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ADVANTAGES AND DISADVANTAGES OF ORGANIC AND TRADITIONAL POULTRY FARMING IN TERMS OF WELFARE

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Annotation. *The work examines the suffering of animals, their causes and the search for a solution to this issue. Excessive intensification of production in which it is not possible to care for animals as living beings,*

An alternative is the implementation of organic agricultural production, which is taking place at a high pace in the world, in particular due to the purposeful policy of the states in this direction.

The development of the system of organic agriculture in Ukraine will make the agricultural sector more efficient and attractive for foreign investors. And the combination of traditional management methods and innovative technologies, modern scientific and technical developments, has a positive effect on production processes and the environment.

Key words: *chickens, poultry, poultry farming, well-being, suffering, organic production*

Animals can feel pain, fear and suffering. And even productive farm animals are living beings endowed with a whole range of feelings and emotional states.

People use animal products in their food chain, because we need "indispensable" amino acids from animal meat for harmonious growth and development, namely for building muscle proteins of our own body.

Animal suffering is a subject that has not been given due attention from the point of view of bioethical considerations. However, today more and more public attention is drawn to issues of humane treatment of animals, in most countries of the world there are clear laws on the protection of animals from cruel treatment and there is a police force that carries out control and supervision. Conscious parents bring up in children a benevolent attitude towards animals, understanding that this is a kind of projection on adult life in society.

The scientific assessment of animal welfare has developed significantly and a great deal of research has been carried out on various animal species. Information about such studies is used by legislation, food companies and the public, as a result of which, various types of established rules lead to real improvement of the well-being (welfare) of animals and poultry. Anyone who uses or advises on the use of animals should receive appropriate training in animal welfare [1].

All this leads to changes in the views of consumers of livestock products, as well as farmers who switch to organic production, given that ensuring the welfare of animals in the production of such products is mandatory and documented.

Consumers have a well-founded trust in organic products, as certifying organizations carry out constant control over the production process (mostly by visiting such farms without warning). And since "Organic" is a whole philosophy of preserving the environment, humane treatment of animals and health care of children and adults, in harmony with nature (without GMOs, nitrates and nitrites, pesticides,

antibiotics, hormone growth stimulants, preservatives, stabilizers, dyes, flavorings, etc.). Organic products are packed in environmentally safe materials. In certified organic agriculture, the entire product cycle is fully monitored: from the land to the buyer. Crop rotation effect, organic fertilizers (manure, composts, siderates, etc.), various modern methods of soil treatment are used to increase productivity, provide cultivated plants with elements of mineral nutrition, control pests and weeds.

For organic farming, the first stage of certification is the land. Today, it is quite difficult to find really clean lands far from industrial zones, highways and fields treated with traditional drugs, giving up pesticides and herbicides is only half the battle. We still need to restore the symbiotic biocenosis in the soil, in the proper amount. Without it, certification is not possible.

Adhering to the principles of organic production, farmers treat the animal as a nurse, and try to create all the necessary conditions to satisfy its physiological needs and freedoms. Welfare is defined as a combination of ideas about the needs of animals, their feelings, stress and health.

The breeding livestock breeding we are used to, aimed at developing properties useful for humans, has already led to the fact that the accelerated growth of broilers (meat chickens) has reached a critical limit: the birds' bodies have become too heavy, and chickens literally "do not carry legs". Broilers reach a slaughter weight of 2-2.5 kg in just 42 days, which is about twice as fast as 30 years ago.

To organize the raising of chickens in poultry farms of Ukraine of the traditional type, two main methods of keeping are used: in cage batteries and on the floor. The system of keeping chickens in 3–4-tier cage batteries is considered even more intensive due to the more efficient (2.5–3 times) use of the poultry room [2].

The parent flock and poultry grown for meat are usually kept on the floor. Under this system, the density of poultry planting per 1 m2 of floor area is relatively small. In aviaries, birds are kept on deep unchanging litter, mesh or slatted floors, with or without perches. In industrial poultry farming, preference is given to keeping birds without walking: with this system, you can create an artificial microclimate in the premises [3].

