Examination of sour cherry genotypes suitable for breeding use
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The sour cherry growing has a great importance in Hungary. The Hungarian sour cherry breeding has been started since 1950. The Hungarian variety assortment contains 24 registered variety as a result of consequent breeding work of last 60 years.

The most important breeding methods:
- cross breeding
- landscape selection

The most important breeding aims of sour cherry:
- self fertility
- early ripening time (late May)
- excellent productivity and fruit quality
- tolerance or resistance to diseases (Monilia laxa, Blumeriella jaapii)

Hungarian Prunus germplasm collection

The Hungarian ex situ Prunus germplasm collection was established by the Research Institute for Fruit Growing and Ornamentals in 1979. The genotypes were collected from abandoned orchards and backyards from the entire territory of Hungary. Vegetatively propagated genotypes were planted into the Institute’s Research Station. As a result of this work 2023 Prunus accessions can be found in our gene bank (sour cherry: 246, almond: 241, apricot: 483, plum: 366, peach: 256, sweet cherry: 431 accessions).

Tasks in our germplasm project:
- to preserve the genetic base of Prunus collection
- to determine the most important characteristics of the collected accessions (blooming time, ripening time, fertility, fruit characteristics, vigour of trees, shape of canopy)
- to involve the selected genotypes into the Institute’s breeding programme

Examination of sour cherry genotypes

According to the breeding aims 13 sour cherry new genotypes were selected in 2012. The controls were the ‘Érdi bőtermő’ for early and medium ripening genotypes, ‘Kántorjánosi’, Újfehértói fürtös’ and ‘Debrenceni bőtermő’ for late ripening genotypes varieties in our collection work.

Canopy categories

- upright
- semi-upright
- spreading
- dropping

Results

Fruit weight of selected sour cherry genotypes

Refraction of selected sour cherry genotypes

Ripening time of the selected sour cherry genotypes

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