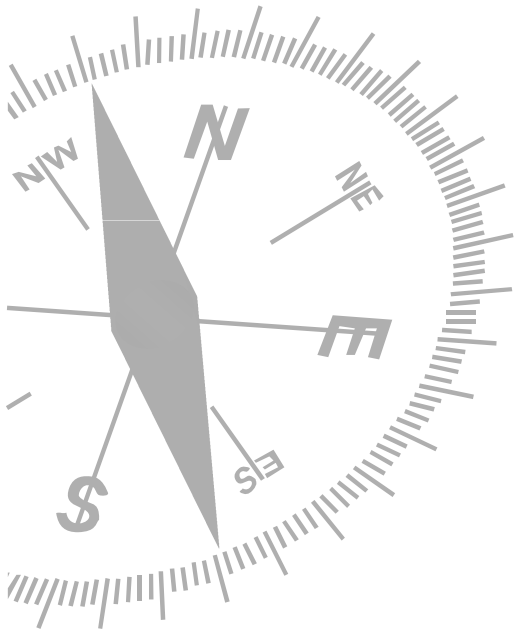




# **Executive Agency on Selection and Reproduction in Animal Breeding (EASRAB)**



# Historical review of the development of the Artificial Insemination(AI)



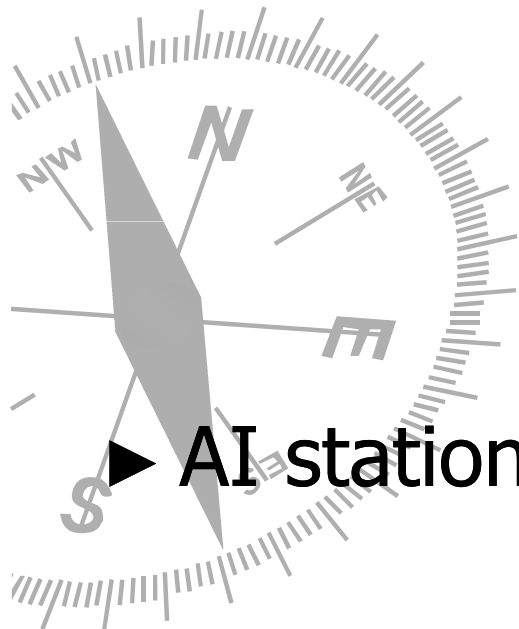
- ▶ The artificial insemination /AI/ has been started in 1923 with a horse insemination;
- ▶ In 1938 the first organized AI;
- ▶ In 1952 on the bases of Ministry decree 10 state stations have been established;
- ▶ In 1956 the state stations have become 37 (10 in cattle breeding, 13 in sheep breeding, 7 in pig breeding, 5 in horse breeding, and 2 in poultry breeding).

# Historical review of the development of the Genetic Bank

- ▶ In 1954 for the first time ram semen has been frozen;
- ▶ In 1969 has started the cryo conservation of cattle sire semen and thus has been activated the National Genetic Bank of the country
- ▶ In 1985 for the first time in Bulgaria has been cryo conserved cattle embryos but they have not been kept for a long period of time;
- ▶ The cryo conservation in Bulgaria is performed only in the AI stations, managed by the Executive Director of the Executive Agency on Selection and Reproduction in Animal Breeding (EASRAB). In fact cryo conservation is provided only by EASRAB;
- ▶ From 2005 to 2008 EASRAB started the investigation and storage of frozen ram semen and as a result for present deeply frozen sire semen of 10 autochthonous sheep breeds are conserved;
- ▶ 2007 EASRAB started attempts for organizing stallion semen cryoconsrvation;
- ▶ In 2010 the National Genetic Bank managed by EASRAB was devided in two departments – National genetic reserve and National Gene bank.

