



## **ACTIONS D: Public awareness and dissemination of the results**

*Deliverable D.1.6. Report with minutes/conclusions of the project workshops*



## INDEX

<b>1</b>	<b>INTRODUCTION.....</b>	<b>3</b>
<b>2</b>	<b>WORKSHOPS.....</b>	<b>4</b>
2.1	DEMONSTRATIVE AND DISSEMINATION DAY DEDICATED TO OPTIMIZATION APPLICATION OF PESTICIDES ON CITRUS (JORNADAS DEMOSTRATIVA Y DIVULGATIVA DE OPTIMIZACIÓN DE LA APLICACIÓN DE FITOSANITARIOS EN CÍTRICOS) .....	4
2.2	DEMONSTRATIVE AND DISSEMINATION DAY DEDICATED TO OPTIMIZATION APPLICATION OF PESTICIDES ON VINEYARDS (XXXXX) .....	8

## 1 INTRODUCTION

PERFECT LIFE (Pesticide Reduction using Friendly and Environmentally Controlled Technologies) aims to demonstrate the reduction of the environmental contamination of pesticides and their metabolites in the air using a group of technologies and techniques to encourage farmers and stakeholders towards sustainable agricultural practices, which will lead to a decrease of the pesticide risk for fauna, flora, and humans.

The current report summarises the workshops and demonstration days carried out in the frame of the dissemination activities programmed to demonstrate to farmers and technicians the efficiency of the technologies and techniques used in the project to reduce pesticide drift and exposure to applicators, farmers, and bystanders.

## 2 Workshops

### 2.1 Demonstrative and dissemination day dedicated to the pesticide application optimization on citrus (Jornadas demostrativa y divulgativa de optimización de la aplicación de fitosanitarios en cítricos)

IVIA organised a workshop in collaboration with CEAM, FISABIO, and CACV, and two international pesticide manufacturers, Certis and Belchim Crop Protection, which recently fused as Certis Belchim B.V. The workshop was part of an event organised by Certis Belchim B.V. named “Hacia la citricultura del futuro” (“Towards the citriculture of the future”), focused on showing different innovative technologies and techniques for citrus agriculture to farmers and technicians. The innovations were related to different areas: citrus pests, nutrition, biodiversity, weeds, and pesticide application technology. The event was held on the 6<sup>th</sup> and 7<sup>th</sup> of April 2022 in the experimental farm “Finca Sinyent” from AVA-ASAJA (Asociación Valenciana de Agricultores y Asociación Agraria Jóvenes Agricultores) in Polinyà de Xúquer (Valencia, Spain).

The participation was a success with 265 attendees on the first day and 235 attendees on the second day. The participants came from all the citrus growing areas of Spain: Comunidad Valenciana (Valencia, Alicante and Castellón), Murcia, and Andalucía (Almería, Granada, Huelva, Sevilla and Córdoba).



**Figure 1: Picture from the beginning of the event with all the participants arriving and the local tv channel recording the event.**

The attendees were split into groups of 20-30 people and passed through the different stands devoted to the different areas. The area of pesticide application technology was devoted to the PERFECT LIFE project workshop committed to demonstrating the benefits of the optimisation of the application of pesticides on citrus and how the PERFECT LIFE project could support the growers in this sense, with the tools the project defends: OVRA and SDRT, together with the Good Agricultural Practices. The workshop consisted on the presentation of the results of the project to each group of people and practical field demonstrations on the citrus orchards of the farm.



Figure 2: Noticeboard of the workshop

We disseminated a specific noticeboard to promote the workshop (Figure 1), which was distributed among all the social media accounts and mailing lists.

First, partners from CEAM, IVIA, and FISABIO explained the results of the project in citrus and all the activities carried out during its implementation (see Figure 3 where some partners are talking to the audience) to the different groups. CEAM gave an overview of the project, IVIA explained the PERFECT tools and their environmental benefits, together with the results of the validation of CitrusVol, to ensure growers they will not have pest problems with the PERFECT tools, and FISABIO explained the reduction of human exposure obtained. Besides, a large poster (2x2 m) (figure 4) summarizing the results described was placed in the stand to facilitate the explanations and to help the audience to follow the talks.