In conditions of intensive technology, chickens suffer from loss of feathers, because they constantly rub against the wires of the cages. Such limited conditions do not allow chickens to behave in a natural way: nesting, walking and flapping their wings, rowing (Suffering as a result of the inability to satisfy instinctive needs). Frightened birds constantly peck at each other, and in order to prevent injuries, a part of their beak is cut off. In addition, chickens suffer from physical injuries, especially limbs and wings. Due to the restriction of movement and insufficient amount of phosphorus in the diet, they often suffer from fractures and dislocations of the limbs, damage to the beak and claws against the wire of the cages [6].

Suffering as a result of traumatic injuries (scratches, bruises, wounds, skin tears, etc.). The number of traumatic injuries increases significantly during feeding, catching, loading and unloading of birds during their transportation to slaughter. The reason is the rude handling of them by the staff and the shortcomings of the structures, equipment and containers used [7].

Bruises and bruises appear during the growing period and are associated with a

high density of planting, a hard floor (in case of cage keeping or a thin layer of litter when kept on the floor), with irrational placement of technological equipment and all kinds of stress, in which the birds damage each other. Prevention of diseases is based on compliance with technological requirements.

In Europe, people think about the cruelty involved in this way of raising chickens. In our country, for now, what is good for the producer and brings profit is relevant. From this point of view, keeping chickens in cage batteries is very economically beneficial [8].

Regarding poultry for fattening, it was noted that excessive stocking density has a negative impact on viability, live weight gain of chickens, and carcass quality. In the last 10-15 days of fattening, not all birds can be accommodated near the feeders, there is a crowding of chickens and, as a result, their inhomogeneity in terms of live weight, traumatism, the appearance of namin, increased departure. At the same time, broilers clinically show signs of food starvation syndrome (FAST) in the form of reduced productivity and "stratification" of the entire flock of chickens by size. There are well-developed birds and weak chickens in the same aviary. This becomes noticeable already at the age of 2-3 weeks and persists until slaughter. The quality of feed and drinking water, the front of feeding and watering, and the technology of raising chickens also affect the manifestation of SAGB.

As a result of hypodynamia and overeating, negative changes occur in the bird's body: muscles and intestines grow much faster than the skeleton and cardiovascular system develop. As a result, health problems arise, birds may suffer from leg problems such as tibial dyschondroplasia, calluses on the toes and calluses, femoral head necrosis, "valgus varus" or even rickets. when the diet is perfect. In the last weeks of their lives, around a quarter of broiler chickens are in constant pain, and 2% (in the UK this equates to 12 million birds each year) are unable to walk at all. Kestin et al. (1994) reported that 90% of broiler chickens had walking problems in the last week before slaughter and 26% had severe deterioration [9].

Birds with sick and weak legs sit on litter, and when the litter is of poor quality or insufficient, many chickens develop contact dermatitis, which manifests itself on the body as a burn on the chest or paws. Intermittent lighting reduces mortality, slows growth rates, and reduces potential pain and suffering caused by leg conditions.

With dense planting with an insufficient feeding front, in conditions of strong light stimulation, the strongest and largest birds quickly eat a significant amount of feed, especially granulated. This leads to a significant increase in their need for oxygen, which is a stress for the cardiovascular system and threatens the danger of cardiac arrest. At the same time, there is an increased departure (up to 10%) of highly productive birds due to asphyxiation.

Fast-growing broilers are very sensitive to a lack of oxygen in the air, which can cause ascites (water in the abdominal cavity), hydropericarditis (accumulation of fluid in the pericardial sac) or pulmonary edema.

Ascites is one of the pathological conditions that occurs quite often and is associated with the rapid growth of broiler chickens. It is also known as pulmonary hypertension syndrome and as a result, fluid from the blood seeps into the abdominal cavity. This occurs in 5% of young broilers and 15-20% of older birds and by the

time they reach slaughter age, ascites usually weakens the birds and leads to culling. The main cause of ascites is heart failure (excessive development and enlargement of the right ventricle) associated with tissue oxygen starvation. This is extremely rare in older systems of intensive broiler rearing, and is the result of the inability of the cardiovascular and pulmonary systems to grow as fast as the muscles and intestines [10].

