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INDICATORS OF FOREIGN MARC HYBRIDS. EFFICIENCY OF THE RESULTS OF THE ECONOMIC ANALYSIS ON THE INFLUENCE OF STUD THICKNESS ON THE YIELD OF THE UZBEKISTAN-2018 VARIETIES

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Abstract. Cattle breeding is the leading branch of animal husbandry in Uzbekistan, playing an important role in providing the population with high-quality food products such as milk and meat. The daily needs of livestock for the production of these products, that is, the main part of the feed base, is 65-70% of corn silage and grain. This naturally increases the demand for scientific and practical work on the development of a high-yielding and climate-resistant corn plant in our country and in the world.

Keywords: Corn variety 2018, livestock, vegetation, silage, feed base, yield, crop.

Annotatsiya. O‘zbekistonda qoramolchilik chorvachilikning yetakchi tarmog‘i hisoblanib, aholini sifatli oziq-ovqat mahsulotlari sut va go‘sht bilan ta’minlashda muhim o‘rin tutadi. Bu mahsulotlarni ishlab chiqarish uchun chorva mollarining kunlik ehtiyojini ya’ni ozuqa bazasining asosiy qismi 65-70 %ni makkajo‘xori silosi va doni tashkil etmoqda. Bu esa tabiiy holda mamlakatimizda, balki dunyoda iqlim sharoitlariga chidamli va serhosil makkajo‘xori o‘simligida ilmiy va amaliy ishlar olib borishga talab ortib bormoqda.

Kalit so‘zlar. Makkajo‘xori-2018 navi, chorvachilik, vegetatsiya, silos, ozuqa bazasi, hosildorlik, ekin.

Corn hybrids created abroad are also being cultivated and registered in the state register. Below is brief information about some corn hybrids created abroad.

BORJA G'1. A Spanish state selection hybrid. Included in the State Register for the Republic since 2011. Plant height is on average 250-270 cm. The average weight of 1000 seeds is 278.0 g. The vegetation period is on average 92 days. Resistant to lodging. Suitable for mechanical harvesting. The average yield is 55.9 c / ha for grain in repeated periods. The nutritional quality of the hybrid is good. Grain yield 77.9 %. No cases of diseases and insect infestations were observed during the test years.

VECITA (BT 6470). A Turkish state breeding hybrid. Included in the State Register for the Republic since 2017. Plant height on average 251-275 cm. Average weight of 1000 seeds is 290.0 g. Vegetation period on average 95-118 days. Resistant to lodging. Suitable for mechanical harvesting. Average yield 62.5 t/ha. The nutritional quality of the hybrid is good. Grain yield 84.0 %. No cases of diseases and insect infestations were observed during the test years.

DELITOP G'1. A hybrid of the Netherlands. Since 2015, it has been included in the State Register for the regions of Andijan, Jizzakh, Kashkadarya, Namangan, Samarkand, Surkhandarya, Syrdarya, Tashkent, Fergana. The average plant height is 208-308 cm. The weight of 1000 seeds is 280.0-369.0 g. The vegetation period is 90-111 days on average. The hybrid is resistant to lodging. Suitable for mechanical harvesting. Average yield is 48.8-90.0 t / ha. Grain yield is 80.0%. No cases of diseases and insect infestation were observed during the test years.

NS 205. Serbian state selection hybrid. Included in the State Register of the Republic since 2012. Simple hybrid. Plant height 200-280 cm. Stem strong. Average weight of 1000 grains 295.0-310.0 g. Early ripening. Vegetation period is 100 days on average. The hybrid is resistant to lodging - 5.0 points. Suitable for mechanical harvesting. Average yield 47.7 t/ha. Good eating

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quality. Grain yield 80.0%. No cases of diseases and insect damage were observed during the test years.

Hajibey (HACIBEY 9516). The hybrid of the Akdeniz Tohum seed company, Bursa province, Republic of Turkey, has been included in the State Register of our Republic since 2023. Hybrid. The vegetation period for silage is on average 87-91 days. The vegetation period for grain is 120-130 days, the average silage yield is 500-800 t/ha, the grain yield is 100-150 t/ha. Plant height is 320-380 cm. The average weight of 1000 grains is 280-320 g. The stem is strong, resistant to lodging - 5.0 points. Suitable for mechanical harvesting. Good feed quality. It is possible to harvest for silage twice a year. The average grain content is 9.6% protein, 58.3% starch, 1.8% sugar and 5.59% fat. No diseases or insect infestations were observed during the test years. Hybrid corn is considered a particularly nutritious silage crop for livestock.

The foreign hybrids of the above-mentioned maize were not planted and studied, some valuable economic characteristics mentioned in the variety description were obtained, and the average indicators such as the vegetation period until full grain ripening, plant stem height, 1000-seed weight and grain yield obtained as a result of the studies conducted on the newly created Uzbekistan-2018 maize variety were compared and studied, and the results are presented in Table-1 below (see Table-1).

From the results of the analysis and the data presented in the table above, we can see that all foreign hybrids were superior in terms of the vegetation period; it was superior to all foreign hybrids in terms of stem height; it had almost the same indicators as all foreign hybrids in terms of 1000-seed weight; and it had a higher indicator than all hybrids in terms of grain yield.

