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**PRODUCTION OF BEET-SUGAR PRODUCTION IN KAZAKHSTAN:
PROBLEMS, RESERVES AND PRIORITIES**

Abstract. Due to the natural-climatic conditions, sugar beet in Kazakhstan is the only domestic raw material for sugar production, and is also valuable as a fodder crop. Kazakhstan has the potential for the revival of sugar beet growing: favorable climatic conditions, lands suitable for sugar beets, water sources. The experience of sugar beets growing over the past years has shown that in the republic it is possible to obtain sustainable crops of at least 400 kg / ha in irrigation conditions and 200-250 kg/ ha in dry land.

The priority direction of Kazakhstan's agri-food policy is to solve the problem of food security and social protection of the population, while the key tool is the formation of the effective agri-food market, which also includes sugar market.

Sugar is a product of strategic importance, consumer goods, does not require additional costs for marketing program, and is inelastic in price. It is produced from two types of raw materials: sugar beets and imported raw sugar.

Key words: sugar beet, production, raw materials, resources, cost, market, demand, product sales, food industry, trade organizations.

The relevance of the topic. Kazakhstan and the CIS countries are the important part of the global sugar market. Problems and prospects for the development of production and sugar market at the national level are closely interconnected with the situation on the world market. Almost all countries including CIS countries are sugar importers.

Sugar market has its own specific type features (affiliation to the agri-food market) and specific features of its subjects, the formation of supply and demand, market infrastructure and institutional foundations. These include:

- dependence of the supply category on natural-climatic, technological and other conditions for production of raw materials and sugar on sugar market;

- low elasticity of supply on sugar market is due to the limited increase in the production of raw materials (sugar beets) due to the need to provide resources, as well as observing the crop rotation structure;

- the seasonality of sugar production is associated with a limited period of processing root crops, in contrast to the all-season loading of plants with imported raw sugar;

- the demand for sugar - socially important product in the human energy balance, has a relatively low price in relation to protein products, which significantly determines its economic advantage;

- the need for sugar reserves for the season in trade organizations and food industry coincides with the period of processing fruit and berry products in terms of the increased demand and a complete stop of its production in sugar factories;

- trends in decreasing the proportion of sugar consumption by high-income populations and increasing demand for high-priced foods while increasing consumption of sugar and low-cost foods by low-income population;

- uneven level of consumption of sugar-containing products and sugar in the regions of the country in sugar-producing areas and the minimum in the east areas, where there is a need to increase this level due to high energy costs;

- insufficient development of technical, material and organizational systems of purchase, storage and sales of sugar, a network of specialized institutes, service organizations, wholesale and retail systems;

- the ability to balance supply and demand, as low elastic factors, only in a small range, i.e. when the latter goes beyond the limits, there is a significant price fluctuation, which leads to destabilization of market as a whole;

- high dependence of the domestic sugar market on imports of the finished product and raw sugar, which affects the formation of domestic sugar prices;

- the need for a protectionist policy of the State in relation to domestic sugar producers through various economic mechanisms, in order to ensure flexibility and order of economic relations [1].

Materials and methods of research. The dynamics of the structure of raw material zones in Kazakhstan is given in the dynamics over the past 5 years in the whole country and four regions. The calculations are based on the materials of the Committee on Statistics of the MNE of the Republic of Kazakhstan, monographic studies of the authors.

For methodological purposes, various approaches to the issue of transition to the innovative development path, including technologies for the automation of sugar production processes, were studied. Most researchers consider the use of automation tools and systems as an opportunity to use resources more rationally in order to reduce sugar production costs.

In accordance with the objectives, the following economic methods were used: integrated, systemic, comparison, export estimates and others, used in the analysis and development of proposals and recommendations for the development of sugar beet production, product sales.

Results of research. Sugar beet production in Kazakhstan is mainly provided by two regions: Almaty and Zhambyl. In the North Kazakhstan region (2016-2017), there were experimental crops on an area of 400 hectares, the share of which was 3% in the total gross harvest of sugar beets, and the South Kazakhstan region curtailed production in 2016 (table 1).

Table 1 – Dynamics of the structure of raw material zones in Kazakhstan for 2015-2019, ha

Region	2015	2016	2017	2018	2019	2019 к 2015, %
Republic of Kazakhstan	9 193,1	12 584,3	17 438,0	15 165,5	15 200	165,3%
Almaty	3 803,0	6 521,4	7 489,8	9 557,4	9 700	255%
Zhambyl	5 360,0	5 662,0	9 548,2	5 599,9	5 500	102,6%
South-Kazakhstan	28,1	0,9		–		
North-Kazakhstan	2,0	400,0	400,0	8,1		

In Kazakhstan, gross sugar beet harvests increased 2.8 times compared to 2015 and amounted to 485.5 thous. tons in 2019. Production growth occurred due to the increase in yield by 139.6% (up to 324.5 c/ha) (table 2) [2,3].

