European Journal of Agricultural and Rural Education (EJARE)
Available Online at: https://www.scholarzest.com
Vol. 4 No. 7, July 2023
ISSN: 2660-5643

INFLUENCE OF AIR TEMPERATURE AND AMOUNT OF PRECIPITATION ON THE LEVEL OF OIL CONTENT OF MAHSAR SEEDS

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Article history:

Received: 26th May 2023
Accepted: 26th June 2023
Published: 30th July 2023

Abstract:

According to the results of the research carried out in this article, it was found that the average daily air temperature during the growing season of Makhsar varieties and ridges was in accordance with the observed annual values. It was observed that the amount of precipitation was high in the branching phase of March, and in the budding and flowering phase of April, it was found that there was almost no precipitation in the ravis according to the annual data. The data shows that Makhsar varieties and ridges with oiliness level, early ripening and drought tolerance were selected.

Keywords: Sort, default, default, temperature, vshost, line, pavtor

To date, in the selection of oilseeds, one of the urgent problems is the creation of new varieties and source materials, early ripe, productive, resistant to environmental stress factors. Mahsar oil is very easily absorbed in the human body, its cakes are used in large quantities for animal husbandry, and are widely used in industry for the production of varnish and other materials. In our republic, by order of the state, sunflower and mahsar are sowen on large areas, despite the fact that there is an increase in prices for vegetable oil in our local markets.

One of the main reasons for this is low productivity and high production costs.

From this point of view, in conditions that place high demands on the quality and value of oilseed products, the need to create and introduce into production new varieties of oilseeds that are resistant to diseases, high-yielding, valuable in terms of nutritional and technological qualities and resistant to adverse environmental conditions [3].

Mahsar are divided into six groups according to morphological features, and these features differ sharply from each other. Therefore, special attention should be paid to this trait when using varieties and accessions of these crops.[3; 148-149].

Field experiments were carried out on the basis of methodological manuals. "Methodological guide for the study of the world collection of oilseeds", Uz NIIGR [1; 20-b] and "Methodology for conducting field experiments in 2007", UzNIIKh [2; 145-6]

In the control nursery, 25 varieties and samples of mahsar were studied in three repetitions, the plot area of 2 m2 with the standard varieties of Galla orol in the experimental field of the Kamashinsky agricultural plot of the Scientific Research Institute of Southern Agriculture.

Based on the results of the research, it was found that the average annual precipitation in the Kamashinsky district was 156 mm.

