

Genetic resources of Berry crops in Latvia

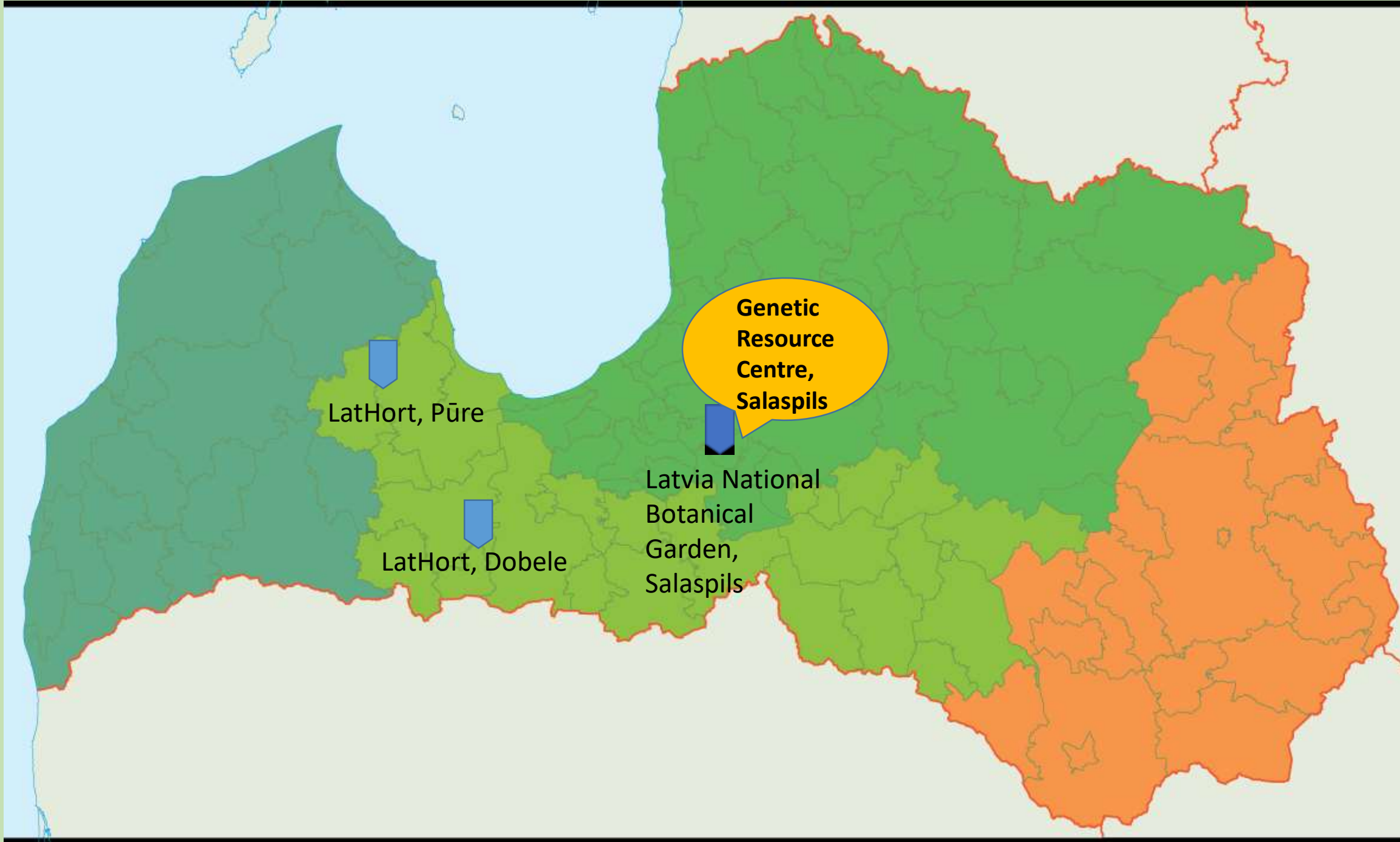
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Genetic Resource Centre (GRC)

- The GRC is responsible for coordinating all Latvian genetic resource activities, including crop and fruit species, vegetables, aromatic and medicinal species, forestry, animal and fish genetic resources.
- It was founded in 2006 under the administration of LSFRI “Silava”.
- The GRC incorporates the Latvian gene bank, the central database and a genetic analysis laboratory.
- <http://www.silava.lv/69/section.aspx/View/6>
- A central internet portal has been established (www.genres.lv), which contains general information about all Latvian genetic resources, while now it is planned to get reconstructed.



LatHort, Pūre

LatHort, Dobele

Genetic
Resource
Centre,
Salaspils

Latvia National
Botanical
Garden,
Salaspils

Institute of Horticulture, LatHort



The **Institute of Horticulture** was founded in **2016** by reorganizing the Latvian State Institute of Fruit-Growing, incorporating scientists from **Pūre Horticultural Research Centre**. Institute is supervised by the **Latvia University of Life Sciences and Technology**.

Characterization of germplasm genetic diversity – selection of new, valuable material for future breeding or raw material for specific purposes – one of **basic research directions**.



