Растителна защита
електронно списание за растителна защита
семена, торове и земеделие
ISSN 2815-522X

December – temperatures close to the climatic norms and precipitation of agricultural significance

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Date: 07.12.2024 *Issue:* 12/2024

At the beginning of December, a substantial decrease in temperatures is forecast, which will lead to a slowdown and cessation of vegetation in autumn-sown crops in most of the arable regions of the country.

In Eastern Bulgaria, where maximum values will reach 15-16°C, conditions will be created for a short-term activation of vegetation in autumn-sown crops, but a significant change in the phenological state of the winter cereal crops is not expected.

ISSN 2815-522X

At the beginning of the month, as a result of the prolonged autumn drought, a large part of the wheat crops will cease their vegetation underdeveloped, at an initial stage of growth. In winter cereal crops the phases of emergence and initial leaf formation (1-2 leaves) predominate, which raises doubts regarding their successful overwintering. A small part of the crops in the northeastern regions (Targovishte, Silistra, Provadia), where moisture during the first half of autumn was not a limiting factor, are in the third leaf phase and at the beginning of tillering (the region of Provadia) – the appropriate phase for overwintering.

By the end of the first and during most days of the second and third ten-day periods, the forecast temperatures, close to the climatic norms, will maintain overwintering agricultural crops in dormancy. During the month, minimum temperatures down to minus 10°C are forecast which, in the absence of snow cover and with more prolonged persistence, will be critical for the underdeveloped winter cereal crops in the phases of emergence and initial leaf formation.

The expected precipitation in December, around the monthly norm, will increase soil moisture reserves in the 50 and 100 cm soil layers.

The precipitation that fell at the beginning of December exceeded 30-40l/m² in many places in Central and Southern Bulgaria (Lovech - 33l/m², Blagoevgrad - 41l/m², Sandanski - 42l/m², Plovdiv - 42l/m², Haskovo - 41l/m², Kardzhali - 50l/m², Chirpan - 39l/m²), which led to overcoming the moisture deficit for the autumn-sown crops in the upper soil layers. During the following period, further agriculturally significant precipitation is expected, as well as an increase in the level of soil moisture reserves in the 50cm and 100cm soil layers.

Source: NIMH