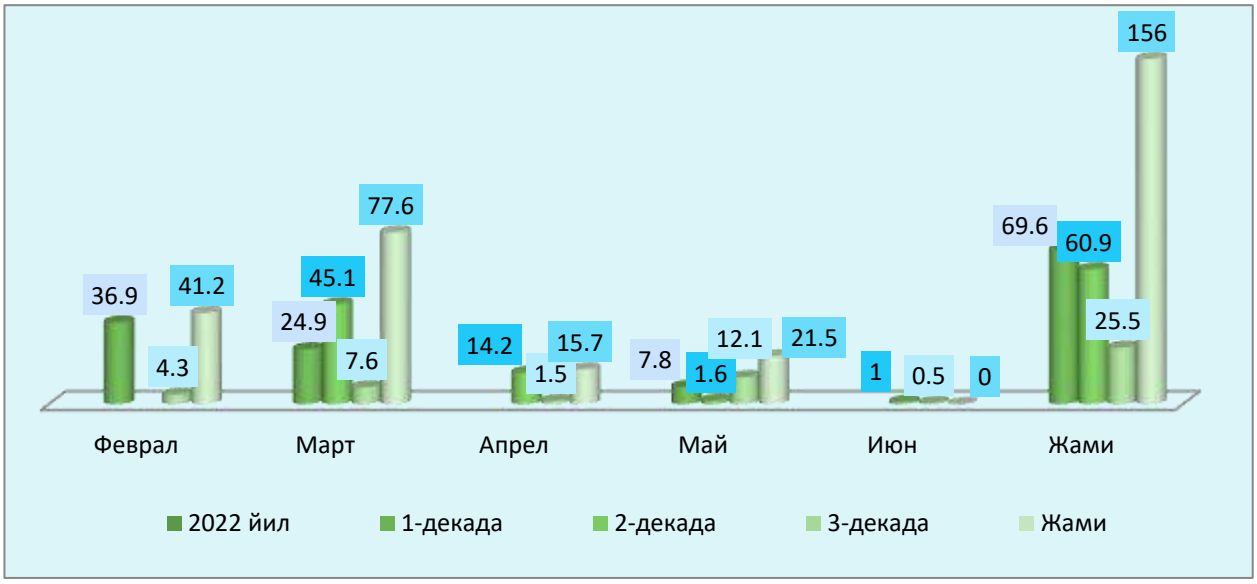

Fig-1. The amount of precipitation in the rainfed zone of the Kamashinsky district in 2022, mm

According to meteorological data, the average amount of precipitation during the growing season of Makhsar was 156 mm, of which; in February it was 41.2 mm, for the 1st-3rd decade of March 77.6 mm, for the 1st-3rd decade of April. was 15.7 mm, in May it was 21.5 mm and in the 1-2 decades of June 1.5 mm.

Sowing seeds of mahsar varieties and samples was carried out on February 21. In the 3rd decade of February, the average daily air temperature was 7.7 0C and this favorably influenced seed germination.

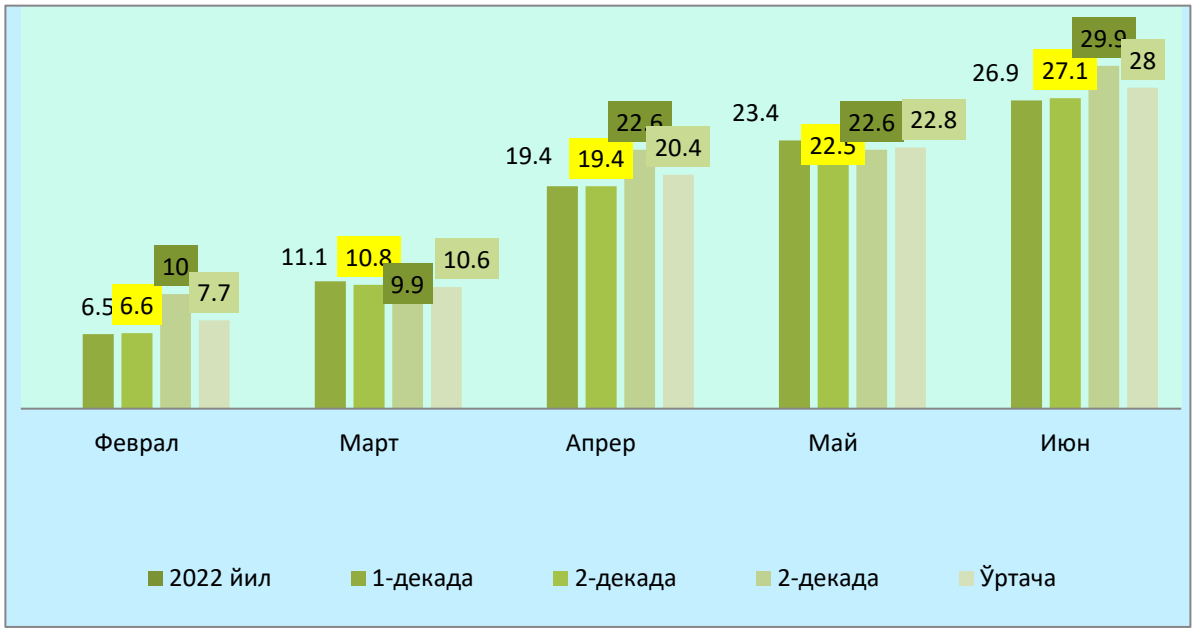

Fig-2.Average daily air temperature in 2022 in rainfed areas, 0C (Kamashi-2022).

The average daily air temperature had a positive effect. in March 10.6 0C, and the amount of precipitation is 77.6 mm for the development of plants in the budding phase, as well as in the average daily air temperature of 20.4 0C andthe average rainfall of 15.7 mm in April had a positive effect on the flowering phase and the formation of baskets. The average air temperature in the grain filling phase and full ripeness in May is 22.8°C.

