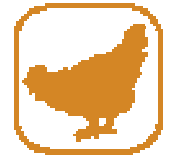
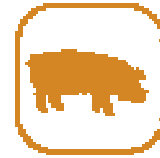


Workshop Slovenia

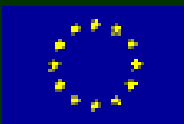
code

EFABAR®



Anne-Marie Neeteson

15 April



FOOD-CT-2004-506506



European Forum of Farm Animal Breeders
EFFAB

Contents



European Forum of Farm Animal Breeders

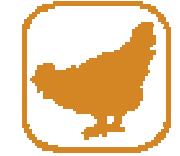
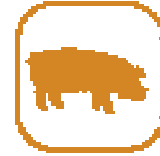


- Why Code-EFABAR
- What is Code-EFABAR
- Procedure of Code-EFABAR
- The future of Code-EFABAR

Why

code

EFABAR®





Why



European Forum of Farm Animal Breeders

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What is a Code of Good Practice?

A description of the principles of good breeding practice and standards of competence expected of and shared by breeding organisations in all aspects of their professional work



Why



European Forum of Farm Animal Breeders

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Who can adopt the Code?

“Breeding organisations”

includes all structures responsible for farm animal breeding and reproduction

(e.g. herdbook, artificial insemination, embryotechnology, data recording)



Why



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Why adopt the Code:

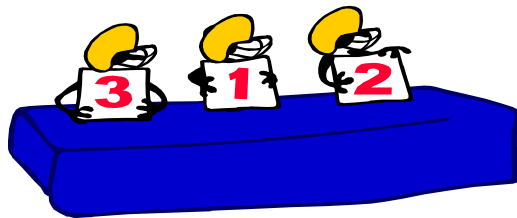
- You will have an answer ready to questions from ‘society’
- ‘Your breeding practice’ in terms that ‘society’ understands/cares for
- A Code across species and across countries (not pinpointing on *you*)
- Has proved to be a good way to prevent extra unnecessary legislation

Cultures

Breeding ≠ Society

Society: Individuals

- Intrinsic value
- Individuals



Desirability:

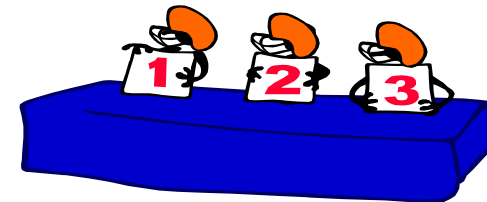
Ideal outcome

Driver:

Legislation (on welfare...)

Breeders: Populations

- Traits: Means, Variances
- Adjustment by means of selection



Feasibility:

Genetic progress

Drivers:

Competitiveness
Economic viability



Why



European Forum of Farm Animal Breeders

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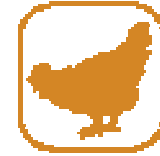
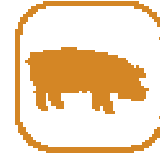
Examples how it 'works':

- Society:
 - No additional regulations on semen sexing NL
 - No breeding limitations in UK
 - Used in the European cloning discussion
- Breeding:
 - Way to profile as professional organisation

What is

code

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What



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Why

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Background:

- One guideline for all animal species
- Developed *by* breeders, not only for breeders
- Tailor made
- Demand for transparency from society
- Pro-active
- Practical and adoptable/certifiable



What



European Forum of Farm Animal Breeders

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Contents of the Code

Introduction

- How and why

Content Code

- Sustainability
- Technologies

Annexes (not off. part of Code)

- Examples for species
- Guidelines for Adoption / Certification
- Ethical paper
- Definitions



What



Why

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Future

Sustainability in farm animal breeding and reproduction

*“The extent to which animal breeding and reproduction, as managed by professional organisations, contribute to maintenance and good care of animal genetic resources for future generations” **

Where can breeding make a difference for sustainability:

- Food safety
- Product quality
- Genetic diversity
- Production efficiency
- Environment
- Welfare & health

