



**Kick-off meeting of the ERFPP
Working Group on
Ex-situ conservation**

Cryo-conservation in Slovenia

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The legal framework

LIVESTOCK BREEDING ACT (2002)

(chapter 6) titled:

CONSERVATION OF GENETIC VARIABILITY AND GENETIC RESERVES OF FARM ANIMALS

The following articles that purpose are
earmarked:

- Article 66: Conservation of genetic variability
- Article 67: Biotic diversity in animal husbandry
- Article 68: Indigenous breeds
- Article 69: Monitoring and analysing of biotic diversity in animal husbandry
- Article 70: Special protection of the indigenous breeds of *Apis Mellifera*



Decision on conservation of farm animal genetic resources (2004)

Article 41 (Scope of conservation of specific indigenous and other breeds in *ex situ* gene bank)

Gene bank (*ex situ* conservation) *in vitro* shall be established for specific indigenous and other breeds classified as critical or endangered pursuant to the provisions of the Regulation concerning genetic reserves



The legal framework

After INTERLAKEN


- Slovenia was adopt **Multiyear Program of Work (MYPow -periode 2010-16)**
 - Program of action for AnGR
 - MYPow included all SPA
 - The MYPow has operate and lead with Public services
 - **PUBLIC SERVICE FOR FAnGR IN SLOVENIA INSIDE BIOTECHNICAL FACULTY**, Animal Science Department (open call)



Genetic reserves are determined by the Regulation on conservation of farm animal genetic resources

which determines the preparation of requirements for systematic activities ensuring an overview of the **minimum reserves** of genetic material for each breed of farm animals

7-year Program of work



- In accordance with the Agriculture Law the Republic of Slovenia shall ensure and maintain genetic reserves for the species, breeds and strains of domestic animals in the form of a minimum number of domestic animals, doses of semen, ova or embryos and/or other **biological material**

This obligation also applies to bull semen which has to be stored at the authorized collection centers in accordance with the approved breeding program. In order to estimate the genetic reserves of the bull semen, full assessment of each individual pedigree breed of cattle is needed



Genetic reserves are determined by the Regulation:

- Storage of genetic reserves shall provide for constant verification of viability. Genetic material needs to be restocked in case of an indication of quality deterioration.
- Genetic reserves of farm animal genetic resources important for agriculture shall be constantly monitored and controlled by the Public Service for farm animal genetic resource conservation.
- Public service shall prepare at least once a year a report on the state of genetic reserves which shall be decided upon by the Animal Husbandry Council.
- The Council shall recommend to the Minister the proposals for measures if required.

Public Service (PS) for farm animal genetic resource conservation established an expert council

- Members are: a representative of PS, a representative of each recognized **breeders' organizations**, one representative of each of the other organizations performing specific tasks in the PS
- Expert council gives its opinion to the annual program and annual reports and all the important questions regarding the work of PS



Cryo-bank

- Biotechnical faculty-Ljubljana
- Veterinary faculty-Ljubljana
- IC Preska (Cika cattle, Brown cattle)
- IC Ptuj (Simmental)



GENE BANK STORAGEES

- Biotechnical faculty-Ljubljana (BF)
- Veterinary faculty-Ljubljana (VF)
- IC Preska
- IC Ptuj

GENE BANK STATISTIC for cattle

Breed	Type	Animals	Samples	Doses
Cika	semen	18	56	1411
Pinzgauer	semen	1	7	411
Slovenian Brown	semen	327	329	48135
Simmental	semen	287	288	25900
Crossbred	semen	34	35	2930
TOTAL	semen	667	715	78787

GENE BANK STATISTIC for sheep and goat

breed	type	animals	samples	doses
Bela Krajina sheep	Semen	9	30	293
Bovec sheep	Semen	10	30	402
Istrian sheep	Semen	8	24	240
Jezerško-Solčava sheep	Semen	8	23	230
Drežnica goat	Semen	3	9	90
TOTAL	semen	38	116	1255

Tissue DEPOSITORY

Species	Breed	Type	N	DNA
Dog	The Karst Shepherd (Krašavec)	tissue	62	✓
Horse	Posavje horse	blood	64	
	Haflinger	blood	59	✓
	Island	blood	7	✓
	Trotter	blood	342	✓
	Quarter	blood	3	✓
	SI Cold-Blooded	blood	204	✓
	SI Worm-Blooded	blood	28	✓
	Lipizzan horse	blood	1063	✓
	Gallop	blood	20	

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Tissue DEPOSITORY

Species	Breed	Type	N	DNA	
Cattle	Cika	blood	156	✓	
	Cika	semen	150		
	Slovenian Brown	blood	184	✓	
	Black and White	blood	123	✓	
	lisasta	blood	217	✓	
	Krško Polje pig	tissue	121		
	Drežnica	blood	45		
	Hen	Styrian Hen-Štajerka	semen	20	
	Honeybee	Karniolan Honeybee	tissue	400	

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Tissue DEPOSITORY

Species	Breed	Type	N	DNA
Sheep	Bovec sheep	blood	45	
		semen	210	
	Istrian sheep	blood	46	
		semen	60	
	Jezerско-Solčava sheep	blood	55	
		semen	120	
	Improved Jezerско-Solčava	blood	29	
	Bela Krajina sheep	blood	6	
		semen	105	
	Texel	blood	14	
TOTAL			3958	

Thank you

