

## Establishment of nuclear stock collections for apple and pear in Latvia

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In Latvia certification programme for virus-free planting material is not established yet and planting material of pome fruits produced correspond to *Conformitas Agraria Communitatis* standard. To establish virus-free nuclear stock collections for apple and pear cultivars, one or two year-old candidate plants were exposed to thermotherapy at +38 °C for 40 or 70 days. The mother trees and candidate material before treatment were tested for the presence of *Apple mosaic virus* (ApMV), *Apple leaf chlorotic virus* (ACLSV), *Apple stem grooving virus* (ASGV) and *Apple stem pitting virus* (ASPV) by RT-PCR. The shoot tips of the heat-treated plants were grafted onto seedling rootstocks and were re-tested for the four viruses by RT-PCR during the next three to five vegetation seasons. Several grafted plants of apple cultivars ‘Dace’, ‘Zarya Alatau’, ‘Rubin’, and ‘Ausma’ remained infected either with ACLSV, ASGV or ASPV after the thermotherapy. Other apple and pear cultivars were negative to all tested viruses. The tests on woody indicators are currently carried out for the presence of viruses, viroids and other graft-transmittable organisms according to EPPO guidelines for pathogen-tested material.

**Keywords:** ACLSV, ASGV, ASPV, certification, *Malus ×domestica*, *Pyrus communis*, RT-PCR, thermotherapy