

Limiting factor for the development of late agricultural crops in August remains the deficit of soil moisture

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Extremely high July temperatures and the deepening drought have caused irreparable damage to maize and sunflower in places in the central, northeastern and southern regions of the country.

In August, agrometeorological conditions will be determined by temperatures around and above the climatic norms. The limiting factor for the development of late agricultural crops during the month remains the deficit of soil moisture. Precipitation at the end of July was unevenly distributed and, in most of the country, late and extremely insufficient to overcome the moisture deficit in late agricultural crops. In some of the western and

southern regions, soil moisture reserves in the 50 and 100 cm layers are completely depleted. An exception exists in certain locations in Eastern Bulgaria, where at the end of July precipitation of over 30-40 l/m² (Razgrad, Shumen, Ruse, Burgas, Chirpan) was recorded, which moistened the upper soil layers.

The expected precipitation during the first half of the month in places in Eastern Bulgaria will not lead to a substantial change in soil moisture, which will require the application of an increased irrigation regime throughout the agricultural zone of the country.



*In August, the harmful activity of **spider mites** continues, which damage tomatoes, peppers, eggplants, tomatoes, cucurbits, leeks, okra, celery, parsley and others.*

During the first ten days of August, an improvement in the conditions for conducting seasonal soil tillage is expected to occur in the eastern regions of the country. In the middle of the period, a short-term decrease in temperatures and more suitable conditions for carrying out plant protection spraying in vegetable crops and perennial plantations is forecast – against powdery mildews, mites and codling moths.

During most days of August, the forecast relatively dry weather will necessitate the application of increased irrigation norms in second crops and late maize hybrids, in which grain formation and filling will be taking place. Increased irrigation norms will also be needed by later varieties of fruit trees and vines, which are in the process of fruit enlargement.

Assoc. Prof. Simeon Krumov from the Institute of Agriculture – Kyustendil recommends irrigation during fruit enlargement and during bud differentiation, to agrozona.bg. Agronomists must strictly monitor the trees and, if they notice leaf curling in fruit trees caused by heat, they must take prompt measures. In this case, irrigation of the plantations is imperative. In addition to gravity-fed water supply, drip irrigation and sprinkler irrigation are suitable for perennial fruit species.

Irrigation of the vine

The vine is a relatively drought-tolerant species, but drought also affects it seriously. Therefore, it is advisable to follow the advice of the specialists from the Institute of Viticulture and Enology in Pleven on when to irrigate the vineyards.



This year in August, earlier than the usual terms for the country, the development of late spring crops will be completed. Above-normal thermal conditions and the deficit of soil moisture during the first half of the summer led to a shortening of the interphase periods in the development of maize and sunflower. At the beginning of August, the ripening phase of sunflower will be observed in the Danube Plain and in the southern regions. During the first ten days, the early maize hybrids will complete their development, and in the medium-early

hybrids the milk maturity phase will be observed. The medium-late maize hybrids will enter wax maturity during the third ten days of the month.

The meteorological conditions in August will limit the development of fungal diseases, with the exception of powdery mildews on vegetable crops, fruit trees and vines. During the month, in late varieties of fruit trees, the harmful activity of the last generation of codling moths should not be underestimated. In vineyard areas, it is necessary to monitor the occurrence and density of larvae of the third generation of the European grapevine moth.

Plant protection spraying in August must be carried out during the cooler hours of the day with products having an appropriate pre-harvest interval, in accordance with the ripening period of the crops.

Source: NIMH