

Agrometeorological forecast at the beginning of the year

Author(s): Растителна защита
Date: 04.01.2021 *Issue:* 1/2021



The above-normal December temperatures, with maximum values reaching 17-18°C in many places in the lowland areas (Knezha, Pleven, Lovech, Veliko Tarnovo, Ruse, Silistra, Pazardzhik, Plovdiv, Stara Zagora, Chirpan, Elhovo, Varna, Burgas), prolonged the vegetative processes in the autumn-sown crops. The unseasonably high temperatures triggered premature bud swelling in some early-flowering fruit species (peach, cherry), which will lead to a reduction in their cold hardiness.

During the first ten-day period of January, agrometeorological conditions will be determined by above-normal temperatures. At the beginning of the month, in many places in the lowland areas, their mean daily values will again exceed the biological minimum required for the vegetation of winter cereal crops.

Cooling and cessation of vegetative processes in the autumn-sown crops are expected during the second half of the first ten-day period.

During the second and third ten-day periods, the forecast temperatures, close to the climatic norms, will maintain winter cereals and rapeseed in a dormant state. The expected widespread snowfall will improve the overwintering conditions of the autumn-sown crops. Wheat entered the winter in different phenological stages, as a consequence of the prolonged autumn drought and delayed sowing. Late-sown winter cereals, sown at the end of autumn, are not well established and are in the stages of emergence and early leaf formation in some places in the southern regions of the country (agrometeorological stations – Plovdiv, Haskovo, Lyubimets, Sliven, Yambol). A significant part of the wheat stands will overwinter in the three-leaf stage. In the tillering stage, which is the suitable stage for overwintering, are the winter cereals sown within the optimal agrotechnical period (agrometeorological stations – Bazovets, Novachene, Pavlikeni, Targovishte, Sandanski, Pazardzhik, Karnobat, Dolni Chiflik).

In January, the forecast minimum temperatures, down to minus 15°C, in conditions without snow cover and with more prolonged persistence, will be critical for non-tillered winter cereals and for winter rapeseed stands that failed to form a rosette during their autumn vegetation.

The expected precipitation in January, around and above the norm, will increase soil moisture reserves in the 100 cm layer. The above-normal precipitation in December (Kardzhali – 194 l/m², Haskovo – 142 l/m², Sliven – 125 l/m², Stara Zagora – 123 l/m², Silistra – 109 l/m²) sharply increased the moisture reserves in the upper soil layers. At the beginning of winter, in wheat fields, soil moisture reserves in the 50 cm layer in most of the lowland areas reached levels above 85-90% of field capacity (FC).

In January, more suitable conditions for carrying out winter pruning in vineyards and orchards will occur during the third ten-day period.

Source: NIMH