

FruitFlyNet II

FruitFlyNet-ii


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

Training Seminar

Mobile GIS assisted field data
collection for *Bactrocera oleae* management

by
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Athens, Greece, June 15th, 2022



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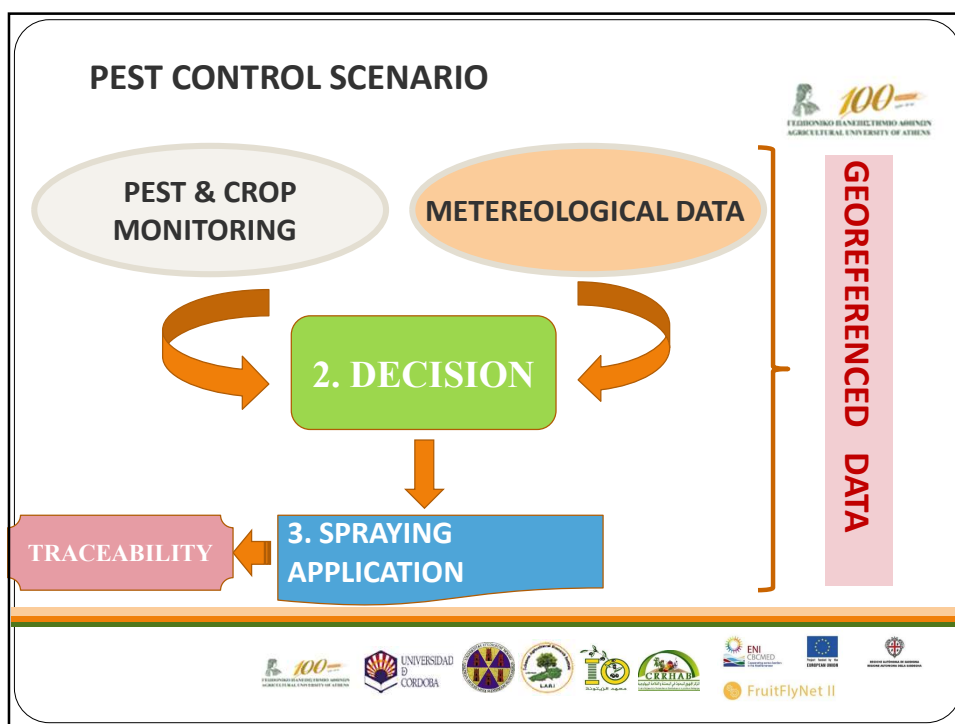
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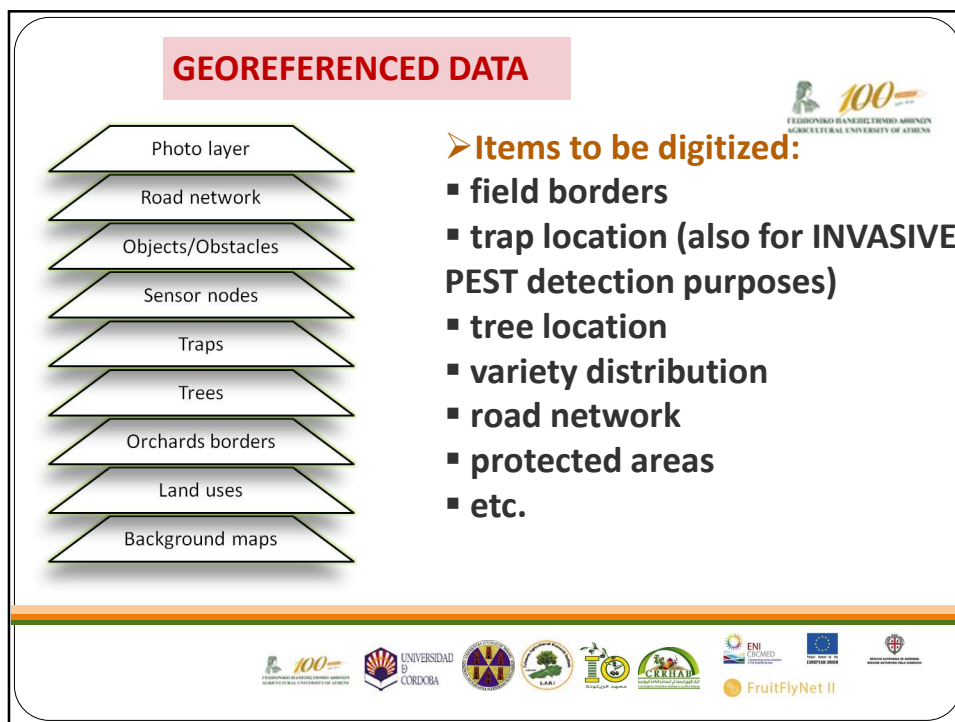
The total budget of the strategic project FruitFlyNet-ii is #3.629.843,27€# and it is financed on an amount of #3.266.858,95€# (90%) by the European Union (ENI CBC Mediterranean Sea Basin Programme).

