

European system(s) of AnGR utilization and conservation

OLD EU COUNTRIES

ACCEDING and CANDIDATE STATES

Obligation to harmonize national law to the EU law (because of protection EU markets with breeding material)

NEW MEMBER STATES – some time limited exemptions in a short period (2 years ?)

EU MEMBER STATES:

Standardized Breeding Laws

Recognized breeding organizations keeping Stud books, organizing performance testing and breed evaluation, publishing data

all SBs must contain minimum standard data

Central Animal Data File

more less uniform performance testing

standardized ear tagging and animal recording

obligation to develop breeding programs,

selection schemes and traits evaluation

approval for conducting specific activities (AI centres)

Protection of intra EU trade with purebred breeding material

About 30% of European (EU) countries have developed National Programs

Point of departure mostly have been the SoW country reports

CZ – the NP in operation since 1995

Components of NPs:

Commercial breeds – sustainable breeding programs, based on maintaining or broadening intra-breed diversity, prioritizing also others than direct production traits (milk yield versus longevity or fitness)

Endangered breeds – categories of endangerment based on specific indicators (Nef, Fx)

Conservation methods dependent on the endangerment status (supporting in-vivo held nucleus herds, cryopreservation)

CZ: Present state influenced by the former breeding system

During 1950-1990 breeding controlled by the state (State Breeding Authority)

Specified „breeding regions“ and determined breeds for each of them

„**Confirmed breeds**“ – bred > 4 generations, satisfying production requirements, economical perspective (1 cattle, 3 pig, 5 horse, 3 sheep and 2 goat breeds listed)

„**Permissible breeds**“ – breeds in examination (another 3 cattle, 4 pig, 5 horses and 3 sheep breeds listed)

Except these, only breeds for research or special purposes could be imported

- upgrade breeding – mating to phylogeny related or other breed appointed for the improvement program has been regarded as purebred ⇒ loss of autochthonous genes (overcrossed with „perspective“ breeds)
- + fixed mating plans for each herd (farm) ⇒ better use of the gene pool, expansion of insemination ⇒ development of stations producing cryoconserved semen for all species
- + animal identification and recording, obligatory performance tests in 50% cows, 10% sheep and pigs and 2% goats ⇒ lot of valuable data to analyze breed history and development

Effective population size (N_{ef})	Endangerment class	Conservation provisions
> 1000	no threat	Regular monitoring, casual collection of DNA samples, semen doses
400 -1000	vulnerable	Breed filed into the NP. If number of males < 100 systematic collection of semen is started
100 - 400	endangered	Systematic semen/embryo collection, controlled in-situ management of the breeding nucleus executed
50 -100, <5 not related males	critical	controlled in-situ management, formation ex-situ herds, regeneration plan by utilization of insemination/ET
< 50	uncertain	regeneration plan executed through a phylogeny-related breed (Red cattle)

Supporting tools

EU support – based on agri-environmental programs

Supporting animal keepers of breeds fitting given rules (breed is recognized as rare, autochthonous or local, population size must not exceed given limits – 10 000 dams in cattle), headage payment up to 200 Eur per LU

(plus)

National supports – additional money to that of the EU budgets

Or

Breeds are supported by national budgets only, no matter if they fulfil the EU criteria and limits (CZ - some horse breeds and the Red Cattle supported at a level approx. 600-800 Euro per head)

CZ, Poland - also species and breeds not eligible in EU are supported (rabbits, honey bee)

A problem might come: these state aids have to be notified by the EU to prevent comparative advantages of such supported farmers

These budgets allow also for supporting breeders associations carrying records, gene banking, cryopreservation activities, publishing and raising public awareness

CZ

Extra case - Extra support –
breed recognized as National Cultural
Heritage

Old Kladruby Horse





Support for commercial breeding programs (State Aid)

notified by the EU until 2010. Subsidized are:

- keeping public breeding rams and bucks (grant to a keeper)
- purchase of breeding bull /ram/ buck for natural mating in own herd (grant to a keeper)
- DNA analysis for paternity tests in bulls and boars (grant to a keeper)
- keeping stud books (grant to a breeders' association)
- utilization of embryo transfer (grant to a keeper)
- utilization of insemination in mares (grant to a keeper)
- performance testing (grant to a keeper, breeders' association and executing organization)
- production of breeding bull /ram/ buck approved and used as registered sire (grant to the producer)

Ex- Soviet countries

Former organization of breeding:

100% controlled by the state

Collapsed

Uncontrolled crossbreeding

Minimum or no performance testing

No tagging and recording

Well operating ERFPP –
European Regional Focal Point
31 national coordinators
Steering Committee – 1 representative of region
(West, South, Central and East, North)
meeting annually
settle common strategic priorities and actions
own funds (donor countries) – supporting common
projects

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