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PRODUCTION AND COMPETITIVENESS OF GRAIN IN THE CONDITIONS OF GLOBALIZATION

Setting the problem. The priority importance in the stabilization of the national economy belongs to the grain grocery sub-complex because its functioning has a multiplier effect on the level of other sectors of the economy development and social sphere and considerably defines food security of the state. Providing profitable production of grain, as a condition of raising the level of food security depends primarily upon the efficiency of functioning the grain market and its competitiveness.

Grain commodity producer is competitive if he is able to carry out their activity effectively in terms of risk and uncertainty, use of natural resources rationally, produce quality grain products that meet international standards and has the ability to adapt to changing market conditions promptly. Activity of agricultural enterprises in the transformation period occurs with considerable difficulties, due to the disparity in prices of agricultural and industrial products, abrupt opportunistic fluctuations, the monopolization of the grain distribution channels, imperfect of market infrastructure etc.

Analysis of recent research and publications. The following famous scientists have made a significant contribution to the study of the competitiveness of agricultural producers: O. Berezin [2], V. Heyets [8], D. Domanchuk, L. Yevchuk, Yu. Ivanov [4], S. Kvasha, O. Kopystko, Yu. Lopatynskyi, Yu. Lupenko [1; 5], M. Malik, A. Mokiy, V. Mesel-Veseliak [5], H. Tkachuk [7], O. Ulianchenko [9], H. Cherevko, O. Shkolnyi, O. Shpychak and other economists

and agrarians who have developed a solid theoretical and methodological basis of this problem.

The famous domestic scientists and economists have made the important contribution to the development of theoretical and methodological principles of formation and development of the agricultural market, including grain market: S. Bakay, V. Boyko, V. Vlasov, T. Hayduk, P. Haydutskyi [1], M. Hladiy, B. Hubskyi, M. Lobas, B. Paskhaver, P. Sabluk [1], V. Sytnyk, L. Khudoliy, A. Fesyina, V. Yurchyshyn and others.

However, despite the significant number and diversity of research, issues of production and ensure the competitiveness of grain at the regional level, which led to the need for a separate study remains poorly understood.

Setting the objective. *The aim of the article* is to examine the current state of grain production in the region and substantiation of practical recommendations for improving the competitiveness of grain production.

The following objectives were used to achieve this aim:

- to implement a systematic analysis of grain production in the region;
- to consider the cost, the level of profitability of products;
- to identify the sales channels of grain crops and average implementation prices of cereal;
- to determine the main ways of ensuring the effective functioning of grain production in the region.

The object of research is the adaptation processes of the grain industry in the region to the market environment. *The subject of research* is a set of economic, organizational, administrative, infrastructural and institutional relationships that ensure the effectiveness of grain production in the region and its competitiveness.

The main material of the research. Grain production in the area Polissia, which includes Zhytomyr region, occupies a special place among other crop industries because largely satisfies the needs of the population in food products and provide food security in the region. The main products of farming food are grain and feed

grains. Over the past five years on average the share of such crops as winter rye (24.1%), winter wheat (23.1%), spring barley (19.1%) and oats (14.6%) was the largest in the structure of sown area of grain crops.

Dynamics of gross grain yield during the analyzed period indicates on the significant variations.

Thus, in 2007, 3.5 million tons of grain were gathered, in 2008 this indicator increased in 1.3 times – up to 4.7 million tons and for the next two years – decreased in 1,2 times. In 2011, the highest grain harvest collected in Polissia in recent years – 5.5 million tons, which amounted 9.7% of the total grain produced in Ukraine. Over the last year grain production in Ukraine increased by 17476 tones (on 44.5%) and in the region – to 1706.6 thousand tons (on 44.7%). At the same time the greatest number of grain in Polissia is grown in Chernihiv (45%) and Zhytomyr (27%) regions. The increase of gross grain harvest occurred firstly, by increasing the yield on 9.7 tone hectares or 38% compared to previous years. Yields of cereals in 2011 in Zhytomyr region was 38.2 quintals of hectares and secondly, by expanding the sown areas on 75.6 thousand hectares or 5%.

The intensification of production contributed to the increase in gross grain harvest on the basis of increasing the productivity by improving land use, seeding structure, predecessors, tillage, entering mineral fertilizers, conducting chemical reclamation, plant protection, seed development, improving the quality of grain, etc.

However, practice proves that the location of grain production requires improving the structure sown areas, high levels of agricultural technology and culture of agriculture.

The main grain producers are the agricultural enterprises, their share in 2011 in the structure of the gross gathering was 79.2%, and households accounted 20.8%. This indicates that the grain industry of the region is in the enterprises of large-scale manufacturing that creates conditions of stability of suggestions and improving the investment climate.

Selling price and cost of production are important in forming the farm profits.

The cost of the grain as a whole crop production for 2007-2011 has steadily increased.

