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Review article

## Animal welfare in the Common Agricultural Policy evolution

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**Abstract.** Animal welfare assumes a certain relevance within a farm context in the European Union through the Common Agricultural Policy (CAP). In the face of a wide range of animal welfare legislation enacted in Europe since the 1970s, also following ambitious public and private debates sometimes supported by scientific research, “animal welfare” has been part of the CAP since 1999. This paper outlines the evolutionary path of the animal welfare issue within the CAP, underlining the role it plays in a context of interrelations with other central and recurrent strategic themes in European policies. Indeed, the role of animal welfare within the CAP has been increasingly valorized and addressed to animal-oriented protection while intersecting with different strategic objectives over the course of time, which currently relate particularly to the environment and climate with the aim of supporting the ecological transition highlighting the practical implications for involved farmers and stakeholders. The new provisions of the CAP will take effect from 2023 until 2027, whereas currently Regulation (EU) 2020/2220 covers the delay concerning the Commission’s legislative proposals on the CAP after 2020. The paper drafts the regulatory progression of the virtuous path that the new CAP has consolidated over time for the improvement of animal welfare in the livestock sector, which is also linked to the future development of innovative technologies for a strategic approach including digital methods at farm and/or animal level.

**Keywords:** animal welfare, livestock, Common Agricultural Policy, regulation, European Union.

**JEL codes:** Q18.

### HIGHLIGHTS

- The CAP has raised the relevance of animal welfare within the European Union.
- Animal welfare is an emerging issue and is reaching a normative status.
- Animal welfare became a prerequisite for access to certain sectoral benefits.

### 1. INTRODUCTION

Animal welfare (AW) is nowadays of great interest. “The Brambell Report” has represented a milestone since 1965 and contains the fundamen-

tal recommendations for animal rights known as “The Five Freedoms” (Brambell, 1965).

Thus, it initiated a long journey involving different views on AW, variously based on the animal’s biological functioning (health, growth, reproduction, etc.), on its affective states (pain, suffering, etc.) and on its ability to live a relatively natural life. Building on each of these visions, based on useful scientific research, the science of AW assessment has elaborated a considerable amount of knowledge to improve AW (Fraser, 2004). These studies have also favoured livestock farming systems, which have benefited over time from the development of mechanisms geared towards actively improving the close links between AW, as well as economic and environmental sustainability (Halachmi *et al.*, 2019).

In the context of a growing and qualified multidisciplinary debate about AW in Europe, the European Union institutions have drafted legislative measures to improve farm animal welfare focusing on the development of the livestock sector.

In favour of livestock farms, the EU has carried out actions focusing on AW through the Common Agricultural Policy (CAP). The CAP has been steered towards AW since 1999; this interest was drummed up by the 2003 Mid-Term Reform (“Fischler Reform”), it continued with greater recognition in the “2014-2020 CAP” and will certainly do so in the near future with the “2023-2027 CAP”. This programming has aimed at encouraging support for improving AW on livestock farms.

The various regulatory acts promulgated over time have given AW an increasingly important role. It has become an indispensable prerequisite in various commitments that the legislation has made available for both the farmer and the breeder. In the context of CAP policies, the AW requisite has also contributed to the stimulation of modernization and support processes of the entire agro-zootechnical sector through innovative tools, as in the case of one of the “precision” approaches that serve the purpose of qualitative and quantitative enhancement (Singh *et al.*, 2021).

The approach adopted in this paper is “sectoral” as it covers the CAP’s regulatory measures of rural development with reference to AW. Given the growing innovative vision for the sector from stakeholders, a proactive form of support has emerged for strengthening sustainability in livestock production. Therefore, among various perspectives, digital technologies play a strategic role in revolutionizing the production system. Digitalization may also help to improve the resource utilization efficiency and sustainability in livestock farms (Pirlo, 2020).

Before further deepening the discussion on the CAP regulatory measures, this paper traces the main events

that have characterized the evolving socio-normative debate on AW breeding in Europe as a complementary and preparatory contribution to the evolutionary path on the norms which are dealt with.

Therefore, the contribution aims at identifying the AW role in the succession of CAP programming periods. Over the course of time, this role has become strategic, so much so, as to reveal simultaneously the EU’s growing orientation towards this important issue. All this has occurred in the context of the aid provided for the agricultural sectors.

The special focus attached to the CAP evolution, which is aimed at intercepting the European policy decisions trend and trajectory, may help those farmers who can steer their decisions and make strategically informed management choices, thus taking into account the support possibilities that would most likely be offered to them. Specifically, the higher the awareness of the policy measures on livestock is, the higher the chances are that they might decide to apply for support, and benefit from it.

The paper, therefore, makes an important contribution to those who, through their behaviour and choices, exert influence over the guidelines and principles of good practice with regard to the welfare of farm animals. Indeed, the availability of institutional information can be useful to breeders, stakeholders and academics, each one for their expertise.

## 2. BACKGROUND

Animal welfare perception and concept have changed over time, philosophical, religious, deontologic currents have driven this evolution as well as later scientific movement (Bentham, 2013; Broom, 2011). Public interest in AW began in 1824 in England with the establishment of the Royal Society for the Prevention of Cruelty to Animals (MIPAAF, 2007-2013; Pickett *et al.*, 2014), a very active body established for the protection of animals. This body probably contributed to the adoption of the Cruelty to Animal Act in 1876, and Animal Protection Act in 1911.

In 1924, the Office International des Epizooties (OIE) (Bayvel, 2012), an intergovernmental organization based in Paris, was instituted through the establishment of an International Agreement to ensure maximum transparency regarding animal health status and the control of animal diseases. It is still responsible for improving veterinary public health worldwide, and is globally known as The World Organization for Animals.

