

Agrometeorological forecast for December

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Date: 06.12.2020 *Issue:* 12/2020



At the beginning of December, agrometeorological conditions will be determined by below-normal temperatures. The expected cold spell will lead to a slowdown, and in Northern Bulgaria and the high fields, to a cessation of the vegetative processes in the winter cereal crops and rapeseed.

During the first ten days, the conditions will allow the performance of seasonal soil tillage (deep ploughing of the areas designated for spring sowing) and phytosanitary activities in the permanent crops. In the middle of the period, widespread precipitation and an improvement in soil moisture are forecast.

During the second half of the first ten-day period, a significant increase in temperatures is forecast, but their average daily values, with the exception of some places in the southeastern regions and along the Black Sea

coast, will not reach 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 keep winter cereal crops in dormancy in the greater part of the country. Exceptions are possible for wheat and barley in the extreme southern and southeastern regions. In these regions, during the relatively warmer periods, a short-term resumption of vegetative processes in the autumn-sown crops will be observed, but no change in the phenological phases of the crops is expected.

At the beginning of winter, in wheat, as a result of delayed autumn sowing and the deepening soil water deficit in November, different phases will be observed. In the winter cereals sown in October within the agrotechnical time frame, the tillering phase will prevail. The crops sown at the beginning of November will overwinter in the third-leaf phase, while those sown late, in the second half of November, will be in the emergence and initial leaf formation phase. In rapeseed, only part of the crops managed, during their autumn vegetation, to form a rosette, the phase in which the plants overwinter successfully.

In December, the forecast values of the minimum temperatures, down to minus 11°C, in conditions without snow cover and with a more prolonged persistence, will be critical for the winter cereals that are in the emergence phase.

The expected precipitation in December, around the monthly norm, will increase the soil moisture reserves in the 50 and 100 cm soil layer. As a result of the below-normal November precipitation, in many parts of the country on the order of 6–7 l/m², the level of soil moisture reserves in winter cereals is unusually low for the second half of autumn. In some places in Southern Bulgaria and in part of the eastern regions, they are below 60% of field capacity (agrometeorological stations Sandanski, Haskovo, Sliven, Razgrad).

Source: NIMH