Report on demonstrations in 2022

Deliverable D3.4

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An EU-wide farm network demonstrating and promoting cost-effective IPM strategies

Coordination and Support Action (CSA)

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Report on Conducted Demonstrations in 2022

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Abstract

This Deliverable describes the IPM demonstration events conducted in 2022 in each participating country and existing hub in the second year of execution of IPMWORKS. 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 2022 and specifics of each executed event. Finally, a small conclusion section is written to summarize the main features and outcomes of the conducted demonstration events in 2022.

Contents

1. IPMWORKS: Summary

Integrated Pest Management (IPM) is based on a diversity of pest management measures (prevention, non-chemical control, best practices for optimizing pesticide efficiency, etc.). These are combined at the farm level to enable reduced reliance on pesticides, and therefore a decrease in the exposure of the environment and people to pesticides. Pioneer farmers throughout Europe are testing such IPM strategies and are succeeding in achieving good outcomes with low pesticide inputs. However, the majority of European farmers still rely heavily on pesticides, with major environmental and societal impacts, because most of them have not adopted a comprehensive, farm-level and holistic IPM strategy so far.

The objective of IPMWORKS is to promote the adoption of IPM strategies, based on an EU-wide demonstration network of farmers, who both progress further in the adoption of IPM – through peer-to-peer learning, and joint efforts – and demonstrate to other farmers that holistic IPM "works"; i.e. allows a low reliance on pesticides with better pest control, reduced costs and enhanced profitability. IPMWORKS coordinates existing networks promoting IPM and launched 22 new hubs of farms in regions or sectors where IPM pioneers were not engaged in a relevant network yet. Advisors coordinating hubs have a major role in facilitating knowledge sharing, coaching farmers to find their own IPM solutions, and organizing local demonstration activities. IPMWORKS stimulates access to the 'IPM Decisions' platform and provides information on the IPM methods. It collects data for comparing IPM strategies, and shares results and dissemination material through channels widely used by farmers, broadcasting IPM success stories. It is organizing training, and produced training material, targeting both farmers outside the network and advisory services, in order to prepare for the future dissemination of the peer-to-peer learning approach and the general adoption of IPM throughout the EU.

The demonstration of cost-efficiency of IPM is based on data describing the details of cropping systems and pest management in farms involved in the network. IPMWORKS also produces a range of data of various nature for dissemination and communication such as videos of farmers' testimonies, videos of demonstration events, leaflets describing cost-effective IPM-based strategies, etc.).

Project Acronym	IPMWORKS
Project title	An EU-wide farm network demonstrating and promoting cost-effective IPM strategies
Grant agreement No.	101000339
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2. 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 2022. 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.

3. Demonstration events in 2022

Demonstration events overview

The table on the next page gives an overview of the demonstration events organized for IPMWORKS in 2022. For every event, the title is included, as well as the organizing hub, country, date, location and number of visitors of the demonstration event. In total 54 demonstrations were conducted in 2022, with 1900 visitors in total.

Sector	Event title	Hub	Country	Date	Numb
Arable Crops	Mechanical weeding in maize	JKI	Germany	2-6-2022	45
	Variety of effects in oilseedrape and winter wheat	JKI	Germany	3-6-2022	25
	Soil fertility and cover crops	JKI	Germany	4-11-2022	52
	Single seed sawing	JKI	Germany	2-12-2022	12
	Automated and selective weed control in grassland	GLZ	Germany	8-8-2022	24
	Focus on italian reygrass	DL	Denmark	3-5-2022	11
	Farm visit; a farm with focus on IPM	DL	Denmark	17-5-2022	95
	Using fertilizers as a preventive asset toward pests	DL	Denmark	31-5-2022	125
	Italian ryegrassday	DL	Denmark	6-1-2022	11
	IPM fielddemonstration and debate about CA	VELAS	Denmark	24-5-2022	25
	Ploughing in rotation	VELAS	Denmark	1-4-2022	12
	Visit tot famer's plot	INTIA	Spain	9-5-2022	16
	Rust watch; workshop about yellow rust	INTIA	Spain	24-3-2022	29
	Visit trials in farmers plots	INTIA	Spain	23-5-2022	16
	Wintercrops walk and IPM techniques	TEAGASC	Ireland	17-2-2022	75
	Use of organic manurefor soil health and crop rotation	TEAGASC	Ireland	22-3-2022	20
	Scottish cross visit	TEAGASC	Ireland	15-6-2022	5
	Cultivation systems and their effect on weed control	TEAGASC	Ireland	28-6-2022	25
	Role of faba beans and crop rotation on a cereal farm	TEAGASC	Ireland	29-6-2022	150
	Aphid monitoring to control BYDV	TEAGASC	Ireland	30-6-2022	20
	Informing policy makers about the role of IPM	TEAGASC	Ireland	13-7-2022	20
	Field day OVLAC MINI	SSSA	Italy	22-4-2022	15
	Field day IPM techniques on wheat in Tuscany	SSSA	Italy	13-6-2022	25
	Field day LIFE AGRESTIC	SSSA	Italy	8-7-2022	15
	Field day fibre hemp cultivation and harvesting	SSSA	Italy	25-8-2022	35
	Mechanical weeding options	WUR	Netherlan	17-4-2022	13
	Using apps on the Farmmaps platform	WUR	Netherlan	29-3-2022	8
	Using apps on the Farmmaps platform	WUR	Netherlan	5-4-2022	11
	Weeding in onions with a robot	WUR	Netherlan	12-5-2022	15
	Biofortification to reduce fungicide use in WW	JHI	Scotland U	19-7-2022	175
	Cover and Companion cropping workshop	JHI	Scotland U	1-12-2022	18
	New technology for weed control in sugar beets	KPODR	Poland	28-6-2022	20
	Actual pest and disease pressure in different varieties in cerea	KPODR	Poland	2-6-2023	30
	IPM approach for different crops	KPODR	Poland	2-7-2023	200
	Probiotic soil micro organisms in wheat	KPODR	Poland	7-7-2020	20
Greenhouse	IPM strategy in strawberry	INAGRO	Belgium	4-5-2022	14
	IPM strategy in raspberries	INAGRO	Belgium	10-8-2022	7
	Varieties in IPM for strawberries	INAGRO	Belgium	25-8-2022	39
	Beneficials for biological control of aphids	INAGRO	Belgium	28-10-2022	10
	Holistic IPM for policy makers	INAGRO	Belgium	10-5-2022	32
	Biological control in zucchini crops	COEXPHAL	Spain	10-3-2022	23
	IPM of nematodes in greenhouse crops	COEXPHAL	Spain	21-4-2022	16
	Biological control of aphids in watermelon crops	COEXPHAL	Spain	6-5-2022	16
Orchard	Olive fly management strategies	SSA	Italy	25-5-2022	10
	Olive fly management strategies (Partecipatory GIS)	SSA	Italy	21-6-2022	12
Vegetables	Watermanagement on the field	INAGRO	Belgium	18-2-2022	26
	Biocontrol of aphids pollination, substrate cultivation	INAGRO	Belgium	19-4-2022	17
	Cultivar selection, pollination and powdery mildew control	INAGRO	Belgium	30-6-2022	22
	Pellonpiennarpäivä marjattiloilla	ProAgria	Finland	30-8-2022	10
	Integrating organic practices in integrated production	CONSULAI	Portugal	4-10-2022	21
Vineyard	How to predict fungal diseases in the vineyard	FUEGA	Spain	1-4-2022	55
	Pheromons and bats to combat grapevine moth	FUEGA	Spain	22-5-2022	60
	Innovation of Galician viticulture	FUEGA	Spain	27-7-2022	80
	Ozon for plant protection	CONSULAI	Portugal	18-5-2022	18
	Total number of visitors				1901