The AW in livestock farms became of public interest in Europe for the first time in 1964, when an activist for

animal rights and welfare, Ruth Harrison, published the book “Animal Machines”, describing “intensive livestock and poultry farming practices of the time”. The book aroused so much opposition among British public opinion that the British Government (Fernandes *et al.*, 2021) proceeded with the appointment of a Committee that would look into the welfare of farm animals. The Committee dealt with the general concept of farm AW and tried to trace its possible determinants in intensive farming systems with reference to all major species except dairy cows, as there were few intensively raised cows at the time (McCulloch, 2013; Farm Animal Welfare Council, 2009). In December 1965, in the concluding stages of that assignment, the Committee published “The Brambell Report” (Report of the Technical Committee to Enquire into the Welfare of Animals Kept under Intensive Livestock Husbandry Systems), which was very popular among breeders. Thus, in 1967 the British government went so far as to establish the Farm Animal Welfare Advisory Committee (FAWAC) (McCulloch, 2013) with a view to monitoring initiatives tending to achieve significant AW improvements on intensive livestock farms, on the basis of and in compliance with the Brambell’s Five Freedoms (Elischer, 2019). To sum up, the report stated that animals should have the freedom “to stand up, lie down, turn around, groom themselves and stretch their limbs”. (McKenna, 2017).

The mention of the feelings and suffering of animals, in that period welfare was still connected with stress conditions. A different perspective emerged from an American ethologist, Donald Griffin who wrote about animals’ subjective experiences in his book “The Question of Animal Awareness” (Duncan, 2019).

However, the Brambell Report seems to have influenced and raised awareness among social and political groups even though there is no explicit link with European Acts (Ruschen 2008; Veissier *et al.*, 2008). During the International Transport, the Council of Europe drafted the Convention for the Protection of Animals, which was adopted by the Committee of Ministers of the Council of Europe in 1968. It was the first European institution that proposed measures that would ensure AW (Council of Europe, 1968).

In the 1970s, the AW topic, already widespread in Britain, entered the European debate. When the United Kingdom became part of the Economic Community in 1973, AW ripened into an issue that was addressed at the European level. A first important act occurred with the “European Convention for the Protection of Animals kept for Farming Purposes” (ETS No. 087) (Council of Europe, 1976) of the European Economic Community, approved in June 19<sup>th</sup>, 1978 (article 1, Council Decision - 78/923/

EEC). The European Convention for the Protection of Animals kept for Farming Purposes (the Convention) began its operation on 10/09/1978, specifically in relation to the protection of animals in intensive stock-farming systems (Council of Europe, 1976). Its purposes consisted of the keeping, care and housing of animals, and in particular those in modern intensive stock-farming systems. The countries that have signed the convention commit themselves to conforming to specific standards regarding the space and the environment of farming premises, feed, animal health and the organization of inspections of the technical installations in the case of modern intensive stock-farming systems (Council of Europe, 1976). The Convention may have played an important role in the redefinition of “The Five Freedoms” and, thus, in the British government’s transformation of FAWAC. In fact, ten years later, in 1979 (Farm Animal Welfare Council, 2009), again with reference to the development in the field of scientific research, the British government replaced the previously mentioned FAWAC with FAWC (Farm Animal Welfare Council) (McCulloch, 2013). It shifted from Committee to Council (independent body) and became responsible for monitoring the welfare of farm animals in the countryside, in the market, slaughterhouses, as well as in transport (LIDA, 1978). It called attention to the fact that the animal is in “harmony with its own living environment” (Hughes, 1976) with sufficient space, adequate facilities and the company of its fellow humans (Elischer, 2019). It remained operational until October 1<sup>st</sup>, 2019 when it took the name AWC (Animal Welfare Committee) (Farm Animal Council, 2009).

Peter Singer, an Australian philosopher, stated that as long as animal livestock systems ensure a good quality life and a painless death eventually their use is less objectionable (Villanueva, 2016). Conversely, Tom Regan, Emeritus Professor of Philosophy at North Carolina State University, affirmed that killing is the biggest harm we can do to another individual (Duncan, 2019).

Later, Council Decision 92/583/EEC of 14<sup>th</sup> December 1992 in the conclusion of the Protocol of amendment to the European Convention for the Protection of Animals kept for Farming Purposes further enhanced the strength of the Strasbourg Convention (ETS No. 087). A relevant element of this Council Decision concerns the important human role for AW in intensive livestock farming (Boivin *et al.*, 2003).

With its entry into force, the Treaty of Amsterdam in 1999, which officially recognized animals as sentient beings in its Protocol (No. 33), recommended that the EU should direct its policies towards AW, and that each Member State should implement relative measures, in the agriculture or internal market field, etc.

At a later stage, the Treaty on the Functioning of the European Union (TFEU) reserved an appreciable role to AW; article 13 emphasizes that “the Union and the Member States shall pay full regard to the welfare requirements of animals as sentient beings”.

Also, the Council Directive 98/58/EC of July 20<sup>th</sup>, 1998, concerning the protection of animals kept for farming purposes, is an important EU legislative act, which still continues to be its cornerstone. It incorporated the principles of five freedoms of The Brambell Report. It empowered Member States to implement the envisaged rules through their own “competent authority” in connection with the European Commission (European Commission, 2006). This Directive still refers internally to the European Convention (ETS No. 087) signed by the Member States of the Council of Europe (Council Decision of June 19<sup>th</sup>, 1978 concerning the conclusions of the European Convention for the Protection of Animals kept for Farming Purposes), which indicated a set of common provisions to protect animals on farms. According to this Council Directive, Member States shall guarantee that the owners or keepers implement adequate measures for AW and that those who take care of animals do not cause any unnecessary pain, suffering or injury. In addition, it recommends that the availability of shelter, nutrition and care, appropriate to the physiological and ethological needs of the animals, must be ensured (Greiveldinger *et al.*, 2013).

