

Embryo transfer in Latvia

Latvian Brown and Latvian Blue cow gene pool conservation using embryo transfer and related biotechnologies. Nr.1.1.1.1/16/A/025

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Embryo transfer history in Latvia

- The first ET *in vivo* in Latvia was carried out in 1984 at the collective farm „Tērvete”
- In the project (1986-1990) were used just cows discarded to cull because reproductive problems
- Several dissertations were defended during that project
- Decrease amount of cows and farms, were reasons to not proceed ET for nowadays

Latvian Brown (LB) and Latvian Blue (LZ) cow gene pool conservation using embryo transfer (ET) and related biotechnologies

- LB and LZ are cow breeds unique and characteristic only for Latvia
- These are Latvian local animals of the bovine gene-fund (GF)
- In 2016 LBGF consists of 152, but, LZGF consists of 313 animals
- Up to now just artificial insemination (AI) and natural breeding were methods to reproduce and maintain amount of them
- In view of number of animals, the most appropriate method to expand the gene pool is ET

The aim of the project

- Applying of ET and related biotechnology methods to save Latvian natural cow gene pool
- To train Latvian specialists in ET and related biotechnologies
- Will be set up the laboratory and acquired accessories to conduct ET and related biotechnology operations to promote national Breeding programs
- Will be created the new subsector of ART for students in the Faculty of Veterinary medicine in LUA.
- There will be a cryo-preserved embryo bank for further implementation of the Latvia Breeding program, as well as genetic resources for scientific purposes
- It will be possible to develop a biotechnology as oocytes collection, cultivation and fertilization *in vitro* **in future**

Experience up to now

- Professor Antane is participant from the first project carried out 35 years ago
- We visited colleagues in Estonia 2016
- We visited Lithuanian Institute of Animal science in Baisogala 2017
- Student of our project tried ET at his own farm
On July, 2016 (Unfortunately, there was no pregnancy)
- Now we are in VikingGenetics

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Our aim visiting VikingGenetics

- Get acquainted with VikingGenetics and VikingEmbryo programm
- To improve the knowledge and practical skills in embryo flushing and OPU
- Get to know ET situation in Finland



Thank you!