Realisation and planning

By the end of 2022, a total of 54 demonstrations were conducted. The planning for 2023 and 2024 is added. We expect to reach a total number of at least 230 demonstrations by the end of the project.

Hub	Hub	Country	Total demos	Conducted end of 2022	Planned for 2023	To do 2024	Total expected
1	Delphy	NL	10		9	2	11
2	WR	NL	10	4	4	4	12
3	INAGRO vegetables	BE	10	5	3	4	12
4	INAGRO greenhouse	BE	10	3	10		13
5	KPODR	PL	10	4	4	2	10
6	JHI	UK	10	2	7	1	10
7	Consulai vineyards	PT	10	1	5	4	10
8	Consulai vegetables	PT	10	1	7	2	10
9	SSSA arable crops	IT	10	4	2	4	10
10	SSSA orchards	IT	10	2	5	3	10
11	DL Arable crops	DK	10	4	10	2	16
12	VELAS arable crops	DK	10	2	5	3	10
13	BIOSENSE	RS	10		7	3	10
14	FEUGA vineyards	ES	10	3	5	2	10
15	INTIA arable crops	ES	10	3	3	4	10
16	COEXPHAL	ES	10	3	7	2	12
17	JKI arable crops	DE	10	4	2	4	10
18	GLZ	DE	10	1	4	5	10
19	KGZS MB arable, vegetables & ornamentals	SL	10		8	2	10
20	ProAgria	FI	10	1	5	4	10
21	AUA	Gr	10		6	4	10
22	Teagasc	IE	4	7	1		8
	Totals		214	54	119	61	234

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 demonstration event has been done.

Arable Crops

- ***Mechanical weeding control – JKI Germany***

Number of visitors: 45

Crops: maize

Pests: weeds

IPM strategy and tools: mechanical weeding and combination of mechanical and chemical to reduce the use of chemical herbicides.

The goal of the demonstration was to show an alternative to herbicide use in maize, showing other farmers that mechanical weeding in maize is practical and effective. In the demo event machinery and two different methods of mechanical weeding were presented: harrowing and hoeing. The demonstration was facilitated by a field walk.

The customer base and website of JKI has been used to promote the demonstration and photos of the demonstration were shared on social media platforms and website of JKI after the demonstration. The demo event has been evaluated by means of exit polls.

- ***Variety effects in oilseed rape and diseases in cereals; Comparison of varieties – JKI Germany***

Number of visitors: 25

Crops: Oil seed rape and winter wheat

Pests: diseases in wheat and oil seed rape

IPM strategy and tools: impact of variety choice and use of DSS in pest control

The goal of the demonstration was to show the benefits of Decision Support Systems (DSS) in different varieties of winter wheat and oilseed rape. The IPM strategies discussed were identification and treatment of diseases in cereals, and the comparison of different varieties of wheat and oilseeds rape. The demonstration was facilitated by a workshop and field walk.

The customer base and website of JKI has been used to promote the demonstration and photos of the demonstration were shared on social media platforms and website of JKI after the demonstration. The demo event has been evaluated by means of exit polls.

- ***Cover crops and soil fertility – JKI Germany***

Number of visitors: 52

Crops: cover crops.

Pests: no specific pests, but pests in general in relation to soil health.

IPM strategy and tools: cover crops and cover crop management, in relation to soil health, soil structure and disease pressure.

The goal of the demonstration was to show the effects of different cover-crops on soil structure. In the demo event, the IPMWORKS project was presented, the farmers were able to see different crop mixtures of cover crops in field trials on comparative evaluation of impacts on soil fertility.

In a workshop, farmers discussed their experiences on the IPM strategies, with the removal of the cover crops and the effects of not only the cover crops on soil fertility, but also the importance of the entire cropping system, including soil tillage.

The customer base and website of JKI has been used to promote the demonstration and photos of the demonstration were shared on social media platforms and website of JKI after the demonstration. The demo event has been evaluated by means of exit polls.

- ***Single seed sowing and DSS for herbicides – JKI Germany***

Number of visitors: 12

Crops: wheat, barley, maize, oilseed rape

Pests: weeds.

IPM strategy and tools: Adapting sowing technique for climate change adaptation and use of DSS for weed control.

The goal of the demonstration was to show the benefits of single seed sowing as adaptation to low rainfall. Also farmers were able to see the benefits of "InnoHerb", a decision support system (DSS), to reduce the use of herbicides.

The IPM strategies demonstration with machinery for single seed sowing, was canceled because of snow cover. Instead, photos were presented, complemented with the explanation of the DSS "InnoHerb". Farmers discussed the costs of the machinery for smaller farms and the requirements of knowledge, experience and risk tolerance. Other hub-members were surprised by the efficiency of the presented DSS, and have become interested in testing the DSS to reduce the use of herbicides.

The customer base and website of JKI has been used to promote the demonstration and photos of the demonstration, the presentation and results of the JKI field trials were shared on social media platforms and website of JKI after the demonstration. The demo event has been evaluated by means of exit polls.

- ***Automated and selective weed control in grassland – GLZ Germany***

  Number of visitors: 24

  Crops: Grassland.

  Pests: Weeds.

  IPM strategy and tools: Single plant treatment to reduce herbicide input.

The goal of this demonstration was to improve the accuracy of plant protection. The IPM strategy discussed was the reduction of herbicide use by single plant treatment in grassland.

After the demonstration of the machinery a question and answering session, followed by mind mapping and decision trees has been held with the participants, facilitated by the hub coach.

The customer base and website of GLZ has been used to promote the demonstration, and photos and factsheets of the demonstration were shared on social media platforms and website of GLZ after the demonstration. The demo event has been evaluated by means of exit polls.

- ***Focus on Italian Ryegrass – DL Denmark***

  Number of visitors: 11

  Crops: All crops in the rotation.