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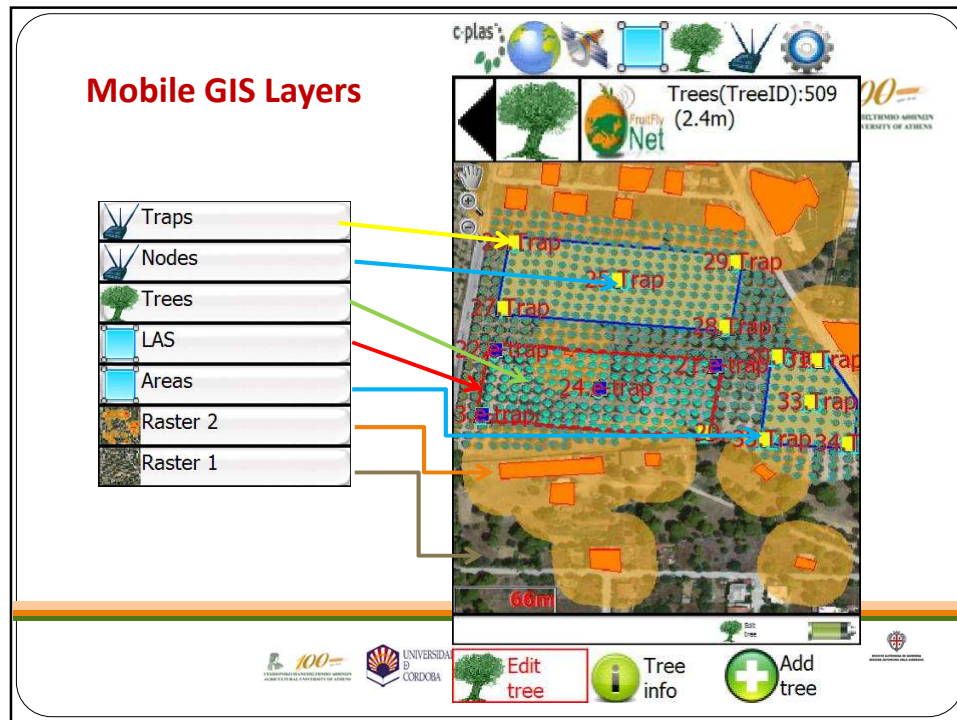
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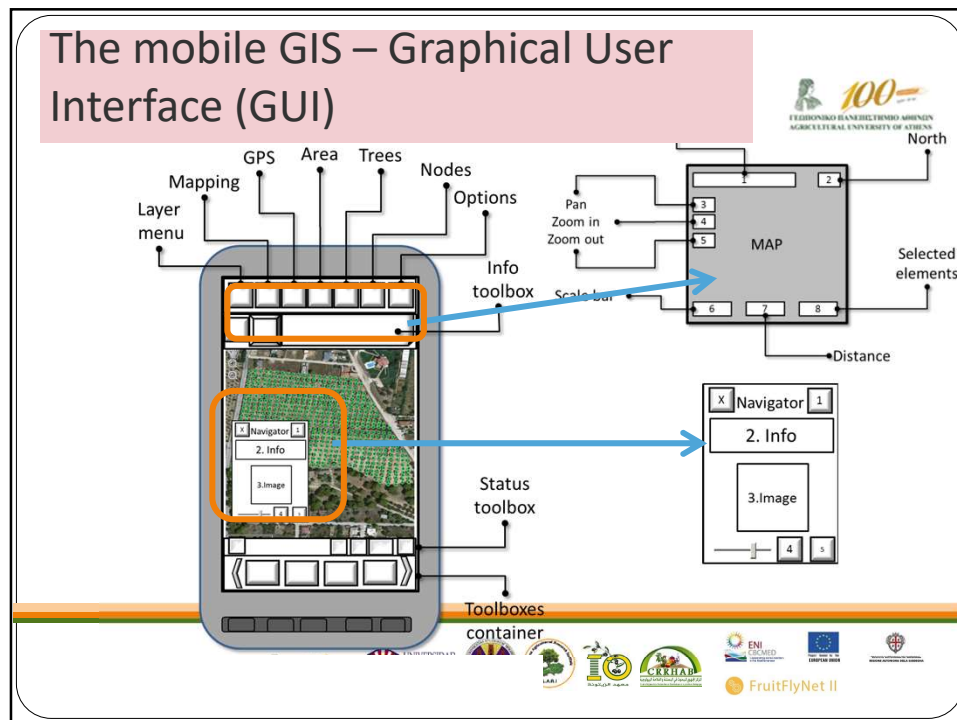
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