Cryoconservation of local breeds in Finland

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Conservation – co-ordinated by MTT

- Breeding and AI organisations are vital collaborators
  - Registers, mating planning (EVA), semen and embryo collection and storage

	*No. breeding females * (no. recorded cows)*	Breeding organisation	In situ programme	Semen cryobanked	Embryos cryobanked
Eastern Finncattle	<800 (250)	**Faba/VikingGenetics**	***V***	***V***	***V***
Northern Finncattle	<1000 (430)	**Faba/VikingGenetics**	***V***	***V***	
Western Finncattle	3000 (2000)	**Faba/VikingGenetics**	***V***	***V***	***V***
Finnsheep **white** **black** **brown**	 5000 1000 500	**ProAgria**	 ***V*** ***V*** ***V***	 ***V*** ***V*** ***V***	
Kainuu grey sheep	600	**ProAgria**	***V***	***V***	
Åland sheep	1000	**ProAgria**		***V***	
Finngoat	7000	**ProAgria**			
Finnhorse	2000	**Hippos**			
Landrace chicken	<2400	**MTT**	***V***		

Finncattle semen

- VG purchases new bulls for the AI
  - National coordinator (MTT) belongs to a team which chooses the bulls
- VG collects the semen
  - Sanitary situation is good – allowing even exportation
- The semen is owned by VG
  - Certain amounts of semen should be spared for long-term storage
  - Cost efficient system

Finncattle embryos

- Embryo flushings and freezing is done by Embryocentre
  - Good sanitary situation
- Operational costs are covered by AnGR programme (MTT)
- Storage at AI station

Finnsheep semen

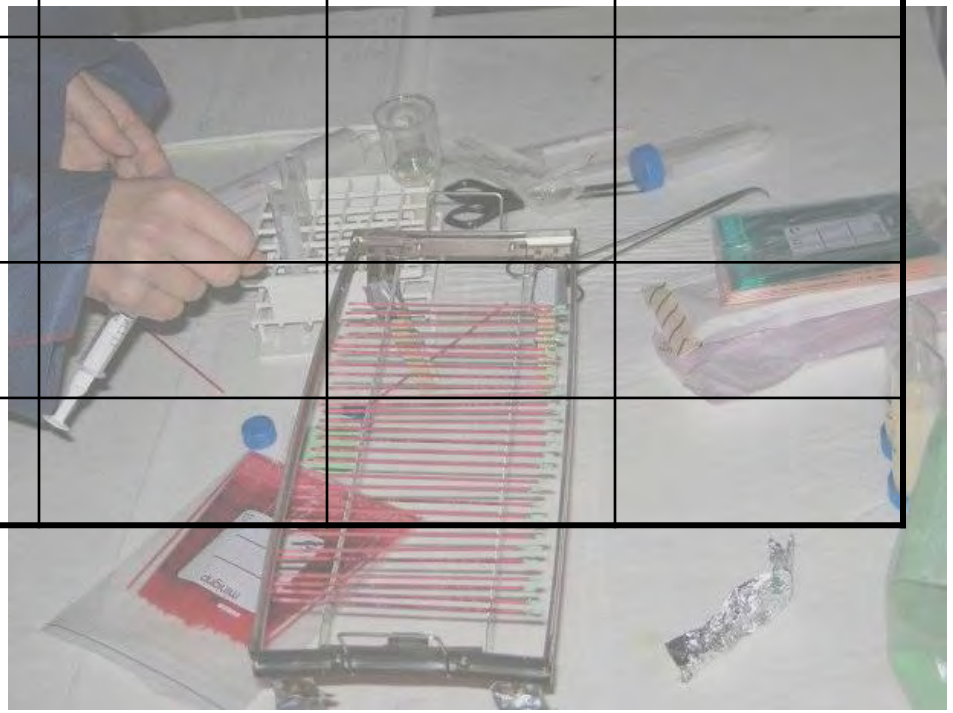
- The semen from Finnsheep, Kainuu Grey Sheep and Åland Sheep is collected by AnGR programme (MTT)
- Collection and freesing is done at farms
- Low numbers of doses – expensive operation
- Storage at AI station

New cryobanks?

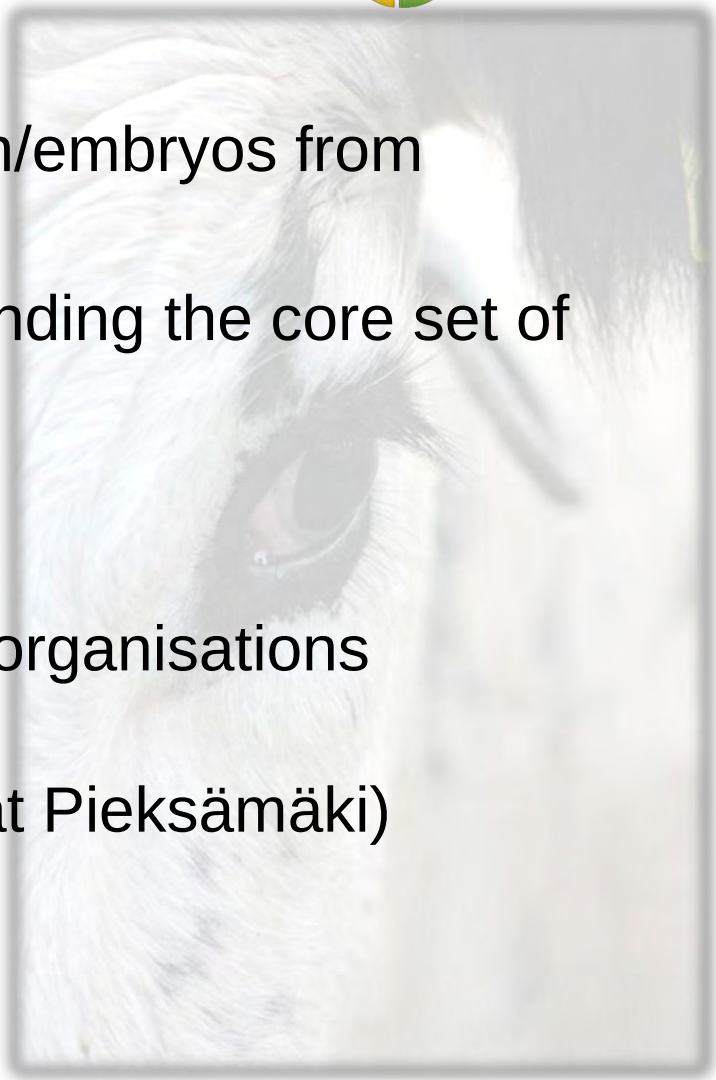
- Finngoat
  - Population structure?
  - Experts from foreign countries
- Finnhorse
- Finnish dog breeds

Cryopreservation

Breed	Semen doses	Males	Embryos	Males	Females
Eastern Finncattle	77 500	48	162	16	24
Northern Finncattle	60 500	35			
Western Finncattle	> 260 000	159	19	2	2
Finnsheep white black brown	 > 600 > 200 > 200	 12 4 4			
Kainuu grey sheep	> 300	5			
Åland sheep	> 450	6			



Problems



- Finding the experts to collect semen/embryos from different species
- Optimising the cryoconservation - finding the core set of the donor animals
  - Solution - GENCONT software?
- Finding the money!
- Contracts with the breeding and AI organisations
  - Managing the cryobanks, usage of semen
- Cryostorage in one site (AI station at Pieksämäki)

Thank you!