



Sustainable Livestock Production and Animal Welfare

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Acronyms and abbreviations

PSAU	Poltava State Agrarian University
NUBiP	National University of Life and Environmental Sciences of Ukraine
LNUVMB	Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies Lviv
SMC VFPO	Scientific and Methodological Center for Higher and Pre-Higher Education
AUPB	Association of Ukrainian Pig Breeders
AMP	Association of Milk Producers
Dahl EUU	Volodymyr Dahl East Ukrainian University
SSUFSCP	State Service of Ukraine on Food Safety and Consumer Protection

1. Background

Livestock farming in Ukraine is important for ensuring the country's food security and has significant export potential. In recent years, the state of the industry has not fully matched its potential, with a downward trend in the number of almost all types of farm animals.

The prolonged decline in livestock numbers significantly complicates the situation with regard to supplying the Ukrainian population with animal-based food products and increases dependence on imports of genetic resources. Ukraine's integration into the global and European community will contribute to solving the problem of food security for the population under any circumstances.

Until recently, Ukraine was one of the key guarantors of food security on a global scale, providing in the year 2021 food products in equivalent to about 6% of global consumption calories [1].

The livestock sector in Ukraine currently accounts for about 20% of gross agricultural production, and in some years this figure reached 50% [20].

As of January 1, 2025, the country had 2 million head of cattle, 4.5 million pigs, 843,000 sheep and goats, and over 187 million poultry. These animals are kept on more than 77,000 farms and in 13.9 million households, engaging approximately 16 million people in agricultural production [17].

Therefore, in order to improve the situation as a whole, it is necessary to implement effective mechanisms to support the potential of livestock producers, stabilize the number of livestock, and increase the effectiveness of production. At the same time, this improvement should be based on a new approach that complies with the principles of animal welfare.

In Ukraine, there are several factors that stimulate the transition to a zoocentric model of animal husbandry.

1. Political. Ukraine's accession to the European Union requires a transition to the animal welfare standards applied in the EU.
2. Economic. Export of livestock products to the European Union can be carried out only if the required welfare requirements are met.
3. Ethical. Ukrainian consumers want to see better conditions for farm animals. This is evidenced by the results of surveys conducted in the last years.

This is confirmed by various initiatives, such as the vegan rations for Ukrainian soldiers etc. Such initiatives shows that Ukrainians want to see improvements in the welfare of farm animals in Ukraine.

The concept of animal welfare encompasses the three pillars of livestock farming: keeping/housing, transportation and slaughter. These policy recommendations apply exclusively to the keeping/housing of farm animals.

2. Assessment of Current Policies

The main documents regulating sustainable livestock farming and animal welfare regarding keeping/housing, transportation and slaughter in Ukraine are the following:

Law of Ukraine 2498-XII "On Veterinary Medicine" of 1992, as amended.
<https://zakon.rada.gov.ua/laws/show/2498-12#Text>

Law of Ukraine 1206-IX "On Veterinary Medicine" of 2023 will be enacted on 01.03.2026 to replace the above-mentioned Law
<https://zakon.rada.gov.ua/laws/show/1206-20#Text>

Law of Ukraine 3221-IX "On Amendments to Certain Laws of Ukraine on Improving State Regulation of Food Security and Livestock Development" of 2023

<https://zakon.rada.gov.ua/laws/show/3221-20#Text>

Law of Ukraine 3447-IV "On the Protection of Animals from Cruel Treatment" of 2006

<https://zakon.rada.gov.ua/laws/show/3447-15#Text>

Law of Ukraine 2042-VIII „On state control over compliance with legislation on food products, feed, products of animal origine, animal health and welfare“ of 2017

<https://zakon.rada.gov.ua/laws/show/2042-19#Text>

Order of the Ministry of Economic Development, Trade and Agriculture of Ukraine "On Approval of the Requirements for the Welfare of Farm Animals during their Keeping", dated 08.02.2021 No. 224

<https://zakon.rada.gov.ua/laws/show/z0206-21#Text>

Order of the Ministry of Agricultural Policy and Food of Ukraine "On Approval of the Procedure for State Registration of Capacities and the Procedure for Maintaining the State Register of Business Operators and Their Capacities", dated 15.02.2024 No. 431

<https://zakon.rada.gov.ua/laws/show/z0501-24#Text>

Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Rules for Transportation of Animals", dated 16.11.2011 No. 1402

<https://zakon.rada.gov.ua/laws/show/1402-2011-%D0%BF#Text>

Order of the Ministry of Agrarian Policy and Food of Ukraine "On Approval of the Requirements for Ensuring the Welfare of Animals during Slaughter and Euthanasia", dated 29.08.2022 No. 628

<https://zakon.rada.gov.ua/laws/show/z1244-22#Text>

Order of the Ministry of Agrarian Policy and Food of Ukraine "On approval of the form of the annual report on the status of implementation of long-term and annual plans for state control", dated 23.08.2024 No. 2830

<https://minagro.gov.ua/npa/pro-zatverdzhennia-formy-shchorichnoho-zvitu-pro-stan-vykonannia-dovhostrokovoho-ta-shchorichnoho-planiv-derzhavnoho-kontroliu>

Order of the Cabinet of Ministers of Ukraine "On Approval of the Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and Approval of the Operational Plan for its Implementation in 2025-2027", dated 15.11.2024 No. 1163

<https://zakon.rada.gov.ua/laws/show/1163-2024-%D1%80#n425>

The Roadmap for Ensuring the Implementation of EU Animal Welfare Legislation in Ukraine for 2025-2027

<https://dpss.gov.ua/diyalnist/bezpechnist-harchovih-produktiv-ta-veterinarna-medicina/blahopoluchchia-tvaryn>

Order of Ministry of Agricultural Policy and Food of Ukraine „On Approval of Certain Regulatory Acts on Compliance with the Requirements of Animal Welfare Legislation", dated 11.10.2024 No. 3933

