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Effect of Planting Standards on Winter Hardness of Ryjikni Carat Varieties

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Abstract: During the research, it was found that when sowing seeds on October 20, the number of surviving plants will be 475-550, the degree of preservation is 80-82% when planting at the rate of 8-10 million seeds, and 81% when planting at the rate of 12 million seeds. When analyzing the safety of Ryzhik varieties at the end of the growing season, it was found that although there was no sharp difference between varieties and planting dates, planting rates had an impact. The highest rate of plant safety is 78-80% in the variants with sowing 8-10 million seeds, and the lowest is 76% in the variant with sowing 12 million seeds. The feeding area is reduced.

Keywords: camelina, optimal, meteorological, factor, vegetation, collection, carat, percentage, research.

Enter. At present, in the world, in Europe, Central Asia, China, North America, Korea and Japan, ryjik crop is grown on a large area and is mainly used as a raw material for the production of ryjik oil. The raw product is used in industry for the production of oil and lubricants, and after cleaning, it is used in folk medicine, cosmetology and cooking. Its seeds are good fodder for cattle and poultry. In the scientific research of V. I. Buyankin, the autumn variety of ryjik is distinguished by its resistance to cold. The seeds germinate at +1°C, and the sprouted seedlings can withstand frost up to -8-10°C. It is distinguished from other crops by the optimal development of its leaves in the autumn months and its resistance to drought. Ryjik's growing season is short, 225-230 days. Due to the efficient use of spring moisture reserves, timely harvesting of the crop allows for quality preparation of the soil for subsequent crops [1; pp. 24-27].

According to Ya.B.Abdullinani, the impact of meteorological factors on the duration of the vegetation period is evaluated during the study of the samples of the autumn rye collection, the vegetation period is an important biological characteristic of plants, determines the suitability for growing crops in a certain region, and is of great interest for both production and selection [2, 11-20 p.].

According to V.P. Mosolov, autumn ryzhik absorbs the first maximum moisture in the soil, better withstands spring-summer drought, and as a result ripens 10-13 days earlier [3; 56 p.]

In the researches of E.F. Semenova, V.I. Buyankin, A.S. Tarasov, it was shown that the yield of agricultural crops largely depends on the climatic conditions of the region. Productivity variability varies in the range of 30-60% depending on the influence of climatic conditions, the annual variability reaches 25%. At the same time, autumn ryzhik is the only representative of the cabbage family today, whose plants can withstand cold temperatures [4; 93 p.].

E. V. Presnyakova in her scientific research, despite the high resistance to winter, in some years, autumn ryzhik crops die significantly from the cold. The death of plants and it was observed that one of the main reasons for the decrease in productivity is the freezing of plant tissues. Ryjik plants are somewhat resistant to cold weather and drought. They can be planted in winter and summer. They can also be used in cultivated areas [5; 35 s].

In the conducted studies, the field germination of ryjikni Karat variety was 73-78% in the period planted on October 15, 88-89% in the period planted on October 20, and 78-79% in the period planted on October 25. was at a level corresponding to the number. Before entering the winter, when the number of plants per 1 m2 area was determined by counting from the designated area, on October 15, when 8 million seeds were sown on average, 512 seeds, 64% compared to the sown seeds, germinated. It was determined that it was 87% compared to the sprouted plant, when planting 10 million seeds, 650 seeds were planted, it was 65% compared to the planted seeds, and it was determined that it was 86% compared to the germinated plant, when 12 million seeds were planted, 835 seeds were planted, compared to the planted seeds It was found that it was 69% and 88% compared to the sprouted plant.

Also, on October 20, when 8 million seeds were planted, on average, 660 seeds were planted, 82% compared to the planted seeds, and 92% compared to the sprouted plant, while 795 seeds were planted, 79% compared to the planted seeds, when 10 million seeds were planted. and it was determined that it was 92% compared to the germinated plant, and it was determined that it was 92% compared to the germinated plant, and 965 seeds were planted at the expense of 12 million seeds. It turned out that 595-895 pieces, 74-75% of the planted seed and 93-95% of the germinated plant.