Figure 3: Pictures of the talks performed during the day



Figure 4: Poster of the project

After the talks, each day we organized two field demonstrations for all the participants, which were split into two groups so that everyone could properly follow the demonstration. In these demonstrations, we mimicked the field trials that have been performed in the framework of the project to quantify the reduction of pesticide losses and human exposure that could be achieved with the PERFECT tools. For this, we made spray applications with air-blast sprayers with two configurations: a conventional one, based on the most common practices of the farmers of the area (hollow cone nozzles, very high volume rate, all the nozzles of the manifold working, no airflow adjustment, etc), and an optimised one, based on the configuration recommended by the PERFECT tools (low-drift nozzles, CitrusVol volume rate, Citrus TOPPS & Citrus VESPA nozzle manifold configuration, airflow deflectors directed towards the vegetation, etc). In the weeks before the workshop, IVIA selected the orchards where demonstrations could be carried out in proper conditions and characterized their vegetation, and the sprayers were calibrated and adjusted for the conventional and the optimised applications. In the demonstrations, we took advantage of the water-sensitive papers (WSP), that allow the visualization of deposited droplets due to the change of colour of the impacted droplets on the WSP surface. WSP were arranged in:



- Vertical poles up to 9 m high to visualize **drift**,
- Horizontal bases at ground level to visualize **ground losses**,
- Adult and infant mannequins to visualize **bystander exposure**, and
- Operator coverall to visualize **operator exposure**.

At the end of the demonstrations, WSP collected from both treatments were placed in a poster to show the clear differences between the conventional and the optimised application, as can be seen in figure 5.



Figure 5: Picture and poster from the field demonstration of both treatments (conventional and optimised)

## 2.2 Demonstrative and dissemination day dedicated to optimization application of pesticides on vineyards.

In Italy during 2022 three different events for disseminating the activity carried out within Perfect project and the results obtained in the field were organised.

One online dissemination event took place on March 24<sup>th</sup>, 2022, and was addressed to field technicians and PPP application experts belonging to vine producers' associations and farmers' technical assistance services at a national scale. Some representatives of public authorities (Regional Offices for Agriculture and Environment) participated as well, 26 participants followed the presentations that illustrated, in particular, the use of OVRA tools (Dosavina, VESPA and TOPPS Drift Evaluation Tool) and the experimental results collected either in citrus orchards in Spain or in the vineyards in Italy regarding operators and bystanders' exposure to PPP in the function of the different spray application parameters adopted (Fig. 6).



Figure 6: Screenshot of the PERFECT online dissemination event held in Italy on 24<sup>th</sup> March 2022.

One dissemination day was held on 6<sup>th</sup> May 2022 in Piverone (Torino), in the area where experimental trials aimed to compare the spray coverage and the biological efficacy of applications made following the OVRA tool (Dosavina) versus the applications made using the conventional sprayer settings adopted by the farmer were carried out in Pergola trained vineyards. More than 40 persons joined the face-to-face event, mainly representing vine growers and field technicians based in the area of Piverone (Fig. 7). During the dissemination of the first results of the experiments carried out in the vineyard to assess direct and indirect exposure to pesticides of bystanders and operators were presented and the OVRA tools (Dosavina, Topps Prowadis Drift Evaluation Tool and VESPA) were illustrated with practical examples.





Figure 7: PERFECT dissemination event held in Piverone (Torino) on 6<sup>th</sup> May 2022.

One workshop to disseminate the results of the PERFECT Project activities among the vine growers and field technicians based in Piemonte region was held on 28<sup>th</sup> October 2022 at the seat of Vite Colte consortium in Barolo (Cuneo). The workshop was originally planned in July 2022 in Tenuta Cannona at Carpeneto (Alessandria), the experimental site where trials to assess operator and bystanders' exposure, as well as to assess airborne drift and ground losses in the vineyard comparing one conventional sprayer setting and one optimized sprayer setting adopting OVRA and SDRT tools, were carried out. This is in order to provide also practical demonstrations to the attendants about the experimental activities carried out in Perfect. Nevertheless, due to the very few registered persons, the event in Tenuta Cannona was postponed to spring 2023, while another workshop was held in Barolo in October 2022.

Twenty five persons attended the event in Barolo (Fig. 8) where results of the first campaign of experimental trials carried out in the vineyard were presented and debated and the use of Dosavina, TOPPS Prowadis Drift Evaluation Tool and VESPA tool was demonstrated.



Figure 8: PERFECT workshop held in Barolo (Cuneo) on 28<sup>th</sup> October 2022.