



## Selection of Variety Samples on the Period of Performance Indicators of Beijing Cabbage in the Early Planting Period

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**Annotation:** The article highlights the valuable economic characteristics of Beijing cabbage lines selected from 42 variety samples from all over the world collections.

In the soil and climatic conditions of the central region of Uzbekistan, the article describes the acclimatization of 14 selected varieties of Beijing cabbage from more than 42 collections of Beijing cabbage imported from foreign countries, and valuable economic characteristics were studied and determined.

**Keywords:** variety, hybrid, cabbage head, yield, variety samples, leaf, leaf surface, cabbage weight.

**Introduction.** In recent years, extensive measures have been implemented in our republic to ensure population food safety, fully satisfy the need for vegetable products, and expand the assortment of vegetable products. However, productive local varieties and hybrids of non-traditional vegetable crops, such as the newly introduced Beijing cabbage, have not been created, and scientific research on agrotechnology of cultivation has not been carried out enough.

In accordance with the 30th goal of the Decree of the President of the Republic of Uzbekistan "On the development strategy of the new Uzbekistan for 2022-2026", the national program for the development of fruit and vegetable growing, seed and seedling cultivation has been implemented. Increase is defined as one of the important strategic tasks. Due to the lack of fundamental scientific and research work on the creation of new local high-yielding varieties of Chinese cabbage in Uzbekistan, the creation of local high-yielding varieties and hybrids suitable for different soil-climatic conditions of our Republic, the implementation of seed production and the main agrotechnologies of their cultivation development of elements is one of the important and urgent tasks of today's vegetable growing industry.

**Experience methods.** Conducting field experiments "Methodology of the State variety testing of agricultural crops" (Moscow, 1975), "Studying and maintaining the world's cabbage collection" (VIR, 1988), B.J.Azimov., B.B.Azimov's "Methodology of conducting experiments in vegetable growing, rice growing and potato growing" on the basis of methodological manuals, it was conducted in the training field of the Extension Center of Agricultural Information and Consultation under the Tashkent State Agrarian University. [1; 2; 3; 4; 5; 6; 8; 9; 10; 11; 12; 13; 14; 14; 16; 17; 18.].

**Experimental results.** Among the 42 varieties of Beijing cabbage that were studied in terms of yield characteristics, 15 of them had high indicators compared to the standard in terms of yield and the size of the head of cabbage. The highest indicators are k-222 "Santoh Round" (Japan); k-223 "Kuriharachshantun" (Japan); k-233 "Si-Hu Late" (Taiwan); k-241 "Nozaki no. 1" (Japan) and k-244 "Chee-Hoo" (Japan) varieties yield and weight of cabbage heads were 30.2-42.5 t/ha and 0.85-1.4 kg. This indicator is 5.5-17.8 t/ha and 0.30-0.85 kg productive and large compared to the average control variety. including k-59 "Ming" (Sweden); k-217 "Chu Tung Pai" (China); k-221 "Giant Santoh" (Japan); k-226 "76 M(1)-4" (Taiwan); k-238 "Kyoto No. 2" (Japan); k-242 "Chitose Giant" (Japan); K-243 "Wong Bok" (Japan) and K-245 "77M(3)-35" (Taiwan) yield 26.4-29.2 t/ha and 0.57-0.70 kg and cabbage head weight was determined. Compared to the control variety, it was 1.7-4.5 t/ha and 0.02-0.15 kg higher.

Only one variety k-238 "Kyoto No. 2" (Japan) was found to have almost the same results as the sample (0.60 kg and 25 t/ha). When determining the productive ridges from the samples of 41 varieties, the ridges with a higher yield (0.55 and 24.7 t/ha) than the model Khybinskaya variety were selected (Table 1).

According to productivity characteristics, 15 high-yielding and large cabbage heads were selected from the total of 41 variety samples, including the following K-59 "Ming" (Sweden); k-217 "Chu Tung Pai" (China); k-221 "Giant Santoh" (Japan); k-222 "Santoh Round" (Japan); k-223 "Kuriharachshantun" (Japan); k-226 "76 M(1)-4" (Taiwan); k-228 "77M(3)-38" (Taiwan); k-232 "BP79" (China); k-233 "Si-Hu Late" (Taiwan); k-238 "Kyoto No. 2" (Japan); k-241 "Nozaki no. 1" (Japan); k-242 "Chitose Giant" (Japan); k-243 "Wong Bok" (Japan); k-244 "Chee-Hoo" (Japan) and k-245 "77M(3)-35" (Taiwan) were selected for use in sample selection.

