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Difference in reactions of apricot and peach cultivars to *Plum pox virus*: serological and symptomatological evaluation

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Differences in reactions to infection and different development of Plum pox virus (PPV) symptoms were observed in leaves and fruits of one hundred sixty-five apricot and seventy-nine peach cultivars and hybrids. A very broad spectrum of reactions from high susceptibility to high resistance and immunity was proved in apricot cultivars and hybrids and the results were published (Polák et al. 1997). A much narrower spectrum of reactions was proved in peach cultivars. Relative concentrations of PPV by ELISA in flowers, intensity of virus symptoms in leaves and fruits of peach cultivars were evaluated. The relative concentration of PPV coat protein (PPV-CP) in flowers was found to be positively correlated with the intensity of leaf and fruit symptoms in most cultivars. On the basis of obtained results cultivars of peaches were divided into four groups and classified as medium resistant, tolerant, medium susceptible and susceptible to PPV. None of the investigated cultivars was immune, highly resistant or resistant to PPV. Eighteen peach cultivars were classified to be medium resistant to PPV. Nine peach cultivars were characterized as tolerant to PPV, with high relative concentration of PPV-CP protein in flowers and mild symptoms in leaves and fruits. Twenty-seven peach cultivars were characterized as medium susceptible to PPV. Twenty-five peach cultivars were rated as susceptible to PPV. It is recommended to grow medium resistant peach cultivars in the areas where PPV is widely distributed.

Keywords:

Plum pox virus; apricot; peach; cultivars and hybrids; virus symptoms; virus relative concentration; ELISA; resistance; susceptibility

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