

*Presidenza del Consiglio dei Ministri*



**FOOD ANIMAL PRODUCTION AND ANIMAL WELFARE**

28<sup>th</sup> September 2012

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## Presentation

The National Bioethics Committee has on several occasions paid attention to the ethical issue of the protection of animal welfare in the different contexts of life and the utilisation of animals by man. The maturation of an articulated ethical position *for animals*, that is not merely related to the *treatment of animals by humans*, is reflected in the variety and complexity of the *ad hoc* opinions directed at specific and differentiated analysis of the bioethical profiles related to inherent subjects such as the veterinary profession, animal testing, alternative methods to animal testing and conscientious objection, ritual slaughter, the use of animals in activities related to health and human well-being ('assisted therapies and activities with animals') and practices designed to change the appearance and morphology of companion animals for aesthetic purposes.

In a European framework of growing awareness to animal welfare, now regarded as an issue of public ethics, this document addresses one of the best known, customary and oldest forms of animal use, that is, for the production of meat and in general of products of animal origin intended for man. The topic - entrusted to a working group coordinated by Profs. Luisella Battaglia and Cinzia Caporale, together with Profs. Salvatore Amato, Francesco D'Agostino, Riccardo Di Segni, Carlo Flamigni, Marianna Gensabella, Assunta Morresi, Giancarlo Umani Ronchi and Grazia Zuffa - deserves renewed attention as currently it is characterised by an accentuation of the tendency to extend forms of industrial production, which significantly reduce the *quality of life* of animals.

When we define something as "good to eat", it is argued that, we should not refer only to what satisfies the palate and respects gastronomic or dietary criteria, but also to whatever expresses our value options, and meets certain ethical requirements of integrity and transparency of the whole productive chain as well as attention to the parameters of animal welfare, as fully described in scientific literature and for the most part provided for by the norms of the European Union.

The position of the NBC, in this perspective, is directed at supporting biocultural ethics which overcomes a conception of animals exclusively as a means for the satisfaction of human needs and interests and which recognises animals as sentient beings worthy of protection. Biocultural ethics aims to expand the traditional scope of interest of ethics to encompass in moral considerations "every aspect of the relationship between living species".

The Opinion concludes that, while taking into account the centrality of man and the legitimate interest in the price of products of animal origin, especially in times of economic crisis, it is necessary to achieve a comprehensive assessment which examines the problem in the light of a broader and forward-looking concept of *benefit for society as a whole*, including the world of production, respecting human health, animal welfare

and environmental sustainability. Several specific recommendations arise from these conclusions: 1) promotion of a culture of enterprise and supply chain with a considerable enhancement of human responsibility towards animal welfare; 2) adoption of a specific labelling system applied to productive and zootechnical activities based on quality standards of excellence with respect to animal welfare and along the whole supply chain; 3) tangible respect of the consumer's right to know, even through the promotion and implementation of information and awareness campaigns on behalf of the supervisory authorities; 4) timely activation of the creation of a European Network of Reference Centres for animal protection and welfare in order to favor the establishment of more sustainable forms of animal farming and production throughout all the Union; 5) promotion of scientific research in the field of animal welfare, particularly for productive livestock, and development of an *animal-based* assessment system; 6) maximising the crucial role of the veterinarian in the assessment of the living conditions of animals and identification of parameters of their well-being; 7) activation of professional training for personnel involved in the care and management of animals.

The document was drawn up by the coordinators of the working group, Profs. Luisella Battaglia and Cinzia Caporale, with the precious collaboration of Prof. Salvatore Amato and some external experts who sent their written contributions or participated in a seminar: Prof. Barbara de Mori (Researcher in Moral Philosophy, University of Padova), Dr. Agostino Macri (Head for the food sector of the National Consumers' Union), Prof. Franco Manti (Professor in Social Ethics, University of Genoa), Dr. Romano Marabelli (Head of Department of veterinary public health, food safety and the governing bodies for the protection of health, Ministry of Health), Prof. Fabio Pammolli (Professor of Economics and Management and Director of I.M.T. Advanced Studies Lucca), Prof. Michele Panzera (Professor of Veterinary Ethology and Animal Welfare, University of Messina), Dr. Paolo Scrocchi (Director General of the Italian Breeders' Association). A special mention is due to Dr. Pasqualino Santori, President of the Veterinary Bioethics Committee and already a Member of the NBC, who was an integral part of the working group and contributed to the drafting of the document.

