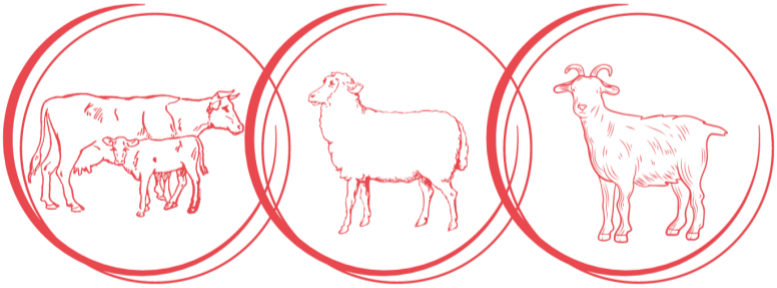
CODE • EFABAR

The commitment to responsible breeding

Species Specific Template
Code EFABAR



RUMINANT
Code EFABAR 2023
7th Edition

Company: _____

Table of Contents

The code of good practices for ruminant breeding

1 Introduction

1.1 Impact and structure of breeding in the EU ruminant sector

1.1.1. Past and Present

In the last three decades, breeding companies/organisations (BC/O) have evolved their breeding schemes/programmes by considering sustainability, animal health, and welfare. These aspects have been translated into six pillars, the foundation of modern responsible and balanced breeding and Code EFABAR.

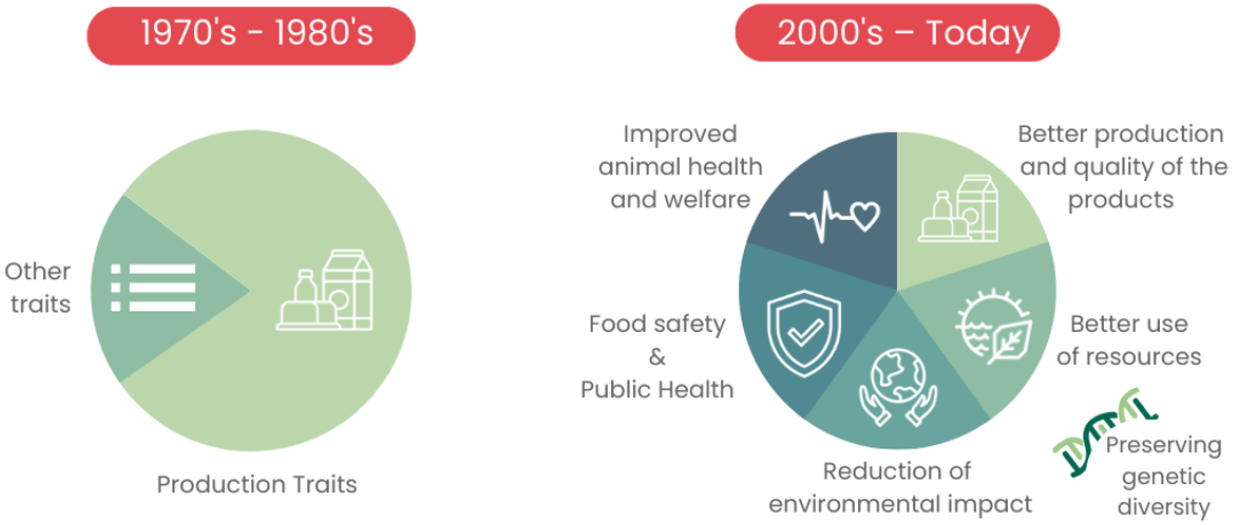


Figure 1 The pie charts represent the progress in the last 50 years in animal breeding.