During 2007-2011 the cost of cereals increased from 566.2 hrn. per ton to 1156.8 hrn. per ton that is in 2.1 times.

Primarily this is due to rising material and technical facilities: equipment, fuels and lubricants, fertilizers, pesticides etc.

During the study period in Polissya of Ukraine traced substantial fluctuations in grain prices. Price of 1 ton of grain in Ukraine in 2011 in 3.1 times is higher than the price in 2000 and in 3.3 times in 2005 (Table 1).

Table 1

Average prices for implementation of grain and leguminous crops by agricultural enterprises of Polissia and Ukraine, hrn. / tones

Region	Years							
	2000	2005	2006	2007	2008	2009	2010	2011
Zhytomyr region	509.3	437.3	521.9	905.9	856.3	815.3	1123.4	1431.5
Chernihiv region	461.3	368.6	500.4	831.9	837.5	767.2	1160.5	1405.7
Rivne region	507.2	470.8	537.4	864.2	819.0	801.7	1082.2	1378.9
Volyn region	540.1	439.5	545.0	852.5	870.7	852.0	1137.0	1426.6
<i>In general, in Ukraine</i>	<i>443.8</i>	<i>417.8</i>	<i>515.2</i>	<i>833.5</i>	<i>778.6</i>	<i>799.0</i>	<i>1120.9</i>	<i>1374.2</i>

Source: data of the Institute of Agriculture of Polissia UAAN.

The highest prices for grain were in Zhytomyr and Volyn regions, the lowest – in Rivne and Chernihiv region, but their price range was higher than the average sales price of cereals in Ukraine.

However, price instability led to fluctuations in profitability of grain in the agricultural enterprises. So in 2011, grain production in the region has ensured the level of profitability 4.6-24.8%. In Ukraine, the average level of profitability was 26.1%. The main sales channels for grain have been identified in research process (Table 2).

Table 2

The structure of implementation of grain crops by agricultural enterprises in Zhytomyr region and Ukraine

(percent of the total volume sales of implementation)

Region	Years					
	2000	2005	2008	2009	2010	2011
By processing enterprises						
Zhytomyr region	6.8	3.0	3.9	4.8	5.6	3.6
Chernihiv region	14.6	4.7	5.2	3.0	2.8	4.8
Rivne region	10.5	12.3	7.2	4.1	15.7	9.2
Volyn region	10.0	32.0	24.0	16.0	12.0	10.0
<i>Ukraine</i>	<i>4.0</i>	<i>5.2</i>	<i>4.4</i>	<i>3.9</i>	<i>3.4</i>	<i>3.6</i>
At the market						
Zhytomyr region	30.2	7.0	5.5	4,9	5,5	4,9
Chernihiv region	32.5	5.5	3.7	5,3	4,5	3,6
Rivne region	41.6	12.0	10.9	7,2	8,7	8,0
Volyn region	36.0	10.0	10.0	10,0	11,0	10,0
<i>Ukraine</i>	<i>34.9</i>	<i>10.0</i>	<i>7.9</i>	<i>6,6</i>	<i>7,1</i>	<i>4,9</i>
Population						
Zhytomyr region	26,1	11,0	4,0	2,0	2,0	1,1
Chernihiv region	36,0	3,7	1,6	1,0	0,8	0,5
Rivne region	36,7	11,2	2,2	1,2	0,9	0,8
Volyn region	25,0	8,0	4,0	2,0	2,0	2,0
<i>Ukraine</i>	<i>34,7</i>	<i>15,1</i>	<i>10,7</i>	<i>8,4</i>	<i>10,5</i>	<i>8,8</i>
By other directions						
Zhytomyr region	36,9	79,0	86,6	88,3	86,9	90,4
Chernihiv region	17,9	86,1	89,5	90,7	91,9	91,1
Rivne region	11,2	64,5	79,7	87,5	74,7	82,0
Volyn region	29,0	50,0	62,0	72,0	75,0	78,0
<i>Ukraine</i>	<i>26,4</i>	<i>69,7</i>	<i>77,0</i>	<i>81,1</i>	<i>79,0</i>	<i>82,7</i>

Source: data of the Institute of Agriculture of Polissia UAAN.

The liberalization of trade was an important feature of the transformation of the grain market.

Targeting manufacturers on the market led to the commercialization of sales. Thus, in Zhytomyr region in 2000, 36.9% were implemented to the commercial structures, whereas in 2011 the indicator was 90.4%. Commercial distribution channels have become the main and while the least transparent.

Thus intermediaries controlled not only wholesale, small wholesale and export trade flows, but also the main income from the sale.

