

Improving the competitiveness of sugar production in Ukraine

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Abstract

The article considers the features of sugar production operation, its current state, as well as identifies ways to improve the competitiveness of the product.

Keywords: competitiveness, sugar, production, efficiency

1 Introduction

In current market conditions, the operation of sugar factories requires a comprehensive study, as well as the development of ways to increase the level of products competitiveness.

The current state of the agro-industrial complex, unstable political situation as a whole, tax and credit system imperfection, pricing miscalculations, insufficient state support and domestic market insecurity from the expansion of raw sugar importers, unstable financial condition of most agricultural enterprises have led to a decline in sugar production. The reduction of sown areas, low sugar beet yields have led to a production volumes decrease and over the past few years have turned Ukraine from the largest exporter in Europe to a sugar importer

2 Main part

Product competitiveness is a combination of quality and cost characteristics of a product that provides advantages in meeting the needs of customers compared to similar products on the market in a competitive environment [2].

In beet sugar production, there are various forms of competition. So, sugar beet producers have perfect competition; state sugar market - monopoly; individual sugar factories and agricultural holdings - monopolistic competition, with possible conspiracies of individual producers - oligopoly [1].

In the world, two types of raw materials are used to produce sugar: sugar beets and sugar cane. At present, cane sugar production dominates taking about 65% in 71 countries. Sugar cane is simple to cultivate, can be grown on the same field for about seven years and can be harvested 2 times a year. The sugar content in sugar beets is about 16-20%, and in sugar cane it is 12 - 15%. But the yield of sugar cane can reach 60 tonnes per 1 hectare, while for beets it is not more than 35 tonnes / ha.

Due to the higher yield of cane compared with sugar beets, the cost of sugar from it is three times lower than from beet. Therefore, the product competitiveness of Ukrainian sugar

factories is lower than of sugar producers in Asia. Because of the higher yield of cane compared to sugar beets, the cost of cane sugar is three times lower than the cost of beet sugar.

The competitiveness of beet sugar production directly depends on the technical and technological support of the industry, the availability of quality resources, compliance with growing technologies, a stable production process, the sale of finished products and other factors.

The current state of sugar beet production is characterized by a decrease in cultivated areas, sugar content fluctuations, a tendency to reduce the number of beet processing plants. Over the past 5 years, from 2015 to 2019, cultivated areas increased until 2017, then decreased. In 2015, 236.9 thousand hectares were planted with beets, in 2016 - 291.1 thousand hectares, and in 2017 - 311.3 thousand hectares, which is 74.4 thousand hectares more than in 2015. Further, a downward trend was observed: in 2018, 274.7 thousand hectares were sown, which was 36.6 thousand hectares less than the previous year, and in 2019, the cultivated area for sugar beets in Ukraine amounted to 218.7 thousand hectares, which is 92.6 thousand hectares less than in 2018.

In 2019, sugar beets were grown in 18 regions of Ukraine, with major concentration in 13 regions (more than 90%). The largest areas for this sweet culture were in the following areas [4]:

- Vinnytsya (44.8 thousand ha);
- Poltava (26.9 thousand ha);
- Khmelnytsky (27.2 thousand ha);
- Ternopil (22.9 thousand ha).

In 2019, 33 sugar factories processed sugar beets (in 2018 – 42 plants; in 2017 – 46 plants). In 2019, there were the smallest number of plants for the years of Ukraine's Independence, with the previous record of 36 enterprises in 2015. The number of enterprises of the industry tends to reduce, but, apparently, this is a global trend, because sugar factories are also closing in the EU countries.

Sugar beet yield amounted to 44.4 tonnes per hectare in 2019 on average in the country, which is 6.3 t / ha less than in 2018 (50.8 t / ha) [3].

The problem of energy consumption and energy conservation has become particularly important for sugar industry. Now in Ukraine, an average of 35 cubic meters of gas are consumed to process 1 tonne of beets, while European plants use 12 cubic meters. Only a few plants switched to biofuels of their own production, which allowed to minimize the consumption of natural gas. It is also very important to make the quality of sugar produced in Ukraine meet international standards.

According to such indicators as humidity, content of ferro-impurities, color domestic sugar cannot be considered as export goods to these countries. An important component of increasing the competitiveness of Ukrainian sugar industry enterprises is the expansion of the product range. Sugar factories are able to produce crystalline white sugar, sucrose, refined sugar, pressed sugar, natural sugar (yellow), iced sugar, icing sugar, liquid sugar, liquid sugar with flavorings. Regulatory documents (GOST, TU and others) have been developed for these products.

It should be noted that the assortment of sugar products in the world is diverse and continues to improve depending on the specific needs of consumers.

The production of new types of sugar based on crystalline sugar - special sugars, sugars with additives - is expanding abroad, the number of varieties of crystalline sugar, and the production of sugar products from non-traditional types of raw materials are increasing.

The demand for organic sugar is growing from year to year in developed countries, but in Ukraine, only in 2018, for the first time Deddens Agro company (Rivne region) manufactured organic sugar from organic sugar beets in

Gnidava sugar refinery. Sugar production was certified by the national certification body "Organic Standard". Sugar volumes amounted to 850 tonnes, 800 of which were bought by a Dutch company, and the other 50 tonnes were sold on the domestic market.

The competitiveness of the Ukrainian sugar market is, first of all, the correspondence of market demand to quality, economic, technical and regulatory parameters.

Economic parameters characterize production efficiency, analyze the costs of production and purchase of goods, technical ones create an effect from the consumption of goods, regulatory ones are regulated by mandatory standards, deviation from which indicates inconsistency of product quality.

Sugar production in Ukraine will be competitive when the revenue from the sale of sugar on the international market exceeds the total cost of its production, estimated at world prices. Moreover, when assessing the actual economic costs of sugar production, the depreciation of equipment at these plants should be taken into account.

3 Conclusions

To ensure the competitiveness of beet sugar production it is necessary to develop a comprehensive state program of effective measures that will provide the relevant legislative and regulatory mechanisms for the development of beet sugar production, taking into account global trends. Improving the competitiveness of Ukrainian sugar is of great importance for the Ukrainian economy.

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