Until Council Directive 98/58/EC, the literature discussion on AW appeared anchored to scientific vision, while it started successively to gain ethological, cognitive scientific and neuroscientific perspectives (Leone, 2020). Studies in the past approached the biological functioning and affective state frameworks separately, whereas recently, affective states are studied in their bijective interaction in order to manage AW improvement (Hemsworth *et al.*, 2014).

### 3. THE COMMON AGRICULTURAL POLICY TOWARDS ANIMAL WELFARE IN LIVESTOCK PRODUCTION

#### 3.1. *The past and current CAP. The Animal Welfare evolution.*

The discourse on EU legislation traced here below addresses aspects concerning AW, not only as an end in itself, but also as an element that has proved to be necessary among the minimum requirements that farmers in the Member States must comply with in relation to the various commitments in order to benefit from the EU CAP. Figure 1 displays the succession of CAP Regulations. The first European regulatory measure that incor-

porated AW into the CAP was the Council Regulation (EC) 1257/1999 in support of rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF). The inclusion in this Regulation was a choice dictated by the 1997 Treaty of Amsterdam exhortation to European institutions. This regulation was part of the 2000-2006 CAP programming.

It emerges that the Commission’s Agenda 2000 for a stronger and wider Europe on EU structural action in the 2000-2006 programming period was also of great importance since it had the ambition to conceive production methods respectful of the environment and AW.

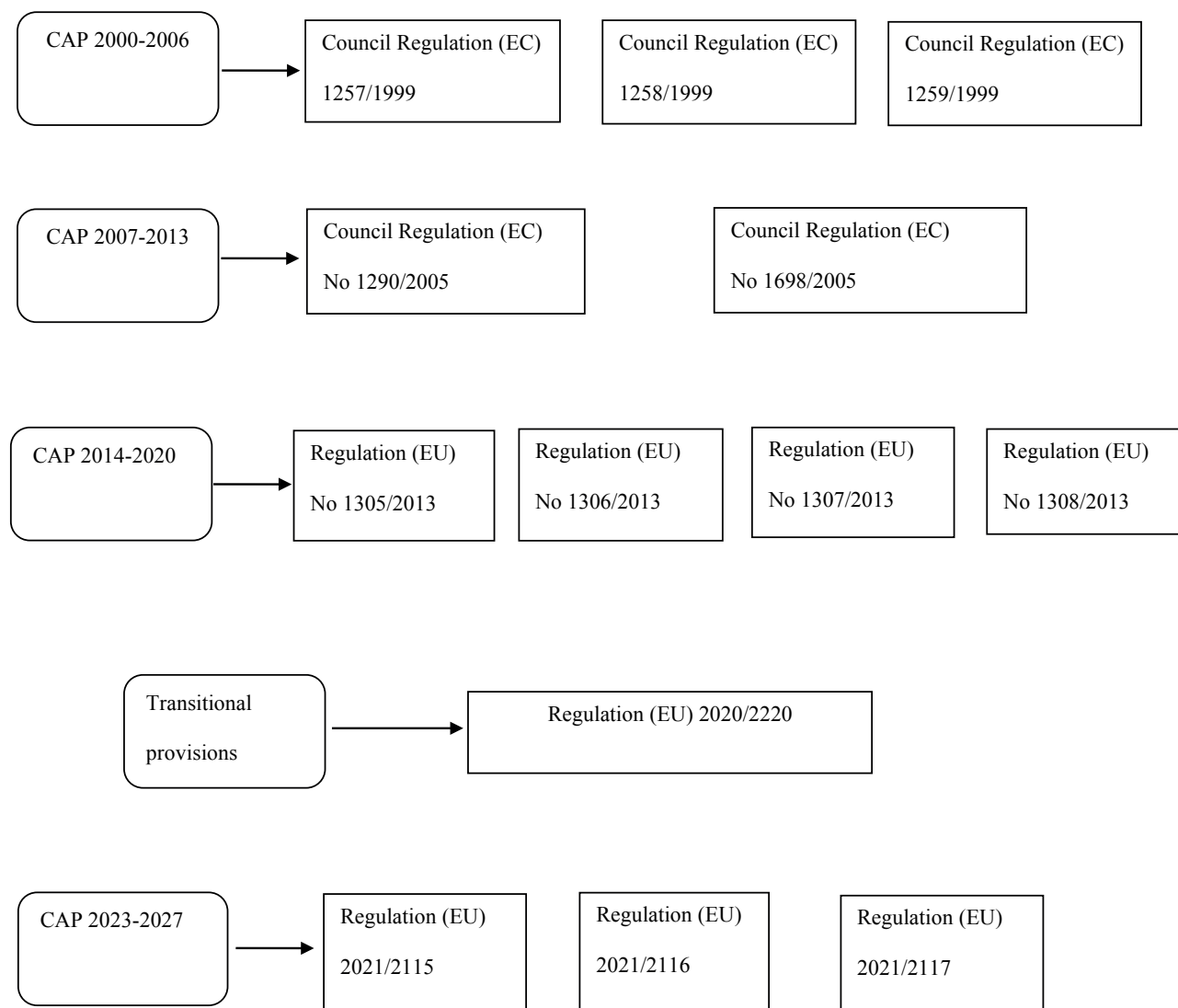
Therefore, AW became a prerequisite for access to certain sectoral benefits. Specifically, it maintains that farms shall receive support for investment depending on the respect of minimum standards, which include not only environment and hygiene, but also AW, next to the demonstration of economic viability and adequate occupational skill, as well as competence on the farmer’s part (article 5). As for the financial support of rural development measures, Council Regulation (EC) 1258/1999 established the European Agricultural Guidance and Guarantee Fund (EAGGF).