The Opinion was unanimously approved in the plenary session on 28 September 2012 (Profs. Salvatore Amato, Luisella Battaglia, Adriano Bompiani, Stefano Canestrari, Cinzia Caporale, Francesco D'Agostino, Antonio Da Re, Lorenzo d'Avack, Riccardo Di Segni, Carlo Flamigni, Romano Forleo, Silvio Garattini, Laura Guidoni, Laura Palazzani, Rodolfo Proietti, Monica Toraldo di Francia, Giancarlo Umani Ronchi, Grazia Zuffa). Profs. Bruno Dallapiccola, Emma Fattorini, Marianna Gensabella, Aldo Isidori, Claudia Mancina, Assunta Morresi and Demetrio Neri, absent from the session have subsequently expressed their adherence.

The President  
*Prof. Francesco Paolo Casavola*

## 1. Food choices and animal welfare, bioethical profiles

There is perhaps no other human behaviour more charged with symbolism than eating: as a sacred act, a time for socialisation, cultural expression as well as imagination, emotion and memory. To speak of nutrition is, in some way, to speak of man's inner life, his history, his social and ethical identity and religiosity. Every food choice reveals who we are, manifests our inclinations, our preferences, but at the same time, in terms of public ethics, contributes to the consolidation of certain production policies to which, consciously or unconsciously, as consumers we implicitly assent<sup>1</sup>

In recent decades, especially in Europe, there has been a growing awareness of animal welfare, now regarded as an issue of public ethics, and the 'animal issue', i.e. the problem of a proper treatment of non-humans, has become a strongly felt problem. Hence a series of questions arise on how to reconcile the ethical standards referred to in this Document with the mistreatment of animals and consequent suffering, especially in the food supply chain. In essence, the question is whether we can continue to consider animal suffering as a necessary evil in our lives or whether we must *inevitably* choose between human welfare and animal welfare. These questions are of great importance especially for bioethics, which is called upon to reflect, by way of its interdisciplinary vocation, on the possibility of developing a pattern of eating that is *ethically sustainable* in respect of the interests of all the subjects and parties involved, capable of reconciling the preferences and habits of conscious and responsible consumers with the needs of production as well as those of animal life.

Without necessarily seeking to call into question eating meat and products of animal origin, one wonders whether it is possible to intervene on the way in which it is carried out, by improving animal welfare conditions in a manner compatible with the interests - including the economic ones - of the consumer. In this respect it should be noted that there is a steady increase in the number of commercial experiences in which market justification is compatible with the development of animal husbandry systems that protect the living conditions of animals and respect the ecosystem.

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<sup>1</sup> The consumption of products of animal origin in human nutrition varies depending on availability and price (possibly influenced by support policies and incentives) and local cultures and traditions. Making quantitative estimates is rather problematic. Factors of complexity are, for example, the evaluation of the actual contents of substances of animal origin in finished products and the calculation relating to imported goods, which is difficult to implement. In addition, different sectors and different States use different methods to measure the phenomenon. According to the latest data from the *Food and Agriculture Organization of the United Nations* (FAO), the consumption of animal products is steadily growing, especially in developing countries or wherever local production has been developed. It is estimated that in the world around 280 million tonnes of meat are produced annually (FAO, 2008), with potential problems of scarcity for the new demand coming from countries such as China and India. In the EU, the annual value of livestock farming activities is approximately 149 billion euro.

When we define something as *good to eat*<sup>2</sup> we must therefore refer not only to what satisfies the palate and respects gastronomic or dietary criteria, but also to what is the expression of our value options, and corresponds to our idea of *good living*, together with what complies with specific ethical standards of correctness and transparency of the whole supply chain as well as paying attention to the parameters of the 'quality of animal life' (parameters fully described in scientific literature for several decades and for the most part adopted by 'the European Union'<sup>3</sup>).

In order to speak about 'the quality of animal life' it is necessary first of all to gain the perspective of the quality of the human-animal relationship, intended as a willingness to assume the responsibility of a commitment to the quality of animal life at the same time fully preserving the quality of human life. Often, not considering the quality of animal life means in fact to neglect important aspects of the same quality of life of individuals and society as a whole.

Claims that modern industrial farming systems are by no means adequate for the basic needs of animals, can no longer be dismissed as a mere 'anthropomorphic' perspective to the issue of animal welfare. These conclusions are in fact based on the consolidated research of ethologists, physiologists, agronomists and veterinarians, scientists and professionals certainly not suspected of mere zoophile sentimentalism, that have been joined to bioethicists in their supporting the need for change. This line, however, has long been welcomed by the new legislative guidelines.

