

Improved Chemical Control of Botrytis Blight in Roses

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Botrytis cinerea causes latent infections of rose flowers, which can develop into aggressive rot (botrytis blight) at pre- and postharvest stages. Botrytis blight is the cause of major rose flower losses. The effect of deposit and cover density of fungicides (pyrimethanil or prochloraz-Zn – folpet) on the development of botrytis blight was tested. For pyrimethanil drop size and cover density (ranging between 80 and 1000 μm drops/cm²) had no effect on disease rate, if the pesticide deposit was sufficient for disease control. For prochloraz-Zn – folpet, however, control efficacy (for equal deposit) increased with cover density. Secondary distribution of pyrimethanil was by the vapor phase. Effective control was obtained when rose petals were exposed only to pyrimethanil vapors, while any direct contact with the fungicide was prevented; no control was recorded for prochloraz-Zn – folpet under these conditions. Botrytis blight was delayed in cut flowers when bunches of 20 flowers were wrapped in packing paper strips or cellophane bags which had been sprayed previously with pyrimethanil and packed (20 bunches) in cardboard boxes. No pesticide stains could be seen on the flowers.

KEY WORDS: *Botrytis cinerea*; botrytis blight; postharvest treatment; rose flowers; pyrimethanil; prochloraz-Zn – folpet; pesticide deposit; cover density; vapor action; secondary distribution.

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