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SELECTION OF PROMISING VARIETIES OF WHITE CABBAGE FOR CULTIVATION IN RE-CULTURE

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Abstract

Among the 14 studied varieties of white cabbage, the yield of the Geant F1 hybrid, 130.4% of the Kozak F1 hybrid, and 135.4% of the W61-19 F1 hybrid when replanted is higher than that of the standard varieties Sharkiya-2 and Saratoni . Economic efficiency (70.9% in the standard variety) was 95.0% in the Geant F1 hybrid, 90.9% in the Kozak F1 hybrid, and 94.0% in the W61–19 F1 hybrid.

Keywords: Greant, white cabbage, Cultivation, hybrid.

Introduction

In our republic last in years of the population food safety provide vegetables products has been the need satisfy in order to cotton , grain and vegetable from crops free cultivation of additional products in the fields, village farm diversification make, land - water resources more reasonable use, export products Cultivation through farmer and farmer of farms income increase regarding wide scope implement reforms is increasing .

President by " Uzbekistan Republic village of the farm development for 2020-2030 intended strategy population employment provide according to set given priority tasks performance provide , plant husband from the fields efficient use , population food products has been demand guaranteed provision , village economy products of prices stability supply , export size increase also in 2022 from grain and tomorrow from crops loose to the fields repeated crops own in terms of planting , agricultural engineering events transfer , demand to be done material - resources delivery to give and cultivated the harvest own in time collect get, re work, reserve accumulation and for export orientation according to separately tasks set given

Food safety provide and is available irrigated from the fields efficient in use , repeated plant as white cabbage in cultivation efficient agricultural technologies supporting this plant productivity and gross product work release size increase demand is enough The world according to white Cabbage 2.82 million . per hectare more than on the field is being cultivated . Average productivity 29.4 tons per hectare and gross harvest 82.8 mln . tons organize [1] .

This about scientific based on technologies work to issue current reach through product size and productivity increase , irrigated from the fields efficient use and repeated from crops removable economic efficiency indicators high to be is provided .

Aqbosh cabbage has been demand satisfy in order to village economy work manufacturers for this crop repeated plant as Cultivation technology improvement in this the most acceptable planting duration of plants nutrition Fertilize the field and irrigation standards identify as well goods and fruitful variety and hybrids choose regarding studies current is considered

Cabbage high fruitful, various in deadlines and especially repeated in the crop to cultivate suitable varieties create and choice, cabbage productivity to increase directed agricultural engineer events improvement and mechanization issues according to research in the world authoritative scientific research centers and institutions , including Europe From 40 of the Union more than vegetable farming scientific research institutions in itself European vegetable research Institutes Network (EuVRIN), Beijing vegetable research center (BVRC, China), Research Institute of Vegetable Crops (Poland), All Russia vegetable growing scientific research _ Institute , Vegetables crops selection and seediness scientific research _ institute and Vegetable farming federal scientific center (Russia), Kazakhstan potato farming and vegetable growing scientific research Institute (KazNIIKO) [3] , Vegetable - polyz crops and potato farming scientific research _ Institute (Uzbekistan). is going.

Various in different regions soil climate conditions white cabbage Cultivation technologies improvement issues according to foreign countries N. N. Chernysheva, L. E. Soloveva , R. D. Almasker , A. S. Bolotskikh , S. V. Koroleva , S. V. Sitkinov, V. V. Skorina, V. F. Pivovarov, L. K. Gurkina, T. V. Lizgunova, V. A. Denisov, R. D. Almasker, I. D. Rajabli , N. B. Petrov , O. N. Vishnevskaya, A. F. Bukharov, L. I. Uralets, M. N. Shapturenko, V. N. Lukyanets, G. A. Kostenko, A.D. Djakhangirov, V. P. Kuzmishchev, G. F. Monaxos ; in our republic V. I. Zuev, O.Kadirkhojaev, B. J. Azimov , T. E. Ostanakulov, A. M. Abbasov, M. X. Aramov S.S. Lapasov, and another many and another many scientists by scientific studies take went. From the above come out white cabbage grain from crops free in the fields repeated in the crop Cultivation for promising varieties choose according to studies take we went

In the experiment white of cabbage different from the states 8 listed _ variety and hybrids and 6 _ local varieties Tashkent province meadow - gray soil conditions grain from the crop free in the fields evening in term repeated plant in case planting to try based on they are from among high and good quality harvest giving promising varieties choose done increased _

In the experiment, white cabbage "Saratoni" and Sharqiya-2 varieties were taken as standard. The experiment is non-reversible, each variety has 4 rows, the length of the egates is 10 m. Each variety was planted on 28 ^{m2} · Planting scheme 70x40 cm.

Standard cultivars were placed after every 6 cultivar samples.