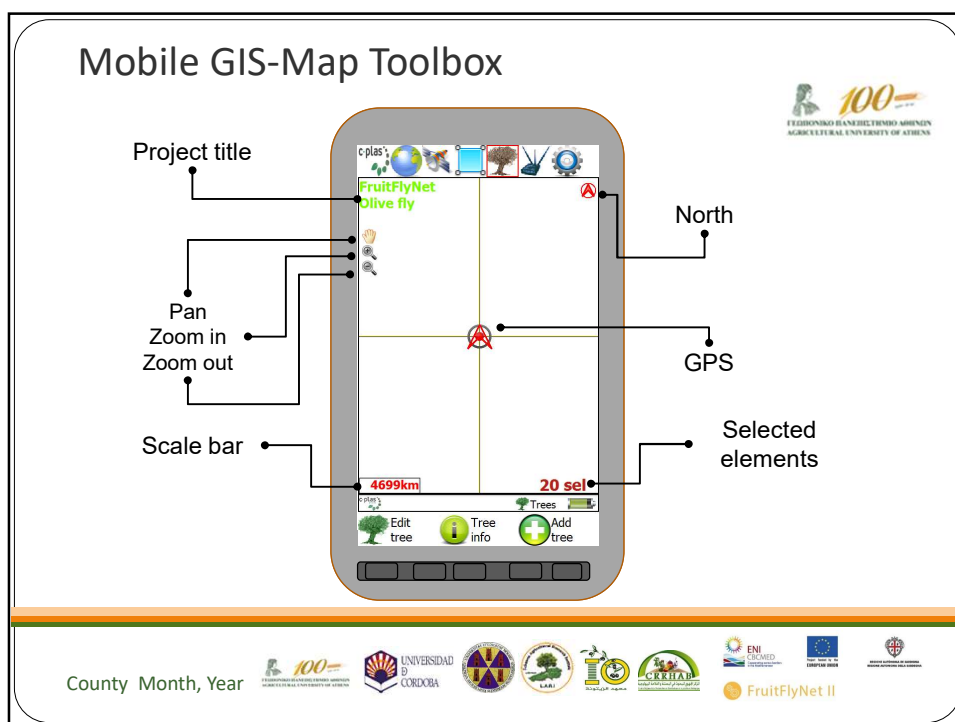
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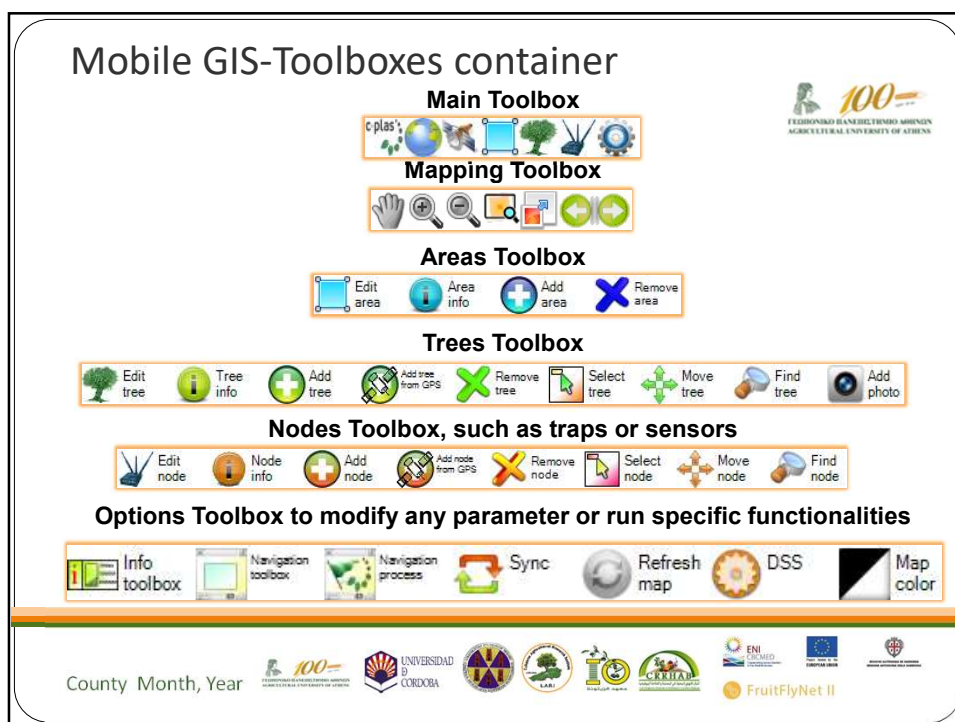
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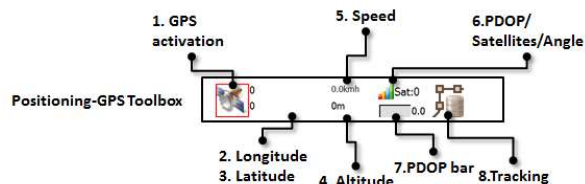


