

THE SMART SMILEY SERIES OF SENSORS: MECS-VINE and MECS-CROP

TEAM is a group of companies (Studio di Ingegneria Terradat, Appleby Italiana, Casella Macchina Agricole) that was established in 2009 with the aim of providing the farming sector with “turnkey” precision agriculture solutions. Its products range from data collection and processing to subsequent data management by means of electronic devices and dedicated agricultural machinery able to perform VRT (Variable Rate Technology) activities in the field. The group is pleased to introduce **SMART SMILEY**, a new and innovative series of sensors composed of the two following models:

- **MECS-VINE¹ (Micro Environment and Canopy Sensor, VINE version)** is a multi-parameter sensor specifically developed for the characterisation of the vegetation canopy and of the micro-environment in vineyards and orchards;
- **MECS-CROP¹ (Micro Environment and Canopy Sensor, CROP version)** is a multi-parameter sensor specifically developed for the characterisation of the vegetation canopy and of the micro-environment of row crops (tomatoes, corn, etc.).

The two SMART SMILEY sensors have been jointly designed, developed and patented by the companies of the TEAM group with the aim of creating subject-based maps with a level of significance at least similar to the one that was once achieved only thanks to multispectral satellite data. The level of detail these brand-new sensors can achieve is even higher than the one reached in the past. Our sensors allow going beyond the operation limits of the proximity sensors that have been developed to date; exactly these limits were those who prevented an extensive, simple and reliable use of this technology.

The post-processing software, MECS-MAPS, turns the data collected by the sensor, recorded in *log* files, into a sequence of levels of information that are made available as overlapping maps. Thanks to MECS-MAPS, users can use the *log* files recorded by the sensor to set up customised work programmes. These programmes will help them perform VRT activities in the field by means of VRT-enabled agricultural machinery (fertiliser spreaders, manure/compost spreaders, weed wipers, irrigators, rippers to underground liquid manure, harvesters, etc.).

It is no doubt that the characteristics of these sensors will catch the user's interest, since they allow the user to map his fields autonomously and to post-process the relevant data in order to draw thematic maps.

The different levels of information can be combined in a variety of ways or used individually to suit the user's requirements; this is possible in case of VRT applications with data collected by the sensor during a previous mapping session as well as in case of VRT applications with real-time control. This feature allows to devise much more successful and effective precision agriculture solutions than those developed to date.

For further information, please visit www.teamsmartfarming.com.