The following phenological, biometric observations, measurements and calculations were carried out and analyzed at the experimental site:

In our experiments, 6 varieties of white cabbage and 8 varieties and hybrids belonging to foreign selections, which were created in different years in the State Register, were studied.

The standard "Saratoni" and "Sharqiya-2" varieties started harvesting cabbage in 34 days after transplanting. Compared to them, local varieties started harvesting cabbage 1-2 days earlier. Compared to the standard variety, this condition was observed 3–4 days earlier in the Dutch varieties. Among the French hybrids, Cup F_1 , Geant F_1 and Kozak F_1 are medium-sized , and the rest of the hybrids are medium-late.

Observations of the duration of the growth period of white cabbage varieties and hybrids

showed that it takes 100-120 days from germination of seedlings to harvesting in early varieties; It was 130-150 days for mid-ripening varieties and 170-180 days for late-ripening varieties. 55-65 days from the time of planting to the beginning of harvesting cabbage; 75-80 and 95-110 days . The duration of the growing season was the longest, i.e. 165 days, in the Dutch varieties "Sutra" and "Sudak". French Ranoqui F_1; In average late-breeding hybrids such as Brady F_1 and W61–19 F_1, this period lasted 154 days. In the remaining varieties and hybrids, this indicator was 147 days and they corresponded to the middle group.

The number of leaves per plant before harvest was in the range of 21.3 in standard cultivars. The rate equal to or slightly higher than standard varieties (96.2–107.0%) was observed in Tashkentskaya 10, Termez-2500, "Sud'ya Uzbekskiy", Kubok F_1, Geant F_1, Kozak F_1 and W61-19 F_1 hybrids. Compared to them, more (112.7–129.1%) leaves were formed in Sutra, Sudak varieties and Ranoki F_1, Brady F_1 hybrids.

At harvest, the standard "Saratoni" variety has a leaf length of 35.6 cm and a width of 34.4 cm. organized the Relatively smaller leaf (25.0–28.0 cm) W61–19 F_1; Brady F_1; Ranoki F_1; Kozak was observed in F_1 hybrids. The index of all the remaining variety samples was in the range of 32.1–39.2 cm.

Free leaves, root weight and outer core parameters were also studied in the experiment. The weight of free leaves in one bush was 1.19 kg in the standard Sharqiya-2 variety, a higher index (112.6-125.2%) was observed in "Geant F" $_1$, W61-19 F_1 and standard "Saratoni" variety. "Sudak"; Termez-2500 varieties and Kubok F_1 hybrids had indicators close to the standard Sharqiya-2 variety (109.2–97.5%); the lowest rate (56.3–68.1%) Brady F_1; It was observed in Ranoki F_1 and Kozak F_1 hybrids. It was in the range of 71.4-77.3 % in all the other variety samples.

Cabbage roots planted in the late period on fertile meadow-gray soils grew strongly and developed. In the standard Sharqiya-2 variety, the root weight of one plant was 105 g, and a similar value (111–114 g) was observed in Ranoki F_1 and Brady F_1 hybrids.

Compared to the standard Sharqiya-2 variety, the root weight is heavier (110.5–122.9%) in the Kamennaya golova and Termez-2500 varieties; Kozak F_1, Geant F_1 hybrids and Sutra variety are even higher (136.2–140.0%); Much higher (155.2–163.8%) in "Sudak", Tashkentskaya 10, "Sud'ya Uzbeksky" varieties and Kubok F_1 hybrid, and the highest rate (172.4%) was observed in the second standard "Saratoni" variety.

The studied variety was divided into small, medium and large groups according to the size and shape of the cabbage of the samples. The diameter of the middle part of the cut cabbage is 10–18 cm for small ones, 20–25 cm for medium ones and 25 cm for large ones. will be greater than .

Biometric indicators of white cabbage samples (2007–2010)

Variety samples	Cabbage height		Cabbage width diameter		Cabbage index		Cabbage shape
	cm	%	cm	%	cm	%	
Sutra	17.7	74.4	23.4	83.6	0.76	98.7	flat-round
Sudak	18.2	76.5	22.6	80.7	0.80	103.9	flat-round
Tashkentskaya 10	21.8	91.6	24.5	87.5	0.89	115.6	round
Termez-2500	20.3	85.3	23.3	83.2	0.87	113.0	round

