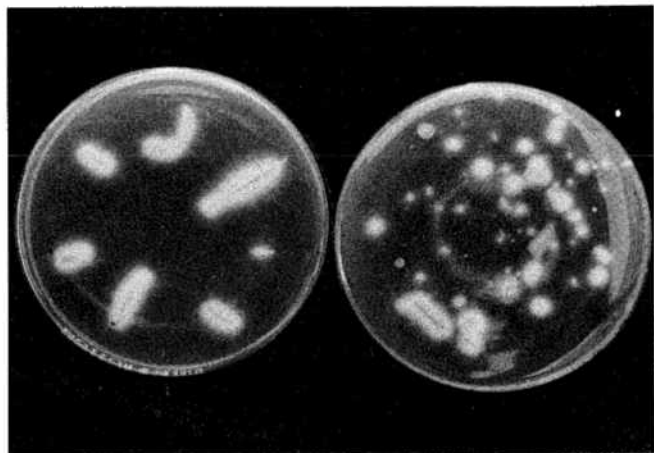


Fig. 1. A *Fusarium oxysporum* infected dried stem of carnation broken over an agar medium. Note the many colonies of the fungus that grow out of the tissue fragments (dish to the right). Plants must be removed before they turn brittle. Some vessels of the infected stem were planted in the dish to the left.

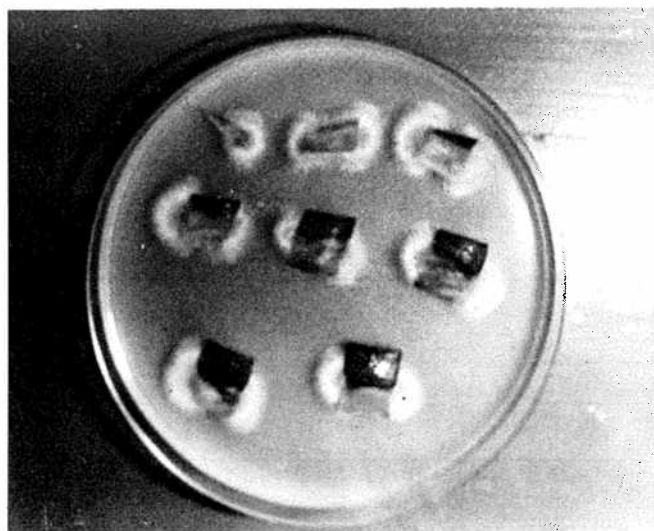


Fig. 2. Carnation leaf infected with *Phialophora cinerescens*. Every piece of this leaf harbors the fungus. Dry leaves may easily blow around in the greenhouse or be broken into pieces and spread by the wind.

toms. Infected plants are dangerous sources of inoculum. This has probably been said thousands of times as a recommendation, but still the removal is rarely done properly.

If the inoculum of the pathogen can be reduced in the greenhouses, the control will be easier. When plants die and dry, they become extremely brittle. Roots, stems and leaves harbour the pathogen. Dry leaves break into small pieces, or dust-fine particles which spread through the air (Fig. 1 and 2).

Place the infected plants in large plastic or paper bags at the site of wilting. Do not carry them around in the walks.

Immediately after, spray the soil, the walks and the neighboring plants where the wilted plants were removed.

Use either of the following chemicals and concentrations:

Orthocide	83	0.2%
Dithane	M 45	0.2%
Fungicide 1991 plus surfactant F	at the rate of 0.2%.	

Fungicide 1991 is very effective in killing Fusarium oxysporum f. sp. dianthi. Several other fungicides for spraying and drenching will be discussed in a later paper.

Literature Cited

- Nilsson, G. I. 1969. Wilt control of carnations. Colo. Flw. Gro. Bull. 226.