



## Monthly hail time series analysis related to agricultural insurance

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Hail is one of the most important crop insurance in Spain being more than the 50% of the total insurance in cereal crops. The purpose of the present study is to carry out a study about the hail in cereals. 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 data that we had available for the study of the evolution and intensity of the damages for hail includes 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, several weather stations per province were 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 relation between the ratio of the agricultural insurances and the number of hail days is not clear.

Several observations are discussed to explain these results as well as if it is possible to determine a change in tendency in the HD time series.