



Training Meeting on *MedFlyNet*

Commercialization of an Automated Monitoring and Control System against the Olive and Med Fruit Flies of the Mediterranean Region

FruitFlyNet-ii: STR_B_A.2.1_0043

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Deliverable: D.3.5.2.III-IV: Training–Technology Transfer on e-traps of *MedFlyNet*.

Deliverable: D.3.6.1.III-IV: Training – Technology Transfer on e-services of *LAS*

Output 3.5: Training – Technology Transfer (*MedFlyNet*)

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Project Consortium

BEN: Agricultural University of Athens (AUA).....



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AGRICULTURAL UNIVERSITY OF ATHENS

PP01: University of Córdoba (UCO), Córdoba, Spain



UNIVERSIDAD DE CORDOBA

PP02: University of Molise (UNIMOL), Molise, Italy



PP03: Lebanese Agricultural Research Institute (MPC), Zahle, Lebanon



PP04: Institut de l'Olivier–Tunisian Olive Institute (IO), Sfax, Tunisia



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WP3: LAS Deployment and Operation in the Experimental Sites
A3.5.2: Training-Technology Transfer: *MedFlyNet*
A3.6.1: Training-Technology Transfer: LAS e-services

Training Meeting
UNIVERSITY OF MOLISE
Campobasso, 25-26 July 2022

General information:

The *Training Meeting* on *MedFlyNet* took place in Campobasso on the 25th - 26th July 2022 within the framework of the Activities 3.5.2 and 3.6.1 of the *FruitFlyNet-ii* project. This was an in-person meeting, preceded by a one-day online meeting, organized by Unimol and held on 24th February 2022. Participated to the meeting the partners BEN, PP2 and PP5.

The meeting was carried at the premises of the University of Molise, organizing partner. The main objective was to provide a detailed technical description of the *MedFlyNet* prototype, for both the e-trap and basic e-services, including practical training and field demonstration. In more details, the meeting was organized in 4 sessions: session A on Medfly e-trap, session B: In-field training; session C: *MedFlyNet* digitalization and monitor module; session D: *MedFlyNet* DSS.





Agenda

of the Training Meeting on *MedFlyNet*

Monday 25th of July 2022

Moderator: Prof. Andrea Sciarretta

9:30 - 10:00 Welcome – Registration

Session A: Medflynet e-trap

10:00 -11:30: *MedflyNet* e-trap structure and function

Part A: Update of component procurement per partner

Part B: Demonstration of *MedFlyNet* e-trap

11:30 -12:15: Coffee break

12:15 -13:00: Planning of e-trap field deployment

13:00- 15:00: Lunch break

Session B: In field training

16:00 -19:00: Field trip: Visit to the experimental area site of *MedFlyNet*

In field e-trap demonstration

19:00: Closing





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First day: 25/07/2022

List of participants to the Training Meeting on *MedFlyNet*

PARTICIPANTS	Organization
Theodore Tsiligiridis (PC)	BEN (AUA): Agricultural University of Athens
Dionysios Perdikis (TM)	
Andrea Sciarretta (PC)	PP02 (UNIMOL): University of Molise
Tania Travaglini (TM)	
Bernabei Guido	
Marco Colacci	
Armando Amore (NE)	Unimol consultant
Patrizia Ferrante	Unimol subcontractor: CREA Centro di Ricerca Olivicoltura, Frutticoltura, Agrumicoltura
Mohamed Braham (PC)	PP05(CRRHAB): Centre Régional des Recherches en Horticulture et Agriculture Biologique
Moussa Ahmed (ET)	
Hassib Ben Khedher (TM)	

PC: Project Coordinator

LPC: Local Project Coordinator

TM: Technical Manager

AS: Agricultural Assistant

NE: Network Engineer

09:30-10:00 Welcome – Registration

After the registration of participants, Prof. Andrea Sciarretta welcomed the participants and briefly resumed the aims of the training dedicated to the *MedFlyNet* prototype.

Session A: *MedFlyNet* e-trap

10:00-11:30 *MedFlyNet* e-trap structure and function.

Part A: Update of component procurement per partner.

Part B: Demonstration of *MedFlyNet* e-trap.

12:15 - 13:00 Planning of e-trap field deployment.

The first session was dedicated to the *MedFlyNet* e-trap. The engineer Armando Amore explained the structure of the delta e-trap, showing all the various electronic components inside it.



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Afterwards, each partner explained the difficulties they encountered in procuring the electronic components needed to build the e-trap. In particular, shortages at international level included the raspberry and the dongle, the procurement of batteries and solar panels were less problematic. It was concluded that a general discussion on this topic would have been taken in the Consortium Meeting, because the problem was general for all partners.

Later, Armando Amore proceeded to assemble the various components and to show how delta e-trap works. Also, he explained the settings and the software needed to make operating the device. Other partners interacted with Armando Amore, with questions and clarifications on this point.

Last part of the session focused on how to deploy the traps in the field, in particular concerning the number of traps to be placed at the large sites.

Session B: In field training

16:00 -19:00 Field trip: Visit to the experimental area site of *MedFlyNet*. In field e-trap demonstration.

