

April – dynamic agrometeorological conditions

Author(s): Растителна защита
Date: 07.04.2024 *Issue:* 4/2024



In April, the agrometeorological conditions will be characterized by increased dynamics. During the first half of the month, they will be determined by unstable weather with frequent precipitation, which will improve soil moisture reserves and the conditions for vegetation of the autumn-sown crops and the sown spring crops. As a result of below-normal precipitation in March, with the exception of some locations in Western Bulgaria, the soil moisture reserves in the 50 cm and 100 cm layers are unsatisfactory for the beginning of the spring vegetation period. In some of the eastern regions (agrometeorological stations: Razgrad, Dolni Chiflik, Sliven), the level of moisture reserves in the 50 cm layer in the winter cereal crops at the end of March was below 70-75% of field capacity.

During the first and the beginning of the second ten-day period of April, the forecast above-normal temperatures will accelerate the vegetation of the autumn-sown crops. During this period, a large part of the winter cereal crops in the field regions will enter the stem elongation growth stage. In the fruit crops, the stages of green bud, flowering, leaf development and fruit set will be observed. In the vine, bud swelling and bud burst will take place.

By the end of the first ten-day period of April, no precipitation of economic significance is forecast. The warm weather and the absence of precipitation have led to a decrease in moisture reserves in the surface soil layer, and in some places in the eastern regions even to a soil water deficit, which will delay the initial development stages of the sown spring crops.

At the beginning of April, the conditions will allow the implementation of seasonal agrotechnical activities – sowing of sunflower and carrying out pre-sowing soil tillage on the areas intended for sowing with spring crops. In the perennial plantations, treatments against scab in pome fruit species, against blossom blight (early brown rot) and shot-hole disease in stone fruit species will continue.

During most days of the second half of April, the development of agricultural crops will proceed under temperatures and precipitation close to the climatic norms. In the second half of the second ten-day period, the probability of frost formation is forecast, which must be taken into account when hardening vegetable and tobacco seedlings. The forecast minimum temperatures, down to minus 2°C, if persisting for a longer time, will be critical for the flowers and young fruit sets of the fruit trees.

During the third ten-day period, the vegetation of the winter cereal crops will proceed at a moderate pace. During this ten-day period, in wheat a transition from stem elongation to heading and the heading stage itself will be observed. The period between stem elongation and heading is critical for infection of winter cereal crops with powdery mildew and brown rust. During this period, wheat stands must be monitored for the presence and harmful activity of: sunn pest, cereal leaf beetle and wheat thrips, and when pest density exceeds the economic injury level, timely treatment is required.

During the month, the forecast frequent precipitation and the probability of hail will be a prerequisite for an increase in the infection pressure from a number of fungal diseases in fruit crops – blossom blight (early brown rot), scab, shot-hole disease, peach leaf curl, etc. After a hailstorm, in order to limit the risk of secondary infections by pathogens, it is advisable to apply treatments with copper-containing fungicides at the first opportunity.

In April, more suitable conditions for conducting plant protection spraying will occur at the beginning and at the end of the first ten-day period, during the second half of the second, and in the middle of the third ten-day period.

The soil temperature at 10 cm depth at the end of the second ten-day period in the field regions will reach suitable values for sowing grain maize, and during the third ten-day period – also for the thermophilic spring crops (cotton, beans, peanuts, watermelons, melons, etc.).

Source: NIMH