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GROWING OF SESAME VARIETY "TASHKENT-122" TWICE A YEAR IN LIGHT GLACIAL SOILS

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Abstract: The article provides information on the development of agro-techniques for the cultivation of sesame variety "Tashkent-122" twice a year in Kashkadarya region, mainly in the conditions of light glacial soils, as a result of scientific research.

Keywords: Sesame, option, soil, water, harvest, fertilizer, seeding.

Introduction

Today, the main buyers of sesame in the world market are Japan and European countries. For Japanese cuisine, sesame oil, especially roasted sesame seeds, is an essential ingredient. Even the lunch menu of kindergarten and school students includes sesame products. In European countries, white and light yellow sesame seeds are very popular and are used in more than a hundred dishes, salads and desserts. Homeland and history of sesame origin. The country of origin of sesame is Africa, and the secondary center of origin is India. The sesame plant is one of the earliest man-made plants, and information about it has been recorded in historical writings. For example, the Egyptians called sesame "SESEMT" and included it in the list of medicinal and medicinal plants 3600 years ago. The Babylonian and Assyrian manuscripts (4,300 years ago) provide detailed information about the sesame plant and how to use it. According to archeological reports in Turkey, sesame was used for various purposes (consumption, fuel and lubricants) during the Urartu Empire 2750 years ago. According to scientific sources, sesame seeds came to Central Asia in the early 18th century and are now widely cultivated in almost all republics. Alternate planting. The best crops for sesame seeds are legumes, potatoes, Ildizevali crops and carrots. After cultivating sesame seeds, the field grows well with organic and mineral fertilizers. In order to prevent its contamination with diseases and pests, it is necessary to ensure

that it is not replanted in one place for 5-6 years. Sesame is a good pastime for grain crops. Pre-sowing work. Sesame grows well on sandy, light sandy soils. Heavy sand can grow in soils and can be grown in weakly saline soils. When the seventies crops are harvested, the plant residues are cleaned and removed. Before autumn plowing, 15-20 tons of rotted manure, 60 kg / ha (in terms of active substance) of phosphorus and 40 kg / ha of potassium fertilizers are applied per hectare. In the area intended for sowing, a furrow is made at a depth of 27-30 sm. In the spring, in areas contaminated with annual weeds, their seeds are sown and “deceptive” irrigation is carried out to make the grass grow. This measure is carried out on the fields taken after driving. Weeds are eliminated by mass cultivation. Pre-sowing tillage is completed by harrowing and leveling the soil surface with a grader. Sowing. In Central Asia, sesame seeds are sown in late May and early June. By this time, the days will be hot, especially heavy rains, because of the short-term low temperatures,

Strong slander infects seedlings very quickly. The quality of the seeds obtained for sowing is required to be 2 grades and higher. Seed germination should be above 90%. Irrigation ditches due to mechanical condition of soil 60; Available in widths of 70 and 90 cm. Seeding is carried out in large areas with the help of special seeders, and in small areas by hand. 6-8 kg of seeds are used per hectare. It is irrigated without removing it from the ridge. Growing

crops. Once the seedlings are fully grown, the area around the seedlings is softened and cleared of weeds. The first unification is carried out when the seedlings produce 2-3 leaves. 3-4 strong seedlings are planted in each nest. The distance between the nests is 5-10 cm, depending on the width of the ridge. 7-8 days later, the last solitary transplant is carried out, and the strongest and healthiest seedlings are planted in the nest. Sesame is irrigated 2-4 times in the country (depending on soil, climate and sowing time). The plants are watered in small and even plots. After irrigation, the first light cultivation is carried out with the help of tillage equipment. In the early stages of the growing season (budding and flowering), double cultivation and pruning are carried out between rows of sesame plants. Sesame is fed with mineral fertilizers during the growing season, ie after the last unification (20 kg of phosphorus, 30 kg of nitrogen) and during flowering (50 kg / ha of nitrogen). Harvesting. Sesame seeds ripen in Central Asia in September. The crop is harvested when the lower 4-5 buds on the plant turn brown. This period is mainly due to the shedding of leaves, ie by visual contact. Harvesting in this way prevents a certain amount of losses and scattering of seeds. During the harvest, the plants are cut, small gardens are made from 40-50 stems, and they are dried in tarpaulins or specially prepared areas (upright) on trellis or on top of each other. Depending on the temperature and wind, the germination of seeds can last from ten to fifteen days. The crop is harvested twice. It is not recommended to soak the plants. This is because the oil extracted from sesame seeds has a negative effect on the human body when consumed. The remaining seeds in the third part of the plant are crushed and the seeds, which are then poured on the tarpaulin, are cleaned and covered with plant residues and waste seeds in special sieves.