Table 1. Effect of planting standards on winter hardiness and storage at the end of the growing season of Karat variety

Planting period	Planting rate	Number of sprouted plants		Number of bushes before wintering		Number of bushes after wintering		Number of plants saved	
		units/m^2	%	units/m^2	%	units/m^2	%	units/m^2	%
15.окт	8 mil. piece	585	73	512	87	442	86	325	74
	10 mil. piece	755	75	650	86	551	85	395	72
	12 mil. piece	945	78	835	88	730	87	532	73
20.окт	8 mil. piece	715	89	660	92	578	88	475	82
	10 mil. piece	864	86	795	92	684	86	550	80
	12 mil. piece	1052	88	965	92	855	89	691	81
25.окт	8 mil. piece	637	79	595	93	446	75	357	80
	10 mil. piece	784	78	734	94	562	77	437	78
	12 mil. piece	936	78	895	95	672	75	531	76

In conclusion, it can be said that in terms of planting dates, the lowest indicator of the number of plants preserved in the Karat variety until winter is 86-88%, the highest indicator it was found that it was 93-95% compared to the plant that germinated in the late period. The reason for the death of the sprouted grasses before the harvest was found to be due to the low amount of humus in the light gray soils of the Andijan district of the Andijan region, due to the low amount of

mineral substances that the plant can absorb, and due to the high temperature during the germination period, the demand of plants for water increased.

The number of bushes after the plant emerges from the winter. During the conducted research, spring phenological observations of ryzhik after winter were determined from the number of plants in 1 m^2 area, in our determined observations, it was observed that the number of plants decreased to a certain extent. It was found that 442 seeds of the Karat variety planted on October 15 at the expense of 8 million seeds, 55% compared to the planted seeds, winter resistance was 86%. When 10 million seeds are planted 551 pieces, 55% compared to the correspondingly planted seed, winter hardiness if it was 85%, 730 seeds were planted out of 12 million seeds, 61% compared to the planted seeds, winter resistance was 87%.

During scientific research, the number of plants that overwintered when ryjik seeds were sown in the middle of October 20 was 578, respectively 72% compared to planted seeds, winter resistance was 88%. In this period, it was found that the winter resistance of the varieties is 2-3% lower than in the early period, and this can be explained by the difference in the root system and the development of the plant. It was found that when the seeds were sown in accordance with the planting standards in the late November 1 period, the number of overwintered plants was 446 units, and the winter resistance was 75%.

When analyzing the factors affecting the winter resistance of Ryjik varieties, it was found that although there was no sharp difference between the varieties and the planting rates, the planting periods had an effect. The highest index of winter resistance was 86-87% in relation to the number of wintering plants in the early term, and the lowest index was 75% in the late term. High air and soil temperature can be the reason for the good development of the root system of the plant and the good absorption of nutrients from the soil, on the other hand, the root system of the plant does not develop strongly and absorbs nutrients poorly.

During our research, it was observed that at the end of the growing season, the number of plants preserved in 1 m2 area decreased compared to the beginning of the growing season. In particular, 325 seeds were planted early on October 10 at the rate of 8.0 million seeds per hectare, and 10.0 million seeds were planted per hectare 395 pieces, compared to the number of plants at the beginning of vegetation, the preservation was 72-74%, when the seeds were sown at the rate of 12 million seeds per hectare, 532 pieces, preservation compared to the number of plants at the beginning of vegetation was 73%. determined to go.

In the researches, it was found that when the seeds are sown in the period of October 20, the number of saved plants will be 475-550 pieces, the degree of preservation will be 80-82% when planted at the rate of 8-10 million seeds, and 81% when planted at the rate of 12 million seeds. When analyzing the preservation of Ryjik varieties at the end of the growing season, it was found that although there was no sharp difference between the varieties and the planting period, the planting standards had an effect. The highest rate of plant preservation is 78-80% in the options planted with 8-10 million seeds, and the lowest rate is 76% in the option planted with 12 million seeds. it was found that the level of preservation also decreases as the feeding area decreases.

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