

Improvement of raspberry cultivars in Estonia

**Liina Arus, Asta-Virve Libek,
Hedi Kaldmäe, Reelika Rätsep, Ave Kikas**

*Estonian University of Life Sciences,
Institute of Agricultural and Environmental Sciences,
Polli Horticultural Research Centre, Kreutzwaldi 1, 51014, Tartu, Estonia,
email: liina.arus@emu.ee*

The special interest of Estonian raspberry breeding programme is the development of cultivars with good winter hardiness, high pest and disease resistance, and acceptable fruit for fresh market. Traditional breeding methods such as cross-pollination and seedling selection have been used in this program. Earlier successful releases of Estonian raspberry cultivars include ‘Tomo’, ‘Helkal’ and ‘Aita’. The objective of the present study was to compare new perspective raspberry seedlings with released cultivars of Estonian origin and with standard cultivar ‘Novokitaivska’. Five outstanding raspberry breeding lines selected for main characteristics (good winter tolerance, high yield and fruit size, high resistance to pests and diseases), were described. Selections 11-02-05 and 11-02-15 are the most promising ones for their good winter hardiness; large, firm fruit (3.9–4.0 g in average) and high yield. Also they have shown good resistance to different agents of raspberry cane diseases — *Didymella applanata*, *Elsinoe veneta*, and raspberry leaf and bud mite (*Phyllocoptes gracilis*).

Keywords: breeding, diseases, fruit quality, pests, resistance, *Rubus idaeus*, winter hardiness, yield