

ANIMAL WELFARE IN THE BRAZILIAN PRODUCTION CHAIN

EVOLUTION AND AMBITIONS
FOR THE FUTURE



COBEA

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01

PREFACE

DEDICATION

COBEA dedicates this report to the memory of Professor Mateus Paranhos da Costa, who sadly passed away in 2025, and pays tribute to Professor Adroaldo Zanella and Dr. Temple Grandin, three professionals whose careers have been fundamental to advancing the science and practice of animal welfare in Brazil and globally.

Professor Mateus Paranhos da Costa was one of Brazil’s leading authorities on animal welfare and one of the pioneers in establishing this field of science in the country. With sensitivity, scientific rigor, and a profound understanding of the realities of livestock production, he demonstrated that animal welfare is not only an ethical commitment but also an essential factor for efficiency, sustainability, and production quality. His ability to translate science into practical solutions helped transform the way Brazilian producers, companies, and researchers understand and implement animal welfare. His legacy lives on in the work of all those who had the privilege of learning from him.

Professor Adroaldo Zanella, professor at the University of São Paulo, has played a decisive role in consolidating animal welfare as a scientific discipline in Brazil. His career, built through research institutions in Brazil and abroad, has connected Brazilian scientific research with the leading international discussions in the field. His work has expanded the understanding of the relationship between animal health, sustainability, behaviour, and animals’ emotional states, trained new generations of researchers, and strengthened the presence of Brazilian science in the global animal welfare community.

Dr. Temple Grandin is a global pioneer in humane livestock handling who revolutionized the design of facilities for farm animals. Her extraordinary ability to translate knowledge of animal behaviour into practical solutions has transformed livestock production worldwide. Throughout her many visits to Brazil she has shared her knowledge, inspired professionals, producers, and companies, and contributed directly to improvements in animal handling, infrastructure, and the adoption of improved animal welfare practices across the country.

The legacy of these three professionals lies not only in what they produced, but also in what they made possible. COBEA and this first publication are among those outcomes: a pioneering initiative that exists only because they paved the way—scientifically, institutionally, and culturally—for animal welfare to be addressed with the rigor and centrality it holds in Brazil today. COBEA carries this legacy forward through its commitment to promoting animal production based on science, collaboration, and continuous improvement.

We express to them our deepest admiration, respect, and gratitude.

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OBJECTIVES AND TARGET AUDIENCES OF THIS REPORT

COBEA (the Brazilian Food Industry Collaboration for Animal Welfare) was conceived by the certification body Produtor do Bem in 2024 with the purpose of advancing animal welfare in Brazil. The initiative brings together all links in the animal protein value chain in a collaborative and pre-competitive model designed to facilitate progress and overcome barriers to improvement.

To guide the initiative and define collective action priorities, we consolidated our understanding of the key concepts of animal welfare in our approach document, published in June 2025¹. Building on that publication, this report further structures our process by analyzing the current state of animal welfare in Brazil's production chain and the evolution of the topic to date, including examples of good practices and identifying the most significant current gaps.

We use the definition of animal welfare established by the World Organisation for Animal Health (WOAH/OMSA) together with the scientific Five Domains model to guide desirable ambitions for the future. Based on this framework, the report examines the main challenges and opportunities facing Brazilian livestock production across the five key sectors.

The report was developed collaboratively, with contributions from specialists from each sector and from COBEA member companies, and will serve as the foundation for defining future priorities and sector-specific projects focused on developing practical solutions.

This report is primarily intended for all stakeholders involved in animal protein production in Brazil who wish to contribute to the continuous improvement of animal welfare and strengthen the country's role as a global reference in best practices. This is a complex challenge that requires engagement across the entire value chain.

For COBEA, animal welfare is a non-negotiable pillar of the protein supply chain: more than a market requirement, it is an irreversible commitment that drives profitability, sustainability, resilience, and reputation. This is the moment for the sector to act proactively, by aligning expectations and collectively defining ambitions for the future.

Through an ongoing process of alignment and dialogue — not only nationally, but also with organizations in other countries — it will be possible to develop robust strategies, manage risks, and avoid potential negative impacts. In its first year of operation, COBEA has taken the initial steps toward building a collaborative model around animal welfare in Brazil, and invites you to be part of this journey.

¹ COBEA's Approach to Animal Welfare, available at: https://cobeacom.br/wp-content/uploads/2025/10/Abordagem-COBEA_10_06_2025.pdf

INTRODUCTION

Over the past decade, animal welfare has become a highly relevant topic in Brazil, increasingly embedded in scientific, social, political, and economic discussions. Recognized as one of the world's largest producers and exporters of animal protein — and characterized by a strong agricultural sector alongside a culture of close coexistence with animals — Brazil has seen the issue move beyond technical discussions into ethical and cultural dimensions.

This shift in perspective creates logistical, technological, and cultural challenges for the production sector, while also opening business opportunities and positioning Brazil as a country with the potential for global leadership.

Understanding the current state of animal welfare in Brazilian agriculture is essential not only to meet regulatory and market standards, but also to promote advances that directly impact public health and food quality. In addition, the growing awareness among Brazilian society regarding animal rights and responsible consumption, reinforces the urgency of discussing and assessing the current status of this issue.

The debate surrounding how animals are raised reflects not only concerns about sustainable and responsible production, but also changing social values. At the same time, the sector faces the challenge of aligning production and management practices with international expectations, in order to participate in the global movement toward sustainable and resilient food systems. Global trade in animal protein is expected to continue growing over the next decade across all major species, and Brazil is considered the country with the greatest potential to meet this demand.

In this context, many opportunities arise when companies invest in animal welfare. Intangible factors such as brand value and reputation — which today represent the majority of the value of companies listed in the S&P 500² — are strengthened by good animal welfare practices. A strategy well aligned with stakeholder expectations can generate competitive advantages, resulting in higher value-added products, stronger reputation, industry leadership, and early preparation for future regulations.

On the other hand, neglecting the issue creates clear risks such as public criticism, growing societal pressure regarding product origin, stricter legal requirements, and loss of trust among consumers and investors.

Within the industry, the coordinated adoption of standards can reduce costs while increasing credibility and trust, both for individual companies and for the sector as a whole. In addition, anticipating trends is essential for both public and private decision-makers, who face the choice of either leading transformations or simply being carried along by them.

Throughout history, change has not destroyed production systems, but rather strengthened them for the future by aligning them with new resources, technologies, and societal expectations. In this context, considering business impacts and integrating animal welfare into sustainability strategies has become indispensable in livestock production. Beyond being a pillar of sustainable production, appropriate animal management reduces losses and contributes to addressing the country's food supply challenges.

² S&P 500, short for Standard & Poor's 500, or simply S&P, is an index composed of five hundred assets listed on the NYSE or NASDAQ, qualified due to their market size, liquidity, and representation of the industrial group.

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CONTEXT

THE EVOLUTION OF ANIMAL WELFARE IN BRAZILIAN AGRICULTURE

The main animal protein sectors (swine, cattle, and poultry) have responded to market requirements and domestic and international demand for improved animal welfare practices through increased focus on traceability, genetic improvements, good management practices, reduction of painful procedures without anesthesia or analgesia, and humane slaughter, among other focus areas. There has also been a growing number of reports, benchmarks, and studies conducted by third-sector organizations that monitor and publicly disclose industry practices, increasing pressure for continuous improvement.

As a result, corporate transparency has gained importance, with animal welfare increasingly considered a key indicator of overall ESG performance. In global benchmarks such as the Business Benchmark on Farm Animal Welfare (BBFAW), most Brazilian companies included in the ranking have improved their performance in recent years, due to pressure from investors, international clients, consumers and regulators, among other stakeholders ³. Latin America has stood out within BBFAW largely because of the work and progress made by Brazilian companies. These tools increasingly focus on measurable outcomes and the reporting of impact indicators.

Several leading Brazilian companies have invested in disseminating good practices and strengthening animal welfare risk management by using indicators to monitor and evaluate suppliers of raw materials. This allows companies to prioritize and reward good practices while identifying critical points that require greater attention.

The major future focus will be large-scale traceability, both at production units and throughout third-party supply chains. In addition, professional training and qualification for people directly involved in animal handling, transportation, and slaughter have increasingly been developed and implemented — something many companies consider essential for progress.



CONDITIONS FOR ANIMAL WELFARE IN BRAZIL

Brazil possesses a number of natural advantages that support its potential for global leadership in animal welfare, including extensive availability of land and pasture, a diverse and predominantly tropical climate, and abundant water resources and adapted forage species. These advantages position Brazil to become a global leader in the production of animal-derived products under high animal welfare standards, particularly through cattle production systems that combine productivity, environmental stewardship, and high standards of animal welfare at scale.

These favourable conditions enable production systems that allow cattle to graze outdoors for much of the year and, particularly in beef production, reduce reliance on grain-based diets. This provides a strong foundation for sustainable livestock production while creating opportunities to adopt welfare-enhancing practices such as natural shade, Integrated Crop-Livestock-Forestry (ICLF) systems, and silvopastoral systems.

This leadership potential should also extend to poultry, swine, and aquaculture production, where increasing intensification requires innovative solutions capable of integrating production efficiency with animal quality of life. The principal challenge lies in transforming this potential into effective leadership through public policies, investment, awareness-raising, and value-creation mechanisms.

"Scientific progress has been a key driver of the evolution of animal welfare in Brazil. At the same time, increasing pressure from more demanding international markets and the continuous evolution of standards have prompted the sector to review and improve its animal management and production practices. Today, there is growing demand for greater transparency and higher animal welfare standards—a trend that is being accelerated by digitalization and the wider availability of information."

Tâmara Borges, Global Animal Welfare Manager, Minerva Foods

³ Note that BBFAW has developed more rigorous criteria over time, which makes comparisons with the latest iterations more difficult.

TRENDS RELATED TO ANIMAL WELFARE

1. International Market Expectations

In 2025, Brazil reinforced its position as one of the world's leading players in the pork industry, with record exports of approximately 1.51 million tonnes, representing an 11.6% increase compared to the previous year ⁴. The Philippines remained the leading destination for Brazilian pork exports ⁵.

In the broiler chicken sector, Brazil also maintained high export volumes, reaching approximately 5.3 million tonnes and consolidating its position as the world's largest poultry exporter. Export revenues remained close to USD 10 billion, with China among the main destinations alongside the United Arab Emirates, Japan, and Saudi Arabia ⁶. Brazil also remains one of the world's leading exporters of Halal-certified poultry, reinforcing its strategic position in Middle Eastern and Islamic markets ⁷.

Beef exports likewise remained at elevated levels. In 2025, Brazil exported approximately 3.5 million tonnes of beef, generating nearly USD 18 billion in revenue, driven primarily by Chinese demand ⁸.

The European Union and the United Kingdom are among the global leaders in animal welfare requirements and restrictions on antibiotic use. In these markets, products certified to higher animal welfare standards often receive premium prices and enjoy greater consumer acceptance. Demand continues to grow for sustainably and responsibly produced beef, pork, and poultry, as many consumers value transparent supply chains and are willing to pay more for such products. The anticipated Mercosur–European Union trade agreement presents important market opportunities for Brazil, but also brings challenges, including the transition away from practices that are increasingly viewed as unacceptable and the need for enhanced traceability systems.



In the United States and Canada, despite strong domestic production, niche markets exist for gourmet, organic, and antibiotic-free products. Fast-food chains and major retailers in these countries increasingly require international suppliers to comply with recognised animal welfare protocols.

The Middle East, particularly the Gulf countries, represents a growing market for premium Halal beef and poultry products. Countries such as the United Arab Emirates and Saudi Arabia increasingly value certifications related to animal welfare and food safety. In Asia—particularly Japan, South Korea, and Singapore—there is a growing segment of consumers willing to pay more for imported products that provide assurances regarding food safety and animal welfare. Japan, in particular, imports premium beef and places significant value on traceability. While most Chinese demand remains price-driven, a growing upper-middle-class consumer segment is seeking higher-quality food products with stronger guarantees regarding safety and animal welfare. For this market, the responsible use of antibiotics is becoming increasingly important.

Consequently, international demand for certified animal products continues to increase, and animal welfare requirements are increasingly being imposed either by buyers or by importing countries themselves. This trend requires adaptation throughout the supply chain. Transparency and traceability will undoubtedly be key themes in the future. It is becoming increasingly necessary to trace production chains in order to demonstrate that animals have been raised according to recognized animal welfare and sustainability standards.

The Organisation for Economic Co-operation and Development (OECD)⁹, which establishes international standards for responsible business conduct, and the Global Reporting Initiative (GRI)¹⁰, which provides the world's leading framework for sustainability reporting, both recognize and include animal welfare as an integral component of the social and environmental impacts associated with agricultural supply chains. As a result, animal welfare is increasingly incorporated into corporate due diligence processes, ESG risk management, responsible supply chain practices, and transparent sustainability reporting.

2. Consumers

Expectations regarding traceability and transparency have been growing significantly, perhaps even more so for companies operating within the food sector. Consumers, along with other stakeholders such as investors, regulators, NGOs, and the media, increasingly demand information about the origin of ingredients, the practices adopted throughout the production chain, and the social, environmental, and animal welfare impacts associated with production. In this context, the ability to monitor, verify, and communicate reliable information regarding suppliers, processes, and production standards has ceased to be a differentiating factor and has instead become an essential requirement.

Although awareness of animal welfare is growing in Brazil, the level of consumer understanding about this topic remains limited. Many consumers state that they value the issue, but do not always fully understand what it entails in terms of animal management, production systems, certifications, or price implications. Consumer trust has become increasingly central, particularly following the Covid pandemic, which heightened the importance of traceability, quality control, and clear communication regarding the origin of food products¹¹. However, the transparency within supply chains in Brazil remains relatively underdeveloped, making it more difficult for consumers to actively support higher-welfare production practices.

⁹ <https://www.oecd.org/en.html>

¹⁰ <https://www.globalreporting.org/standards/standards-development/sector-standard-for-agriculture-aquaculture-and-fishing-gri-13/>

¹¹ ABPA, Chicken meat exports reach a record in 2025. Available at: <https://www.cnnbrasil.com.br/economia/macroeconomia/exportacao-de-carne-de-frango-do-brasil-tem-recorde-em-ano-de-gripe-aviaria/>

⁴ ABPA, Brazilian pork meat exports grow 11.6% in 2025. Available at: <https://safras.com.br/exportacoes-brasileiras-de-carne-suina-fecham-2025-com-crescimento-de-116-aponta-abpa/>

⁵ Feed&Food Magazine, Brazil's pork exports hit a record and the Philippines lead as destinations. Available at: <https://feedfood.com.br/exportacoes-de-carne-suina-do-brasil-batem-recorde-e-pais-se-aproxima-do-terceiro-lugar-global/>

⁶ ABPA, Chicken meat exports reach a record in 2025. Available at: <https://www.cnnbrasil.com.br/economia/macroeconomia/exportacao-de-carne-de-frango-do-brasil-tem-recorde-em-ano-de-gripe-aviaria/>

⁷ Canal Rural, Brazil maintains leadership in halal chicken exports in 2025. Available at: <https://www.canalrural.com.br/aves-e-suinos/brasil-mantem-lideranca-nas-exportacoes-de-frango-halal-em-2025/?utm>

⁸ ABIEC, Brazil breaks record in beef exports in 2025. Available at: <https://abiec.com.br/brasil-bate-recorde-nas-exportacoes-de-carne-bovina-em-2025/>



When making purchasing decisions, Brazilian consumers generally place greater emphasis on food safety, quality, and price than on ethical considerations¹². Animal welfare is often valued indirectly, as it is associated with safer food production, rather than as a purchasing criterion in its own right. At the same time, Brazil's significant socioeconomic inequalities limit the ability of many consumers to pay a premium for products with ethical attributes. As a result, products produced to higher animal welfare standards are often positioned as premium offerings aimed primarily at higher-income market segments.

