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Organic specialized beef cattle husbandry

Goal. Search for areas for increasing the efficiency of meat specialized livestock (based on the characteristics of the industry) and meeting the needs of the population in quality, safe food products. **Methods.** Economic-statistical, monographic, comparative-calculation. **Results** The level of production of specialized meat cattle breeding and the possibility of using traditional technologies for the production of safe organic products has been researched. The balanced utilization of soil and climatic and biological resources, and the corresponding increase in the price of organic beef, will help to achieve the profitability of the industry, as well as open the possibility of output to foreign markets. **Conclusions** The peculiarities of the technology of extensive meat specialty cattle breeding in Ukraine can be used for the organization of profitable production of organic produce. The initial level of beef production efficiency (profitability of minus 20%, average daily livestock increase of 800 g) in the absence of state support will allow the profitability of the industry to be achieved through the transition to organic production and the corresponding increase in the realistic price of cattle by 50%.

Key words: meat cattle breeding, beef, traditional technologies, organic production.

Formulation of the problem. Good nutrition is one of the decisive factors in the health of the nation and is determined by the level of development of society. The high biological value of beef, in particular meat from cattle of specialized breeds, due to the low purchasing power of the population, was lost in the proposed market of cheaper products, which does not always correspond to the physiological needs of humans. Thus, the amount of consumed animal protein reaches only 40% of the physiological norm [2, 5]. Consequently, the use of a quality product of the domestic food market requires intensification and increase of beef production and cheapening of products, ensuring the investment attractiveness of the industry.

The purpose of the research is to find ways of improving the efficiency of meat specialist cattle breeding (based on features industry) and meeting the needs of the population in quality, safe food products.

Research methods. Economic-statistical, monographic, comparative-calculus. The calculations utilized the materials of the State Statistics Service of Ukraine and the recently disbanded Ukrainian Association of Production and Research "Meat Livestock".

Research results. Beef production in the country takes place in two main directions: cultivation of dairy cattle for meat production and the technologies of meat specialized cattle breeding. In the last 15 years, the share of beef and veal in the meat production has decreased from 45.4% to 17.5% [15]. Lack of motivation causes the beef production to be curtailed in Ukraine, which, in particular, over the last year, has reached 12.2% (to 576.4 thousand tons in live weight, 412.7 thousand tons in slaughter mass). In fact, due to the temporary occupation of the Crimean Territories and the partial cessation of agricultural production in Donetsk and Luhansk oblasts, beef production in 2014 further decreased by 4%. The annual reduction in the number of cattle is 2 - 3%, especially in large agricultural enterprises (last year - 6%). Livestock meat production in 2014 left 60.8 thousand goals. (in 2013 there were 75,1 thousand headings), the reduction is 19% per year. Especially for the further development of meat specialized livestock will be affected by the reduction of the number of meat cows - from 33.4 thousand goals. in the beginning of 2014 to 27.3 thousand goals. in early 2015 (by 18.3% per year) [14, 15].

The average productivity of livestock in growing, fattening and feeding for several years is at one level: 500-550 g per day (in 2014 - 525 g), the growth of livestock at the level of 600-900 g is 20, 5% of enterprises and only 2.5% of enterprises - over 900 g per day [15].

The production of beef and veal (at 410 ths. Tons by mass in 2013-2014 [17]) is generally unprofitable, in particular, the profitability in 2014 was minus 34.5% for all types of farms [6] and during the last 5 years it is at the level of minus 30 - 43%.

Closed cycle of meat specialist cattle breeding, in particular, the maintenance of calves under nursing mothers to 6-8 months of age, results in considerable expenses and long-term turnover of invested resources - up to 42 - 45 months. Due to unreasonable tax policies, as well as price policies that do not take into account the quality of products, and other economic reasons, even complex management of specialized meat and dairy cattle can not cover significant losses of beef production.

At present, a small, objective reason for drinking beef in the country is satisfied mainly due to its own production, imports of beef, meat products and accounts for 4-4.5% of the consumption fund [9].

However, forecasting the consumption of beef and meat products by 2020 at a rate of 12.2 kg per person (taking into account the different levels of consumer income), the population of 43.3 million people, the calculated fund consumption of 530 thousand tons of beef can only be partially secured by domestic production (320 thousand tons). The projected share of consumption at the expense of imports (210 thousand tons) will be about 40% [10].