Modern breeding consists of defining a balanced combination of traits to ensure the sustainability of the different production systems. The **combination of these traits varies from region to region/country to country and production system to production system**; the choice of farmers and many other factors related to the availability of resources and other social, environmental, political, and economic situations. Modern ruminant breeding is based on these principles:

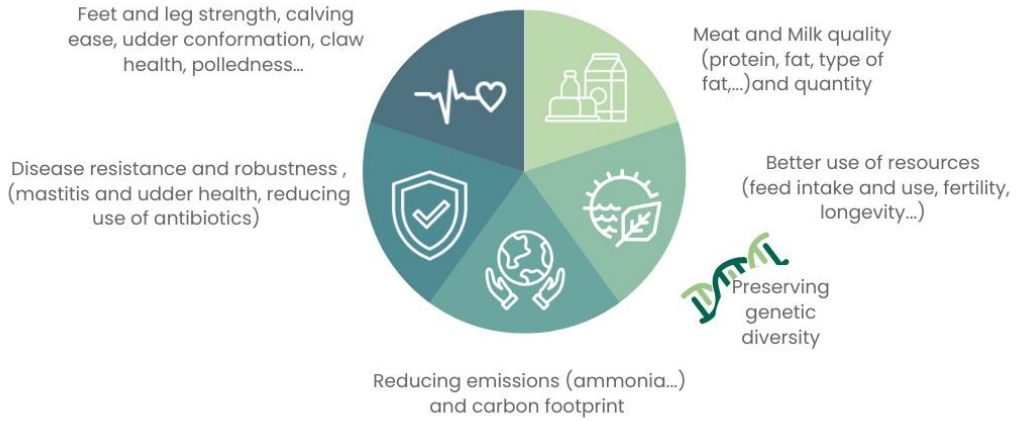


Figure 2 Modern Ruminant breeding: defining a balanced combination of traits to ensure the sustainability of the different production systems.

1.1.2. Modern Ruminant Breeding

Modern ruminant breeding programs are developed under responsible and balanced breeding and aim to produce healthy and resilient cattle, sheep, and goats for various ruminant production systems, including conventional, organic, and those adhering to high-quality schemes. The objective is to breed animals that thrive in their environment, resist diseases and environmental challenges, use fewer resources such as feed and water, and have a smaller impact on the environment. Collectively, the components of this objective promote breeding for sustainable livestock that not only have a smaller impact on climate change but are also adept at adapting to it.

Within the ruminant breeding sector, structured breeding systems and controlled breeding techniques are crucial in achieving these goals. These systems utilise targeted breeding objectives and advanced reproductive technologies, such as artificial insemination (AI) and embryo transfer (ET). Embryo transfer, a method of genetic improvement, involves collecting embryos from genetically superior donor dams and transferring them to recipient females. This technique allows for the replication of genetics from exceptional individuals, thereby contributing to the conservation of valuable genetic lines.

AI centres are instrumental in these breeding programs. They are specialised facilities where semen is collected from genetically superior males. Depending on the species, semen might be frozen (or not) for artificial insemination, and subsequently, in cattle, the semen may be sorted into "female" or "male" sperm cells. The AI centre's highly trained technicians collect semen from superior sires with desirable genetic traits in several market circumstances; these sires are identified by breeding companies. The collected semen is carefully processed, evaluated for quality, and/or cryopreserved for distribution, and stored in controlled conditions to maintain viability. This allows for the widespread dissemination of superior genetics throughout the commercial population.

Additionally, in the context of elite mating (sire dam x bull dam) selected based on breeding value estimates, AI centres play a vital role in optimising the genetic potential of the breeding animals. These elite mating are carefully chosen to maximise desirable traits and improve genetic progress in cattle, goats, and sheep.

While AI is commonly employed across ruminant species, the use of ET varies. In cattle breeding, ET has become a well-established and widely utilised method for genetic improvement. In contrast, in sheep and goat breeding, the adoption of ET has been more limited due to factors like sector size, reproductive physiology, and cost considerations.