  Pests: Herbicide resistant weeds, in this case Italian ryegrass.

  IPM strategy and tools: Change of management practices and rotation to control herbicide-resistant weeds and prevent new weeds to develop herbicide resistance.

The goal of the demonstration was to minimize pesticide usage by choosing an optimized strategy and at the same time focusing on a different crop rotation system, to avoid resistant Italian ryegrass in the future.

In the demonstration event, the presence of an expert and presentation including a question and answering session during the event, was successful. The IPM strategies demonstrated and discussed were crop rotation and different pesticides optimization. The demo event was held in a field where the farmers have difficulties with Italian ryegrass.

The customer base of DL has been used to promote the demonstration. Factsheets of the experiment, the farmers crop rotation system and photos of the field before change of strategy are published.

- ***Farm visit; A Farm with focus on IPM – DL Denmark***

  Number of visitors: 95

  Crops: oilseed rape and other crops in the rotation.

  Pests: Italian ryegrass.

  IPM strategy and tools: clever crop rotations, adapt pesticide strategies and use of thresholds.

The goal of the demonstration was to show what to do when you have a moderate Italian ryegrass problem.

During the event a presentation of the IPM strategies was shown, followed by a field walk in the farmers field with questions on-the-way. IPM strategies demonstrated different pesticide strategies, crop rotation systems and the use of thresholds in oilseed rape against pests. It showed that it is important not to overuse the pesticides available, because it will increase the resistance levels of weeds, pests and diseases.

A press release, the website of DL and social media were used to promote the demonstration. An orientation overview of the sprayed area, a folder of the IPM strategies in an overview and text for each principle were published after the demonstration event. The demonstration has been evaluated by means of observation and monitoring.

- ***Fit for fight; using fertilizers as a preventive asset towards pests – DL Denmark***

  Number of visitors: 125

  Crops: Cereals

  Pests: pests in general.

  IPM strategy and tools: adapt fertilizer strategies to lower pest pressure and use of thresholds.

The goal of the demonstration was to show how to ensure the best physiology to withstand pests by fertilization.

The IPM strategies highlighted in this demo event were fertilization optimization, sowing techniques and machines, different crop systems and pest thresholds. After a presentation of the host farmer, a debate about management practices was facilitated and questions were asked on the way during the field walk. It appeared to be difficult to include optimization levels of fertilization focused on the health of plants, when already optimizing based on economic perspectives.

A press release, the website of DL and social media were used to promote the demonstration. A folder with the IPM principles explained in an overview, and text for each principle were published after the demo event. The demo has been evaluated by means of observation and monitoring.

- ***Italian ryegrass day – DL Denmark***

  Number of visitors: 11

  Crops: Cereals

  Pests: Italian ryegrass.

  IPM strategy and tools: crop rotation, optimization of fertilization, sowing technique and thresholds

The goal of the demonstration was to demonstrate the approach of the farmer to manage Italian Ryegrass in different soil types.

After a presentation of the host farmer, a debate about management practices was facilitated and questions were asked on the way during the field walk. The IPM strategies demonstrated were fertilization optimization, sowing techniques and machinery, different crop systems and pests thresholds.

The visitors of the demonstration event were invited personally by e-mail, using the client base of DL. Produced material about the field trials and sowing machine were distributed, complementing material of previously organized experiments.

The demo event has been evaluated by follow-up discussions in next meetings.

- ***IPM field demonstration and debate about CA – VELAS Denmark***

  Number of visitors: 25

  Crops: All crops in the rotation as grass weeds are a 'rotational' problem.

  Pests: Grass weeds.

  IPM strategy and tools: optimized strategy for the control of grass weeds, adapting soil tillage.

The goal of the demonstration was to inspire farmers outside the hub, to make more use of the IPM principles in grass weed control. The focus was on farmers who also have grass weeds as their main issue in their crops. In the demonstration, different types of tillage, and their effect on grass weed control, were demonstrated.

The IPM strategies demonstrated in field were direct sowing (Multiva Forte 2), outlay of alfalfa and presentation of IPM strategies in general.

Promotional activities were by press release in the weekly newsletter and by personal invitations using the client base of VELAS. Evaluation of the demo event was by giving the visitors a hand-out on the day of the event and collect them at the end of the demonstration.

- ***Ploughing in rotation – VELAS Denmark***

  Number of visitors: 12

  Crops: Spring barley

  Pests: general pests

  IPM strategy and tools: effects of ploughing/non-ploughing in relation to weeds and diseases in general

The goal of the demonstration was to show ploughing and non-ploughing in rotation. This demonstration will continue for the next 3 years. Yield will be measured by FieldView, which is a programme connected to the combine harvester.

The impact of ploughing in year 1 in a field was demonstrated, which have been in a non-ploughing system for years. Afterwards the value of the IPM strategy was discussed.

Promotional activities were by press release in the weekly newsletter and by personal invitations using the client base of VELAS. Evaluation of the demonstration event was feedback of the visitor on the location of the demonstration. This demonstration will continue for 3 years.

Photos from Denmark

- ***Visit to farmers' plot – INTIA Spain***

  Number of visitors: 16

  Crops: All crops in the rotation, including alternative crops

  Pests: Pests in general

  IPM strategy and tools: Alternative crops, resistant crop varieties

The goal of the demonstration was to create interaction between the farmers of the cooperation. Different techniques were shown in the field. IPM strategies demonstrated were on resistant varieties and alternative crops for rotation.

Promotional activities were direct with the hub members and cooperative farmers. Evaluation of the demonstration was by means of a survey.

- ***Rust watch; workshop about yellow rust – INTIA Spain***

  Number of visitors: 29

  Crops: Wheat.

  Pests: Yellow rust

  IPM strategy and tools: a combination of resistant/robust varieties, DSS, low dose techniques and pesticide mixtures.

The goal of the demonstration was to create a debate on the different strategies to deal with yellow rust. By means of a workshop IPM strategies as resistant varieties, pesticides' reduction techniques, dose, mixture and forecasting models were presented and discussed by the participants. A report of the outcomes will be distributed.

Promotional activities were by personal invitations. The demonstration event was evaluated by means of a survey.

- ***Trials in the area – INTIA Spain***

  Number of visitors: 16

  Crops: Several arable crops

  Pests: Grass weeds, (lolium)

  IPM strategy and tools: alternative crops in the crop rotation, strategies for grass weed (lolium) control

The goal of the demonstration was to inform the farmers on different IPM experiments organized by INTIA in the area. The presentation was facilitated by the hub coach. Experiments on IPM strategies in the area were among others, alternative crops for the area (lentils, chickpea etc.), and work on how to deal with Lolium.

Hub members and cooperative farmers were invited by personal invitation. The demonstration was evaluated by means of a survey.

