



Redefining Pest Management - a Holistic Approach

Practice Abstract N° 26

Field evaluation of the OPTIMA IPM system: Apple case

The main objective of the European project OPTIMA, funded by the H2020 program, has been the development of tools for the implementation of Integrated Pest Management. A decision support system (DSS), a device for the early detection of diseases (EDS) and three sprayers for Variable Rate Application (vines, carrots and apple trees) have been developed. In addition, a complete guide on the use of bio-PPPs has been designed: which products to use, how to combine them and how to apply them. The result has been evaluated in collaboration with the Épila Fruit Growers Association in Spain.

The results have shown the interest and benefits of both the decision support system and the device for early detection. Regarding the use and potential benefits of bio-PPPs, the results of the evaluation of the biological efficacy of the selected products show that the same efficacy values can be obtained as with products of synthetic origin, in this case for the control of mottled apple (*Venturia inaequalis*).

Regarding the results obtained with the variable application equipment, it should be noted that the system has worked perfectly. The implemented technology has allowed an adequate characterization of the vegetation that has resulted in a reduction of PPP of around 20%, with the same values of reduction of the amount of water applied. As a consequence, the work capacity of the equipment has been significantly improved, the application time has been reduced and, above all, drift reduction values close to 40% have been obtained compared to those obtained with the traditional technology used by the farmers in the area.



THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION'S HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT N. 773718

optima-h2020.eu

