



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

Tento projekt je spolufinancován Evropským sociálním fondem a Státním rozpočtem ČR InoBio – CZ.1.07/2.2.00/28.0018

Xcell Slovakia Breeding Services



Jaroslav Pokorádi, PhD.



Who we are ???

Only one certified insemination station for red deer, fallow deer and mufloun in EU

■ **DEER FARM SLOVAKIA**

- * 55 ha of pasture divided into the sections
- * fixation hall – „crush“, retention reservoir
- * own basic herd and breeding stags also in New Zealand

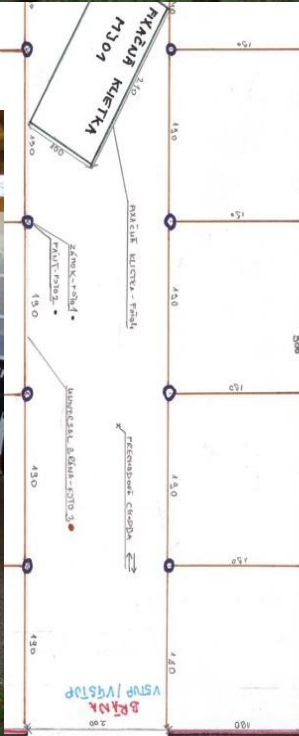
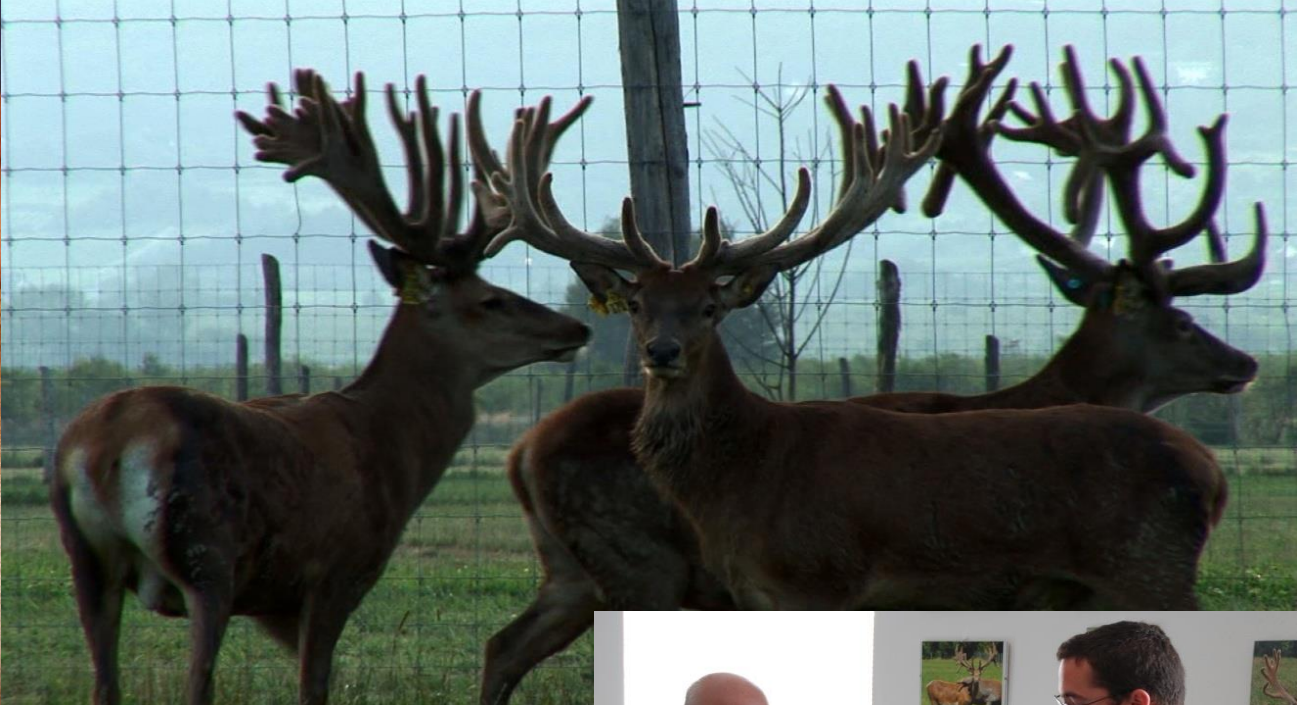
■ **DNA LABORATORY**

- * DNA research for inbreeding
- * parentage and isolation of biological samples: blood, fur/hair, semen

■ **SEMEN AND EMBRYOLOGY LABORATORY**

- * artificial insemination and embryotranfer of animals
- * synchronization of deer females
- * liquid nitrogen storage of semen and embryos
- * know-how processing deer semen – fallow deer – mufloun and freezing technologies







Matúš
NEW EUROPEAN KING OF DEER

The breeding service provides

- 1) **insemination doses and embryos** ~ servicing
- 2) **live animals** following customer requests (venison, trophy, velvet, penis, blood, tail, sinew)
- 3) **services – consultancy**
- 4) **laboratory services** - DNA and reproduction service
- 5) **project planning** and building farms with immediate entry