<https://ips.ligazakon.net/document/re43027?an=10>

Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Procedure for Maintaining the Register of State Certificates of Knowledge and Skills to Comply with the Requirements of Animal Welfare Legislation", dated 27.12.2024 No. 1520

<https://zakon.rada.gov.ua/laws/show/1520-2024-%D0%BF#Text>

- Law of Ukraine "On Ensuring Sanitary and Epidemic Welfare of the human population"

<https://zakon.rada.gov.ua/laws/show/4004-12#Text>

- Criminal Code of Ukraine (Article 299)
<https://zakon.rada.gov.ua/laws/show/2341-14#Text>
- Code of Ukraine on Administrative Offenses (Article 89)
<https://vsezakony.com.ua/kupap/statya89>
- Rules for keeping pets in populated areas
https://kyivcity.gov.ua/navkolyshnie_seredovyshe_mista/tvaryny/pravila_utrimannya_i_doglyadu_zadomashnimi_tvarinami/
- Sanitary norms and rules for keeping animals
<https://zakon.rada.gov.ua/laws/show/z1015-10#>

3. Best Practices and Case Studies

Modern agrarian production that complies with EU-standards requires the introduction of new approaches, solutions, and technologies that would increase the profitability of livestock production. Modern farmers need new technologies that enable them to optimize and improve animal husbandry systems, protect the environment, improve product quality and at the same time to comply with animal welfare regulations.

Providing individual care for animals is a serious challenge that requires innovative research and automated solutions that protect animal health and welfare while ensuring high-quality and safe products for humans. Replacing human labor with automation is a growing trend in many industries, and agriculture is no exception. Most aspects of animal husbandry are extremely labor-intensive, with much of the work consisting of repetitive and standardized tasks - an ideal niche for robotics and automation. In this regard, scientific justification, development, and implementation of new innovative technologies for livestock production, automation of animal husbandry processes, and studying the effectiveness of their use in the industry are relevant.

To implement the livestock development strategy, it is necessary to ensure the priority development of dairy farming, poultry farming, and pig farming, as these are the sectors that guarantee rapid capital turnover. The immediate future of domestic agriculture lies in innovative integrated robotic systems, which are already being actively used around the world and are being implemented in the best farms in Ukraine.

The Smart Farm concept aims to accelerate the transition from traditional processes to managing the overall profitability of the farm by using new decision-making tools and automation technologies to improve the quality of products and profits, as well as the competitiveness of livestock products. The implementation of Smart Farm in individual farms (JSC «Peremoha», LLC «Globinsky Pig Complex», LLC AF «im. Dovzhenko», PJSC «Poltava Poultry Farm» and PAF «Podolyaka» in the Poltava region, LLC «Milk of the Fatherland» in the Sumy region, PAP «Dzvyn» in the Ternopil region, SP LLC «Niva Pereyaslavshchyny» LLC in the Kyiv region, LLC «Vinnytsia Poultry Farm» of the agricultural holding «Myronivsky Hliboproduct» in Vinnytsia region) allows the optimization of animal care using advanced technologies such as wireless sensors that detect signs of disease in cattle, pigs, and poultry by analyzing feeding patterns, or microensors that track animal movement and assess their health.

The latest Smart Farm concept is an integrated complex for ensuring effective production management, which includes eight components of an interconnected technological cycle of livestock production: effective herd management based on the use of information support and decision-making systems that allow real-time monitoring of milking, feeding, and reproduction; improved animal housing conditions (construction of modern livestock facilities); optimized animal feeding, which is achieved through the use of special programs for determining and preparing

balanced diets and automated feed distribution; automation and robotization of key technological processes to reduce production costs and increase profitability; improving product quality through the use of modern advanced technologies, which ensures a competitive advantage for products on the market and a better purchase price (for example, fast and efficient milk cooling); care and preservation of animal health based on the creation of comfortable conditions for keeping and microclimate management, as well as timely veterinary care, which has a positive effect on their productivity and product quality; environmentally safe production based on the use of effective solutions for the removal and processing of organic waste, which contributes to the improvement of hygiene and animal housing conditions, as well as improves the microclimate, helps reduce ammonia and nitrogen gas content; a system for integrating production processes, taking into account production characteristics, productivity trends, etc; improved animal welfare.

Dairy farming

In dairy farming, it is necessary to find a balance between economic stability and compliance with political and social requirements related to new animal welfare standards. Smart construction is an effective approach to ensuring sustainable conditions for animals and optimizing environmental impact. This is achieved by integrating smart barn design concepts with innovative technologies, particularly in the areas of automation and digitalization.

Intelligent technologies combined with consistent, preventive management significantly reduce the workload on employees and lead to a new assessment of the quality of their work. New concepts are being actively discussed in calf rearing, including closed barns with flexible boxes and partitions for single, double, and group housing, which open up new opportunities for guaranteeing animal welfare, increasing efficiency, and improving consumer and political perceptions.

In the field of automation, special attention will be paid to automatic feeding, as it has great potential. Sensor technologies, in particular intelligent animal monitoring using cameras and sound detectors, as well as related capabilities, provide new tools for herd management that can be used to optimize the production of high-quality milk.

In dairy farming, a striking example and one of the basic concepts of Smart Farm is the voluntary milking system using robotic boxes and milking parlors, which encompasses the principles of building a balanced farm and meets the environmental requirements.

Pig farming

The economic efficiency of pork production is closely linked to the organization of production, the use of feed, and housing / feeding technology.

Numerous developments and improvements to existing housing and feeding technologies, as well as new innovative solutions and well-thought-out details in accessories and equipment, are aimed at ensuring successful pig production. The data transmission network of various technologies, installed in farms, continues to improve – from climate control systems to feeding technologies and optimized sales management.

