

World market of production of swine breeding and place of Ukraine in it

M. Ibatullin,

candidate of economics sciences, docent

National University of Bioresources and Natural Resources of Ukraine

The purpose. To develop theoretical positions and practical recommendations according to the world market of production of swine breeding and place of Ukraine in it. **Methods.** Dialectic method of scientific knowledge, analysis and synthesis; system generalization. **Results.** Swine breeding in the leading countries of the world is characterized by dynamical development, development of intensive technologies, and constant increase of efficiency of animals that provides stable increase in production of pork. Volumes of total consumption of pork in a greater degree depend on population of the country and welfare factors. Now production of pork in the world is carried out on purchased feeds, therefore the basic part of charges essentially depends on the world prices for grain, soya and other components. **Conclusions.** Condition of the market of pork depends on economic situation in the world. After sharp recession of its parameters in 2008 — 2009 manufacturers of many countries were possible not only to raise level of production of pork, but also to increase in 2013 export of this kind of meat up to the greatest values.

Key words: *world market, produce of swine breeding, consumption, demand, offer.*

Problem statement. The pig market is an important component of the food supply of the country as a set of interconnected research, production, marketing and management structures, mechanisms and decision-making measures in order to ensure a stable satisfaction of the population's solvent demand and the creation of stocks for food security.

Pig breeding in the leading countries of the world is characterized by dynamic development, development of intensive technologies, constant increase of animal productivity, ensuring a steady increase in pork production. At the same time, in many countries of the world there have been significant changes both in the stock and structure of pigs, and in the volumes and structure of pig production. It is obvious that in the decision of food supply of meat products nowadays pork is given a leading place - 39,1%.

Material and methods of research. The dialectical method of scientific knowledge, analysis and synthesis is used to solve the problems posed in the work; system generalization.

Formulating the goals of the article. The purpose of the study is to develop theoretical, provisions and practical recommendations for the evaluation of the world market of pig products and the place of Ukraine in it.

Presentation of the main research material. . According to the results of analytical research, in the world of pig breeding the process of innovative production support, as well as concentration and specialization, is accompanied by the consolidation of farms by reducing their quantity. Evidence of this can be the example of France, where the stock of pigs is maintained at 12-14 million heads, and the number of farms has decreased from 800 to 300 thousand. More than 50% of the produced young are fed to specialized farms. The widespread practice of endless retention and feeding of pigs with feeds of industrial origin [1].

For North America, the following general tendencies are typical: concentration, specialization, intensification and mechanization of production. The number of farms in the US in the last 20 years has

decreased from 2.1 to 0.45 million, including farms producing less than 200 commodity pigs per year - from 46 to 24%, and the number of farms with more than 500 heads increased from 21 to 47% [2].

In the Netherlands for 25 years the number of pig breeding farms has decreased from 146 to 36.1 thousand, their average size has increased from 20 to 250 fattened animals per year, ie 12.5 times.

Consider the peculiarities of organizing pork production in individual countries. Thus, in the EU countries, there are three main systems of production of pigs: farms with a complete cycle of production (from farrowing to slaughter), reproductive (from farrowing to the sale of piglets for fattening) and specialized feeding units (from 30 to 100-110 kg) [3].

About 50% of all Danish farms are farms with a complete cycle of production (full-scale production), 15% of farms are reproducers and 35% are fattening farms. About 80% of farmers with reproducers deliver piglets to different companies under fixed contracts, and only 20% of reproducers deliver grown piglets to only one buyer [4].

Many European countries, as well as Canada and the United States, have created a network of reproducers for breeding mites from the crossing of specialized lines or breeds selected in different directions of productivity ("hybrids"). The mother's form (breed, line) is usually the animals of a large white breed, parent lines or breeds that provide a high gain of live weight, high content of meat in carcasses and their shape (landrace, hampshire, large white foreign selection, etc.). Thus, Durok's pigs, in addition to the listed qualities, have increased stress resistance, which ensures high quality of meat in growing under conditions of industrial technology.

We distinguish the main trends in the development of pig breeding in the leading countries of the world: higher rates of increase in livestock, production and consumption of pork relative to similar indicators in meat cattle; change in the structure of consumption of meat and meat products in the direction of increasing the proportion of pork; lowering prices for pork and, consequently, reducing the incomes of farms specializing in the production of pig products; concentration of pigs on larger farms and obtaining on this basis an additional economic effect at the expense of production scale [5].

