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# Evaluation of red raspberry cultivars used for breeding and commercial growing in the Baltic region

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Red raspberry (*Rubus idaeus* L.) is the most popular raspberry species grown commercially in temperate climates, including Baltic countries. Their cultivar structure has been influenced by the historical situation dominated there in the twentieth century and climatic conditions especially the winter hardiness — commercially widely grown cultivars are bred mainly in Russia, with limited number of old European and American cultivars. Limited breeding programs currently are running only in Latvia and Estonia. Most of the world's cultivated raspberry cultivars are genetically related. According to the literature almost all raspberry selections are based on five cultivars: 'Cuthbert', 'Lloyd George', 'Newburgh', 'Preussen' and 'Pyne's Royal', where cultivar 'Lloyd George' is the most common in the European material, following by 'Preussen'. Therefore 15 previously described SSR markers were applied to determine the mutual relationship for raspberry genotypes available in Latvia, to evaluate their applicability in the development of new cultivars, suitable for Baltic region. In 43 raspberry accessions 3 to 13 alleles were identified per locus with 6.6 in average. Observed heterozygosity was very variable among loci (from 0.125 to 0.837). The cultivars clustered according to their pedigree and the cultivars bred in Latvia were found in all groups, which indicate broad genetic base of the Latvian raspberry germplasm and its breeding value.

**Keywords**: genetic diversity, germplasm, microsatellites, *Rubus*



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