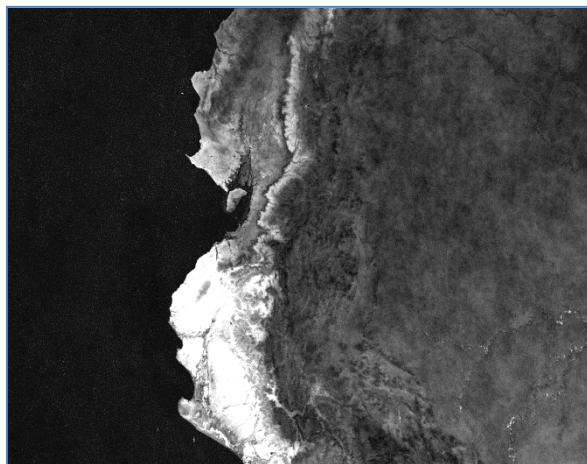




## **ESCUELA TÉCNICA SUPERIOR DE INGENIEROS AGRÓNOMOS**

“Estudio de la dinámica del cultivo del maíz (*Zea mays*, L.) a partir de series de tiempo del índice de vegetación NDVI registradas por el sensor MODIS en el cantón Mocache (Ecuador)”



**Trabajo Fin de Máster Universitario en Tecnología Agroambiental para una  
Agricultura Sostenible**

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**Julio – 2015**

## **ABSTRACT**

In this work we have studied the dynamics of maize in Ecuador, one of the most important for its population. For this we have used time series Index Normalized Difference Vegetation (NDVI) in the period 2001-2014. These were built from the product MOD09A1 offered by MODIS (NASA). By geographic situation in which is the study area (canton Mocache), the main challenge of the job is the presence of clouds that are a very important and frequent source of noise in the data. The objective was to assess whether the information was valid for analysis. A statistical analysis found that the time series of NDVI have a very significant information to study the dynamics of maize was made. Plus key dates in the evolution of this crop for the entire planted in the canton Mocache by a phenometric analysis identified area. The middle curve year NDVI index for corn plantings, resulting in the most verdant date (56,47%) was on March 22 in the Julian calendar, corresponding to the observation is used in the same issue 11 MODIS calendar.

**Keywords:** MODIS, NDVI, Time series, Maize, Crop dynamic.