

27. Про підсумки діяльності Національної академії аграрних наук України за 2013 рік та основні завдання на перспективу : Доп. Президента НААН, академіка НААН В. Ф. Петриченка на засіданні Заг. зборів НААН 26 черв. 2014 р. // Вісн. аграр. науки. – 2014. – № 7. – С. 5-10.
28. Рекомендації по організації селянських (фермерських) господарств в Україні (у 2-х частинах) / [Саблук П. Т., Месель-Веселяк В. Я., Федоров М. М., Гайдуцький П. І. та ін.] ; за ред. П. Т. Саблука, В. Я. Месель-Веселяка. – К. : ІАЕ УААН, 1993. – 484 с.
29. Реорганізація колгоспно-радгоспної системи сільськогосподарського виробництва при переході до ринку (методичні рекомендації) / [Саблук П. Т., Месель-Веселяк В. Я., Стельмашук А. М. та ін.]; ІАЕ ім. Шліхтера УААН, Тернопільський філіал інституту землеробства і тваринництва західного регіону. – Тернопіль, 1992. – 34 с.
30. Реформування та розвиток підприємств агропромислового виробництва (посібник у питаннях та відповідях) / П. Т. Саблук, М. Й. Малік та ін. – К. : ІАЕ, 1999. – 530 с.
31. Саблук П. Т. Магістральні напрями аграрної реформи / П. Т. Саблук // Економіка АПК. – 1995. – № 1. – С. 8-14.
32. Саблук П. Т. Научное обеспечение перехода агропромышленного комплекса Украинской ССР к рынку / П. Т. Саблук // Экономика сельскохозяйственных и перерабатывающих предприятий. – 1991. – № 9. – С. 2-6.
33. Сова О. Земля на кону / О. Сова // Україна молода. – 2015. – 7 жовт.
34. Федоров М. М. Земельна реформа в Україні : стан, проблеми, перспективи / М. М. Федоров // Екон. часопис. – 1999. – № 6. – С. 22-26.
35. Федоров М. М. Об'єктивна необхідність і основні методичні принципи удосконалення методики економічної оцінки земель / М. М. Федоров // Економіка АПК. – 2004. – № 5. – С. 3-11.
36. Федоров М. М. Організаційно-економічні передумови формування ринку земель сільськогосподарського призначення / М. М. Федоров // Економіка АПК. – 2003. – № 1. – С. 25-31.
37. Ghonemy M. Studies on agrarian reform and rural poverty / [M. R. Ghonemy et al.]. Rome : Food and Agriculture Organization of the United Nations ; New York, N. Y., 1984.
38. Posterman R. Land reform and democratic development / R. L. Posterman, J. M. Reidinger. The Johns Hopkins University Press, Baltimore, 1987.

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Regional aspect of production sugar beet subcomplex of Ukraine

Scientific problem. One of the strategic sectors of the food industry in Ukraine is the sugar beet industry, which combines producers of sugar beet, sugar factories and service companies. Sugar beet production relates to agricultural production, which significantly affects the effectiveness of the revival of economic potential of the country. Some authors believe that solving the problems of the industry in the

country is impossible without the implementation of a range of appropriate measures, favorable for the formation of public policy; coordination of interests of all participants of the sugar beet production; enhance the level of specialization farms which sow beets; optimization of acreage under sugar beet; solving the problem of uncertainty of land relations in the village and etc [10, p. 124]. Modern regional development of food industry in Ukraine is not fully violates the territorial organization of social

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production, one of the main requirements of which is to achieve sustainable use of natural, industrial, scientific and technological potentials, which gives a significant volume of production of ecologically clean food of high quality with minimal costs of labor [3, p. 23].

In our opinion, the main purpose of the sugar market is to provide uninterrupted, dynamic development branch structure of agricultural production, improve the quality and competitiveness of products. Today it is necessary to form a regulated market of sugar in Ukraine, and its manufacturer to be the main figure on it.

Analysis of recent researches and publications. The research by the economic regulation of sugar beet production and define the role of the state in their formation in market conditions the subject of numerous works of local scientists and practitioners, including: V.S. Bondar [2], O.M. Varchenko [4], S.L. O.O. Yerankin [5], O.S. Zayets [6], E.V. Imas [7], M.Y. Kodenska [8], V.Y. Mesel-Veselyak [9], V.I. Pyrkin [11], P.T. Sabluk [13], S.A. Stasinevych [14] and others. These problems have been discussed in the works of foreign scientists: Helmke H. [16], Holzmann H. [17], Latacz-Lohmann U. [18] and others. At the same time taking into account the trends of world sugar market in the context of globalization, insufficiently explored issues of regional aspects of the production of sugar beet subcomplex of Ukraine.