The adopted policy of diversifying the structure of crop production, as well as strict measures for the efficient use of irrigated land played an important role in increasing the sown area [4].

Table 2 – Indicators of sugar beet production for 2015-2019

Indicator	2015	2016	2017	2018	2019	2019 к 2015, %
Sown areas, thous.ha	7,5	12,1	16,9	16,5	15,2	в 2 п.
Gross yield, thous.tons	174,1	345	463,2	504,5	485,5	в 2,8 п.
Yield capacity, c/ha	232,5	285,5	274,4	305,3	324,5	139,6

Almost all of the world's leading manufacturers are represented on agricultural machinery market of Kazakhstan, while the share of domestic machinery in total production volume is extremely small (not more than 3%), this is mainly the assembly under the license of foreign manufacturers.

In the country, more than 70% of equipment has been in operation for over 10 years - this is outdated equipment; more than 50% of tractors are 100% worn out. The rate of depreciation is higher than the rate of renewal, and the number of machines is reduced. The number of machinery decreases annually (tractors - by 1.2%, reapers - by 2%), and is updated on average by 2% per year. If necessary, at least 10%.

One of the reasons of the low level of development of sugar industry in the country is the problem of interaction between agricultural producers and sugar factories.

For example, processing enterprises, based on the price of white sugar during the harvest period, set low purchase prices for sugar beets. As a result, sugar beet growers do not pay back their expenses and are not interested in increasing sugar beets production. This situation is caused by the lack of a stable and high-quality raw material base, as a result of which there is an incomplete load on production capacities of sugar factories. In this regard, in order to stimulate production of sugar beets, it is proposed to introduce a mechanism for guaranteed purchase of sugar beets by agricultural producers at a fixed price, regardless of seasonal fluctuations in sugar prices, and compensation of the difference at the expense of the budget.

There is one elite-seed farm PF "Kamkorlyk" on cultivation of sugar beet seeds in Almaty region on an area of 20 ha. JPC "Zhetysu" provides seeds (produced in Germany, France, Denmark and Russia) to sugar beet-growing farms. Planting material is provided on a contractual basis, without prepayment, and peasants will be able to pay for it in December, after the yield is delivered.

Sugar beet needs intensive mineral nutrition. In order to ensure crop productivity of 400-500 kg/ha, it is necessary to introduce nitrogen fertilizers - 120 kg/ha, phosphate fertilizers - 110 kg/ha, potash fertilizers - 130 kg/ha. If it is planned to increase the yield of sugar beets to 500-600 kg/ha, the fertilizer application rate should be increased by 10-15% [5].

In Kazakhstan, out of 8 sugar factories, 3 enterprises are involved in production of sugar from sugar beets, and 1 plant produces sugar from raw sugar material and is a part of the Central Asian Sugar Corporation (CASC LLP):

- Koksui Sugar Plant LLP (production capacity of 1.7 thous. tons of sugar beet processing);
- "Merke Sugar Plant" (sugar beet processing capacity of 1.5 thous. tons and 600 tons of raw sugar per day);
- "Taraz Sugar Plant" (production capacity of raw sugar processing 800 tons per day);
- LLP "Aksu-Kant" beet processing 3000 tons/day, sugar productivity 300 tons/day.

The level of use of existing production capacities for production of white sugar is about 40%.

Kazakhstan imports the largest portion of white sugar compared to other EAEU members. The "free economic zone" regime and warehouses enhanced this situation, which foresee zero import duty on white sugar, but the agreements on such regimes expired on January 1, 2017. The permanent suppliers of white sugar were the countries: Azerbaijan, Belarus, Poland, Russia, Ukraine and the Czech Republic.

Kazakhstan also imports large volumes of raw sugar. Volumes of duty-free imports of raw sugar (established by the Ministry of National Economy of the Republic of Kazakhstan in 2014-2019) have practically never been exceeded and were always significantly lower (table 3).