However, during the transformation processes in the grain sector has been a significant decline in grain issued to the population as wage. Realization of production to the employees has been forced reaction of producers to lack of funds. The smallest part of the grain is implemented to processing enterprises, the public and at the market. Manufacturers did not sell grain through the stock exchange that is

explained by the imperfection of exchange trade in the region and of commercial lack of interest of the farmers, because the price of implementation by this channel was the lowest.

One consolation is that the region near absence of barter operations as a form of payment of producers with suppliers of material and technical resources, which are often used in the post-reform period and were explained by the inability of manufacturers to conduct the effective trading in market conditions and the desire to avoid excessive taxes and payments with creditors. In the future, the complete overcoming the system of barter is possible by reducing the price disparity between grain farming and industry; defining the clear list of products that are allowed to sell by barter, or limit the volume of such transactions.

During the analyzed period foreign trade became more active, which is characterized by growth in exports of grain and grain products. Thus, in 2011 the export of grain in Zhytomyr region was 3.5% of its gross yield and was 5275 tons. The main importers of grain were Belarus, Azerbaijan, Romania and Lithuania. In total volume of cereals almost 42% for accounted for wheat, 34% – barley and barley malt, 12% – on rye and 12% – in other cultures.

The main crops in the structure of imports in Zhytomyr region is food wheat and rye. The major exporting countries of grain to Zhytomyr region were Belarus and Russia.

It has been detected the tendencies to increase the volume of grain exports give reason to conclude about the need to increase the pace of its growth in Zhytomyr region. The feasibility for the output of grain production in the world market is confirmed not only by its high profitability, but the fact that the activity on the foreign market forms additional reserves for investments in grain farming.

Prognosticated indicators of levels for demand and supply are calculated in order to predict the market conjuncture of grain in the future (Table 3). Grain proposal on the market allows you to assess the degree of supply of grain market of own production and, if necessary, determine the amount of imported grain to ensure food

security in the region. The prediction has been implemented by the method of extrapolation on the basis of correlation and regression equations.

Table 3

Forecast of demand and proposals of grain in Zhytomyr region thousand tons

Indicators	Years	
	2010	2015
<i>Grain proposal (all categories of farms),</i>	2098.0	2385.3
including: inventories at beginning of year	490.3	570.4
produced during the year	1332.0	1503.5
other income	275.7	311.4
<i>Demand for grain (all categories of farms),</i>	1551.8	1766.2
including: spent on personal needs	756.3	810.9
implemented by all distribution channels	484.7	564.8
other expenses	310.8	390.5
Inventories at end of year	546.2	619.1
Coefficient of ratio of residue to demand	0.35	0.35

Source: own research

Especially grain proposal in the market will increase due to a significant increase in carry-over stocks of grain at the beginning of the year, an increase of grain production and other income. It is assumed that the interregional deliveries of milling wheat mainly from southern region of Ukraine will be the main source of other income of grains to Zhytomyr region.

The volume of demand for grain in the region also has tends to increase. The conducted research indicates that grain proposal in the region will exceed demand for it. Thus, under favorable weather and climatic conditions, rational use of material and technical resources and complying with all requirements of farming growing crops, Zhytomyr region can meet domestic demand for food and fodder grain, thus ensuring food security in the region and enter to the international market and carry out foreign economic activity.

Ensuring effective functioning of grain production is possible due to improving the structure of sown areas and the use of crop rotation; reducing the cost of grain due to energy and saving technologies of cultivation and processing; introduction of scientifically grounded standards of mineral and organic fertilizers, and shortage organic fertilizers compensate by syderat cultures; concluding preliminary

agreements between producers and processing enterprises regarding production and sales; raising the level of mechanization and providing farms by technical means in the conditions of cheapening credits and use of financial leasing and 30% of reimbursement; creation and restoration activity of the specialized elite and seed farms in order to ensure commodity producers with new highly effective and competitive seeding material; compliance with modern technologies of growing cereals on the basis of innovative projects with the involvement of investment funds; establishment of agricultural service cooperatives, improving credit and fiscal policy.

Conclusions and further research. Thus, in spite of certain difficulties in forming a regional grain market, its production remains profitable and cost effective. To ensure efficiency and competitiveness of grain production is possible due to the formation of effective intra-industrial relationships, diversification of distribution channels, creating favorable conditions for attracting domestic and foreign investment and industry adaptation to the requirements of the world market.

Prospects for further research is a search of ways to develop marketing distribution channels for implementation of grain for the purpose of development of foreign distribution markets, the expansion of export orientation of production, which has become an important factor of economic growth in the industry.

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Захаріна О.В. ВИРОБНИЦТВО ТА КОНКУРЕНТОСПРОМОЖНІСТЬ ЗЕРНА В УМОВАХ ГЛОБАЛІЗАЦІЇ

Мета. Вивчення сучасного стану виробництва зерна в регіоні та обґрунтування практичних рекомендацій щодо підвищення конкурентоспроможності виробництва зерна.