Further progress will require education and accessible communication initiatives that clearly demonstrate the relationship between animal welfare, health and food quality. Retailers, major brands, restaurants, and chefs have a strategic role to play in promoting transparency, supporting informed purchasing decisions, and increasing the visibility of responsibly sourced products. Such efforts help strengthen consumer perceptions of value and reinforce the legitimacy of animal welfare as an important issue. One particularly effective narrative is demonstrating how animals managed under better welfare conditions typically require lower levels of antibiotic use, thereby helping address the growing threat of antimicrobial resistance—a major global public health challenge.

3. Public Policy

Within Brazil's livestock sector, the legal and regulatory framework for animal welfare has continued to advance, particularly through federal regulations governing good management practices, animal transportation, and humane slaughter across different production sectors, as well as through updates to training and export requirements.

A notable example is Normative Instruction No. 113/2020 for the swine sector, which establishes timelines for the gradual replacement of practices associated with lower animal welfare standards, signaling the sector's transition toward higher welfare systems. Although regulations such as this are already in place, their scope and level of detail vary across different sectors and production systems.

Important regulatory revisions are currently underway. One example is Ordinance SDA No. 1,295/2025, which proposes stricter requirements for animal transportation, including lower stocking densities, adequate ventilation, and access to food and water during long journeys¹³. A new regulation for the poultry sector is also being developed and, according to the Ministry of Agriculture and Livestock (MAPA), will be a priority area for 2026. Other examples of government initiatives related to animal welfare include the Animal Welfare Center (Nubea) and the Technical Forum on Animal Welfare (FTBea), both of which are aimed at harmonizing technical and scientific guidelines¹⁴.

A challenge frequently highlighted by stakeholders is the existence of regulations at different levels—federal, state, and municipal—which can result in varying realities of implementation. Enforcement capacity and practical application differ across regions, reflecting differences in infrastructure, resources, and local priorities. In this context, strengthening coordination among different levels of government, expanding technical and institutional support, and promoting greater regulatory convergence are important steps toward ensuring more consistent and effective implementation of animal welfare standards throughout the country.

¹² For example, Zanetta et al., 2022. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC8833883>

¹³ <https://www.gov.br/agricultura/pt-br/acao-a-informacao/participacao-social/consultas-publicas/2025/consulta-publica-submete-a-consulta-publica-a-minuta-de-portaria-que-estabelece-regras-e-procedimentos-para-a-protecao-e-o-bem-estar-dos-animais-de-producao-durante-transporte-acompanhado-de-guia-de-transito-animais/PORTARIASDA-MAPA1.295DE3DEJUNHODE2025.pdf>

¹⁴ <https://www.gov.br/agricultura/pt-br/assuntos/defesa-agropecuaria/animal/bem-estar-animais/conceito>

Clear minimum standards covering all key production species have the potential to strengthen national production and improve competitiveness in more demanding international markets. Such requirements are particularly effective when accompanied by state or federal programs that encourage adoption of animal welfare practices through mechanisms such as favorable financing for facility upgrades, dedicated credit lines, subsidies, and specialized agricultural extension services.

It is equally important to ensure continuous training for veterinarians, animal scientists, and technical professionals so they can confidently apply best practices, use welfare indicators effectively, and interpret welfare data responsibly. Finally, integrating animal welfare into the One Health agenda¹⁵ is essential, reinforcing its direct relationship with public health, livestock health, and the sustainability of food production systems.

4. Academic Research

Within academia, animal welfare research has been advancing rapidly worldwide. Brazil has increasingly established itself as a reference in animal health and welfare research, contributing both to the advancement of scientific knowledge and to the development of practical solutions. One of the central areas of focus today is the development of more reliable physiological and behavioral indicators capable of assessing emotions, stress, pain, and mental well-being through standardized methodologies that facilitate comparisons and generate meaningful data for continuous improvement.

Digital technologies have accelerated this evolution. Biosensors, cameras, microphones, artificial intelligence, and computer vision systems for automated welfare monitoring—within the broader field of precision livestock farming—are already capable of monitoring temperature, crowding, vocalizations, and body expressions, providing early warnings of elevated risk, discomfort, and health problems.

¹⁵ <https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/u/uma-so-saude>

Emerging research is expanding these possibilities through bioacoustics, digital twins, big data, and predictive models that integrate environmental, behavioral, and physiological data to anticipate risks and support automated decision-making. The current challenge is no longer simply measuring welfare, but accurately interpreting signals and translating analysis into meaningful management improvements.

There is also growing interest in connecting animal welfare research with carcass losses, environmental sustainability, and climate change. For example, studies demonstrate how proper nutrition and effective management practices in ruminants can contribute to methane reduction, while factors such as temperature, humidity, and water scarcity directly affect animal welfare in terrestrial, aquatic, and wildlife systems. This reality is increasing the need for more resilient production systems—systems built around healthier, better-adapted animals with strong immune competence. There is also potential to improve behavioral traits through genetic progress, an area that deserves greater attention in future research efforts.

Despite important technical and conceptual advances, the sector continues to face limited investment in research, particularly in the development of solutions tailored to Brazilian production realities. Public-private partnerships have nevertheless helped drive research in priority areas such as the management of pigs with intact tails, more balanced-growth poultry genetics, and the responsible use of antibiotics.



Many of the challenges currently facing the livestock sector, such as tail biting, are multifactorial and require stronger integration between scientific research, technological innovation, and practical on-farm implementation, with the active involvement of producers.

A growing body of evidence demonstrates that investments in animal welfare improve not only animal well-being but also productivity, reduce production losses, and enhance operational resilience.

5. Reduced Use of Antimicrobials

Several studies conducted in recent years estimate that approximately 73% of all antibiotics sold globally are used in food-producing animals¹⁶, with many of the active ingredients also being important in human medicine. A substantial proportion of livestock animals continue to receive antibiotics as growth promoters and preventive treatments, reflecting both efforts to accelerate weight gain and the health challenges associated with housing large numbers of animals with limited genetic variability in intensive production systems. This widespread use has been identified as one of the primary drivers of antimicrobial resistance (AMR), including in human populations ¹⁷.

Because poor animal welfare is closely linked to weakened immune function and increased disease prevalence, reducing antimicrobial dependence has become a major challenge for the livestock sector. The industry bears significant responsibility for improving housing and management practices in ways that reduce reliance on antibiotics while helping preserve the effectiveness of these critically important medicines. Initiatives are already underway to monitor and restrict the use of high-risk substances, particularly those used as performance enhancers, and several classes of these products have already been prohibited by Brazil's Ministry of Agriculture¹⁸. At the same time, a growing number of Brazilian companies are actively promoting responsible antimicrobial use throughout their supply chains. The livestock sector as a whole must accelerate its transition toward responsible antimicrobial stewardship, building upon the progress achieved through Brazil's National Action Plan for the Prevention and Control of Antimicrobial Resistance in Agriculture (PAN-BR Agro).

Preventive strategies should be aligned with the guidelines established by the Interministerial One Health Committee and the National Antimicrobial Resistance Surveillance Program in Agriculture (AgroPrevine)¹⁹, thereby strengthening governance over the use of veterinary medicines.

This transition will require sustained investment in robust biosecurity programs and the adoption of innovative nutritional solutions such as prebiotics, probiotics, organic acids, and essential oils, which act as microbiome modulators and immune-supporting agents. By integrating epidemiological surveillance with precision livestock technologies, the sector can not only reduce its dependence on antibiotics but also reinforce its commitment to food safety and sustainability while helping mitigate the global risks associated with antimicrobial resistance.



¹⁶ For example, Tiseo et al., 2020. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC7766021>

¹⁷ <https://www.who.int/news-room/questions-and-answers/item/antimicrobial-resistance-in-the-food-chain>

¹⁸ <https://www.gov.br/agricultura/pt-br/assuntos/noticias/2022/mapa-proibe-o-uso-de-tilosina-lincomicina-e-tiamulina-como-aditivo-para-melhorar-o-desempenho-de-animais>

¹⁹ <https://www.gov.br/agricultura/pt-br/assuntos/insumos-agropecuarios/insumos-pecuarios/resistencia-aos-antimicrobianos/legislacao/agroprevine>

STARTING POINT FOR THE ANALYSIS PRESENTED IN THIS REPORT

COBEA's Approach to Animal Welfare

The document COBEA's Approach to Animal Welfare ²⁰, published in June 2025, presents the organization's vision, guiding concepts, and methodology for advancing animal welfare in Brazil. COBEA's work is grounded in science, collaboration, and continuous improvement. It begins with the recognition that no single company can solve the complex challenges associated with animal welfare on its own. Meaningful progress requires stronger coordination among producers, industry, retailers, consumers, civil society organizations, and academia.

COBEA has adopted the animal welfare definition established by the World Organisation for Animal Health (WOAH/OMSA) and recognizes the Five Domains Model as its scientific reference framework for understanding and evaluating animal welfare. The document also links animal welfare to sustainability principles and ESG considerations, emphasizing that animal welfare directly affects public health, responsible antibiotic use, environmental outcomes, and production efficiency. COBEA supports integrated frameworks such as One Health and One Welfare, which recognize the interconnection between human well-being, animal welfare, and environmental health ²¹.

²⁰ For example, Tiseo et al., 2020. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC7766021>

²¹ <https://www.who.int/news-room/questions-and-answers/item/antimicrobial-resistance-in-the-food-chain>

²² OMSA, 2025. Artigo 7.1.1. Terrestrial Animal Health Code. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_aw_introduction.htm

Finally, the organization proposed a structured process of continuous improvement that includes:

1. Integrating animal welfare into corporate sustainability strategies;
2. Engaging senior leadership and all levels of the organization;
3. Involving and monitoring the entire supply chain;
4. Providing training and technical support; and
5. Regularly evaluating and communicating progress.

In summary, the document establishes COBEA's collaborative, science-based, and evolutionary approach, which seeks to align Brazil's animal protein sector with internationally recognized animal welfare and sustainability standards, thereby facilitating greater alignment and positive impact throughout the value chain.

WOAH and the Definition of Animal Welfare

The animal welfare definition established by the World Organisation for Animal Health (WOAH, formerly OIE) is adopted by its 183 Member Countries and is widely used by governments, international organizations, veterinary associations, researchers, and NGOs because it is grounded in scientific evidence and global technical consensus. As an intergovernmental organization officially recognized by the World Trade Organization (WTO), WOAH establishes international animal health and welfare standards that carry significant weight in trade relations. These standards serve as references for legislation, public policy, export requirements, certification schemes, auditing protocols, and guidance developed by institutions such as the Food and Agriculture Organization of the United Nations (FAO), the European Union and European Food Safety Authority (EFSA), and various private-sector initiatives.

“Animal welfare refers to the physical and mental state of an animal in relation to the conditions in which it lives and dies. An animal experiences good welfare if it is healthy, comfortable, well nourished, safe, and free from pain, fear, and distress. It must also have the opportunity to express behaviors that are important to its physical and mental well-being. Good animal welfare requires disease prevention, appropriate veterinary care, adequate shelter, balanced nutrition, a safe and stimulating environment, responsible handling, and humane slaughter.”²²



The Five Domains

The scientific Five Domains Model of animal welfare was originally developed in 1994 by David J. Mellor and C. S. W. Reid and has continued to evolve over time, most notably through updates made after 2020²³. The model provides a comprehensive framework for evaluating and promoting animal quality of life by considering not only the absence of negative experiences but also the presence of positive experiences, which are essential for achieving good welfare. The Five Domains encompass Nutrition, Environment, Health, Behavior and Mental State. The fifth domain reflects the animal's subjective experiences—such as comfort, curiosity, pleasure, confidence, fear, or distress—which result from the conditions experiences across the first four domains.

This approach is widely recognized because it offers a holistic and scientifically robust understanding of animal welfare and serves as a practical guide for management practices, public policies, and corporate strategies aimed at continuous improvement. It is considered a clear, up-to-date, and practical scientific framework for assessing animal welfare in ways that are both measurable and communicable. Unlike earlier approaches, it explicitly incorporates animals' mental and emotional experiences, aligning with the recognition of animal sentience as a central principle.

²³ Mellor et al., 2020. The 2020 Five Domains Model: Including Human–Animal Interactions in Assessments of Animal Welfare. Available at: <https://www.mdpi.com/2076-2615/10/10/1870?utm>

Several international organizations directly reference the Five Domains Model in their guidelines and initiatives. WOAH uses it as a conceptual foundation for its global animal welfare standards; FAO incorporates it into publications related to sustainability and responsible production practices; and organizations such as international animal welfare NGOs and the Business Benchmark on Farm Animal Welfare (BBFAW) integrate its principles into their frameworks and recommendations. As a result, the Five Domains Model has become a globally recognized reference that helps governments, companies, and organizations establish continuous improvement goals and pursue constructive pathways toward better animal welfare.

Animal Welfare and Sustainability

A sustainable food system is one that provides food security and adequate nutrition for both present and future generations²⁴. This principle lies at the heart of the United Nations Sustainable Development Goals (SDGs) and according to the Food and Agriculture Organization of the United Nations (FAO), animal welfare is a public good, an integral component of the sustainable development of the livestock sector and is closely linked to food safety and quality, human and animal health, and rural development²⁵.

The Global Agenda for Sustainable Livestock (GASL) has stated that: "For livestock sector growth to be sustainable, it must simultaneously address key environmental, social, and economic challenges, including increasing scarcity of natural resources, climate change, widespread poverty, food insecurity, and global threats to animal and human health and animal welfare."²⁶

²⁴ OMSA, 2025. Artigo 7.1.1. Terrestrial Animal Health Code. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_aw_introduction.htm

²⁵ OMSA, 2025. Artigo 7.1.1. Terrestrial Animal Health Code. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_aw_introduction.htm

²⁶ Schneider, F. & Tarawali, S, 2021. Sustainable Development Goals and livestock systems. *Revue Scientifique et Technique* (International Office of Epizootics), 40(2), 585-595. Disponível em: <https://www.woah.org/app/uploads/2021/05/402-20-schneider.pdf>

Animal welfare is therefore intrinsically linked to all three pillars of ESG—Environmental, Social, and Governance—and must be managed through an integrated approach. To achieve long-term sustainability, companies need to consider these dimensions collectively, recognizing that decisions related to animal welfare have simultaneous implications for people, the environment, the animals in their care, and business performance.