In summary, the current state of modern ruminant breeding programs focuses on developing healthy, resilient animals with high production capacity (milk, meat, wool, etc.) through responsible and balanced breeding practices. By emphasising traits such as robustness, disease resistance, and environmental adaptability and utilising advanced reproductive techniques like AI and ET, these programs work toward sustainable agriculture and producing high-quality ruminant products while ensuring continual genetic progress in the sector. The distinctions in breeding schemes across cattle, goats, and sheep highlight each species' unique challenges and opportunities.

1.1.3. Vision for the future

The vision for the future of ruminant breeding is centred around leveraging advancements in technology and genetic knowledge to drive sustainable and efficient livestock production. The status of ruminant breeding already embraces techniques like artificial insemination, genomic selection, and embryo transfer techniques, which have significantly improved genetic progress. Integrating advanced phenotyping tools, such as automated body condition scoring, feed intake monitoring, infrared spectroscopy, robot milking and identifying novel genetic markers for disease resistance, will enable more accurate selection and breeding decisions.

Big data analytics and machine learning algorithms contribute to the analysis of large amount of genomic and performance data to identify genetic markers associated with desired traits. These technologies and the next ones offered by artificial intelligence will give breeders precise insights into an animal's genetic potential and help accelerate genetic progress in productivity, health, and environmental sustainability traits.

The future of ruminant breeding holds tremendous promise, underlined by various factors that collectively aim to improve productivity and sustainability in a socially acceptable manner. Central to this optimistic outlook is the ability of breeders to employ genomic selection, enabling the early identification of animals with superior genetic potential. This expedites the breeding process and substantially saves valuable time and resources.

Moreover, the landscape of ruminant breeding is being reshaped by emerging technologies such as gene editing and gene drives. These tools allow breeders to make precise genetic changes, improving desired traits within ruminant populations. Complementing these advancements are reproductive technologies like in-vitro fertilisation and embryo sexing, providing breeders greater control over the genetic composition of their herds. The benefits and opportunities stemming from these technologies are multifaceted. They encompass improved animal welfare, a reduced environmental impact, improved disease resistance, possibilities for strategic crossbreeding (e.g., beef on dairy), and increased overall efficiency in both meat and milk production.

Looking ahead, the trajectory of ruminant breeding hinges on the integration of cutting-edge technologies such as genomic selection, precision phenotyping, and data analytics. These tools empower breeders to make informed decisions, ensuring a more streamlined and effective approach to genetic progress. Furthermore, the potential introduction of novel traits and increased genetic diversity through gene editing and gene drives shows a new frontier in the field.

Crucial to the realisation of this promising future is collaboration. The synergy between breeders, researchers, and technology developers is essential in unlocking the full potential of these innovations. This collaborative effort is not only a testament to the interdisciplinary nature of the field but also a key driver in pushing the boundaries of what ruminant breeding can achieve.

In summary, the future of ruminant breeding is characterised by innovation and collaboration, leading to the development of healthier, more efficient, and environmentally sustainable livestock. This, in turn, significantly contributes to global food security and addresses the evolving demands of agriculture and society. The sector is on a positive path, signifying a promising time for ruminant breeding.

1.2 Contribution to the United Nations Sustainable Development Goals (UN SDGs)

Sustainable production is becoming a significant focus across the farmed animal sector in order to ensure that efficient and high-output systems are environmentally friendly. The United Nations have agreed on 17 sustainability development goals to be addressed by various industrial and production methods (https://sustainabledevelopment.un.org/). Ruminant production systems have the ability to address 6 of these goals, as summarised below directly:

Figure 3 The ruminant breeding sector contributes to these six UN SDGs

1.3 The vision and the role of _____ towards their journey to sustainable and balanced breeding

This section asks BC/O to describe their vision and how they implement it through breeding goals. It's important to mention the variety of livestock systems to which the companies provide genetics, and which are the difference between breeding programs and goals for those different systems, if any.