# AI stations in Bulgaria

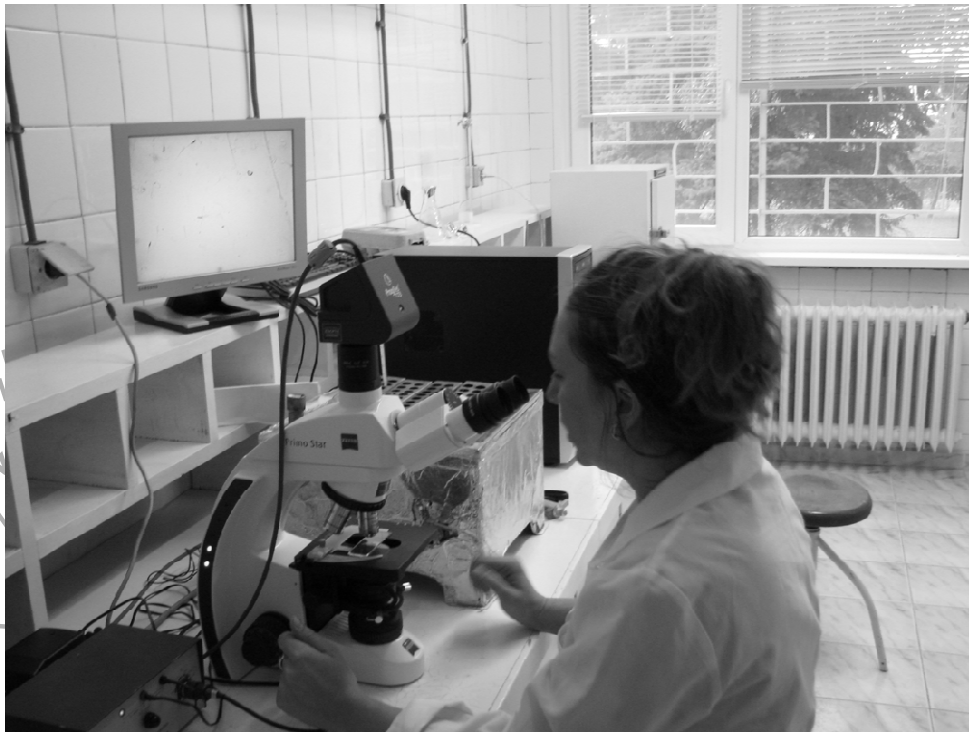
## ► AI station in Sofia



## ► AI station in Sliven



# National genetic reserve and National Gene bank



- ▶ In the National Genetic Reserve 1000 doses from deeply frozen semen of each sire are placed for conservation;  
At the end of 2011 the National Genetic Reserve counts 344 927 semen doses, thus conserving genetic material from 22 cattle breeds, 4 buffalo breeds, 10 sheep breeds, and 3 horse breeds.
- ▶ In the National Gene Bank are kept frozen semen to be distributed (sold) in all regions of the country.  
In the National Gene Bank at the end of 2011 are kept 3 630 852 frozen semen doses, mainly from cattle sires.

# Property – conditions for material acquisition (translated agreement)

- ▶ The semen in the National genetic reserve and the National Gene bank is a state property.
- ▶ It is sold by the National Gene bank to farmers and organizations related to the breeding process.



# The new vision of the Agency

- ▶ assists the Minister of the agriculture and foods in implementing the state policy in the field of the breeding activities, the management and the conservation of the genetic resources;
- ▶ new EASRAB structure establishing two main departments – “Control and coordination of the breeding activities” and “Management of the genetic resources and the reproductive process”.



# Collection categories

- Using semen cryoconservation of whole populations, lines and a single individuals from different livestock species

-cattle;

-buffalo;

-sheep;

-goats;

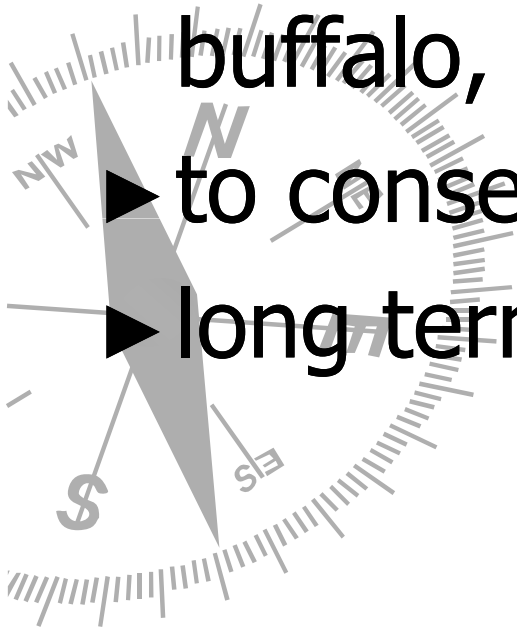
-horses.