The now extensive scientific literature on this issue also sees a gradual shift of focus from the physiological parameters of well-being - detectable by quantitative measurement - to the qualitative aspects of the needs of animals, through an evaluation of *preferences* and the *ability to feel*. Between the seventies and the nineties, there was a progressive shift from a negative definition of well-being as "absence of disease" to that of the

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<sup>2</sup> "Good to Eat": "Riddles of Food and Culture" - originally titled "The Sacred Cow and the Abominable Pig" (1998, published in Italy in 2006 by Einaudi) - is a famous book by American anthropologist Marvin Harris. The author's approach has a more limited scope than the present Document; it relates to the interpretation of the diverse eating habits of peoples and in particular their food taboos, which is seen as *rational optimisation of natural resources*. What is considered *good to eat*, according to the studies by Harris, is so because it is not harmful to health, it is widely available and because it is so effective Convenience acknowledged by populations - the author argues - is only subsequently transformed into a precept of an ideological or religious nature, or social norm perceived as being inviolable.

The concept of *good to eat*, however, has very ancient roots, with vast and profound meanings. In Genesis (2.9), for example, God gives to man the fruits of the earth described as every tree that is pleasing to the eye and, of course, good to eat (among these is the tree of life and the tree of the knowledge of good and evil).

<sup>3</sup> Consider, for example, that in recent years the European Union has dedicated to animal welfare, on average, almost 70 million euro per year in direct subsidies livestock farmers and supporting training activities and information for workers and the general public.

"satisfaction of needs" before finally reaching the so-called "*feelings approach*" which refers to the *perceptual* states and feelings of animals<sup>4</sup>.

The same spread of ethics committees dedicated to the protection of animals has placed as a central issue the identification of operational requirements which take into account the capacity of *sentience* and ability to meet the physiological and ethological needs of individual species, initiating reflection on the theme of well-being in an interdisciplinary perspective and examining the ethical implications stemming from it. This enrichment of the concept of well-being also includes the contributions made by the new orientations that have emerged from the international debate on the subject of animal bioethics: on the one hand, the guidelines which enhance the *care approach*, and therefore the special responsibility that humans must perceive towards the sentient beings over which they exert power and make use of to achieve their aims, and on the other hand those who follow the neo-Aristotelian approach of *capabilities* and believe that this idea may be applied also to the animal world, viewing this extension as a new frontier of the principle of justice.

Along this line - with a growing emphasis on the interplay between economics, development, society and ethical criteria - fits the position of the *Food and Agriculture Organisation of the United Nations (FAO)*, which, in addition to identifying the protection of animal welfare as a principle valid not only for the ethics of advanced societies but also for the development strategies of the poorest countries, it supports the need to provide cultural education programmes in support of economic growth and, at the same time, the protection of animals and the environment. This means, of course, making regulatory updates<sup>5</sup> and soliciting proposals for action which facilitate

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<sup>4</sup> The term *feeling* refers to the cerebral states of the animals induced by environmental stimuli and cognitive processes.

<sup>5</sup> References to national and EU regulations: In Italy the protection of animals, including fish, reptiles and amphibians, bred or kept for the production of foodstuffs, wool, skins or fur or for other farming purposes is regulated by Legislative Decree No. 146/2001 implementing Directive 98/58/EC and specific rules for rearing calves pigs and laying hens. Directive 882/2004/EC on the assessment of the wellbeing of animals in production provides, among the obligations of the Member States, national control programs for animal welfare and the Decision No. 778/2006, applicable from 1 January 2008, establishes uniform rules for the control of animal welfare extended to all species of livestock. The "National Plan for Animal Welfare" (PNBA), issued by the Ministry of Health in 2008 stems from the need to comply with Community provisions unifying the method of implementation and scheduling of controls. It is important to note that Article 13 of the Treaty on the functioning of the Union recognises the status of *sentient beings* to animals and establishes that account should be taken of the needs relating to animal welfare. In 2006, the Community Action Plan on the Protection and Welfare of Animals 2006-2011, adopted by the Commission, for the first time faced together the different elements of relevant EU policy. The "Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on EU strategy for the period 2012-2015" offers new lines of action that take advantage of progress in science and technology in order to reconcile in the implementation of existing legal provisions, animal welfare and economic realities. Indicators of the quality of the product based on the evaluation of the conditions of animal welfare have also been introduced in two recent EU measures (Directive 2007/43/EC EC Regulation No. 1009/2009) and were the subject in 2012 of the recommendations of the experts of the

the efficient provision of livestock activities, taking into account the diseconomies related to environmental and sanitation problems, but above all it means reaching a global assessment that examines the problem in the light of a broader and far-sighted concept of *benefit to society as a whole*, with respect of human health, animal welfare and environmental sustainability.