2 Responsible and balanced breeding

Responsible and balanced animal breeding in ruminants encompasses strategies to maintain the long-term well-being of terrestrial animals, the environment, and expectations from the food supply chain and society. It emphasises achieving a balance between genetic improvement and preserving **genetic diversity**. Additionally, it prioritises the **efficient utilisation of resources**, **improving animal health and welfare**, **safeguarding the environment, and ensuring public health and food safety**.

These principles, collectively known as the six pillars of Code EFABAR, form the foundation of responsible ruminant breeding practices.

Guidelines and Instructions for Breeders

This section will explore the breeding and management elements incorporated into your breeding company's (BC) breeding programme for each of the 6 pillars:

1. We will examine the implementation of specific breeding and management elements and request detailed information on how each element is incorporated. If any elements still need to be implemented, we encourage you to share the reasons behind this decision, fostering a transparent understanding of your breeding practices.

2. Additionally, we kindly request data showcasing the progress made; this can be confidential data or published papers. Please note that **EFFAB respects confidentiality**, and all information provided will be considered confidential unless explicitly stated otherwise.

3. Alternatively, describe the current progress and provide insights into the expected advancements for each breeding element.

Figure 4 The six pillars of Code EFABAR

These questions aim to facilitate a comprehensive understanding of your breeding programme and its achievements. By sharing your self-regulated practices, we can collectively promote the importance of balanced and sustainable breeding programmes to a wider audience, including stakeholders, policymakers, and the broader society.

2.1 Animal Health and Welfare

This pillar focuses on ensuring the well-being of farm animals. It involves breeding practices that breed animals with genetic traits for disease resistance or resilience, ensuring that the need for antibiotics is minimised. Additionally, management practices include providing appropriate housing, nutrition, and healthcare to maintain optimal animal health and welfare. Implementing strict biosecurity measures, proper hygiene, and effective disease prevention protocols is also part of the management practices. For example, breeding for resistance to diseases like mastitis in dairy cattle can be complemented by management practices such as regular monitoring and maintaining clean and comfortable animal conditions.

Have the following breeding elements been implemented in the BC/O breeding programme?		**Can you provide more details about how the breeding element has been implemented? And if not, why not?**	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant? Alternatively, describe the current and expected progress.
Liveability	☐Yes ☐No ☐NA		
Mastitis and other udder health issues	☐Yes ☐No ☐NA		
Metabolic diseases (e.g., ketosis, etc.)	☐Yes ☐No ☐NA		
Fertility disturbance (e.g., metritis, retained placenta, cysts, etc.)	☐Yes ☐No ☐NA		
Calving ease	☐Yes ☐No ☐NA		
Feet and leg conformation	☐Yes ☐No ☐NA		
Udder conformation (related to animal welfare)	☐Yes ☐No ☐NA		
Claw health (related to health and welfare)	☐Yes ☐No ☐NA		
Disease resistance against specific diseases	☐Yes ☐No ☐NA		
Polledness (related to animal welfare)	☐Yes ☐No ☐NA		
Genetic defects (Note: Please list defects for dairy and beef)	☐Yes ☐No ☐NA		
Young animal survival/resilience	☐Yes ☐No ☐NA		
Young animal robustness	☐Yes ☐No ☐NA		
Docility	☐Yes ☐No ☐NA		

Heat Tolerance	☐Yes ☐No ☐NA		
Positive Behaviour	☐Yes ☐No ☐NA		
Positive Social Interaction - Within herds - Human	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Are there any other breeding elements that are important to your BC/O and should be considered?	☐Yes ☐No		
Have the following management elements been implemented in the BC/O breeding programme?		**If yes, give a short explanation and provide supporting documents if possible.**	**If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?**
Has the BC/O a biosecurity policy on its own premises (to avoid diseases and the spreading of diseases to other premises) and is it implemented?	☐Yes ☐No ☐NA		
Has the BC/O a welfare policy on its own premises making a reference to the Five Freedoms[1] : Or Five Domains[2] : and is the welfare policy implemented?	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Has the BC/O procedures to minimise stress when handling individuals?	☐Yes ☐No ☐NA		
Has the BC/O a policy on how to handle its animals prior to and during transport and is it implemented?	☐Yes ☐No ☐NA		
Has the BC/O a policy in place to periodically train and update its animal	☐Yes ☐No ☐NA		

