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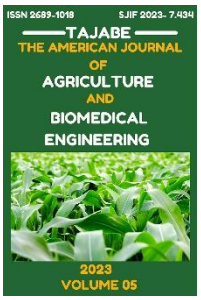

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Research Article

DETERMINATION OF THE GERMINATION OF SEEDS IN LABORATORY CONDITIONS WHEN GROWING CORN VARIETIES

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ABSTRACT

Whole corn grown from oat varieties grown in the conditions of Karakalpakstan, Uzbekistan - 18, The effect of planting dates on the productivity of large corn species is to carry out experimental work in laboratory conditions in order to determine the seed viability of the varieties.

KEYWORDS

Whole corn, Uzbekistan - 18, Large head, variety, seed, grain, yield, temperature, options.

INTRODUCTION

Relevance and necessity of the research topic. Today, there is a high growth in grain processing plants in the world. Flour production enterprises are one of the leading branches of food production.

In the strategy of actions for the further development of the Republic of Uzbekistan, it is important to "...develop production sectors, modernize and diversify the industry, use energy-saving methods of material consumption in practice, ensure the nutritional security of food products, prepare competitive and exportable products that replace the import place" tasks are defined.

The purpose of the study: the effect of planting dates on the productivity of 18, Uzbekistan-18, large-sized corn species grown in the conditions of Karakalpakstan, air temperature, soil classification, irrigation schemes of the researched areas, as well as carrying out corn varieties in laboratory and field experiments.

Research tasks:

- It consists in studying the grain yield of corn varieties, its bioecological and morphological features;

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-Consists of researching the seeds of corn varieties in laboratory and field conditions;

-Consists of studying the agrophysical, agrochemical properties and salt balance of the soil during the cultivation of corn;

-Determination of economic efficiency in the cultivation of corn varieties.

THE OBJECT OF THE STUDY

Long corn grown in the conditions of the Republic of Karakalpakstan, Uzbekistan - 18, the effect of planting dates on the productivity of large corn varieties is to carry out the study of corn varieties in laboratory and field experiments.

The subject of research is air temperature of corn fields, soil classification, seeding schemes of sizot waters, as well as conduct of corn varieties in laboratory and field experiments.

RESEARCH METHODS

Placement of experiments in field and laboratory conditions, calculations and observations "Methods of agrochemical analyzes of soils and plants", "Methods of agrophysical research" based on methodological manuals, grain quality protein content according to the Keldal method, by incineration in the field (degreasing), statistical analysis of the obtained results based on the Microsoft Excel program and B.A. Dospehov's methodical guide "Methods of field experiment" and economic efficiency N.A. Baranov's method implemented[1,2].

THE RESULTS OF THE RESEARCH

In the conditions of the alluvial soils of the saline meadow of Karakalpakstan and in the research conducted at the Plant Science Laboratory of the Institute of Agriculture and Agro-Technology of Karakalpakstan, in the agricultural processing of corn varieties, in the food industry and animal husbandry, grain hay is better than silage. During the preparation, a number of experiments were conducted, and one of them was analyzed in the laboratory.

The obtained data are presented in Table 1. According to Table 1, the highest germination capacity depends on the temperature increase, at 10°C, the germination rate of the corn seeds in the first option is 27.3% in three days, Uzbekistan - 18 varieties It reaches 20.0%, and 17.3% in the main variety.

Table 3.1.3

Germination of corn seeds at different temperatures in a thermostat (2021-2023), %

T/r	Options	The air temperature °C			
		10 °C	15 °C	20 °C	25 °C
1	Whole corn	27,3	56,1	69,5	91,0
2	Uzbekistan - 18	20,0	40,2	64,2	77,3
3	A large head	17,3	32,0	54,3	69,2

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It was observed that the temperature increased by 56.1%, Uzbekistan - 18 variety by 40.2%, and by 32.0% in the Large head oat variety at the temperature of 15°C. It was found that when the temperature was at 20 °C, it was 69.5% in the Whole corn variety, 64.2% in the Uzbekistan-18 variety, and 54.3% in the Large head variety.

When the temperature in the thermostat increased to 25 °C, the degree of swelling increased by 91.0% in rich corn according to the varieties of corn, and in Uzbekistan - 18 varieties, this indication was 77.3% increased to 69.2%.

So, during the period of our research, the results cannot be said to have a low level of germination among the varieties, of course, the reason is that the germination of the seeds, even in the way that attracts the field experiments and farms, is equal to its positive approach to economic efficiency, and the level of profitability is low can be harvested.

However, compared to the results of the research, in the work of varieties, the Whole corn variety had a good effect on the level of germination in the laboratory conditions in the thermostat.

During the research, it is worth mentioning that during the research, we conducted experiments at temperatures of 30 and 35 °C. However, at 30 °C, the germination of the seeds decreased and the germination began. In our experimental study conducted at a temperature of 35 °C, it was found that the seeds of the varieties dried up without germinating in the thermostat.

Based on the experiments carried out during the research and the review of the literature, the normal temperature for the development of plant germination, especially for the growth and development of corn plants is 25 °C.

CONCLUSION

In the case of the Republic of Karakalpakstan, it is necessary to establish a solid fodder base to meet the demand of the people for food products and livestock products. It regulates the planting of corn varieties. Therefore, we make the following conclusions and recommendations.

1. In our republic, the yield potential of the varieties of corn is high, we will fully use their potential when we plant varieties suitable for the climatic conditions and carry out quality agrotechnical measures for them.

3. During the cultivation of corn varieties in laboratory conditions, in the thermostat at 25 °C, the degree of swelling increased by 91.0% in rich corn according to the options, and in Uzbekistan - 18 varieties, this indication was 77.3% and it was found that this indication increased by 69.2% in the Large Head variety.

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