

Foreign fruit cultivars suitable for Finnish climate — preliminary experiences and recommendations

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The aim of this work is to introduce new apple and pear cultivars to fruit growers and home gardeners in Finland. There is no active fruit breeding in Finland nowadays, so we need to lean on foreign cultivars if wanting to develop our cultivation.

A lot of cultivars from Russia and other neighbouring countries were imported to Finland by garden enthusiasts during the 1990s. The 84 apple and 15 pear cultivars introduced in the research originate mostly from Russia, but also Belorussian, Ukrainian, Baltic and American cultivars were tested. Cultivar descriptions are based on breeders' descriptions, but complemented by the observations made in Finland.

Typical for the selected apple and pear cultivars is that many of them will succeed and produce crop on Finnish hardiness zone III or even on zone IV. Several cultivars can be tested even more north. The main region for fruit production is on zones I and II in the most southern part of Finland. Obviously harsh continental climate in Russia creates cultivars that are more suitable to Finnish climate than those from Central Europe. Many of the apple and some pear cultivars ripen after storing them several months, which give more alternatives to the narrow choice of winter cultivars in Finland.

Most of the apple cultivars in this study have better scab resistance than those which have been grown in Finland traditionally. Many of them have scab resistance based on several genes but some have scab resistance based only on one gene, here either gene *Vf* (new nomenclature *Rvi6* and *Rvi7*) or *Vm* (*Rvi5*). Monogenic resistance has already been overcome by virulent scab races in most European countries. Also in Finland signs of infection have been found in cultivars with gene *Vf*. Polygenic scab resistance is emphasized in choosing cultivars in the future.

Keywords: apple, apple scab, fruit growing, *Malus*, pear, *Pyrus*, *Venturia inaequalis*, winter hardiness