In fact, nutrition may now become a sort of litmus test that demonstrates customs, lifestyles, moral choices, memberships, mutual recognition, and the relationship with one's body, other species and the Earth as well as awareness of unprecedented responsibility.

## 2. Scientific perspectives on animal welfare

In 1965, the scientific community reached a first definition of 'welfare' understood as a general term that encompasses both physical and behavioural well-being of the animal, as measured by indicators of physiological, behavioural and reproductive systems, and on the basis of longevity. The Brambell report<sup>6</sup> establishes certain parameters commonly used from then on in order to ensure an acceptable level of well-being for farm animals. It is to the latter that, according to the majority of experts, there should be ensured, as far as possible, the following five 'fundamental freedoms', of which the fourth and fifth are the most difficult to define unambiguously. 1) freedom from hunger, thirst and malnutrition; 2) freedom from environmental discomfort; 3) freedom from pain, injury and disease; 4) freedom from *fear* and *stress*; 5) freedom to express species-specific behavioural characteristics.

The definition of well-being was later updated in 1992 by the *Farm Animal Welfare Council*<sup>7</sup> in Great Britain on the basis of new knowledge concerning animal life acquired in the meantime in scientific literature. In this way a process of interdisciplinary research initiates aimed at identifying methods to manage animals kept for farming, which is not limited to ensuring minimum standards of well-being but also intends to significantly improve

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European food Safety Authority (EFSA). All these aspects have been summed up in "Communication from the Commission to the European Parliament to the Council and the European Economic and Social Committee of 19.01.2012 on the strategy and the European Union for the Protection and Welfare of Animals 2012-2015". Lastly it is worth mentioning the "Council Conclusions on the protection and welfare of animals" (3176<sup>th</sup> Agriculture and Fisheries Council Meeting, June 18, 2012), which essentially converges with the Commission in stressing the need for a holistic approach , it encourages a high level of protection at national level and promotes greater transparency to support informed choices from consumers.

<sup>6</sup> The "Report of the Technical Committee to Enquire into the Welfare of Animals kept under Intensive Livestock Husbandry Systems" (HMSO London, 1065) is one of the first official scientific documents on animal welfare. It was commissioned by an *ad hoc* committee set up by the British government following the uproar caused a year earlier by the publication of the book "Animal Machines" by Ruth Harrison, regarding the welfare of intensively reared animals . The *ad hoc* committee was led by Professor Roger Brambell, DVM.

<sup>7</sup> Advisory Committee of the British government on these matters until 2011, originally formed as a result of the Brambell Report.

their living conditions<sup>8</sup>. It is precisely in relation to this aim always dutifully supported and substantiated by scientific evidence, that the concept of 'quality of life' is introduced in reference to the animal world, with a significant change in perspective from the traditional view. Animal welfare concerns now a number of factors that have to do with the quality of the surrounding environment, with all the relationships that an animal maintains with it and with the same quality of life, in the specific situation in which it finds itself. Any attempt to assess welfare, according to several authors, should consider the available scientific evidence relating to the *feelings* of animals, derivable from their structure and their functions (*capacity*) and their behaviour ('the *feelings* approach'). So, according to this acceptance, to ensure its welfare, it is essential for the animal to enjoy, in addition to the physical health necessary to guarantee the functioning of the fundamental properties of the living being, also the opportunity to reasonably put into practice the behavioural responses that allow its integration in the surrounding environment.

Over the last few years, research has understood that animal behaviours imply the presence of complex physiological mechanisms of adjustment, integration and control. Social behaviour, in particular, reveals adaptive modules that can be understood only if one accepts complex features in the processes of brain functioning. According to recent studies, for example, *privation* becomes *suffering*<sup>9</sup> when an animal is prevented - by physical restrictions or lack of adequate stimuli - from manifesting in addition to strict 'physiological needs' , even what might be termed the *cognitive representation* of the same needs. It can be said that, when considering animal welfare, the question of 'behavioural needs' should not be overlooked and indeed it is of fundamental importance.

It is also on the basis of this kind of research, that numerous sides have ascertained that current techniques of industrial farming deprive animals of the opportunity to meet the essential needs to put into practice certain behaviours defined as *maintenance*<sup>10</sup>, which, similar to the concept of homeostasis, are of primary importance for the proper functioning of the neurosensory systems of the animal and its well-being.

All the scientific knowledge gained so far in the extensive field of animal welfare applied to livestock production, while considering the open

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<sup>8</sup> The *Animal Welfare Science* is concerned with the evaluation and assessment of animal welfare and is a rapidly expanding subject. In Europe it is taught in all faculties of veterinary science.