- ***Winter crops walk and IPM techniques – TEAGASC Ireland***

  Number of visitors: 75

  Crops: cereals and bean crops.

  Pests: BYDV and weeds

  IPM strategy and tools: crop choice and crop management against BYDV, adapted crop rotation against weeds.

The goal of the demonstration was to demonstrate IPM techniques in growing cereal and bean crops. The techniques demonstrated included spring drilling to prevent BYDV and different IPM tools for winter crop management such as BYDV control strategy on winter cereals and grass weed control through crop rotation. The IPM strategies were presented by live demonstrations and crop comparisons.

Promotional activities were by TEAGASC media, social media and through national media outlets. A handout of the IPM strategies demonstrated was given after the demonstration. The demonstration event has been evaluated by means of a feedback sheet.

- ***Use of organic manure to improve soil health – TEAGASC Ireland***

  Number of visitors: 20

  Crops: cereals and bean crops

  Pests: weeds

  IPM strategy and tools: adapted fertilizer strategies and adapted crop rotation

The goal of the event was to demonstrate IPM techniques in growing cereal and bean crops. The techniques demonstrated were the use of organic manures as a replacement for chemical fertilizers and the use of crop rotation to reduce herbicide requirements. The IPM strategies were presented by live demonstration and a farm walk.

Promotional activities were by TEAGASC media, social media and through national media outlets. A handout of the IPM strategies demonstrated was given after the demonstration. The demonstration event has been evaluated by means of a feedback sheet.

- ***Scottish cross visit – TEAGASC Ireland***

Number of visitors: 5

Crops: cereals and bean crops.

Pests: BYDV/aphids

IPM strategy and tools: delayed sowing, adaptation of crop rotation, role of precision tools in IPM

The goal of the demonstration was to demonstrate IPM techniques in growing cereal and bean crops. By the means of live demonstration and farm walk visitors were able to look at the approach of the farmer to IPM, crop rotation, delayed Autumn drilling to reduce the pressure of BYDV and aphid monitoring.

Promotional activities were by TEAGASC media, social media and through national media outlets. A handout of the IPM strategies demonstrated was given after the demonstration. The demonstration event has been evaluated by means of a feedback sheet.

- ***Cultivation systems and their effect on weed control – TEAGASC Ireland***

Number of visitors: 25

Crops: cereals and beans

Pests: grass weeds

IPM strategy and tools: Precision technology for pesticide use - GPS technology to protect watercourses and to improve input use efficiency

The goal of the demonstration was to demonstrate IPM techniques in growing cereal and bean crops and to demonstrate the use of precision technology to improve application accuracy. By means of a farm walk and demonstration of the technologies used on the farm, visitors were included in the use of GPS technology to protect watercourses and to improve input use efficiency.

Promotional activities were by personal invitation only. A handout of the IPM strategies demonstrated was given after the demonstration. The demo event has been evaluated by means of a feedback sheet.

- ***Role of faba beans and crop rotation systems on a cereal farm – TEAGASC Ireland***

Number of visitors: 150

Crops: cereals, faba beans

Pests: cereal diseases and wild oats

IPM strategy and tools: Crop rotation, weed control

The goal of the demonstration was to demonstrate IPM strategies in growing cereals, wild oat control and cultivations. By means of live demonstrations in crop, visitors were able look at the

approach of the farmer to IPM. Different approaches to controlling wild oats in spring barley were demonstrated. Next to cultivation to establish spring barley and the subsequent weed control.

Promotional activities were by TEAGASC media, social media and through national media outlets. A handout of the IPM strategies demonstrated was given after the demonstration. The demo event has been evaluated by means of a feedback sheet.

- ***Aphid monitoring to control BYDV – TEAGASC Ireland***

  Number of visitors: 20

  Crops: Winter cereals (wheat and barley)

  Pests: Barley yellow dwarf virus (BYDV), aphids

  IPM strategy and tools: a combination of adapted fertilization and crop rotation, use of cover crops, companion crops and alternative drilling systems.

The goal of the demonstration was to demonstrate IPM techniques in growing cereal crops. By means of a live demonstration and farm walk. IPM strategies presented at the demonstration event included alternative approaches to plant protection by using nutrition, crop rotation, cover crops, companion crops, and drilling system.

A factsheet of the IPM strategies demonstrated was given after the demonstration. The demonstration event has been evaluated by means of an exit poll.

- ***Informing policy makers about the role of IPM – TEAGASC Ireland***

  Number of visitors: 20

  Crops: All crops, focus on cereal crops.

  Pests: All pests.

  IPM strategy and tools: Use of precision tools for IPM

The goal of the demonstration was to look at the role of precision tools in IPM. The techniques were demonstrated in a live demonstration in growing cereal crops.

A handout of the IPM strategies demonstrated was given after the demonstration. The demo event has been evaluated by means of an exit poll.

Photos of demonstrations in Ireland

- ***Field day OVLAC MINI - Rete degli agricoltori Italy***

Number of visitors: 15

Crops: The rotational crops.

Pests: Weeds

IPM strategy and tools: soil tillage for better weed control

The goal of the demonstration was to demonstrate a mini-plough for mechanical weeding and seedbed preparation. This IPM technique could be of interest for both conventional and organic farmers. The IPM strategy showed to be effective in weed reduction by tillage, but without the trade-offs of deep ploughing. A presentation on the IPM strategy was given by the hub coach. The machine retailer was present to explain the machine and made a direct test on a strip of field close to the event location.

A brief description of the demo event and demonstrated IPM strategies was on an easy-to-read and short leaflet sent to the communication channels to the client base of Rete degli agricoltori, and posted on the social media channels. A one-page leaflet was sent after the demonstration to the hub members and hub interested people, as well as giving official communication to the Agronomists and Foresters Association of the Pisa province, and to the three Farmers Unions. The demonstration event was evaluated by means of a survey given to the participants.

- ***Field day IPM techniques on wheat in Tuscany - Rete degli agricoltori Italy***

Number of visitors: 25

Crops: lentils and wheat

Pests: no specific pests (or all weeds, diseases, and pests).

IPM strategy and tools: inter cropping, in this case wheat and lentils.

The goal of the demonstration was to test different machinery for post-harvest seed preparation and to show farmers how the seed preparation can be done. Following the field trial harvest on lentils and wheat harvesting the objective was to separate the wheat from the lentils. The IPM techniques were demonstrated by 2 farmers, the hub member which was hosting the field trial and an organic farmer.

A brief description of the demonstration event and demonstrated IPM strategies was on an easy-to-read and short leaflet sent to the communication channels to the client base of Rete degli agricoltori, and posted on the social media channels. A one-page leaflet was sent after the demonstration to the hub members and hub interested people, as well as giving official communication to the Agronomists and Foresters Association of the Pisa province, and to the three Farmers Unions. The demonstration event was evaluated by means of a survey given to the participants.