Breeding values for conservation

- 1) **calving**: birth weight/weight at weaning
- 2) **growth**: daily/monthly weight gain (6 months, 12 months, maturity)
- 3) **genetics**: origin/pedigree/DNA analysis
- 4) **health**: stress factors, immune system, metabolic tests, blood picture, energetic profile
- 5) **physique**: height, chest perimeter, pelvis width, head width at eyepit, points, fitness
- 6) **temperament**
- 7) ♂ **antlers**: 30 months (weight, number of points, stem length, area)
♀ **reproduction**: progress of first calving, condition of the fawn, post-calving care, number of fawns born

Semen and embryos

- semen and embryos of top red deer, fallow deer and moufflon from semen catalogues – pictures, pedigree, scoring
- harvesting and processing semen at farms (live, asleep and after shooting)
- synchronization and preparation of females for artificial insemination or embryotransfer
- fertility examination of prime stags
- one dose – one pejet = one straw = 35 mil. of sperms



Collecting and Processing Semen for AI – ET program

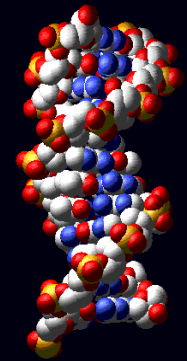
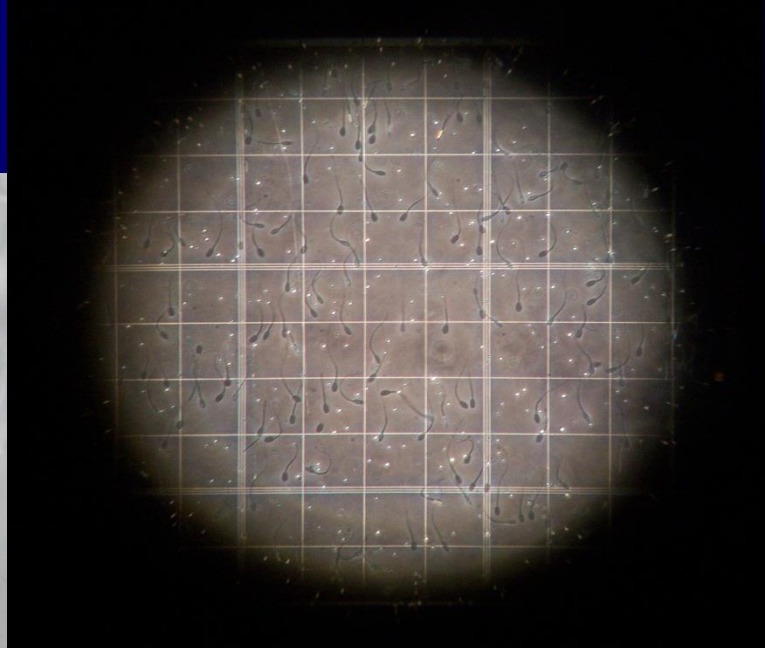




Archiving of genofond - sperms

Collect:

- Post Mortem (after hunt)
- In narcosis
- Conscious (crush)



DEMAND FOR

RED DEER

... and quality again

- without stress factor
- diet
- good physical conditions
- timing for all procedure

Condition

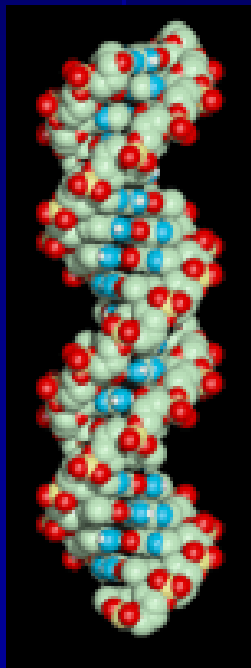


- Conservation of authentic gene resources
- Conservation of the best gene resources in Europe

GENETIC



- identification of animals - parentage
- monitoring of genetic diversity
- inbreeding relationships




DATABAZA JELENE

Vložit dáta Tlač vymaž zvierat

pohlavie: samec samica rok: Číslo: iba odchov bez zvierat v rodokmenoch **vyber** **obnovit'**

ID	Meno	Pohlavie
SK0001	Jan Grofčík	stag
SK0002	Lubo	stag
SK9001	Aragorn	stag
SK9002	02/617	hind
SK9003	Hotspur	stag
SK9004	95/15	hind
SK9005	Andrew III	stag
SK9006	98/265	hind

Karta : Formulár



Lubo@3

Identifikacia:	SK0002
Mikročip:	939000001017151
Ušná Známká:	yellow 413
Meno:	Lubo
Dátum Narodenia:	2. 12. 2004
Pôvod:	Windermere
Pohlavie:	stag
Otec:	SK9024
Matka:	SK9025