One example of this relationship is that animals experiencing chronic stress are generally more susceptible to disease, which has direct implications for antimicrobial resistance (AMR), zoonotic disease control, and greenhouse gas emissions. Sick animals require greater use of medications, experience higher mortality rates, and are less efficient at converting feed into high-value protein. Consequently, the economic benefits of animal welfare are linked to improved productivity, greater longevity, reduced losses, and enhanced product quality.

Advancing animal welfare is also directly linked to global food security through the promotion of more efficient and responsible production systems. Good practices throughout the value chain contribute to more efficient use of natural resources and improved protein conversion efficiency, reducing losses, emissions, and environmental impacts while supporting climate change mitigation efforts.

The sustainability of food systems requires consideration of impacts throughout the entire value chain, including environmental, social, and animal welfare dimensions. Research indicates that the costs associated with these impacts can be substantial, although they are not always fully reflected in market prices. Because many of these impacts are not directly incorporated into production costs or product prices, they may receive insufficient attention in decision-making processes throughout the supply chain. Expanding the progressive integration of these considerations into production and purchasing decisions can strengthen their management and contribute to the transition toward more sustainable food systems²⁷.

As part of COBEA's long-term strategy, there is significant potential for collaboration with organizations working on social and environmental issues related to livestock production, ensuring that improvements made within existing systems generate benefits across all sustainability dimensions.

"The animal welfare agenda is becoming increasingly connected to the major challenges of global sustainability. Producing animal protein responsibly means considering the environmental, social, and economic impacts of production systems in an integrated manner. By promoting a shared understanding of these issues, COBEA helps accelerate progress, strengthen trust throughout the value chain, and expand opportunities for the sustainable development of the sector."

João Paulo Figueira, Sustainability Manager, Special Dog Company

Comment: Based on these globally recognized concepts and frameworks, the central question becomes: what do they mean in practice for animal protein production systems? For COBEA, the answer lies in progressively reducing negative impacts on animal welfare while simultaneously expanding positive welfare outcomes.

The concepts presented throughout this first section provide the foundation for analyzing the current state and future ambitions of the five main sectors of Brazilian livestock production. We believe that a shared understanding of key animal welfare concepts, together with a common vision for the future direction of the production chain, helps align stakeholders and accelerate the progress required. Furthermore, aligning ambitions with international organizations and institutions contributes to the gradual development of the sectors, expands market opportunities, clarifies expectations, and helps define the role of each part of the value chain.

²⁷ For example, Hendriks, S. et al., 2023. The True Cost of Food: A Preliminary Assessment. In: von Braun, J., Afsana, K., Fresco, L.O., Hassan, M.H.A. (eds) *Science and Innovations for Food Systems Transformation*. Springer, Cham. https://doi.org/10.1007/978-3-031-15703-5_32

03

OVERVIEW OF PRODUCTION SYSTEMS

CURRENT SCENARIO

The concept of animal welfare is broad and encompasses different levels of ambition, ranging from simply avoiding suffering to enabling animals to express a wide range of highly motivated natural behaviors. Progress on this issue within the animal protein sector is often measured by the number of companies that make commitments or establish targets to gradually eliminate specific problematic practices. At the same time, many valuable efforts by companies to improve animal welfare are not expressed as public commitments, and much of the work focused on implementing good practices is not being reported.

At present, Brazil lacks a consolidated overview of the different production systems and standard practices used across the country's major livestock sectors. The limited availability in some sectors (particularly laying hens and swine production), together with reporting that is largely confined to major companies, underscores the need to broaden the analysis to encompass total production—including small-scale producers—in order to provide a more accurate and inclusive picture of the national landscape.

As a result, there is a general need for greater clarity regarding the proportion of total production in Brazil that already implements good animal welfare practices. This is a multifaceted and difficult issue to measure. Overall, however, the information currently available points to a highly heterogeneous landscape across species, production systems, and regions of the country.

Existing estimates are based primarily on sector reports, corporate commitments, and voluntary certification programs, and there is currently no single standardized national assessment covering the entire production base.

In the egg sector, there is consistent evidence of growth in production systems that provide alternatives to conventional cages, including cage-free, free-range, and organic systems. Nevertheless, these models still represent a minority share of total production. Some Brazilian farms already meet broader animal welfare criteria through the implementation of good practices related to stocking density, animal management, environmental enrichment, and third-party auditing.

In broiler production, there has been a gradual movement toward adopting practices recognized as beneficial for animal welfare, driven primarily by corporate commitments, internal programs implemented by producer companies, and certification initiatives. These advances are most visible within integrated supply chains and among larger companies, while the national coverage of independently audited farms remains relatively limited.

Within the swine sector, monitoring initiatives and industry analyses indicate the growth of important developments such as the substantial adoption of group housing during gestation, improvements in management practices, with some public commitments made by major companies. However, implementation remains partial, with greater adoption among technologically advanced and integrated producers and lower penetration among independent producers.

For beef cattle, the historical predominance of extensive pasture-based systems in Brazil is often associated with conditions considered relatively favorable for animal welfare, in terms of space availability and opportunities for animals to express natural behaviors. Nevertheless, welfare outcomes can vary considerably depending on management practices, pasture quality, periods of feedlot finishing, transport conditions, and practices used during the final stages of finishing and slaughter.

In dairy production, the diversity of production systems makes aggregate estimates particularly difficult. There is growing adoption of more intensive and technologically advanced systems, such as compost barn facilities, which generally offer improved comfort conditions when properly managed, particularly among larger-scale producers. At the same time, pasture-based systems remain common in many regions, with welfare outcomes varying according to differences in management, climate, and investment levels.

Overall, available data suggest that animal welfare improvements in Brazil are advancing gradually and consistently, with progress occurring in a more structured manner within organized supply chains led by companies that have made public commitments and possess greater investment capacity. However, a significant proportion of production remains outside these initiatives, resulting in a national landscape characterized by substantial diversity in practices and rates of adoption.

It is important to emphasize that most—if not all—of the challenges discussed throughout this report are global issues rather than challenges unique to Brazil. In general, they are associated with conditions inherent to production systems rather than any specific geographic region. It should also be noted that other important production species, such as turkeys, salmon, and tilapia, were intentionally excluded from this report in order to focus attention on the species most relevant to COBEA's current member companies.

LAYING HENS



In 2024, Brazil maintained its position as the world's fifth-largest egg producer, surpassing 57 billion eggs produced annually. Production increased by approximately 10% compared with the previous year, representing significant growth within the sector's upward trajectory over the past decade ²⁸. The Brazilian egg industry has undergone substantial transformation in recent years, driven both by market demands and by increasing societal expectations regarding animal welfare.

These changes encompass everything from cage-free production systems to technological innovations applied during the early stages of rearing and throughout flock management. Improved biosecurity and increased vaccine use across the sector are notable examples of measures that have had a substantially positive impact.

Conventional cage systems continue to dominate egg production in Brazil, with some sources estimating that they account for approximately 90–95% of production. However, alternative models such as cage-free and organic systems—which utilize housing systems and pasture areas adapted to Brazilian conditions—are steadily expanding. Growing demand for eggs from hens raised in cage-free systems mirrors a broader global trend, in which major retailers and food companies commit to sourcing only cage-free eggs as part of their ESG and responsible sourcing strategies. More than 170 companies in Brazil have already made such public commitments ²⁹. Demand continues to grow, and consumer awareness and understanding of these issues are considered to be advancing slowly but steadily.

The Brazilian egg market has recently faced a challenging cenário, characterized by high production costs—including corn, soybean meal, energy, packaging, and transportation—as well as instability between supply and demand. This situation has been exacerbated by the combination of increasing exports, which reduce domestic supply, and periods of overproduction, which place downward pressure on prices and profit margins.

²⁸ Interligados, Egg production in Brazil aims for growth in exports. Available at: <https://interligados.canalrural.com.br/ovos/brasil-se-consolida-como-o-5o-maior-produtor-de-ovos-do-mundo-e-projeta-expansao-nas-exportacoes/>

²⁹ <https://observatorioanimal.com.br/en/industria/ovos/>

In addition to economic pressures, the sector continues to face challenges related to biosecurity and disease management, particularly due to the risk of avian influenza outbreaks and increasing regulatory requirements. In this context, the sector's challenge is to balance productivity, sustainability, and competitiveness through investment in sound management practices, technology, and market differentiation strategies that ensure long-term viability.

Key Opportunities for Improvement

1. Housing Systems and the Transition to Cage-Free Production

It is widely recognized that cages restrict birds' ability to express natural behaviors such as scratching, perching, dust bathing, and fully stretching their wings. Consumer and retail pressure for cage-free eggs has continued to grow, as has demand for certified products. However, transitioning to alternative systems requires significant investment in infrastructure, staff training, and management adaptation.

Although the sector has made progress in differentiating production systems and communicating these differences to consumers, important gaps remain. These include the absence of standardized definitions and clear, reliable labeling for terms such as "cage-free," which can create confusion and undermine market confidence. Furthermore, unlike the broiler industry—which commonly operates through integrated production systems—the egg sector is largely composed of independent producers. As a result, small and medium-sized farms often face greater challenges in meeting emerging market requirements, increasing the risk of industry consolidation.

The transition can be facilitated through adaptation strategies such as converting poultry houses previously used for broiler production into cage-free facilities. However, such changes require both technical and financial support. To ensure that market development keeps pace with growing demand, it is essential to combine standardization, independent auditing, and financing mechanisms capable of supporting producers and enable the transition.

2. Invasive Practices

One of the most significant animal welfare concerns identified within the sector is the practice of induced molting, which is often used to extend the productive life of laying hens. However, the process is typically associated with substantial losses and significantly increased mortality rates. According to industry representatives, the use of induced molting had declined in previous years but has begun to re-emerge. This trend is believed to be linked to the highly volatile nature of the egg market.

Longer-term contracts and more stable pricing mechanisms could help alleviate some of the pressures that encourage its use. Industry experts note that producers generally do not favor the practice itself, but many continue to use it as a means of extending productive cycles or avoiding the need to market birds during unfavorable economic conditions.

Feather pecking and cannibalism are also recurring challenges, particularly in systems with higher stocking densities. These behaviors can lead to injuries, stress, and even mortality. Beak trimming remains a common method of mitigating these problems, although it remains controversial from an animal welfare perspective. Alternative approaches, such as infrared beak treatment combined with environmental enrichment, are considered less invasive and offer potential welfare benefits without compromising productive performance.

Nevertheless, further work is needed before these problems can be fully eliminated. The provision of environmental enrichment—including pecking objects, grit stones, and other manipulable materials—has been shown to reduce feather pecking and plumage damage, although generally to a moderate degree. Research indicates that enrichment is most effective when implemented alongside other complementary management strategies ³⁰.

³⁰ For example, Guimaraes et al., 2025. Bem-estar e enriquecimento ambiental na criação de aves de produção – uma revisão. doi: 10.32406/v8n1/2025/85-99/agrariacad

³¹ Website of the Chamber of Deputies, Available at: <https://www.camara.leg.br/noticias/1102040-COMISSAO-APROVA-PROJETO-QUE-PROIBE-DESCARTE-DE-PINTINHOS-COM-METODOS-CRUEIS>

Culling of Male Chicks

One of the most significant ethical challenges facing the egg industry is the culling of newly hatched male chicks. In Brazil, legislation has already been proposed to prohibit this practice while encouraging the adoption of in ovo sex determination technologies ³¹. Techniques such as Raman spectroscopy, fluorescence spectroscopy, and machine vision systems have shown promising results since they allow the sex of embryos to be identified at early developmental stages, before the capacity for pain perception develops. This makes it possible for male eggs to be redirected to the food industry, thereby reducing both ethical concerns and economic losses. One company in Brazil has already begun implementing this technology. However, the cost of application remains high, still limiting broader adoption across the industry.



Strategic Recommendations for the Egg Sector

Our recommendations and strategic priorities for the laying hen sector, aligned with the WOAHA vision and the Five Domains Model, are as follows:

- Encourage the transition to cage-free systems by expanding training opportunities, providing technical and financial support to producers, raising consumer awareness, and strengthening collaboration between producers and buyers. In addition, priority should be given to the appropriate management of pullets during the early stages of rearing, as early-life experiences have a direct influence on the behavior, welfare, and health of adult laying hens.
- Eliminate the practice of induced molting and continue efforts to prevent and manage agonistic behaviors while avoiding or minimizing beak trimming, particularly V-cut hot-blade trimming, which is considered the most invasive method and has been associated with poorer productive performance and increased early mortality.
- Continue developing alternatives to the culling of male chicks and improve the accessibility of related technologies and equipment. This will be essential for the future acceptability of the industry. As technologies become more affordable and accessible, it is likely that additional companies will adopt them.

To overcome the challenges facing the egg sector, it will be essential to combine productive efficiency, product quality, innovation, and sector-wide collaboration. Automation, performance monitoring, and rigorous health management can help reduce losses and improve resilience in the face of input cost volatility. At the same time, product diversification may create new opportunities in higher-value market segments while strengthening the sector's positive image among consumers. Strengthening market strategies and supply planning is also critical for reducing price volatility. Certification schemes and sustainable production practices that combine animal welfare and competitiveness can play an important role in promoting standardization and market confidence.

“Mantiqueira Brasil continues to invest heavily in the construction of cage-free production facilities, using technology and innovation with a strong focus on animal welfare.”

André Carreira Carlos, Executive Poultry Manager, Mantiqueira Brasil

BROILER CHICKENS

Brazil stands out as one of the world's largest producers and exporters of chicken meat, a position that creates a strategic opportunity to lead in production practices that combine efficiency, product quality, and social and environmental responsibility. With nearly 6.5 billion broiler chickens slaughtered in 2024 ³², the country's production structure—centered around major companies and large cooperatives—has both the scale and capacity necessary to drive meaningful transformation throughout the supply chain.

The Brazilian broiler sector operates in a scenario characterized by high production costs and ongoing sanitary challenges, including the threat of avian influenza, both of which require rigorous technical management and continuous investment. The next cycle of innovation should focus on reconciling high productivity with increasingly robust animal welfare indicators. Current priorities include genetic development, optimization of stocking densities, and improvements in housing conditions, with the aim of addressing challenges such as muscle myopathies, locomotor health issues, and thermal comfort.

In recent years, increasingly demanding international standards have encouraged the broiler sector to adopt practices such as lower stocking densities, natural lighting, environmental enrichment, genetic improvements, and more effective stunning methods. These elements, promoted through the international Better Chicken Commitment (BCC), have been identified as important factors in reducing carcass losses, injuries, bruising, fractures, excessive drip loss, and, most importantly, mortality ³³. The vision behind this initiative—which has already secured commitments from more than 600 companies worldwide ³⁴—is that efficient management not only improves animal welfare and meat quality, but also reduces economic losses throughout broiler production systems.

³² <https://www.canalrural.com.br/agricultura/brasil-registra-recorde-no-abate-de-bovinos-frangos-e-suinos/>

³³ <https://betterchickencommitment.com/br/>

³⁴ <https://chickenwatch.org>

Key Opportunities for Improvement

1. Genetic Development

Selection for rapid growth remains one of the principal animal welfare challenges facing broiler production in both Brazil and the rest of the world. Commercial fast-growing strains are highly efficient in feed conversion, however, this efficiency is often accompanied by welfare concerns, including locomotor disorders, skeletal deformities, muscle myopathies such as white striping and wooden breast, and metabolic disorders that negatively affect animal welfare, bird health, meat quality, and the commercial value of the final product ³⁵.