- ***Field day LIFE AGRESTIC - Rete degli agricoltori Italy***

Number of visitors: 15

Crops: wheat and lentils

Pests: pests in general, and rust in cereals

IPM strategy and tools: intercropping for reduced pest pressure, variety choice, use of DSS (Rustwatch).

The goal of the demonstration was to have an interactive event in collaboration with the researcher working on the site. The IPM strategies demonstrated were on varietal selection, disease knowledge on wheat and wheat-lentil intercropping. A field visit and explanation were given on site, where visitors were able to interactively take part by giving marks to the different varieties. A trial of the Rustwatch web app was given, and a visit to the nearby durum wheat-lentil intercropping field trial was included.

A brief description of the demonstration event and demonstrated IPM strategies was on an easy-to-read and short leaflet sent to the communication channels to the client base of Rete degli agricoltori, and posted on the social media channels. A one-page leaflet was sent after the demonstration to the hub members and hub interested people, as well as giving official communication to the Agronomists and Foresters Association of the Pisa province, and to the three Farmers Unions. The demo event was evaluated by means of a survey given to the participants.

- ***Field day fibre hemp cultivation and harvesting - Rete degli agricoltori Italy***

Number of visitors: 35

Crops: hemp

Pests: Promotion of mostly pestless crop alternative

IPM strategy and tools: Promotion of mostly pestles crop alternative

The goal of the demonstration was to explain the cultivation of fibre hemp and its benefits and show the harvesting process. The crop is still new to the farmers and there are still some trade-offs to overcome to convince the farmers to grow hemp. A presentation of the IPM strategy was given by the hub coach and an agronomist was present to explain the hemp cultivation. Live demonstration of the harvesting was facilitated on site. After the demonstration, there was an opportunity to ask questions. A brief description of the demonstration event and demonstrated IPM strategies was on an easy-to-read and short leaflet sent to the communication channels to the client base of Rete degli agricoltori, and posted on the social media channels. A one-page leaflet was sent after the demonstration to the hub members and hub interested people, as well as giving official communication to the Agronomists and Foresters Association of the Pisa province, and to the three Farmers Unions.

Photos from Italy

- ***Mechanical weeding options – WUR The Netherlands***

Number of visitors: 13

Crops: several crops (e.g., maize, potato, sugar beet)

Pests: weeds

IPM strategy and tools: mechanical weed control to reduce herbicide use

The goal of this demonstration was to show the possibilities of mechanical weed control in several crops. Mechanical weed control gets more and more attention in The Netherlands, as in many crops there are just a limited number of herbicides. Several machines were demonstrated and the opportunities in different crops discussed.

- ***Using apps on the Farmmaps platform – WUR The Netherlands (two groups)***

Number of visitors: 8

Crops: several crops

Pests: several pests

IPM strategy and tools: use of Apps/DSS for IPM

Several apps/DSS for IPM (e.g., late blight, cereal diseases, insects and fungal diseases in sugar beet) are developed in The Netherlands, by WUR and other companies. Relevant apps for IPMWORKS were demonstrated and discussed. Farmers think digital tools are nice, but quickly they are too complicated to use although developers think they are simple. To optimize the use of apps, crucial input data is needed, which does not always happen. This is good input for the developers, to adapt apps to the needs of the farmers.

- ***Weeding in onions with a robot – WUR The Netherlands***

Number of visitors: 15

Crops: onions

Pests: weeds.

IPM strategy and tools: autonomous mechanical weeding to reduce herbicide use.

Robots for weed control in arable crops are developing quickly. In this demonstration the farmers got the opportunity to watch the effect of an autonomous weeding robot in onions. After the demonstration in the field, there was a vivid discussion about the pros and cons of the robot. As chemical weed control in onions is getting more and more difficult because of little availability of herbicides, there is an interest in robots. But so far robots are still very expensive and have too little capacity to make it applicable on the short term. But for sure robots are promising, as we see that development goes fast.

Photos from the Netherlands

- ***New technology in weed suppression in sugar beets, KPODR, Poland***

Number of visitors: 20

Crops: sugar beets, oilseed rape and wheat

Pests: weeds

IPM strategy and tools: a combination of several measures to reduce pesticide use.

The goal of demonstration was to show the importance of a good and extended crop rotation, the use of a few specific techniques for weed suppression as variety selection in sugar beet (varieties which cover interrow area quickly), mechanical weeding, benefits of continuously using few different cover crops and improving soil quality with probiotics in oilseed rape and wheat. The farmer presented his strategy for the whole farm and how he uses microdoses of pesticides, crop rotation, variety selection, mechanical weeding, harrowing in cereals, and cover crops in his strategy.

- ***Actual pest and disease pressure in different varieties in cereals - KPODR, Poland***

  Number of visitors: 30

  Crops: oilseed rape

  Pests: all local pests and diseases in oilseed rape

  IPM strategy and tools: Variety choice, pest and disease recognition, deepening the understanding of why and when certain pests/diseases are harmful and when we can tolerate/ignore them

In Chrząstowo, on a farm with a variety testing site, workers of SDOO Chrząstowo, together with dr.hab.inż Grzegorz Lemanczyk and dr.hab.inż Robert Lamparski, presented the current status of the oilseed rape crop and the growing plant pest and disease pressure in the next period due to weather change from dry to wet. Common conclusion was that very dry March and relatively cold spring in some periods significantly mitigated pest pressure for both diseases and pests. Reduction in populations of some common pests was noted in the last years as well increasing populations of some untypical ones. Variety selection was heavily discussed in conjunction with soil type and disease resistance & tolerance. About 30 visitors then visited the collection of recommended cereals for Kujawsko-pomorski region and discussed disease pressure in the current growing season.

Photos from Poland

- ***IPM approach in different crops, KPODR, Poland***

Number of visitors: 200

Crops: Cereals, oilseed rape, other

Pests: Various pests naturally occurring in region on untreated test plots

IPM strategy and tools: Pest and disease recognition, organic agriculture

Demonstrations took place at the Open Field Days in Minikowo during an agricultural fair and AGRO-TECH event: a series of short, 45 to 60 minutes tours by experts on field plots presenting several topics regarding plant protection, pest and disease recognition and pressure, precision agriculture and organic agriculture, including a question and answer session with the participants during the 2-day event.

- ***Probiotic soil micro-organisms in wheat, KPODR, Poland***

  Number of visitors: 20

  Crops: wheat.

  Pests: wheat pests in general.

  IPM strategy and tools: improving soil microbiome for pest resilient crops and integrated pest management in wheat

A farmer with several years of experience in using soil probiotics presented his results, being convinced that improving the soil microbiome has positive effects on wheat production, and health of the plants. Part of the demonstration was a field visit and a multimedia presentation.