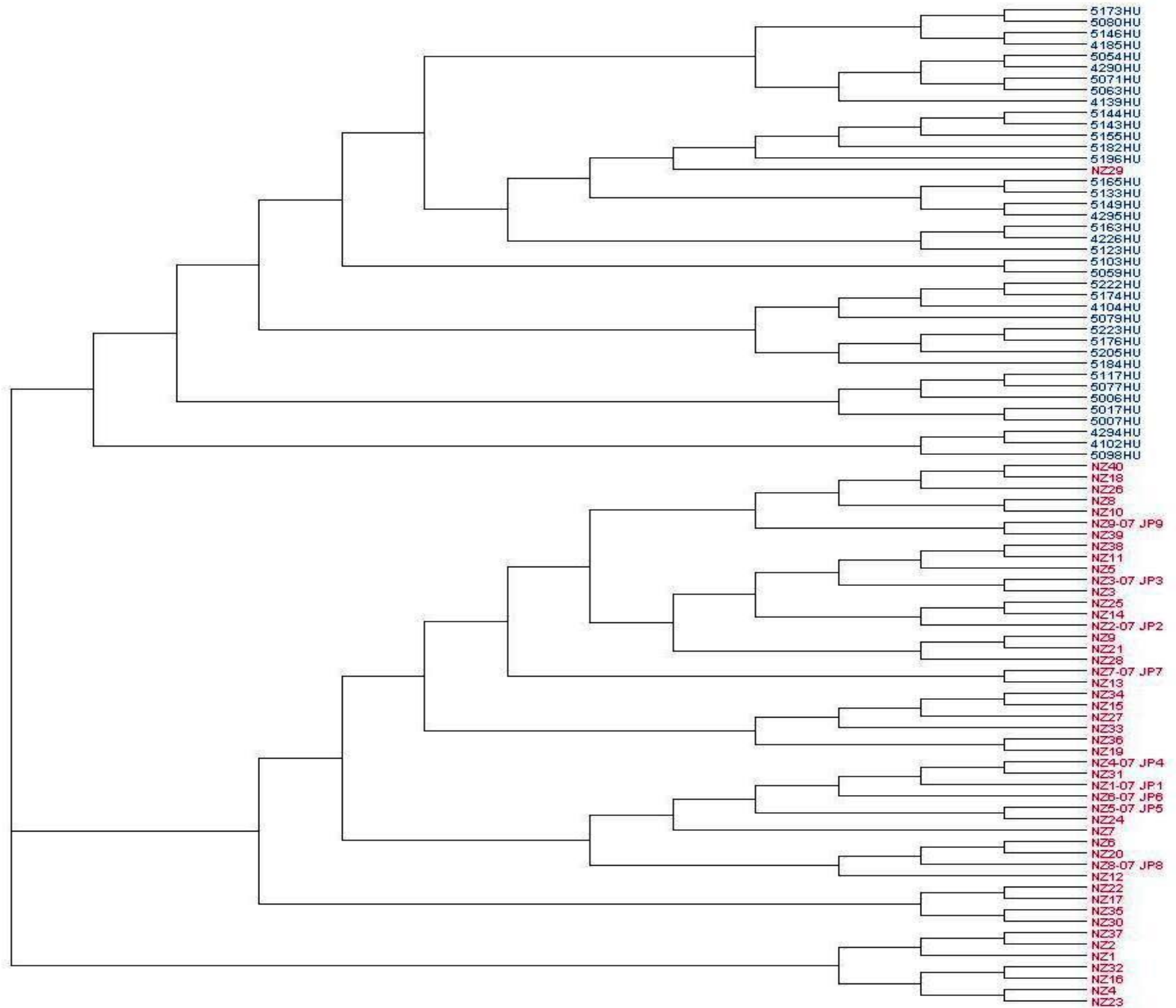
rodokmeň	
OOO SK9028 RAMASSES	SK9016
OO SK9026 James	SK9016
MOO SK9029 DAM. 17	SK9016
O SK9024 James II	SK9016
OMO SK9019 Andrew	SK9016
MO SK9027 160	SK9028
MMO SK9030 731/480	SK9016
Lubo	SK9016
OOM	
OM SK9031 McLEOD	
MOM	
M SK9025 231	SK9026
OMM SK9024 James II	SK9027
MM SK9032 616	SK9015
MMM SK9033 DAM. 62	SK9015
Potomkovia	SK9015

Inseminačné dávky	
PRÍJEM	VÝDAJ

Inseminačné dávky	
aktuálna hodna SCI	aktuálna váha
datum 21. 2. 2007	datum 15. 2. 2006
SCIsum	Váha 103 kg
kg 7 kg	

dnatest

Otec	Identifikacia	Matka	LabČíslo
SK9024	SK0002	SK9025	
	JP9		
	85 93		DarFCB5
	154 154		T156
	344 344		T26
	190 194		BM888
	129 129		RM188
	282 282		RT1
	239 245		T501
	293 307		RT13
	192 196		T193
	19. 7. 2007		Dátum
0	0	0	Kde