Council Regulation (EC) 1783/2003 amended Regulation (EC) 1257/1999. It extensively dealt with AW providing various aids therein. The CAP began thus to become a fulcrum for AW protection. Council Regulation (EC) 1782/2003 “conditioned” financial aid based on strict standards and rules. So, farms had to comply with the “Cross-compliance” principle. This made all payments to farms subordinated to compliance with two types of standards, on the one hand, the statutory management requirements (SMRs), and on the other, maintenance of land in good agricultural and environmental conditions. A special Annex (III) to Council Regulation (EC) 1782/2003 listed all the criteria including AW.

This Regulation originated in response to certain needs urged by the Agenda 2000 document (Schmida and Sinabell, 2007), including the promotion of sustainable and market-oriented agriculture, decoupling farm support from production and making aid conditional on compliance on minimum. This implied that the farmers could receive an income support on condition that they fulfilled food safety, environmental, animal health and welfare standards in accordance with the cross-compliance principle (Hoffstadt, 2008; Denis Cvitković *et al.*, 2020). Cross-compliance required the payment of “decoupled” premiums to farmers no longer to quantity, but to “environmental” quality (MIPAAF 2007-2013).

Concurrently, the CAP medium-term reform aimed to give even greater attention to AW. On the one hand, it tended to promote sustainable and market-ori-

Figure 1. CAP Programming scheme.



ented agriculture through specific actions and, on the other, strengthened rural development, in particular where measures included the promotion of food quality. To pursue a sustainable agriculture, the vision was to complete the shift of support from product to producer by applying a decoupled system of payments per farm conditional upon cross-compliance to environmental issues, taking into account next to historical references, AW and food quality criteria (European Commission, 2002).

Subsequently, regarding the 2007-2013 programming period, Council Regulation (EC) 1290/2005 divided the EAGGF (traditionally the only fund financing the CAP) into two separate funds, namely the European Agricul-

tural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD). Council Regulation (EC) 1698/2005, in support of rural development by the EAFRD, provided specific payments for AW for a maximum period of five years. This was in order to benefit from rural development support, such as measures to improve the quality of agricultural production and products, as well as to improve the environment and rural space. With regard to AW, it is worth noting, that the Regulations demanded a stronger pledge to farmers. In fact, payments covered only those commitments going beyond the relevant mandatory standards established pursuant to article 4 of/and Annex III to Regulation (EC) 1782/2003 and other relevant manda-



tory requirements established by national legislation and identified in the programme.

Therefore, in line with the earlier legislation, Council Regulation (EC) 1698/2005 required farmers to go beyond good agricultural practices and the various “cross-compliance” obligations imposed by Council Regulation (EC) 1782/2003 as an integral part of the mid-term report to obtain those payments.

Commission Regulation (EC) 1974/2006, which laid down detailed rules for the application of Council Regulation (EC) 1698/2005 in support of rural development by the EAFRD, confirmed the great importance devoted to the AW requirement by dedicating detailed and specific punctuations. Additionally, it again brought to the surface the link with the cross-compliance obligations. In fact, it established that in order to receive funds (article 27, paragraph 7) farmers had to implement AW practices upgrading the established standards. The provision in this case not only listed, but also detailed specific practices and thus served as a guideline for farmers as regards the actions they needed to take concerning AW.

Council Regulation (EC) 73/2009 repealed the above-mentioned Regulation (EC) 1783/2003 and established common rules for direct support schemes under the CAP.

With reference to AW, it announced that Member States could grant specific support to farmers who complied with SMRs listed in Annex II, Point C, and to those who practised enhanced AW standards (article 68). Thus, each Member State became responsible for the General Conditions laid down in Council Directive 98/58/EC on the protection of animals in breeding.

The need to strengthen the competitiveness of the agricultural sector to promote innovation and sustainable agriculture, and foster growth and employment in rural areas, underpinned the reform of the subsequent CAP programming period from 2014 to 2020, which was finalized through the new specific European Union legislative Acts.

Regulation (EU) 1305/2013 repealed the above-mentioned Council Regulation (EC) 1698/2005 and largely outlined the new CAP 2014-2020 objectives regarding the support for rural development by the EAFRD. This was the first CAP reform to fall under the ordinary legislative procedure (introduced by the Treaty of Lisbon, where the Council co-legislates with the European Parliament). It still provided for enhanced support through actions contributing to the achievement of the Union’s rural development priorities (defined as “measures”), including those in favour of AW (article 33) for those farmers who undertook the initiative to adopt farming methods that went beyond mandatory requirements

(Recital 27). The goal of the AW payment was to compensate farmers for all or part of the additional costs and income foregone resulting from the commitment made and, in certain cases, for covering transaction costs to the value of up to 20% of the premium paid for the AW commitments. In addition, AW was included, albeit indirectly, among “agro-environment-climate payments” in the case of local breeds in danger of being lost to farmers (Annex II).

Subsequently, par Commission Delegated Regulation (EU) 807/2014 of 11<sup>th</sup> March 2014, on support for rural development by EAFRD, supplemented Regulation (EU) 1305/2013, and it still dedicated the whole of article 10 to AW. Whilst on the one hand these rules constituted limitations for farmers in their choice of intervention to implement in favour of animals, on the other, they eliminated the risk of vagueness in the identification of the eligible payment hence the uncertainty of the relative payment. Furthermore, these specifications clarified the vision of the European Union’s policy aimed at protecting AW.

Also, AW found space in Regulation (EU) 1306/2013 on the financing, management and monitoring of the CAP. It still confirmed the importance of the cross-compliance system application which contributed to the development of sustainable agriculture, and to incorporating basic standards in several sectors including AW. As regards the implementation of rules, reference should be made to Commission Implementing Regulation (EU) 809/2014 of 17<sup>th</sup> July 2014. It concerned the integrated administration and control system, rural development measures and cross-compliance.

