

# Deficit of soil moisture in August will be a limiting factor for the development of agricultural crops

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After the prolonged July heat, during the first days of August the agrometeorological conditions will continue to be determined by dry and hot weather. The forecast extremely high maximum temperatures at the beginning of the month, above 39-40°C, will disrupt the normal course of physiological processes in agricultural crops. Values of this order, combined with low air humidity, will cause sterility in vegetable crops from the late field production.

At the beginning of August, depending on the earliness of the hybrid varieties of maize, the phenophases milk, wax and full maturity will be observed. In sunflower, the phases of seed development and ripening will take place. In grapevine, colouring and softening of the berries will be observed. In many regions of the country, the conditions will limit the possibilities for soil tillage due to the lack of soil moisture. It is advisable to perform

stubble cultivation on the areas released from wheat and barley in order to destroy the weed vegetation, break the soil capillaries and preserve the soil moisture. Conditions for carrying out plant protection spraying in vegetable crops and perennial plantations will exist mainly in the morning during the cooler hours of the day. The probability of hail and damage to agricultural crops also remains.

**In August, the limiting factor for the development of late agricultural crops will be the deficit of soil moisture.** The forecast below-normal precipitation during the month, against the background of the drought that has developed at the end of July, will be of no particular economic significance, which will necessitate the application of increased irrigation rates for late agricultural crops. At the beginning of August, higher irrigation rates will be needed by second crops and later maize hybrids, in which grain formation and filling will take place, as well as by later fruit tree varieties and grapevines, which are in the process of fruit enlargement.

The forecast above-normal thermal conditions during the month will lead to a shortening of the interphase periods in the development of late field crops. During the first ten-day period, part of the early maize hybrids will complete their development, and in the medium-early ones the milk maturity phase will be observed. In sunflower, in the Danube Plain and in the southern regions, the ripening phase will take place. In the middle of the second ten-day period, a large part of the sunflower stands in the field areas will enter technical maturity. During the third ten-day period, in the medium-late maize hybrids wax maturity will predominate, and in soybean the ripening phase.

The meteorological conditions in August will limit the development of a number of fungal diseases, with the exception of powdery mildews in vegetable crops, late fruit tree varieties and grapes. Plant protection spraying during the month should be carried out during the cool hours of the day with products having an appropriate pre-harvest interval, consistent with the ripening period of the crops.

In August, the dry and compacted soil in many places in the field regions of the country will hinder the quality performance of deep ploughing and pre-sowing tillage of the areas intended for sowing with winter oilseed rape.

*Source: NIMH*