Table-1

Indicators of valuable economic traits of foreign corn hybrids and the newly created Uzbekistan-2018 variety

Name of variety	Where created	Vegetation period, days	Stem height, sm	1000 seed weight, g	Grain yield, s/ha
BORJA G‘1.	Spain	92	250-270	278,0	55,9
VECHITA (BT 6470)	Turkey	95-118	251-275	290,0	62,5
DELITOP G‘1	Netherlands	90-111	208-308	280-369	49-90
NS 205	Serbia	100	200-280	295-310	47,7
Xajibey (HACIBEY 9516)	Turkey	90-120	318-380	290-310	100-150
Uzbekistan-2018	Uzbekistan	90-121	320-380	280-320	100-120

The effectiveness of the results of the economic analysis of the research results

It is known that the advantages of agrotechnical processes used in the cultivation of agricultural crops, including corn, are expressed in the economic efficiency indicator. Economic efficiency indicators are calculated in relation to the volume, quality of the product and the amount of costs incurred for its production.

The economic efficiency of planting the new “Uzbekistan-2018” corn variety for grain at various planting densities was analyzed, and the results of the analysis are presented in Table-2 below. In this case, the planting rate of 60 thousand bushes/ha was taken as the control. It can be seen from the table that when planting at a seedling density of 70 thousand bushes/ha, additional net income increased compared to the control. It was determined that the additional net income compared to the control was 1349.2 thousand soums/ha when planting at a seedling density of 65 thousand bushes/ha, and 3745.5 thousand soums/ha when planting at a seedling density of 70 thousand bushes/ha.

Table-2

Economic efficiency of planting corn for grain at various planting depths

pISSN:2349-5707 Volume:12,Issue 11,November-2025 eISSN:2349-5715

Variants, indicators	60000 bushels	65000 bushels	70000 bushels	75000 bushels	80000 bushels	85000 bushels
Grain yield indicators (s/ha)	103,8	107,4	113,8	106,9	103	100
Grain yield, percent	74,1	74,8	75,9	74,7	73,8	72,5
Net grain yield, s/ha	76,9	80,3	86,4	79,9	76	72,5
Yield relative to control, s/ha	-	3,4	9,5	2,9	-0,9	-4,4
Yield relative to control, percent	-	4,4	12,3	3,8	-1,2	-5,7
Cost of 1 s of grain, thousand soums	400	400	400	400	400	400
Income from grain yield per 1 ha, thousand soums	30766,3	32134,1	34549,7	31941,7	30405,6	29000
Costs of growing the crop thousand soums/ha	9000	9000	9000	9000	9000	9000
Cost of 1 kg of seed material thousand soums	15	15	15	15	15	15
Weight of 1000 seeds, gr	313	308	304,3	297,3	288,7	280,3
Consumable seed, kg	18,8	20	21,3	22,3	23,1	23,8
Cost of seed, thousand soums	282	300	319,5	334,5	346,5	357
Total costs, thousand soums	9282	9300	9319,5	9334,5	9346,5	9357
Net profit, thousand soums	21484,3	22834,1	25230,2	22607,3	21059,1	19643
Additional net income relative to control, thousand soum/ha	-	1349,8	3745,8	1122,9	-425,2	-1841,3
Profitability, percent	231,5	246,0	271,0	242,0	225,0	210,0

We can see from the table that the additional net income compared to the control was 1,122.6 thousand soums/ha when planted at a seedling density of 75 thousand bushes/ha, -425.5 thousand soums/ha when planted at a seedling density of 80 thousand bushes/ha, and -1,842 thousand soums/ha when planted at a seedling density of 85 thousand bushes/ha.

It can be concluded that the most economically effective option for planting the “Uzbekistan-2018” corn variety for grain is planting at a seedling density of 70 thousand bushes/ha.

In addition, the economic efficiency of planting the “Uzbekistan-2018” corn variety for green mass at different seedling densities was also analyzed, and the results of the analysis are presented in Table 4.3.2 below. In this case, the option planted at a seedling density of 75 thousand bushes/ha was taken as the control.

From the table data, it can be seen that when planting up to option 4 in terms of seedling density, i.e. up to a seedling density of 90 thousand bushes/ha, an additional net profit was observed compared to the control. Compared to the control, the additional net income was 426.4 thousand soums/ha in option 2, planted at a seedling density of 80 thousand bushes/ha, 757.2 thousand soums/ha in option 3, planted at a seedling density of 85 thousand bushes/ha, 952.2 thousand soums/ha in option 4, planted at a seedling density of 90 thousand bushes/ha, 370.3 thousand soums/ha in option 5, planted at a seedling density of 95 thousand bushes/ha, and the additional

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net income in option 6, planted at a seedling density of 100 thousand bushes/ha was -275.7 thousand soums/ha.

The additional net income compared to the control was observed to decrease starting from option 5, i.e. from the standard of 95 thousand bush/ha. The profitability level in cultivation for green mass was 304 percent when planted at a density of 75 thousand bush/ha, 309 percent when planted at a density of 80 thousand bush/ha, 313 percent when planted at a density of 85 thousand bush/ha, 315 percent when planted at a density of 90 thousand bush/ha, 306 percent when planted at a density of 95 thousand bush/ha, and 297 percent when planted at a density of 100 thousand bush/ha.

Therefore, it can be concluded that planting at a seedling density of 90 thousand plants/ha is the most economically efficient option for growing the "Uzbekistan-2018" corn variety for green mass

In conclusion, the state register of domestic and foreign varieties and hybrids of corn created in our republic and abroad, in which country or organization they were created, their most important valuable economic characteristics are described. The results of the analysis of the economic efficiency of the research results are presented. In this, analyses were carried out to determine the most economically effective planting density when planting the "Uzbekistan-2018" variety of corn for grain and green mass.

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