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Mobile GIS-Toolboxes container



With the use of the positioning-GPS toolbox, the user can enable or disable the GPS sensor of the device by pressing the GPS activation button (1). When the GPS is active the device will display spatial information, more specifically it will display the longitude (2), latitude (3), altitude (4), speed (5), the position dilution of precision (PDOP) (6), the number of satellites in view (6), the percentage rating of PDOP. Also the user can activate the tracking button (8) to create a track log of his path (tracking path).

County Month, Year



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Data entry toolboxes Trees data entry Toolbox



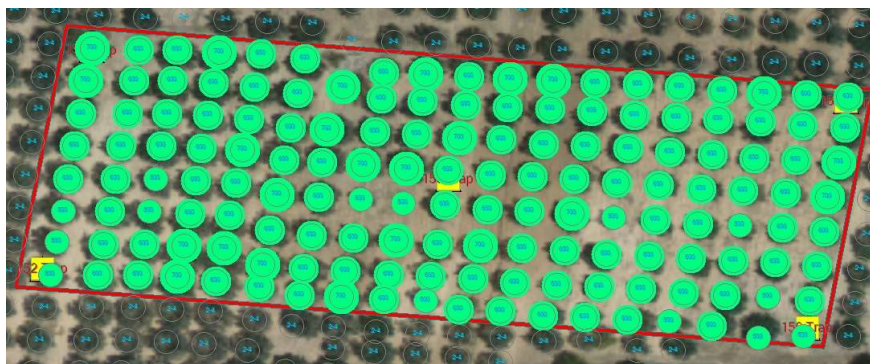
County Month, Year



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The trees of the plot with different DIAMETER of canopy



County Month, Year



FruitFlyNet II

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Find-Results:4

Menu

Remarks dates

Trees LAS

Actions dates

Maintenance dates

Remarks dates

Remarks BBCH

Sampling dates

Sampling BBCH

Traps dates

Traps captures

RUN

Find-Results:151

Menu

Trees LAS

TreeID	Label	Height	Diameter
53	LAS	5	500
54	LAS	5	500
55	LAS	5	500
56	LAS	5	600
57	LAS	5	600
58	LAS	5	600
59	LAS	5	700
60	LAS	5	700
78	LAS	4	600
79	LAS	5	600
80	LAS	5	600
81	LAS	5	600
82	LAS	6	600
83	LAS	6	600
84	LAS	5	600
85	LAS	5	600
103	LAS	5	600
104	LAS	5	600



County Month, Year



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Figure 89 The queries and results of the find toolbox of the mobile GIS of the LAS itFlyNet II