According to many researchers, even with existing volumes of production, Ukraine, by protecting the domestic market, will implement a policy of import substitution, which, after saturation of the domestic market, will create preconditions for the export of agricultural products [11]. In turn, the possibility of export of such products is considered by experts as a powerful factor in stimulating the development of meat cattle in the country.

The opening of European markets for domestic producers and the intensification of processing of agricultural products is envisaged by the Program of Activities of the Cabinet of Ministers of Ukraine (Resolution of the Verkhovna Rada of Ukraine dated December 11, 2014, No. 26 - VIII). Therefore, the question of quality assessment of products, in particular beef, is of particular importance. In addition, the adherence to the system of standards requires the development of separate mechanisms, since at the beginning of 2015, 66.3% of the cattle population (from 3.9 million head, available in the country) was concentrated in the farms of the population. , of cows - 76.6% [15].

The basic principle underlying the harmonization of the domestic normative base on product quality with the requirements of the WTO, in particular ISO standards and HACCP, should be the high level of quality control of products at all stages of its production - from means of production to sales of processing products, which It is especially important in an open internal market for EU products and goods. The updated laws of Ukraine "On Technical Regulations and Procedures for Conformity Assessment", "On Technological and Metrological Activity" and "On Standardization" will serve as the basis for increasing the competitiveness of agricultural products, in particular beef, on the domestic and foreign markets.

Implementation of the sector's development programs, the use of households as raw material for beef processing undergoes significant inhibition due to the incomplete identification and registration of existing livestock by agricultural enterprises. The introduction of beef production into the EU norms will facilitate the adoption by the Verkhovna Rada of Ukraine of the Law "On Amendments to Some Laws" Ukraine on identification and registration of animals ", according to which the state will incur the corresponding expenses in the form of compensation of such expenses to commodity producers.

Analyzing the technological peculiarities of beef production in specialized enterprises with a closed production cycle and its own feed base, one can anticipate the effective use of meat specialized livestock as a base for organic production.

In the EU, state regulation in the field of organic products is regulated by Council Regulation (EU) No.834 / 2007 of 28 June 2007 and by the Commission of the European Communities No 889/2008 of September 5, 2008 "Detailed rules on organic production, marking and control for the implementation of Council Regulation (EU) No 834/2007 on organic production and labeling of organic products. " The system of inspection of organic products in the EU is mixed - public-private. In addition to the European organic certification system, the most common are American and Japanese. The accreditation program of certification bodies carried out by the International Federation of Organic Agricultural Movements (IFOAM) enables to achieve international harmonization of basic requirements for organic production.

In accordance with the norms of the Law of Ukraine "On the Production and Circulation of Organic Agricultural Products and Raw Materials" of February 3, 2013, No. 425 - VII, the use of methods for the production of organic products, in the course of animal development and processing of raw materials, is excluded from the use of GMOs, derivatives and products produced from GMOs as feeds, technological additives, plant protection products and soil, fertilizer, and seed improvement. In addition to other requirements, the choice of technology for keeping animals is carried out taking into account the physiological and ethological needs of animals, minimizing stress and stimulating their natural protection. Landless production is prohibited, in which the livestock operator does not farm on agricultural land or has not signed a written agreement on cooperation with another operator.

The transition to a system of organic production is associated with an increase in production costs, in particular, live labor, the use of quality natural fertilizer systems, plant protection, veterinary care, additional costs for the storage and transportation of products, with the untapped benefits of partial exits intensive crops from crop rotation. According to the FAO, organic feed for bovine animals is two times more expensive than traditional ones [7]. In addition, animal development is extensive, including the growth of live weight without the use of growth promoters.

It should be weighed against the fairly high cost of the required annual certification of enterprises when importing organic products to EU countries - from 5,000 UAH to 8,000 euros per year, depending on the certification body, in Europe (according to IFOAM) - 250 to 750 euros depending on the type activity, size of the enterprise, etc. However, one should consider the size of an average certified company in Europe - 30-50 hectares of land and in Ukraine - about 2,200 hectares. However, taking into account the level of wages, the cost of land, certification services and the cost of organizational measures for the transition to organic production, the cost of domestic organic products should be the lowest compared to the EU countries. On the other hand, the majority of beef producers using meat cattle breeding technologies in Ukraine are small enterprises, and therefore all costs relate to a relatively small volume of production. In addition, there is no subsidization of agriculture in the country, and organic enterprises do not have any privileges.