An important indicator of pig breeding efficiency is the delivery of piglets per sow. Thus, the average number of slaughtered piglets in the EU in 2013 reached 24.3, or increased by 2%, in particular, in Denmark - 28.1, the Netherlands - 27.7, Canada - 21.7, the Czech Republic - 20, and in Ukraine 19.3.

The average percentage of cases after weaning in EU countries was 5.6%, the lowest in Italy (3.8%), and the highest in the Czech Republic (8.9%). The weaning rate in Brazil and Canada below the EU average is 4.2 and 4.9% respectively.

Average daily increments in live weight gain in the EU countries reach 423 g / day, in the UK this figure is higher - 486 g / day, Belgium - 313 and Spain - 308 g / day. This is due to the peculiarities of the technological process of growing and fattening pigs.

The average daily weight gain in fattening in the EU is 766 g / day, in particular, in Denmark - 895, in Italy - 640, in Ukraine - 474 g / day. Accordingly, there is a significant difference in feed conversion at certain production stages. Thus, the average conversion of feed on cultivation in the EU amounted to 1.9 cc per 1 kg of live weight. in Holland, -1.55 ts forage. unit, in the Czech Republic - 3,5. This indicator in Brazil was 1.6 cc. unit gain

At the same time, the average conversion of feed intake into the EU amounted to 2.97 cc of feed. unit In this case, the lowest value is observed in Holland 2.63 pc feed. unit, in the Czech Republic - 3.8 pc feed. op., Brazil - ts food. unit In the agricultural enterprises of Ukraine, the indicator put a 4.62 cc of feed. unit for 1 cent gain.

The indicator of the received meat per sow per year is derived from the number of pigs sold in the calculations per sow per year and the average weight of the carcass. Thus, in 2013, the average amount of meat received per sow per year in the EU countries amounted to 2.06 tons. A twofold increase compared to 2012 is due to an increase in the number of sows sold per sow per year. The largest amount of sow meat per year is produced in Italy (2.8 tons), which is associated with the possibility of slaughtering pigs at a high level compared with other EU countries. In the Netherlands, this figure was 2.4 tons, France - 2.2 tons, and the Czech Republic - 1.5 tons.

Consider the economic indicators of the development of pig breeding in the leading countries of the world. Thus, in the year 2013, the average cost of pork production in the EU in 2013 was EUR 1.56 per kg of dead weight. The highest cost is observed in the Czech Republic (2.1 euro / kg), due to low production rates and low feed conversion rates. The second place in terms of spending is Italy (1.76 euros / kg). Due to the longer fattening period, a high yield weight and low feed conversion are ensured. The lowest cost in the EU was in France (€1.37 / kg) and Denmark (€1.38 / kg).

It should be noted that production costs were lower in non-EU countries, in particular: in Brazil - EUR 1 / kg, in Canada - EUR 1.09 / kg. On average, in 2013, the cost of pig production in the EU countries increased by 1.6% compared to 2012, mainly due to increased feed costs.

The largest increase in feed costs was in Sweden (18% in cost structure), in the Czech Republic, the United Kingdom and Austria 12-13%. In Brazil, Denmark, Italy, Germany and Spain, this indicator was constant, while in Ireland, France and the Netherlands - it dropped by an average of 4-5%.

Average labor costs in EU countries were 1.2 years. per pig fat per year, which is 7% higher than the 2009 figure. Its maximum value is in the Czech Republic (4.7 pp./h.), The minimum is in Denmark (0.6 pp./h.). It is obvious that the value of this indicator is influenced by the technological conditions of animal housing, the type of buildings, the cost of labor resources, as well as the number of fattened pigs per sow per year. In recent years, productivity has been steadily increasing.

The average labor cost in the EU is 14.72 euros per hour, the minimum value in the Czech Republic (4.05 euros per hour), and the maximum in Denmark (21.47 euros / hour). The difference is due to differences in wages, social benefits, and the use of unskilled labor.

At the same time, the average labor costs per pig fat in the European Union were at the level of 13.90 euros, in Spain (EUR 8.45), in Italy (19.70 euros per hour), the Czech Republic (EUR 19.11), and in Brazil (€7.52 / goal.). Regarding average labor costs per 1 kg of gravity in the EU, they amounted to 0.15 euros, in Belgium - 0.13, in Sweden - 0.18, and in Brazil - 0.09 euros. However, in Brazil, the labor cost index is one head higher than the European average.