In the laboratory of "Plant Physiology and Biochemistry" of the Research Institute of Southern Agriculture, the level of oil content in the seeds of the 2022 crop of varieties and samples of Makhsar was analyzed. At the same time, the oil content of seeds of the standard variety Gallaorol was 28.2

The level of oil content of seeds of samples KR22-MAXPYT-IR-10 30.4%, KR22-MAXPYT-IR-16 30.6%, KR22-MAXPYT-IR-17 30.4%, KR22-MAXPYT-IR-22 30.7 %, KR22-MAXPYT-IR-08 31%, KR22-MAXPYT-IR-19

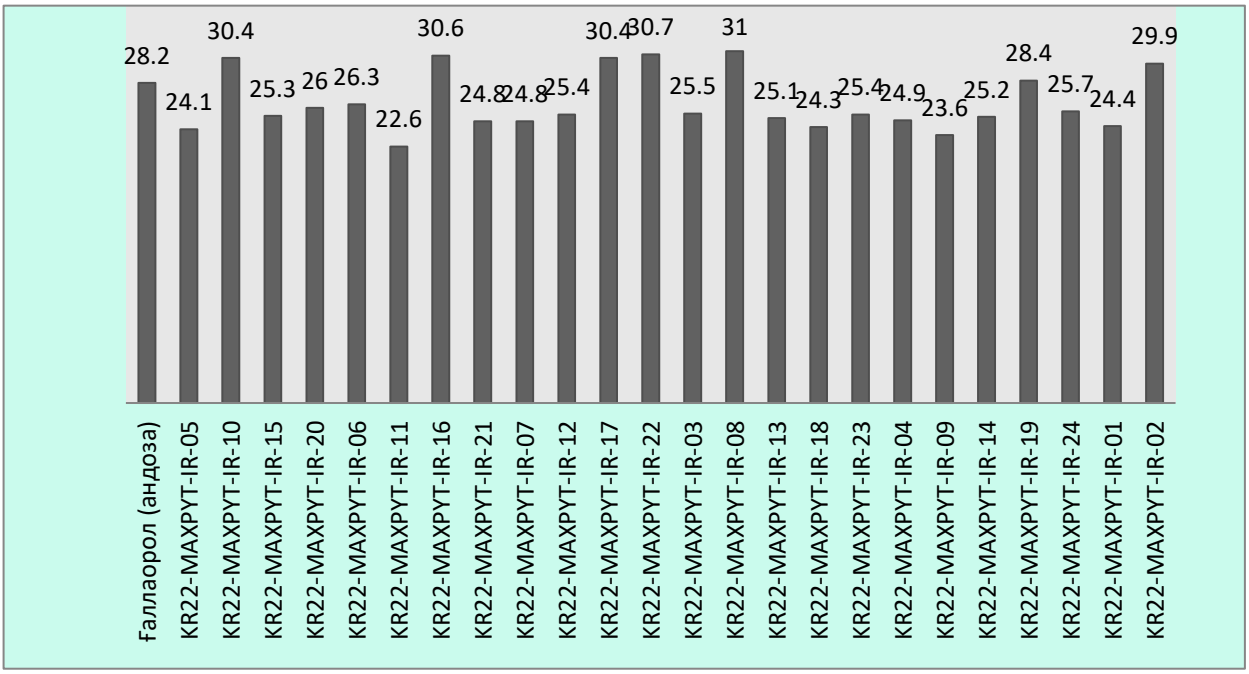

Fig-3. Degree of oil content in seeds of varieties and samples in the control nursery, % (Kamashi 2022)

28.4% and KR22-MAXPYT-IR-02 29.9%, which exceeded the standard grade by 0.2-2.8% .(Figure-3).

CONCLUSIONS. In conclusion, it should be noted that, according to the results of the studies, the air temperature in the 2022 season was 658.5 °C, and the amount of precipitation was 156 mm. For samples KR22-MAXPYT-IR-10, KR22-MAXPYT-IR-16, KR22-MAXPYT-IR-17, KR22-MAXPYT-IR-22, KR22-MAXPYT-IR-08, KR22-MAXPYT-IR-19 va KR22-MAXPYT-IR-02 showed a high level of oil content, and these samples were transferred to the next stages of breeding.

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