Table 3 – Import of raw cane sugar in the Republic of Kazakhstan, thous. tons

Year	Planned import volumes established by the Ministry of National Economy of the Republic of Kazakhstan, thousand tons	Actual volumes of imports, thousand tons	The ratio of actual imports to declared volumes, %
2013	434,7	362,2	83,3
2014	413,0	326,2	79,0
2015	435,0	246,5	56,7
2016	405,0	350,1	86,4
2017	405,0	265,8	65,6
2018	370,0	238,4	64,4
2019	400,0	220,0	55,0

Source: according to the orders of the Minister of National Economy of the Republic of Kazakhstan on the approval of the quota for duty-free import of raw cane sugar into the Republic of Kazakhstan for the next year.

The state of sugar industry in Kazakhstan is at the initial stage of formation of own raw material base, that is, the creation of a modern organizational system for cultivation and processing of sugar beets. According to experts, this period will take 4-5 years, subject to the active public support and adoption of a number of protective measures aimed to support the domestic producer.

According to the President of the ALE "Kazakhstan Association of Sugar, Food and Processing Industry" A. Nauryzgaliyeva in 2010-2012 it was difficult for Kazakhstan's sugar industry to withstand competition with Russia and Belarus. By dumping low prices, Russian sugar suppliers "squeezed" domestic producers out of Kazakhstani market, and subsequently raised prices very high, as there was no competition [6].

There is a danger of a recurrence of this situation, since there is a surplus of white sugar in the Russian Federation. As of 2019, Russia produced more than 6.0 mln. tons of sugar from sugar beets in the 2019 harvest. In addition, Russia has 62 operating sugar factories that process 315.6 thous. tons of sugar beets per day.

Today, the production cost of sugar from sugar beets in Kazakhstan is, on average, at least 165-170 tenge per kilo, including VAT. The analysis shows that in terms of breakeven, Russian sugar plants are lower than Kazakhstani producers. This is the main reason for the low external and internal competitiveness of Kazakhstan sugar.

In the framework of the Concept for the implementation of the sectoral program for agricultural production development for 2018-2027, the share of sugar imports developed by the Ministry of Agriculture of the RK will be reduced from 90% to 10% in 2027. It is planned to build three new sugar plants with a capacity of 18 thous. tons per day; expansion and modernization of two existing plants with a total capacity of 5 thous. tons per day. The market capacity is 500 thous. tons of sugar per year [7].

The program plans to increase the cultivated area until 2027 from 21 thous. ha to 70.8 thous. ha compared with 2019, respectively, the gross harvest from 485.5 thous. tons up to 3330 thous. tons. The share of beet sugar of their domestic raw materials in domestic consumption will increase from 12% (2019) to 77% by 2027.

In addition, it is planned to build 3 new sugar factories (Zhambyl, North Kazakhstan, Pavlodar regions) with a capacity of 18 thous. tons per day, expand and modernize 2 existing plants with a total capacity of 5 thous. tons per day. The market capacity is 500 thous. tons of sugar per year.

The size of investment subsidies for the purchase of specialized equipment will increase by 10% at the expense of the local budget. Investment subsidies for the construction of factories will be at the level of 23%, subsidizing the rate on working capital will increase to 10%. The subsidization of agricultural producers for a ton of sugar beets for processing will continue. For sugar factories, 70% VAT incentives will be introduced.

The program implementation plan takes place in 3 stages: 1 stage for 2018-2021 (seed supply, increased productivity in the Southern regions, experimental cultivation of sugar beets in the Northern regions, technical renewal, training of farmers, attracting investors for the construction of new plants, technical regulation, regulatory support); Stage 2 for 2022-2024 (introduction of new production facilities, development of anchor cooperation, development of processing of by-products (beet pulp and molasses), creation of conditions for the storage of finished and by-products, creation of beet reception centers within a radius of 50-100 km from the sugar factory; Stage 3 for 2025-2027 (decrease in import dependence, sugar production mainly from domestic raw materials, supply of domestic market, use of domestic resources for the partial replacement of sugar with sugar substitutes for industrial processors; increase consumption of honey by the population to ensure the health of the nation)

In connection with dumping in the sugar market, on the part of Russian producers, it is necessary to consider the possibility of supporting local sugar producers by taking the following measures:

- introduction of barrage customs duties in the amount of at least 5% for white sugar imported from the EAEU countries for a period of up to 5 years (up to 2024);
- introduction of quotas for a volume of not more than 50,000 tons for sugar imports from the Russian Federation and establishment of a minimum selling price on domestic market;
- subsidizing purchases of locally produced sugar;
- a ban on the purchase of sugar for State needs not from local producers.

–provision of space for sugar plants for growing sugar beets following the example of developed agricultural countries.

We believe that the implementation of these measures will significantly increase the level of competitiveness of Kazakhstan sugar producers and ensure equal conditions for competition with Belarusian and Russian sugar factories [8].