In general, the profitability of pork production in the world's leading countries ranges from 2 to 8%. It should be noted that in Ukraine this indicator in 2013 was about 5%.

It should be noted that, despite the effects of the global economic crisis, the demand for pork is quite high. The main factors affecting consumers are the price, culture and traditions of consumption of this type of meat among the population. Thus, the pork consumption fund in 2013 amounted to 90 838 thousand tons. More than half of all pork is consumed in Asia - 51 353 thousand tons, or 56.6%, in European countries - 26.8%, and North America - 12.3%. The population of the other three continents collectively consumes only 4.4% of pork.

According to the Food and Agriculture Organization of the United Nations (FAO), the average per capita consumption of pork in the world in 1990 was 11.53 kg / person, in 2000 - 12.21, and in 2013 - 12.57 kg / person .

The main factors influencing the growth of consumption of pork are: an increase in the population of the planet; reorientation in consumption by a significant proportion of the population from beef to pork. It is obvious that the growth of pork consumption will be observed in those countries where it is still very low (less than 10-15 kg per person per year).

It should be noted that about half of world consumption of pork is in China, in the USA - 9.2%, and in the EU countries - 21-22%. The share of world gross consumption of the rest of the main consumer countries of pork varies from 1.0% (Taiwan) to 3.0% (Russia).

Over the period 1990-2013, there is a tendency to increase consumption of pork in Brazil by 50%, China - by 66.7, Russia - by 53.3%. The main factors influencing the growth of consumption of pig slaughter products are the increase in incomes, as well as established traditions regarding the consumption of this type of meat. In particular, over the past 10 years, consumption in Brazil has increased by 20% due to the image campaign conducted by manufacturers. This meat is popular only in the southern regions of the country, where emigrants from Germany and Italy live, which consumes about 70% of Brazilian pork.

One of the factors of stabilizing meat in the leading EU countries, in particular Germany, is the spread of flexitis, which promotes care for human health and the environment. Another possible reason for the downward trend can be considered a total ban on the use of individual units for pregnant sows from January 1, 2013. 18 countries have declared consent to this ban. According to British experts, this measure will reduce the production of pork in the EU by 5-10%, which will result in a 10% increase in prices. The above reasons will cause a slight decrease in meat consumption.

Thus, in the United States there is a decrease in consumption by 13% in 2013 compared with 1990. This fact indicates that a significant amount of the population in the consumption of meat products has reoriented to beef. Beginning in 2007, meat consumption in the United States is declining, and for all species. It is known that there are several periods, similar to the current situation, when meat consumption was reduced. These are the oil crises of 1973 and 1979, unemployment in the early 1980s, the economic crisis of the late 1990s. But in recent years there has been a new trend of decline - supporters of a healthy (with vegetarian bias) lifestyle and environmental advocates have united their advocacy efforts. The United Nations 'Long Shadow of Farm Animals' report states that livestock production generates 18% of greenhouse gases, which has given new impetus to the campaign against excessive consumption of meat [6].

It should be noted that in Japan and the EU, the level of consumption of pork is constant and is respectively 17 and 40 kg per person per year.

At the same time, exports of pig products from China increased by 3.8% as a result of increased demand in Asian markets. China exports fresh and processed products to Hong Kong, Japan and other Asian countries. Deliveries from Chile dropped by 8.9%, primarily due to lower exports to South America and Russia. It should be noted that in 2013, Ukraine ranked 11 th in terms of exports of pork, having increased its volume by 8 times compared to 2010.

The main importers of pork in 2010 in the world were Japan, the Russian Federation, Mexico, China, the USA, the Republic of Korea, Hong Kong, Ukraine, Australia and Canada.

It should be noted that the variegated volumes of imports are conditioned by the significant impact of the volatility of the domestic pork market [7]. Thus, a significant increase in imports to China was recorded in 2008 and 2011. In the first case, the outbreak of reproductive and respiratory syndrome in pigs in 25 Chinese provinces was caused, resulting in the loss of about 30 million head. The rehabilitation of the industry led to overproduction, leading to a decline in prices in 2010. For this reason, many farmers came out of the market, which led to a reduction in production and a sharp rise in prices in 2011: in June, prices exceeded three-year highs. The result of high quotes was the growth of imports, the volume of which increased in 2012.