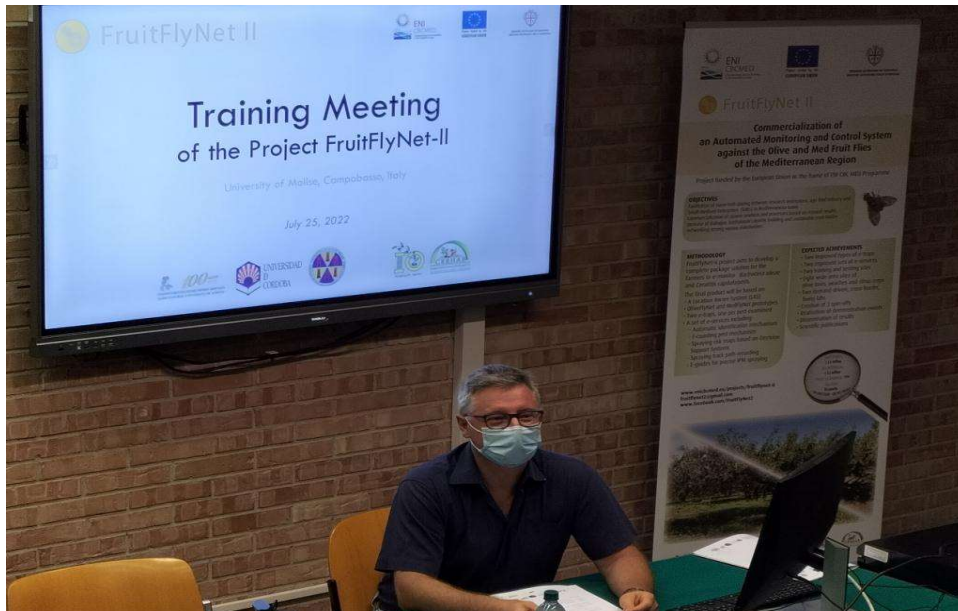
In the afternoon, participants to the training moved in the nearby municipality of Campomarino to visit the small-scale experimental site for Medfly.

During the visit, the functionality and positioning of the e-traps were shown to the working group in the experimental field. In addition, the transmission of the images from the e-traps to the cloud were checked on mobile devices. Finally, an overview of the Medfly monitoring, IPM and biological control in nearby peach orchards were shown. The trip terminated at 19:00.





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Above, Prof. Sciarretta is opening the session. Below, Eng. Amore is showing the components of the e-trap to the attendants.



Agenda

of the Training Meeting on *MedFlyNet*

Tuesday 26th of July 2022

Moderator: Prof. Andrea Sciarretta

9:30 - 10:00: Welcome – Registration

Session C: *MedflyNet* digitalization and monitor module.

Moderator: Prof. Dionysios Perdikis

10:00 -10:30: The update geodatabase, presentation by each partner

10:30-11:15: Mobile GIS assisted field data collection

11:15 -11:45: Coffee break

11:45 -12:45: Semi-automatic LAS

12:45-13:00: Discussion

13:00- 15:00: Lunch break

Session D: *MedflyNet* DSS

Moderator: Prof. Andrea Sciarretta

15:00 -16:30: MedFlyNet decisional procedures

16:30-17:00: Organization of ongoing work

17:00: Closing Training Meeting



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Second day: 26/07/2022

List of participants of the Training Meeting on MedFlyNet

PARTICIPANTS	Organization
Theodore Tsiligiridis (PC)	BEN (AUA): Agricultural University of Athens
Dionysios Perdikis (TM)	
Andrea Sciarretta (PC)	PP02 (UNIMOL): University of Molise
Tania Travaglini (TM)	
Bernabei Guido	
Marco Colacci	
Armando Amore (NE)	UNIMOL consultant
Patrizia Ferrante	Unimol subcontractor: CREA (Centro di Ricerca Olivicoltura, Frutticoltura, Agrumicoltura)
Mohamed Braham (PC)	PP05(CRRHAB): Centre Régional des Recherches en Horticulture et Agriculture Biologique
Moussa Ahmed (ET)	
Hassib Ben Khedher (TM)	

PC: Project Coordinator

LPC: Local Project Coordinator

TM: Technical Manager

AS: Agricultural Assistant

NE: Network Engineer

09:30-10:00 Welcome – Registration

After the registration of participants, Prof. Andrea Sciarretta introduced the sessions of the second day.

Session C: MedFlyNet digitalization and monitor module.

10:00-10:30 The update geodatabase, presentation by each partner

10:30-11:15 Mobile GIS assisted field data collection.

11:45-12:45 Semi-automatic LAS



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Each partner presented the update of the digitalisation of the data collected at the wide sites, which is necessary for the application of the *MedFlyNet* system. The work was well advanced and some critical issues, like the ground true verification or the delimitation of buffer zones, was discussed in more details.

Prof. Dionysios Perdikis presented the mobile GIS and its functionalities in uploading georeferenced data from the field associated to the site characteristics, the crop identities, the trap monitoring, the fruit sampling to record pest infestation useful in IPM decision making. In his next presentation the web based semi-automatic counting of pest captures was described. Dr Braham and Eng. Ahmed presented a software they are using for semi-automatic counting of medflies in images collected from the field.

A discussion among the partners about the development of automatic fly recognition took place at the end of the session.

Session D: *MedflyNet* DSS

15:45-16:30 *MedFlyNet* decisional procedures

16:30-17:00 Organization of ongoing work

Prof. Dionysios Perdikis and Dr Braham presented the current methodologies in the decision making and control of the Medfly in Greece and Tunisia, respectively. Then, Prof. Andrea Sciarretta presented the update decision support systems (DSS) for *MedFlyNet*, that allow the use of algorithms to help farmers to take decision on pest control. In particular, the second module of the DSS was modified; the different parameters to be considered in defining the temporal dynamic of Medfly, the risks due to the Medfly population level and the host plant susceptibility, with new flowcharts, were presented. A demonstration was implemented, simulating the output of DSS starting from various input parameters.

Finally, the partners discussed the continuation of the field work to be done within the year.





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Some moments of the Training Meeting. Above, participants in the experimental peach orchard in Campomarino. Below, participants during the discussion.