

# January – a dynamic period with alternating intervals of above-normal, near-normal, and below-normal temperatures

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*Date:* 05.01.2025 *Issue:* 1/2025



In January, the agrometeorological conditions will be determined by dynamic weather, with alternating periods of above-normal, near-normal and below-normal temperatures.

During the coldest month of the year, the successful overwintering of autumn-sown crops will depend on their phenological stage, on the values of the minimum temperatures and to a large extent on the presence of a persistent snow cover.

On most days of the month, the forecast average daily temperatures will be within ranges that will maintain the winter cereal crops in deep dormancy. Exceptions are possible during the relatively warmer periods along the Black Sea coast and in the Struma River valley, where part of the autumn-sown crops will pass from deep to temporary dormancy, but the likelihood of resumption of vegetative processes in the winter cereals is low.

The wheat crops will overwinter in different phenological phases. The predominant ones are in the third leaf phase. In the tillering phase, which is the appropriate phase for overwintering, are the crops in places in Northeastern Bulgaria (Shumen, Targovishte, Silistra, Provadia). In the western regions (agrometeorological stations: Bazovets, Kneja, Lozen, Kyustendil, Sandanski), as a result of the prolonged autumn drought and late sowing, part of the winter cereal crops are at an initial stage of their development – in the emergence phase. These crops are not well hardened and will be the most vulnerable to low negative temperatures during the month.

In January, the forecast minimum temperatures, in places down to minus 20°C – 15°C, in conditions without snow cover and with more prolonged persistence, will be critical for the non-tillered crops.

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### **Vines are most susceptible to excoriose after bud swelling**

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Values below minus 16-17°C are hazardous for the buds of the less cold-hardy table grape varieties. In vineyards, during the dormancy period, it is advisable to carry out monitoring for the presence of the disease excoriose. Symptoms of the disease are observed on the mature shoots – the bark at the base of the first and second internode is whitened and peels off in strips. To limit the disease, shoots attacked by the pathogen must be pruned and destroyed in a timely manner, and the tools must be disinfected.

During the month, the expected precipitation, around and above the climatic norms, will increase the moisture reserves even in the two-metre soil layer. The precipitation in December, which in many parts of the country exceeded twice the monthly norm, sharply increased soil moisture reserves. At the beginning of winter, in most of the field areas, the level of moisture reserves in the 100 cm soil layer under the autumn crops is above 85-90% of field capacity.

In January, more suitable conditions for carrying out pruning in orchards will occur at the beginning of the month, at the end of the second and during the first half of the third ten-day period.