Compensation for production risks, certification, inspection costs and transitional costs should lead to higher prices for organic products - in fact, the difference is between 10% and 50% (for all types of products), and in some cases even 100% to 200% [1]

Taking into account the solvent demand, Ukrainian producers will be oriented more on the external market of organic products, mainly crop production, the total annual cost of which exceeds, according to various expert opinions, \$ 45 billion. The US, or 40 billion euro [13], has a tendency to increase.

Nevertheless, for the development of organic meat cattle, our country has the necessary genetic potential of cattle that is able to compete with intensive imported breeds in the natural and climatic and state of Ukraine conditions. Animals of domestic breeds of cattle meat direction Productivity (Ukrainian Meat, Volyn Meat) at the average daily increments of 1200-1500 g at 18 months of age reaches a live weight of 600 - 650 kg [4, 16]. According to the information provided by the Ukrainian Branch Production and Research Association "Meat Livestock", in 2010, in the country of the breeding stock of livestock, the meat production direction of domestic breeding was 1.5 times higher than that of foreign animals - terrestrial selection. Animals of domestic breeds and most common breeds of foreign breeding (Hereford, Aberdeen-Angus, Charolais, Kian, Santa-Gertrude) are used for the elimination of new breeds, improvement of apparent and industrial crossbreeding with cows of milk and milk and meat production, descendants of which are grown for meat.

One of the main factors in the development of the garden is the reproduction of the livestock, the level of which will ensure the implementation of high genetic potential of breeds and the growth of the stock. Due to the optimum level of full feeding of livestock for all technologies, in particular extensive, heifers can be grown to live weight 400 - 450 kg (for large breeds) at the age of 18 - 20 months. This ensures the intensification of the herd turnover and the acquisition of at least 85 calves per 100 moths, which is the marginal margin of profitability in the industry [3]. Due to the unobtrusive retention of all sexually transmitted animals during the year, seasonal cattle cats in February - April, the use of cheap feed for own production, taking into account the zonal specificities and the very limited use of chemical agents in fodder production, domestic meat cattle for the most part without supplementary costs provides the high nutritional value of beef as organic produce.

Although, according to the Ukrainian Sectoral Production and Scientific Association "Meat Livestock", in 2010 more than 10% of the livestock was kept not by the technology of meat cattle breeding.

The area of natural forage, which is a prerequisite for the development of "cheap" beef production technologies, tends to decrease in Ukraine (8.5 million ha - in 2012, 7.9 million ha - in 2013). . In particular, the share of pastures on the area of agricultural land is 13.1% (5.4 million ha) and haymasters - 5.8% (2.4 million ha) [9,12], but they use mainly landlords population (43.1% of the area of natural forage land), in addition, most of them Areas are used in dairy cattle breeding. Consequently, the development of a forage base of meat cattle breeding will be largely focused on crop production.

The formation of the industry will have a significant influence on the dominance factor of the grain holding in the global and domestic market conditions and the production of sunflower seeds, rye and soybeans. Ukraine supplies 35 million tonnes of grain from the production of 63 million tonnes (programmed production of 80 million tonnes) [8] and over 3.8 million tonnes of 4 million tonnes of oil to the foreign markets. Implementation of export opportunities will require the expansion of the sown area of these crops, and, given the significant land cultivation that reaches 78% (32.5 million hectares of arable land) of all agricultural land (41.5 million hectares) [9], - the use of the monoculture system, which leads to a violation of the ecological safety of nature and the depletion of the soil, the outbreak of illness and loss of yield. Consequently, the provision of a full-fledged livestock feed, which determines the physiological state of animals and results in the production of the most valuable muscle tissue and reproductive ability of the livestock, follows the residual principle.

As the experience of developed countries shows, the condition for the transition to a system of organic production is the high level of potential fertility of the soil. Consequently, fodder for meat cattle requires development as an intensive specialized industry. In addition, the development of cattle breeding will promote the rational use of bioclimatic potential, reducing the unacceptable vulnerability of soils, in particular due to the ingestion of arable land for the creation of pastures.

In evaluating the technological conditions of meat specialized livestock as favorable for the transition of the industry to the organic production system, despite their expediency, we believe that under the current economic conditions in a country where it is not necessary to rely on the concentration of public resources and funds on the formation of favorable for the development of a specialized branch of effective price and financial-credit policy, the profitability of the industry can provide only enterprises with a high level of production.