Automated production systems continue to evolve, as do other developments aimed at reducing ammonia levels in pig barns. The condition of sows is critical to the economic success of piglet producers. In this context, advanced automated sow condition scoring systems can be assisted by using individualized feeding.

Critical issues are the housing of weaned sows and suckling sows. It is recommended to allocate at least 5 m²/head for weaned sow, and to keep suckling sows in modernized pens with a total area of 6.5-7.5 m² and enough space for movement. The main goal is to improve the welfare of sows and reduce piglet losses. However, compliance with these requirements will force farms to

either reduce their livestock due to lack of space or build additional facilities. Both options can have a negative impact on the business climate in the pig industry.

There have also been significant developments in feeding technology, particularly in dry and portion/controlled feeding systems, as well as in feeding systems for suckling piglets, which are designed to ensure improved hygiene. The new development of acoustic sensors, which can measure noise levels on farms to assess pig welfare, is very promising.

Poultry farming

The main focus of technological trends in poultry farming is improving the welfare and health of birds, which is a requirement from politicians and society. Optimizing the vaccination process and improving animal handling are important for ensuring their long life and preventing negative consequences from vaccination.

Poultry farming involves many labor-intensive and repetitive processes (cleaning and disinfection, egg collection, etc.) that can be intensified and automated with the help of robots. Artificial intelligence has become the basis for many innovative processes in poultry farming. Sensors collect information, software tracks it, and artificial intelligence adjusts the conditions in the room or warns of a potential problem by sending a notification to an employee's iPad or smartphone. All this information can be stored and analyzed, which will ensure standardization of production and increase livestock productivity.

New vaccination methods represent a significant step forward in this area, offering improvements in functionality and procedures. Innovative solutions for controlling red mites, disinfecting hatching eggs, and cleaning chicken coops and poultry houses can also have a significant impact on bird health.

Improved rearing pens and combined pens for laying hens can provide better conditions for the welfare of chickens. Particular attention is paid to the welfare of chicks.

Digital technologies help optimize work processes, reduce costs, improve animal welfare, and reduce the workload on farms. They provide livestock producers with practical opportunities to find and implement innovative technologies in production and farm management and increase production profitability.

Outlook

These trends are promising for livestock farming in Ukraine, as they relieve farmers of burdensome labor, take care of animal physiology, improve production control and management, and ensure high quality of the products obtained. Therefore, for its widespread implementation, it is necessary to attract state support for the creation of new farms with innovative technologies, the construction and reconstruction of existing premises, the conduct of breeding work aimed at creating highly productive breeds, the training of highly qualified personnel to service innovative systems, and the conduct of research work aimed at finding new innovative solutions.

In particular, teachers from SuLaWe project partner institutions had the opportunity to learn about animal welfare and the implementation of digitalization to ensure sustainability during study trips to European universities, their experimental departments, farms, and familiarization with best practices in livestock farming. Based on the experience gained, textbooks and Multimedia teaching material for the three topics "Sustainable Animal Husbandry," "Welfare," and "Digital Animal Husbandry" were developed. Those are used in the educational process at Poltava State Agrarian University, the National University of Life and Environmental Sciences of Ukraine, Lviv National University of Veterinary Medicine and Biotechnology named after Stepan Gzhytsky, and Volodymyr Dahl East Ukrainian National University to train highly qualified specialists, who are familiar with the principles of best European practices. This will facilitate the faster integration of

European experience to ensure the sustainable development of livestock farms in Ukraine. The experience gained is being disseminated through the participation of teachers, masters, and doctoral students in conferences, in particular, the International Forum “Sustainable Cattle Breeding and Milk Production in Ukraine”, „Sustainable Poultry Farming in Ukraine”, „Sustainable Pig Farming in Ukraine“, “Sustainable Livestock and Animal Welfare” and others.

Farm digitalisation is an important step toward improving the efficiency and competitiveness of modern livestock farming. Thus, the use of modern technologies helps not only to reduce costs, but also to improve product quality, ensure animal welfare, and create conditions for sustainable farm development.

4. General Policy Recommendations

To implement animal welfare regulations for Ukrainian livestock business operators a number of measures need to be implemented which are recommended as follows:

a. Regulatory framework

Recommendations:

- Review and update legislation in line with international standards (e.g. OIE, EU standards).
- Implementation of EU requirements regarding conditions for keeping, transporting and slaughtering animals.
- Strengthening accountability for violations of animal welfare standards.
- Integration of sustainable livestock farming principles into state agricultural policy.

Eliminating gaps:

- Uneven implementation of standards across regions.
- Insufficient control over compliance with regulations.
- Lack of adaptation of international practices at the national level.

Example: During a study trip to the EU, the effective implementation of animal welfare standards was noted thanks to a clear legal framework and control system.

b. Financial incentives

Recommendations:

- Subsidies and tax breaks for farms that implement environmentally friendly production methods.
- Financial support for small and medium-sized farms to transition to sustainable practices
- Loans and grants for modernising animal husbandry infrastructure.
- Supporting certification of producers who meet high animal welfare standards.

Eliminating gaps:

- Lack of financial resources to implement sustainable practices.
- Lack of economic motivation to adhere to high standards of animal welfare.

Example: Experience from farms in the EU has shown that financial support from the state promotes a rapid transition to more environmentally friendly and humane methods of animal husbandry.

c. Education and training programmes

Recommendations:

- Development of training programmes for farmers, veterinarians and agronomists on modern animal husbandry methods.
- Implementation of educational campaigns to raise public awareness of sustainable livestock farming methods.
- Exchange of experience through study trips, internships and conferences.

Eliminating gaps:

- Lack of qualified specialists in the field of animal welfare.
- Low awareness among farmers about sustainable production methods.