Method and system of conducting the experiment

The field experiment was conducted on the farm "Jasurbek Pulatovich" in Nishan district, Kashkadarya region. The soil of the

experimental field is located at a depth of 2.5-3.0 m. On the theme of 2018, a new regional sesame "Tashkent-122" was selected for Kashkadarya region.

The area of the experimental options is 5,000 m² (1388 x 3.6), with a total area of 0.50 ha. The composition of the steppe soil is not saline. Experimental variants are arranged in one tier according to planting and water standards, Table 1.

Table 1.
Experimental list

Opt.	Seed sowing rate, (mln / kg)	Relative to CHDNS soil moisture,%	Annual rate of mineral fertilizers, kg / ha
Sowing period is 15–20 May			
1	1.5 million (5 kg)	65-75-65	N-180, R-100, K-50
2	2,0 million. (6 kg)		
3	2,5 million (7 kg)		
4	3,0 million (8 kg)		
Sowing period is 10–15 June			
5	1,5 million (5 kg)	65-75-65	N-180, R-100, K-50
6	2,0 million (6 kg)		
7	2,5 million (7 kg)		
8	3,0 million (8 kg)		

Terms of application of mineral fertilizers: the norm is 100 kg of phosphorus per hectare, 70% of phosphorus fertilizers at 50 kg

of potassium and 50% of potassium fertilizers before autumn plowing, the remaining 30% phosphorus is in the flowering phase of sesame, 30% of potassium is used in the sludge phase of sesame.

Annual application of nitrogen fertilizers at 180 kg was carried out in the following periods: 50 kg / ha with 2-3 leaves; 50 kg / ha during the flowering phase and 80 kg / ha during the flowering period.

Research methods such as experiments, growth and development of sesame, phenological observations, irrigation procedures and rates, fertilizer rates, productivity and other calculations were developed by PSUEAITI "Methods of agrochemical, polyphysical, agro-physiological and agrochemical" districts. Implemented in accordance with the guidelines "Methods of field experiments with cotton" (SoyuzNIHI, 1981) and "Methods of conducting field experiments" (2007).

The field experiment was conducted on the farm "Jasurbek Pulatovich" in Nishan district, Kashkadarya region.

Grain yield 2018-2020 years, t/ha

№	Options	2018y.	2019y.	2020y.
		Grain t/ha	Grain t/ha	Grain t/ha
	Spring			
	1,5 million (5 kg)	85	102	125
	2,0 million (6 kg)	102	123	144
	2,5 million (7 kg)	84	98.5	121
	3,0 million (8 kg)	85.5	99.5	124
	Summer			
	1,5 million	55	56	62

	(5 kg)			
	2,0 million (6 kg)	65	64.5	70
	2,5 million (7 kg)	58	56.5	60
	3,0 million (8 kg)	58.5	55	61

The following research works were carried out in the field of experiments.

The following tasks were performed to conduct the research:

- Development of acceptable standards and terms of irrigation of sesame "Tashkent-122";

- To determine the thickness of the seedlings of sesame variety "Tashkent-122", which provides high yields in light gray soils;

- scientific substantiation of the demand of sesame seeds "Tashkent-122" for mineral fertilizers;

- to determine whether the level of leaf irrigation and mineral fertilizers during the ripening phase depends on the norm and the thickness of the seedlings;

- Carrying out calculations on the growth and development of the sesame variety "Tashkent-122" grown in the experimental field, taking into account the biological characteristics of the crop on the options and yields;

- Soil samples were taken at the beginning and end of the cycle, and the amount of humus in the composition was determined by the method of IF Tyurin, modified by CINA0, the total amount of total nitrogen and phosphorus by the method of I.M.Maltseva and Gretsensko, the mobile form of nitrate nitrogen

by photocalorimetry. Machigin, the exchangeable potassium was determined by the method of P.V.Protasov. The obtained data were mathematically analyzed by the method of B.A. Dospekhov.

Conclusions and suggestions

1. Sowing of Tashkent-122 sesame seeds in the conditions of glacial soils of Kashkadarya region.

2. Taking into account the sowing of sesame varieties "Tashkent-122", the optimal option is 2.0 million units (6 kg / ha).

3. The new sesame seeds "Tashkent-122" were fed at the rate of N-150, R-80, K-50 kg / ha, planted in the spring season and 200 m³ / ha of water was used for 0.1 t of sesame, Productivity In 2018, 2019, 2020, 1020 kg, 1230 kg, 1440 kg were harvested in option 2 and an additional yield of 0.2 t/ ha was achieved.

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