<sup>9</sup> Moreover, without the animal being able to giving a 'cultural' meaning to such hardship and suffering.

<sup>10</sup> Among these, there is for example freedom of movement inside an appropriate space suited to the characteristics of the species. The impact on welfare is also particularly marked in overcrowded conditions, since the animals are not only prevented from complying with social spaces and hierarchical distances, and even without the necessary space for pressure sores, for getting up and in some cases, even for a standing position. . However, one should bear in mind, as shown by scientific literature, that domesticated animals - which obviously include the vast majority of farm animals - seem to show less suffering in the same conditions of confinement than wild animals.

scientific discussion on the various elements, has made it possible to define a set of values and reference quality parameters that have been judged as sufficiently reliable to be gradually adopted at EU and national regulatory levels<sup>11</sup>. More knowledge is expected both as regards the assessment of environmental factors that influence welfare, as well as on the assessment of the reactions of animal to these factors.

Of particular interest are the new lines of research that seem to show more effective methods of assessment of animal welfare based on the detection of parameters directly estimated on the same animals (presence of trauma, injury, disease, poor physical condition, etc.), compared with the current methods used that are restricted to measuring environmental parameters or those related to methods of management (temperature, space in square meters, quality of feed, etc.).

According to European institutions<sup>12</sup>, the two approaches should be considered complementary and not alternative, with the advantage that a direct assessment - carried out by the so-called *animal-based* indicators mentioned above - shifting the focus from environmental risk factors to the exposed individual animal, this would give the possibility to determine its true state of well-being rather than only presuming it theoretically on the basis of the fact of compliance to the limits and environmental constraints imposed by regulatory standards.

### 3. Biocultural ethics

If modern zootechnics has broken the traditional *contract* between humans and animals, *biocultural ethics* - the field of bioethics that deals with the moral problems concerning the management of relations by man towards other non-human beings -, intends to take this implicit contract seriously and to renew it, its having been in force for millennia. 'Bioculture' is meant as, that set of institutions, social practices and organised activities (such as animal husbandry) in which man uses animals in order to achieve his goals, using them systematically for his own benefit<sup>13</sup>. These activities are characterised by two aspects: the domination by man and the reduction of animals to a means.

The need for an ethical approach in this area arises from this recognition of man's power, which needs to be regulated and involves specific responsibilities. One of the fundamental aspects of biocultural ethics is of course the link between power and responsibility. The fact that we exercise power over other non-human beings does not mean that we have a free hand to do whatever we wish or whatever is worthwhile, in fact, this

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<sup>11</sup> Point 7, Annex Art. 2, paragraph 1, letter b) of Legislative Decree No. 146/2001 pursuant to Directive 98/58/EC on the protection of animals kept for farming.

<sup>12</sup> See "Communication from the Commission to the European Parliament to the Council and the European Economic and Social Committee of 19.01.2012 on the strategy and the European Union for the Protection and Welfare of Animals 2012-2015" and "Council Conclusions on the protection and welfare of animals"(3176<sup>th</sup> Agriculture and Fisheries Council Meeting, June 18, 2012).

<sup>13</sup> For the origin of the concept of 'Biocultural ethics' cf. "Respect for Nature" by Paul W. Taylor, Princeton University Press (1986).

exercise of power involves responsibility for their welfare; if we breed animals to use the products derived from them or their bodies, our responsibility towards them does not decrease, but rather, it is increased. The recognition that these animals render us 'services', that we use them and therefore *live on them* and *upon them*, should make us feel responsible for their welfare, and ensure 'adequate' treatment for the services they render. We are faced with a central issue for our society, since it concerns not just zoophiles, but also consumers of animal products and their keepers, in other words, any person who has a *direct* or *indirect* relationship with them through utilisation.

Therefore, biocultural ethics involves some very important consequences: a) the transition from a *purely* economic perspective to *also* a moral perspective. In this context, animals are not merely *resources* to be exploited, *goods* to be administered rationally, but they appear as sentient beings with their own interests and needs, worthy of protection; b) a change in the human role, marked by the transition from the culture of *exploitation* to that of *care*.

As mentioned in the previous paragraph, it is through the achievements of science and technology that we have become aware of a power which makes us de facto foster the fate of the Earth and the species that inhabit it. It can be deduced that, a practice, can not be accepted simply because it is *productive*, nor can our legitimate interests as a species justify *any action at any cost*. Therefore, faced with certain practices, we should question ourselves about the kind of sacrifices we impose on animals, which fundamental interests we deny them and whether it is truly *necessary* to sacrifice their welfare.