*SEFABAR (Sustainable Farm Animal Breeding and Reproduction, 2000-2003)



Origin of the Code



European Forum of Farm Animal Breeders

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What

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Future

Technologies:

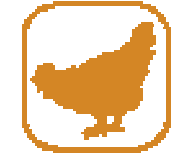
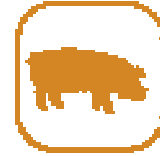
What technologies do you (not) use

- Breeding (e.g. MAS, transgenesis)
- Reproduction (e.g. AI, cloning)

Procedure of

code

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Procedure companies



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

- **Read Code-EFABAR document**, and see whether you agree
- **Write out** (can be short) **for your organisation how *you* will implement the Code**
- **Sign the Letter of Adoption**
- **Indicate who from your organisation will sign the certificate**

- **Complaints procedure**



Procedure umbrellas



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

- **Read Code-EFABAR document**, and see whether you agree
- **Write out** (can be short) **for your umbrella how *you* will organise the implementation of the Code and how your 'Code' is being called**
- **Sign the Letter of Adoption for Umbrellas**
- **Indicate who from your organisation will sign the certificate**
- **The organisations under your 'care' can adopt Code_{'your organisation'}**
- **Complaints procedure**



Read Document



European Forum of Farm Animal Breeders

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Future

- **Read Code-EFABAR document**, and see whether you agree



How will you organise the implementation (1)



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

- **Write out** (can be short) **for your umbrella how *you* will organise the implementation of the Code and how your 'Code' is being called**
 - Decision by the organisation
 - Organise assistance to adopt within
 - Agree that the organisation complies with Code



How will you organise the implementation (2)



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

- **Write out** (can be short) **for your umbrella how you will organise the implementation of the Code and how your 'Code' is being called**
 - The umbrella organisation makes sure that the members:
 - **Respect the legislation** on zootechnics, health, animal welfare
 - Respect a **balanced breeding goal** (established or not at breed/national level)
 - Use modern **biosecurity methods** to minimise disease transmission
 - Treats animals under their care with **respect**
 - Ensure **health and welfare** of animals under their care



How will you organise the implementation (3)



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

- **The name of your ‘Code’**
 - E.g. Code-EFABAR_{Slovenian Breeders}



Procedure



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

After this workshop

- We will send you:
 - the certificate signed by our chair
 - the digital logo's and promotional articles (brochures, transparent sticker, foamboard)
- We will keep the document from your organisation **safely**, and not provide any information to other organisations nor anyone else



Procedure umbrellas



European Forum of Farm Animal Breeders

Why

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Procedure

Future

- **Sign the Letter of Adoption for Umbrellas**
- **Indicate who from your organisation will sign the certificate**
- **The organisations under your ‘care’ can adopt Code_{your organisation}**
- **Complaints procedure**



Complaints procedure



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- **Complaints procedure**

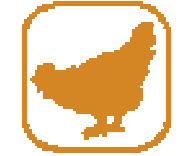
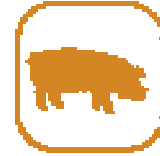
- EFFAB files complaint

- Informative questions EFFAB answers
- Implementation questions, EFFAB and company prepare answer in 3 weeks and file answer to complainer in 1 week
- Complainer not satisfied:
 - Complainer and company put each € 750 in pot EFFAB
 - » Committee of Non Conformance
 - » 4 breeders and an ethicist
 - Opinion of Committee rules – the one who is right gets money back

Guide examples

code

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Guide examples (1)



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Why

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Procedure

Future

- **In this exercise each company writes out its breeding according to sustainability**
- **The document is ‘secret’ and needs not to be shared with others e.g.**
 - In safe of umbrella
 - With notary



Guide examples (2)



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Why

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Procedure

Future

- **We choose a species (cattle, pigs, poultry, farmed fish)**
- **Content Code**
 - Sustainability
 - Technologies



Sustainability



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Why

What

Procedure

Future

- Product quality and food safety
- Genetic diversity
- Production efficiency
- Environment
- Welfare & health



Product Quality (1)



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Why

What

Procedure

Future

Element	Breeding goal	Explanation
Milk carrier production	Maintained	
Milk fat production	Increased milk fat production	
Milk protein production	Increased milk protein production	
Growth rate Dairy cattle Beef cattle	Maintained growth rate Increased growth rate	Growth rate is a trait under selection within the beef breeds. In general growth rate is not considered in dairy breeds.