HEALTH



Welfare – comfort of animals

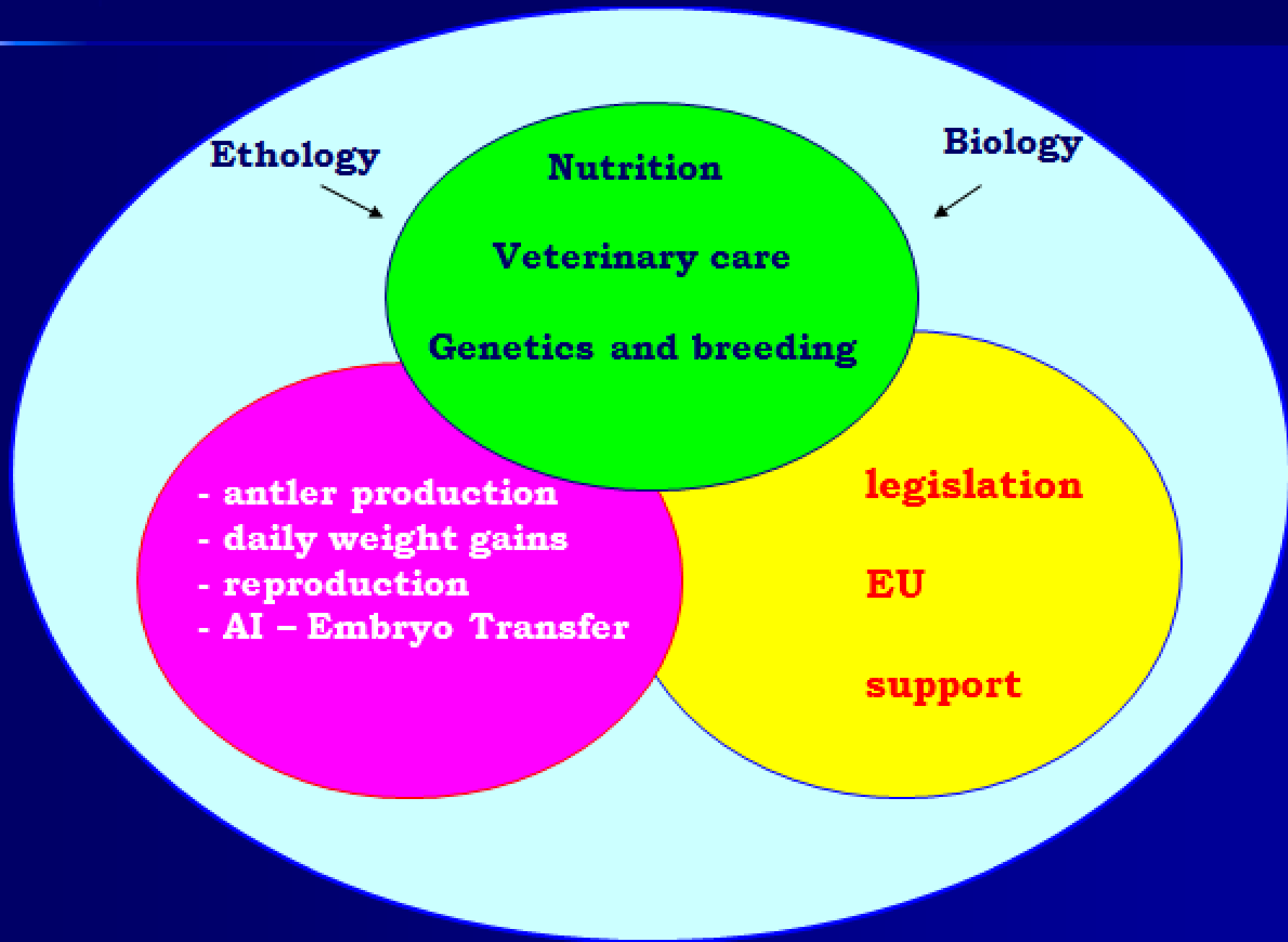
intensive farming – intensive care

- **non-stressful handling**
- **quiet environment at pastures (sections) for grazing and chewing**
- **protect animals and sheds from endo- and ectoparasites, mosquitoes and other stinging insects**
- **ad libitum quality drinking water throughout the year**
- **non-stressful handling of animals at pastures, in the corridor**
- **obscuring the handling areas**
- **maximum length of semen harvesting, insemination and laparoscopy is 3 minutes**
- **inseminating a couple of females in the „crush“**



HEALTH- examinations

- regular parasitological monitoring
- regular check-up of animals - clinic
- serological examination of infectious diseases, zoonosis
- preventive arrangements - vaccinations
- disinfection programme (DDD) – protection of animal health
- seasonal blood examination –
blood picture, metabolic tests, energetic profile



non-stressful moving animals from one section (2 ha) to another



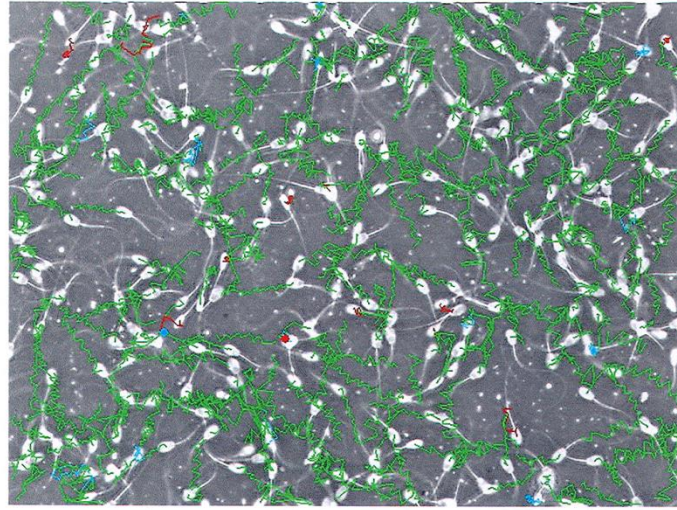
Laboratory services

- parentage determination through DNA (99,9 % accuracy)
- DNA analyzes for inbreeding selection and good breeding management
- complex laboratory examination of red deer, fallow deer and moufflon semen quality (motility, pathology, count)
- checking determination of pathogenes by means of virus isolation (100% detection method) metabolic and blood tests of animals – efficiency of breeding
- drinking and supply water quality control at farms and preserves