Judge Uzbeksky	23.8	100.0	28.0	100.0	0.85	110.4	round
Stone head	22.0	92.4	26.4	94.3	0.83	107.8	round
Sharqiya-2 - st	21.5	90.3	28.0	100.0	0.77	100.0	flat-round
Cancer - st	21.8	91.6	27.7	98.9	0.79	102.6	flat-round
Cup F $_1$	19.1	80.3	22.6	80.7	0.85	110.4	round
Geant F $_1$	18.3	76.9	20.3	72.5	0.90	116.9	round
Kozak F $_1$	18.5	77.7	21.7	77.5	0.85	110.4	round
Ranoki F $_1$	17.8	74.8	20.6	73.6	0.86	111.7	round
Brady $_{F1}$	17.3	72.7	18.2	65.0	0.95	123.4	round
W61–19 F $_1$	20.7	87.0	22.8	81.4	0.91	118.2	round
$\overline{X}$	*19,914*		*23,578*	*0.84*	*0.84*	*109.1*	
€	*278.8*		*330.1*		*11.76*		

Cabbage shape index in round: 0.8–1.1; on flats: 0.4–0.7; in flat-round: 0.7–0.8; in cones: 1.1–1.4; in ovals: equal to 1.4–2.1. Var samples are flat (0.4–0.7); became conical (1.1–1.4) and oval (1.4–2.1). Flat-round shape (0.76–0.80) "Sutra"; "Sudak"; It was recorded in Termez-2500 and "Sud'ya Uzbeksky" varieties. The index of the remaining samples corresponded to 0.8–1.1, and they had a rounded shape.

Cabbage is small according to its size and density - 0.5-1.5 kg.; average – 1.5–2.5 kg. and large - 2.5 kg. weighs more than

Small (0.5–1.5 kg.) cabbage samples were not recorded among the samples of the studied variety of white cabbage. The rest belonged to the medium (1.5–2.5 kg.) and large (more than 2.5 kg.) head groups.

In standard "Saratoni" and Sharqiya-2 varieties, this indicator is 3.2 kg. was equal to The index somewhat close to them (90.6–103.1%) was observed in varieties and hybrids such as Tashkentskaya 10, Termez-2500, "Sud'ya Uzbekskiy", "Kamennaya golova", Kubok F $_1$, Ranoki F $_1$. Large cabbage weight (121.9–128.1%) Geant F $_1$ compared to the standard "Saratoni" variety ; Kozak was observed in F $_1$ and W61–19 F $_1$ hybrids.

Cabbage weight and yield of white cabbage variety samples (2007-2010)

Variety samples	**Cabbage weight**		**Productivity, t/ha**				
	kg	**compared to the standard , %**	**2007**	**2008**	**2009**	**2010**	**average**
Sutra	2.1	65.6	64.0	65.6	70.4	68.8	67.2
Sudak	2.3	71.9	72.0	67.2	78.4	80.0	74.4
Tashkentskaya 10	2.9	90.6	89.9	88.4	74.4	86.8	84.9
Termez-2500	3.3	103.1	99.2	88.5	93.0	86.8	91.9
Judge Uzbeksky	2.9	90.6	89.3	99.2	68.2	93.0	87.4
Stone head	2.9	90.6	82.5	89.0	86.8	80.6	84.7
Sharqiya-2 - st	3.2	100.0	96.3	99.2	99.2	93.0	96.9
Cancer - st	3.2	100.0	94.4	96.0	99.2	93.0	95.7

Cup F 1	3.1	96.9	81.0	112.0	96.0	105.6	98.7
Geant F 1	4.1	128.1	108.8	140.8	128.0	147.2	131.2
Kozak F 1	3.9	121.9	102.4	128.0	128.0	140.8	124.8
Ranoki F 1	2.9	90.6	89.6	83.2	96.0	102.4	92.8
Brady F1	2.7	84.4	83.2	76.6	89.6	96.0	86.4
W61–19 F 1	4.1	128.1	121.6	128.0	128.0	140.8	129.6
EKMT 05			*2.1*	*1.8*	*3.9*	*3.6*	*2.85*
S x̄ %			*1.7*	*2.1*	*2.3*	*3.3*	*2.35*