Although intermediate-growth strains generally demonstrate improved welfare outcomes, their adoption remains limited due to higher production costs and longer growing periods. New initiatives are currently underway to facilitate the commercial production of broiler strains with enhanced welfare characteristics in Brazil. In addition, research indicates that voluntary exercise and environmental enrichment—including lighting strategies that encourage movement—can reduce the severity of myopathies while simultaneously improving animal welfare and meat quality ³⁶.

2. Housing Environment

Providing an optimal indoor environment remains a continuous priority, particularly given Brazil's climatic conditions. The modernization of poultry houses and the adoption of environmental control technologies—such as negative-pressure ventilation systems and evaporative cooling—are increasingly common throughout the sector. However, implementation remains uneven across regions and production systems, resulting in significant variation in housing quality. Effective thermal management is essential for preventing heat and cold stress, both of which directly affect birds' physiology, behavior, welfare, and productive performance.

3. Standardization of Management Practices and Humane Slaughter

Continuous workforce training and the standardization of management protocols are fundamental pillars of operational excellence and the establishment of a strong animal welfare culture throughout the production chain. The sector should continue strengthening a culture of animal welfare at every stage of production by promoting consistency in the application of best practices, from the farm through to processing. Continuous improvements in management practices should focus on optimizing foot health and maintaining birds' physical integrity, reflecting a commitment to quality throughout the production process. Standardized procedures combined with regular training help reduce operational variability and ensure technical compliance.

Similarly, ensuring the effectiveness and consistency of pre-slaughter stunning methods remains a central and non-negotiable commitment. To achieve this, the sector must continue investing in technology, training, monitoring, and process control in order to guarantee genuinely humane slaughter practices that meet the highest standards of animal welfare, product quality, and regulatory compliance.

³⁵ For example, Petracci et al., 2019. Available at: <https://pubmed.ncbi.nlm.nih.gov/33336940/>

³⁶ For example, Hisasaga and Makagon, 2024. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC11472612/>

Strategic Recommendations for the Broiler Chicken Sector

Our recommendations and strategic priorities for the broiler sector, aligned with the WOA vision and the Five Domains Model, are as follows:

- Promote more balanced genetic selection: The sector should prioritize the development and adoption of genetic strains that combine efficient and healthy growth with physiological robustness and improved overall health.
- Make environmental enrichment a standard of excellence: Environmental enrichment is one of the most impactful and cost-effective tools available for improving animal welfare. The introduction of features such as perches, platforms, straw or wood-shaving bales, and pecking substrates that encourage natural behaviors represents an accessible and high-return innovation opportunity for conventional Brazilian production systems.
- Optimize environmental management: Temperature and humidity should be monitored rigorously to prevent heat and cold stress, while lighting schedules should respect birds' biological rhythms by providing appropriate periods of light and rest. When combined with moderate stocking densities, these management practices support natural behavior, reduce mortality, and help balance animal welfare with productive efficiency.
- Prioritize breeder welfare: The health and welfare of breeder flocks form the foundation of the entire production chain. Precision management at this stage is essential for addressing challenges such as metabolic disorders and locomotor problems. Systematic monitoring of health and environmental conditions throughout the production cycle is indispensable for ensuring the longevity, welfare, and productive performance of these animals.

The sector's leadership position can be further strengthened through an integrated strategy that combines technological innovation, effective management, alignment with market expectations, and supportive public policies. Continuous training in animal behavior, environmental management, and biosecurity is essential for embedding animal welfare into routine management practices. In this context, the use of objective welfare indicators—such as mortality rates, lesion prevalence, and behavioral measures—combined with monitoring technologies can support faster, data-driven decision-making, resulting in improved performance and reduced animal suffering.

The incorporation of animal welfare indicators into audits, certification schemes, and public policies can further strengthen Brazil's reputation as a competitive producer committed to more sustainable poultry production. Modernized facilities, greater integration with processing companies, and broader adoption of certification and traceability systems can improve the economic resilience of poultry farms, add value to products, and facilitate access to more demanding international markets such as the European Union and Asia.





SWINE PRODUCTION

Brazilian swine production is experiencing a tangible period of expansion. Between 2015 and 2023, pork production increased from approximately 3.4 million tonnes to 5.2 million tonnes, representing growth of 54%. In 2024, total production was estimated to exceed 5.3 million tonnes ³⁷. The sector has achieved significant productivity gains driven by advances in genetics, nutrition, and management, reinforcing Brazil's position as one of the world's leading pork producers and exporters.

The industry has also made meaningful progress in animal welfare initiatives, including the adoption of improved housing systems, particularly group housing during gestation and, more recently, the gradual introduction of free-farrowing systems. It is estimated that approximately 45% of breeding sows are already housed in group gestation systems and that 62% of the national sow herd is covered by commitments to transition toward these systems ³⁸. This progress has been driven by both corporate commitments and Normative Instruction No. 113/2020, which requires full compliance by 2045. Similarly, the industry has moved ahead of upcoming legal requirements concerning the elimination of painful procedures, particularly surgical castration without pain control, which is scheduled for prohibition by 2030 ³⁹.

These developments indicate that the sector is undergoing a planned structural transition in which pioneering companies are helping establish best practices that can subsequently be expanded throughout the entire production chain. Brazil is also recognized as a global leader in the adoption of immunocastration, with implementation rates exceeding 90% in some integrated production systems ⁴⁰.

³⁷ For example, Guimaraes et al., 2025. Available at: <https://www.gov.br/conab/pt-br/assuntos/noticias/producao-de-carnes-ultrapassa-31-milhoes-de-toneladas-em-2024-e-atinge-novo-recorde-na-serie-historica?utm>

³⁸ ALIANIMA. Swine Observatory Report 2025. Available at: <https://observatoriosuino.com.br/>

³⁹ ALIANIMA. Swine Observatory Report 2023. Available at: https://observatorioanimal.com.br/wp-content/uploads/2024/11/20240208_015_ALI_Observatorio-Suino_2023_A4_V05.pdf

⁴⁰ MORAES, Paulo et al. Immunocastration of pigs: technical and scientific aspects. Embrapa Swine and Poultry, 2017. ZOETIS. Improvest – Technical Summary for Brazil. 2022.

This technique improves meat quality, prevents boar taint, reduces unwanted fat deposition, lowers environmental impacts, and represents a significant advancement for animal welfare. The next strategic step is to strengthen management practices associated with immunocastration and expand its adoption, ensuring that its benefits reach all producer segments throughout the sector.

Additional opportunities for improvement include tail docking—still considered one of the sector's major challenges—as well as issues related to farrowing management and injury prevention. Addressing these challenges will require technological innovation, continuous workforce development, and improved retention of skilled labor in rural areas. At the same time, it remains essential to strengthen biosecurity and vaccination programs and continue efforts to reduce antimicrobial use in order to maintain competitiveness in global markets.

Key Opportunities for Improvement

1. Transition Toward Systems Offering Higher Animal Welfare Standards

Gestation crates continue to face scrutiny because of their association with stress and locomotor and immune-system problems. Although group housing systems have expanded significantly in Brazil, adoption remains uneven and depends upon investments in infrastructure, workforce training, and structured support to ensure compliance with legal deadlines.

A similar situation exists in farrowing facilities, where conventional farrowing crates remain widely used despite the emergence of free-farrowing systems that can deliver demonstrable welfare benefits when accompanied by appropriate structural modifications and improved environmental management. There is growing interest in increasing the amount of space available to sows during farrowing and lactation in order to improve comfort and allow the expression of natural maternal behaviors. However, these systems also require investments in management practices and staff training.

2. Lesions, Lameness, and Invasive Procedures

Tail docking is increasingly being questioned, and discussions are underway in Brazil and internationally regarding its gradual elimination. The primary challenge is that tail biting is a multifactorial problem influenced by management factors such as ventilation, stocking density, environmental stimulation, and nutrition. Effective solutions therefore require integrated approaches and structural changes at the farm level. This area represents an important frontier for innovation within Brazilian swine production.

Overcoming the challenges associated with tail docking through environmental enrichment, improved nutrition, and precision management should be considered a priority. The transition toward systems that maintain intact tails requires investment, training, and management adaptation, making the process both gradual and complex. When properly performed, partial tail docking generally causes less welfare impact, but the long-term goal should remain reducing reliance on the practice.

Locomotor health also continues to present challenges within Brazilian pig production. High rates of hoof lesions affect reproductive performance, piglet welfare, behavior, and overall productivity. Regular monitoring, timely treatment, nutritional adjustments, and structural improvements are all essential for reducing premature culling and minimizing economic losses. It is important to note that significant progress has already been achieved in piglet management, including reductions in routine teeth clipping and ear notching, as well as the development of alternatives capable of replacing these practices.

3. Inconsistencies in Management and Monitoring

Sow mortality is influenced by multiple factors but can be reduced through improvements in biosecurity, management practices, and welfare conditions during gestation and lactation. Such improvements not only increase productive longevity but also enhance piglet performance. Functional environmental enrichment—which remains underutilized in many systems—can also contribute significantly to welfare improvements.



Strategic Recommendations for the Swine Sector

Our recommendations and strategic priorities for the swine sector, aligned with the WOA vision and the Five Domains Model, are as follows:

- Encourage structural transition within production systems: The conversion of conventional facilities to group housing systems and free-farrowing systems requires long-term investment. Specific credit lines, tax incentives, and public technical-support programs should be developed, particularly for small and medium-sized independent producers, to facilitate this transition.
- Raise the standard of environmental enrichment: The absence of manipulable materials and appropriate environmental stimuli contributes to frustration and abnormal behaviors such as tail biting and aggression. The systematic, functional, and consistent incorporation of environmental enrichment is essential for reducing stress and promoting natural behaviors.
- Consolidate welfare management based on objective indicators: The sector should continue developing management systems based on objective animal welfare indicators through the incorporation of audits, digital monitoring systems, and integration with traceability platforms. Progress in this area also depends upon the standardization of best management practices capable of serving as references for the entire production chain.
- Strengthen herd health and responsible antibiotic use: The strategic priority should be to intensify investment in preventive animal health measures, including rigorous biosecurity, high-performance vaccination programs, functional nutrition, and environmental enrichment. Continuous workforce training and the adoption of objective welfare indicators are essential for the early identification of challenges and for reinforcing the responsible use of veterinary medicines.

The sector continues to face challenges related to workforce training and organizational culture. Many employees do not receive ongoing professional development, which can perpetuate the misconception that animal welfare represents a cost rather than an investment in farm profitability and resilience. The adoption of best practices is strongly influenced by market conditions as well as the availability of support mechanisms and incentives. This reinforces the importance of demystifying animal welfare and focusing on practical solutions that can be implemented within everyday production systems.

Furthermore, antimicrobial use remains an area requiring continued attention. Strengthening biosecurity and optimizing vaccination programs are fundamental pillars of herd health and global competitiveness and play a critical role in accelerating reductions in antimicrobial use.

To consolidate a Brazilian swine industry built upon strong animal welfare practices and minimal reliance on invasive procedures, an integrated action plan is required. Such a plan should combine gradual targets, continuous training, and technical and financial support for producers. This includes expanding the use of already established alternatives—such as immunocastration, environmental enrichment, and preventive management—in order to gradually reduce reliance on tail docking and teeth clipping. Where complete elimination of invasive procedures is not yet feasible, appropriate analgesia and anesthesia should be provided.

Standardized training programs, routine monitoring of objective animal welfare indicators, and incentives for facility modernization would accelerate this transition without compromising productivity or competitiveness. In addition, the use of objective, standardized welfare indicators can improve consistency across the production chain, support higher levels of compliance and competitiveness, guide corrective actions, and strengthen the relationship between animal welfare, processing performance, and meat quality.

The future development of the sector depends on transforming animal welfare into a source of added value through the adoption of practices that improve performance, reduce losses, and strengthen the reputation of the entire value chain. Achieving this transformation requires coordinated action among producers, industry, technical professionals, regulatory authorities, and researchers, together with the widespread dissemination of validated solutions and strong management protocols.

“When we committed to transitioning to group housing systems, the consensus within the industry was that implementation in Brazil would be impossible. There was no legislation, no established models, and the technical, economic, and social challenges were enormous. Seara decided to move ahead before the law required it and demonstrated that it could be done.”

José Antônio Ribas Junior, Executive Director of Agricultural Operations, Seara

BEEF CATTLE



Brazil's beef cattle industry plays a central role in global beef production, both in terms of volume and economic significance. The sector has made consistent progress in animal welfare, driven by both market requirements and the recognized benefits associated with improved productivity and meat quality. Major meat processors and global certification programs have encouraged improvements in management, transportation, and slaughter practices. In recent years, there has been an increase in the adoption of indicator-based protocols that reduce stress and minimize the risk of bruising and injury. At the same time, there is growing awareness of the importance of continuous workforce training and adequate infrastructure for animal handling and movement.

On farms, increasing attention is being paid to cattle comfort and health. Like all cattle, beef animals are highly motivated to graze, and the expansion of pasture-based systems incorporating rotational grazing, integrated crop-livestock-forestry systems, natural shade, and access to high-quality water resources plays an important role in both animal welfare and productive performance. Within feedlot and semi-confined systems, the use of ventilation, sprinkling systems, and environmental enrichment has expanded, helping reduce heat stress. At the same time, research and extension programs have promoted best practices related to weaning, castration, and identification procedures, including greater use of analgesia and anesthesia—practices that are gradually becoming more widely adopted.

Current trends include increased attention to the calf rearing, greater recognition of the value of positive tactile interactions, improvements in housing environments through the provision of shade, reductions in antibiotic use, and greater standardization of management practices. One example is the modernization of animal identification methods. Research has demonstrated that hot-iron branding negatively affects animal welfare and is less effective than electronic or visual ear-tag systems.

As a result, in 2024 the government of the state of São Paulo removed the requirement for hot-iron branding of cattle vaccinated against brucellosis and authorized the use of ear tags instead—a measure approved by the Ministry of Agriculture and Livestock (MAPA) and widely regarded as a significant milestone for the sector⁴¹.

Despite these advances, substantial variation still exists among farms and regions, and welfare indicators are not always monitored systematically. The greatest challenges are associated with inadequate handling practices, prolonged and insufficiently monitored transportation, shortcomings during slaughter, and the slow adoption of technologies and best practices in parts of the sector. These factors affect not only animal welfare but also productivity and the quality of Brazilian beef.

Key Opportunities for Improvement

1. Animal Management

The sector's journey of continuous improvement should focus on refining management practices in ways that maximize both animal welfare and production efficiency. Key priorities include the adoption of low-stress handling practices, such as low-stress weaning methods, and ensuring thermal comfort throughout all stages of production. The industry should continue transitioning toward modern, less invasive identification methods, such as electronic ear tags, replacing traditional practices such as hot-iron branding.

Additional opportunities exist to improve calf health and to strengthen pain management during invasive procedures such as castration and dehorning. Continuous workforce training remains a fundamental pillar in promoting a culture of best practice handling that improves safety, productivity, and animal welfare.