In particular, one wonders if certain technical changes in the supply chain can not produce significant improvements without causing considerable renunciation or sacrifice for man, that is, whether the codified system of biosecurity in the supply chain can not create incremental conditions in welfare such as to justify contained increases in costs for consumers in the short term. In addition, one must calculate how animal welfare affects the economic sustainability of the livestock sector especially in relation to small-scale farmers<sup>14</sup> and also assess whether shortening the supply chain may not compensate for any increases in the costs of farming when determining the final price.

Livestock rearing has now become a standard industrial process aimed at the growth of production: a given quantity of calories, protein and carbohydrates fed to livestock or poultry corresponds to a certain number of kilos of meat, liters of milk, and number of eggs. To the higher production

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<sup>14</sup> The evaluation the EU as regards animal welfare concludes that welfare regulations have to date imposed additional costs estimated at about 2% of their total value. The increase is, however, attributable, to the livestock sectors and experimentation as a whole and should be calculated specifically for separate sectors and take into account all factors (*Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the European Union Strategy for the Protection and Welfare of Animals 2012-2015* - Brussels, 19.1.2012).

attained there corresponds of course a significant reduction in the end price of the product, which, it should not be forgotten, is in man's legitimate interest, especially in times of economic crisis such as we are experiencing.

Industrial production has, however, imposed in the name of cost reduction, the logic of monoculture that equates efficiency with the standardisation of procedures, equipment, feed, and breeding techniques. Monoculture implies simplification and separation: one animal (or a single plant) for the largest amount (or for the greatest extension) possible. Natural ecosystems, on the contrary, are based on complexity and on integration. In an ideal ecological system, each animal completes the biological cycle and food cycle of the other and the waste produced by one is eaten by the other. Clearly, it is not a case of putting animals together and leaving them free to wander in the fields, but rather to use all technical and scientific knowledge to recreate, through breeding, a natural balance that will optimise production and reduce the social costs incurred. We must therefore reflect on the fact that, there is an 'invisible' price to an egg or a portion of meat, which we do not pay at the supermarket checkout, but that affects the level of taxation that the consumer is asked to bear as a taxpayer. It is important that consumers know that in the composition of this 'invisible' price there is animal suffering also included, notwithstanding one's personal convictions on the bioethical issue itself. Therefore, there is nothing nostalgic or primitive in reclaiming systems of production that are ecologically balanced, precisely the opposite: there is a need to develop levels of professionalism adapted to the scientific and technical knowledge at our disposal in order to obtain tangible, solid and stable long-term benefits also and especially for the citizen-consumer-taxpayer. If we are not scandalised by producing more expensive but safer cars, we can not reject the idea of food production that, well within the logic of the market, takes into account also moral sustainability and environmental quality.

Consider also that the attribution of value to a particular product is a complex and multifactorial process: it encompasses a cognitive evaluation by the consumer which may be absolute or comparative (*this product is cheaper than the other one*). The perceived value and the mental representation of product characteristics significantly influence purchasing behaviour which is in turn also in relation to profound moral and personal convictions, in this case the attitude people have towards animals.

Biocultural ethics prescribes that livestock farming be carried out in such a way to ensure an *appropriate* quality of life to animals, which presupposes above all, as described in the preceding paragraph, a scientific knowledge of their physiological and behavioural needs. In this way it is possible to adopt methods of breeding which, while taking advantage of the productive capacities of animals without neglecting even economic factors, do not compromise the fundamental conditions of welfare. These findings confirm the need to carry out an articulated cost / benefit analysis and, above all, to decide which biocultural model to choose each time, seeking an acceptable balance between our legitimate usefulness and animal welfare, perhaps creating parallel markets.

This instance is fully incorporated in the document of the National Bioethics Committee "Bioethics and veterinary science. Animal well-being and human health "(2001), according to which respect for the ethological and physiological characteristics of animals must be of a binding nature in the choices that are made regarding them, and in particular the choices concerning therapy, breeding, their keeping and management. In view of the quality of life of animals, - largely in line with Community guidelines - industrial-scale animal husbandry must be discouraged in favor of ethologically and ecologically sustainable animal farming, and promoting 'ethical supply chains' from production to consumption through systems of labelling that characterise productive and livestock activities on the basis of quality standards at all levels of the supply chain as a guarantee for the consumer.

Transformation of the relationship with animal alterity has also led to the emergence of a new type of veterinarian that needs to be instructed in the field of applied behavioural sciences in order to be able to recognise the parameters of well-being and define the sensors for the monitoring of *stress*. Similarly, however, veterinarians, as all healthcare workers should have training in bioethics in order to assess the moral importance of the interests of animals and protect them, even by initiating a public debate regarding the choices and guidelines that should direct our conduct towards other species.