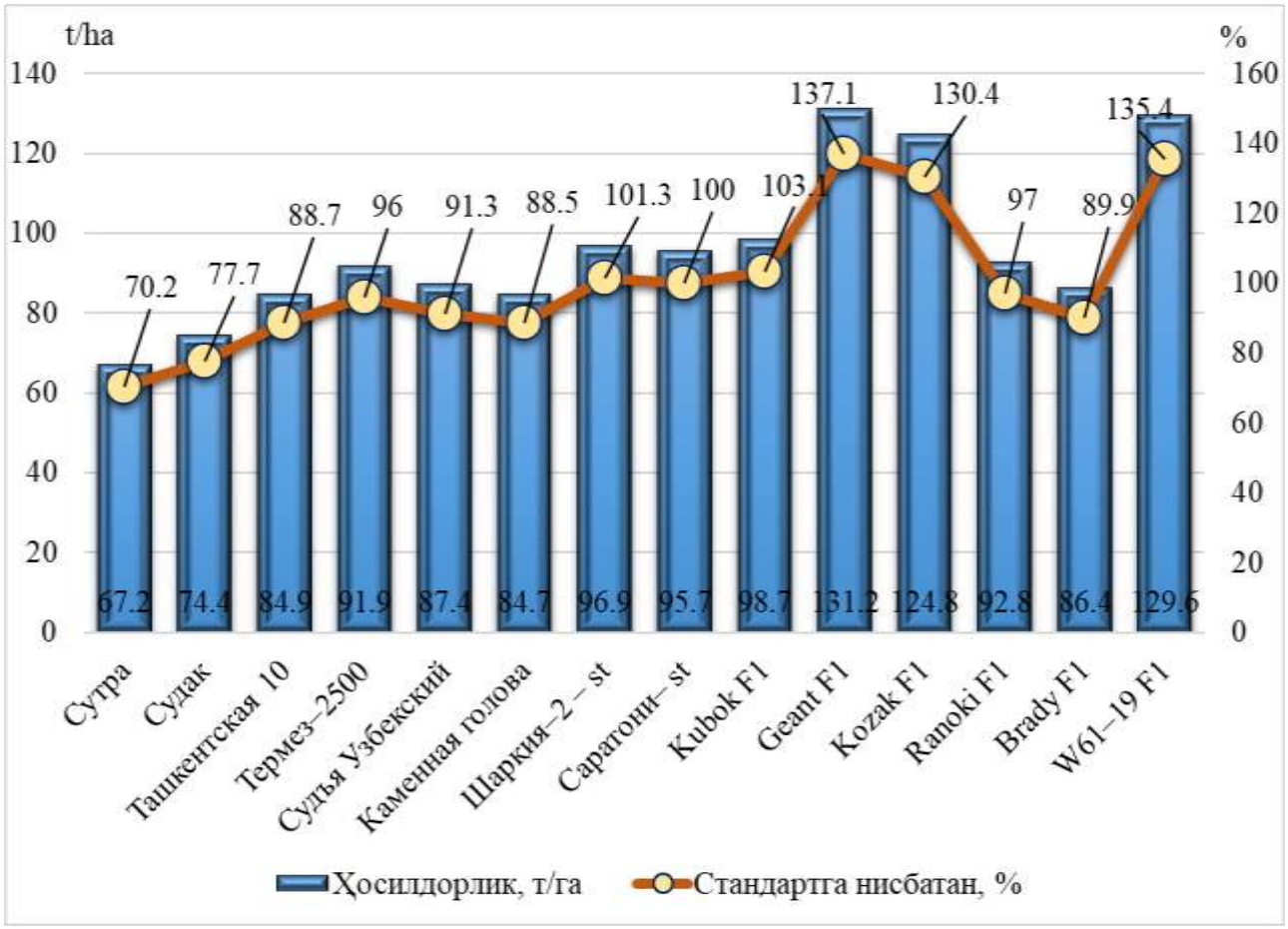

Figure 1. Differentiation of white cabbage variety samples by yield, 2007–2010

(2007-2010) the average yield was 95.7 t/ha in the standard variety "Saratoni" and 96.9 t/ha in the standard variety Sharqiya-2. Compared to standard varieties, productivity is close (87.4–98.7 t/ha) Sharqiya-2; Termez-2500", "Sud'ya Uzbeksky" varieties and "Cup F 1 ; Ranoki F 1 ; Brady in F 1 hybrids; low yield (67.2–86.4 t/ha) was observed in varieties "Sutra", "Sudak", Tashkentskaya 10, Kamennaya Golova. 130.4-137.1 percent higher yield compared to the standard "Saratoni" variety was obtained in "Geant F 1 " , Kozak F 1 and W61-19 F 1 hybrids. Yields of low-yielding varieties and high-yielding hybrids differed by 1.65–1.95 times.

In the late term, when the economic efficiency of the cultivation of white cabbage varieties in the repeated crop was determined, the cost of the product decreased as the yield per hectare increased. The rate of profitability was 70.9 percent in the standard Sharqiya-2 variety, and the indicator of the remaining hybrids was in the high range of 95.0–90.9 and 94.0%. Kozak F 1 of

white cabbage in a repeated crop ; Cultivation of Geant F 1 and W61–19 F 1 hybrids showed high yield per hectare, low product cost and high production efficiency (95.0–90.9–94.0%).

Conclusion

The 14 cultivars studied in repeated crop cultivation of white cabbage , Geant compared to s tandart Sharqiya-2 and Saratoni varieties 137.1% in the F 1 hybrid; Cossack 130.4% in the F 1 hybrid and 135.4 % in the W 61–19 F 1 hybrid, yield of economic efficiency (70.9% in the standard variety), 95.0% in the GeantF 1 hybrid; It was 90.9% in the KozakF 1 hybrid and 94.0% in the "W61–19" F 1 hybrid.

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