Regulation (EU) 652/2014 established provisions for the management of expenditure from the general budget of the European Union. It still included support for AW improvement and training programmes, identifying the priorities for intervention, based on the identified risks for animal health and welfare.

Therefore, Regulation (EU) 2017/2393 amended Regulations (EU) 1305/2013 and, with reference to AW, it added some specifications to the provisions of article 33(1), still in force. Thus, AW payments were to be granted to farmers who undertook, on a voluntary basis, to carry out operations consisting of one or more animal welfare commitment and who were active farmers within the meaning of article 9 of Regulation (EU) 1307/2013, as applicable in the Member State concerned.

Regulation (EU) 1308/2013, establishing a common market organization in agricultural products, enclosed the disposition on AW both from a business point of view in support of farmers, and in strict reference to animal protection. In the first case, it still took

into account the importance of optimising production costs and returns on investments in response to environmental and animal welfare standards, and stabilising producer prices; also, in the case of export of products of the beef and veal sector, the granting and the payment rules of the refund had to comply with AW standard. Indeed, in the second case, reference was made to the use of sound animal welfare practices and production techniques and sought ways to restrict the use of animal-health and improve animal health and welfare.

#### 4. DRIVING ANIMAL WELFARE TOWARDS THE FUTURE CAP 2023-2027

During the lively debate on the CAP reform 2023-2027, one question came up in the literature: Is the process of the CAP reform in line with the aim of fully integrating farm AW into EU agricultural policy? (Leone, 2020).

While the preparatory discussion process for the new CAP unfolded, the European Union continued to repeatedly innovate the previous regulations put in place for the 2014-2020 period. In fact, the protracted negotiations on the Multiannual Financial Framework made it necessary to provide for a transitional period in order to extend the current rules and speed up the transition towards the future CAP. Since the delay of the legislative procedure regarding CAP beyond 2020 continued, the temporary Regulation (EU) 2020/2220 extended the current CAP regulatory framework to 31 December 2022. With regard to AW, the temporary Regulation completed the changes to Regulation (EU) 1305/2013, already initiated earlier by changes to Regulation (EU) 2017/2393, article 33, but in this case amending paragraph 2. The changes, in favour of the farmer, related to the length in years of the commitment period, made for rural development programmes involving the improvement of AW: Member States could determine a period of longer than three years in their rural development programmes based on the nature of the commitments and the AW benefits sought. Furthermore, (as part of the amendments to Regulation 1305/2013), Regulation (EU) 2020/2220 introduced article 58a, specifically, “Resources for the recovery of the Union agricultural sector and rural areas”. It still allocates additional resources to Member States from previous commitments made for rural development programmes; also, part of these resources concerns measures referring to AW.

CAP transitional regulation has been ensuring continuity in legal and financial support, thus avoiding interruption in payments, at a time when Member States were

focusing on preparing their national CAP strategic plans (European Commission, 2018; European Council, 2021).

After the intense debate in the years following 2020, the main outlines of the CAP 2023-2027 reform came to the surface.

Each of the three new drafted regulations that form the basis of the post-2020 CAP reform, contains references to AW.

With the new Regulation (EU) 2021/2115, the main changes on AW on the one hand, consist of a more pronounced flexibility recognized to Member States in detailing definitions and conditions in their CAP Strategic Plans (the needs of their farming communities in cooperation with local authorities and relevant stakeholders); on the other, there is an explicit connection with the elected environmental and climatic requirements, which are necessary for accessing the benefits provided in favour of farmers. It is also relevant to consider the close links in animal husbandry between AW, animal health and food-borne diseases. This aims at stimulating EU actions and supporting farmers and EU countries in their fight against antimicrobial resistance.

In addition, Member States, as part of CAP Strategic Plans, will have to define a list of practices beneficial to AW. One example is the provision of farm advisory services during the farm cycle development (article 15). Therefore, Regulation (EU) 2021/2115 recognizes considerable support for the modernisation of farming techniques in order to make the agricultural sector more effective, more competitive and more environmentally friendly. Also, digitalisation, technological innovation and research prove relevant in a situation where one needs to rise to the challenges like those faced by farmers on issues such as AW alongside food sustainability, nutrition security, energy efficiency and many more. Investing in technological development, digitalisation and innovation is crucial to the improvement of farmers' market reward.

Regulation (EU) 2021/2115 corroborated the provisions of Regulation (EC) 1783/2003 regarding compliance with minimum requirements related to SMRs. AW is among the SMRs areas as well as Climate and Environment, Public Health and Plant Health. Member States, in accordance with the cross-compliance rules referred to in article 12 of Regulation (EU) 2021/2115, shall provide for administrative penalties for farmers and other beneficiaries receiving direct payments if they do not comply with the SMRs. The new direct payments also had different methods of determination compared to previous programming. Benefits to improve AW, albeit indirect, may come from strengthening the socio-economic fabric of rural areas as dictated by the “overall

objectives” in Regulation (EU) 2021/2115; this provision involved a social dimension aimed at ensuring adequate working conditions for agricultural workers. It is an aspect introduced for the first time by CAP, and is likely to contribute to the implementation of the 2030 Agenda for Sustainable Development.

Certainly, the EU’s growing interest in AW is now obvious in the Regulation (EU) 2021/2115, not least because of its juxtaposition with the new set of climate-environmental goals, the so-called “eco-schemes” for the climate, environment and AW (article 31) – that also regards the distribution of financial allocations (article 93).

Regulation (EU) 2021/2116, on the financing, management and monitoring of the CAP, repealed Regulation (EU) 1306/2013. It reiterated the importance of cross-compliance as a mechanism to ensure that payments foster a high degree of sustainability and a level playing field for farmers within Member States and within the Union, also concerning animal welfare. It introduced “information measures” to help explain, implement and develop the CAP and raise public awareness of its content and objectives, but also of its interaction with the climate, environment and animal welfare. Thus, it aimed at enlightening citizens on the agriculture and food knots.

