

THE EFFICIENCY OF SUGAR BEET PRODUCTION

Sugar beet is a unique high-performance and high-yield crop, a great predecessor in the rotation for the next crop, which is able to increase productivity, such as barley, 40%. Sugar beet affect the environment, twice-four times more efficiently use the moisture in comparison with cereals, vegetables and alfalfa-only 200 l per 1 kg of dry matter, four times more isolated in the atmosphere of oxygen than 1 ha of mixed forest, and at the same time absorb more carbon dioxide, can give high yields with a minimum dose of nitrogen fertilizer.

However, the most important problem at the present stage of development of sugar beet in Ukraine is not a description of the usefulness of the cultivation of sugar beet crops, and the violation of problems associated with enhancing its profitability, strengthening the economy of beet sugar production in the current favorable conditions, the price situation on the world sugar market.

In Ukraine under the current circumstances, with a yield of 40 t/ha and the purchase price 2010 461 UAH/ton 1 hectare of sugar beet can bring 18.4 thousand UAH cash receipts, and taking into account by-products 22 thousand UAH at a cost of 1 ha 11308 UAH. Can make a profit of, respectively, 7,1 thousand UAH thousand UAH and 10.7 in the profitability of 63% and 95%. Incidentally, during the period of market transformations yield of sugar beet in Ukraine fell sharply. In the sugar sub-group of the AIC held a series of serious crises, which in 2001-2005 the average annual production of sugar was reduced three times compared to the last five years of Ukraine in the USSR (1986-1990), and for 2006-2010 is 2.8 times and amounted respectively to 1.63 and 1.75 million tons of Economic efficiency of sugar beet to 2009 and 2010 was very low (table. 1).

Table 1

The indices of sugar beet production in Ukraine for the period 2001-2011 years

<i>Indicators</i>	<i>Unit</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010*</i>
Acreeage	thousand hectares	853	763	666	697	624	787	578	377	320	495
Yield	t/ha	18,3	18,9	20,1	23,8	24,8	28,5	29,4	35,6	31,5	30,0
The sugar content	%	15,17	14,50	15,70	15,00	16,63	15,78	15,02	16,05	16,68	15,3
The profitability of sugar beet	%	1,5	-8,6	6,2	-0,8	4,8	11,1	-11,1	7,1	37,0	33,0
Production of sugar	MT	1,66	1,43	1,46	1,79	1,9	2,6	1,9	1,57	1,27	1,55

Sugar beet production is quite complex and specific, it is most material-, energy-and labor-intensive («heavy industry in the village»), with unique technology and seasonality of production processes that require a high level of equipment and technology of beet, and it requires from employees of the industry is quite high responsibility and qualifications. Therefore, the dismissal during the crisis of highly skilled professionals with companies is another reason for the decline of the industry.

The reasons of the agricultural sluggishness, you must search the itself. They are, above all, in ignoring the achievements of scientific-technical progress in the slow development of advanced bioadaptive technologies, disregard for the requirements of scientifically-based crop rotations, in the pursuit of quick profit. Oddly enough, brake in this problem there are a number of large holdings, which were fond of high-yield crops – sunflower, canola, soy, etc., animal husbandry, and sugar plants deprived

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of the rights of agribusiness, cultivation and use of seeds of domestic selection, and the result – prospects for development. A universal transition in a foreign equipment, seeds and chemical materials generally puts an end to the development of domestic material-technical base of the industry. Yes, in many ways, we lag behind the West, but using our own, proven over the years, science and technology can free to yield 40-50 t/ha and more, and much cheaper than using foreign models.

For example, domestic sugar beet hybrids Ukrainian MC72, MC90 Umansky and Umansky MC97 within three years of varietal trials in the Republic of Belarus has shown steady yield from 700 to 950 kg/ha, sugar yield – 12-14 t/ha.

Better environment than the one that formed the global and domestic markets for sugar, we hardly wait. So use the price boom to increase the profitability of sugar beet production in Ukraine is essential. Economic efficiency of such work can be quite high. For example, estimates possible of the profitability of production of 1 ha of sugar beet in conditions of 2011 at the purchase price of 1 ton that has developed in 2010 (see table. 2 and schedule).

Table 2

The estimated level of profitability of sugar beet production in 2014

Yield, t/ha	The cost 1 ha	Cost, 1T, UAH	Revenue, UAH/ha	Profit, UAH/ha	The level of profitability%
20	7200	360,10	9220	2020	28
30	9818	327,30	13830	4012	40
40	11307	271,83	18440	7133	63
50	12630	252,60	23050	10420	82
60	13539	225,70	27660	14121	104

As illustrated in the table and graph metrics, such thing as a «break-even point for sugar beet», is calculated annually at low prices and yield, no longer exists. Even the harvest of 20 tonnes will generate more than 2 thousand UAH profit per hectare and will provide the level of profitability of 28%. And with yields of 50 and 60 t/ha culture becomes very profitable. In addition, there is monetary support from the state budget. However, some manufacturers who use foreign seeds, equipment and means of protection, determining the level of costs per 1 ha are much higher – in the amount of 13 thousand UAH. In accordance with the classical routing it to happen. However, only one transition to the seeds of domestic hybrids will have a savings of 1200 UAH/ha, or 30 UAH/t of roots. A further 1000 UAH/ha can reduce costs through the use of elements biadaptive technology-the incorporation of crop residues instead of manure, the transition to fractional application of herbicides, selection of the best predecessors, removing redundant operations, improving the quality of work and compliance with optimal timing. To achieve good results in beet production is not quite easy, but is vital as the interest of foreign investors to the Ukrainian sugar beet production is growing every day. Already today they are ready to buy an old non-functional sugar factories.

Literature.

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