



Report on Conducted Demonstrations in 2021

Deliverable D3.3



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Report on Conducted Demonstrations in 2021

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A**bstract**

This Deliverable describes the IPM demonstration events conducted in the first year of execution, namely 2021, of IPMWORKS in each participating country and existing hub. The document includes a summary on the IPMWORKS project, an introduction on the contents of this report, as well as summarized overview of demo events in 2021 and specifics of each executed event. At last, a small conclusion section is written to summarize the main features and outcomes of the conducted demonstration events in 2021.

Rather few demonstration events were organized during 2021. This was actually expected, as 2021 was mainly dedicated to the setting of the hubs, the recruitment of farmers, and the work with them to help them redesign their pest management approach, adopt more holistic IPM and reduce further their reliance on pesticides. The number of demo event will be intensified over the last 3 years of the project, as each hub is expected to organize at least 12 demo events over the course of the project.

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1. Introduction

IPMWORKS organizes a number of demonstration events each year in every hub for every participating country. This document summarizes and describes all the conducted demonstration events in the project in 2021.

Each hub is expected to organize 12 demo events along the four year of the project. However, year 2021 was mainly dedicated to the building of the hubs, the recruitment of hub coaches and farmers, the intra-hub work to know better each other and to help farmers progress further towards holistic IPM. As a consequence, rather few demonstrations were organized in 2021. Many more will follow in 2022 and thereafter.

For each event, the following details are provided:

- Event title, hub member, country, date, location and number of visitors,
- General subject and goal of the demonstration,
- Description of IPM strategies shown in the demonstration,
- Promotion activities and communication and dissemination material used for the demonstration.

This information is described in the next section.

2. Strategic demonstration events in 2021

Demonstration events overview

The following table gives an overview of the demonstration events organized for IPMWORKS in 2021. For every event, the title is included, as well as the organizing hub, country, date, location and number of visitors of the demonstration event.

Demo Events 2021						
Sector	Event title	Hub	Country	Date	Location	Number of visitors
Arable Crops	No event in 2021					
Greenhouse	Biological control in watermelon	COEXPHAL	Spain	22-04-2021	Esther Molina's farm, Los Grillos, Níjar	50 to 70
	Biological control in tomato	COEXPHAL	Spain	10-06-2021	Unica Group (Antonio Vargas' farm), La Mojonera	20 to 40
	Biological control in sweet pepper	COEXPHAL	Spain	25-11-2021	Javier's farm, La Mojonera	5 to 15
Orchard	Mechanical weed control and weed management in apple orchards on variety Topaz	KGZM	Slovenia	22-10-2021	Petra Marko, Metava 62, 2229 Malečnik	30 to 40
Outdoor Vegetables	Reduced use of herbicides in carrots	CONSULAI	Portugal	07-09-2021	Agroglobal Fair, Sntarém, Alentejo	10 to 20
	Prevention and control of powdery scab in potato	CONSULAI	Portugal	07-09-2021	Agroglobal Fair, Sntarém, Alentejo	10 to 20
	Monitoring pests using biotechnical tools	CONSULAI	Portugal	07-09-2021	Agroglobal Fair, Sntarém, Alentejo	10 to 20
Vineyard	Mechanical weed control using an innovative technique/machine "intercepas"	CONSULAI	Portugal	25-06-2021	Fita Preta – Évora	20 to 30
	Automation and precision agriculture in spraying vineyards for reducing the quantity of PPP	CONSULAI	Portugal	09-09-2021	Agroglobal Fair, Sntarém, Alentejo	20 to 30

Specifics of demonstration events

In the next section, more specific information is provided per demonstration event, such as the description of IPM strategies, what promotion activities and dissemination and communication materials are used and how the evaluation of the demo event has been done.

Arable Crops

No demonstration event was organised in this sector in 2021. This first year of the project was dedicated to the setting of farm hubs, and the work facilitating the adoption by the engaged farmers of more holistic IPM, so as to reduce further the reliance on pesticides. In this sector, all hubs will have to concentrate the 12 expected demo events on years 2022-2024.

Greenhouse

- *Biological control in watermelon – COEXPHAL Spain*

The goal of the demonstration was to show how to successfully conduct biological control in a watermelon crop, particularly the management of aphids and red spider mites. In the demo event, the IPMWORKS project was presented. Thereafter farmers discussed their experiences growing the crop, the pest issues they encountered. A general discussion with all participants was then facilitated by the hub coach.

The IPM strategies discussed were biological control agents against major pests, such as banker plant management, auxiliary flora to promote biological control and hedgerow management.

Promotional activities were in cooperation with advisors and the customer base of these advisors. Videos, interviews and technical articles have been used for communication and dissemination purposes. The demo event has been evaluated by means of exit polls.

- *Biological control in tomato – COEXPHAL Spain*

The goal of the demonstration was to show a good, practical example of how an integrated pest management can be efficient to control most pest-related issues in a tomato crop, with special emphasis on *Tuta absoluta*. In the demo event, the IPMWORKS project was presented. Thereafter groups were guided to see the crop and the main pest management strategies used.