Example: During study trips to partner countries, we were shown how integrated training programmes for farmers lead to improved animal welfare and increased economic efficiency of farms.

d. Support for research and development

Recommendations:

- Allocation of grants for scientific research in the field of sustainable animal husbandry.
- Development of alternative feeding methods that reduce environmental impact.
- Introduction of precision livestock farming technologies (health monitoring, automated care systems, etc.).

Eliminating gaps:

- Lack of sufficient funding for innovation.
- Slow integration of new technologies into practical management.

Example: Experience in EU countries has shown that investment in research on methods of keeping animals with a higher level of welfare has led to increased productivity and improved environmental performance.

e. Monitoring and evaluation mechanisms

Recommendations:

- Introduction of independent audits to assess animal welfare conditions.
- Development of digital monitoring systems (video surveillance, sensors, blockchain for supply tracking).
- Establishment of a national system for collecting data on animal welfare.

Eliminating gaps:

- Lack of a unified system for monitoring animal welfare conditions.
- Insufficient control over compliance with standards by state authorities.

Example: The EU has a successful independent monitoring system that assesses animal welfare at all stages of production and provides recommendations for improving conditions.

Conclusion

The development and implementation of these policy recommendations will help to address existing gaps in sustainable livestock production and animal welfare. The use of best practices

learned during study tours and international conferences will ensure the effectiveness of the changes being implemented and contribute to the development of the agricultural sector.

The most important messages to policy makers as well as for society are stated by FAO (2025) [2] and formulated as following:

- Integrate animal welfare principles into sustainable livestock systems and existing agri-food strategies.
- Realise the principle of animal welfare as a driving force behind the realisation of the “One Health” philosophy and the reduction of antimicrobial resistance.
- Align animal welfare actions with environmental goals and biodiversity commitments
- Support inclusive growth and equitable access to food and food biosecurity by improving animal welfare.
- Strengthen global and regional cooperation and knowledge system.

5. Implementation Strategy

To implement the animal welfare legislations Ukraine has developed and adopted different legislative instruments.

There are two basic laws on the welfare of farm animals

- Law of Ukraine 2498-XII "On Veterinary Medicine" of 1992, as amended, <https://zakon.rada.gov.ua/laws/show/2498-12#Text> in which the definition of "animal welfare" was introduced by the Law of Ukraine 3221-IX "On Amendments to Certain Laws of Ukraine on Improving State Regulation of Food Security and Livestock Development" of 2023 <https://zakon.rada.gov.ua/laws/show/3221-20#Text>
- Law of Ukraine 3447-IV "On the Protection of Animals from Cruel Treatment" of 2006 <https://zakon.rada.gov.ua/laws/show/3447-15#Text>

Starting from 01.03.2026, the Law of Ukraine 1206-IX "On Veterinary Medicine" of 2023 will be enacted to replace the above-mentioned Law. <https://zakon.rada.gov.ua/laws/show/1206-20#Text>

To ensure compliance with animal welfare standards, the executive authorities have issued the following special legislation:

Keeping/housing

Order of the Ministry of Economic Development, Trade and Agriculture of Ukraine "On Approval of the Requirements for the Welfare of Farm Animals during their Keeping", dated 08.02.2021 No. 224 <https://zakon.rada.gov.ua/laws/show/z0206-21#Text>

Order of the Ministry of Agricultural Policy and Food of Ukraine "On Approval of the Procedure for State Registration of Capacities and the Procedure for Maintaining the State Register of Business Operators and Their Capacities", dated 15.02.2024 No. 431 <https://zakon.rada.gov.ua/laws/show/z0501-24#Text>

Transportation

Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Rules for Transportation of Animals", dated 16.11.2011 No. 1402 <https://zakon.rada.gov.ua/laws/show/1402-2011-%D0%BF#Text>

Slaughter

Order of the Ministry of Agrarian Policy and Food of Ukraine "On Approval of the Requirements for Ensuring the Welfare of Animals during Slaughter and Euthanasia", dated 29.08.2022 No. 628
<https://zakon.rada.gov.ua/laws/show/z1244-22#Text>

These regulations set out the requirements for animal welfare during their keeping, transportation and slaughter. It is worth noting that the Resolution of the Cabinet of Ministers of Ukraine on transportation currently does not fully meet the requirements and will be updated.

All animal welfare requirements will come into force on January 01, 2026.

However, a number of measures are envisaged to ensure the successful transition of business operators to the new requirements.

The Cabinet of Ministers of Ukraine has adopted the Order of the Cabinet of Ministers of Ukraine "On Approval of the Strategy for the Development of Agriculture and Rural Areas in Ukraine for the Period up to 2030 and Approval of the Operational Plan for its Implementation in 2025-2027", dated 15.11.2024 No. 1163
<https://zakon.rada.gov.ua/laws/show/1163-2024-%D1%80#n425>

This Order sets out the newly revised "Strategy for the Development of Agriculture and Rural Areas in Ukraine until 2030.

- In Strategic Objective 2 "Meeting the public's need for high quality, nutritious and safe food and ensuring food security"
- in Clause 4 "Ensuring that agricultural producers respond to public food and health needs, including high quality, safe and nutritious food, produced in a sustainable manner, as well as improving **animal welfare** and ensuring their resistance to antimicrobial agents"
- in subparagraph 1 stated "Conducting information campaigns to raise awareness of target audiences about the requirements of legislation on food, feed, animal by-products, **animal health and welfare**" (implementation in the first quarter of 2026)
- in subparagraph 2 stated "Ensuring the implementation of the EU requirements for the **welfare of farm animals during keeping, slaughtering, transportation** and/or related operations in national legislation, their implementation by business operators, as well as ensuring the functioning of the state control system for compliance with these requirements" (implementation by the fourth quarter of 2027).

An indicator of the implementation of this subparagraph is the **development and publication of a roadmap** on the web resources of the State Service of Ukraine for Food Safety and Consumer Protection and the Ministry of Economy, to which responsible and interested persons have access.