Photos from Poland

- ***Biofortification to reduce fungicide use in WW – JHI Scotland UK***

  Number of visitors: 175

  Crops: winter wheat.

  Pests: wheat pests in general.

  IPM strategy and tools: use of regenerative techniques and use of bio fortification for pest resilient plants.

The goal of the demonstration was to evaluate regenerative techniques and understanding opportunities for diverse cropping. In a field demonstration of winter wheat, a comparison of disease effect between bio fortification and conventional fungicides was explained. IPM strategies demonstrated were elicitors, bio stimulants, foliar nutrition and threshold levels.

Promotional activities for the demonstration event were through event promotion and hub communication. Handouts and Centre for Sustainable Cropping technical notes were provided at the demonstration event. This is an infield comparison and as such data had been collected on disease and yield to produce a report to disseminate within the network and share on the toolbox. The demo event was evaluated by means of evaluation sheets and exit polls.

- ***Cover and Companion cropping workshop – JHI Scotland UK***

  Number of visitors: 18

  Crops: cover crops and rotational crops.

  Pests: pests in general.

  IPM strategy and tools: cover crops, companion cropping, trap cropping, no till techniques and regenerative agriculture.

The goal of the demonstration was to compare cover crop success in Scotland. IPM strategies that were presented were cover cropping, companion cropping, trap cropping, No-till techniques and regenerative agriculture. With a small group of farmers, a discussion was facilitated on what were the best types for the region, companion cropping and potential fertilizer savings. During the demonstration event direct drilling, No-till techniques, multiple

seeding units, mulching and biofumigation were demonstrated. Companion cropping is also an infield comparison and as such data had been collected on disease and yield to produce a report to disseminate within the network and share on the toolbox.

Promotional activities for the demo event were through JHI communication channels and hub communication. Video footage of machinery working through the year has been provided at the demo event. The demo event was evaluated by means of evaluation sheets and exit polls.

Photos from Scotland

Greenhouse

- ***IPM strategy in strawberry - INAGRO Belgium***

Number of visitors: 14

Crops: strawberry

Pests: fungal diseases

IPM strategy and tools: Flying doctors', rotation and direct chemical and biologic control measures.

The goal of the event was to show the overall IPM strategy in a strawberry tunnel with the cultivar Clery and to discuss the IPM strategies and the monitoring data. During a round-table workshop the participants were able to present themselves and their purpose of attending this demonstration event. Knowledge was exchanged of the followed-up strategies. A presentation about "Flying doctors" (insects spreading bio control agents against fungi to crop flowers) was given during the event. Participants were able to visit the tunnels with strawberry cultivar Clery where the use of "Flying doctors" was demonstrated.

IPM strategies demonstrated and discussed were rotation, chemical soil disinfection, cultivar, biocontrol, and chemical pesticides.

Promotional activities of the demonstration event were by personal contact. The footage and photos taken during the event were used for dissemination via a blog and social media. The demonstration event was evaluated by means of an exit poll.

- ***IPM strategy in raspberries- INAGRO Belgium***

Number of visitors: 7

Crops: raspberries.

Pests: pests in general but Drosophila suzukii in particular.

IPM strategy and tools: biological control, traps, hygiene.

The goal of the demonstration was to demonstrate farm IPM strategies in raspberries in tunnels, with special focus on Drosophila suzikii. IPM strategies demonstrated were the use of predatory mites against spidermites, the use of traps against. D. suzukii, preventative strategies such as picking hygiene and the management of damaged fruits. In the demonstration event the IPM strategies were presented. During a round-table workshop the participants were able to present themselves and their purpose of attending this demonstration event. The participants were asked to bring their D. suzukii trap and to share their experiences and knowledge.

Promotional activities of the demonstration event were by personal contact. A recipient with D. suzukii males and females was made and distributed on the event. The footage and photos taken during the event were used for distribution via a blog and social media. The demonstration event was evaluated by means of an exit poll.

- ***Varieties in IPM of strawberries - INAGRO Belgium***

Number of visitors: 39

Crops: strawberry

Pests: insects & fungal diseases.

IPM strategy and tools: a combination of several techniques, e.g. biological control, variety choice and banker plants.

The goal of the demonstration was to show different techniques to handle a holistic IPM strategy in strawberries. IPM strategies demonstrated were: the use of different varieties of strawberries in the glasshouse, the use of commercial beneficials (gal midges and lacewings), the use of banker plants in the glasshouse to control aphids, the use of flower strips to control aphids in strawberry fields under plastic and the use of a prediction model to control powdery mildew. The IPM strategy was presented and a farm walk was facilitated.

The invitation of the demonstration event was spread by the newsletter and the website of Inagro. A specific mail was sent to the members of Inagro who are interested in strawberries. Furthermore, the event was spread by personal contacts and in meetings with strawberry growers. A blog was written after the demonstration event. The demonstration event was evaluated by means of an exit poll.

- ***Beneficials for biological control of aphids - INAGRO Belgium***

Number of visitors: 10

Crops: strawberry

Pests: aphids

IPM strategy and tools: opportunities of beneficials in aphid control.

The goal of the demonstration was to show the use of commercial beneficials against aphids. The IPM strategies for aphids from the hub member was monitored in an Autumn cultivation. The occurrence of aphids and their natural enemies were monitored. Their IPM schedule was surveyed and linked to the monitoring data. In one compartment the farmer was using his standard IPM schedule. In the other compartment he was using only commercial beneficials to control aphids. IPM strategies demonstrated were the use of predatory wasps, gal midges, lacewings and Teppeki. The IPM strategy was presented and a farm walk was facilitated.

The promotional activity of this demonstration event was by personal invitation. Factsheets of the IPM strategy and monitoring data were made available after the demonstration event. The demonstration event was evaluated by means of an exit poll.

- ***Holistic IPM for policy makers - INAGRO Belgium***

Number of visitors: 32

Crops: rotational crops.

Pests: all relevant pests.

IPM strategy and tools: resistance of varieties and spraying schedules

The goal of this demonstration was to inform relevant policy makers about the projects' network, the methods, the tools and to discuss the longer-term sustainability and possible extension of the farm demonstration networks (and tools). The demonstration event was held in the field and at the farm. During the farm walk the demonstration fields were shown to the visitors and hands-on experience was shared.

The promotional activity of this demonstration event was by personal invitation. Footage and a leaflet of the IPM strategy were used as communication and dissemination material. The demonstration event was not evaluated.

Photos from Belgium

- ***Biological control in zucchini crops – COEXPHAL Spain***

Number of visitors: 23

Crops: Zucchini

Pests: insect pests

IPM strategy and tools: biological control and role of auxiliary flora

The goal of the demonstration was to show how biological control can be efficiently applied in zucchini crops. The IPM strategy was presented and followed by a group discussion. The IPM strategies demonstrated were biocontrol of whiteflies with phytoseiulus mites and the use of auxiliary flora.