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Remarks entry Toolbox



County Month, Year



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Species data entry Toolbox

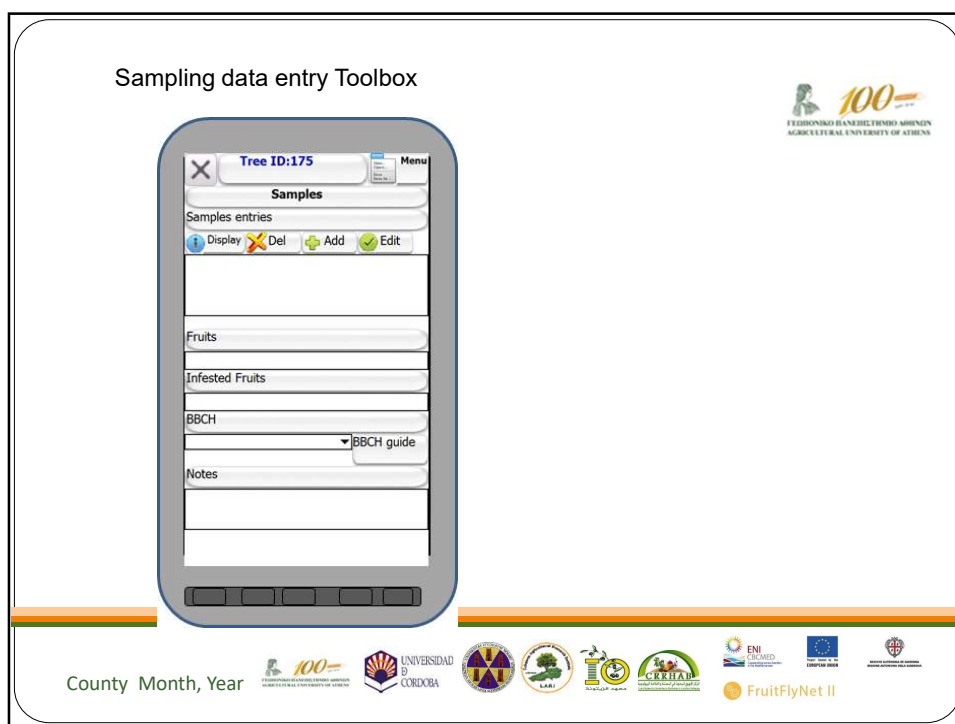


County Month, Year

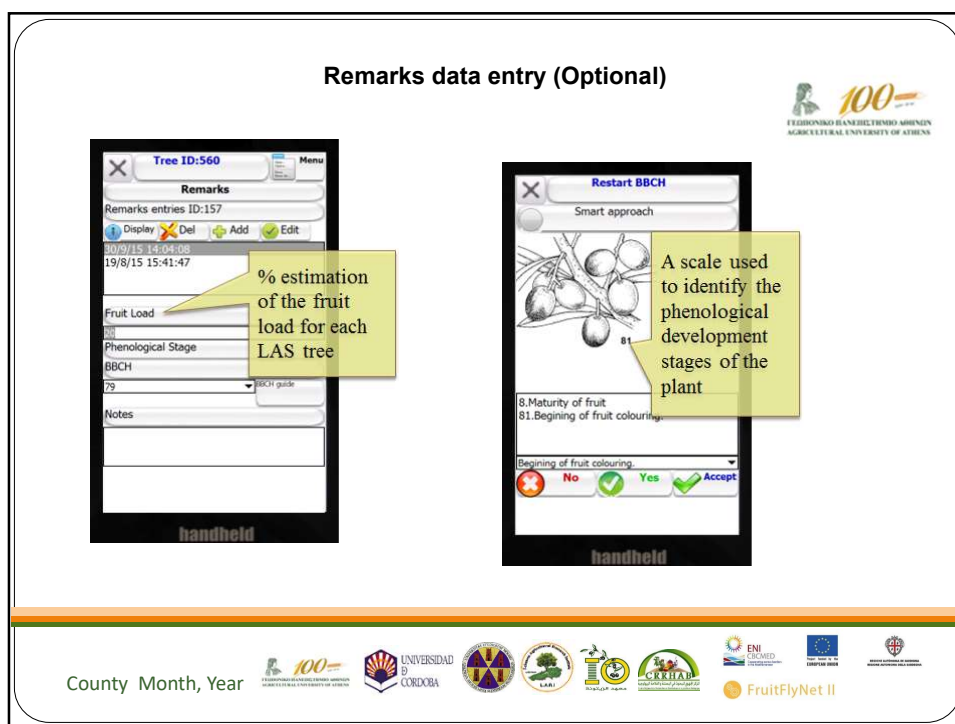