An increase in the caloric content of compound feed contributes to the deposition of subcutaneous fat, increases the slaughter yield and improves the marketable appearance of carcasses. But the use of high-calorie components in broiler feed due to the formation of peroxides during fat oxidation and the lack of vitamin E and antioxidants can cause encephalomalacia and exudative diathesis in chickens.

Encephalomalacia occurs as a result of damage to the cerebellum in chickens. As a rule, chicks that are growing well, especially males, are affected. At the same time, chickens do not stand on their feet well, paralysis and their death are observed.

Exudative diathesis is manifested by swelling in the subcutaneous tissue. Therefore, when using high-calorie compound feed, which includes feed fat or when fish oil is used as a source of vitamin A, it is necessary to introduce antioxidants - santoquin or deludin (0.15-0.02% of the diet), as well as increased doses of vitamin E (10-20 g/t compound feed).

When broilers are fed, their liver, which performs protective functions, is often overloaded by various toxins, drugs that are given to birds in excess, mineral and vitamin premixes, enzymes, and growth stimulants. Therefore, the condition of the organ deteriorates. Unbalanced feeding of chickens, metabolic disorders also lead to hepatopathies. Veterinarians often register liver damage during autopsy of dead and forcibly slaughtered chickens. During planned slaughter of broilers and processing of carcasses, the affected liver is missing. The yield of offal decreases. But this is not the only loss. When liver function is impaired in birds, detoxification of exogenous substrates and toxic endogenous metabolic products (ammonia, skatole, indole, mercaptan, etc.) is reduced. Young people grow poorly, get sick, vaccinations do not have the desired effect [10].

Chickens need litter to peck, scratch and bathe in dust, chickens need to sit on a perch, especially at night, chickens need to flap their wings to regulate body temperature.

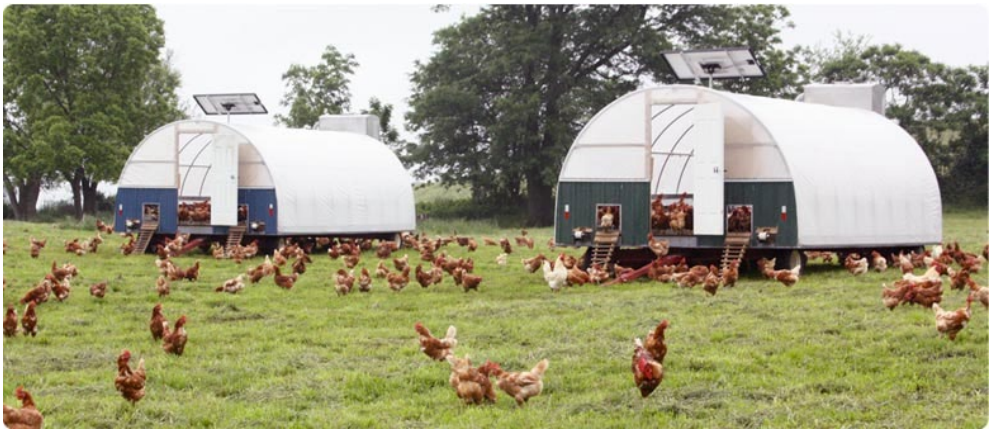
The poor welfare of slaughter-age broiler chickens affects a very large number of individuals and may also be the most serious animal welfare problem in the world today. However, these problems can be solved. Under the conditions of organic farming, birds can have stronger legs, but with somewhat slower growth [9].

According to organic standards, it is forbidden to keep chickens in small cages or in a limited fenced area.

The territory of the poultry house should be large enough (the maximum number of animals per 1 hectare of agricultural land is 580 heads) so that the chickens have the opportunity to move freely all day and satisfy their natural needs: run, graze all day on the grass, hunt insects, row, flapping wings, etc.

