



CODE EFABAR
the commitment to responsible breeding

Species Specific Template
Code EFABAR
CATTLE



Code EFABAR 2017

Company: _____



CATTLE

1. Impact and structure of breeding on cattle industry in EU

Breeding Companies¹ (BCs) are in most cases small and medium size enterprises (SME) and often organized as co-operatives. Enormous genetic progress has been obtained in cattle breeding during the last 40 years due to reproduction biotechnologies and selection programs. The use of Artificial Insemination (AI) in the dairy industry speeded up this genetic progress tremendously. The massive use of frozen semen facilitates the transportation of genetic material - and business - across national borders. Often BCs do not only have domestic customers but also international clients with substantial distribution of genetic material to other countries. Differences in breeding objectives are to some degree a way to distinguish companies from each other. The bovine genetic market for the cattle farmers is huge, due to the availability of genetic material of different origin.

Since 2008 genomic breeding values are available for major dairy breeds. This paradigm shift in dairy cattle breeding has improved the rate of genetic improvement. It has lowered the age of used sires, has given health traits an increased progress and has enlarged the number of sires used in individual breeding programs. The introduction of “genomic” breeding programs has led to an increasing focus on female selection compared to “traditional” breeding programs did and resulting in programs for genomic (DNA) testing of large numbers of heifers.

In the cattle breeding sector, the competition between different companies is fierce. In every country and at many farms semen from different sources may be used for AI. The market is international and the customers need to compare information from several different countries. For this reason, it is important that estimation of international breeding values is as complete as possible and is covering all the important traits. During the last years, a comparison of genetic material from several countries has been made available through INTERBULL’s estimates of international breeding values for both “traditional” (based on progeny testing) and “genomic” (based on DNA testing) breeding. In September 2016 INTERBULL estimates breeding values for milk production, conformation, direct longevity, calving traits, workability and udder health. INTERBEEF has started to estimate international comparable breeding values for beef cattle, starting with Adjusted Weaning Weight.

2. Introduction

Give a brief description of the governance policy of the breeding company regarding the societal challenges as mentioned in the Code EFABAR General Document. Besides the 6 pillars of the Code EFABAR, take also Food Security into consideration.

¹ Breeding companies include all organisations responsible for breeding and reproduction of farm animals (e.g., primary breeding, herdbook keeping, artificial insemination, embryo technology, hatchery, (grand) parent genetics, data recording).

3. Sustainability and Technologies

PART 1 SUSTAINABILITY

A. Food Safety and Public Health

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Reduction of antimicrobial usage by selecting more disease resistant and robust animals.	<i>To be filled by the company</i>	<i>To be filled in by the company</i>
Meat quality (related to food safety and public health) (for instance by minimizing the spreading of diseases).		
Milk quality (related to food safety and public health) (e.g. by minimizing the spreading of diseases)		

Management Element	Yes/No	If yes, give a short explanation If no, explain why not
Has the Breeding Company a biosecurity policy on its own premises (to avoid spreading zoonoses) and is it implemented?		
Has the Breeding Company an antimicrobial policy on its own premises and is it implemented?		

B. Product Quality

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Milk quality (fat, protein and lactose) (for instance nutritious value).		
Specific products for specific consumers (for instance Beta-casein A2A2).		
Somatic Cell Count (SCC) (related to product quality)		
Carcass and meat quality (nutritious value) -Dairy cattle -Beef cattle		



C. Genetic Diversity

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Genetic diversity within commercial breeds.		
Conservation of genes of commercial breeds (in situ or ex situ).		
Prevention of the high level of inbreeding		
Cross breeding (programs)		
Conservation of genes of rare and threatened breeds		

Management Element	Yes/No	If yes, give a short explanation If no, explain why not
Does the BC have or contribute to a gene bank for commercial breeds?		
Does the BC contribute to the conservation of genes of rare and threatened breeds?		

D. Resource Efficiency

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Longevity in general (dairy breeds)		
Fertility <ul style="list-style-type: none"> - female - male 		
Survival of young animals <ul style="list-style-type: none"> - at birth - at rearing 		
Growth rate		
Feed efficiency		
Water efficiency		
Energy efficiency		

Management Element	Yes/No	If yes, give a short explanation If no, explain why not
Has the Breeding Company a resource efficiency policy on its own premises and is it		

implemented?		
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E. Environment

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Reduction N and P emission (consider the reusability of these elements in the manure)		
Reduction Green House Gas (esp. CH ₄) emission		
Reduction NH ₃ emission		
Adaptation to climate change		

Management Element	Yes/No	If yes, give a short explanation If no, explain why not
Has the Breeding Company an environment policy on its own premises and is it implemented?		

F. Animal Health and Welfare

Breeding Element	Has the BC implemented this element in its breeding program, directly or indirectly? Yes/No	If yes, how has the BC implemented this element in its breeding program? If no, does the BC plan to address this element in its breeding program in the next 3 years? If no, why?
Mastitis and other udder health issues		
Metabolic diseases (e.g. ketosis, etc.)		
Fertility disturbance (e.g. metritis, retained placenta, cysts, etc.)		
Calving ease		
Feet and leg conformation		
Udder conformation (related to animal welfare)		
Claw health (related to health and welfare)		
Disease resistance against specific diseases		
Polledness (related to animal welfare)		
Decrease of congenital defects/malformations		



Management Element	Yes/No	If yes, give a short explanation If no, explain why not
Has the Breeding Company a biosecurity policy on its own premises (to avoid diseases and the spreading of diseases to other premises) and is it implemented?		
Has the Breeding Company a welfare policy on its own premises and is it implemented?		

PART II TECHNOLOGIES

A. Breeding Technologies

Element	Is the BC using these breeding technologies in its breeding practices? Yes/no; why, why not?
Genomics	
Progeny Testing	
Transgenesis	
Cisgenesis	
Gene-editing	

B. Reproduction Technologies

Element	Is the BC using these reproduction technologies in its reproduction practices? Yes/no; why, why not?
Artificial Insemination	
Sexing of semen	
Embryo production by superovulation stimulation followed by flushing/	
Embryo production by superovulation stimulation followed by ovum pick-up/	
Embryo transfer (ET) (attention for welfare)	
Cloning (ENCT and SNCT)	

4. Certification

We herewith declare that the content of this template expresses the breeding and reproduction policy of the company

Place:

Date:

Name and signature:

European Forum of Farm Animal Breeders (EFFAB)

We herewith state that this template complies with the CODE EFABAR Version 2017

Place: Brussels

Period of validity:

J. (Jan) G.B. Venneman, EFFAB, Director