2. Animal Transportation

Given Brazil's vast geographic size, long-distance road transportation remains a frequent challenge and can result in stress, dehydration, injuries, and reductions in meat quality. Important opportunities exist to improve transportation logistics and, consequently, animal welfare outcomes. The condition of transport vehicles—and particularly the quality of roads—does not always ensure adequate ventilation and comfort. In addition, insufficient training of drivers and handlers can exacerbate welfare problems.

There are currently no fully standardized protocols for monitoring animal welfare during transport, making it difficult to evaluate performance and drive improvements consistently. Similarly, validated tools for standardized welfare assessment during transportation remain limited. Technologies such as artificial intelligence-powered cameras and sensor systems offer promising alternatives for measuring welfare indicators in real time, but their adoption remains relatively limited.

3. Slaughter and its Impact on Meat Quality

Pre-slaughter management is a strategic stage in ensuring both animal welfare and final product quality. This process encompasses everything from calm animal handling to rigorous monitoring aimed at ensuring 100% stunning effectiveness. Investment in appropriate facilities—and especially in continuous workforce training—remains the primary tool for ensuring a humane slaughter process that delivers high-quality products.

Given the diversity of slaughter facilities operating in Brazil under different inspection systems, monitoring welfare indicators and implementing welfare-improvement measures remains particularly challenging among small- and medium-sized establishments.

Strategic Recommendations for the Beef Sector

Our recommendations and strategic priorities for the beef cattle sector, aligned with the WOA vision and the Five Domains Model, are as follows:

- Replace painful procedures with less invasive alternatives: The sector should continue replacing painful routine practices such as hot-iron branding, castration, and dehorning with less invasive alternatives whenever such procedures are inevitable. Where such procedures remain necessary, appropriate anesthesia and analgesia should be provided. Routine procedures such as identification, vaccination, and reproductive management should be carefully planned and conducted calmly in order to minimize pain, stress, and accidents.
- Consolidate low-stress handling and humane slaughter protocols: The sector should strengthen the implementation of low-stress handling techniques and humane slaughter protocols while ensuring routine verification of stunning effectiveness and ongoing workforce training. Animal movement should be calm and deliberate, supported by appropriate facilities, careful planning of operations, and minimal use of electric prods. Weaning should be gradual and low-stress, maintaining visual and auditory contact between calves and cows whenever possible and promoting positive experiences from birth onward.
- Improve transportation conditions: Improving transportation conditions requires shorter journey planning, careful management of fasting periods, and the use of appropriately designed vehicles with adequate ventilation, sufficient space, and non-slip flooring. Drivers and handlers should receive specialized training, unfit animals should not be loaded, and loading and unloading facilities should be regularly inspected to reduce slips, impacts, falls, and bruising.

⁴¹ Canal Pecuarista, Branding cattle with fire is no longer mandatory in São Paulo. Available at: <https://canalpecuarista.com.br/noticia/15000/marcacao-a-fogo-de-bovinos-deixa-de-ser-obrigatoria-em-sao-paulo>



“Participating in the ‘Every Calf Matters’ project reinforces our commitment to advancing Brazilian cattle production. By supporting producers during the cow-calf phase, we help improve production indicators, promote animal welfare, and increase the supply of healthier and more productive animals throughout the value chain.”

Emília Raucci, Quality Director, JBS/Friboi

Throughout the entire production chain, it is essential to strengthen and standardize animal welfare practices through clear standards, objective assessment criteria, regular audits, and closer collaboration among producers, processors, and regulatory authorities. A recent example is the publication by the Brazilian Roundtable on Sustainable Livestock of the guide *Animal Welfare: Recommendations for Improving Cattle Welfare in Brazil*, an important and valuable resource for supporting continuous improvement across the sector ⁴².

Animal welfare should be integrated with animal health and sustainability initiatives through the use of simple indicators aligned with international standards, as well as economic incentives that reward exemplary practices. Routine monitoring of welfare indicators—particularly during critical periods such as weaning, adaptation to feedlots, and arrival at new facilities—can contribute to reducing antibiotic use and applying One Health principles more consistently.

There is also significant potential in the increasing use of technologies such as sensors, intelligent cameras, mobile assessment applications, AI-assisted thermography, drones, and smart ear tags. These tools are particularly valuable for monitoring injuries and generating direct feedback that can be used to improve management practices and achieve measurable welfare improvements. To advance consistently, the sector must combine practical on-farm improvements, workforce development, and institutional incentives, while also recognizing the important role that well-managed pasture systems can play in both productivity and climate-change mitigation.

In addition, systems such as Integrated Crop-Livestock-Forestry (ICLF) and silvopastoral production models have demonstrated clear benefits by improving microclimates, reducing heat stress, and supporting the expression of natural behaviors. Despite these advantages, adoption remains limited, highlighting substantial opportunities for expansion and for strengthening animal welfare as a pillar of both sustainability and efficiency within Brazilian cattle production.

DAIRY CATTLE



Animal welfare in Brazil's dairy sector has advanced considerably in recent years, and many farms now recognize that investing in animal comfort, health, and appropriate management practices improves efficiency, reduces losses, and increases profitability. This trend has also encouraged producers to follow international developments more closely and identify innovations capable of generating tangible economic returns. By integrating animal welfare, technology, and effective management, the sector creates a virtuous cycle that improves productive performance while strengthening farm competitiveness.

The expansion of compost barn systems throughout Brazil exemplifies this movement. Modernized facilities often provide improved thermal and physical comfort, reduce health problems, and facilitate the adoption of more advanced management practices. The adoption of best practices during the transition period, mastitis control, and the prevention of metabolic disorders has also increased, driven by training initiatives and growing recognition that animal health is a fundamental pillar of efficiency. Another important development is the gradual adoption of welfare-monitoring technologies, including sensors, cameras, and artificial intelligence systems capable of evaluating parameters such as rumination, locomotion, feed intake, and behavior in real time.

The management of male dairy calves is also undergoing an important transformation. One of the sector's current priorities is to increase investment and demonstrate the feasibility of adopting higher welfare standards from birth through weaning and the transition period. This includes reinforcing producers' responsibilities regarding colostrum management, disease prevention, and the provision of appropriate housing conditions. Best practices are increasingly being applied to both male and female calves, reflecting the understanding that all animals require equivalent standards of care in order to ensure health, proper growth, and welfare. Improvements during these critical early-life stages not only enhance productivity but also promote more professional management and reduce future losses.

⁴² Brazilian Roundtable on Sustainable Livestock, 2025. Animal welfare – Guide of recommendations on how to improve cattle welfare in Brazil. Available at: <https://pecuariasustentavel.org.br/website/wp-content/uploads/2025/06/guia-bea-mbps-2025-vf.pdf>

Despite these advances, considerable opportunities for improvement remain, particularly given the diversity of production systems and regional differences across Brazil. The principal challenges continue to be associated with cow health and longevity, thermal and physical comfort, neonatal management, the fate of male calves, and producer training. Specialists also point to the need for more appropriate criteria to assess calf fitness for transport, stronger farm-level biosecurity measures, and continued reductions in antimicrobial use.

“We have seen significant progress within the sector, particularly in recent years, with animal welfare becoming an increasingly prominent topic. Producer interest continues to grow, and we see more and more farms implementing best practices.”

Humberto Carvalho, Gerente de Qualidade do Leite, Danone Brasil

Key Opportunities for Improvement

1. Cow Health and Longevity

The sector continues to face high rates of mastitis, hoof disorders, and metabolic diseases such as ketosis and acidosis, all of which negatively affect animal welfare and reduce productive lifespan. These conditions contribute to elevated rates of premature culling. According to industry experts, cows in many systems rarely complete more than three lactations, indicating shortcomings in both welfare and preventive management. In addition, there are still gaps in producer knowledge regarding diagnosis and treatment, as well as inconsistent access to veterinary medicines and technical support.

2. Calf Rearing

Despite the progress achieved within Brazilian dairy production, significant challenges remain regarding calf welfare. High rates of diarrhea and inadequate weight gain continue to be observed, compromising not only welfare but also the future productivity of the herd. Furthermore, early social housing remains relatively uncommon despite strong scientific evidence demonstrating its benefits for cognitive development, behavior, and feed intake⁴³. The tropical calf-hutch system remains the predominant model in Brazil. However, research increasingly demonstrates that housing calves in pairs or small groups promotes social development, growth, and solid-feed consumption without compromising health⁴⁴.

Another sensitive issue concerns the fate of male dairy calves, which frequently receive lower levels of care and, in some extreme cases, may be disposed of in inappropriate ways. This issue has generated growing ethical and societal concern, reflected in legislative proposals such as Bill No. 210/2023⁴⁵, which seeks to prohibit improper disposal of male calves. Addressing this challenge requires integrated solutions, including improved neonatal management, greater use of sexed semen where economically feasible, and the development of markets for male dairy calves that balance welfare, economic viability, and societal expectations.

⁴³ For example Costa, Keyserlingk e Weary, 2016. Available at: <https://pubmed.ncbi.nlm.nih.gov/26874423/>

⁴⁴ For example Costa, Keyserlingk e Weary, 2016. Available at: <https://pubmed.ncbi.nlm.nih.gov/26874423/>

⁴⁵ Legislative Assembly of the State of São Paulo, 2023. Available at: https://www.al.sp.gov.br/spl/2023/03/Propositura/1000485436_1000622719_Propositura.pdf

3. Housing and Appropriate Management

Research demonstrates that access to pasture—even on a partial basis—can significantly improve dairy cow welfare by promoting more positive emotional states, greater comfort during the dry period, improved productive performance, and healthier behaviors during the transition and periparturient periods⁴⁶. Regardless of the production system used, bedding remains a critical factor and should prioritize animal comfort while remaining compatible with manure-management systems and farm economics.

The expansion of compost barn systems in Brazil demonstrates that facility modernization can create more suitable environments for dairy cows by improving comfort, welfare, and productivity. In some operations, these systems may also facilitate group calf rearing, creating opportunities for improved social development and welfare outcomes. For these improvements to be implemented more widely on farms, producers must understand their value and be fully engaged in the process. This requires significant investment in training, particularly given the high turnover rates and limited technical capacity that still characterize much of the agricultural workforce, supplier network, and on-farm personnel.



⁴⁶ For example, Crump et al., 2019. Available at: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6912433> and <https://pubmed.ncbi.nlm.nih.gov/31683918/>

Strategic Recommendations for the Dairy Sector

Our recommendations and strategic priorities for the dairy sector, aligned with the WOA vision and the Five Domains Model, are as follows:

- Improve human-animal interactions and management practices: The welfare of dairy cows is closely linked to the way they are handled. Continuous staff training in calm handling techniques and animal behavior can reduce fear and stress while improving milking efficiency and milk production. Training programs based on animal welfare principles should be expanded and incorporated into routine operations. Processes should be simple, accessible, and practical, demonstrating clearly how welfare improvements can facilitate daily tasks such as record keeping, treatments, and herd management. The easier practices are to implement, the more likely they are to be applied consistently and correctly.
- Improve calf health and welfare: High-quality colostrum management should be prioritized to strengthen immunity and prevent diarrhea and respiratory disease. More enriched and socially stimulating environments are also essential. Housing calves in pairs or small groups promotes development, increases solid-feed intake, and reduces abnormal behaviors. In addition, the use of slow-flow teat feeders helps satisfy natural suckling motivation and contributes positively to overall welfare.
- Ensure continuous health monitoring: Prevention is both more effective and less costly than treatment. Regular monitoring protocols should be implemented for udder health (mastitis), hoof health, body condition, and fertility, allowing problems to be identified at an early stage. The use of objective welfare indicators, such as locomotion scoring and cleanliness scoring, provides practical and measurable ways to assess progress.

The Brazilian dairy sector still lacks broadly recognized national animal welfare standards that are consistently understood by producers, consumers, and regulatory authorities. As in other sectors, some producers do not yet fully associate animal welfare with productivity and herd longevity. However, improving welfare cannot depend solely on individual producers. Cooperatives, dairy processors, and public institutions should develop technical and financial support programs that encourage best practices, recognize exemplary farms, and expand regional training opportunities.

Collaboration among institutions such as Embrapa, MAPA, universities, and industry stakeholders is essential for increasing both the reach and consistency of these efforts. Issues such as cow-calf separation and the potential for side-by-side weaning systems represent important future topics that deserve further research and discussion.

The integration of appropriate infrastructure, responsible management, early calf socialization, partial pasture access, proper nutrition, effective health management, and monitoring technologies has the potential to significantly elevate welfare standards within the Brazilian dairy industry. Building on the progress already achieved and expanding these practices throughout the country can create production environments characterized by high levels of comfort, reduced stress, more natural behavior, strong productive performance, and improved overall herd health.



Commentary: It is essential that we begin looking at production systems through a broader lens, moving beyond isolated responses to current challenges. This requires understanding how current systems were developed and why many existing structures and routines still fail to meet animals' fundamental needs. Animal welfare should be understood as a complex and multifaceted issue whose solutions are often simple and centered on the animals themselves. At the same time, certain challenges require long-term, systemic approaches and the gradual adoption of new models and practices.

A systemic approach involves reviewing and replacing practices that do not contribute to animal welfare, with alternatives that align with WOAHP guidelines and the Five Domains Model, progressively reducing negative impacts while expanding positive experiences. When developed collaboratively and inclusively—with clear objectives, shared timelines, and defined responsibilities—such an approach tends to generate greater trust, engagement, and sustainable progress. The involvement of producers, technical professionals, specialists, and companies is essential, particularly those who work most closely with animals, in order to ensure support, alignment, and practical feasibility during implementation.

For meaningful and lasting transformation to occur, animal welfare must be integrated into organizational strategy and coordinated throughout the entire value chain, taking into account the regulatory environment, production culture, infrastructure, workforce training, and economic incentives. This systemic vision also requires integration with broader agendas such as biosecurity, One Health, sustainability, and ESG, thereby amplifying positive impacts and promoting solutions that generate social, environmental, and economic benefits. In this context, it is equally important to recognize and highlight the many good practices already being implemented, as well as the leadership demonstrated by numerous Brazilian companies. Doing so helps strengthen Brazil's position as a global reference for ethical, sustainable, and competitive livestock production.

04

VALUE CHAIN

THE ROLE OF THE DIFFERENT PARTS OF THE VALUE CHAIN

In recent years, the need for greater collaboration across the value chain to advance issues such as animal welfare has become increasingly evident. Many companies have individually committed to improving specific practices and have worked to enhance animal welfare within their own supply chains. However, animal welfare is a complex and systemic issue, and meaningful progress depends on coordinated action and broad-based change across the system. This means that the influence of any single company is inherently limited and different actors throughout the value chain must come together and work toward shared objectives if the necessary advancements are to be achieved.

Food Retail

The Brazilian food retail sector has already made important progress on animal welfare, particularly through public commitments to expand the availability of cage-free eggs. These targets have largely been led by retail chains that have incorporated such standards into their private-label brands. Many companies have also adopted corporate policies and contractual requirements that include minimum animal welfare standards, audits, and traceability requirements, in addition to establishing partnerships with certification schemes to engage suppliers and consumers in continuous improvement efforts. Third-sector organizations have played an important role in monitoring progress, highlighting both areas where commitments have advanced and areas where implementation gaps remain.