**Table 1. Valuable economic characteristics of the samples selected according to the productivity indicator (2012-2014)**

Catalog no	Sample name	Origin	Growing period, day	The number of seedlings wrapped in cabbage heads, pcs	Cabbage head weight, kg	Total yield, t/ha	Product yield, %
k-54	Xibinskaya, St	Uzbekistan	103	44,9	0,55	24,7	80,2
k-59	Ming	Sweden	116	33,1	0,86	28,5	69,2
k-217	Chu Tung Pai	China	116	40,7	0,65	26,5	76
k-221	Giant Santoh	Japan	120	41,7	0,65	27,1	85,2
k-222	Santoh Round	Japan	115	35,5	0,85	30,2	78,6
k-223	Kuriharacshantun	Japan	120	28,5	1,2	34,2	75,8
k-226	76M(1)-4	Taiwan	128	40,7	0,65	26,5	86,2
k-228	77M(3)-38	Taiwan	106	41,6	0,60	25,0	69,2
k-232	BP79	China	115	30,3	1,4	42,5	65,3
k-233	Si-Hu Late	Taiwan	125	44,1	0,82	36,2	81,3
k-238	Kyoto No.2	Japan	112	41,6	0,65	27,1	76

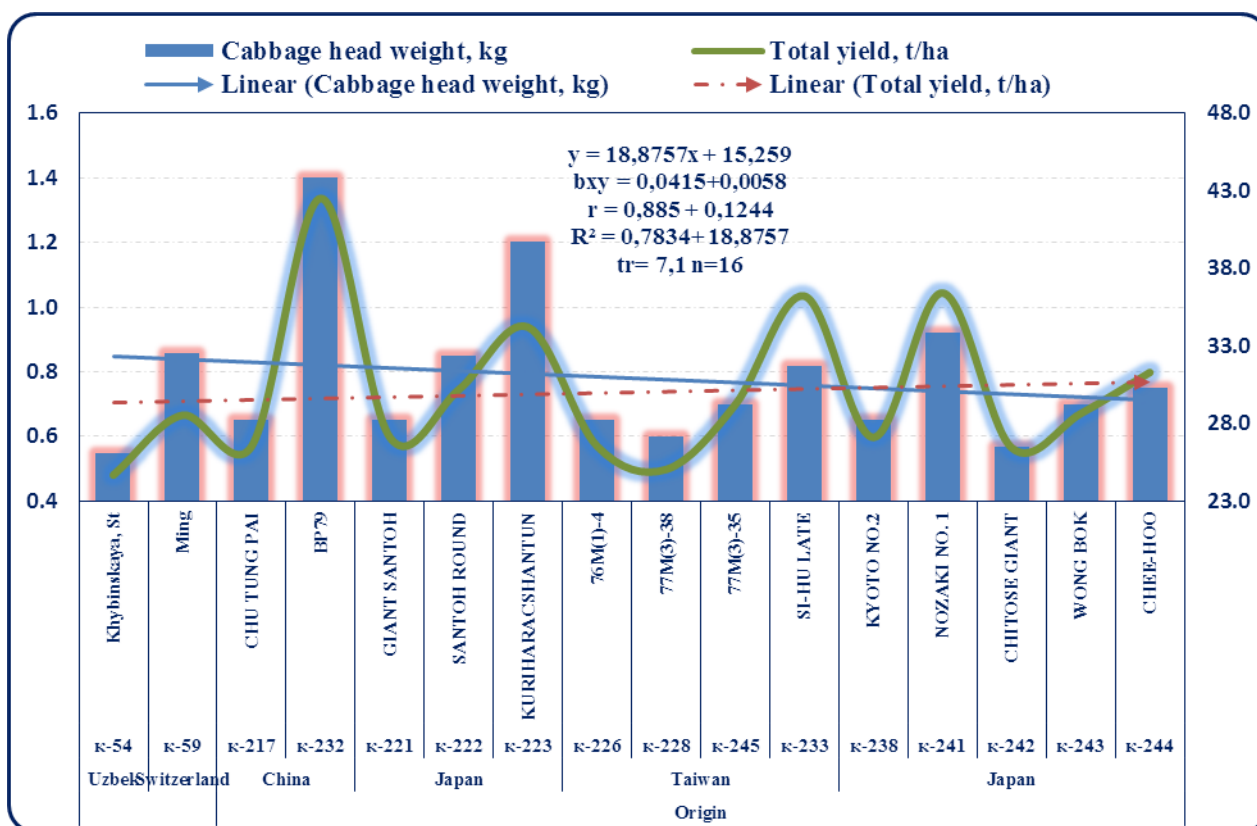
k-241	Nozaki no. 1	Japan	120	39,5	0,92	36,4	65
k-242	Chitose Giant	Japan	93	46,3	0,57	26,4	68
k-243	Wong Bok	Japan	110	40,7	0,70	28,6	78,4
k-244	Chee-Hoo	Japan	96	47,2	0,85	40,2	88,3
k-245	77M(3)-35	Taiwan	95	41,7	0,70	29,2	78,4
<b>EKTF 05</b>					<b>9,11</b>	<b>0,21</b>	
<b>Sx,%</b>					<b>1,16</b>	<b>0,69</b>	