The connection between sustainability and AW was also explicit in Regulation (EU) 2021/2117, which established that the “sustainability standard” also includes animal health and AW objectives. Therefore, it aimed to boost the previous PAC measures by underlining the importance of extending the list of objectives set out in article 157 of Regulation (EU) 1308/2013, which also indicated the protection of animal health and AW.

In regard to the effectiveness of the support for AW within the various CAP programmes, criticism and doubts have emerged in the literature (Leone, 2020).

## 5. DISCUSSION AND CONCLUDING REMARKS

Over the last decades, AW has increasingly become an emerging issue to address raising awareness in the community and over time reaching its normative status (Leone, 2020).

Over the past 30 years, the EU has developed a considerable regulatory framework (Supplementary figure 1) where AW improvement has found increasing and qualifying spaces. Within the CAP, the role of livestock AW has evolved. The succession of laws, and, particularly that of CAP programming, has constituted a response to the changing needs for AW protection. This dynamism has evolved reflecting different versions of AW shaped

into different rules and supports at each historical stage of regulation.

This analysis in particular showed that AW enters the CAP with a concrete approach, constituting from the outset a requirement for access to some rural development support payments in the case of farm investments.

AW appeared in the late 1990s as a requirement for accessing certain payments provided by the EAGGF.

Thus, AW became an integral part of the policy-making process. Subsequently, the role of welfare became stronger and so entered fully into the CAP with the Fischler Reform (2003) increasingly through rural development measures and those oriented towards the quality of livestock production. The novelties introduced by the Fischler Reform still represent the main tool for improving AW (Macrì and Scornaienghi, 2017). This regulatory context tended, at the level of the agricultural phase, to encourage the interrelation of improving AW next to food safety, environmental and climate sustainability, etc. Annex I shows the specific interrelations between AW and the mentioned topic over time. The vision that emerged showed that the current livestock agricultural production structure provides peculiarities that aim to be in balance with the environment (grazing) and climatic conditions (change), so as to contribute to the preservation of the territory and valorisation of the products obtained to increase market penetration. The novelties that came with the introduction of single farm payments decoupled from certain production activities, have made it possible to achieve the goals set: good agricultural and environmental conditions (MIPAA-F, 2007-2013). Sustainability is now enshrined as a fundamental principle and the granting of direct payments to producers will depend on cross-compliance with AW. Cross-compliance delineated agro-environmental and AW commitments in relation to the calculation of the corresponding payments.

This is confirmed and reinforced in the 2014-2020 programming where the greening system became one of the components of the Direct Payment Scheme in 2015. It was an obligation for farmers receiving the basic payment to comply with climate and environmental practices. Failure to comply with the obligations under the greening system resulted in reductions and/or penalties for non-compliance. This, to some extent, constituted a constraint for farmers.

This “green” context favoured by the CAP 2014-2020 also included the reinforcement of targeted intervention measures in favour of AW, to which a specific payment section was dedicated only for covering those commitments that went beyond the relevant mandatory minimum requirements dictated by the conditionality. To



this end, payments may have represented a benefit for farmers for the implementation of practices with a view to improving the living conditions of livestock.

The coming CAP 2023-2027 will substitute the greening system with the eco-schemes, which comprehend payments in addition to the basic support for active farmers who make commitments to observe beneficial agricultural practices that go beyond the minimum requirements established by the Union law. One eco-scheme is specifically dedicated to AW.

CAP 2023-2027 aims particularly at contributing to the development of sustainable agriculture in order to be more compatible with society's expectations, through compliance with standards that include the AW topic alongside the environment, climate change, good agricultural land conditions, food safety, public health, animal health, and plant health. Despite already being present in the past, these interconnections are nowadays reinforced in the new CAP 2023-2027. This also includes the ecological transition of the agricultural sector through the increase in funds planned to provide support to it. This consolidation certainly depends on the political context around the new CAP, whose directions originate from The European Green Deal and the Farm to Fork Strategy. In essence, the new CAP should steer to semi-intensive animal husbandry, or rather extensive animal husbandry, considering the latter a farming system more in line with the sustainability principles, due to the multiple implications of an eco-environmental character and the safeguarding of animal health. The fact that AW is linked to these factors contributes to returning to the market a genuine, natural and healthy image on the one hand, and the achievement of European policy objectives on the other.

The path of this analysis shows a great variety of CAP strategic measures aimed at improving the living conditions of livestock farming in an overall view, which combines AW values with the food quality and safety ones.

With regard to the new CAP, within the "overall" general regulations on AW, the strategic choices are influenced by the need to leave ample margins for manoeuvre to the Member States, given the different characteristics of each territory. So, the EU creates the general framework then all nations define the specific policy orientation. In addition, there is another level, i.e. the local context. In fact, the application or non-application of CAP measures depend on the choices of the actors involved in the livestock environment to which AW improvements should be addressed. In fact, for the farmer, the best policy measures in favour of animals remain those that take into account the structural conditions in which animals live.

In relation to livestock management, in CAP 2023/2027 purposes also emerge. One of the cross-cutting objectives, consisting of modernising agriculture in rural areas by fostering innovation and digitalization, is in compliance with Horizon Europe, the Framework Programme for Research and Innovation 2021-2027 (Regulation (EU) 2021/695) leading to fostering the adoption of innovations in the farming sector. In this context, EU regulations show how important it is to ensure the sustainable development of rural areas in order to apply knowledge transfer and innovation in agriculture and rural areas in harmony with the promotion of innovative agricultural technologies, and sustainable management, including AW. In the CAP, digitisation and innovation aim to improve competitiveness, environmental sustainability and the development of rural areas. In this direction "precision livestock farming" technology may facilitate the identification and implementation of environmentally-friendly and efficient AW practices - (next to the providing of technical and economic data) (Morrone *et al.*, 2022), but the relative adoption still remains a breeder choice.

