

Agrometeorological forecast for the month of December

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The sharp cooling of the weather at the end of November will terminate the vegetation of winter cereal crops and winter rapeseed.

In December, agrometeorological conditions will be determined by temperatures close to climatic norms, which will keep the autumn crops dormant in most parts of the country. Exceptions are possible in some locations in the extreme southern regions and along the Black Sea coast. In these areas, during the relatively warmer days, mainly in the first half of the second ten-day period, when maximum temperatures above 10°C are forecast, the average daily values will reach the biological minimum required for the resumption of vegetative processes in winter cereal crops, but no change in the phenological phases of the crops is expected.

This year, the autumn drought delayed the sowing and the initial development stages of winter cereal crops and rapeseed in many places in the field regions. At the beginning of winter, the predominant growth stage of wheat will be the third leaf. Part of the crops, mainly those sown within the agrotechnical time frame, are in the tillering stage, which is a prerequisite for their successful overwintering. Late-sown wheat and barley crops, sown in the second half of November, will enter the winter poorly established, in the emergence phase and the initial stage of leaf formation.

Rapeseed sown within the agrotechnical time frame and having overcome the negative effects of the autumn drought will overwinter in the rosette stage (6–8 leaves). Part of the crops in Southern Bulgaria, as a result of the soil moisture deficit, failed to form a rosette during their autumn vegetation and they will have reduced winter hardiness during the winter.

In December, the forecast values of the minimum temperatures, in some places down to minus 15°C, when retained for a longer period under conditions without snow cover, will pose a risk of winterkill to late-sown winter cereal crops and rapeseed crops lagging in their development.

The forecast precipitation during the month will be around and above the norm and will increase the autumn moisture reserves in the 100 cm soil layer. At the end of November, the soil moisture reserves for winter cereal crops in the 50 and 100 cm layers in most parts of the country were above 80–85% of field capacity (FC). The highest levels, above 90% of FC, were recorded in the Sofia Plain, in some locations in Northern Bulgaria (agrometeorological stations Nikolaevo, Borima) and in the Sub-Balkan valleys (agrometeorological station Kazanlak). Unusually low for the season, below 65% of FC, were the moisture reserves in some locations in the southern regions (agrometeorological stations Haskovo, Sliven).

Source: NIMH-BAS