





HORSE CONSERVATION AND BREEDING IN LITHUANIA



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Lithuanian horse breeding associations

Breeding associations - 9
different selection programs - 13
managed on the same national database
= AVIS

Breeding associations for Endangered horse breeds – 3+1 different stud books -1+2+2+1 managed on AVIS

National Program for the conservation of the native farm animal genetic resources (1996 and renewal in 2008).

Lithuanian farm animal genetic resources include: old breeds (6)









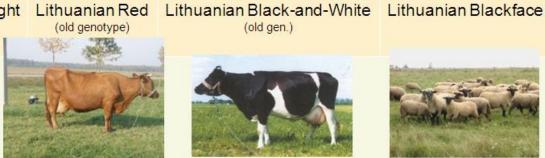


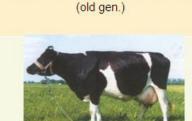


and breeds that were developed in the 20th century (6)











Lithuanian White (old genotype)



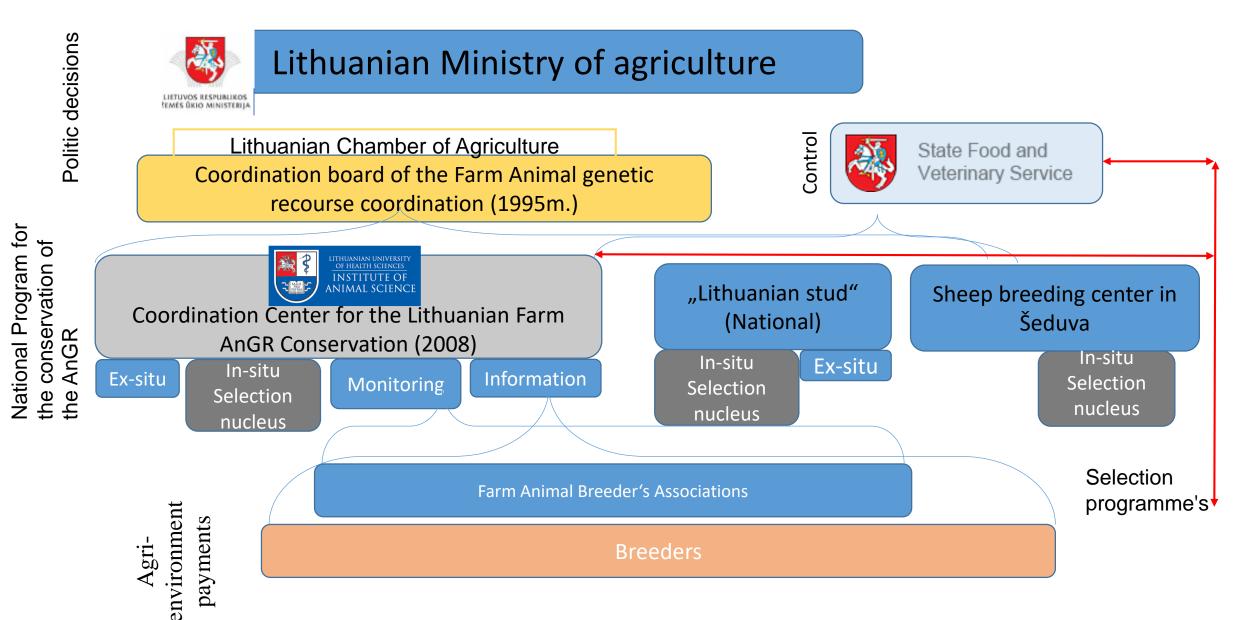
Transboundary (1):



Conservation of *AnGR* in Lithuania

- 1996 The first National Programme for the conservation of farm animal genetic resources (AnGR) was adopted by the Ministry of Agriculture.
- The main purpose:
 - 1. to collect,
 - to investigate and
 - 3. conserve Lithuanian AnGR.
- The programme was focused only for conservation *in-situ* of indigenous Lithuanian breeds.
- Later, unfavourable conditions have formed for breeds developed in 20th century and these breeds and conservation *ex-situ* were also included into conservation programme.
- In 2011 old genotype Trakehnen populations were included to the programme like watch population.