Product Quality (2)



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Why

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Element	Breeding goal	Explanation
Somatic cell count (SCC)	Decreased number of somatic cells in the milk	SCC is an indicator of poor udder health. In several countries milk prices are depending on SCC.
Processing quality, milk	Maintained or improved processing quality to meet market requirements.	Increased quality and yield of processed consumers products.
Carcass and meat quality Dairy cattle Beef cattle	Maintained Improved	In beef cattle carcass and meat quality are traits under selection in several countries. The development is driven by demands from the processing industry.



Genetic Diversity



European Forum of Farm Animal Breeders

Why

What

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Future

Element	Breeding goal	Explanation
Genetic diversity	Maintained genetic diversity within commercial breeds. Conservation of local breeds.	<p>A high genetic diversity is essential to maintain sustainable breeding in the future for all commercial breeds.</p> <p>A special situation is when a local product is requiring a certain breed; as in the case of the Fontina Cheese in Italy that only process milk from the Valdostana Breed.</p> <p>Preservation of local and endangered breeds is a (global) society issue. BO can take part in this conservation through cryo preservation of semen and/or embryos.</p>
Inbreeding	Rate of inbreeding balanced with rate of genetic change.	BO will only allow a maximum of 1% of increased inbreeding per generation in their nucleus programmes as is advised by FAO.
Cross breeding		<p>Exploitation of hybrid vigour in commercial herds is done to a large extent in beef cattle production.</p> <p>A growing interest of cross breeding can also be noticed in dairy cattle.</p>



Efficiency



European Forum of Farm Animal Breeders

Why

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Future

Element	Breeding goal	Explanation
Fertility Female Male	Maintained or improved male and female fertility.	Reproductive soundness is a prerequisite for both dairy and beef production and female infertility is one of the major causes for involuntary culling. In grazing based production systems it is essential to have an annual calving.
Feed efficiency	Improvement of the efficiency of utilized feed resources.	A better utilisation of resources is preferable. However, ruminants are often using local feed resources under none optimum conditions.
Productive life	Improvement of longevity of cows.	BO want to select for robust animals that will cope with numerous environmental conditions, which increase the longevity of the cows.



Environment



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Why

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Future

Element	Goal	Explanation
Nitrogen and Phosphate emission	Reduced N and P emission per -Kg of beef produced -Kg of milk produced	An improved feed efficiency decrease the amount of manure produced (N and P emission) per kg of beef and milk.



Welfare and Health (1)



European Forum of Farm Animal Breeders

Why

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Procedure

Future

Element	Breeding goal	Explanation
Genetic defects	Decrease the presence of genetic defects.	The BO will select against genetic defects in animals. Young bulls will be tested against known/suspect defects such as BLAD, MF and CVM.
Mastitis incidence	Decrease the incidence of mastitis.	Udder health problem is a welfare as well as a production problem and mastitis is one of the major causes for involuntary culling of dairy cattle.
Disease resistance against other diseases than mastitis	Decreased frequency of animals with other diseases than mastitis.	Other diseases than mastitis are also causing involuntary culling in cattle.



Welfare and Health (2)



European Forum of Farm Animal Breeders

Why

What

Procedure

Future

Element	Breeding goal	Explanation
Udder conformation	Maintained or improved udder attachment, udder depth and teat traits.	Functional udder conformation is a trait that improves longevity and udder health.
Leg problems	Decreased cull rate due to feet and leg problems	Leg problems are an important source for culling of cattle.
Locomotion	Improved locomotion and natural movements.	Locomotion is a trait that is recorded in several countries. It has an impact on longevity. Locomotion is also an indicator of hoof disorders.