Animal welfare has become a strategic issue for food retailers because it aligns with growing consumer demand—particularly among younger consumers and middle- and upper-income groups—for products that reflect high ethical and quality standards. It also strengthens corporate reputation and reinforces a company's image as a responsible and sustainable business. At the same time, preparing supply chains for higher standards reduces exposure to future regulatory requirements while improving product safety and strengthening the resilience of supply chains to animal health risks and disease outbreaks.

Despite some advances, the sector still faces important challenges in strengthening its contribution to improved animal welfare practices. Progress remains uneven across retail chains, product categories, and private-label versus third-party brands. In addition, limited transparency hinders consumer awareness and understanding of animal welfare issues. Furthermore, strong pressure to keep prices low makes it challenging for higher-welfare products to become mainstream while remaining affordable and competitive. Expanding their availability will therefore depend not only on continued commitments from retailers and suppliers, but also on greater consumer awareness and market mechanisms that help support the transition to higher welfare systems.

The sector can accelerate progress by establishing improvement targets in collaboration with suppliers, incorporating minimum welfare requirements into procurement contracts, and supporting transitions through technical assistance and financing mechanisms that help address supply constraints. Transparency is central to this effort and can be reinforced through the adoption of credible certification systems that increase consumer confidence. Communication campaigns and commercial strategies can help explain the benefits of higher-welfare products and reduce concerns about price premiums, while collaboration among retailers, suppliers, and industry associations can create the scale and predictability necessary to stimulate investment in higher-welfare production systems.

Retailers with a growing focus on responsible sourcing should invest in consumer education, investigate their supply chains to eliminate inappropriate practices, and support producers through long-term contracts that provide the security necessary for production-system improvements. Prioritizing animal welfare is a strategic decision for the sector that reduces reputational, sanitary, and regulatory risks, improves supply-chain resilience, and creates potential market opportunities.

Food Service

Within the food service sector, progress on animal welfare has largely been driven by certain international chains that have brought global commitments to Brazil, particularly those related to cage-free eggs and, in some cases, broiler welfare standards. For example, global hotel groups such as Accor and Marriott have been working to implement their international commitments in Brazil. Domestic companies have begun following this trend, although generally with longer timelines and a primary focus on eggs. Since 2015, more than 150 Brazilian food and hospitality companies have committed to sourcing and selling only cage-free eggs by 2030 or earlier ⁴⁷. Pressure from NGOs through campaigns and public rankings has contributed to greater transparency, although sector progress remains uneven and many companies have yet to establish clear goals.

The main barriers to further progress include the sector's narrow focus on cage-free eggs as its principal animal welfare initiative, as well as lengthy implementation timelines and limited public reporting to demonstrate incremental progress. In addition, the fragmented nature of the sector reduces scale and purchasing power, making it more difficult for independent restaurants to source and offer higher-welfare products, while concerns about increased costs remain a significant barrier in this highly competitive market.

Nevertheless, animal welfare standards are expected to become an increasingly important strategic differentiator for the sector as new generations of consumers seek brands aligned with ethical practices and as restaurants continue to serve as a visible link between consumers and food production. Beyond pressure related to ESG criteria from investors and international business partners, animal welfare provides opportunities for competitive positioning by enabling restaurants to differentiate themselves through sourcing narratives and menu offerings that enhance customer experience.

The sector can advance by establishing realistic and publicly disclosed welfare goals for key ingredients and publishing annual progress reports. Collective partnerships can increase purchasing power and facilitate access to certification programs, while direct communication through menus and customer-facing materials can help demonstrate the value of these initiatives. Larger brands can also support their supply chains through technical assistance and training programs, complemented by educational efforts that reinforce the connection between animal welfare, food quality, and food safety. Finally, alignment with internationally recognized standards can reduce risks and position the Brazilian food service sector alongside global best practices.

Pet Food

The pet food industry is directly connected to sustainability challenges associated with animal protein production through its sourcing of animal-derived ingredients. Although the sector makes extensive use of co-products, its role within the broader food system—and its potential influence in promoting more sustainable animal protein production—is often underestimated. At the same time, pet food companies face growing pressure from consumers, customers, investors, animal welfare organizations, and other stakeholders to reduce, manage, or eliminate negative impacts associated with their supply chains.



⁴⁷ ALIANIMA, 2025. Egg Observatory – 2nd Edition. Available at: https://alianima.org/wpcontent/uploads/2025/07/20250624_ALI009_Observatorio_do_Ovo_V04.pdf

⁴⁸ <https://www.petfoodprocessing.net/articles/17180-10-pet-food-brands-commit-to-higher-animal-welfare-standards>

Progress on animal welfare within the pet food sector has primarily been driven by a limited number of brands, particularly through commitments to replace conventionally sourced eggs with cage-free eggs in wet food products and treats. Several multinational companies have publicly announced targets to complete this transition between 2025 and 2030 ⁴⁸.

The premium pet food segment has also encouraged change by promoting ingredients sourced from higher-welfare and antibiotic-free production systems. Some domestic brands have taken leadership positions in this area, although many manufacturers continue to focus primarily on price and nutritional formulation and have yet to adopt explicit animal welfare policies. Interest in the topic is growing, but it remains concentrated within specific brands and product lines.

The sector has compelling reasons to prioritize animal welfare, as pet owners tend to be particularly sensitive to issues of animal care and alignment between corporate values and business practices. Promoting the health and well-being of companion animals while relying on ingredients sourced from low-welfare production systems can create a perceived inconsistency. This disconnect may expose companies to reputational risks and erode consumer trust, potentially affecting purchasing decisions and long-term brand loyalty. Incorporating animal welfare criteria also strengthens ESG performance, increases transparency, and enhances attractiveness to investors and major retailers.

A growing emphasis on responsible sourcing is emerging within the sector, although implementation remains challenging because of the complexity of supply chains and the frequent involvement of intermediaries between ingredient suppliers and manufacturers. The limited availability of certified ingredients currently poses challenges for sourcing and limits the ability to scale these initiatives. At the same time, insufficient coordination across the sector prevents the issue from gaining broader traction.

Although this sector is an important purchaser of animal protein, particularly in the form of co-products, there has so far been limited coordination, alignment of objectives, and collaboration between producers and buyers in this segment. There is significant potential to strengthen connections across the value chain, for example by improving the communication of good production practices to end consumers.

Long-term supplier partnerships can help facilitate the transition toward higher-welfare sourcing practices, while transparent reporting helps communicate progress. The adoption of recognized certification systems and clear communication on packaging can further enhance credibility, while dedicated high-welfare product lines can help test demand and create added value.

General Commentary on the Role of Buyer Companies

Companies that purchase animal protein—including retailers, restaurants, and pet food manufacturers—should establish minimum animal welfare standards applicable to all suppliers, conduct periodic performance assessments, and implement clear corrective-action plans in cases of non-compliance. It is equally important to strengthen traceability by mapping the origin of ingredients, evaluating risks and impacts, and consistently monitoring data throughout the supply chain. Many companies begin by prioritizing the mapping of ingredients based on their relative volume and potential impact, allowing resources to be directed where they can generate the greatest improvements.

There is a growing need for buyers and end users of animal protein to play a more active role in defining the desired future state of animal welfare. This includes establishing clear, long-term ambitions grounded in scientific evidence and internationally recognized frameworks, as well as maintaining transparent and constructive dialogue with suppliers. Once these ambitions are defined, technical specialists can help design and implement practical improvement pathways that are aligned with production realities.

When buyers assume this strategic role, the focus shifts beyond short-term considerations toward medium- and long-term objectives, creating conditions for structural progress, stronger alignment with producers, more effective commercial incentives, and support for transition-related costs. To achieve this, animal welfare must be fully integrated into corporate strategy and treated as a shared responsibility across the value chain, supported by a gradual, predictable, and consistently maintained process of improvement.

⁴⁸ <https://www.petfoodprocessing.net/articles/17180-10-pet-food-brands-commit-to-higher-animal-welfare-standards>

Producers

There is growing recognition of the relationship between animal welfare, productivity, and the well-being of the people who work in livestock production. The adoption of better animal welfare practices to a great extent also contributes to the welfare of producers and farm teams⁴⁹. Calmer and more predictable management systems reduce the risk of accidents, decrease workplace stress, and promote more positive interactions with animals, resulting in safer, better-organized working environments and greater professional satisfaction.

However, systems with higher animal welfare potential—such as cage-free egg production—may require greater operational complexity and more highly skilled teams with specialized training in animal behavior and welfare management. Furthermore, structural changes rarely occur without incentives that align the interests of producers and purchasing companies. The transition toward higher-welfare systems frequently requires investment, adaptation periods, and continuous training, highlighting the importance of mechanisms such as long-term contracts, bonus programs, supplier incentives and differentiation, access to credit, and co-financing models.

Sustainable progress also depends on ongoing technical support, including training in animal management, behavior, technology use, management, and the interpretation of performance indicators. Structured technical assistance programs developed by universities, consulting organizations, NGOs, or companies, can support this transition through recurring training programs, practical guidance materials, and pilot projects adapted to Brazilian production realities.

Measurement systems based on outcome indicators, combined with the integration of animal welfare into productivity metrics, are essential for guiding evidence-based improvements and establishing welfare as a core management value. In this process, ongoing self-assessment, complemented by independent audits, helps drive continuous improvement. Communicating good practices throughout the value chain and ultimately to end consumers also helps recognize and reward the investments made, while strengthening the market demand for higher-welfare products.

In summary, the transition toward production systems with greater animal welfare potential in Brazil requires an integrated package of incentives that combines market predictability, financial support, technical training, and recognition. This alignment provides producers with the confidence necessary to invest, validates the efforts they make, and reinforces the concept of shared responsibility throughout the value chain.

“The viability of animal welfare improvements depends less on rhetoric and more on execution: planning, sanitary discipline, careful observation of animals, well-trained teams, and expansion aligned with market demand. Our participation in COBEA serves not only to share our experience with others, but also to evolve together and promote the collaboration needed throughout the value chain, helping accelerate the transition toward production systems that deliver better animal welfare.”

Daniel Mohallem, Director, Planalto Ovos

⁴⁹ For example, FAO, 2014. Livestock and livelihoods: The role of animal welfare in sustainable development, e Temple Grandin, 2015. Improving Animal Welfare: A Practical Approach.



The Importance of Collaboration

Like previously stated in this report, isolated animal welfare initiatives tend to have limited impact since animal welfare is a complex issue that requires systemic change. Many actors are involved and must work together toward shared objectives, each contributing their part in order to enable meaningful improvements. Without alignment of goals and financial support mechanisms, progress naturally slows. Furthermore, when only a single company or retail chain adopts higher standards, the market impact remains limited. Suppliers may simply choose to sell to less demanding buyers, reducing incentives to adopt improved practices and preserving the status quo.

The lack of standardization further contributes to this challenge, since different expectations and requirements established by different companies can create confusion, increase costs, discourage producers, and fragment progress. By contrast, the adoption of common standards creates scale, reduces inconsistencies, and enables meaningful sector-wide impact. Coordination also increases trust and facilitates traceability and transparent communication, strengthening the reputation of the entire value chain.

In addition, collaboration fosters innovation and knowledge sharing, facilitating access to new technologies and improved management practices. In a context of increasingly demanding consumers, customers and governments, collective action also provides greater legitimacy and helps mitigate reputational risks and exposure to boycotts, fines, and trade barriers. In light of these factors, greater collaboration across the value chain becomes essential.

“Working to improve animal welfare is a responsibility that extends beyond individual interests and generates significant benefits for producers, consumers, and the industry as a whole. Good animal welfare practices not only promote animal health and well-being, but also have a positive impact on product quality and the sustainability of production.”

Barbara Sollero, Executive Manager of Sustainable Agriculture, Nestlé Brazil

The Contribution of the Financial Sector and Public Policy

The financial sector can play an important role in advancing animal welfare in Brazil by directing credit and investment toward more responsible production models and by creating clear incentives for the adoption of higher standards. This may include financing programs dedicated to facility improvements and management upgrades, the incorporation of animal welfare criteria into risk and credit assessments, the recognition of strong performance through preferential financial conditions, and support for sustainability-linked financial instruments.

Public policies and independent certification systems can accelerate progress by creating a clear, predictable, and credible regulatory environment that reduces risks for producers, aligns incentives throughout the value chain, and protects consumers. This includes the development of progressive national standards for production, transportation, and slaughter; the integration of animal welfare into rural development policies; investments in technical training and enforcement; and greater harmonization of standards across states.

Standardized metrics, combined with traceability and digitalization, have the potential to enhance the transparency and credibility of the production system. However, an integrated monitoring framework is still lacking, and although substantial amounts of data are already collected through inspections, they remain underutilized for decision-making and management improvement. Strengthening the integration between inspection services and animal welfare programs could therefore unlock greater value from these data and support more effective management across the value chain.



05

CONCLUSIONS

FINAL REMARKS

In conclusion, there is growing consensus that animal welfare has become an intrinsic component of Brazil's animal protein sector, with significant advances particularly over the past decade. An increasing number of companies are adopting good practices, investing in continuous improvement, and supporting suppliers throughout this process. At the same time, the absence of minimum legal standards for some animal species, combined with the diversity of production systems, has resulted in uneven levels of implementation. These challenges are particularly evident among smaller producers, in terms of access to information, training, and resources.

In this context, the Brazilian scenario reinforces the importance of expanding access to reliable information, training, accessible technologies, and ongoing technical support to enable the broad and consistent adoption of good practices. When integrated across corporate strategies and properly aligned with animal health, productivity, sustainability, and product quality, animal welfare tends to generate more robust and lasting results, establishing itself as an essential condition for future-ready animal production.

Practical experience shows that the main challenges do not stem from a lack of interest among producers, but rather from a lack of clear information regarding impacts and benefits. Issues such as poor animal health and management practices, as well as stress and its negative effects on performance, generate losses and reduce productive potential. For this reason, the debate should focus not only on the additional costs involved, but also on the opportunities lost by failing to address these factors.

Animal welfare contributes directly to the resilience of production systems by improving economic performance and enhancing the capacity to adapt to stressors, including those associated with climate change. It should therefore be viewed as a strategic investment—rather than merely an external requirement—to accelerate the adoption of more efficient, resilient, and sustainable practices.

Finally, progress in animal welfare in Brazil should be understood as a gradual process, grounded in scientific evidence, practical learning, and continuous improvement. Maintaining a simultaneous focus on both ambition and starting point is essential to achieving meaningful progress while ensuring technical and economic feasibility. In this context, COBEA's work in bringing together producers, food retailers, food service companies, pet food companies and other buyers, has the potential to align ambitions, reduce fragmentation, increase the predictability of requirements, and support a consistent transition aligned with the realities of Brazilian production systems.

The conclusions of this report will guide COBEA's future work and serve as the foundation for the development of specific solutions projects from 2026 onward, with the objective of supporting a more coordinated, efficient, and scalable evolution of animal welfare in Brazil. We once again extend our sincere thanks to everyone who contributed to the preparation of this report, and we welcome any additional ideas and comments.

