

Analysis of occurrence and maximal parameter values of hail in the continental part of Croatia

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The purpose of this paper is to determine hail characteristics in the continental part of Croatia and to identify especially exposed areas.

Settled in the mid latitudes (46°) of the Northern Hemisphere (European hail belt), Croatia is exposed to the frequent occurrence of severe thunderstorms, especially in the continental part, between the Drava and Sava rivers. Hail is frequent with a high possibility of doing heavy damage in agricultural production and on mobile and immobile properties.

On the basis of 25 years (1981-2005) observed hail and damage data are collected from main meteorological and hail suppression stations, spatial distribution maps are made to show the most frequently areas with hail and damage. Database is supplemented with data measured by using hailpads in the period 2000 -2005.

Result analysis shows areas with maximum days with hail especially in western (hilly) part of the continental Croatia. The flat middle and eastern part has the minimum days with hail in the season (01.05. -01.10.) Areas near orographic obstacles are connected with higher frequencies of hail and heavy damage. These maps can be used as a basis for planning different prevention's methods (insurance, mechanical protection, etc.).