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Preliminary results of *in vivo* thermotherapy of plum, apricot and peach cultivars artificially infected with PPV-M and PPV-D strains of *Plum pox virus*

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The elimination of *Plum pox virus* (PPV) in different stone fruit cultivars was verified by the method of thermotherapy *in vivo*. Trees of two plum cultivars Čačanská lepotica and Švestka domácí, apricot cultivars Leskora and Velkopavlovická, and peach cultivars Redhaven and Earliglo were used. They were infected artificially with two strains of the virus (PPV-D, PPV-M). Two cycles of thermotherapy *in vivo* were performed. During the first cycle, 16 trees of plum, apricot and peach were treated for 15 days at 37°C. In the second thermotherapy cycle, 10 trees of individual cultivars of plum, apricot and peach were treated for 22 days at 37°C. In the first thermotherapy (T1), 8 trees out of 16 died; PPV was eliminated in 2 trees of cv. Čačanská lepotica, 1 tree of cv. Švestka domácí and 2 trees of cv. Velkopavlovická. In the second thermotherapy (T2), 1 of 10 treated trees died. The virus was eliminated in 2 trees of cv. Čačanská lepotica, 1 tree of cv. Leskora, 2 trees of cv. Velkopavlovická, and 1 tree of cv. Redhaven. Nine (T1) and seven (T2) months after the thermotherapy, the presence of PPV was detected in 6 out of 11 originally recovered trees using ELISA. Out of 26 trees, 4 trees remained recovered: 2 plum trees and 2 apricot trees. One of these trees, apricot cv. Leskora was originally infected with PPV-M strain, whereas the other three with PPV-D strain. None of the 10 peach trees was treated successfully.

Keywords:

Plum pox virus (PPV); apricot; peach; plum; fruit trees; thermotherapy *in vivo*

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