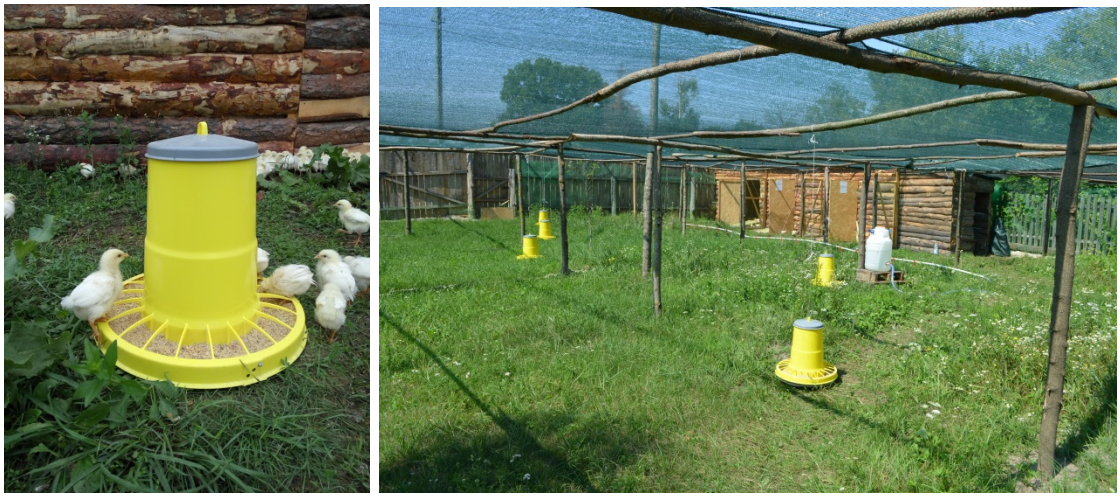
In addition to stationary equipped poultry houses, the practice of organic

poultry farming also allows you to keep chickens in mobile chicken coops - a tractor transports such a chicken coop from territory to territory, providing the birds with a new pasture and a source of insects (2.5 m2 per 1 head).



Picture 1. Autonomous chicken houses for keeping laying hens (USA)

In addition to a free area for walking, chickens should have a room where they can hide at night and in bad weather.



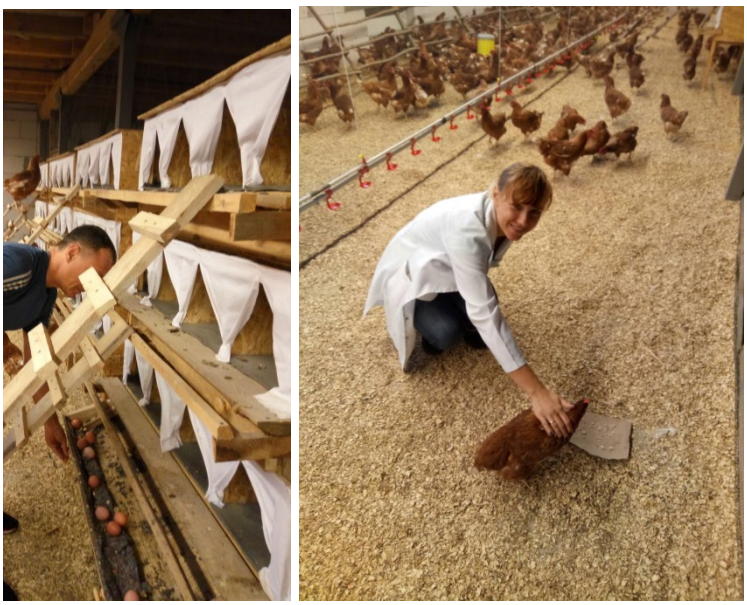
Picture 2. FG "Dacha" Experimental site for organic breeding of broiler chickens

The chicken coop should be spacious with a large hall, covered with straw or sawdust, and also have a separate cozy room for sleeping, nesting and laying eggs.

Organic products differ from other products obtained by intensive technologies in high quality and safety due to strict requirements for their production and certification. In the EU, since July 1, 2010, a single logo has been used for labeling organic products. And it is especially important for consumers to understand the difference between "organic" products and "eco", "bio" - which are not certified.

