

# *Ex situ* conservation of animal genetic resources in Latvia

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## A brief history

- Hosted at the Latvia University of Life Sciences and Technologies (LBTU)
- First samples were collected in 2008
- No formal legislative structure or delegation until 2019
- Funding for the genebank was stabilised in 2022, however, it is still divided between various sources and is not coordinated
- We are in the process of establishing genebank protocols, operating procedures and agreements between stakeholders

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# Conserved breeds

- Cattle
  - Latvian Blue (Latvijas Zilā)
  - Latvian Brown (Latvijas Brūnā)
- Goat
  - Latvian Local (Latvijas Vietējā)
- Horse
  - Latvian Breed (Latvijas Šķirne)
- Sheep
  - Latvian Darkhead (Latvijas Tumšgalve)
- Pig
  - Latvian White (Latvijas Baltā)

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# Conserved breeds

Latvian Blue (Latvijas Zilā)



Latvian Brown (Latvijas Brūnā)



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# Conserved breeds

Latvian Local (Latvijas Vietējā)



Latvian Darkhead (Latvijas Tumšgalve)



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# Conserved breeds

Latvian Breed (Latvijas Šķirne)



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Conserved material

		DNA	Blood	Semen
Latvian Blue	Cattle	363 (13 ♂)	388 (0 ♂)	368
Latvian Brown	Cattle	182 (29 ♂)	173 (2 ♂)	620
Latvian Local	Goat	99 (3 ♂)	173 (5 ♂)	-
Latvian Breed	Horse	127 (35 ♂)	174 (45 ♂)	-
Latvian Darkhead	Sheep	182 (8 ♂)	207 (15 ♂)	-
Latvian White	Pig	89 (2 ♂)	192 (7 ♂)	-

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*Ex situ* conservation

- DNA and blood samples are stored at -80°C freezers at the LBTU in Jelgava, Latvia
- Semen samples are stored at Siguldas CMAS (pedigree and artificial insemination station), Sigulda, Latvia (previously, they were held at the LBTU).

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## Sample acquisition

- Collaboration between breed associations, LBTU researchers
- Currently, there is no formal framework for collaboration and transfer of biological material
- No formal agreement with the Siguldas CMAS (pedigree and artificial insemination station) for storage of sperm samples
- Genebank material (including sperm) is for research purposes (we are working on development of an MTA, based on the EUGENA model)
- Additional sperm samples are stored, but currently they are owned by the breed associations

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