Promotional activities for the demonstration event were through Coexphal communication channels and advertisement in the NEFERTITI portal. Footage, interviews and factsheets were used as communication and dissemination material, as well as social media posts and an article in a technical magazine. The demonstration event was evaluated by means of an informal discussion and exit polls.

- ***IPM of nematodes in greenhouse crops – COEXPHAL Spain***

Number of visitors: 16

Crops: greenhouse crops in general

Pests: nematodes

IPM strategy and tools: use of biological control, biological control agents and trapping plants

The goal of the demonstration was to show how IPM can be used to control nematodes in greenhouse crops. The IPM strategy was presented and during the field walk a discussion on hands-on experiences was facilitated. The IPM strategies demonstrated were nematodes on greenhouse pests using biological products, BCAs and trapping plants.

Promotional activities for the demonstration event were through Coexphal communication channels and advertisement in the NEFERTITI portal. Factsheets were used as communication and dissemination material as well as social media posts. The demonstration event was evaluated by means of an informal discussion and exit polls.

Photos from Spain

- ***Biological control of aphids in watermelon crops – COEXPHAL Spain***

Number of visitors: 16

Crops: melon.

Pests: aphids and other pests.

IPM strategy and tools: biological control and impact of auxiliary flora.

The goal of the demonstration was to show how biological control can be used to control aphids and other pests in melon crops. The IPM strategy was presented and, during the field walk, a discussion on hands-on experiences was facilitated. The IPM strategies demonstrated were biological control of aphids and use of auxiliary flora.

Promotional activities for the demonstration event were through Coexphal communication channels and advertisement in the NEFERTITI portal. Factsheets and an article in a technical magazine was used as communication and dissemination material, as well as social media posts. The demonstration event was evaluated by means of an informal discussion and exit polls.

Orchard

- ***Olive fly management strategies (preparatory training on mineral repellents) – SSSA Italy***

Number of visitors: 10

Crops: Olive trees

Pests: Olive fly

IPM strategy and tools: 'alternative', non-chemical control measures

The goal of the demonstration was to provide farmers with information on the products under discussion, an analysis of the costs of adopting this IPM strategy, comparison with experts and sharing their respective experiences with these products. IPM strategies demonstrated were the use of different types of rock dust, creating a tree canopy protecting film with many positive actions on the olive tree and an effect on olive fly interfering with the egg-laying on the fruits. A presentation on the IPM strategies was given during the demonstration event.

Promotional activities for the demonstration event were through SSA communication channels and social media and the social network of Sportello di Agroecologia. The demonstration event was evaluated by means of a survey.

- ***Olive fly management strategies (participatory GIS) – SSSA Italy***

Number of visitors: 12

Crops: Olive trees

Pests: Olive fly

IPM strategy and tools: a combination of measures to control olive fly and reduce input of chemical pesticides

The goal of the demonstration was co-design of the differentiated strategy of push & pull techniques, based on farm localization, abandonment situation in the area, preferences in order to repellents to use, type of kill technique, protein baits and traps. The demonstration event was organized in cooperation with experts of GIS technologies working in SSA. IPM strategies like shared planning of an integrated management plan for olive fly working on land maps was presented and a discussion on the choice and adoption of different practices (repellents and camouflage, protein baits and traps) was facilitated.

Promotional activities for the demonstration event were through SSA communication channels and social media. The demonstration event was evaluated by means of a survey.

Outdoor Vegetables

- ***Water management in the field – Belgium***

Number of visitors: 26

Crops: zucchini

Pests: no specific pests

IPM strategy and tools: Water management to optimize soil conditions for plant growth

The overall goal of the demonstration was to demonstrate and make farmers aware of best available technique (BAT) for water and erosion management on their land in the specific case of zucchini.

Promotional activities for the demonstration event were by individual mailing and contact via extension service. The demonstration event was evaluated by means of exit polls.

- ***Biocontrol of aphids, pollination, substrate cultivation – Belgium***

Number of visitors: 17

Crops: zucchini

Pests: Aphids.

IPM strategy and tools: Biological control of aphids and use of bees.

The goal of the demonstration was to demonstrate biocontrol of aphids, bumblebee hives, bee keeping and substrate cultivation. Farmers were invited to take part in a knowledge carrousel where farmers testimonies were presented and farmers were able to reflect on the demonstrated IPM strategies.

Promotional activities for the demonstration event were by individual mailing and contact via extension service. The demonstration event was evaluated by means of exit polls.

- ***Cultivar selection, pollination and powdery mildew control – Belgium***

Number of visitors: 22

Crops: zucchini

Pests: Powdery mildew

IPM strategy and tools: Cultivar selection as preventive measure, tackling bad pollination, powdery mildew control pesticides

The goal of the demonstration was to show cultivar selection as preventative measure, and to demonstrate how to tackle bad pollination and powdery mildew.

Promotional activities for the demonstration event were by individual mailing and contact via extension service. During the event information on roll-up and visitor guides was provided. The demonstration event was evaluated by means of exit polls.

- ***Pellonpiennarpäivä marjattiloillan – ProAgria Finland***

Number of visitors: 10

Crops: soft fruit, focus on strawberry

Pests: pests and weeds in general

IPM strategy and tools: Pest monitoring, different types of weed control in strawberry

The goal of the demonstration was peer-to-peer learning on soft fruit IPM. IPM strategies demonstrated were pest monitoring and different types of weed control in strawberry. A field tour was undertaken for promotional activities of the event and exchange of experience was facilitated during the event.

The event was evaluated by means of post-event discussions between participants.