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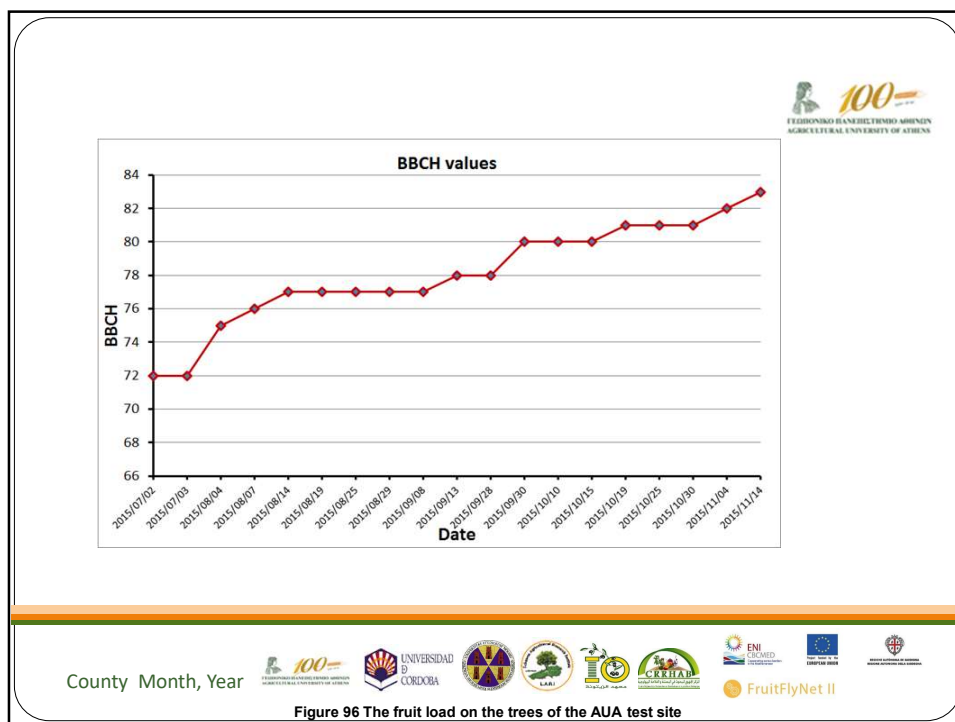
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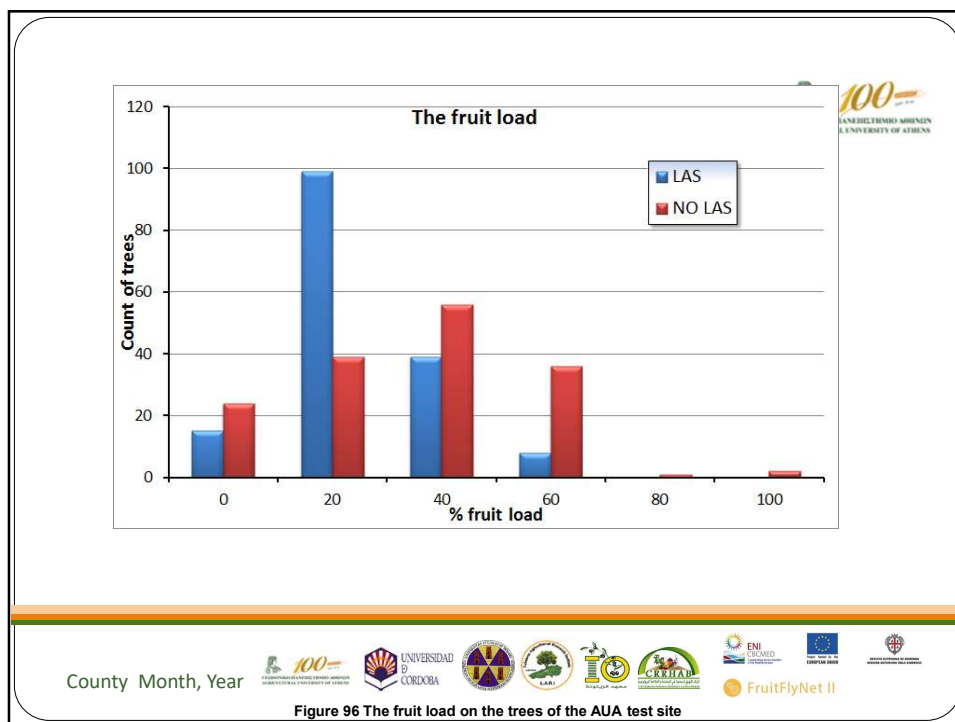
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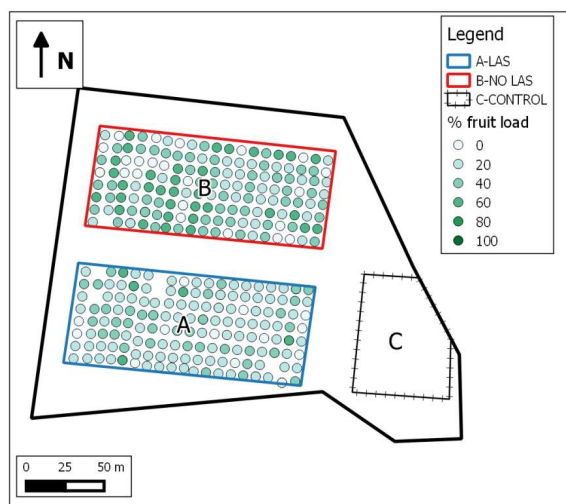


