



Hailstone parameters and damage on agricultural plants in Croatia

D. Počakal

Meteorological and Hydrological Service of Croatia, Zagreb, Croatia (dhmz-rc@vz.htnet.hr)

Located at the mid latitudes of the Northern Hemisphere, Croatia is exposed to the frequent occurrence of severe thunderstorms and hail, especially in its continental part. This area (26 000 km²) is because of terrain and climatologically conditions very suitable for agricultural production (grain maize, grape and orchards).

In order to receive precise and objective hailstone data, hailpads were installed during the season 2001 on each main meteorological and hail suppression station in the continental part of Croatia. The most important data received from hailpads are number and size of hailstones and the kinetic energy, as indicators of the intensity of the hailfall which is directly connected with the grade of damage on different agriculture plants.

In this paper will be shown relations between hail parameters (number of hailstones and kinetic energy) and damage on different agricultural plants. The analysis also reveals that the same amount of kinetic energy or equal number of hailstones damages specific plant in different phenophases with various intensity.