The objective of the article is an assessment of regional characteristics of sugar beet subcomplex of Ukraine and determine the main way out of the crisis.

Statement of the main results of the study.

Sugar industry, along with flour, starch, meat, bakery and dairy industry belongs to industries that operate primarily on the domestic market [1, p. 14]. The purpose of state regional policy as part of the strategy for economic and social development of Ukraine is to create conditions for dynamic, balanced territorial development, eliminating major regional disparities [15].

According to company “AAA Consulting Agency” the largest producer of sugar in Ukraine in 2012–2013 is a complex “Astarta-Kyiv”, which combines three regional departments. The total area of arable land and the area under sugar beet sowing in Agricultural Holding Company “Astarta-Kyiv” in 2013 are presented in table 1. As we can see from the table 1, the largest area for sowing of sugar beet Company “Astarta-Kyiv” reserved to Poltava region – 26513,3 thousand hectares. In 2013 “Astarta-Kyiv” finished with a profit of 25,67 million euro consolidated revenue increased to 4,79% or 16,876 million euro compared to 2012 [12].

This Agricultural Holding Company composed of more than 60 agricultural companies of the country. Astarta Holding has for the past five years remains the leader in terms of sugar production in Ukraine and related products for the production of sugar – molasses and dry granulated pulp. Main production capacity consists of seven sugar factories: four sugar factories are in Poltavaska oblast; two sugar factories are in Kharkivska oblast, one sugar factory is in Vinnytska oblast and one sugar factory is in Khmelnytska oblast.

Table 1

The total area of arable land and the area under sugar beet sowing in holding “Astarta-Kyiv” in 2013, thousand hectares

Name of regional offices	Name of Company	Area of arable land	Area under sugar beet sowing
Poltava	“Agrofirma “named after Dovzhenko” Limited Liability Company”	43052	8513,3
	“Agrofirma “Dobrobut” Limited Liability Company”	39254	8405
	Investment Industry Company “Poltavazernoprodukt Limited Liability Company”	30000	9595
Total by region		112306	26513,3
Vinnytsa	“Agrofirma “Khmilnytske Limited Liability Company””	32000	6500
Khmelnysk	“Agrofirma “Volochnisk-Agro Limited Liability Company””	43666	8260
Total		187972	41273,3

Source: [systematized by the author].

As for power factories of agricultural holding, they are capable of handling more than 33,000 tons of sugar beet for 1 day. In addition, “Astarta-Kyiv” is engaged in production of grains and oilseeds. Indicators of sugar beet by types of farms presented in table 2. This Agricultural Holding Company leases land from local authorities and private landowners areas, which cover an area of over 240 thousand hectares. We conducted a comprehensive study of the agricultural sector by types of farms from 2005 to 2013 for the research was to take the following farms: agricultural companies, private enterprises, farms, production agricultural

cooperatives, state owned enterprises, other enterprises, agricultural enterprises and Agricultural Holding “Astarta-Kyiv”, which was chosen as the comparative object. Analyzing the table 2 clearly singled out trend on the dynamics of increasing production efficiency of sugar beet and relevant economic indicators (total cost of one ton of product revenue, the mass of profit (+), loss (–) on 1 hectare of harvesting area and level of profitability) for this holding us not carried out, as we were unable to collect relevant data because that data are not indicators of Agricultural Holding Company not made public.

Table 2

Indicators of sugar beet farmers by type, 2005–2013

Types of enterprises	2005	2010	2011	2012	2013	2013% to 2005
1	2	3	4	5	6	7
Sowing area of sugar beet, hectares						
Agricultural companies	231416	287776	303037	278493	149770	64,7
Private enterprises	85343	79739	89036	67535	44315	51,9
Farms	19715	25193	20681	16673	9208	46,7
Production agricultural cooperatives	34498	10077	7946	9128	2728	7,9
State owned enterprises	8032	4081	4171	3621	1184	14,7
Other enterprises	13045	7029	8775	5599	1074	8,2
Agricultural enterprises	392049	413895	429475	381049	208279	53,1
Agricultural Holding “Astarta-Kyiv”	15901	29026	37401	39836	32373	2 times more
Yield, quintal / hectare						
Agricultural companies	268	292	380	412	419	156,3
Private enterprises	266	292	371	462	441	165,8
Farms	243	255	352	408	367	151,0
Production agricultural cooperatives	233	259	311	229	380	163,1
State owned enterprises	211	219	274	374	368	174,4
Other enterprises	243	335	410	735	504	2,1 times more
Agricultural enterprises	261	289	379	421	421	161,3
Agricultural Holding “Astarta-Kyiv”	298	328	445	475	507	170,1
Production, quintal						
Agricultural companies	62091527	83956039	115095851	114788025	62708758	101,0
Private enterprises	22683708	23308316	33033380	31231129	19538651	86,1
Farms	4787610	6424678	7275624	6798702	3378143	70,6
Production agricultural cooperatives	8022589	2605578	2472637	2086219	1035979	12,9
State owned enterprises	1697128	893219	1143042	1355103	436100	25,7
Other enterprises	3166042	2351954	3596584	4112502	541040	17,1
Agricultural enterprises	102448604	119539784	162617118	160371680	87638671	85,5
Agricultural Holding “Astarta-Kyiv”	4737803	9534873	16653254	18915834	16402649	3,5 times more