Donor ID: JELEN 3		Collection Date: 11/28/2008	
Breed: BO	Name:	Motility: 94.99%	
Breed Desc:	Reg Number:	Composite: 85.08%	
Breed Letter:	Days rest: 9999		
Sperm Count: 2178	Progressive Motile: 1951	Local Motile: 118	Non Motile: 109



Motility Detail

Non-Motile	5.00%
Local Motile	5.40%
Hyperactive	0%
Linear	0%
Non-linear	0%
Curling	0%

XCELL BREEDING SERVICES SEMEN CARD
Red Deer
Luboš

IDENTIFICATION: SK0002
ANTLERS:

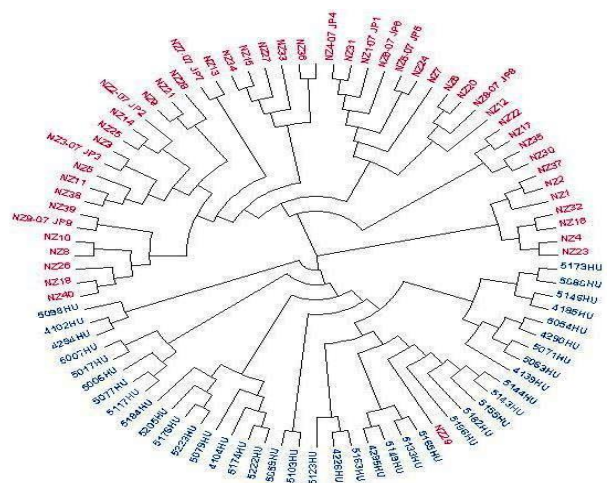
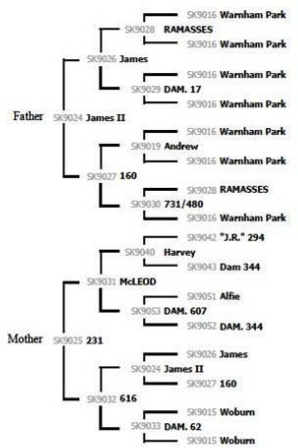
Name: Luboš
Date of measuring: 21. 10. 2008
Ear tag: yellow 413
SCI: 411 7/8
Born: 2004
Kg: 12,6 kg
Origin: Windermere NZ
Points: 39
Sex: stag
Microchip: 939000001017151
Weight: 250 kg