[1] Five Freedoms: https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-welfare/
[2] Five Domains: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5575572/

care takers on how to manage and handle the animals and is it implemented?			
Has the BC/O a monitoring programme to ensure welfare of animals during mid/long distance routes?	☐Yes ☐No ☐NA		
Can the BC/O list the bio-securities measured applied during the safe transport of the animals?	☐Yes ☐No ☐NA		
Does the BC/O have its own internal transportation protocol?	☐Yes ☐No	Given yes, please fill in the annex A2	
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	List here:	

2.2 Environment

This pillar emphasises minimising the environmental impact of farming operations. Breeding efforts focus on selecting animals that have reduced greenhouse gas emissions or improved nutrient utilization. Management practices include implementing sustainable farming techniques such as carbon dioxide monitoring and reduced use of chemicals. For instance, in the beef sector, breeding for improved feed efficiency can be combined with management practices like rotational grazing or agroforestry to minimise environmental impact.

Have the following breeding elements been implemented in the BC/O breeding programme?		**Can you provide more details about how the breeding element has been implemented? And if not, why not?**	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant? Alternatively, describe the current and expected progress.
Reduction N and P emission (consider the reusability of these elements in the manure)	☐Yes ☐No ☐NA		
Reduction Green House Gas (esp. CH_4) emission (Note: provide progress as emission per kg of milk)	☐Yes ☐No ☐NA		
Reduction NH_3 emission	☐Yes ☐No ☐NA		
Increase Efficiency - Feed - Water - Nitrogen Use	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Improve protein-urea ratio yield	☐Yes ☐No ☐NA		
Age at Slaughter	☐Yes ☐No ☐NA		
Are there any other breeding elements that are important to your BC/O and should be considered?	☐Yes ☐No		

Have the following management elements been implemented in the BC/O breeding programme?		**If yes, give a short explanation and provide supporting documents if possible.**	**If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?**
Has the BC/O an environment policy on its own premises and is it implemented?	☐Yes ☐No ☐NA		
Does the BC/O have a policy to reduce carbon footprint?	☐Yes ☐No ☐NA		
Does the BC/O do a routine review to monitor improvement on the environmental impact?	☐Yes ☐No ☐NA		
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	**List here:**	

2.3 Better Use of Resources

This pillar aims to optimise resource utilisation in animal production. Breeding involves selecting animals with improved feed conversion efficiency or reduced water consumption. Management efforts focus on efficient feeding strategies, resource allocation, and waste reduction. For example, in dairy goats, breeding for improved feed efficiency can be coupled with management practices such as precision feeding to minimise feed losses during storage and feeding.

Have the following breeding elements been implemented in the BC/O breeding programme?		Can you provide more details about how the breeding element has been implemented? And if not, why not?	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant? Alternatively, describe the current and expected progress.
Longevity	☐ Yes ☐ No ☐ NA		
Maternal Fertility	☐ Yes ☐ No ☐ NA		
Paternal Fertility	☐ Yes ☐ No ☐ NA		
Survival of young animals - at birth - at rearing - until slaughter	☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA		
Daily gain	☐ Yes ☐ No ☐ NA		
Efficiency - Feed Efficiency - energy efficiency - protein efficiency	☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA ☐ Yes ☐ No ☐ NA		
Water efficiency	☐ Yes ☐ No ☐ NA		
Nitrogen Efficiency	☐ Yes ☐ No ☐ NA		
Methane Efficiency	☐ Yes ☐ No ☐ NA		
Age at first Calving	☐ Yes ☐ No ☐ NA		
Mature Live-Weight	☐ Yes ☐ No ☐ NA		
Libido	☐ Yes ☐ No ☐ NA		
Milking speed	☐ Yes ☐ No ☐ NA		
Beef on dairy combined with sexed semen in purity breed	☐ Yes ☐ No ☐ NA		