Source: [formed by the author according to the Statistical Yearbook of Ukraine].

Analysis of sugar beet production costs by types of farms in recent years (2005–2013) found that due to the significant investment in equipment modernization trend of production costs, especially for Agricultural Holding

Company “Astarta-Kyiv”, up to 49,93 UAH / quintal and as a result – accompanied by an increase sugar beet yields to record levels – 507 quintal per 1 hectare (table 3). As you know, the main task in the production of sugar

is the maximum increase in sugar output per unit of processed raw materials at the lowest cost energy for its production. The lowest cost of production of sugar beet we observe in the category other agricultural enterprises – from 19,62 to 26,43 local currency. The lowest cost of a hectare of cultivated area we see in farms, production agricultural, government and other enterprises where costs were from 3447,32 to 9881,47 UAH per a hectare. For several years the first place in Ukraine on sugar beet yield occupy Khmelnytska, Poltavska and Vinnitska oblasts. It is in these areas, leaders in the cultivation of sugar beet has the best economic indicators we examined Agricultural Holding Company “Astarta-Kyiv”. The main reasons for

the critical state beet are: continuation of inefficient practice of barter relations between producers of raw materials and processors; a substantial increase in prices of basic inputs for sugar factories and agricultural enterprises; Ukraine low prices for raw cane sugar. According to the State Statistics Service of Ukraine sugar beet sowing area in 2013 was 292,600 hectares, which is 173,700 hectares less than the previous 2012 (466,300 hectares). Sugar beet processing in 2013 involved 38 sugar factories (compared with 63 in 2012, 116 in 2005 and 165 in 2000). Power sugar factories involved in the processing of sugar beet in 2013 amounted to 137,420 tons per day versus 404,4 in 2000.

Table 3

Indicators of cost of production of sugar beet farmers by type, 2005–2013

Types of enterprises	2005	2010	2011	2012	2013	2013% to 2005
Costs of production of a quintal, UAH						
Agricultural companies	14,86	34,90	32,73	35,30	32,28	2,2 times more
Private enterprises	14,40	29,84	28,42	29,86	39,61	2,8 times more
Farms	14,20	36,31	38,54	34,38	31,13	2,2 times more
Production agricultural cooperatives	16,34	29,20	31,57	32,26	33,03	2 times more
State owned enterprises	16,93	36,97	31,85	29,49	32,96	194,7
Other enterprises	16,69	23,52	26,43	26,37	19,62	117,6
Agricultural enterprises	14,94	33,65	31,95	33,88	33,80	2,3 times more
Agricultural Holding “Astarta-Kyiv”	14,52	49,93	36,23	40,25	26,38	181,7
Costs of a quintal of cultivated area, UAH						
Agricultural companies	3987,49	10180,88	12432,29	14549,97	13513,73	3,4 times more
Private enterprises	3828,22	8721,39	10542,40	13809,17	17464,62	4,6 times more
Farms	3447,32	9259,57	13557,03	14017,00	11419,40	3,3 times more
Production agricultural cooperatives	3800,90	7550,26	9825,22	7374,08	12541,75	3,3 times more
State owned enterprises	3577,38	8092,18	8727,38	11036,70	12139,10	3,4 times more
Other enterprises	4050,78	7869,64	10833,38	19369,28	9881,47	2,4 times more
Agricultural enterprises	3902,94	9719,73	12098,51	14260,88	14222,48	3,6 times more
Agricultural Holding “Astarta-Kyiv”	4327,21	16401,03	16131,27	19110,58	13368,40	3,1 times more

Source: [formed by the author according to the Statistical Yearbook of Ukraine”].

As a result of performance of sugar mills in the processing of sugar beet harvest in 2013 adopted beet processing 9,220,000 tons but processed only 9,06 million tons and produced 1,212.1 thousand tons of sugar.