The Roadmap for Ensuring the Implementation of EU Animal Welfare Legislation in Ukraine for 2025-2027 is now available on the State Service of Ukraine on Food Safety and Consumer Protection website at the following link

<https://dpss.gov.ua/diyalnist/bezpechnist-harchovih-produktiv-ta-veterinarna-medicina/blahopoluchchia-tvaryn>

The stakeholders involved include the SuLAWe project, the Association of Milk Producers, and the Association of Ukrainian Pig Breeders. As the scope of work is extensive, the roadmap allows for the involvement of other stakeholders. The roadmap sets out a number of measures for implementing animal welfare legislation.

The roadmap is intended to cover the period up to 2027.

Clearly, the implementation of the new rules requires appropriate staff training. To train business operators, the Ministry of Agricultural Policy and Food of Ukraine issued Order „On Approval of

Certain Regulatory Acts on Compliance with the Requirements of Animal Welfare Legislation", dated 11.10.2024 No. 3933, which regulates the organisation of training and assessment of employees' knowledge of animal welfare issues at farms and meat processing plants. Higher education institutions can use this order to train business operators in animal welfare issues.

<https://ips.ligazakon.net/document/re43027?an=10>

Universities and colleges can competitively obtain the right to train farm and processing plant employees (business operators) on new animal welfare requirements. The training modules and knowledge developed in the SuLAWe project can and should be the basis for the application of the project's participating HEIs to provide training in terms of animal welfare.

The certificates issued as a result of the training will be registered in accordance with the Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Procedure for Maintaining the Register of State Certificates of Knowledge and Skills to Comply with the Requirements of Animal Welfare Legislation", dated 27.12.2024 No. 1520 and will serve as the actual basis for the admission of employees/business operators to perform their professional duties when working with animals.

<https://zakon.rada.gov.ua/laws/show/1520-2024-%D0%BF#Text>

6. Sectoral challenges

A significant part of the transition period for the implementation of European animal welfare standards coincided with Russian Federation full-scale invasion and war pe causing critical losses and unprecedented challenges for the industry.

According to calculations of analysts from the Kyiv School of Economics in cooperation with the Ministry of Community and Territorial Development, the Ministry of Economy, other relevant ministries, and the National Bank of Ukraine, the amount of direct military damage to Ukraine's agro-industrial complex during 2022-2024 is estimated at US\$10.3 billion. Around US\$254 million of the mentioned represents losses in livestock farming due to the death and forced slaughter of animals.

In addition to the immediate risks of wartime, this period was accompanied by numerous additional challenges: economic and energy crises, epizootic risks, staff shortages and limited access to financial resources.

Taking into account the sectoral specifics of housing of different types of animals, there are certain peculiarities for implementing animal welfare principles in dairy farming, pig farming and poultry farming in Ukraine.

Dairy farming

The adaptation of Ukrainian dairy farms to the introduction of European animal welfare requirements is taking place in a completely unique and very difficult environment. The main challenge, along with all the regulatory issues, is to survive in the wartime. More than 100 dairy farms in Ukraine are located in the frontline zone or have been de-occupied, or have suffered very severe damage or complete destruction.

At the same time, during the years of full-scale war, the dairy industry has demonstrated record-breaking performance in terms of increasing cow productivity (plus 20%). In addition, it managed to increase the volume of milk supplies for processing by 6%. It is worth noting that 25% of all milk supplied for processing is milk used for the production of export products.

Currently, about 60 Ukrainian dairy processing plants have permits to export their products to the European Union. This means that those dairy farms that produce the raw milk for these plants must undergo audits by the State Service of Ukraine on Food Safety and Consumer Protection at least twice a year to ensure that they meet the requirements for milk hygiene and other EU requirements, including animal welfare. That is, a large number of farms, even in the midst of war, have already invested significant amounts of money.

However, a large number of enterprises, especially small and medium-sized ones, have difficulty adapting their businesses to the new requirements. Such enterprises are small in size and have a low ability to attract affordable finance. According to the AMP estimates, about 40% of the commercial cow population in Ukraine is kept in enterprises that will need to be reconstructed, modernized or even completely rebuilt to meet animal welfare requirements.

The main problematic issues that need to be focused on in the process of introducing new animal welfare requirements in dairy farming can be summarized as follows:

1. Attracting the necessary **investments**.

It is believed that dairy farming has the least problems with animal welfare, as such requirements only apply to calves. However, the peculiarity of dairy farming is that the investment capacity is the highest among all livestock industries, and the payback period for these investments is the longest - 7-8 years.

2. Lack of **trained personnel**.

The need for staff has been the number one challenge among dairy enterprises before, but the full-scale invasion and mobilization, forced migration and death of people have exacerbated this problem and raised the issue of **training and retraining of employees**.

3. An important issue is the **interpretation of the new regulations**. It is necessary to conduct so-called "simulation audits" on the implementation of animal welfare requirements not only for the State Service of Ukraine on Food Safety and Consumer Protection inspectors, but also for the owners and staff of dairy farms. We need to introduce a common understanding of what is required by each animal welfare law, so that both inspectors and producers understand them in the same way.

4. It is necessary to introduce **technical support programs** from our partners who have already gone through this process of implementing animal welfare requirements. This can be in the form of education, training, information materials, etc. to make the transformation process as smooth as possible.

5. One of the main aspects is **financial incentives/state support** through the introduction of transparent financial instruments for the restructuring and modernization of enterprises (especially small, medium and war-affected ones).

According to AMP's calculations, up to 10 billion UAH is needed to reconstruct Ukrainian farms to meet animal welfare standards.