According to our calculations, taking into account the low efficiency of the industry at the present stage, the transition to organic production will ensure the exit from the profitability of those specialized farms, which have reached the productivity of animals not lower than 800 g per day and have a level of profitability of beef production not below the minus 20% (in the closed cycle of production), subject to an increase of 50% of the realistic price of cattle. Compliance with the rational structure of the herd and bringing the proportion of young animals up to 10% annually and creating conditions for reproduction of the livestock will increase the profitability of specialized breeding production by 10-15 points.

Conclusions

The peculiarities of the technology of extensively specialized meat cattle breeding in Ukraine can be used for the organization of profitable production of organic produce. In the absence of state support, the marginal level of beef production efficiency (profitability minus 20%, average daily livestock increase of 800 g) will allow to achieve profitability of the industry for switching to organic production and corresponding increase of the realization price of cattle by 50%.

Bibliography

1. *Артиш В.І.* Особливості органічного агровиробництва в концепції сталого розвитку АПК України//Економіка АПК. — 2012. — № 7. — С. 19 – 23.
2. *Баланси та споживання основних продуктів харчування населенням України*//Статистичний збірник; за ред. Н.С. Власенко. — К.: Державна служба статистики України, 2013. — 56 с.

3. Гончаренко Л.В. Особливості поліпшення основних репродуктивних показників маток м'ясних порід/Л.В. Гончаренко, О.С. Василець, В.Г. Василець//Науково-технічний бюлетень Інституту тваринництва НААН. — № 109. — С. 80 – 87.
4. М'ясне скотарство/О.Г. Тимченко, М.В. Зубець, В.С. Козир та ін.; за ред. О.Г. Тимченка. — К.: Урожай, 1991. — 192 с.
5. Наказ Міністерства охорони здоров'я України від 18.11.1999 р. № 272 «Про затвердження Норм фізіологічних потреб населення України в основних харчових речовинах та енергії».
6. Основні економічні показники виробництва продукції сільського господарства в сільськогосподарських підприємствах за 2014 рік//Статистичний бюлетень; відп. за вип. О.М. Прокопенко. — К.: Державна служба статистики України, 2015. — 84 с.
7. Органика — цена. Торг уместен. 10 причин, по которым органические продукты стоят дороже//Что едим. — 2014. — № 9 (19).
8. Програма «Зерно України — 2015». — К.: ДІА, 2011. — 48 с.
9. Сільське господарство України 2013//Статистичний збірник; за ред. Н.С. Власенко. — К.: Державна служба статистики України, 2014. — 399 с.
10. Скрипник А.В. Перспективи досягнення світових стандартів споживання м'яса в Україні/А.В. Скрипник, М.А. Родина, Л.В. Воловоденко//Проблеми економіки. — 2014. — № 1. — С. 95 – 102.
11. Слівак Р.В. Модель імпортозаміщення та стимулювання експорту: ефект синергії//Теоретичні і практичні аспекти економіки та інтелектуальної власності: зб. наук. праць ДВНЗ «Приазовський державний технічний університет». — Маріуполь, 2010. — Т. 2. — С. 82 – 86.
12. Статистичний щорічник України за 2012; за ред. О.Г. Осауленка. — К.: Державна служба статистики України, 2013. — 551 с.
13. Степасюк Л.М. Органічне виробництво — основний фактор підвищення конкурентоспроможності продукції скотарства в сільськогосподарських підприємствах/Л.М. Степасюк, З.М. Тітенко//Вісн. Академії праці і соціальних відносин Федерації профспілок України. — 2014. — № 1. — С. 52 – 56.
14. Тваринництво України 2013//Статистичний збірник; за ред. Н.С. Власенко. — К.: Державна служба статистики України, 2014. — 212 с.
15. Тваринництво України 2014//Статистичний збірник; відп. за вип. О.М. Прокопенко. — К.: Державна служба статистики України, 2015. — 211 с.
16. Технологія виробництва продукції тваринництва: підручник/О.Т. Бусенко, В.Д. Столюк, О.Й. Могильний та ін.; за ред. О.Т. Бусенка. — К.: Вища освіта, 2005. — 496 с.
17. Україна — 2014//Статистичний бюлетень; відп. за вип. О.А. Вишнеvsька. — К.: Державна служба статистики України, 2015. — 28 с.