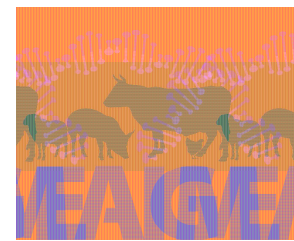


2nd IMAGE stakeholder Forum, Tallinn, 27.08.2017



University of Natural Resources
and Life Sciences, Vienna
Department of Sustainable
Agricultural Systems

Sanitary & Veterinary Regulations and Germplasm Collections

Beate Berger



Sanitary & Veterinary Regulations (SVR)

- Sanitary conditions under which material is collected, stored – and used
- Sanitary requests to be met by the donor animal
- Veterinary issues according to current international and/or national regulations and laws
- Genetic hygiene – hereditary defects, ...

SVR in Germplasm Collections

- 72.9 % of answering collections have SVR in place
- For 81,5 of collections with SVR regulations are based on national law
- For 72,7% of collections with SVR, these (sometimes) present a bottleneck completing the collection
- 63,6% of collections with SVR report difficulties using material because of SVR
- Only 23% have national derogation for collection and 13,6% have national derogation for use of material for endangered breeds

Why Sanitary & Veterinary Regulations?

- Safe national and international exchange and use of breeding material
- Harmonized practices in collecting, storing of germplasm
- Protect against the spread of infective diseases and zoonoses and hereditary defects



OIE

World Organisation for Animal Health

- Aims (selection)
 - Safeguard world trade by publishing health standards for international trade in animals and animal products
 - Improve the legal framework and resources of national Veterinary Services
- 116 diseases listed for 2017
- 23 multi-species diseases



OIE recommendations

- Base of legislation (national and international)
 - EU legislation sometimes exceeds OIE recommendations
 - Consider commensurability
- but
- *do not mention conservation of genetic resources!*



EU legislation: Semen, Ova, Embryos

- Bovine – frozen semen
 - Council Directive 88/407/EEC
 - Directive 2003/43/EC (intra Union trade)
 - Council Directive 2011/630/EEC (Import third countries)
- Bovine – frozen ova & embryos
 - Council Directive 89/556/EEC
 - Directive 2008/73/EC (Trade, approved collection centres)
 - Commission decision 2006/168/EU (Import)



OIE recommendations

- Base of legislation (national and international)
 - EU legislation sometimes exceeds OIE recommendations
 - Consider commensurability
- but
- *do not mention conservation of genetic resources!*



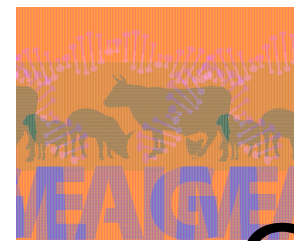
EU legislation: Semen, Ova, Embryos

- Porcine – fresh semen
 - Council Directive 90/429/EEC (intra Union trade)
 - Directive 2008/73/EC (intra Union trade, approved collection centres)
 - Commission Decision 2012/137/EU
- Porcine – fresh and frozen ova & embryos
 - Council Directive 92/65/EEC (intra Union trade)
 - Directive 2008/73/EC (Trade, approved collection and transfer teams)
 - Commission Decision 2008/636/EC
(Import third countries)



EU legislation: Semen, Ova, Embryos

- Ovine & Caprine – fresh and frozen semen, ova, embryos
 - Council Directive 92/65/EEC
 - Commission Decision 2010/470/EU (certificate for intra Union trade)
 - Commission Decision 2010/472/EU (Import third countries)



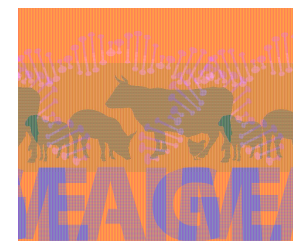
EU legislation: Semen, Ova, Embryos

- Equine – fresh and frozen semen, ova, embryos
 - Council Directive 92/65/EEC
 - Directive 2008/73/EEC (intra Union trade)
 - Commission Decision 2010/470/EU (Health certificates)
 - Commission Decision 2004/2011/EU (Import)
- Other species - fresh and frozen semen, ova, embryos
 - National measures according to the general principles of Council Directive 92/65/EEC



EU legislation and Genebanks

- Applies to AI/ET centres, semen/embryo depots and intra and extra EU trade!
 - Regulates semen, embryos and ova
 - Does not mention germplasm collections!
- but
- Non-compliant material not tradeable, cannot be used in conservation breeding



Example Bluetongue Disease

- Ruminants, not transmissible to humans
 - Economically important
 - Transmitted by gnats (*Culicoides spp.* and others) and i.a. sexual contact
 - Transmissible by frozen semen
 - Strict trade regulations for semen in EU- & international legislation

but

- PCR diagnosis possible
- Just test semen charge for virus DNA and if o.k. use it!



Example *M. agalactiae*

- Infectious agent Mycoplasma
- Mastitis, destruction of the udder in small ruminants
- Male animals as transmitters
- Transmissible by frozen semen!
- Economically very important, Animal Welfare issues
- Legislation demands ELISA – blood samples, not reliable in males, not available for old samples
- Solution: Species-specific PCR from semen
- *But – method still not accredited!*



Conclusions

- Majority of germplasm collections report SVR as possible bottleneck for collection and use of genebank material
=> Current SVR on germplasm not tailored for genebanking and local endangered breeds
- Few national derogations in place
=> Action needed on national level
Problem: endangered regional transboundary breeds



Conclusions

- SVR are changing according of disease control and needs of international market
= > what about old material?
- In some cases no reliable accredited method for diagnosis in SVR
= > SVR should make use of modern diagnosis methods on national and international level
- SVR recognizing special position of germplasm collections could provide a solution



University of Natural Resources
and Life Sciences, Vienna
Department of Sustainable
Agricultural Systems

Thank you for your attention!



© Arche Austria www.arche-austria.at