The IPM strategies highlighted in this demo event were based on biological control agents for *Nesidiocoris tenuis*, *Trichogramma* spp., *Necremnus tuta*, flowering plants and the mating disruption technique.

Promotional activities were in cooperation with advisors and the customer base of these advisors. Videos, interviews and technical articles have been used for communication and dissemination purposes. The demo event has been evaluated by means of exit polls.

- *Biological control in sweet pepper – COEXPHAL Spain*

The goal of this demonstration event was to demonstrate how to successfully manage pests in sweet pepper crops, with emphasis on aphid and red spider mite management. The demo started with the introduction of the IPMWORKS project. Afterwards, the participants were



guided on the farm to see the crop and the main IPM techniques. At last, a general discussion has been held with the participants, facilitated by the hub coach.

The IPM strategies presented in this demo event were based on biological control agents against major pests such as aphids and spider mites, as well as auxiliary flora to promote biological control, humidity systems to facilitate BCAs establishment in the crop and hedgerow management.

Promotional activities were in cooperation with advisors and the customer base of these advisors. Videos, interviews and technical articles have been used for communication and dissemination purposes. The demo event has been evaluated by means of exit polls.

Orchard

- *Mechanical weed control and weed management in apple orchards on variety Topaz – KGZS MB Slovenia*

The goal of the demonstration event was to present the mechanical weed control and weed management in an apple orchard on variety Topaz. Two different methods of mechanical weed control have been compared, the first one using tillage and the second one with a mechanical rope tinner. The effect of these two methods was studied on the growth performance of selected weeds, as well as the quality of the apples harvested from the orchard.

The customer base of KGZS MB and social media were used to promote the demonstration event amongst farmers and other stakeholders. The goals and objectives of the demonstration were presented to the farmers via the hub coach and manager of the fruit growing center in Maribor. Afterwards, a video has been uploaded of the project on the KGZS MB website about the demonstration event. The event has been evaluated with the help of a survey sent to participants via email after the event took place.

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Outdoor Vegetables

- *Reduced use of herbicides in carrots – CONSULAI Portugal*

The goal of this demonstration event was to demonstrate the potential of reducing the use of herbicides in carrots, mainly with mechanical crop practices. The demonstration was facilitated with an open discussion and a field visit.

The customer base of CONSULAI has been used to promote the demonstration and video and pictures of the demonstration were shared on social media platforms and website of CONSULAI after the demonstration. The demonstration has not been evaluated.

- *Prevention and control of powdery scab in potato – CONSULAI Portugal*

The goal of this demonstration event was to show how to control or prevent powdery scab potatoes. The demonstration was facilitated with an open discussion and a field visit.

The customer base of CONSULAI has been used to promote the demonstration and video and pictures of the demonstration were shared on social media platforms and website of CONSULAI after the demonstration. The demonstration has not been evaluated.

- *Monitoring pests using biotechnical tools – CONSULAI Portugal*

The goal of this demonstration event was to demonstrate the prevention and monitoring of pests with biotechnical measures on different crops. The two biotechnical measures demonstrated in this demo were delta traps and yellow sticky plates. The demonstration event was facilitated with an open discussion and material demonstration.

The customer base of CONSULAI has been used to promote the demonstration and video and pictures of the demonstration were shared on social media platforms and website of CONSULAI after the demonstration. The demonstration has not been evaluated.

Vineyard

- *Mechanical weed control using an innovative technique/machine ‘intercepas’ – CONSULAI Portugal*

The goal of this demonstration event was to demonstrate mechanical weed control with “intercepas” in vineyards without the use of herbicides. On the most developed producers in Portugal this is a common practice, however the dissemination of the technique across the whole sector has to be facilitated, also through IPMWORKS.

This first demonstration was only held among the hub members of the Portuguese vineyard hub and marked the start of knowledge exchange and experiences among the hub. Therefore, no other participants have been invited. However, after the event, video’s and pictures have been shared on social media platforms of CONSULAI.

- *Automation and precision agriculture in spraying vineyards for reducing the quantity of PPP – CONSULAI Portugal*

The goal of this demonstration event was to demonstrate a machine that uses recent precision agriculture technology to minimize PPP use during spraying operations. The equipment and technology showed uses GPS systems ensuring that products are applied where needed in the recommended quantity.

The attendees of this event were farmers of the Portuguese vineyard hub and other local stakeholders. A field demonstration was held to present the machinery. After the event, video’s and pictures have been shared on social media platforms of CONSULAI for dissemination purposes.

3. Conclusion

All the partners of the IPMWORKS project were asked to share details on their demonstration events executed in 2021 via the hub journals (the tool developed by the project to help hub coaches organizing their activities within the hub, including communication and dissemination). In this report, all the demonstration events were briefly summarized and elaborated upon. Demonstration events have been conducted in different crops, for different goals, such as weed management or pest management and in various countries.

For the continuation of the project, each hub can be inspired by the past experiences of 2021 and use the content and experiences to start working on their own topics. At last, procedures for proper administration of the events may be improved to raise the quality and completeness of the work in the project.

All persons within the IPMWORKS consortium commit with all what is written in this deliverable. The partners' main contacts will ensure that all persons in their team commit with the procedures that are described.