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Abstract

Cherry production has a long tradition in Hungary, especially in Szabolcs-Szatmár county. The success of production depends highly on weather parameters. Nevertheless, the sensitivity of the plant is different in different phenological phases. The quality and quantity of the yield are depending mostly on the success of flowering. Thus, it is very important to determine and characterize some weather indicators that have the greatest impact on the flowering process. To this daily meteorological data of air minimum and maximum temperatures (°C) and average temperatures as well as precipitation and humidity data from 1984 to 2005 were taken from the agroclimatological station located at the experimental site Újfehértó which is one of the most important areas of cherry production of Hungary. The indicators considered were as follows:

- frost probability,
- the number of frosty days,
- the absolute minimum temperature,
- the average of the daily minimums,
- the number of days with average temperature above 10 °C,
- the average of the daily maximums,
- precipitation sum,
- the maximum of daily precipitation,
- the number of days without precipitation,
- the number of days with precipitation higher than 5 mm as well as the number of days with relative humidity above 50%.

The observed changes were learned and the expected tendencies were detected. The indicators can be connected directly with risk events and so the expected changes of risk factors can be estimated. Thus, the preventive and mitigatory measures can be planned more effectively. Our researches were supported by OTKA K63065/2006, OM-00042/2008, OM-00265/2008, OM-00270/2008 competitions.