The volume of imports of pork to Russia in 2013 fell by 19.4%, which is proof of the country's orientation towards import substitution. Belarus is the main importer of pork, which enjoys the advantages of a country that is part of the free trade zone. In addition, after the accession of Russia to the WTO, import duties on pork within the tariff quota were reduced from 15% to 0%, which would have a positive effect on trade.

The volume of imports of pork to Mexico increased by 10.6% and reached a record level due to insufficient domestic production. Favorable prices for pork compared to beef and changes in consumers' purchasing power contributed to the increase in demand [8]. So, most of the purchases in Mexico consist of feminine parts and mechanically decomposed meat used for delicacies and cold slicing, the demand for which is rising on the part of consumers with average and high incomes.

Japan will remain the largest importer of pork in the world. Deliveries in 2013 were stable, as competition between relatively cheap domestic pork and imported chilled meat would continue. In addition, in recent times, demand is limited to a slow increase in household incomes.

It is known that prices in the meat market are subject to significant fluctuations and depend on quality, delivery conditions and other factors

In comparison, we note that the highest export prices for pork frozen in 2010-2013 were in Ukraine. That is why the volumes of its export are insignificant. The lowest export prices for frozen pork in

Germany were in 2014 - USD 2106. US / MT, where during the last 5 years prices for it have increased by 10.1%, in Brazil - by 25.0, in the USA - by 29.7%. At the same time, the average annual export price of frozen pork in Ukraine in 2014 was lower than in 2010 by 64.5%.

It should be noted that the production of pork in the world is carried out on purchased feeds, therefore, the bulk of the costs essentially depends on world prices for grain, soybeans and other components [9].

In addition, prices in the world market do not always reflect the cost of production and are largely deformed by agrarian policy, in particular, subsidies, increments to export prices, etc. That is why the productivity of pork producers depends on the development of the world market, which must react in time to its changes and adjust production [10].

Conclusions

The generalization of the peculiarities of the development of the world market of pig products makes it possible to draw the following conclusions.

First, world consumption of pork in the next 10 years will increase accordingly to meet the rapidly growing world demand for meat and the need to increase by 2020 the total food production by at least 15% for the needs of the growing population of land.

Secondly, the state of the pork market depends on the economic situation in the world. After a sharp decline in its indicators in 2008-2009 with the onset of the crisis, producers in many countries managed not only to increase the level of pork production, but also to increase in 2013 the export of this type of meat to the highest values.

Reference

1. *Sharnin V.* We Need Resource-Saving Technologies / V. Sharnin // Swine Farm. - 2009. - No. 5. - P. 18-22.
2. *Sharnin V.N.* Factors that determine the efficiency and competitiveness of pig farming / VN Sharnin // Swine Farm. - 2009. - No. 5. - P. 9-11.
3. *Nikitiuk D.* Spetshosp increases the production of pork / D. Nikitiuk, V. Kuts, M. Geymor // Proposal. - 2009. - No. 9. - P. 118-119
4. *Boyko V.I.* Meat Market: Problems of Resource Potential Formation // VI Boyko // Economy of AIC. - 2009. - No. 11. - P. 97-102.
5. *Kopytets N.* Pork market: realities and opportunities / N. Kopytets // Meat business. - 2010. - No. 6. - P. 80-83.
6. *Verbitsky P.I.* Priority directions of livestock development in Ukraine / P. I. Verbitsky // Effective animal husbandry. - 2007. - No. 4. - P. 14-17.
7. *Kozak P.S.* Market positions of domestic rural producers in the context of Ukraine's WTO membership / P. Kozak // Economy of the agroindustrial complex. - 2013. - №1. - P.55-60.
8. *Mazurenko O.V.* Food safety and the current situation from the position of meat production and consumption / O.V. Mazurenko // Bulletin of the Uman National University of Horticulture. - 2008. - Vip. 70 (part 2 - Economics). - P. 105-111.
9. *Skrypnyk A.V.* Production of meat products: world and national tendencies / A. Skrypnyk, M. Rodina // Economy of agroindustrial complex. - 2014 - # 3. - P.21-30.
10. *Rybalko V.P.* Peculiarities of the development of world and domestic pig breeding / V.P. Rybalko // Vysn. agrar science - 2003. - №2. - C. 27-30.