Luboš @ 4



Luboš @ 4



XCELL BREEDING SERVICES

TROPHY ANTLER AND VENISON GENETICS

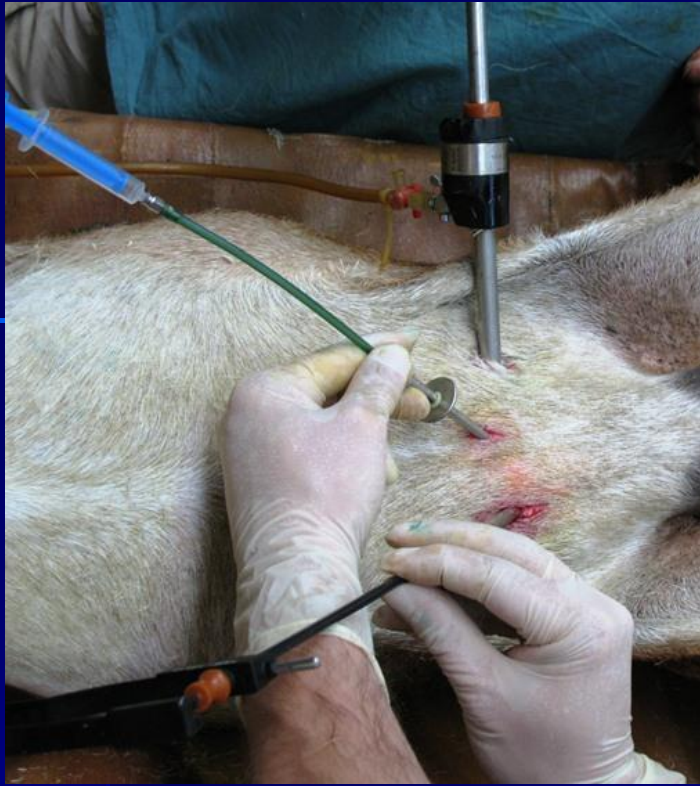
SEMEN CATALOGUE AND SERVICES FOR RED DEER - FALLOW DEER - MOUFLON 2009/2010

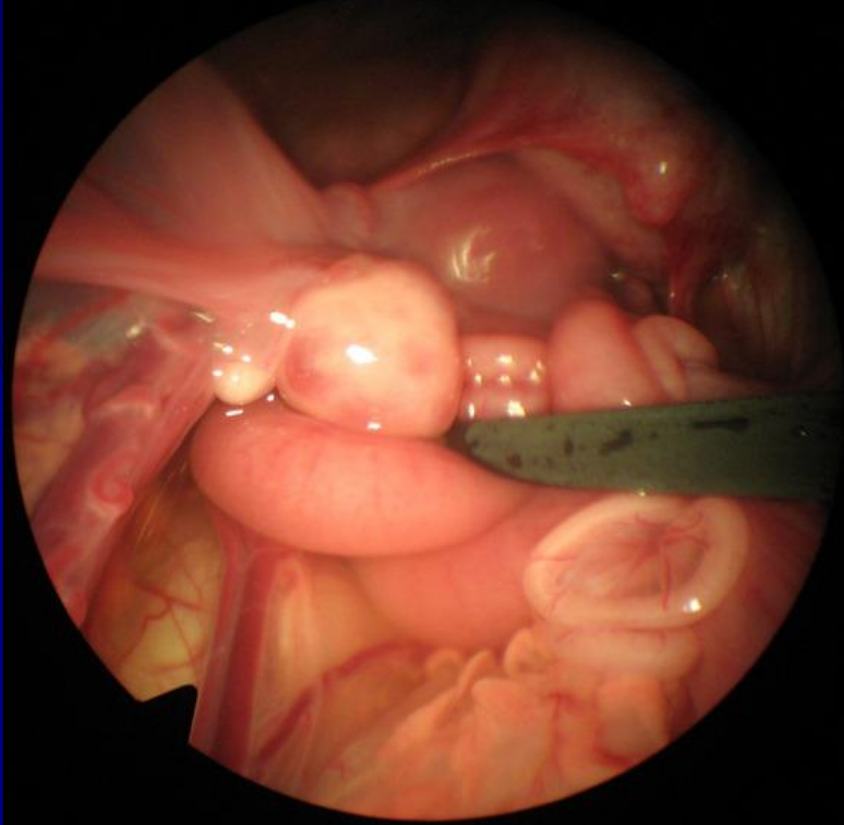
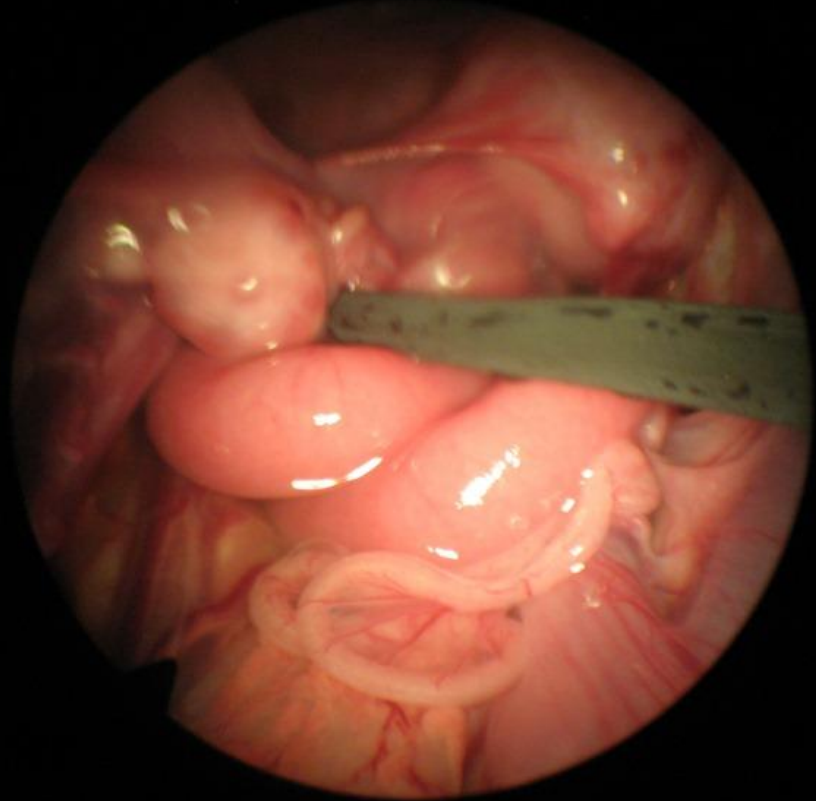
WHY CRYO – CONSERVATION ???