ANNEX - ANIMAL WELFARE CASE STUDIES FROM COBEA MEMBERS

About COBEA

The Brazilian Food Industry Collaboration for Animal Welfare (COBEA) is a pre-competitive collaboration initiative conceived by the certification body Produtor do Bem and created with the purpose of improving the welfare of animals raised for food and other products in Brazil. COBEA brings together companies from across the value chain to align expectations and priorities and accelerate progress. The initiative encourages and facilitates collaboration among different actors within the animal protein value chain and their most relevant stakeholders—including producers, consumers, civil society organizations, investors, and academics—in order to collectively address the systemic barriers that hinder improvements in animal welfare.

COBEA and its members recognize the complexity and diversity of animal production systems and understand that systemic change—one that takes into account animal welfare, environmental impacts, quality of life, and the economic well-being of the people and communities involved—is beyond the capacity of any single company or organization. For this reason, the initiative actively engages with a broad range of national and international stakeholders in order to empower Brazilian companies and promote a proactive approach to continuous improvement.

COBEA works with its members to identify meaningful ambitions for improved animal welfare, assess where current practices fall short of those ambitions, and identify opportunities for members and stakeholders to work together to drive progress. We believe these efforts will benefit all participants in the value chain and society as a whole.

The initiative currently includes ten companies: Danone Brazil, Fazenda Speranza, Group IMC (International Meal Company), JBS Brazil, Mantiqueira Brasil, MBRF, Minerva Foods, Nestlé Brazil, Planalto Ovos and Special Dog Company. In addition, Cooperl do Brasil recently became COBEA's first Partner Company.



DANONE BRAZIL: On-farm best practices improve productivity and animal welfare across Danone's dairy supply chain

The company advances responsible practices in the dairy sector in alignment with COBEA's objectives

Training technical teams in animal welfare best practices, developing educational materials on the topic, and implementing improved on-farm management practices are among the initiatives adopted by Danone Brazil as part of its commitment to advancing animal welfare throughout its dairy supply chain. In 2023, the company announced a public commitment to animal welfare and an investment of BRL 3 million, positioning itself proactively on the issue. Since then, a range of actions have been implemented in line with that commitment, including the training of 100% of its technical staff in animal welfare best practices.

Danone has also made substantial efforts to assess and implement improved practices directly on farms. Through a pilot project the company achieved significant results, including reductions in disease incidence and meaningful improvements in herd health indicators; enhanced animal performance through increased weight gain; process standardization through the introduction of previously absent procedures such as colostrum quality testing and colostrum banking; and continuous training programs that generated high levels of engagement among employees and producers.

In addition to becoming a member of the Brazilian Animal Welfare Collaboration (COBEA) in 2024, Danone Brazil successfully renewed its B Corp certification last year, further reinforcing its commitment to responsible and sustainable business practices. This approach is strategically important for the company, as milk represents its largest individual procurement category and has significant environmental, social, economic, and animal welfare impacts.

According to Humberto Carvalho, Supplier Development, Milk Quality, and Procurement Manager at Danone Brazil, the pilot project has delivered highly relevant results and provided the confidence needed to continue investing in this area. For the second consecutive year, Danone's suppliers have undergone audits, and the company has expanded implementation of the Fazenda Tudo de Bem ("All Good Farm") project, which directly addresses animal welfare alongside its supply-chain partners.

"Beyond the technical results, our consultants report that producers and farm teams eagerly anticipate the next visits. This demonstrates that specialized advisory support is creating a real impact by promoting knowledge transfer and consistent progress on farms. It is an excellent sign that those receiving training are motivated to continue improving", he says.

Carvalho explains that Danone is currently consolidating a management dashboard to demonstrate the project's benefits more clearly. Overall, results already indicate significant improvements, including stronger and more consistent performance indicators, reductions in clinical health problems, lower mortality rates, reduced treatment requirements and medication use, improved animal performance through higher weight gain and better weaning outcomes, and behavioral changes resulting in calmer and easier-to-handle animals.

"In addition to the technical gains, we are building a clear economic picture by comparing farm performance before and after implementation of these practices. Preliminary results point to substantial productivity gains, reinforcing that investing in animal welfare generates both financial returns and long-term sustainability."

Created five years ago, Danone's environmental program, Jornada Flora, has already generated significant results, which were presented at COP30 last year. The initiative has contributed to a 47% reduction in CO₂ emissions intensity per liter of milk produced between 2020 and 2024, as well as a 42% reduction in methane emissions intensity during the same period, aligning outcomes with the Global Dairy Methane Action Plan.

In addition to increasing productivity and producer income, Danone has achieved significant reductions in carbon and methane emissions throughout its fresh milk supply chain. Currently, 20% of the fresh milk used in the company's dairy products is classified as low carbon—defined as less than one kilogram of CO₂ equivalent per liter of milk. The program has also generated measurable economic benefits, including a 22% increase in producer income (adjusted for milk-price fluctuations), a 15% increase in productivity per cow, and an average 26% increase in daily milk production.

“We continue to learn throughout this journey. Supplier participation continues to grow, and our objective is genuine: to support our partners not only in animal welfare, but in broader sustainable development, seeking greater efficiency, productivity, cost reduction, improved welfare, and lower emissions. In this ecosystem, everyone benefits—producers, employees, Danone, the planet, and society”, says Humberto.

JBS BRAZIL: JBS advances animal welfare through initiatives in swine and beef production

Company completes transition to group housing for sows and supports an innovative calf-focused initiative that has already assessed more than 20,000 animals

JBS continues to strengthen its commitment to animal welfare through transformative initiatives across different segments of the animal protein value chain, with notable advances led by Seara in swine production and Friboi in beef cattle production.

Transforming Swine Production Through Group Housing

In 2025, Seara completed the transition to 100% group housing for gestating sows across its integrated swine operations, becoming the first major company in the Brazilian pork industry to fully fulfill this public commitment. Originally announced approximately ten years ago, the commitment was achieved more than twenty years ahead of the legal deadline established under Brazilian regulations, which require full compliance by 2045.

More than simply fulfilling a commitment, the initiative represents a structural transformation of the production chain, implemented gradually and in a technically robust and socially responsible manner. Over the past decade, the company redesigned production systems, invested in process innovation, trained employees and producers, and developed solutions adapted to diverse farm realities—without losing integrated producers, reducing producer income, or generating negative social impacts.

Under group housing systems, sows live in larger pens that allow greater freedom of movement, social interaction, and expression of natural behaviors, representing a significant advancement in animal welfare. One of the greatest challenges was ensuring that the transition did not result in producer exclusion or financial losses, particularly given the large number of family-operated farms within the integrated system.

To address this challenge, Seara conducted detailed assessments of production facilities and implemented customized solutions that respected the structural limitations and adaptation pace of each producer. The company's strategy prioritized process innovation through continuous training, revised management protocols, financial incentives, and the incorporation of group housing into all new projects.

Despite the complexity of the transition, the company maintained its growth trajectory and increased production by approximately 40% during the implementation period. With the completion of this transition, Seara has established itself as a reference within the sector, demonstrating that it is possible to anticipate regulatory requirements, raise animal welfare standards, and maintain the economic sustainability of the production chain.

“When we made this commitment, the consensus within the industry was that it would be impossible to implement in Brazil. There was no legislation, no established models, and the technical, economic, and social challenges were enormous. Seara chose to move ahead before the law required it and prove that it could be done”, says José Antônio Ribas Junior, Executive Director of Agricultural Operations, Seara

Beef Production: Supporting Calf Welfare from Birth to Weaning

Within the beef sector, JBS, through Friboi, is one of the participants of the Every Calf Matters initiative, a project focused on improving the welfare of calves from birth through weaning—a critical phase for productivity and profitability in beef production. Developed by consultancy firm BE Animal, the project brings together companies and technical specialists to improve management practices during the cow-calf phase.

Since 2023, participating farms across multiple Brazilian states have been monitored through both remote and on-site assessments using a technical framework that integrates data collection, training, and knowledge sharing. More than 20,000 animals have already been evaluated through the project. In addition to its work across other stages of the value chain, JBS contributes to improving key performance indicators in cow-calf operations by supporting producers with technical guidance and practical tools. This work has contributed to higher weaning rates, improved calf weights, better health outcomes, and enhanced animal welfare, all of which help increase the supply of healthier and more productive cattle throughout the production chain.

The initiative has already provided direct training to approximately 140 professionals working on farms and within partner organizations, while indirectly reaching more than 50,000 people through technical content and educational materials. Ongoing farm monitoring enables monthly analyses of births, treatments, disease occurrence, and herd health management, generating reports that support informed decision-making. By comparing data from the 2024/2025 and 2025/2026 production cycles, the project has been able to measure disease incidence and identify key risk factors, enabling both corrective and preventive actions. Preliminary comparative results indicate reductions in animal losses ranging from 5% to 20% among participating farms. The findings generated through the initiative will also support the development of free technical resources scheduled for publication throughout 2026, helping expand access to information and support continued progress within the beef sector.

The project maintains an active presence at industry events, in traditional media, and across digital platforms, providing practical content focused on day-to-day farm management. The work has already attracted international interest, with producers from countries including Canada, the United States, Colombia, Argentina, Uruguay, and Paraguay accessing project materials. Results have also been presented at universities and research institutions. By supporting initiatives such as Every Calf Matters, JBS reinforces its commitment to advancing livestock production through science, technology, and animal welfare.

“Participating in the Every Calf Matters project reinforces our commitment to the advancement of Brazilian cattle production. By supporting producers during the cow-calf phase, we help improve production indicators, promote animal welfare, and increase the availability of healthier and more productive animals throughout the value chain.”
— Emília Raucci, Quality Director, Friboi

MANTIQUEIRA BRASIL: Innovation and investment drive the expansion of cage-free egg production in Brazil

Mantiqueira Brasil, sector leader and COBEA member further demonstrates its commitment to advancing the animal welfare agenda, having already reached the milestone of more than 3 million cage-free hens.

Animal welfare has become an increasingly important priority for egg producers, who are seeking to improve production systems while enhancing the productivity and profitability of their operations. In this context, cage-free egg production has gained significant momentum in the laying hen sector in recent years.

This production system involves housing hens in barns, allowing them greater freedom of movement and access to a more varied environment. As a result, they are better able to express highly motivated natural behaviors, such as scratching, dustbathing, perching, and nesting. These systems provide hens with access to a range of spaces and resources that facilitate these behaviors, including nest boxes for laying eggs, perches for roosting, and litter areas for dustbathing.

In Brazil, although there is currently no specific legislation establishing standards for cage-free production, the adoption of these systems has continued to grow, with an increasing number of companies committing to their use in their operations. To date, more than 220 companies operating in Brazil—including major multinational brands such as McDonald's, Burger King, Subway, Bob's, Disney, Kroger, Campbell Soup, Walmart and, Starbucks—have committed to sourcing or selling only cage-free eggs.

These developments are aligned with the purpose of the Brazilian Collaboration for Animal Welfare (COBEA), a pioneering pre-competitive collaboration initiative in the Global South, founded in June 2024 to facilitate these and other advances in animal welfare across the animal protein sector. One of the first companies to join the coalition, Mantiqueira Brasil, which has more than 35 years of experience in the laying hen industry, recently surpassed the milestone of 3 million cage-free hens, further consolidating its commitment to the transition toward this production model in Brazil. In doing so, the company exceeded the target it set in 2020 of reaching 2.5 million cage-free hens by 2025.

This steady progress reinforces the company's commitment to advancing animal welfare and strengthens its position as a reference in the sector. According to COBEA's Executive Director, Elisa Tjarnstrom, each concrete action taken by the coalition's members demonstrates that improvements in animal welfare can go hand in hand with productivity and profitability, illustrating how leading companies are increasingly investing in animal welfare as a means of driving growth and future-proofing their business models.

Today, Mantiqueira Brasil is the largest egg producer in South America, producing and marketing approximately 4 billion eggs annually. The company has intensified its efforts to popularize the consumption of cage-free eggs in the Brazilian market through the promotion and commercialization of its Happy Eggs® brand. It is currently expanding operations at three production units—Lorena (São Paulo), São João do Itaperiú (Santa Catarina), and Formosa (Goiás)—guided by ESG principles and focused on animal welfare, advanced technologies, and process digitalization.

"Mantiqueira Brasil believes that animal welfare is a fundamental pillar in building a more ethical, sustainable, and responsible egg industry. By joining COBEA, we have reinforced our commitment to working collaboratively, sharing experiences, and accelerating the evolution of practices that respect the needs of our birds throughout all stages of production. We see the coalition as a unique opportunity to join forces with other committed companies and promote real and consistent progress. We believe that, together, we have the potential to raise industry standards, increase transparency, and demonstrate to Brazil and the world that it is possible to combine large-scale production with respect for animal welfare and sustainable innovation," says André Carreira, the company's Executive Poultry Manager.

To drive improvements in animal welfare among its suppliers and producers, Mantiqueira Brasil is currently investing in facilities and systems that allow birds to express their natural behaviors, while also ensuring high standards of nutrition, water quality, and environmental conditions.

In addition, the company has invested in communication and education on animal welfare so that end consumers can better understand the differences between production systems and recognize the benefits of the Happy Eggs® products. Mantiqueira Brasil views retailers as key partners in this process and works closely with supermarket chains through strategies such as promotional materials, dedicated shelf space, and in-store initiatives that increase both the visibility and profitability of its products. Consumers today are increasingly attentive to how animals are treated within production systems, and many already use this knowledge to inform their purchasing decisions.

MBRF: Replacing ear notching with more humane methods raises animal welfare standards in pig production

With the change implemented by MBRF, approximately 12.5 million pigs per year are no longer subjected to the traditional procedure

A strong commitment to animal welfare and the adoption of innovative and responsible practices throughout its operations are among the guiding principles of MBRF's Animal Welfare Program, which structures actions aimed at continuously improving animal management practices and promoting responsible care of animals. Among these initiatives, the company completed the elimination of traditional ear notching as a method of pig identification in 2021. As a result, approximately 12.5 million animals per year are no longer subjected to the procedure, representing a significant advancement in animal welfare.

The procedure was typically carried out during the first days of a piglet's life without anesthesia or pain relief, resulting in unnecessary pain and negatively affecting animal welfare. To raise animal welfare standards and align with market and societal expectations, MBRF adopted more humane identification methods, including ear tags and alphanumeric tattoos. The change was implemented across all of the company's piglet production farms, both company-owned and integrated operations, located in several Brazilian states.

To implement the project, the company purchased tattooing equipment for all farms and now acquires approximately 400,000 ear tags annually to identify grandparent and great-grandparent breeding sows. All employees involved in the process received training to ensure the correct application of the new methods. The transition was completed in 2021, and since then, none of the company's farms have continued the practice of ear notching.

During implementation, several challenges were encountered, including the logistics of purchasing and distributing equipment, standardizing procedures across different production units, and overcoming cultural resistance to change. However, team engagement and a clear understanding of the benefits provided by the new practices were fundamental to the initiative's success.

One of the main challenges involved obtaining acceptance of the ink used in the tattooing process from the Federal Inspection Services (SIF), which operate under Brazil's Ministry of Agriculture and Livestock (MAPA). Because pigs are intended for human consumption, any substance applied to their skin must meet strict safety, harmlessness, and traceability requirements.