Sugar output in 2013 in the whole Ukraine from the start of production was 13,35% com-

pared to 12.95% last year. Yields of sugar beet farms of all categories amounted to 398,9 quintal / hectare to 248,2 quintal / hectare in 2005 and 176,7 quintal / hectare in 2000 respectively. Clearly singled out the trend in the dynamics of sugar beet to increase productivity to previous years. By the results of basic performance of

the processing of sugar beet harvest in 2013 the largest sugar accumulated in Agricultural Holding formations “Podillyatsukor” Poltavska, Lvivska, Ternopilska and Khmelnytska oblasts. As a result of the transition refineries for processing from raw materials led to a reduction in capital inflows to the budget and the deteriorating financial condition of sugar factories.

In addition, it is worth noting that in the 2012–2013 marketing year, sugar production amounted to 179,6 million tons, increased by 102,7% compared to the 2011–2012 marketing year, and consumption of sugar amounted to 172,1 million tons. As for the cost of sugar beets per a ton in 2013 it amounted to 4698,4 UAH in 2013 to 6019,1 UAH in 2011. The share value of sugar beet agriculture in Gross Domestic Product in 2012 amounted to 2,9% of the economy in 2012 amounted to 3,7% against the figure of 5,4% in 2011. The total cost of sugar beet in marketing year 2012–2013 was 371,5 UAH / ton to 380,4 UAH / ton in marketing year 2011–2012. Sugar production in the European Union is projected 16 million tons that is 600 thousand tons less than in the 2012–2013 marketing year. Allocation of sugar production quotas “A” in Ukraine for 2013 amounted to 1732,71 thousand tons, and sugar actually produced 1212,14 thousand tons in the 2013–2014 marketing year. Domestic producers fully satisfy domestic consumption in such volumes – up to 45245,9 thousand people in Ukraine. Ukraine annually can produce more than 3 million tons of sugar. World sugar production in the 2013–2014 marketing year is 175 million tons.

Due to the glut sugar producers of various agricultural enterprises begin to look different schemes to implement the production, even at below cost price, which leads to excess quotas domestic market, thus not ensured the effectiveness sugar-beet industry. First of all, this leads to a reduction in areas under sugar beet and volumes of sugar factories, and as a result – leads to a reduction in capacity utilization factories of with raw materials or complete closure of factories. There is a conflict between those who produce sugar beet and companies engaged in processing and selling finished products to consumers. Need to find a format and mutual supervisory mechanism to the joint

efforts of agribusiness and government authorities could increase the efficiency of the sugar beet industry and of local and state budgets. The inefficiency of state price regulation mechanism for sugar beet industry is already evident as of 1 September 2014. So, given the regulatory costs and 5% return on a minimum price for sugar beet at 440,3 UAH / ton and legally it is set lower at 96,75 UAH / ton, it leads to the inefficiency of state regulation of sugar beet industry. So, to create interindustry exchange of equivalent proportions in pricing for sugar beet should be determined considering profit margins.

In the Resolution of the Cabinet of Ministers of Ukraine № 189 of April 8, 2015 “On State Regulation production of sugar and sugar beet in the period from September 1, 2015 to September 1, 2016” for the production of sugar within the quota “A”, taking into account the basic sugar and sugar quotas “A” states that “... the minimum price for 1 ton (excluding VAT) for sugar beets determined 445.87 UAH, and for sugar – 6,454.74 UAH” [19].

The main way out of the crisis situation and sustainable development of the sugar beet industry: to stabilize the financial situation in the sugar beet industry should accelerate the adoption of the draft Law of Ukraine. “On state regulation of production and sale of the sugar market” on the volume of sugar production from raw materials; to protect refineries from possible closure or conversion to produce other products necessary to add points in contracts with suppliers of raw materials to the factories on financial and legal responsibility of the parties for failure to supply raw materials from the planned accrual of interest at the rate of 25% of supply; with a view to respond quickly to market fluctuations on pricing on the realizable price of sugar necessary to improve the regulatory and legal framework for state regulation of production and sale of sugar.

Sugar factories have experienced a serious problem in working capital, processing of raw materials began to be carried out exclusively by tolling schemes, that is do without money. Was vulnerable and sugar beet subcomplex, the company is not able to produce competitive sugar in the absence of stable zones of sowing

beets, energy saving technologies and sufficient quantity of raw materials [13, p. 3–12].