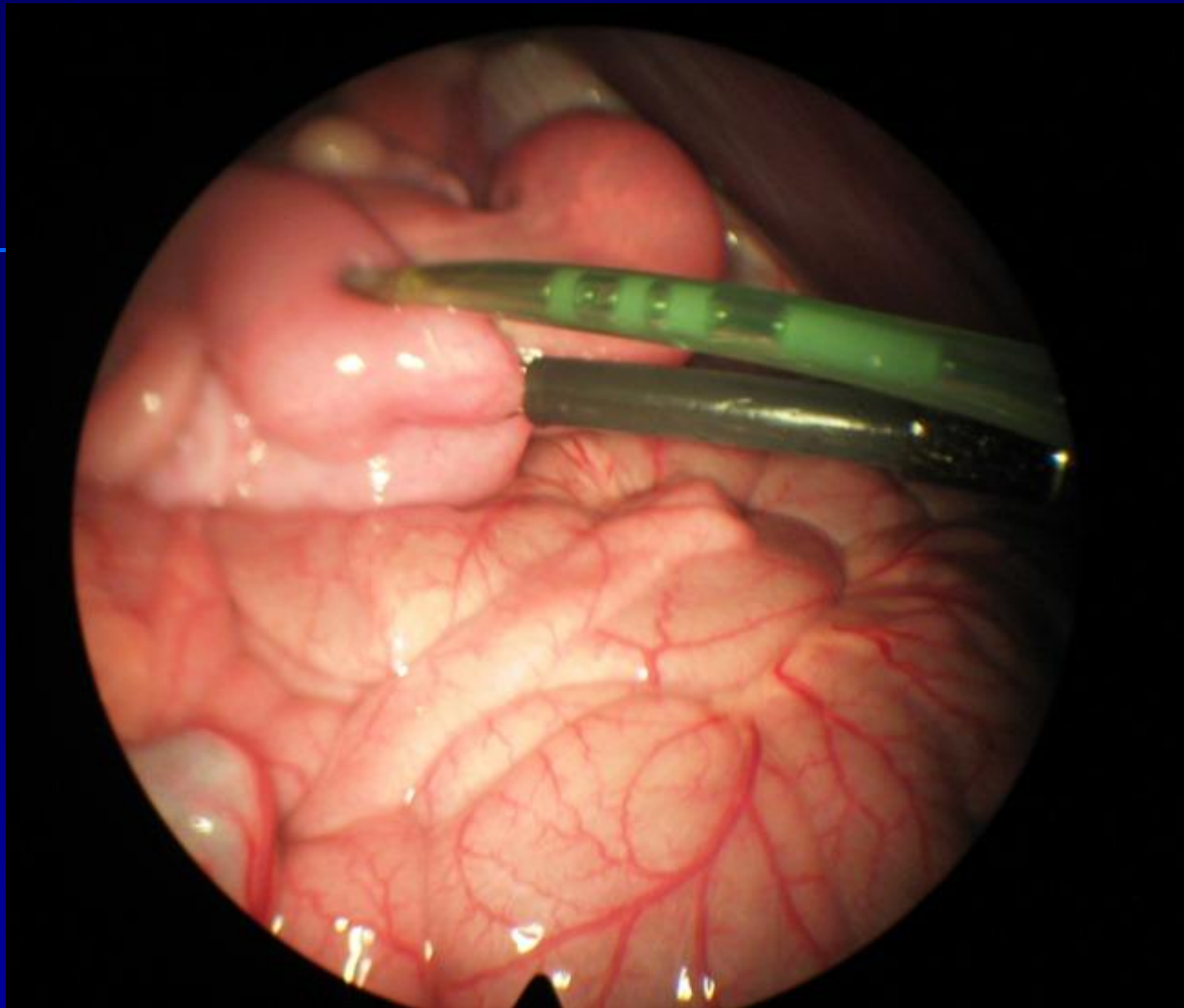




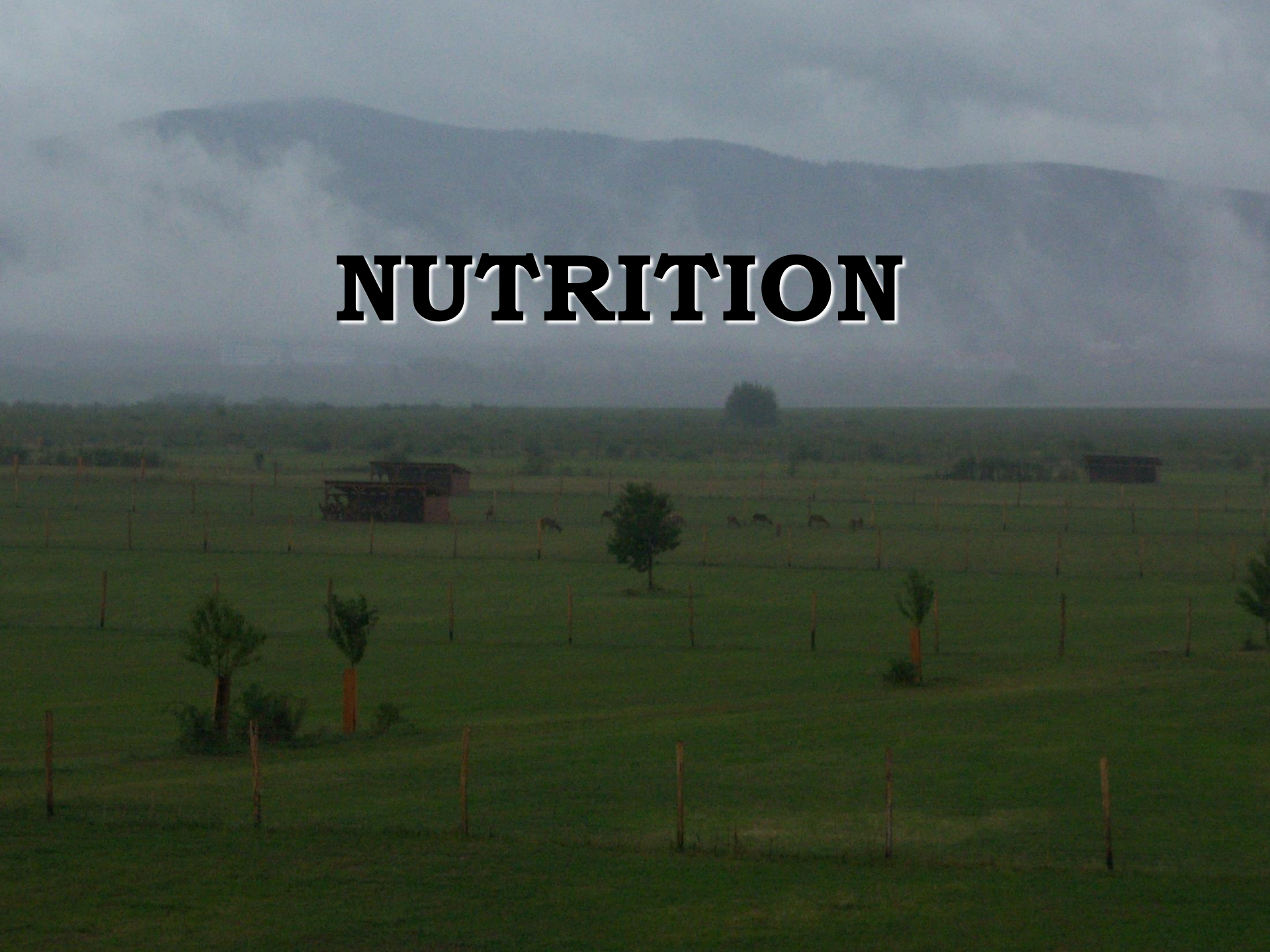








NUTRITION



What's important and „unrevealed“ ???

- What's contained in feed (grass, bulk, forage, granules) and what the animals need...
Analysis of all components and proposal of a recipe.
- What is the digestability of their feed?
Netto energy – helps to increase the digestability.
- What is the proportion of the majority components?
Rumen balance, Ca:P, K:Ca, Ca:Mg