Are there any other breeding elements that are important to your BC/O and should be considered?	☐Yes ☐No		
Have the following management elements been implemented in the BC/O breeding programme?		**If yes, give a short explanation and provide supporting documents if possible.**	**If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?**
Has the BC/O a resource efficiency policy on its own premises and is it implemented?	☐Yes ☐No ☐NA		
Has the BC/O procedures for processing of or reuse of residual products?	☐Yes ☐No ☐NA		
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	**List here:**	

2.4 Genetic diversity

This pillar highlights the importance of maintaining genetic diversity within farm animal populations. Breeding strategies aim to preserve diverse gene pools and avoid excessive inbreeding. Management practices involve maintaining accurate pedigree records and implementing controlled mating. For instance, implementing a structured breeding program in the ruminant sector can help conserve rare or endangered cattle, sheep and goat breeds, with management practices such as promoting breed conservation initiatives and facilitating controlled mating.

Have the following breeding elements been implemented in the BC/O breeding programme?		Can you provide more details about how the breeding element has been implemented? And if not, why not?	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant? Alternatively, describe the current and expected progress.
Maintaining genetic variation in commercial breeds	☐Yes ☐No ☐NA		
Conservation of genes of commercial breeds (in situ or ex situ)	☐Yes ☐No ☐NA		
Cross breeding (programs) - For Hybrid Vigour - Rescue Rare Species	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Maintaining pure breed populations	☐Yes ☐No ☐NA		
Conservation of genes of local and indigenous breeds	☐Yes ☐No ☐NA		
Provision of mating programs for farmers to control inbreeding	☐Yes ☐No ☐NA		
Genomics-based parentage testing implemented (using STR or SNP markers)	☐Yes ☐No ☐NA		
Have the following management elements been implemented in the BC/O breeding programme?		If yes, give a short explanation and provide supporting documents if possible.	If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?

Does the BC/O have or contribute to a gene bank for commercial breeds?	☐Yes ☐No ☐NA		
Does the BC/O contribute to the conservation of genes of local and indigenous breeds?	☐Yes ☐No ☐NA		
Does the BC/O safeguard valuable genetic resources against future disasters such as disease outbreaks?	☐Yes ☐No ☐NA		
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	List here:	

2.5 Product Quality

This pillar focuses on improving the quality of animal products such as meat, milk, or fibre. Breeding efforts aim to select animals with genetic traits that contribute to enhanced product quality. Management practices include proper animal handling, nutrition, and processing techniques. As an example, breeding for improved meat tenderness in beef cattle can be complemented by management practices such as appropriate animal handling, minimising stress during transportation and slaughter, and utilising proper ageing and processing techniques.

Have the following breeding elements been implemented in the BC/O breeding programme?		Can you provide more details about how the breeding element has been implemented? And if not, why not?	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant? Alternatively, describe the current and expected progress.
Carcass and meat quality (nutritious value)	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Maternal Weaning Weight	☐Yes ☐No ☐NA		
Milk quality (fat, protein and lactose) (for instance nutritious value).	☐Yes ☐No ☐NA		
Somatic Cell Count (SCC) (related to product quality)	☐Yes ☐No ☐NA		
Specific products for specific consumers (for instance Beta-casein A2A2; Casein BB).	☐Yes ☐No ☐NA		
Milk Coagulation ability	☐Yes ☐No ☐NA		
Meat Quality (IMF content)	☐Yes ☐No ☐NA		
Fatty acid composition of milk	☐Yes ☐No ☐NA		
Are there any other breeding elements that are important to your BC/O and should be considered?	☐Yes ☐No		