In fact, the ability to adapt to the advent of cutting-edge technological innovations, as tools to improve animal health and welfare, remains a challenge for most farmers due to management and organizational issues. Finally, the political and regulatory framework drafted to address the process of modernizing livestock farming may also be of great support for competitiveness. Indeed, investments in modernization and innovation with the intention of implementing new practices and technologies may constitute an opportunity to enhance the farmers' market reward.

With reference to the regulatory discourse analyzed, the criticism and doubts that emerged in the literature (Leone, 2020) concerning the effectiveness of the CAP in supporting AW, may give rise to new insights and be the starting point for verification, but only when the concrete action of the new CAP becomes operational, as well as when the degree of implementation by farmers is available.

Finally, at present, based on the regulatory framework already outlined, it is certainly possible to assert that an increasing evolution of the role assigned to AW within the CAP has already emerged. The evolution has shifted from initially being an inclusion of the minimum AW support models to being, mainly in the near future, a complementary and indispensable element among the main requirements for the implementation of measures related to economic, social and environmental sustainability of all production processes in the livestock sector.

In conclusion, it is crucial for farmers to be aware of the existence of AW support measures, so that they

know what support possibilities are available to them. In this way, they can gain access to the support that may benefit them. That will help them steer the strategic decision-making process as efficiently as possible regarding the way they manage and run their farm. Academic research may help to deepen and spread the knowledge and insights in favour of all stakeholders along the agricultural supply-chain.

Once farmers know about the supporting scenario available to them, it may be interesting to verify through future research, firstly, how many of them practically decide to apply for the contributions. Secondly, it would be interesting to investigate whether farmers perceive AW measures as a constraint or an economic benefit. Thirdly, it would be interesting to explore and find out if these policies succeed in involving livestock farmers by triggering a new philosophy attentive to sustainability in a three-fold sense: the economic, environmental and AW aspects.

#### REFERENCES

- Bayvel D.A.C. (2012). The international animal welfare role of the office international des épizooties: The world organisation for animal health. *Animals, ethics and trade: The challenge of animal sentience*, 248-260. DOI: <https://doi.org/10.4324/9781849770484>
- Bentham J. (2013). An introduction to the principles of morals and legislation (excerpt). [Moralės bei įstatymų leidybos principų įvadas (ištrauka)]. *Problemos*, 83: 188-190. DOI: <https://doi.org/10.15388/problemos.2013.0.822>
- Boivin X., Lensink J., Tallet C., Veissier I. (2003). Stockmanship and farm animal welfare. *Animal Welfare*, 12(4): 479-492. DOI: <https://doi.org/10.1017/S0962728600026075>
- Brambell F.W.R. (1965). Report of the Technical Committee to Enquire into the Welfare of Animals kept under Intensive Livestock Husbandry Systems: The Brambell Report. Her Majesty's Stationery Office, London. Political Science.
- Broom D.M. (2011). A history of animal welfare science. *Acta Biotheoretica*, 59(2): 121-137. DOI: <https://doi.org/10.1007/s10441-011-9123-3>
- Council of Europe (1968). European Convention for the Protection of Animals during International Transport \* Paris, 13.XII.1968. European Treaty Series - No. 65.
- Council of Europe (1976). European Convention for the Protection of Animals kept for Farming Purposes\*. Strasbourg, 10.III.1976. European Treaty Series - No. 87.
- Cvitković D., Trninić K., Pašić S., Vlahović K., Pavlak M. (2020) Analytical assessment of some variables in cross-compliance control on livestock production farms in Croatia. *Veterinarski Arhiv*, 90(4): 341-352. DOI: <https://doi.org/10.24099/vet.arhiv.0977>
- Elischer M. (2019). *The Five Freedoms: A history lesson in animal care and welfare*. Michigan State University Extension, 4H Animal Science.
- European Commission (2002). Communication from the Commission to the Council and the European Parliament - Mid-Term. *Review of the Common Agricultural Policy*. COM/2002/0394 final.
- European Commission (2006). Report From the Commission to the Council on the experience acquired on the implementation of Directive 98/58/EC on the protection of animals kept for farming purposes. COM(2006) 838 final. Brussels, 19/12/2006
- European Commission (2018). Proposal for a Regulation Of The European Parliament And of the Council establishing rules on support for strategic plans to be drawn up by Member States under the Common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulation (EU) No 1305/2013 of the European Parliament and of the Council and Regulation (EU) No 1307/2013 of the European Parliament and of the Council. COM/2018/392 final - 2018/0216 (COD).
- European Council (2021). Council adopts fairer, greener and more performance-based farming policy for 2023-2027. Press contact O'Driscoll E.
- Duncan I.J.H. (2019). «Animal Welfare: A Brief History», In: Hild S., Schweitzer L. (eds), *Animal Welfare: From Science to Law*, 13-19.
- Farm Animal Welfare Council (2009). *Farm Animal Welfare in Great Britain: Past, Present and Future* Printed for the Farm Animal Welfare Council in the UK, October 2009.
- Fernandes J.N., Hemsworth P.H., Coleman G.J., Tilbrook A.J. (2021). Costs and Benefits of Improving Farm Animal Welfare. *Agriculture*, 11, 104. DOI: <https://doi.org/10.3390/agriculture11020104>
- Fraser D. (2004). Applying science to animal welfare standards. In: Global Conference on Animal Welfare Office for Official Publications of the European Community. Book chapter; *Conference paper: Global conference on animal welfare: an OIE initiative*, Paris, France, 23-25 February 2004. Proceedings 2004, 121-133 ref.22.
- Greiveldinger L., Boissy A., Aubert A. (2013). An ethological perspective of the relations between sociality and emotions in animals. In: Aubert A. (eds.) *Social Interaction Evolution Psychology and Benefits*, Nova Science Publishers, 67-82, New York.