Методика дослідження. Теоретичною і методологічною основою дослідження є фундаментальні положення сучасної економічної теорії, наукові праці вітчизняних та зарубіжних вчених, нормативні та законодавчі акти України з даної проблематики. У процесі дослідження застосовувались наступні методи: аналізу і синтезу – для вивчення об'єкта і предмета дослідження; абстрактно-логічний – для теоретичного узагальнення та формулювання висновків; системного аналізу та логічних узагальнень.

Результати. Обґрунтовано теоретико-методологічні основи формування та функціонування ринку зерна в трансформаційний період. Проведено оцінку стану розвитку регіонального зерновиробництва. На основі вивчення сучасного стану та тенденцій розвитку ринку зерна ідентифіковано особливості його формування та проблеми розвитку. Визначено напрями підвищення конкурентоспроможності виробництва зерна з позицій регіональних особливостей її вирішення.

Наукова новизна. Обґрунтовано шляхи розвитку регіонального зерновиробництва, серед яких: визначення маркетингових каналів реалізації зерна, формування інфраструктури регіонального ринку зерна, обґрунтування цінових стратегій розвитку галузі зерновиробництва підприємств, в основу яких покладено розрахунок рівня урожайності, ціни реалізації і ступінь ризикованості, які забезпечують беззбиткове виробництво зернових.

Практична значущість. Отримані результати дослідження направлені на забезпечення ефективної системи виробництва та забезпечення конкурентоспроможності зерна.

Ключові слова: виробництво, зерно, собівартість, рентабельність, ціна, маркетингові канали, сільськогосподарське підприємство, розвиток, економічна ефективність, конкурентоспроможність.

Захарина О.В. ПРОИЗВОДСТВО И КОНКУРЕНТОСПОСОБНОСТЬ ЗЕРНА В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ

Цель. Изучение нынешнего состояния производства зерна в регионе и обоснование практических рекомендаций по повышению конкурентоспособности производства зерна.

Методика исследования. Теоретической и методологической основой исследования являются фундаментальные положения современной экономической теории, научные труды отечественных и зарубежных ученых, нормативные и законодательные акты Украины по данной проблематике. В процессе исследования применялись следующие методы: анализа и синтеза – для изучения объекта и предмета исследования; абстрактно-логический – для теоретического обобщения и формулирование выводов; системного анализа и логических обобщений.

Результаты. Обосновано теоретико-методологические основы формирования и функционирования рынка зерна в трансформационный период. Проведена оценка состояния развития регионального зернопроизводства. На основе изучения нынешнего состояния и тенденций развития рынка зерна идентифицированы особенности его формирования и проблемы развития. Определены направления повышения конкурентоспособности производства зерна с позиций региональных особенностей её решения.

Научная новизна. Обоснованы пути развития регионального зернопроизводства, среди них: определение маркетинговых каналов реализации зерна, формирование инфраструктуры регионального рынка зерна, обоснование ценовых стратегий развития отрасли зернопроизводства предприятий, в основу которых положен расчёт уровня урожайности, цены реализации и степень риска, которые обеспечивают безубыточное производство зерновых.

Практическая значимость. Полученные результаты исследования направлены на обеспечение эффективной системы производства и обеспечения конкурентоспособности зерна.

Ключевые слова: производство, зерно, себестоимость, рентабельность, цена, маркетинговые каналы, сельскохозяйственное предприятие, развитие, экономическая эффективность, конкурентоспособность.

Zakharina O.V. PRODUCTION AND COMPETITIVENESS OF GRAIN IN THE CONTEXT OF GLOBALIZATION

Purpose. The current states of the grain production at the region are analyzed and the practical recommendations are specified at the increase in the competitiveness of the grain production.

Methodology of research. The theoretical and methodological basis of the research is fundamental provisions of modern economic theory, scientific works of domestic and foreign scientists, normative and legislative acts of Ukraine on this problem. The following methods were used during the research: analysis and synthesis – to study the object and subject of research; abstract and logical – to theoretical generalizations and formulation of conclusions; systems analysis and logical generalizations.

Findings. The article considers theoretical and methodological basis of grain market forming and functioning in the period of transformation. Conditions for the development of regional grain production were held. The peculiarities and the main problems of grain market developing and functioning are identified on the basis of the present-day grain market studies. The problem of increasing the competitiveness of grain from the standpoint of regional features of it's solution is examined.

Originality. As a result the perspectives for the development of regional grain production were outlined as follows: revealing the grain marketing channels, formation of regional grain market infrastructure, substantiation of price formation strategy that would be based on the harvesting rates, sales price and risk degree and would provide profitable grain production.

Practical value. The obtained results of research aimed on providing the effective system of production and grain competitiveness support.

Key words: production, grain, costs price, profitability, price, marketing channels, agricultural enterprise, development, economic efficiency, competitiveness.