LONG-TERM CHANGES OF THERMAL RESOURCES IN THE VEGETATIVE PERIOD AND THE ACTIVE GROWTH OF PLANTS IN POLAND

Key words: changes, effective sums of temperature, Poland, the period of active plant growth, vegetative period

Summary

This paper deals with the problem of contemporary changes of thermal resources in the vegetative period in Poland. Thermal resources were specified using the sums of surpluses of mean daily air temperature values above the threshold of 5°C and 10°C (the so called effective sums of temperatures). Daily data from the period 1951–2006 used in the study come from ten synoptic IMGW stations in Polish lowlands. Spatially averaged data series were also used. The range of changes and long-term trends and fluctuations of thermal resources were established. The smallest sums of effective temperatures in the growing season occurred in different regions of Poland and during different periods while extremely high ones appeared in most parts of our country and were concentrated at the turn of the 20th and 21st centuries. The results show a significant increase in thermal resources and spatial differentiation of the rate of this process in Poland. Temperature sums above the threshold of 5°C increased in Poland at a rate of 4.0°C per year and those above the 10°C threshold – at a rate of 2.6°C per year.