- How can I find out?
Complex feed analysis – measuring the monthly weight gain and calculation for piece/day.



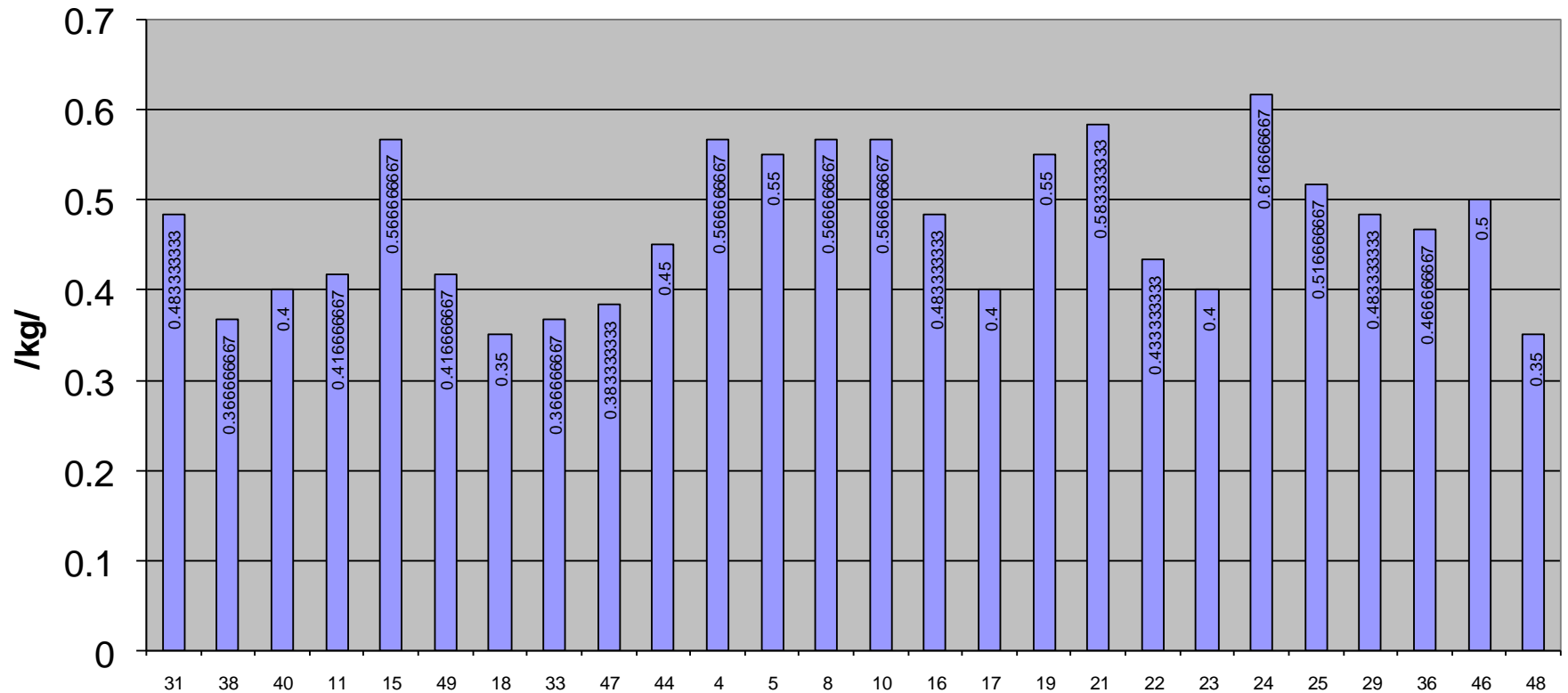
SPRING – SUMMER – AUTUMN - WINTER

- **bulk feed**
- **forage**
- **year-long pasture**
- **granules according to**
 - animal category
 - production time
 - goal (yield/antlers)
 - animal species





daily weight gain (kg)





XCELL

BREEDING SERVICES



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