Transition local refineries for processing customer's raw materials resulted in overloading the domestic sugar market and, consequently, led to the failure quota "A" – the annual quota of sugar supply on the domestic market. Production of sugar beet in 2013 in Poltava region amounted to 1546 thousand tons and changed in 1990 to 33,4%. In the study area in 2013 decreased by almost 50% sown area under sugar beet in comparison with 2012 root crop yield in 2013 was a record – 499 quintal / hectare, or 1,7 times more than the baseline 1990. Improving cost efficiency of sugar mills is possible if the rational use of inputs, improvement of inter-sectoral manufacturers economic relations with energy suppliers, the formation of new integration process and economic relations.

Conclusions. Our research suggests that in order to support national commodity and its interest in sugar production imperative is amending the Law of Ukraine "On state regulation of production and sale of the sugar market" on the volume of sugar production from raw materials as sugar production, producing sugar plants in the country for the domestic market

are insufficient and, as a result, decrease financial revenue countries, and sugar beet industry found itself in a crisis situation. It is necessary to limit the volumes of sugar from raw materials of quotas "A".

In our view, the main reasons for failure to fulfill quota "A" include imperfect allocation of quotas because it was necessary to plan the sowing area, and then generate market regulators on the volume. Eliminate the minimum purchase prices for sugar quotas and limited only to the volume of production and sales. Price fluctuations in sugar can be controlled through purchases from the state intervention fund.

We came to the conclusion that the import of sugar imports lead to corresponding losses and lack of interest to farmers growing sugar beets as general culture. There may even be cases to reduce the acreage of sow sugar beet regions in Ukraine.

Issues requiring further research aimed at finding methodological approaches to the study of intersectoral economic relations, further development of scientific discussion on problems of formation and development in various fields of agricultural production, including sugar beet subcomplex of Ukraine.

References

1. Agrofood production in 1990–2009: development trends [B.Y. Paskhaver, O.V. Shubravskaya, D.F. Krysanov, K.O. Prokopenko] // *Economy of AIC*. – 2010. – № 9. – P. 12–20.
2. Bondar V.S. Trends of world market prices of sugar and their impact on the domestic market of Ukraine / V.S. Bondar, S.Y. Andrushchenko // *Sugar beets*. – 2010. – № 2 (74) [Electronic resource]. – Access: <http://www.sugarbeet.org.ua/node/75>
3. Deineko L.V. Economic problems of food industry of Ukraine and its regions in 2000: Thesis. Thesis for the degree of doctor of economic sciences specialty 08.10.01 / Liudmyla Viktorivna Deineko. – K., 2000 [Electronic resource]. – Access: <http://disser.com.ua/contents/34494.html>.
4. The economic mechanism of formation and functioning of the sugar market in Ukraine: Abstract dissertation of doctor of economic sciences: 08.07.02 / Olha Myronivna Varchenko. – Kyiv : B.v., 2005. – 39 p.
5. Yerankin O.O. Formation of agroindustrial units in Ukraine: globalization and marketing aspect/ O. O. Yerankin // *Scientific notes: collection of scientific works*. – 2008. – Vol. 10. – P. 175–187.
6. Zaets A. S. The sugar market. Problems of the theory and practice / A. S. Zaets//. – K.: Naukova dumka, 1998. – 314 p.
7. Imas Y. V. Development of sugar beet production and the sugar market in Ukraine: Abstract of dissertation for scientific degree of doctor of economic sciences. – K., 2004. – 43 p.
8. Kodenska M. Y. Trends and directions of activation of investment of sugar beet production/ M. Y. Kodenska // *Economy of AIC*. – 2010. – № 2. – P. 74–78.
9. Mesel-Veselyak V.Y., Yarchuk M.M. Organizational-economic improvement of sugar beet subcomplex of Ukraine. / V.Y. Mesel-Veselyak, M.M. Yarchuk // *Economy of AIC*. – 2013. – № 2. – P. 3–8.
10. Pechenyuk A.V. Sugar beet production in Ukraine: problems of prospects/ A.V. Pechenyuk // *Science and Economics*. – 2010. – № 4 (20). – P. 124.
11. Pyrkyn V. I. Sugar beet production in crisis/ V. I. Pyrkyn // *Ukrainian scientific magazine "Sugar beet"*. – 2009. – № 69. – P. 4–5.
12. On the allocation a credit of European Investment Bank "Astarta-Kyiv" [Electronic resource] // National Association of Sugar Producers of Ukraine "Ukrtsukor". – Access: <http://sugarua.com.ua/67/lists/2429>
13. Sabluk P. T. Clustering as a mechanism to increase competitiveness and social focus Agricultural Economics/ P. T. Sabluk, M. F. Kropyvko // *Economy of AIC*. – 2010. – № 1. – P. 3–12.