



Evolution and Intensity of Hail in Wheat and Barley

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The cereals have represented a very important place in the agriculture along the history. The current expansion and growth of the energetic markets are changing the role of the agriculture.

The cereals, with other crops, are becoming more significant as suppliers of raw material for the production of biofuels.

The purpose of the present project is to carry out a study about the hail in cereals. The survey is focus in wheat and barley as they both represent the highest cereal production of Spain. Four provinces have been chosen (those with the values of production are higher): Burgos and Zaragoza for the wheat and Cuenca and Valladolid for the barley.

The materials and methods that we had available for the study of the evolution and intensity of the damages for hail include an analysis of the correlation between the ratios of agricultural insurances provided by ENESA and the number of days of annual hail (from 1981 to 2007). At the same time, one weather station per province was selected by the longest more complete data recorded (from 1963 to 2007) to perform an analysis of monthly time series of the number of hail days (HD).

The results of the study show us that there is no relation between the ratio of the agricultural insurances and the number of hail days. This can be due to the large area of which the ratio refers to and the low density of meteorological stations to cover the hail that is registered in every of the four provinces.

On the other hand, it is observed that monthly HD time series don't show a change in pattern except in one of the stations studied. Therefore with the information available we cannot state that there are clear changes in the evolution of the hail registered for each province.