To address this, MBRF adopted veterinary-grade inks with safe formulations and supporting technical documentation demonstrating their suitability. In addition, the company conducted training sessions with technical teams and engaged in dialogue with official inspectors to ensure understanding and acceptance of the new method. This step was essential to ensuring regulatory compliance and guaranteeing that the animal welfare innovation was implemented safely, effectively, and in accordance with the sector's legal and sanitary requirements.

"Animal welfare is fundamental to MBRF because it is at the core of our production chain. We continuously seek to improve animals' quality of life, both within and beyond our operations, working in an integrated manner to promote responsible practices and drive positive transformation throughout the value chain," says Ivomar Oldoni, Director of the MBRF Center for Innovation and Excellence (CIE) in Agriculture and Livestock.

Aligned with COBEA's principles, MBRF sees its participation in the organization as another way to ensure that animal welfare principles are effectively put into practice. "This exchange of experiences will be important for us to showcase our work and learn about measures that have been successfully adopted by other companies. By sharing successful practical initiatives, we can work together to further advance animal welfare practices in Brazil," he concludes.

MINERVA FOODS: Minerva Foods strengthens its corporate focus and strategic approach to animal welfare

Through the launch of the BEA+Minerva program and its participation in COBEA, Minerva Foods is advancing strategies aligned with international animal welfare expectations and protocols

As animal welfare becomes increasingly prominent as a topic across the animal protein sector, companies from different segments of the industry have been implementing both internal and external initiatives focused on the topic. One example is BEA+Minerva, a program developed by Minerva Foods, a global food company that owns brands such as Pul, Estância 92, and Cabaña Las Lilas and a leading beef exporter in South America. The program aims to strengthen and expand initiatives that improve animal welfare practices among suppliers throughout its supply chain.

According to Tamara Lopes, the company's Executive Sustainability Manager, the project was created as a natural evolution of the work that Minerva had already been carrying out with its animal and animal-derived raw material suppliers.

"BEA+Minerva consolidates these initiatives under a single strategic framework, bringing together engagement, training, monitoring, technical support, and case studies, all aligned with international animal welfare protocols. The objective was to provide greater structure, identity, and scale to work that was already taking place, but which now has stronger corporate direction and focus," she explains.

The program is built around five key objectives: supplier engagement, internal engagement, performance monitoring, risk management, and public commitments. Through training sessions, workshops, and technical materials tailored to different species and production systems, the program promotes engagement and capacity building among producers and suppliers, encouraging the adoption of best practices in animal welfare. In addition, Minerva conducts systematic monitoring of animal welfare indicators throughout the supply chain through self-assessment questionnaires, technical visits, and independent audits.

During transportation and at industrial facilities, monitoring is carried out through routine indicators collected by animal welfare officers and supplemented by information from logistics and cattle procurement teams, which oversee performance during transportation and on farms.

The program also incorporates socio-environmental aspects, reinforcing the integration of sustainable practices. Suppliers demonstrating a higher level of commitment are offered theoretical and practical training in partnership with specialized consultancies, and Minerva also finances independent animal welfare audits and certification processes.

The motivations behind BEA+Minerva are to keep the supply chain aligned with international animal welfare standards, meet ethical, legal, and market requirements, and adopt practices that improve animal handling, enhance worker safety, and preserve product quality.

For producers, Minerva believes that the main incentives to intensify their work on animal welfare include receiving technical support and training to improve both animal welfare and socio-environmental practices, gaining access to value-adding audits and certifications, and obtaining recognition for responsible production practices that emphasize sustainability and quality.

"These improvements help suppliers feel more confident and secure in their day-to-day operations, reduce the risk of accidents and losses, and provide technical support to make their work more efficient. In addition, participating in the program through training, audits, and certifications brings recognition for responsible production, valuing their efforts and strengthening the farm's reputation in the marketplace," says the Executive Sustainability Manager.

Continuous training and close engagement are also important for reducing variations in animal welfare performance among producers. Providing support tailored to the realities of each farm and species is therefore essential. To support this process, Minerva uses a risk matrix based on animal welfare indicators to guide supplier monitoring and identify priority areas for action, enabling resources to be allocated efficiently and consistently throughout the supply chain.

In addition to increasing collaboration and strategic engagement with its direct and indirect suppliers, Minerva Foods is also investing in broader supply chain collaboration to accelerate progress. The company was one of the initial members of the Brazilian Collaboration for Animal Welfare (COBEA). Regarding its participation in the initiative, Tamara notes that it represents an opportunity to work together with other supply chain stakeholders to strengthen consistent animal welfare practices.

"We believe that COBEA has significant potential to expand training opportunities, increase supplier engagement, and promote the adoption of responsible practices, contributing to a safer and more transparent production system that builds trust among customers, consumers, and society as a whole," she concludes.

NESTLÉ BRAZIL: Good farming practices program promotes animal welfare on dairy farms

As a member of COBEA, Nestlé Brazil reinforces its commitment to animal welfare and recognizes it as a fundamental pillar of sustainability

Animal welfare has become an increasingly important focus within Brazil's dairy sector. A key objective is to create conditions on farms that enable animals to live comfortably and express their natural behaviors. These practices contribute to higher productivity, lower disease incidence, and improved milk quality.

Beyond being essential for cows to remain health and produce milk efficiently, Nestlé Brazil—a leading player in the dairy value chain—also views animal welfare as an indicator directly linked to farm sustainability and, consequently, to reducing the carbon footprint of production systems. The company has been a pioneer in implementing on-farm animal welfare practices and has strengthened its focus on the issue year after year, integrating animal welfare as a fundamental pillar of sustainability and a key component of its journey toward regenerative dairy farming.

With its participation in COBEA, the company has further reinforced its commitment to the topic, as explained by Barbara Sollero, Executive Manager of Sustainable Agriculture at Nestlé Brazil:

"Working to advance animal welfare is a responsibility that goes beyond individual interests, bringing significant benefits to producers, consumers, and the entire industry. Good animal welfare practices not only promote animal health and well-being but also positively impact product quality and the sustainability of production."

To support this objective, Nestlé Brazil has developed the Nature por NINHO® program, a good farming practices initiative that promotes the adoption of animal welfare practices as one of its sustainable development pillars. The program provides guidance on soil management, regenerative agriculture practices, natural resource stewardship, water management, workforce training, and the protection of human rights and animal welfare on farms. It also covers topics such as facility maintenance, disease prevention and treatment, the use of anesthetics and analgesics during veterinary procedures such as disbudding, appropriate nutritional management for different animal categories, the use of sexed semen to reduce the number of male calves, and the implementation of good handling practices, among other important measures that help suppliers improve the efficiency and sustainability of milk production.

To ensure that these practices become part of daily farm management, Nestlé has invested in awareness-raising and capacity-building initiatives involving both consultants and suppliers. In doing so, the company is helping to drive a change in mindset across the sector, gradually introducing better practices and making them part of standard farming operations. Another important aspect of the program is supporting suppliers with the infrastructure adaptations and investments needed to ensure animal welfare on farms, as financing this transformation remains one of the sector's main challenges.

The company also encourages the adoption of animal monitoring technologies, particularly among farms that have achieved Diamond status within the program. These suppliers are required to monitor at least 60% of their adult animals. This monitoring helps producers make better management decisions, especially regarding reproductive management, while also enabling the early detection of diseases and identifying events that may have caused stress.

To showcase the program's progress, including the recognition of its first Diamond-level farm, Nestlé held the "Nature por NINHO® Circuit 2025" event during the first week of October 2025 in the municipality of Gameleira de Goiás, bringing together approximately 400 participants, primarily producers and suppliers. The event also served as a valuable capacity-building opportunity, featuring lectures and workshops on topics such as farm management, newborn calf care, genetic improvement, animal nutrition, regenerative agriculture, sustainable soil management, and family succession and farm longevity.

The event demonstrated how supplier engagement can be put into practice, highlighting the importance of recognizing strong performance and fostering a culture of care on farms, where the people responsible for the animals' daily care play a crucial role.

For Nestlé, another important consideration is how good animal welfare practices contribute to reducing carbon emissions, aligning with the company's broader global sustainability goals.

"Our partnership with COBEA reinforces Nestlé's commitment to both animal welfare and climate action. We are confident that it will not only accelerate innovation and research but also facilitate active dialogue and stronger connections among key stakeholders across different animal production chains, promoting consistent and sustainable progress across the sector," concludes Barbara.

PLANALTO OVOS: Cage-free hens and a strong focus on biosecurity drive successful egg production

As a member of COBEA, Planalto Ovos prioritizes a preventive and sustainable production system for its 500,000 laying hens

For the past eight years, cage-free production, robust biosecurity measures, and the adoption of preventive and sustainable management systems have underpinned the success of Planalto Ovos. The company's production results throughout its history demonstrate the consistency of the model chosen from the very beginning of the project. A founding member of the Brazilian Collaboration for Animal Welfare (COBEA), the company currently manages a flock of approximately 500,000 birds across different production units in the state of Minas Gerais.

The decision to adopt cage-free egg production was influenced by the owners' previous experience in the poultry industry, built between 1964 and 2017 at Granja Planalto, and by the belief that this model would enable the development of a production system based on careful management, strong biosecurity practices, and product quality.

When the company was established in 2018, the Brazilian market for eggs from alternative production systems was still relatively underdeveloped. There were a few isolated initiatives, often small in scale and with limited process standardization. However, trends observed in international markets indicated that production systems offering better living conditions for laying hens would become increasingly important over time. Against this backdrop, Planalto identified an opportunity and, from the outset, rejected the idea of gradually transitioning from conventional production systems.

Since then, all of the company's production has been conducted in cage-free or free-range systems and is fully certified for animal welfare, establishing a high production standard for all birds, regardless of the commercial destination of the eggs. This approach contributes to greater operational consistency and reinforces the principle that management practices and housing conditions should be uniform throughout the flock.

From the project's inception, biosecurity was established as one of the operation's main pillars. Initially, there were concerns that floor systems could increase the risk of health challenges. In practice, however, the company's experience has demonstrated that a robust prevention program, combined with good management practices, can maintain both flock health and production consistency.

One outcome of this approach has been the ability to produce eggs without the use of antibiotic growth promoters. To support this model, the company developed an integrated set of preventive measures based on rigorous biosecurity, balanced nutrition, and appropriate flock management. Within this framework, the company uses technological alternatives that contribute to gut health and microbiome stability, including probiotics and synbiotics, organic acids, and essential oils. These tools help maintain microbial balance and reduce the need for therapeutic interventions throughout the production cycle.

This approach is aligned with the One Health concept, which recognizes the interdependence of animal health, human health, and environmental sustainability, reinforcing the importance of preventive and sustainable production systems.

The production structure is compartmentalized, with physically separate units for feed manufacturing, farms, and egg packing facilities. Although this increases logistical complexity, it significantly reduces the risk of pathogen transmission. Health management includes vaccination, monitoring, access control, and disinfection, with additional attention in floor systems given to litter management, nest design, and the prevention of endoparasites.

The production results achieved by the company demonstrate the consistency of the model it has adopted. One of its most significant milestones was the recognition of a Lohmann flock as the most productive ever recorded for the breed, reaching 593.8 eggs per hen housed. In 2024, the company also received the Good Egg Award from the international animal welfare organization Compassion in World Farming. The award recognizes companies that adopt high standards of production and practices aimed at improving the living conditions of laying hens.

According to the company, these achievements demonstrate that animal welfare and productivity are not conflicting objectives and that it is possible to combine high standards of animal welfare with strong and consistent production performance.

Additionally, Planalto Ovos' participation in the creation of COBEA reflects its belief that collaborative initiatives can accelerate learning across the sector. The exchange of experiences among companies, academia, and organizations throughout the value chain helps expand the adoption of good practices and strengthens technical and strategic discussions on animal production.

In the company's view, Brazil has the technical capacity to continue advancing in this area but still faces challenges related to access to financing, production costs, and the need for better market organization. In this context, independent certification also plays a critical role in differentiating good practices and providing greater transparency to the market.

"The viability of cage-free systems depends less on discourse and more on execution: planning, biosecurity discipline, close observation of the birds, well-trained teams, and expansion that is aligned with market demand. Our participation in COBEA serves not only to share our experience with others, but also to evolve together and foster the collaboration needed across the value chain, helping to accelerate the transition toward production systems that promote better animal welfare," says Daniel Mohallem, Director of Planalto Ovos.

SPECIAL DOG COMPANY: The pet food industry advances animal welfare through responsible sourcing of ingredients

Co-founder of COBEA Special Dog Company became the first pet food manufacturer in Brazil to implement a 100% cage-free egg sourcing policy.

Proteins such as whole egg powder are widely used ingredients in pet food production. As awareness of the conditions faced by laying hens in conventional egg production systems increases, so does the demand for products that adhere to higher animal welfare standards. This trend is not limited to human food—it is also gaining momentum in the pet food sector, reflecting the understanding that more ethical production practices create added value while also positively influencing food quality.

With this perspective in mind, Special Dog Company, one of Brazil's largest pet food manufacturers, announced in 2023 that it would source only cage-free eggs for use in its formulations. In just ten months, the company developed and fully implemented a comprehensive animal welfare action plan across its supply chain, replacing 100% of the eggs used in its products with eggs sourced from production systems that provide better living conditions for laying hens.

With this achievement, Special Dog became the first pet food manufacturer in Brazil to fully implement such a policy throughout its production. The company is now expanding its focus to other supply chains, including fish, where significant progress is expected in 2025, as well as pork production. Its commitment to the issue was further strengthened through its participation in the Brazilian Collaboration for Animal Welfare (COBEA) in 2024, a non-profit initiative established by the certification company Produtor do Bem and initially formed by seven companies committed to advancing animal welfare practices across their supply chains. During the coalition's first meeting, João Paulo Figueira, Sustainable Development Manager at Special Dog Company, was elected to serve as the organization's first Chair.

Sustainability discussions in the pet food industry generally focus on topics such as decarbonization and the energy transition. However, Special Dog views animal welfare as an equally strategic pillar, both because it aligns with its customers' values and because it offers significant opportunities for market differentiation.

"Given the nature of our business, which promotes pets' health and longevity through balanced nutrition, animal welfare has enormous synergy with what we do. Companies that take a leadership role on this issue with their suppliers will have a concrete opportunity to differentiate themselves," says Figueira.

According to him, interest in the topic is growing among the sector's leading companies, which tend to be more attentive to emerging market demands. Nevertheless, animal welfare remains an early-stage agenda for most pet food companies. One of the main challenges is the limited availability of suppliers that can demonstrate robust animal welfare practices, requiring the industry not only to actively seek out these suppliers but also to support and encourage their development. For this reason, Special Dog Company believes in a gradual process that includes education, awareness-raising, and greater collaboration among the different actors in the value chain. Because many of the ingredients used in pet food are sourced from the same producers that supply the human food sector, there are significant opportunities for synergy and cross-sector collaboration.

"It is precisely this collaborative spirit that guides COBEA's work. We are building a new model of cooperation across the entire animal protein value chain with the goal of driving the progress that is needed. From the beginning, it was clear that there was a shared and genuine purpose to overcome today's challenges. We believe that bringing together companies committed to this cause—combining different capabilities, experiences, and perspectives—is the best way to achieve meaningful and lasting improvements in the welfare of poultry, pigs, fish, and other species with greater speed and consistency," concludes Figueira.



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