Public support for sugar production in Kazakhstan over 10 years (2018-2027) should amount to investments - 536,664 mln. tenge, subsidies 122,720 mln. tenge, total 659,392 mln. tenge.

The share of seeds in the investment structure will be 7.1%, mineral fertilizers - 4.9%, the purchase of agricultural machinery - 6.2%, the construction of sugar factories - 22.4%, the subsidizing of the interest rate for replenishing working capital - 46.1%, subsidies per ton of sugar beet - 13.3%.

Conclusion. Thus, the discovered reserves, developed proposals for sugar market development in Kazakhstan enhance its operation on the basis of a systematic regulatory mechanism, develop intersectoral and inter-farm relations from production of raw materials to the sugar sales, which ultimately will positively affect cost reduction of sugar beet production and consumer satisfaction demand. Income from sugar sales, determined between the participants in production process of sugar market in accordance with regulatory and material costs, will ensure the level of profitability for producers, processors and wholesalers, respectively, 45.4, 40.1 and 14.5%.

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ҚАЗАҚСТАНДАҒЫ ҚАНТ ҚЫЗЫЛШАСЫНЫҢ ӨНДІРІСІ: МӘСЕЛЕЛЕРІ, РЕЗЕРВТЕР МЕН БАСЫМДЫҚТАРЫ

Аннотация. Табиғи-климаттық жағдайларға байланысты Қазақстандағы қант қызылшасы қант өндіру үшін жалғыз отандық шикізат болып табылады, сондай-ақ жемдік дақыл ретінде құнды болып табылады. Қазақстанның қызылша шаруашылығын өркендетудің әлеуетті мүмкіндіктері бар: қолайлы табиғи-климаттық жағдайлар, қызылшаға пайдалы жерлер, су көздері. Өткен жылдары қант қызылшасын өсіру тәжірибесі республикада сулы жерлерде кемінде 400 ц/га және құрғақ жерлерде - 200-250 ц/га тұрақты өнім алу мүмкіндігін көрсетті.

Қазақстанның аграрлық азық-түлік саясатының басым бағыты азық-түлік қауіпсіздігі және халықты әлеуметтік қорғау мәселелерін шешу болып табылады. Бұл ретте негізгі құрал – құрамына қант нарығы кіретін тиімді аграрлық азық-түлік нарығын қалыптастыру.

Қант - стратегиялық маңызы бар өнім, күнделікті сұраныс тауары маркетинг бағдарламасына қосымша шығындарды талап етпейді, баға бойынша үйлесімсіз. Шикізаттың екі түрінен өндіріледі: қызылша және импортталатын қант шикізаты.

Қант нарығында ресейлік өндірушілер тарапынан демпингке байланысты келесі шараларды қабылдау жолымен жергілікті қант өндірушілерді қолдау мүмкіндігін қарастыру қажет:

–ЕАЭО елдерінен әкелінетін 5 жылға дейінгі мерзімге (2024 ғ-ға дейін) ақ қантқа 5%-дан кем емес мөлшерде тосқауыл кедендік баж салығын енгізу);

–Ресей Федерациясынан қант импортына 50 000 тоннадан аспайтын көлемге квоталар енгізу және ішкі нарықта сатудың ең төменгі бағасын белгілеу;

– жергілікті өндірістегі қант сатып алуды субсидиялау;

– жергілікті емес өндірушілерден мемлекет мұқтажы үшін қант сатып алуға тыйым салу.

– агроөнеркәсібі дамыған елдерің үлгісі бойынша қант қызылшасын өсіруге қант зауыттарына алаңдар ұсыну.

Аталған шараларды іске асыру қазақстандық қант өндірушілердің бәсекеге қабілеттілік деңгейін айтарлықтай арттыруға мүмкіндік береді және Беларусь және Ресей қант зауыттарымен тең бәсекелестік жағдайын қамтамасыз етеді деп ойлаймыз.

Қазақстанда қант өндірісін мемлекеттік қолдау 10 жыл ішінде (2018-2027 жж.) 536 664 млн теңге инвестицияны, субсидия 122 720 млн теңгені құрауы тиіс.

Инвестиция құрылымында тұқымдардың үлес салмағы 7,1%, минералдық тыңайтқыштардың – 4,9%, ауыл шаруашылығы техникасын сатып алу – 6,2%, қант зауыттарын салу – 22,4%, айналым қаражатын толықтыруға пайыздық мөлшерлемені субсидиялау – 46,1%, қант қызылшасының бір тоннасы үшін субсидиялар – 13,3% құрайды.

