Agri-Weather: Meteorological Solutions for the Agribusiness

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Technological solutions have been incorporated into the productivity of rural companies in an ever increasing speed since the 90s, highlighted by economic globalization and the opening of large companies, agribusinesses and retailers, who control the world market. However, the use of the so-called “precision agriculture” is utilized by the most privileged sectors because of installation costs, which cause a duality reflected by those who possess or not this technology. Considering this, we decided to develop a prototype of a meteorological station using the Galileo board for development and prototyping, since it could show better processing when compared to the board used in the previous stage of the project, and the Android operational system to collect and format meteorological data referring to nine variables considered important for production, which are: real altitude, temperature, rain detection, luminosity, barometric pressure, soil humidity and temperature, relative humidity of the air and wind speed, enabling the farmer to visualize the information that is specific to his planting. This information is made available in graphic format and it also makes it easy to read and understand reports. After carrying out test, we concluded, applying variance analysis, that the data collected by the station developed in this project are statistically equal to those certified and registered by the National Agency of Technical Assistance and Rural Extension, and had cost 95% cheaper than the weather station used for comparison in the tests. Thus, the project became viable, since it can capture specific planting and important data for the strategic planning of small producers, optimizing their production in an investment with a good cost-benefit relation.

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