Pig farming

The pig industry of Ukraine is still working on its leadership in animal welfare. Though animal welfare in a broader sense has been considered a staple part of efficient production system, the implementation of the regulatory norms has recently been moving at a slower pace due specific market dynamics and overall situation in the country. Prior to the challenges of the war and structural market change, Ukraine's access to the European market has been constrained by the current epizootic situation whereas domestic consumer demand for better welfare standards was

still emerging. Hence, many companies have not prioritized significant investments in animal welfare and for some of them the implementation of the European requirement on welfare is still at early stages.

However, when it comes to modern pig farms, they have long since started investing in creating the right conditions for the animals to fulfil their natural needs (appropriate temperature, sufficient lighting, quality feed, etc.). Under such conditions, animals feel as comfortable as possible, have high weight gain, and the enterprises are profitable.

For such farms, it is important that consumers know that animals are kept there in accordance with the highest standards, including the requirements of the EU.

At the same time, there are about 900 enterprises operating in the pork production market. For those with limited access to finance, it will be **extremely difficult to introduce pig welfare regulations without financial support**. Of course, potential meat export opportunities can be an incentive, but only an additional one.

While in the first year of the war, losses of industrial breeding sows were estimated at 10% and the decline in domestic pork production at 10-14%, losses continue to grow. The most telling example is the Donetsk region, which, prior to the full-scale invasion, was one of the three key regions in terms of pig population and formed the Eastern cluster of industrial pig farming development. According to the State Statistics Service of Ukraine, as of 1 February 2025, the total number of pigs in the region is less than 6,000, compared to 410,000 on 1 February 2022 — a reduction of almost 70 times.

Losses of industrial pig stock during 2022-2025 amounted to more than 715,000 heads. The number of pig farms decreased by almost a third - from 1,300 agricultural enterprises that kept pigs at the beginning of 2022 to 875 enterprises at the beginning of 2025. The total number of pigs kept decreased by almost 1.1 million. As a result, the expected total pork production in 2025 is estimated at about 600,000 tonnes of carcass weight, which is more than 17% lower than in 2021.

In the pre-war period, the proactive core of industrial pig farming began preparing in advance for the implementation of animal welfare requirements. However, according to expert estimates by the Association of Ukrainian Pig Breeders, only about 10% of the total number of currently operating farms fully comply, whereas the stage of implementation among the rest market operators varies vastly depending on the requirement — from 35% to 90%.

The total financial investment required for proper overhaul and re-equipment of existing farms to meet welfare standards is approximately 12 billion hryvnia (about 290 million US dollars at the average exchange rate of the National Bank of Ukraine this year). At the same time, over the last four years, the country as a whole and the pig farming industry in particular have been operating in survival mode. Industrial pig farms are directing their limited financial resources not towards development investments, but towards anti-crisis solutions in conditions of high market turbulence, staff shortages, increases in all items of production costs and increased epizootic risks (primarily due to African swine fever). At the same time, there was no targeted state financial support to bring production facilities into line with European animal welfare requirements in Ukraine, and state support programmes for livestock farming and agricultural processing, which operated in 2021 with a total fund of UAH 1.15 billion (just under \$28 million at the average NBU exchange rate for this year) since the start of the full-scale invasion. Thus, the implementation of European animal welfare legislation, which will come into force in 2026, relies solely on self-financing by Ukrainian businesses.

Given the lack of financial support programmes for carrying out the necessary transformations, we propose a differentiated approach to the timing of the transition to new standards of welfare:

- for new facilities commissioned on or after 1 January 2026 and operators involved in the production chain for export products, the transition periods shall remain unchanged.
- for existing farms, extend the transition period by four years, until 2030, which is equal to the period of martial law in Ukraine.

It is important to note that Ukraine is not currently an exporter of pork to EU countries, so this postponement will not result in preferential conditions for operators working in the European Community's pork markets.

Poultry farming

The poultry sector does not yet fully understand the scale of the problem it will have to face when integrating into the EU agricultural system.

It is worth noting that poultry farmers were the first among all livestock industries to implement European practices. This work has been going on for more than 10 years at enterprises exporting poultry meat and eggs to the European Union.

Currently, about 80% of poultry meat in Ukraine is produced by industrial enterprises that have "euro numbers," i.e., that are authorized to export to the EU. Today, there are 15 poultry farms with European accreditation and four egg processing plants. The number of such operators is growing every year. The process has particularly accelerated in recent years, when the European market has become a key export market due to convenient logistics, increased consumption and high purchasing power of the population.

Speaking about ensuring the welfare of poultry we need to separate meat and egg production.

For egg producers it will be very difficult to switch to European requirements. Today, 70% of the cage equipment used in Ukraine does not meet European requirements and cannot be partially modernized. It needs to be completely dismantled and replaced with new sets. According to the Ukrainian Poultry Association, the cost of re-equipping poultry farms, taking into account the reduction in the number of poultry after the introduction of the requirements for stocking density, should reach about 13 billion UAH.

In broiler production, the key aspect is the concentration of livestock, i.e. the total live weight of chickens per unit area. 80% of poultry meat in Ukraine is produced by companies that meet European requirements. However, the rest of the producers will need to reduce the concentration of livestock. According to the Ukrainian Poultry Association, about 4 billion UAH will need to be invested to ensure production volumes at the level of 2024 while introducing poultry welfare standards.

The main problematic issues that need to be considered during the transformation of poultry farming towards implementing new welfare requirements in poultry production are the following:

1. Domestic producers should be offered **economic incentives** to enable them more actively implement new animal welfare requirements.

Due to the military operations, it is currently difficult for poultry producers to find additional investments in re-equipping production facilities. Therefore, state support programs should be available to encourage producers.

This can be either targeted lending or programs that were in place before. In particular, we can talk about programs to reimburse the cost of construction and reconstruction of premises. Without support from the state and from European partners it will be difficult to implement new poultry welfare regulations, especially for small producers focused on the domestic market.