Examples of this variety are k-243 "Wong Bok" (Japan); Samples of k-244 "Chee-Hoo" (Japan) and k-245 "77M(3)-35" (Taiwan) showed early ripening by 7-10 days compared to the model variety.

The remaining k-59 "Thousand" (Sweden); k-217 "Chu Tung Pai" (China); k-221 "Giant Santoh" (Japan); k-222 "Santoh Round" (Japan); k-223 "Kuriharachshantun" (Japan); k-226 "76 M(1)-4" (Taiwan); k-228 "77M(3)-38" (Taiwan); k-232 "BP79" (China); k-233 "Si-Hu Late" (Taiwan); k-238 "Kyoto No. 2" (Japan); k-241 "Nozaki no. 1" (Japan) and k-242 "Chitose Giant" (Japan) samples ripened 3-25 days later than the model variety (Table 1).

K-221 "Giant Santoh" (Japan); k-226 "76 M (1)-4" (Taiwan); k-233 "Si-Hu Late" (Taiwan) and k-244 "Chee-Hoo" (Japan) sample quality yield samples compared to Khibinskaya (k-54) variety 1.3-8.3% quality yield it was observed that the quantity showed high results.

On the contrary, the following k-59 "Ming" (Sweden), which has a low quality yield; k-217 "Chu Tung Pai" (China); k-222 "Santoh Round" (Japan); k-223 "Kuriharachshantun" (Japan); k-228 "77 M (3)-38" (Taiwan); k-232 "BP79" (China); k-238 "Kyoto No. 2" (Japan); k-241 "Nozaki no. 1" (Japan); k-242 "Chitose Giant" (Japan); Samples of k-243 "Wong Bok" (Japan) and k-245 "77M(3)-35" (Taiwan) varieties showed a 1.8-15.2% less quality yield compared to the model Khibinskaya (k-54) variety.



**Figure 1. Correlation between productivity indicators of the world collection of Beijing cabbage separated by productivity, 2012-2016**

Morphological indicators of valuable economic characteristics of Peking cabbage samples separated by yield sign (data from 2012-2016) with the increase in cabbage weight (kg) and, in turn, the total

productivity (s/ha) accordingly increase was observed. When calculating the correlation between these two indicators according to the method of Dospekhov (1979), it was observed that there is a high positive correlation between these indicators, the correlation coefficient is  $r=0.885$  ( $R^2=0.7834$ ) was equal, indicating that there was a positive association close to the high level.

## CONCLUSIONS

1. k-244 "Chee-Hoo" (Japan) ridge begins to form 4 days earlier than the model variety, the duration of the formation of cabbage heads is shorter by 4-5 days, and the growth period is shorter by 7 days, and k-244 "Chee-Hoo" (Japan) noted that the ridge pattern is precocious for the variety.
2. The average yield per hectare from k-232 "BP79" (China) and k-244 "Chee-Hoo" (Japan) is 40.2-42.5 tons, compared to the model variety, 15.5-17, The amount of high and marketable yield up to 8 tons was 27.7-35.4 tons, and the average high yield was 7.9-15.6 tons.