Have the following management elements been implemented in the BC/O breeding programme?		If yes, give a short explanation and provide supporting documents if possible.	If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?
Does the BC/O have feeding strategy to monitor milk content and quality? E.g. improve casein content, milk acidity, milk mineral content	☐Yes ☐No ☐NA		
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	List here:	

2.6 Food Safety and Public Health

This pillar emphasizes the importance of producing safe and healthy food while minimizing risks to public health. Breeding practices target genetic traits that reduce the risks of foodborne pathogens or enhance resistance to diseases that can affect humans. Management efforts include implementing strict biosecurity measures, proper hygiene practices, and effective disease surveillance systems. For example, breeding for increased resistance to zoonotic diseases like tuberculosis or brucellosis in dairy cattle can be supported by management practices such as regular veterinary checks, vaccination programs, and appropriate quarantine procedures.

Have the following breeding elements been implemented in the BC/O breeding programme?		Can you provide more details about how the breeding element has been implemented? And if not, why not?	Can you provide data to show progress in the last 3 years and include the animal's stage of life the data is relevant to? Alternatively, describe the current and expected progress.
Reduction of antimicrobial usage by selecting more disease resistant and robust animals.	☐Yes ☐No ☐NA		
Disease Resistance to ensure food safety and public health: - Bovine Paratuberculosis - Scrapie (Sheep and Goat)	☐Yes ☐No ☐NA ☐Yes ☐No ☐NA		
Meat quality (related to food safety and public health) (for instance by minimizing the spreading of diseases).	☐Yes ☐No ☐NA		
Milk quality (related to food safety and public health) (e.g., by minimizing the spreading of diseases) - Antioxidant content in milk/meat yield -Iodine content in milk -Lactoferrin content in milk	☐Yes ☐No ☐NA		

Are there any other breeding elements that are important to your BC/O and should be considered?	☐Yes ☐No	List here:	
Have the following management elements been implemented in the BC/O breeding programme?		If yes, give a short explanation and provide supporting documents if possible.	If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?
Has the BC/O a biosecurity policy on its own premises (to avoid spreading zoonoses) and is it implemented?	☐Yes ☐No ☐NA		
Has the BC/O an antimicrobial policy on its own premises and is it implemented?	☐Yes ☐No ☐NA		
Has the BC, as part of their biosecurity processes, procedures to reduce the potential risk of contamination from staff and equipment?	☐Yes ☐No ☐NA		
Are there any other management elements that are important to your BC/O and should be considered?	☐Yes ☐No	List here:	

3 RESPONSIBLE USE OF TECHNOLOGIES

Modern animal breeding comes with advancements in tools and technologies used for breeding and reproduction. Therefore, prioritising the conscientious and ethical application of technologies in breeding, considering the welfare of the animals, their genetics, the environment in which they evolve, the resources available and their optimal use, the quality of the products, the one health concept, and broader ethical implications are crucial.

- Is the BC/O responsibly using established breeding and reproduction technologies? (e.g., Genomic Selection, BLUP, Artificial Insemination, Embryo Transfer, Performance and Progeny testing)?

  ☐Yes ☐No

- If yes, which ones and for which purpose

Technology used	Purpose (Benefits)

- What does responsibly mean in this context for the BC?

- Is the BC/O responsibly using new breeding or reproduction technologies (e.g., Novel Traits, Precision Livestock Breeding for new traits in welfare, or product quality, Marker Assisted Selection, Genomic Prediction, Gene Editing, Cloning)?

  ☐Yes ☐No

  If yes, which ones (trait or equipment) and for which purpose?

Technology used	Purpose (Benefits)

- Is BC/O excluding any technologies? Why?

4 RESEARCH, INNOVATION AND PUBLIC PERCEPTION

Research, innovation, and public perception are vital in modern ruminant breeding. The research contributes to advancements in genetics, health, nutrition, and breeding technologies, enabling the identification of desirable traits and the development of efficient breeding strategies. The innovation introduces new tools and practices that enhance productivity, sustainability, and the welfare of species farmed in ruminants. Additionally, public perception guides the sector towards transparent and ethical practices, aligning breeding systems with societal values and fostering trust between breeders and consumers. Integrating research, innovation, and public perception ensures modern ruminant breeding practices' continuous improvement and responsible development.

