

# The soil temperature at Pohořelice station during the years 1961 to 2000

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**Abstract:** Out of the agroclimatological stations of the Czech Hydrometeorological Institute, the soil temperature is measured by the mercurial soil bent thermometers with range from  $-30^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$  for low depth (5, 10, 20 cm) and in-depth mercurial thermometer with range of  $-25^{\circ}\text{C}$  to  $+35^{\circ}\text{C}$ , which is used for measuring soil temperature in 50 cm and 100 cm. The evaluation of measurement for the period of 1961 to 2000 at the Pohořelice station, where the soil is formed by chernozems, has brought the following results. On average the soil temperature drops below  $0^{\circ}\text{C}$  in depth of 5 cm from 4<sup>th</sup> January to 7<sup>th</sup> February, i.e., 35 days and in 10 cm from 10<sup>th</sup> January to 6<sup>th</sup> February, i.e., 28 days. The absolute maximum of soil temperature during the observed period ( $12.8^{\circ}\text{C}$ ) was reached on 30<sup>th</sup> March 1973 at depth 5 and 100 cm and absolute minimum of soil temperature ( $-9.5^{\circ}\text{C}$ ) was measured in 5 cm on 2<sup>nd</sup> and 3<sup>rd</sup> February 1963. The data were processed by Surfer 8.0. By the aid of this software the values of soil temperature were interpolated for the whole vertical profile (5 to 100 cm) on the basis of data at depth (5, 10, 20, 50, 100 cm).

**Key words:** soil temperature, thermometer, agroclimatological stations

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