## REFERENCES

1. Xolmamatovich X. U., Baxtiyarovna I. F. SELECTION OF HIGH-YIELDING, EARLY-RIPENING VARIETIES OF CHINESE CABBAGE IN VEGETABLE CROPS //Journal of Academic Research and Trends in Educational Sciences. – 2022. – Т. 1. – №. 10. – С. 289-295.
2. Xolmamatovich X. U. et al. JAHON GENOFONDIDAN FOYDALANISH ASOSIDA PEKIN KARAMI (BRASSICA RAPA SUBSP. PEKINENSIS. L) NING ERTAPISHAR XUSUSIYATGA EGA NAMUNALARINI TANLASH //The Role of Technical Sciences in IV Industrial Civilization: International Scientific and Practical Conference (UK). – 2023. – Т. 3. – С. 206-209.
3. Хуррамов У. Х. и др. Результаты Сортоиспытания Пекинской Капусты При Повторном Сроке Посадки В Узбекистане //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 10. – С. 115-120.
4. Asatov S. H. et al. Agro-climatic conditions of Uzbekistan and their compliance with the requirements of Chinese kale //E3S Web of Conferences. – EDP Sciences, 2021. – Т. 244.
5. Хуррамов У. Х., Топилов Х. А., Рўзиматов А. З. Почвенно-Климатические Условия Узбекистана И Соответствие Их Требованиям Китайской Листовой Капусты //Central Asian Journal of Theoretical and Applied Science. – 2022. – Т. 3. – №. 10. – С. 102-109.
6. ХОЛМИРЗАЕВ И. Х. У., ХУРРАМОВ У. Х. ЭРТАГИ МУДДАТДА АЙСБЕРГ САЛАТИНИ ТУРЛИ УСУЛЛАРДА ЕТИШТИРИШ ТЕХНОЛОГИЯСИ //ЎЗБЕКИСТОН АГРАР ФАНИ ХАБАРНОМАСИ. – С. 43.
7. Xolmamatovich X. U., Kamol o'g'li I. H. HIMOYALANGAN YER MAYDONLARDA GULKARAM (BRASSICA OLERACEA VAR. BOTRYTIS) YETISHTIRISHDA SERHOSIL NAV VA DURAGAYLARNI TANLASH //AGROBIOTEXNOLOGIYA VA VETERINARIYA TIBBIYOTI ILMIY JURNALI. – 2023. – Т. 2. – №. 8. – С. 1-7.
8. Kholmamatovich K. U., Choriyevich N. I., Nasimovna B. S. Results of Varietal Testing of Peking Cabbage with a Repeated Planting in Uzbekistan //International Journal on Orange Technologies. – 2020. – Т. 2. – №. 10. – С. 20-23.
9. Kholmamatovich K. U., Olimovich B. F. The Importance of a Nutrient-rich, Fertile Amaranth Plant Salad //International Journal on Orange Technologies. – Т. 2. – №. 10. – С. 40-42.
10. Kholmamatovich K. U. et al. Selection of Fruitful Varieties of Peking Cabbage //INTERNATIONAL JOURNAL OF BIOLOGICAL ENGINEERING AND AGRICULTURE. – 2022. – Т. 1. – №. 3. – С. 20-23.
11. Holmamatovich K. U. et al. The technology of growing peking cabbage in various planting schemes in uzbekistan //International Journal of Psychosocial Rehabilitation. – 2020. – Т. 24. – №. 1. – С. 1605-1610.

12. Holmamatovich K. U. et al. THE PERIODS OF PLANTING OF SEEDS OF PEKING CABBAGE AS REPEATED CULTURE IN UZBEKISTAN //Problems and solutions of advanced scientific research. – 2019. – T. 1. – №. 1. – S. 18-22.
13. Holmamatovich K. U. et al. TECHNOLOGY FOR GROWING PEKING CABBAGE FROM SEEDLINGS IN A REPEATED PERIOD // " ONLINE-CONFERENCES" PLATFORM. – 2021. – S. 37-41.
14. Holmamatovich K. U. Technology of cultivation of peking cabbage in various schemes //Asian Journal of Multidimensional Research (AJMR). – 2018. – T. 7. – №. 9. – S. 418-424.
15. Holmamatovich K. U. et al. TECHNOLOGY OF CULTIVATION OF PEKING CABBAGE IN VARIOUS SCHEMES //World Bulletin of Management and Law. – 2021. – T. 3. – S. 16-20.
16. E3S Web of Conferences **244**, 02023 (2021)
17. E3S Web of Conferences **452**, 01013 (2023)
18. E3S Web of Conferences **452**, 01012 (2023)