



Redefining Pest Management - a Holistic Approach

Practice Abstract N° 27

Field evaluation of the OPTIMA IPM system: Carrot 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 variable application equipment (vines, carrots and apple trees) have been developed. In addition, a complete guide on the use of bio-PPPs has been prepared: what products to use, how to combine them and how to apply them. The developments have been evaluated in collaboration with carrot growers in south-western France.

The results highlight the need to continue with the development of the decision support system, making it more precise for carrot cultivation, especially in relation to the control of *Alternaria*. Similar conclusions have been obtained after field validation of the early detection system, although the results indicate that it is a very interesting device. Regarding the application of products based on the characteristics of the vegetation, this showed a double benefit in terms of deposition in the crop and a significant reduction in drift using low drift nozzles and aerial assistance. In addition, the data shows that there are no differences in terms of biological effectiveness, concentrating the sprays in the exact area of the crop, thus reducing soil loss and drift. The OPTIMA IPM system therefore provides solutions to reduce the use of plant protection products and the risk of environmental contamination by reducing product drift.



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