- Halachmi I., Guarino M., Bewley J., Pastell M. (2019). Smart Animal Agriculture: Application of Real-Time Sensors to Improve Animal Well-Being and Production. *Annual Review of Animal Biosciences*, 7: 403-425. DOI: <https://doi.org/10.1146/annurev-animal-020518-114851>
- Hemsworth P.H., Mellor D., Cronin G.M., Tilbrook A.J. (2014). Scientific Assessment Of Animal Welfare. *New Zealand Veterinary Journal*, 63(1): 1-20. DOI: <https://doi.org/10.1080/00480169.2014.966167>.
- Hoffstadt T. (2008). Cross compliance - new requirements for direct payments in animal husbandry. *Tierärztliche Umschau*, 63(9): 501-506.
- Hughes B.O. (1976). Preference decisions of domestic hens for wire or litter floors. *Applied Animal Ethology*, 2(2): 155-165. DOI: [https://doi.org/10.1016/0304-3762\(76\)90043-2](https://doi.org/10.1016/0304-3762(76)90043-2).
- La Fondation Droit Animal (LFDA) (Animal Welfare: from Science to Law. La Fondation Droit Animal, Éthique et Sciences) (2019). ISBN 978-2-9512167-5-4. <https://www.fondation-droit-animal.org/documents/AnimalWelfare2019.v1.pdf> (Edited by Sophie Hild and Louis Schweitzer) © La Fondation Droit Animal, Éthique et Sciences (LFDA), 2019 39 rue Claude-Bernard, 75005 Paris.
- Leone L. (2020). Farm animal welfare under scrutiny: Issues unsolved by the eu legislator. *European Journal of Legal Studies*, 12(1): 47-84. DOI: <https://doi.org/10.2924/EJLS.2019.017>
- LIDA (1978). *Dichiarazione Universale dei Diritti dell'Animale*, 15 Ottobre 1978.
- Macrì M.C., Scornaienghi M. (2017). Le politiche europee per il benessere degli animali da produzione. *Agri-regionieuropea*, 13(48). Marzo 2017.
- McCulloch S.P. (2013). A critique of FAWC's five freedoms as a framework for the analysis of animal welfare. *Journal of Agricultural and Environmental Ethics*, 26(5): 959-975. DOI: <https://doi.org/10.1007/s10806-012-9434-7>
- McKenna C. (2017). *The impact of legislation and industry standards on farm animal welfare. The meat crisis: Developing more sustainable and ethical production and consumption*. Second edition, 335-354. DOI: [10.4324/9781315562032](https://doi.org/10.4324/9781315562032).
- Ministero delle politiche agricole alimentari e forestali. Dipartimento delle politiche competitive del mondo rurale e della qualità (MIPAAF). Direzione generale della competitività per lo sviluppo rurale. Piano strategico dello sviluppo rurale l'agricoltura a beneficio di tutti rete rurale nazionale 2007-2013. Benessere animale: analisi normativa e degli strumenti in atto in Europa. Rete Rurale Nazionale 2007-2013. A cura di Milone, P.
- Morrone S., Dimauro C., Gambella F., Cappai M.G. (2022). Industry 4.0 and Precision Livestock Farming (PLF): An up to Date Overview across Animal Productions. *Sensors* 2022, 22(12), 4319. DOI: <https://doi.org/10.3390/s22124319>
- One Health High-Level Expert Panel (OHHLEP), Adisasmito W.B., Almuhairi S., Behraves C.B., Bilivogui P., Bukachi S.A., Casas N., Becerra N.C., Charron D.F., Chaudhary A., Ciacci Zanella J.R., Cunningham A.A., Dar O., Debnath N., Dungu B., Farag E., Gao G.F., Hayman D.T.S., Khaita M., Koopmans M.P.G., Machalaba C., Mackenzie J.S., Markotter W., Mettenleiter T.C., Morand S., Smolenskiy V., Zhou L. (2022). One Health: A new definition for a sustainable and healthy future. *PLoS Pathog*, 18(6), e1010537. DOI: <https://doi.org/10.1371/journal.ppat.1010537>
- Pickett H., Crossley D.A., Sutton C. (2014). *Farm animal welfare: Past, present and future*. Freedom Food. Corpus ID: 158746042
- Pirlo G. (2020). Il Vision Paper dell'Animal Task Force. In: *Rete Rurale Nazionale 2014-2020. Scheda progetto CREA 24.1 Benessere Animale*. Ministero delle politiche agricole alimentari e forestali.
- Schmida E., Sinabell F. (2007). On the choice of farm management practices after the reform of the Common Agricultural Policy in 2003. *Journal of Environmental Management*, 82(3): 332-340. DOI: <https://doi.org/10.1016/j.jenvman.2005.12.027>
- Singh A.K., Bhakat C., Ghosh M.K., Dutta T.K. (2021). Technologies used at advanced dairy farms for optimizing the performance of dairy animals. *Spanish Journal of Agricultural Research*, 19(4), e05R01. DOI: <https://doi.org/10.5424/sjar/2021194-17801>
- Veissier I., Butterworth A., Bock B., Roe E. (2008). European approaches to ensure good animal welfare. *Applied Animal Behaviour Science*, 113(4): 279-297. DOI: <https://doi.org/10.1016/j.applanim.2008.01.008>
- Villanueva G. (2016). "The Bible" of the animal movement: Peter Singer and animal liberation, 1970-1976. *Taylor & Francis Online*, 13: 399-414. DOI: <https://doi.org/10.1080/14490854.2016.1202372>