

Conservation of berry cultivars in the Swedish National Gene Bank for vegetatively propagated crops

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The Swedish National Programme for Cultivated Plants, Pom (since 2000)

- Important to select and recover old berry cultivars
- Mandate cultivars
 - old cultivars locally developed
 - cultivars bred in Sweden
 - cultivars of foreign origin with long Swedish growing tradition
- National inventory



The Swedish National Gene Bank for Vegetatively Propagated Horticultural Crops (since 2016)

Plan for conservation of berry cultivars:

- Two plants of each mandate cultivars in the field gene bank at SLU in Alnarp
- Two virus free plants of each mandate cultivar in protected cultivation at the Swedish Elite Plant Station.



Foreign cultivars only became popular during the 19th century, and then in particular for gooseberry



The selection of mandate cultivars was based on a literature review with the following key sources

- Eneroth, O., and Smirnoff, A. (1902). Bärfrukter. Handbok i svensk pomologi.
- Nursery catalogues.
- Reports from the Institute of Horticulture at Alnarp.
- Reports from the Institute of Fruit Breeding at Balsgård.
- Other relevant periodicals and textbooks.



The list of mandate cultivars

- The list comprises 150-200 berry cultivars.
- Some cultivars might never be found.
- Some "new" cultivars might be added as a result of Pom's national inventory.



Gooseberry – approximately 35 mandate cultivars; more than 50% have non Swedish origin 50%

- During the 19th century there was a growing interest in Europe to develop cultivars of gooseberry.
- In Sweden gooseberry cultivars for testing were imported by Dr O. Eneroth at Vibyholm and Director E. Lindgren at the Experimental Field of the Royal Academy of Agriculture in Stockholm.
- As a result of Eneroth's and Lindgren's work 100 gooseberry cultivars were described in the pomology of Eneroth and Smirnoff (1902).



'Landströms Gröna' and 'Ångermanlands Röda'

Local cultivars, early 20th century



Currant – approximately 55 mandate cultivars

- Eneroth and Smirnoff (1902) described 13 red currant and four black currant cultivars.
- Out of 55 mandate cultivars about 20 are redcurrants and 35 blackcurrants.
- In 1946 some 30 clones of black currant originating from the wild and from private gardens were collected at the reasearch station of Öjebyn. Through selection within this material several valuable cultivars such as 'Nikkala XI', 'Sunderbyn II' and 'Öjebyn' were obatined.



'Öjebyn' and 'Janslunda'

Local cultivars, 1950s



Raspberry – about 30 mandate cultivars

- The number of summer-fruited raspberry cultivars grown in Sweden has never been large.
- Eneroth and Smirnoff (1902) described four raspberry cultivars.



'Älandsbro Asker'

An improvement of 'Fastolf Himbeere' (England 19th century; synonymous 'Asker')

Local cultivar, early 1980s



All field berry
Rubus x stellarcticus G. Larss

Five Swedish bred cultivars early; 1980s



Some 35 mandate cultivars of strawberry

- Approximately 10 marketed by Swedish breeders, whereof seven *F. x ananassa* and three *F. x vescana*
- Approximately 15 local cultivars – *F. vesca*, *F. moschata*, *F. chiloensis*, *F. virginiana* and *F. x ananassa*
- Approximately 10 foreign cultivars of *F. x ananassa*



'Norrandssmultron'

Local cultivar





Additionally some cultivars of other species such as *Vaccinium* are also preserved within the Swedish National Gene Bank.

