

# Agrometeorological forecast for December

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The above-normal temperatures and the improved soil moisture reserves during the second half of November extended the autumn vegetation of wheat, barley and rapeseed. During the first ten-day period of December the agrometeorological conditions will be highly dynamic. The forecasted cooling around the middle of the period will lead to a slowdown and, in parts of Northern Bulgaria and the western regions, where precipitation including snow is expected – to a cessation of the vegetation processes in the winter cereal crops and rapeseed. At the end of the first ten-day period an increase in temperatures is expected, but their average daily values will remain below the biological minimum required for the vegetation of autumn-sown crops.

During most days of the second and third ten-day periods, the forecast temperatures, around and above the climatic norms, will maintain the winter cereal crops in relative dormancy in the greater part of the country.

Exceptions are possible for wheat and barley in the southernmost regions and along the Black Sea coast. During the relatively warmer periods in the second half of the month in these areas there is a likelihood of conditions being created for a short-term resumption of the vegetation processes in the autumn-sown crops, but no change in the phenological stages of the crops is expected.

As a result of the prolonged autumn drought, the crops will enter winter in different stages. In most parts of the country, with the exception of some locations in Southeastern Bulgaria, the soil water deficit delayed the vegetation of wheat, barley and winter rapeseed. At the end of autumn, the prevailing growth stage of the winter cereal crops is the third leaf. Part of the wheat stands, mainly in the northwestern regions (agrometeorological stations Băzovec, Pavlikeni), are in the emergence and early leaf development stage (1–2 leaves). Wheat in the eastern regions of the country is in the tillering stage, in which winter cereals overwinter successfully. In rapeseed, as a consequence of the moisture deficit during the autumn vegetation, only part of the stands are in the rosette stage – the appropriate stage for overwintering.

In December, the forecast minimum temperatures down to minus 11°C, in conditions without snow cover and with more prolonged persistence, will be critical for winter cereal crops in the emergence and early leaf development stage, and for rapeseed stands that have not managed to form a rosette.

Following the significant precipitation during the third ten-day period of November, which exceeded 50–60 mm in many places in Southern Bulgaria (Sandanski, Pazardzhik, Plovdiv, Haskovo, Kardzhali, Chirpan), there was a substantial increase in the moisture reserves in the upper soil layers and, in most of the arable regions of the country, the moisture deficit in the autumn-sown crops has been overcome. The expected precipitation in December, around the monthly norm, will further increase the soil moisture reserves in the 100 cm soil layer.

*Source: NIMH*