In addition, the industry should introduce new standards in the face of uncertainty about further military operations in the country, i.e. invest in times of military risks and personnel shortages. Due to the war, a rather slow pace of implementation of these requirements are expected. A quick transition is possible after the war ends, provided there are financial programmes to re-equip poultry enterprises and trade in poultry products is fully liberalised with the European Union.

2. There should be an understanding of the possibilities of **exporting products**, including to the EU.

For EU countries, trade should be duty-free or quotas should be significantly increased so that even a small producer has an additional incentive to modernize its facilities. This situation was observed in 2022, when the EU completely abolished quotas. Then the number of companies that began to implement these requirements increased exponentially.

3. In addition to the financial component and the incentive system, it is necessary to pay attention to **institutional capacity**, namely the **training of specialists** who will deal with daily processes at production facilities tomorrow, but according to new requirements.

4. Poultry farmers should pay attention to **alternative poultry housing systems**. But at present, in Ukraine, there are very few specialists who work with alternative poultry housing systems.

5. Reconstruction of poultry houses should be carried out **taking into account future trends**. In 2026, the EU is likely to make a decision to completely ban cage equipment in the future. Therefore, Ukraine will have to adapt to the new legislation, and it makes no sense to rush to buy cage equipment if it is banned in a couple of years.

Thus, the total investment for the entire poultry industry, both egg and meat, to meet European welfare standards will be at least 17 billion UAH.

In addition, investments will need to be made in poultry rearing areas, slaughterhouses, sorting equipment, storage facilities, etc. It is clear that new infrastructure facilities will be needed for waste processing, transportation, and so on. Given the above, the amount of investment will probably need to be multiplied by two.

Summarizing the financial issue for livestock, it can be stated, that in general, experts estimate that the Ukrainian livestock industry needs to invest 37-39 billion UAH to implement animal welfare standards. Of this amount, 17 billion UAH is for poultry farming (including 13 billion UAH for egg and 4 billion UAH for meat poultry), 10-12 billion UAH for pig farming, and 10 billion UAH for cattle breeding.

As an auxiliary marketing tool to assist farms that have implemented certain animal welfare standards, it is advisable to **introduce a labelling system** for meat products obtained in different housing systems regarding animal welfare.

7. Monitoring and Evaluation

State control over compliance with animal welfare rules will be carried out by the Territorial Body of the competent authority - the State Service of Ukraine on Food Safety and Consumer Protection (SSUFSCP).

Even before the start of the full-scale war, Ukraine had developed a Multiannual National Control Plan (MANCP) and adopted Law of Ukraine No. 2042-VIII "On state control over compliance with legislation on food products, feed, products of animal origine, animal health and welfare " of 2017. In accordance with this law, the SSUFSCP prepares an Annual Report on the status of implementation of long-term and annual plans for state control" in a specially designed form (Order of the Ministry of Agrarian Policy and Food of Ukraine No. 2830 of 23 August 2024). Although this

form will come into force on 1 January 2027, the SSUFSCP is already using it to prepare its annual reports.

This report covers information on monitoring compliance with legislation on food, feed, products of animal origine, animal health and welfare. Section VI. „**Animal Welfare**“ of the report provides an overall conclusion on the achievement of the strategic objectives; the state of animal welfare during housing, transport and slaughter; an analysis of the implementation of the action plan for animal welfare during housing, transport and slaughter; and comments on non-compliance identified as a result of state control measures.

The number of staff involved in implementing animal welfare policy is shown in Figure 1.

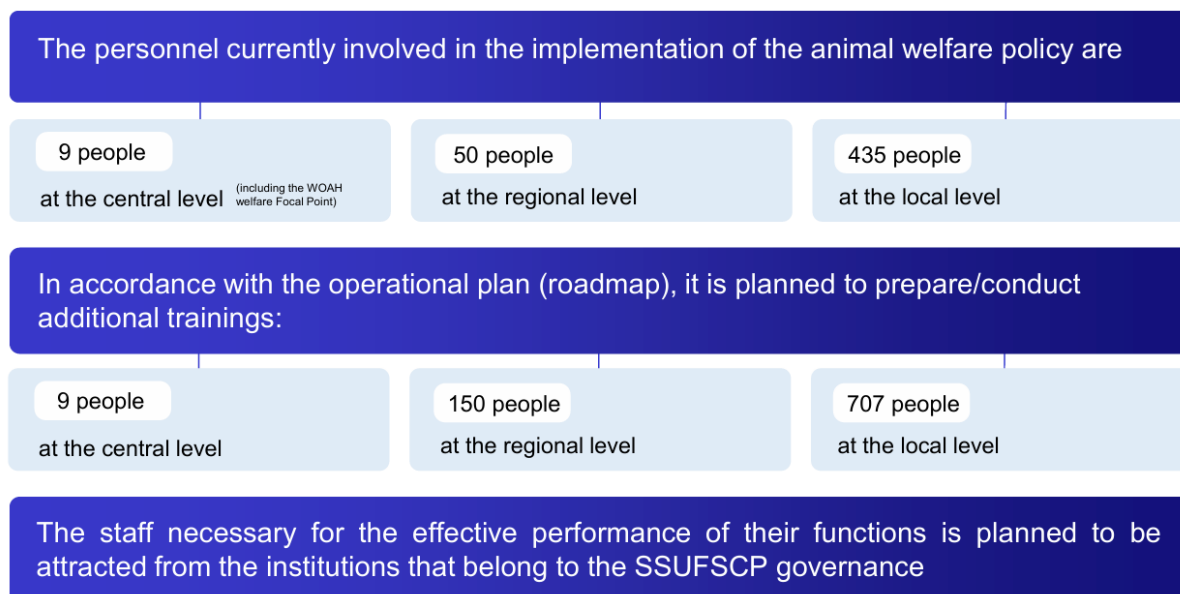


Fig. 1. Number of staff required to implement animal welfare policy

Source: Klymenok O. report at the forum within the framework of the SULAWE project: "Sustainable Livestock and Animal Welfare: Ukraine 2025" (2 October 2025).

