

January – high temperatures for the season and suitable conditions for winter sowing of cold-tolerant crops

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In January, agrometeorological conditions will be determined by temperatures above the climatic norms and precipitation around and below the monthly norm.

The above-normal temperatures at the end of December prolonged the vegetation processes of the autumn-sown crops in the eastern and southern regions of the country. At the beginning of January, higher-than-usual temperatures for the season are forecast, with average daily values in the arable areas above the biological minimum required for the vegetation of winter cereal crops.

During the period, various growth stages will be observed in wheat and barley. Due to the prolonged autumn drought and the resulting unfavourable conditions for sowing and development of the autumn crops, only a small part of the stands in the Danube Plain in Bazovets, Novachene and Nikolaevo, as well as in some locations in Southern Bulgaria – Kazanlak, Plovdiv and Pazardzhik – are at the tillering stage. In most of the arable areas of the country, the predominant stage is the third leaf. A decrease in temperatures and a halt in the vegetation processes in wheat are forecast at the end of the period.

There is a high probability that the unusually warm weather at the beginning of winter will provoke premature, undesirable development in stone fruit species, which would lead to a reduction in their winter hardiness.

Dry weather without significant precipitation is forecast for the period, and the conditions will allow the performance of deep ploughing and phytosanitary activities in the perennial plantations. The period is suitable for winter sowing of some cold-resistant crops – onion, parsley, peas, faba beans.

A decrease in temperatures and a halt in the vegetation processes of overwintering agricultural crops is expected during the second half of the first ten-day period.

On most days of the second and third ten-day periods, the forecast average daily temperatures will be within limits that will maintain winter cereal crops in dormancy. Exceptions are again possible in the autumn-sown crops in the southern regions of the country.

In January, the autumn-sown crops will overwinter in different phenological stages. Winter cereals at the third leaf stage will predominate. At the tillering stage, which is the suitable stage for overwintering, are the wheat stands in some locations in the Danube Plain (agrometeorological stations: Bazovets, Novachene, Nikolaevo). As a result of the autumn drought, part of the winter cereal crops are at an initial stage of development – emergence and 1–2 leaves. These stands are not well-hardened and will be the most vulnerable to low negative temperatures in January.

In January, the forecast minimum temperatures, down to minus 12°C, under conditions without snow cover and with a more prolonged duration, will be critical for the winter cereal crops that did not manage to tiller during their autumn vegetation.

The expected precipitation during the month will increase the soil moisture reserves in the 100 cm soil layer. At the beginning of winter, soil moisture reserves in the 50 cm layer in autumn-sown stands in most arable areas are above 85% of field capacity (FC). Exceptions are observed in some locations in the far southern regions

(agrometeorological stations Haskovo, Sliven, Lyubimets), where the level of soil moisture reserves is unusually low for the season – below 65% of FC.

In January, more favourable conditions for conducting soil tillage operations and winter pruning in vineyards and orchards will occur during the first and on most days of the third ten-day period.

Source: NIMH