Another essential element to consider is the environment. In biocultural ethics in fact a model of 'environmental integration' is being pursued, the expression refers to the deliberate attempt to adapt human endeavours to the natural environment, so as to preserve as far as possible ecological integrity.

Factory farming has gradually resulted in: a concentration of production facilities in areas considered to be particularly suitable; an increase in the size of the farms, with a concentration of animals unimaginable until recently, the development of landless animal husbandry, resulting in a loosening of the traditional link between the livestock sector and agronomy. Salient features of intensive farming are therefore the maximum density of animals on the occupied area, the extensive use of mechanisation and low labour utilisation. Industrial livestock production has grown in response to consumer requests for lower prices and safety guarantees in products of animal origin and as a result of the need by food manufacturers and retailers to have standardised products at affordable prices for the entire population and even competitiveness on the international market. It is evident that the cost of production falls considerably by concentrating animals in confined spaces but, in the face of this, we irreparably alter the characteristic cycle of the agricultural farm that links reared animals, the cultivation of the land and crop production, within a system which had reached its equilibrium. For these reasons, for example, animal manure which, for millennia, has been considered essential to ensure the fertility of the land has now become only one of the major sources of pollution.

The key to genuinely human ethics is therefore in striking the balance between rights and duties: within the perspective of the ontological superiority of man, the fundamental need of animals to develop their natural potential in a suitable environment coincides with man's duty, to limit the demands on animals as sentient beings and towards the entire biotic community. By so doing, the purpose is to highlight the convergence of the *interests* of humanity and the interests of the ecosystem: the *health* of humans, animals and the Earth are inseparable and interdependent.

### **3.1 Biocultural ethics in the context of corporate social responsibility**

Biocultural ethics has raised the issue of the conflict of interests between humans and animals, proposing to establish priority criteria between fundamental and secondary interests, with the purpose of subtracting billions of animals from a life of pain. For these reasons, its role could prove crucial within companies utilising bioculture, such as, breeding farms, particularly with regard to corporate social responsibility, according to which businesses are not only geared to obtaining the maximum profit but they are also committed to reinvesting in socially relevant policies and practices.

If the fundamental purpose of the economy founded on quantitative expansion is to stimulate production, consumption and corporate profits, up to now this has led to a strong emphasis within livestock farms on the commercialisation and manipulation of animals, relegating them to biological machines fed with industrial feedstuffs.

In the livestock sector, corporate social responsibility can mean more investment to improve the general condition of the company, including an improvement in the lives of animals, to the benefit of all stakeholders - that is, all those who are influential or (co) interested in the choices of the company. In this perspective, even animals could be considered as "stakeholders", virtually and by assonance, notwithstanding their atypicality: given that these *subjects* whose condition and quality of life are affected (or rather determined) by company choices however together, they are influential on the choices of the company, on its production and productivity, and on its actual public image and reputation. Substantially biocultural ethics asks us to understand the needs of animals inside livestock farms and to attend to them and at the same time to respond to human stakeholders who request products and food that comply with the concept of human health and well-being and economic sustainability.

Since there is a connection between the level of animal welfare and human welfare, the multi-fiduciary stakeholder theory involves building a relationship of trust relating to the quality of the product, transparency and fairness in the relations between the constitutors of supply chains, the approaches to minimise the imbalance of power in the longer and more complex supply chains and ethically significant investments. The integration with biocultural ethics makes the quality of life of animals also vital for the

building of fiduciary relations inside and outside the company binding the company to its stakeholders and vice versa.

Stakeholders (in the true sense, namely humans) can serve as *spokespersons* for animals, both as in those internal stakeholders (people working in the companies) as well as those external stakeholders (institutions and persons engaged in positions of control, local bodies, ethics committees, social and health districts, consumers etc.). In particular, this role must be played by a crucial and strategic figure within the biocultural approach: the veterinarian who, as mentioned, due to his professionalism must personally act as guarantor of the 'atypical stakeholders' (animals), interpreting their needs and their ethological requirements and explicitly specify them in order to concretely improve their living conditions on livestock farms.

Even the scientific community has, in this sense, an important task: that of developing increasingly efficient instruments of assessment of animal welfare, to investigate possible solutions and remedies to onerous conditions for animals, to study improvements to procedures, means of production and distribution that make supply chains more efficient, and directly or indirectly more suited to the attainment of animal welfare.

