



Environmental services generated by organic agriculture: A view from the air

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This work aims to develop an alternative methodology that enables monitoring the environmental differential that agroecological management involves in order to consolidate feasible payments for environmental services generated by organic agriculture. For this purpose, LANDSAT images have been used, and the Normalized Difference Vegetation Index (NDVI) of organic fruit farms, all of them with the same species and the similar edaphic and climatic characteristics, has been compared with the NDVI obtained at other nearby fruit farms under conventional management, all of them in Extremadura (Spain). As a result, we obtained a series of statistical data that allows us to clearly differentiate between these two types of management.

Among these data, remarkable differences have been detected regarding the minimum values of NDVI in the non-productive periods of the fruit, which is higher in the organic farms due to the permanent vegetation soil cover, with the subsequent effects on soil protection and carbon sequestration.

The conclusions of the paper show that it is possible to distinguish different models of crop management by using satellite images obtained in a quick and inexpensive way.

Keywords: LANDSAT images; NDVI; environmental services; agroecology; organic agriculture.