- Does the BC/O invest in research and development in new breeding and reproductive technologies and novel traits?

  ☐Yes ☐No

- Which ones and for what?

- Does the BC/O collaborate with research institutes?

  ☐Yes ☐No

- What novel traits or breeding goals should be considered for ruminant breeding in the future?

- Is the BC/O aligned with the principle of the Three Rs principle[3] (3Rs)/Responsible research and innovation[4](RRI) when using animals for research and innovation (RI)?
- ☐Yes ☐No

  - If not, what is BC's current policy to ensure welfare and ethics are applied during RI?

- Does the BC/O take action to engage with society and other stakeholders? (e.g., advocate animal health and welfare, balance ruminant breeding, etc.)

  ☐Yes ☐No

- How is the BC/O collaborating and for which purpose? (E.g., at the consumer or farmer level, Balanced Breeding advocacy, etc.)

[3] The three Rs (3Rs): https://ec.europa.eu/health/scientific_committees/opinions_layman/en/non-human-primates/glossary/tuv/three-rs-principle.htm

[4] Responsible Research and Innovation (RRI): https://op.europa.eu/en/publication-detail/-/publication/ee9bacdf-fdad-46eb-8cd8-32879e310191/language-en

5 Breeding Policy Declaration

Company Name:
Manager/CEO Name:

We are committed to ensuring that the rules of Code EFABAR are implemented and maintained throughout our operational and producing activities related to animal breeding and reproduction.
This is achieved by:

1. Compliance and implementation of the relevant and applicable legislation.
2. Implementation of Good Practices for Responsible and Balanced Breeding and Reproduction as indicated in the Code EFABAR, Version 2023.
3. Information and training of our staff in Code EFABAR requirements to ensure that it is continuously implemented.

Date:
Signature:

6 Declaration of Approval by the EFFAB Director

Having evaluated the indications as provided by the applicant breeding/reproduction company,
I have come to a conclusion and propose that the certificate of compliance, according to the regulations of Code EFABAR shall be issued to the applicant.

Date:

Place: Brussels
Period of validity:
EFFAB Director Signature:

7 ANNEXE

7.1 Animal Health and Welfare: Transport of breeding animals

Has the following transportation policy element been implemented in the BC/O breeding programme?		If yes, give a short explanation and provide supporting documents if possible.	If no, can you explain why? Is there a possibility for these management elements to be implemented in the next 3 years?
Are all persons involved with the transport of breeding animals aware of and comply with any current EU/National/international Legislation and Codes of Practice that apply to the movement of breeding animals? And in particular to 1/2005 EC[5]	☐Yes ☐No ☐NA		
Does the Breeding Company (BC) have an appointed Animal Welfare Officer that put in place and supervises the transport procedures and contingency plans?	☐Yes ☐No ☐NA		
Is the BC/O checking all the certificates and authorizations of the operator transporting livestock on behalf of the BC?	☐Yes ☐No ☐NA		
Is the vehicle in use being maintained and kept in a condition which ensures that all animals can be transported under the expected conditions to which it was designed to ensure biosecurity and animal welfare?	☐Yes ☐No ☐NA		
Does the BC/O check that transport and resting times are respected?	☐Yes ☐No ☐NA		

[5]Council Regulation on the protection of animals during transport: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L:2005:003:FULL

Are all relevant legislation in relation to stocking density during transport of any species applied?	☐Yes ☐No ☐NA		
Has the BC/O a robust policy to check that breeding animals fit for transport before leaving?	☐Yes ☐No ☐NA		
Has the BC/O put in place ways to ensure that the temperature in the means of transport is in the range foreseen in the legislation?	☐Yes ☐No ☐NA		