UDC: 633.18/631.17.04.

SEED GERMINATION OF THE PROSPECTIVE RICE VARIETY OF "SADAF"

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Annotation. *The article provides information on the ability of "Sadaf" rice seeds to germinate in laboratory conditions on average 90% in 5 days, 94% in 7 days and 97% in 10 days.*

Key wors: rice, *"Sadaf", laboratory, temperature, germination rate, seed germination, day.*

Introduction: To form a unified system of rice cultivation and its purchase on the scale of our country, rational use of land and water resources, as well as to fill the domestic consumer market with high-quality products, the President of the Republic of Uzbekistan dated February 2, 2021 "On measures for the further development of rice cultivation" Decision № PD-4973 was adopted. Based on this decision, it is determined as an urgent task to use water-saving technologies in the field on a large scale, to plant 20% of the rice fields by seedling method, to level 50% with the help of laser equipment, and to implement rice seeds in modern planting devices on 30%. [1].

Relevance of the study. Rice is one of the staple grain crops in our country, and it is one of the significant sources of carbohydrates [2, 3]. The sharp increase in population (0,9 million people per year) causes the need for rice to be higher than the consumption [4, 5].

Therefore, soil fertility and its sufficient supply of nutrients are important in growing a high-quality rice crop. At this point, it is worth highlighting that, based on global experience, the scientific basis for reducing the negative impact on the environment and producer health by combining mineral fertilizers with organic fertilizers for rice growing is being developed and implemented [6, 7].

Research aim. Determination and scientific justification of seed germination of Sadaf rice variety in laboratory conditions.

Results obtained. One of the main factors in obtaining a high-quality harvest is the timely and high-quality germination of rice seedlings, as well as timely care. For this, it is essential that the seeds used for planting fully meet the requirements of the state standard based on the laboratory fertility determination.

Rice seeds were harvested at a variable temperature of 20-30℃. During the first 6 hours, the temperature was kept at 30℃, and the remaining 18 hours of the daytime at 20℃. Germination ability and germination of seeds were determined by counting germinated seeds after 2-3 days. The seeds with high germination ability germinated and the plants developed simultaneously. The capability of seeds to sprout was expressed as the percentage of seeds that germinated within a specified number of days for a particular seed. The seeds whose roots were developed in the norm, the length of the main root equal to the length of the seed, were counted as germinated seeds.

When 100 seeds of the Sadaf rice variety were germinated and observed in laboratory conditions for 5 days, the germination rate was 91% in the 1st option, 90% in the 2nd option, 89% in the 3rd option, and 90% in the 4th option, and the average seed germination was 90% (see Table 1).

Rice seeds germinated for 7 days and when counted, 5% germinated in option 1, 94% germinated in option 2, 93% germinated in option 3, and 94% germinated in option 4, for an average seed germination of 94%.

In the experiment, when the seeds were germinated for 10 days, the germination rate was 96% in the 1st option, 97% in the 2nd option, 95% in the 3rd option, 96% in the 4th option, and the average seed germination rate was 96%.

Table 1

Germination of rice seeds in the conditions of laboratory (2022)

Name of variety	**Number of seeds, pcs**	**Laboratory germination, %**		
		Day 5	**Day 7**	**Day 10**
Sadaf	100 seeds 4 replications	91,0	95,0	96,0
		90,0	94,0	97,0
		89,0	93,0	95,0
		90,0	94,0	96,0
Average		90,0	94,0	96,0
LSD		0,018	0,021	0,019

Therefore, in laboratory conditions (at a temperature of 20-30℃ during the first 6 hours at 30℃, the remaining 18 hours of the day at 20℃), the seeds of the Sadaf rice variety germinate on average 90% in 5 days, 94% in 7 days, and up to 97% in 10 days.

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