Осылайша, Қазақстанның қант нарығын дамыту бойынша ашылған резервтер мен әзірленген ұсыныстар оған жүйелік реттеуші тетіктің негізінде жұмыс істеуге, шикізат өндірісінен қантты сатуға дейінгі салааралық және шаруашылықаралық байланыстарды дамытуға мүмкіндік береді, бұл түпкі нәтижесінде қант қызылшасы өндірісі өнімінің құнын төмендетуге және тұтынушылық сұранысты қанағаттандыруға оң ықпал етеді. Нормативтік және материалдық шығындарға сәйкес қант нарығына қатысушылар арасында анықталатын қантты сатудан түскен табыс өндірушілерге, қайта өңдеушілерге және көтерме саудадағы рентабельділік деңгейін, тиісінше, 45,4; 40,1 және 14,5% - ды қамтамасыз етуге мүмкіндік береді.

Түйін сөздер: қант қызылшасы, өндіріс, шикізат, ресурстар, өзіндік құн, нарық, сұраныс, өнімді өткізу, азық-түлік өнеркәсібі, сауда ұйымдары.

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ПРОИЗВОДСТВО СВЕКЛОСАХАРНОГО ПРОИЗВОДСТВА В КАЗАХСТАНЕ: ПРОБЛЕМЫ, РЕЗЕРВЫ И ПРИОРИТЕТЫ

Аннотация. В силу природно-климатических условий сахарная свекла в Казахстане является единственным отечественным сырьем для производства сахара, а также представляет ценность как кормовая культура. Казахстан имеет потенциальные возможности возрождения свекловодства: благоприятные природно-климатические условия, свеклопригодные земли, водные источники. Опыт возделывания сахарной свеклы за истекшие годы показал, что в республике возможно получение устойчивых урожаев не менее 400 ц/га на поливе и 200-250 ц/га - на богаре.

Приоритетным направлением агропродовольственной политики Казахстана является решение проблемы продовольственной безопасности и социальной защиты населения. При этом ключевой инструмент – формирование эффективного агропродовольственного рынка, в состав которого входит и рынок сахара.

Сахар – продукт стратегического значения, товар повседневного спроса, не требует дополнительных затрат на программу маркетинга, неэластичен по цене. Производится из двух видов сырья: свеклы и импортируемого сахара-сырца.

В связи с демпингом на рынке сахара со стороны российских производителей необходимо рассмотреть возможность поддержки местных производителей сахара путем принятия следующих мер:

– введение заградительных таможенных пошлин в размере не менее 5% на сахар белый, ввозимый из стран ЕАЭС, сроком до 5 лет (до 2024 г.);

– введение квот на объем не более 50 000 тонн на импорт сахара из Российской Федерации и установление минимальной цены продаж на внутреннем рынке;

– субсидирование закупок сахара местного производства;

– запрет закупа сахара для государственных нужд не у местных производителей.

– предоставление площадей сахарным заводам под выращивание сахарной свеклы по примеру развитых агропромышленных стран.

Полагаем, что реализация перечисленных мер позволит существенно повысить уровень конкурентоспособности казахстанских производителей сахара и обеспечит равные условия конкуренции с белорусскими и российскими сахарными заводами.

Государственная поддержка производства сахара в Казахстане за 10 лет (2018-2027 гг.) должна составить 536 664 млн тенге инвестиций, субсидий – 122 720 млн тенге.

В структуре инвестиций удельный вес семян составит 7,1%, минеральных удобрений – 4,9%, покупка сельхозтехники – 6,2%, строительство сахарных заводов – 22,4%, субсидирование процентной ставки на пополнение оборотных средств – 46,1%, субсидии за тонну сахарной свеклы – 13,3%.

Таким образом, вскрытые резервы и разработанные предложения по развитию рынка сахара Казахстана позволяют функционировать ему на основе системного регулирующего механизма, развивать межотраслевые

и межхозяйственные связи от производства сырья до реализации сахара, что в конечном итоге будет положительно влиять на снижение стоимости продукции свеклосахарного производства и удовлетворение потребительского спроса. Доход от реализации сахара, определяемый между участниками рынка сахара в соответствии с нормативными и материальными затратами, позволит обеспечить уровень рентабельности производителям, переработчикам и оптовой торговли, соответственно, 45,4; 40,1 и 14,5 %.

Ключевые слова: сахарная свекла, производство, сырье, ресурсы, себестоимость, рынок, спрос, реализация продукции, пищевая промышленность, торговые организации.

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