

THE IMPACT OF PRECIPITATION ON THE SUNFLOWER CROP IN THE NORTHERN REGION OF THE REPUBLIC OF MOLDOVA

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In the conditions of the continental climate with excessive nuances, characterized by a great variability in time of the climatic elements, specific to the territory of the Republic of Moldova, the amount of precipitation is one of the most important factors that determine the optimal growth and development of agricultural crops, including sunflower, determining the greatest differentiations in time and space of the average harvest value per hectare. Thus, in the conditions of the Republic of Moldova, the amount of precipitation, most of the times is rather a limiting factor.

Knowing the amount of atmospheric precipitation during the growing season, forecasting assessments of the productivity value can be carried out. The results obtained by Cojocari R., reveal that they vary on the territory of the country between the limits of 340-450 mm. Starting from these values, we find that a more favorable situation is outlined during the vegetation period of the sunflower, when, especially in the northern part of the region, there are also some quantitative surpluses of precipitation compared to the optimal required. Thus, the isohieta with the value of 375 mm – the optimal quantity for the period April- October – crosses the districts of Riscani, Edinet, Donduseni and Ocnita. Within the region, based on the data from the period 2007-2020, it appears that the most favorable districts for the cultivation of sunflower are Glodeni, Ocnita and Edinet. The districts with the lowest performances in the development of the sunflower culture are Singerei, Floresti and Soroca.

In sunflowers, although rainfall amounts in the cold half of the year correspond as a spatial distribution with the average fruit distribution, in terms of quantity, they are insufficient for the entire region. Instead, the precipitation amounts from the growing season allow to highlight the north of the country where the average values of the period 2007-2020 are within the optimal needs.

The use of modern agrotechnical processes that help to effectively use the moisture accumulated in the soil. The mechanized work of the soil reduces the use of moisture by evaporation, improves the aeration of the soil. But the use of the appropriate agricultural technique and the application of the correct methods of rotation are possible only on large agricultural areas. So, it would require a consolidation of agricultural land.

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