In order to get the "organic" status, the farm needs to pass a large number of inspections, the purpose of which is to make sure that the final product will be really safe.

There are 14 certifying bodies in Ukraine. In particular, Organic Standard, Biokontroll Hungária Nonprofit Kft., ETKO, ABCert, ICEA and others.



Picture 3. FG "Dacha" Keeping laying hens for the production of organic eggs

With protein deficiency or amino acid imbalance, feather defects are observed - disheveled, uneven growth, and with vitamin D2 deficiency, black pigmentation appears in colorful birds. The lack of thiamine leads to convulsions and throwing back of the head, and the lack of pyridoxine, magnesium and sodium chloride in the feed leads to increased excitability and irritability of the bird. Anemia of the mucous membranes, exudative diathesis and heart enlargement appear in young animals with a deficiency of vitamin B12, pyridoxine, iron, copper, selenium and vitamin E. Diarrhea is a symptom of a lack of biotin, niacin and riboflavin [13].

A lack of drinking water is extremely unfavorable for the body of a growing bird. Chickens become more susceptible to all diseases as a result of dehydration. In them, the kidney tissue is destroyed and the removal of toxic substances from the blood, in particular urea, is disturbed. Death occurs from toxemia. Because of this, it is extremely important to provide the bird with a sufficient amount of water, especially in the first week of life. The absence of water in the drinking troughs for 12 hours negatively affects the growth of young and laying hens, and when there is no water for 36 hours, the death rate increases. When day-old chicks consume cold water, they develop diarrhea. To prevent this phenomenon, it is advisable to heat the water to 25-27 °C.

Conclusion.

The main cause of animal suffering is the excessive intensification of production in large volumes, which does not allow for the care of animals as living beings that feel pain, fear, suffer, etc.

The spread of organic agricultural production in the world is taking place at a high pace, in particular due to the purposeful state policy in this sector. In particular, Ukraine already has a number of mechanisms that provide producers with state support (compensation for certification services), help to form public opinion and raise the status of organic products, the necessary regulatory and legal acts have been created that will allow to reorient the vector of agricultural development in the future.

The development of the system of organic agriculture in Ukraine will make the agricultural sector more efficient and attractive for foreign investors. And the combination of traditional management methods and innovative technologies, modern scientific and technical developments, has a positive effect on production processes and the environment. Let's take care of our own health!

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Анотація. *У статті висвітлено основні питання утримання птиці, які за значної інтенсифікації виробництва стають критичними для її самопочуття, здоров'я, провокуючи виникнення та розвиток захворювань, травм, що відповідно створює больові відчуття, хворобливий стан чи страждання в наслідок дискомфорту чи неможливості задовольнити свої природні потреби. Базисні стандарти забезпечення благополуччя тварин прописані і закріплені на законодавчому рівні в нормативних документах щодо виробництва органічної продукції. Враховуючи те, що світова спільнота стурбована питаннями благополуччя тварин, спираючись на європейські регламенти та настанови в україні прийнято також ряд законодавчих актів щодо органічного тваринництва. Високу продуктивність тварини можуть давати лише в комфортних умовах утримання. Тому науковий аналіз різноманітних умов утримання птиці дає об'єктивне уявлення про ті параметри мікроклімату та особливості конструктивних рішень пташників які є критичними для забезпечення максимально комфортних умов утримання птиці. Висвітлено в статті питання годівлі птиці та дискомфорту і хвороб від прискореного обміну речовин. Описано*

порушення, які виникають внаслідок гіподинамії. Запропоновано альтернативні рішення інтенсивному промисловому утриманню птиці у вигляді вільно-вигульних систем та органічного вирощування птиці. Розвиток системи органічного сільського господарства в Україні зробить агросектор більш ефективним і привабливим для іноземних інвесторів. А поєднання традиційних методів господарювання та інноваційних технологій, сучасних науково-технічних розробок, позитивно впливає на виробничі процеси та навколишнє середовище.

Ключові слова: *курчата, птиця, птахівництво, благополуччя, страждання, органічне виробництво*

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