Management scheme of AnGR in Lithuania



Distribution of horses at farms of different stakeholders in 2022-01

| Breed | National selection nucleus with spectrum requirements Lithuanian Stud LSMU GI GGIC | | | | Semen | Total in Lithuania | | | Agri- environment |
|--------------------------------|---|--------------------|--------------------|--------------------|------------|--------------------|-----------------------|---------|----------------------|
| | Horse No | Lines/ Families | Horse No | Lines/ Families | collection | Horse No | Ne | Keepers | payments (horses) |
| Žemaitukai | $120/80^{1}$ | 4/3 | 74/50 ¹ | 4/4 | Yes | 902 | 109 | 304 | 406 |
| Large type žemaitukai | 263/180 ¹ | 4/10 | - | - | Yes | 648 | 75 ² /67 | 161 | 331 |
| Lithuanian Heavy drought | 79/45 ¹ | 4/7 | - | - | Yes | 2268 | 280 ² /266 | 517 | 773 |
| Trakehnen | 417/2321 | 6/10 | - | - | Yes | 975 | $61^2/47$ | 347 | No |



Žemaitukai Horse Breeders Association



Establishen in 1997

Zemaitukai Horse Studbook (from 1948)

Zemaitukai Horse -902

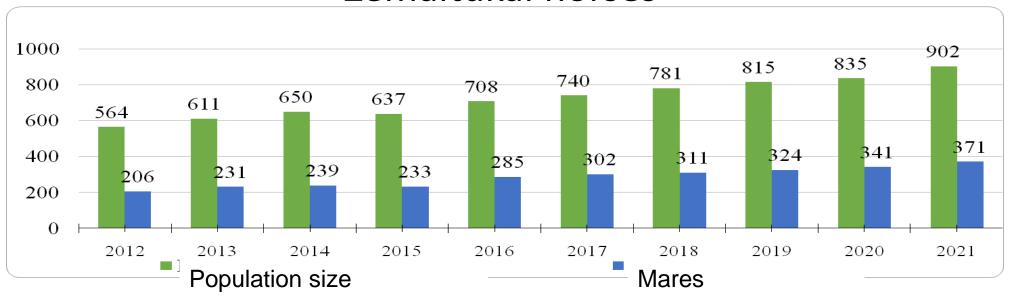
Selection programme approved -2019

Native breed known from 6 th century Height – 137 cm





Žemaitukai horses





1. Lithuanian Heavy Draught Horse Breeders Association





2. Association Lithuanian Heavy Draught Horse Conservation

LIETUVOS SUNKIŲJŲ ARKLIŲ VEISLĖS IŠSAUGOJIMO ASOCIACIJA

Established in 1997 (2003)

- Lithuanian Heavy Draught Horse Studbook - 1711,
- Large Type Zemaitukai horse Studbook – 386.

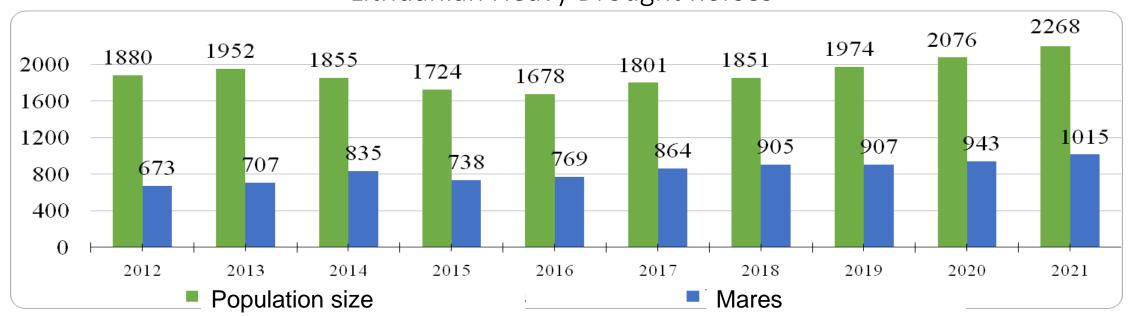
Established in 2021

- 1. Lithuanian Heavy Draught Horse Studbook 552,
- 2. Large Type Zemaitukai horse Studbook 278.