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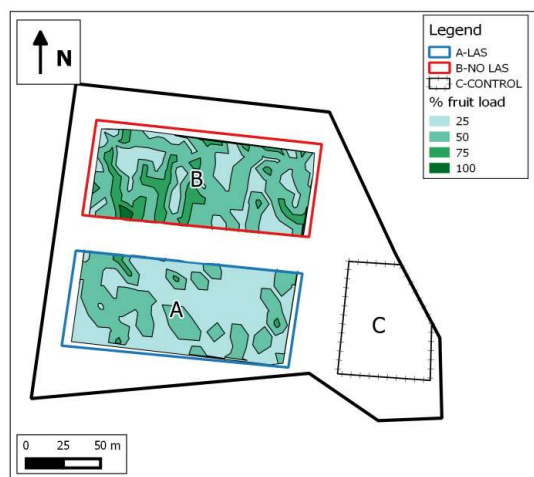


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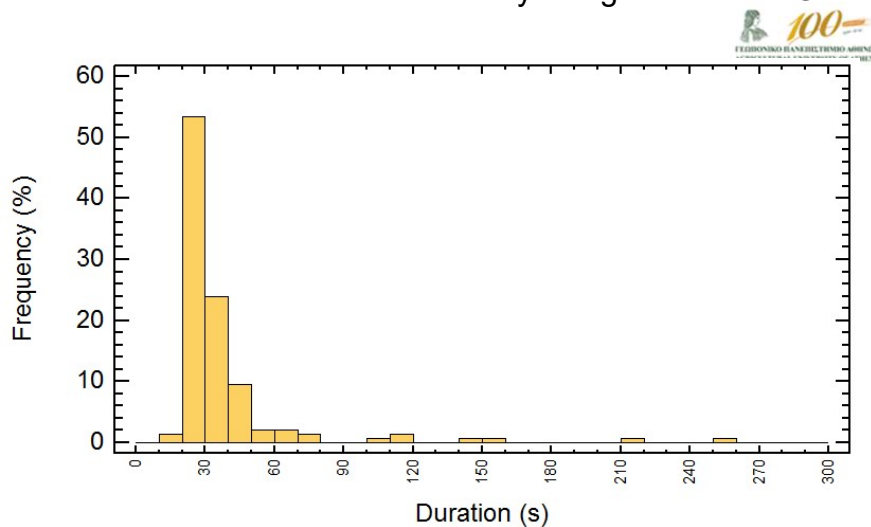
The map of fruit load on the trees.



The interpolated map of fruit load on the trees.



The duration of the remarks data entry using the mobile GIS.



County Month, Year



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The alive infestation in olive fruits the sampling data entry Toolbox and the BBCH toolbox.

Tree ID:560

Samples

Samples entries ID:13

Display Del Add Edit

25/10/15 17:01:46

18/9/15 14:51:19

3/7/15 19:16:17

Fruits

50

Infested Fruits

0

BBCH

72

BBCH guide

Notes

Count handheld

Alive
infestation of
the fruits
from larvae

Count

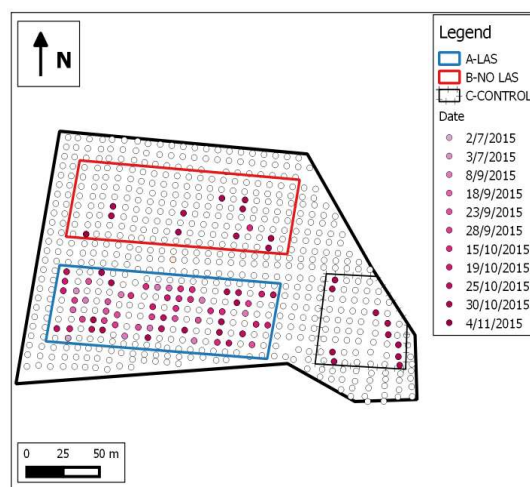
handheld



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The trees in which samplings performed in different days.



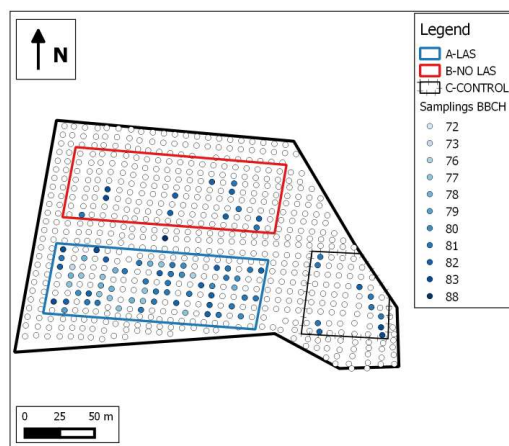
County Month, Year



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The BBCH values during the samplings process.