Welfare and Health (3)



European Forum of Farm Animal Breeders

Why

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Element	Breeding goal	Explanation
Calving ease	Maintained or decreased frequency of difficult calving	<p>Calving ease should be regarded as both a sire and a maternal grandsire trait. It is also recommended to separate calving results between virgin heifers and older cows. A difficult calving increases the risk for calf mortality and a poor start of the lactation for the dam.</p> <p>For breeds with a low frequency of difficult calving the aim is to maintain that status and for breeds with a higher frequency the aim is to decrease the frequency.</p> <p>Caesarean section shall under no circumstances be accepted as the normal procedure neither for commercial cows nor for breeding stock.</p>
Calf survival	Maintained or improved calf survival.	The same arguments can be applied on calving survival as on calving ease.
Polledness		In several production systems dehorning is the normal procedure, under these conditions polledness can be preferable.



Technologies



European Forum of Farm Animal Breeders

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Future

Technologies:

What technologies do you (not) use

Breeding (e.g. MAS, transgenesis)

Reproduction (e.g. AI, cloning)



Breeding Technologies



European Forum of Farm Animal Breeders

Why

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Procedure

Future

Element	Explanation
Marker and gene assisted selection	BO may use marker or gene assisted selection. These techniques are expected to enhance genetic improvement for quality, welfare and health traits.
Transgenics	BO currently do not make use of transgenic techniques



Reproduction Technologies (1)



European Forum of Farm Animal Breeders

Why

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Element	Explanation
Artificial Insemination (AI)	<p>AI is the recommended reproductive technology for sires. AI makes it possible to detect genetically superior bulls by progeny testing. Proven bulls make it possible to achieve the desirable breeding goals.</p> <p>AI will facilitate extensive use and trade with genetically superior bulls.</p> <p>AI is a recommended method to prevent disease transmission.</p>
Semen technologies	<p>Freezing of semen is a normal procedure in the AI industry.</p> <p>Semen sexing is a method to avoid unwanted animals to be borne. BO and cattle farmers will use sexed semen when it is a suitable method for achieving desirable goals.</p> <p>Frozen semen is a cheap method for generating a long lasting gene bank.</p>
Collection of semen and preparation	<p>Collection of semen from bulls is done by trained personnel and with adequate equipment to ensure health and welfare of the bulls. The semen doses shall have a sufficient quality and quantity of cells to provide a normal pregnancy rate. Furthermore an accurate identity and no transmission of diseases must be achieved.</p> <p>Under no situation is electro ejaculation a method that can be accepted.</p>



Reproduction Technologies (2)



European Forum of Farm Animal Breeders

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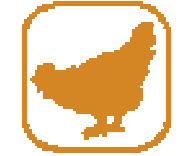
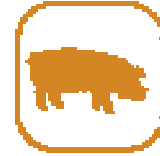
Future

Element	Explanation
Oestrus induction	Oestrus induction is a management method and BO do not influence its use.
Embryo transfer (ET)	Embryo Transfer is an accepted reproductive method for genetic superior females, bull dams. Super ovulation and subsequent collection of embryos makes it possible to obtain more offspring after superior females.
Embryo technologies	Frozen embryos facilitate trade with embryos at a low health risks. ET with frozen embryos is a method to introduce new breeds in a country. Frozen embryos are a cheap method for generating a long lasting gene bank. Embryo sexing is a method to avoid unwanted animals to be borne. In vitro production of embryo is an alternative embryo production method. BO will use the embryo techniques that cause no harm or suffering to the animal.
Cloning	BO currently does not make use of cloning.

The future and

code

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The future



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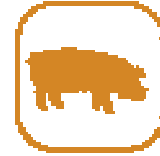
Future

- Code-EFABAR 2008-2010
- If you wish we can give a Code workshop for your members
- Every 3 years: re-examination of Code
- EFFAB membership

Good luck!

code

EFABAR[®]



Acknowledgement to the EFFAB members and the members and partners of the projects on Breeding and Society, SEFABAR and Code-EFABAR for their commitment, contribution and cooperation