Large type Žemaitukai



Lithuanian Heavy Drought horses



Differences between two breeding programs



Selection programme for the LTŽ Approved in 2022-04

Preservation and improvement

Crossbreeding

- All breeds which participated in breed creation process can be approved and used in breeding programme.
 - Their offspring's in 1 th generation can be approved like purebred
- Other breeds and their crosses can be used, but
 - offspring will be approved like purebred just when other breed blood will be 1/16 (IV generation) for stallions
 - And 1/8 (III generation) for mares
- But the use of other breeds will not exceed 10 % of the total number of breeding foals received per year.



Selection programme for the LTŽ Approved in 2021-11

Conservation

- Exception for pure breeding
 - Fort the expansion of genealogical structure of the breed, <u>provision</u> is made for the use the stallions of the <u>North Swedish</u> breed, but
 - the use of which will not exceed 10 % of the total number of breeding foals received per year.
 - The use of imported stallions will be coordinated with the LSMU GI Lithuanian Coordination Centre for the Conservation of Farm Animal Genetic Resources.
- Purebred horses
 - both parents are purebred;
 - or have > 75% of the Large type Žemaitukai breed and < 25% of the of the Northern Swedish breed blood
 - Have to be approved by standard of Large type Žemaitukai breed.

Differencies between two breeding programs



Sellection programe for the LHD

Aproved in 2022-04

Preservation and improvement

Crossbreeding

- All breeds which participated in breed creation process can be approved and used in breeding programme.
 - Their offspring's in 1 th generation can be approved like purebred
- Other breeds and their crosses can be used
 - but offspring will be approved like purebred just when of other breed blood 1/16 (IV generation)
- But the use of other breeds will not exceed 10 % of the total number of breeding foals received per year.



Sellection programe for the LHD

Aproved in 2021-06

Conservation

- Exception for pure breeding
 - Fort the expansion of genealogical structure of the breed, provision is made for the use the stallions of the <u>Swedish Ardenen and Soviet</u> <u>Heavy Drought</u> breed, but
 - the use of it will not exceed 10 % of the total number of breeding foals received per year.
 - The use of imported stallions will be coordinated with the LSMU GI Lithuanian Coordination Centre for the Conservation of Farm Animal Genetic Resources.
- Purebred horses
 - both parents are purebred;
 - or have > 75% of the Lithuania Heavy Drought breed and < 25% of the of the other breed blood
 - Have to be approved by standard of Lithuanian Heavy Drought breed.



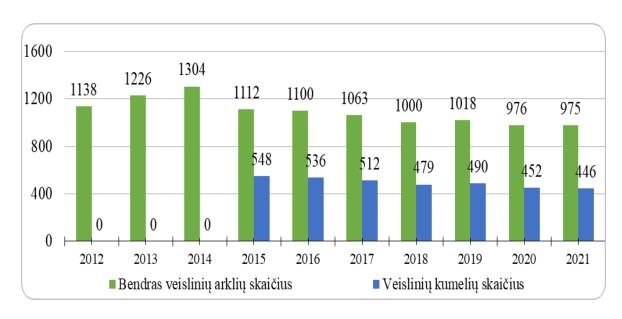


Lithuanian Trakehner Breeders Association

Establishen in 1993 (2000)

Trakehner Horse Studbook – 937 horses

Trakehner Verband





Selection programme - use of new imported stallions in old population can not exceed 10 % of the total number of breeding foals received per year

Thank you for your attention