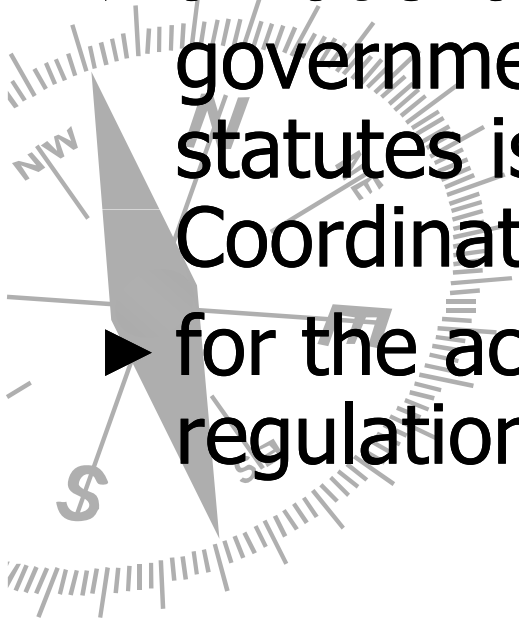
# Future plans

- ▶ To continue accepting for conservation semen in the National Genebank and the National Genetic reserve, mainly from autochthonous livestock breeds – cattle, buffalo, sheep, goats and stallions;
- ▶ to conserve oves and embryos;
- ▶ long term perspective – somatic cells.



# Stakeholders

- ▶ the management and the conservation of AnGR is effected by EASRAB;
- ▶ the National Coordinator of AnGR is the Executive Director of EASRAB;
- ▶ a National counsel of the representatives of non-government organization in compliance with their statutes is established to support the National Coordinator;
- ▶ for the activities of the National Council have regulation.



# Legislative initiatives

- ▶ EASRAB participates in different legislative initiatives aiming effective management and conservation of AnGR such as Biological diversity Act amendments.
- ▶ The Agency gives opinions to regulations in the field of veterinary activity, funding and support of the animal breeding.



# Conservation and documentation

- **Possibilities for keeping ad rules**

- ▶ EASRAB has the capacity of specialists, facilities ( in the main stations in Sofia and Sliven, and in the 19 keeping stations all over the country), exceptionally good relations with persons and organizations (government and non-government) for providing successful cryo conservation.

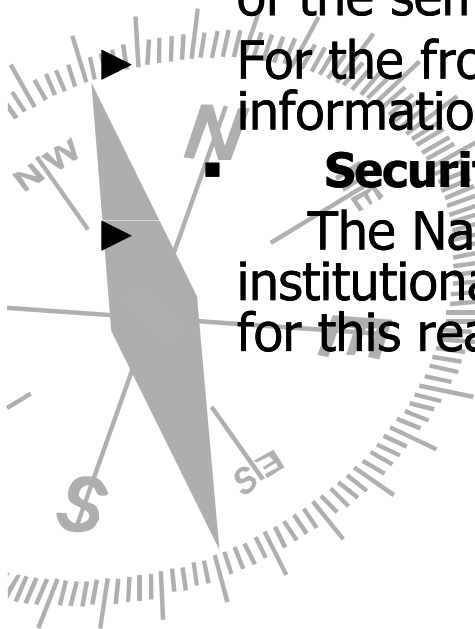
- **Data management and documentation**

- ▶ EASRAB has established a strict order for the movement of the produced and conserved semen guaranteeing the effective and efficient dissemination of the semen.

▶ For the frozen semen. Accurate production, conservation, and movement information is maintained

- **Security of the genetic bank**

▶ The National genetic reserve and the National Gene bank are institutionalized. They are state property and are governed by EASRAB and for this reason are provided with a high security level, including biosafety.



## **Gathering of new material – articles and conditions (translated agreement)**

Using a program for “ex situ” management and conservation of the genetic resources in the Republic of Bulgaria EASRAB intends to conserve semen. The two main stations will provide in-coming sires in different ways – purchase, rent, join-venture and for all these different contracts will be applied.



# Thank you