Since corporate social responsibility usually requires the formulation of business codes of ethics, those of companies operating in the biocultural sector must make provision in their articulation of explicit elements to protect animal welfare, ensuring as far as possible that they live and are nourished while under farming conditions, in a manner which is characteristic of their species, as well as ensuring the adequacy of the facilities housing animals.

Equally, social and environmental balances must contain items linked to the expenses relative to safeguarding the environment and improvement of the living conditions of animals as well as the level of customer satisfaction, the level of adherence to the quality tests that companies intend to participate in, the use of resources for social purposes, perceived reputation, assessment of the degree of conformity to a voluntary code, and the degree of conformity between the code of ethics and social balance etc.

For companies and for the whole supply chain, in addition to economic and financial performance (balance sheet and capital ratios) and competitive performance (customer satisfaction and indices of effectiveness and efficiency), it will be fundamental to assess *social performance*, given by social and environmental balances and sustainability with respect to animal welfare.

An additional key factor for the biocultural supply chain is the professional training of the personnel involved in the management and care of animals, which should be continuous and specifically orientated: the adoption of criteria for the selection, training and formation of competent staff is recognised and normed in European programs, rightly seeing it as a fundamental objective in order to speak of total quality management.

## **Recommendations**

The National Bioethics Committee has on several occasions paid attention to the ethical issue of the protection of animal welfare in the different contexts of life and the utilisation of animals by man. The maturation of an articulated ethical position *for animals*, that is not merely related to the *treatment of animals by humans*, is reflected in the variety and complexity of the *ad hoc* opinions<sup>15</sup> directed at the differentiated and specific analysis of various contexts and their related bioethical issues.

This document addresses one of the best known, customary and oldest forms of animal use, that is, for the production of meat and in general products of animal origin intended for man. The topic deserves renewed attention as currently it is characterised by an accentuation of the tendency to extend forms of industrial production, which significantly reduce the *quality of life* of productive livestock as described in scientific literature.

Within the bioethical ethical perspective and corporate social responsibility, in the light of the values and principles outlined in the document, the National Bioethics Committee makes the following recommendations:

1. The promotion of a culture of enterprise and supply chain with a significant enhancement of social responsibility, understood as a commitment to comply with the relative provisions without derogations of the European Directives and to reinvest in socially relevant policies and practices such as improving livestock farming conditions and conduction of animals, and the environmental sustainability of production processes. In order to pursue these objectives, it is suggested firstly to adopt a system of labelling related to a parallel system of productive and livestock activities based on quality standards of excellence. The regulation of the labelling system should make these products easily and unequivocally identifiable by consumers, by way of comprehensible information which does not overlap or duplicate compared to data related to other products for example those of the organic market, even in order to stimulate the development of productive and livestock activities sustainable both ethically and environmentally. Particular attention should be placed on ensuring equivalence between livestock farming conditions and the conditions of treatment of the animals throughout the entire supply chain.

2. Specific and active respect of the consumer's right to know, through the promotion and implementation of information and raising awareness campaigns on behalf of the supervisory authorities. *Knowledge* is the decisive step for the assumption of an ethical responsibility towards animals by consumers: without precluding the centrality of interests regarding human

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<sup>15</sup> Bioethics and veterinary science, animal well-being and human health, 30 November 2001; Ritual slaughtering and animal suffering, 19 September 2003; Bioethical problems concerning the use of animals in activities linked to human health and well-being, 21 October 2005; Caudectomy and Conchectomy, 5 May 2006; Alternative methods, ethics committees and conscientious objection to animal testing, 18 December 2009;

food, or even those of purely an economic nature, an educated consumer is somehow morally co-responsible for the ethical sustainability of the production process, together with those operating directly in the supply chain.

**3.** Implementation of European Union recommendations, timely activation of public policies that promote the creation of a European Network of Reference Centres for the protection and welfare of animals, as well as harmonization of Community requirements in order to favor the affirmation of more sustainable forms of breeding and livestock production throughout the European Union, in the shortest time possible.

**4.** Promotion of scientific research in the field of animal welfare, particularly for productive livestock, and development of an *animal-based* assessment system<sup>16</sup>.

**5.** Maximising the crucial role of the veterinarian in assessing the living conditions of animals and in recognising the parameters of their well-being. In this regard, it stresses the need to activate bioethical training specifically for veterinary staff aimed at highlighting the moral significance of the interests of animals and work effectively to protect them.

**6.** Similarly, due attention should be paid to the training of the personnel involved in the care and management of animals. The adoption of criteria for selection, acquisition of specific skills and the training of personnel are in fact conditions also recognised at Community level as necessary measures to ensure total quality management.

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<sup>16</sup> See paragraph 2 and footnote 10.