IPM adoption in my hub

Facilitation approach and progress made in IPM adoption

My group

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PRESENTATION OF THE HUB COACH ORGANISATION

COEXPHAL, as the Association of Fruit and Vegetable Producers' Organizations of Almeria promotes the sustainable development of the fruit and vegetable sector. COEXPHAL objectives are: (i) identifying the challenges of the fruit and vegetable sector of Almería, (ii) promoting research and innovation activities through its CIT (Technological Innovation Center), and (iii) facilitating the transfer of knowledge through its OTRI (Office for the Transfer of Research Results)

THE HUB

The Spanish greenhouse hub is located in the province of Almeria – mainly in the Campo de Dalías (west) or La Cañada - Níjar (east) area. There are 11 farmers engaged within the hub. They produce the most typical horticultural crops grown in the region: tomato, sweet pepper, zucchini, melon, watermelon, eggplant and cucumber.

OBJECTIVES AND MOTIVATIONS OF THE FARMERS

Most growers share a common interest in optimizing their biological control strategies, particularly by means of enhancing preventive measures. The hub will be focusing on biological control, mostly on conservation biological control, which allow farmers to integrate multi-function plant species and other biodiversity to contribute to boost pest regulation.

DRIVERS

The major drivers of the hub are related to improving crop sustainability (mainly economic and environmental aspects), particularly by promoting biodiversity conservation inside and outside the greenhouse.

BARRIERS

The major barriers of the hub are related with how to gradually adapt IPM strategies so that they also work against emerging diseases and pests.

IPM challenges and results

IPM Challenges

What were the main IPM challenges?

The focus of the hub has been reducing damage caused by greenhouse crop pests by means of preventive measures, particularly biocontrol and on-farm biodiversity conservation. Overall, there is a special interest on developing and improving an integrated protocol to control *Tuta absoluta* in tomato crops, and also on aphid control in zucchini and sweet pepper crops.

The hub's results

How has facilitation promoted IPM adoption?

Facilitation has allowed the flow of transparent, practical know-how among farmers (both conventional and organic). Farmers have been able to relate to one another's conditions through – particularly – field visits. Intense, guided debates have supported their decision-making process towards IPM.

What issues still need to be addressed ?

There are some ongoing debates on how to reduce the need for fungicide use during the cooler crop periods.

What are the upcoming prospects for the farmers in the hub ?

There has been an overall high interest of biodiversity-based strategies, which will certainly lead to an increased number of hedgerows surrounding the greenhouses among the participant farmers.

Key conclusions

Learning together by sharing experiences has been the motto which has enabled the groups' overall improvement in IPM.

Farmers have been able to see, touch and feel what others have done in relation to pest damage, so by following their peers' practical advice and ways of doing IPM, they have been able to relate to one another's circumstances, adapting them to their own situation.

Facilitation approaches

What is the issue the hub work on more precisely?

Integrated protocol to control Tuta absoluta, (ii) design and establishment of functional hedgerows (outside the greenhouse) and flowering strips (inside it), and; (iii) improvement of the abiotic conditions (e.g. relative humidity, temperature) in the greenhouse.

How did you proceed? What did you do?

First, finding good examples among the hub members. Once we identified the issues that were more important for them, I "guided" them so that they could find practical examples to which they could relate to.

Knowing your group, joining the dots, helping the individuals

What conclusions can you draw?

In my hub, farmers had all the knowledge that was necessary to achieve most of their goals, both individually and at the group level. My job was to "join the dots", building up the trust in the group, making sure that they felt confident to share their results with one another.

My tips for making it work

1. Be patient and take your time, achievements come slow.
2. If you want to be trusted by others, just be yourself, and never pretend to be someone you are not.
3. Avoid top-down approaches. You are not the expert, farmers are.
4. Listen more, talk less.

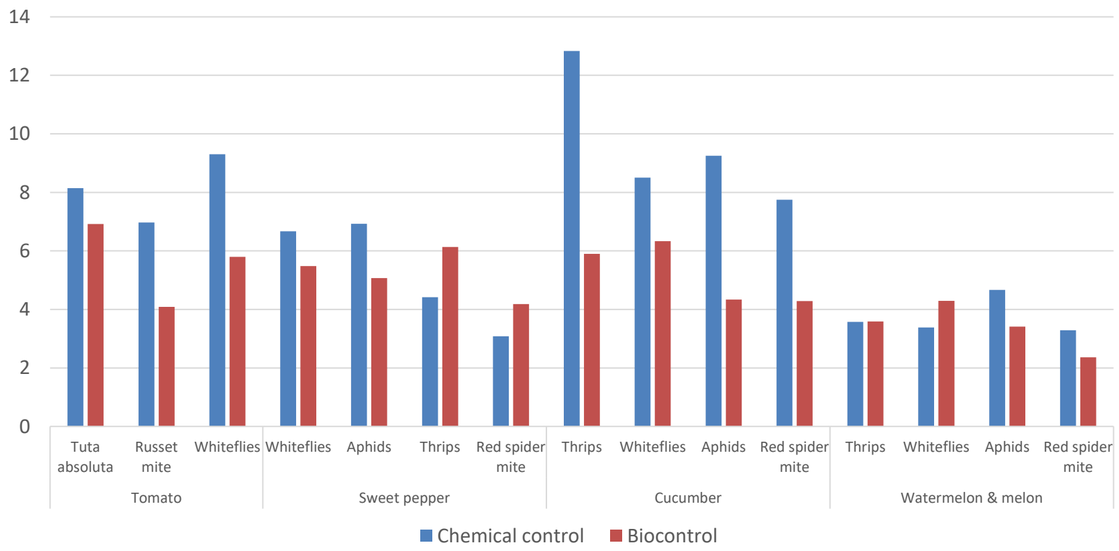
Individual facilitation

We conducted peer to peer mentoring between small groups or pairs of farmers on specific aspects that were relevant to them. For instance, IPM of *Tuta absoluta* made a good case in which the tomato growers of the hub could learn from one another what others were doing, and take individual action based on what others shared.

Collective facilitation

Biodiversity conservation was a common, shared interest among all hub members. In this case, collective learning was promoted by two of the most knowledgeable farmers in the hub, who guided other farmers on how to begin with a good design of a hedgerows to reduce pest pressure in their greenhouses.

IPM adoption & pesticide use



This figure indicates how biocontrol helps reduce pesticide use in greenhouse crop production. It shows the reported number of pesticide applications by farmers (vertical axis) on different crops and for different pest species (horizontal axis). Blue colour indicates farmers using chemical control, whereas red colour indicates those using biological control. Total number of surveys = 550.

"The results we got in the hub shows that IPM helps farmers to reduce pesticide use and improve the quality of their crops, compared to conventional, chemical-based strategies.

Eduardo Crisol

"I have had the opportunity to learn from other colleagues, but also to inspire others by showing them how I do IPM in my farm.

Maribel Vargas

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