Main berry crops in the collections at LatHort

Crop	Total number of accessions	National genetic resources
Blackcurrants	319	33
Strawberries	150	38
Raspberries	122	13
Gooseberries	85	25
Red and white currants	62	10
Blackberries	19	2

Less grown berry crops at LatHort

Crop	Total number of accessions	National genetic resources
Honeysuckle	41	2
Elderberry	36	0
Shadbush	20	0
Viburnum spp.	14	0
Barberry	5	0
Sea buckthorn	3	3
Golden currants	3	1

The evaluation and characterisation of fruit crop genetic resources at LatHort

The descriptors for evaluation and characterisation of fruit crop genetic resources have been developed for:

- Raspberry
- Gooseberry
- Red and white currants
- Blackcurrants
- Strawberry
- Sea buckthorn



The evaluation and characterisation of fruit crop genetic resources using the developed descriptors has been carried out for, while not for all accessions:

- Raspberry
- Red and white currants
- Gooseberry
- Blackcurrants



The molecular genetic passportization of fruit crop genetic resources:

- methodology development (raspberries, gooseberries, red currants, black currants);
- molecular passportization, data analysis (raspberries, gooseberries, red currants, black currants).

Main berry crops in the collections at National Botanical Garden of Latvia (NBD)

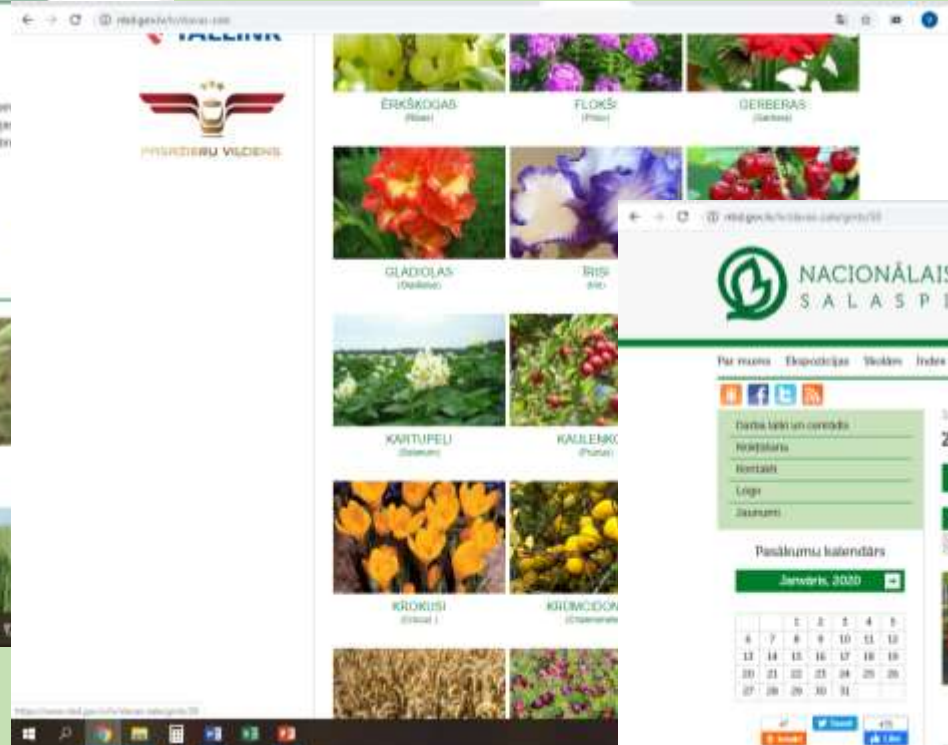


NBD holds one of the richest living plant collections in Northeast Europe, where more than 14 000 taxa are grown.

<https://database.smartgardens.eu/>

Crop	Accessions
Blackcurrants	55
Blueberry	44
Cranberry	41
Honeysuckle	40
Actinidia	25
Viburnum spp.	20
Sea buckthorn	24
Red and white currants	18
Cowberry	12

Virtual Hall of Latvian breeders achievements



Active projects related to Berry Genetic Resources



ERDF Projects:

- **Studies on *Ribes* plants, *Cecidophyopsis* mites and Blackcurrant Reversion virus for sustainable resistance breeding and cultivation of *Ribes* (2019-2022; LatHort; Project Manager: I. Morocko-Bicevska)**
- **Investigation of *Vaccinium* genetic resources in Latvia (2017-2020; Latvian State Forest Research Institute "Silava"; Leader: A. Gailite)**
- **Public Private Partnership project **NORDFRUIT: Pre-breeding for future challenges in nordic fruits and berries** (2018-2020; coordinated by Graminor; participants from 7 Nordic and Baltic countries) – related to apples and strawberries**

National projects:

- **Programme for conservation of the Latvian agricultural and food plant genetic resources** (Project Manager in LatHort: G. Lācis)
- **Identification, collection and research of the genetic potential of in situ cultivated plants for food and agriculture and their wild relatives** (2019-2021; coordinated by Genetic Resource Centre of Latvian State Forest Research Institute "Silava"; Project Manager: D. Rungis)
- **Evaluation of apple and raspberry breeding material for implementation of integrated crop production technologies** (2012-2020; LatHort; Project Manager: S. Strautina)



Thank you for your attention!



<http://www.darzkopibasinstitut.lv/en/>