It should be noted that the level of implementation of animal welfare legislation can only be reliably assessed during scheduled inspections. Due to the martial law, scheduled inspections are not carried out (moratorium), so it is difficult to speak certainty about the effectiveness of monitoring and evaluation of the implementation of legislation at this time.

At the same time, unscheduled inspections must be carried out in response to relevant requests. In Ukraine, the vast majority of requests come from exporters of meat, milk and eggs to the EU who wish or are required to prove that the enterprises supplying them with raw materials for processing comply with EU standards. Such enterprises are already implementing all the necessary requirements.

In general, regulations on animal welfare during housing have already been developed and will come into force on 1 January 2026, while regulations on animal welfare during slaughter have been developed and will come into force on 1 March 2026. Animal welfare during transport is regulated by a resolution that is now outdated. A new order is currently being prepared, which will come into force after 1 March 2026.

However, as long as martial law remains in effect, scheduled inspections will not be conducted.

This time is actively used to prepare subordinate legislation, train specialists and inform the public and business operators about animal welfare.

The Ministry of Economy, together with the State Service of Ukraine on Food Safety and Consumer Protection, is working on the following measures.

1. Currently, the Ministry of Economy is working on a document (order) that will determine the **frequency of inspections** based on risk levels. The criteria for determining risk levels will include specific requirements for animal welfare (e.g., whether violations were found during previous inspections, whether public complaints about violations were confirmed, etc.). Each criterion will determine the points that the farm will receive in total. Based on these points, the farm will be assigned a certain risk level and the frequency of inspections will be determined (e.g. enterprises with a high risk level will be inspected 4 times a year, etc.). However, such a document (order) has not yet been approved.
2. In order to carry out inspections, inspectors must have **checklists** (inspection reports). Each item and each requirement in such a checklist must refer to the relevant orders. By 01.01.2026, work on the formation of checklists must be completed and approved by order of the Ministry of Economy. The control questions in the checklists and the answer options must be formulated in the same way as in the order (e.g. YES, NO, NOT APPLICABLE, NOT CHECKED).
3. When inspections begin, inspectors must know how and according to what rules to conduct them. To this purpose, inspectors are being trained. **Special training** courses have already begun. In particular, the first 5-day training course for 13 inspectors (future trainers) from all over Ukraine was held on 3-7 November 2025. As the checklists have not yet been developed, training checklists were used during this training. These trained trainers will travel to their regions and will continue to train inspectors.

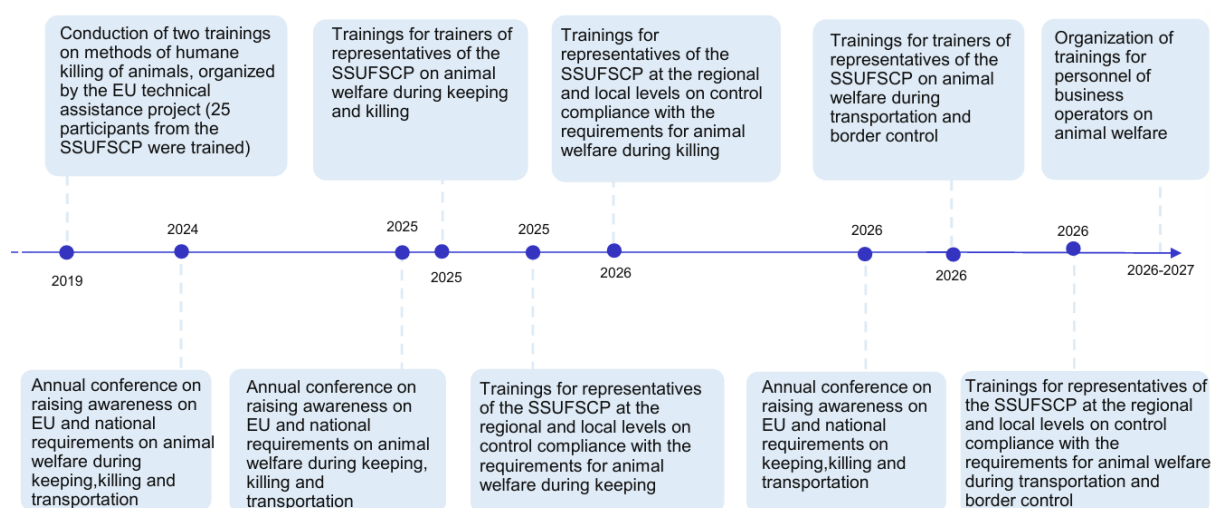


Fig. 2 Phases in the training of animal welfare specialists

Source: Klymenok O. report at the forum within the framework of the SULAWE project: 'Sustainable Livestock and Animal Welfare: Ukraine 2025" (2 October 2025).

It is clear that there are currently not enough trained specialists. Therefore, SSUFSCP plans to train both its own staff and business operators according to the scheme shown in Figure 2.

Although this work has been ongoing since 2010, the main activities are planned for the next two years.

According to legislation only business operators for slaughtering animals must appoint a responsible person for animal welfare in slaughterhouses with a capacity of slaughtering more than 5.000 conventional heads or more than 2.000.000 poultry or more than 30.000 rabbits per year.

Such measures form, on the one hand, a legislative norm for inspection (checklists) and, on the other hand, prepare trained personnel capable of performing such inspections. Since the business operators chooses the methods by which they ensure the welfare of animals on the farm, the inspector must be able to correctly assess such methods (e.g. the type and size of drinking troughs, calf housing, etc.).

The implementation of the above-mentioned will enable the successful and “painless” implementation of animal welfare legislation for Ukrainian business operators.

Annexes

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