Photos from Finland

- ***Integrating organic practices in integrated production – Consulai Portugal***

  Number of visitors: 21

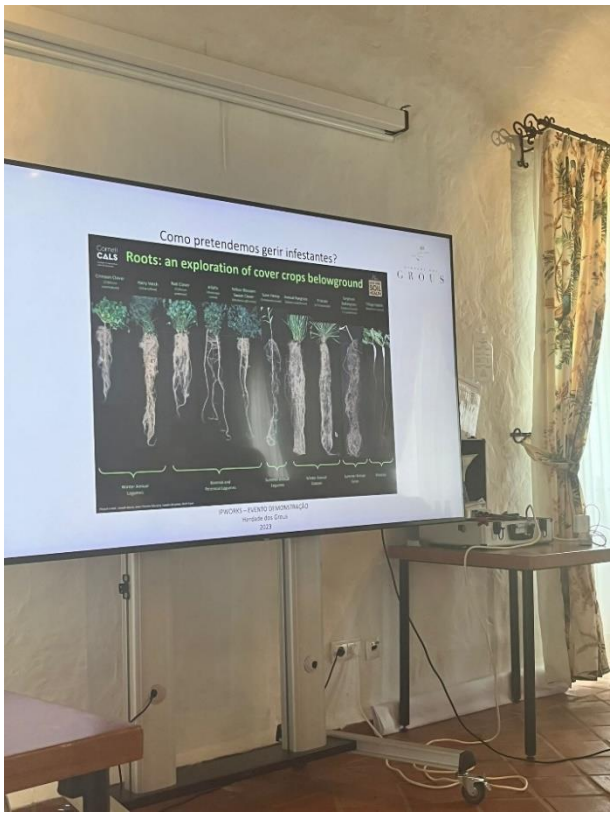
  Crops: tomatoes and other vegetables

  Pests: mostly insects

  IPM strategy and tools: Non-chemical measures for pest control - fostering of auxiliary fauna and release of auxiliaries for biological control; use of strips and hedges and creation of other shelters

The goal of the demonstration was to look into practices and topics related to biological control (monitoring, prevention), which can be adopted by all farmers. IPM strategies were demonstrated in the field and after the demonstration the participants and expert were able to have an interactive discussion on the topics. IPM strategies demonstrated were fostering of auxiliary fauna and release of auxiliaries for biological control; use of strips and hedges and creation of other shelters.

Promotional activities were by direct invitation through e-mail and by phone. Footage and photos of the demonstration were shared on social media. The demonstration event was evaluated by means of a report of the demonstration event and exit polls.



Vineyard

- ***How to predict fungal diseases in the vineyard – FEUGA Spain***

  Number of visitors: 55

  Crops: Vineyards

  Pests: Fungal diseases of higher incidence (downy mildew, powdery mildew and botrytis)

  IPM strategy and tools: DSS for optimized control of fungal diseases

The goal of the demonstration was to demonstrate solutions to predict fungal diseases in vineyards. The IPM strategies demonstrated were innovative decision support tools, to optimize the chemical phytosanitary treatment in viticulture, which will result in a reduction of production costs, an increase in the wine quality and an improved protection of the environment. A presentation of the IPM strategies in the field were followed by a farm walk and Q&A session.

Promotional activities for the demonstration event included articles in newspapers, leaflets and posters, posts on social media channels of FEUGA, and using the customer base of the organization. Footage and photos of demonstration were used for communication and dissemination material. The demonstration event was evaluated by means of exit polls.

- ***Pheromones and bats to combat grapevine moth – FEUGA Spain***

Number of visitors: 60

Crops: Vineyards

Pests: Grapevine moth

IPM strategy and tools: Non-chemical control measures like biocontrol natural agents, pheromone traps

The goal of the demonstration was to install bat nest boxes in vineyards, favoring the presence of bats around the vineyard, a natural predator of the grape moth, which in turn will reduce pesticide use. Other IPM strategies demonstrated were biocontrol natural agents and pheromone traps. The IPM strategies were explained during a field walk.

Promotional activities for the demonstration event included articles in newspapers, leaflets and posters, posts on social media channels of FEUGA and using the customer base of the organization. Footage and photos of the demonstration were used for communication and dissemination material. The demonstration event was evaluated by means of exit polls.

- ***Innovation at the service of Galician viticulture/VinioT demo farm visit at Galicia – FEUGA Spain***

Number of visitors: 80

Crops: Vineyards

Pests: general approach to plant health/stress using new technological monitoring service

IPM strategy and tools: Holistic vineyard monitoring service offering multispectral imaging, ground sensing and water stress detection in real-time, remotely at various precision levels (grapes, plant, plot and vineyard) for better decision making

The goal of the demonstration was to test a new technological vineyard monitoring service. The IPM strategies included real-time monitoring, remotely and at various precision levels (grapes, plant and vineyard). The participants were divided into small groups to ease the interaction while visiting the demonstration plots.

Promotional activities for the demonstration event included articles in newspapers, leaflets and posters, posts on social media channels of FEUGA, and using the customer base of the organization. Footage and photos of the demonstration were used for communication and dissemination material. The demonstration event was evaluated by means of exit polls.

- ***Ozon for control of fungal diseases in vineyards, CONSULAI Portugal***

Number of visitors: 18
Crops: Vineyards
Pests: Fungal diseases (Downey mildew)
IPM strategy and tools: Non-chemical control measures, using ozone

The control of fungal diseases is essential in viticulture, the demonstration showed an alternative product to conventional fungicides, which has demonstrated a good efficacy on the disease management and other aspects of the development of the vineyards: application of ozone as an alternative to conventional phytosanitary treatments. It is an innovative product, not used by many, that can control diseases and repel insects. The main takeaway was that this practice could work as a complementarity to other control and prevention measures.

4. Evaluation & conclusion

Partners of the IPM*WORKS* project that are managing hubs of demo farms were asked to share details on their demonstration events executed in 2022 via the hub journals. In this report, all the demonstration events were briefly summarized and elaborated upon. Demonstration events have been conducted in different crops & sectors, for different goals, such as weed management or pest management and in various countries. The entry point of most demonstration event was often a specific aspect of IPM, contributing to the regulation of pests, weeds and/or diseases, and to the decrease in the reliance on pesticides, but the holistic approach to IPM was also addressed during all events, by inviting hosting farmers to present their general strategy for crop and pest management.

For the continuation of the project, each hub can be inspired by the past experiences of 2022 and use the content and experiences to promote further the development of IPM solutions, and to organize future demonstration events. At last, procedures for proper administration of all the event may be improved to raise the quality and completeness of the work in the project (including reporting).

Consistently with guidelines disseminated by the project for the organisation of demo events, most demo events were evaluated through exit polls. The results of the evaluation are reported in the milestone report. This milestone from the third work package of IPM*WORKS* outlines the monitoring and evaluation of IPM demonstration activities. These demonstration activities aim to (i) facilitate farmers in learning the technical and economic effectiveness of strategies; and (ii) encourage farmers to apply these strategies to their own farms.

The results of the evaluation indicate that demonstrations have a moderate impact on attendees, with many attendees understanding specific practices demonstrated with the intention of applying them on their own farms (35%). However, a significant percentage of attendees indicated that they already apply specific techniques demonstrated at events (35%). The results also suggest that Holistic IPM is communicated well at demonstration events and throughout the project. However, future events should focus on delivering better-targeted demonstrations and facilitating interactive discussions with farmers. The evaluation results provide a basis for measuring the extent to which the project has reached the objectives and provides insight to further improve future demonstration activities.

Evaluation of experiences from the hub coaches using the specific page of the hub-journal for reporting on demo events resulted in the adaptation of the hub journal, seeking for an optimised use and a maximised usefulness of this tool.