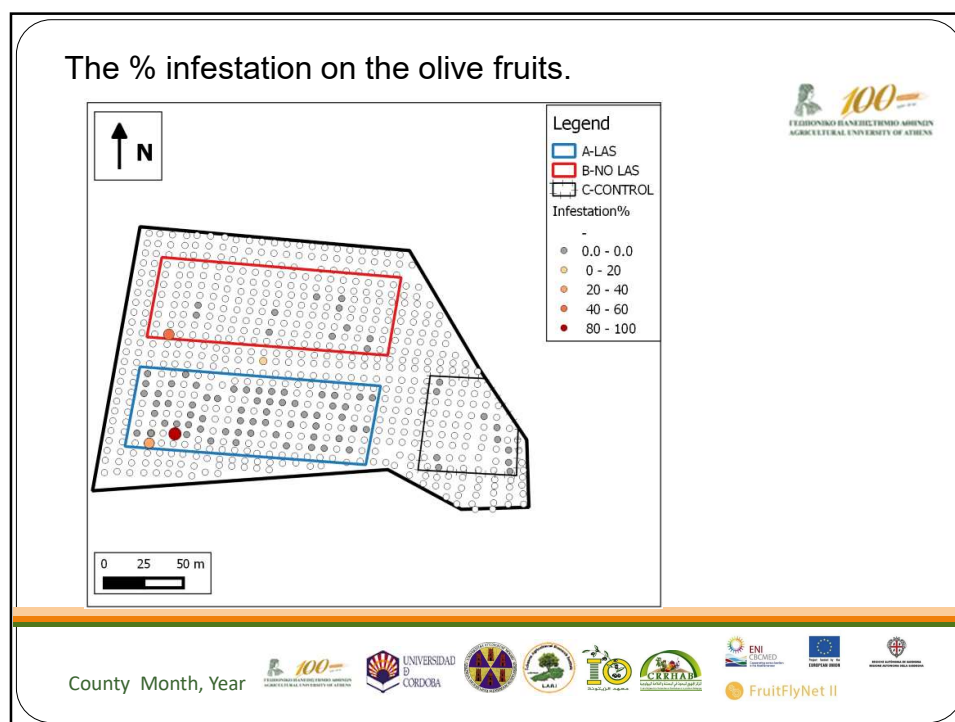


County Month, Year

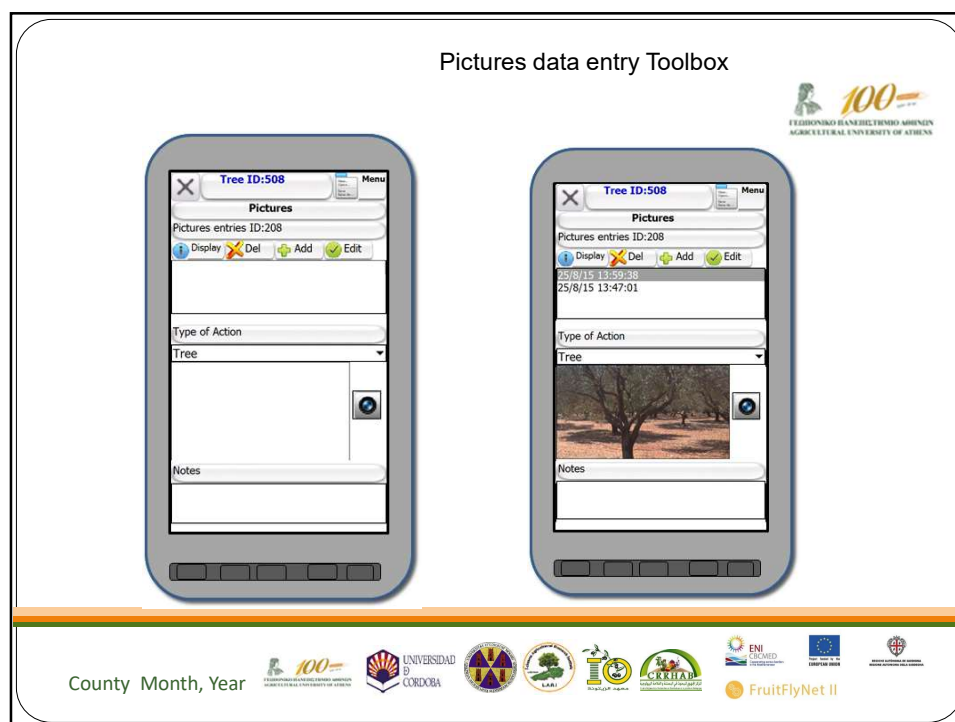


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Traps toolbox.



County Month, Year



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Trapping and Semi-automatic trapping Toolbox UI



County Month, Year



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ENI CORDOBA

EUROPEAN UNION

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The traps entry toolbox and trap monitoring

Insects visually data entry

Traps monitoring using the mobile GIS in the field

mobile GIS

Trapping (conventional and e-trap)

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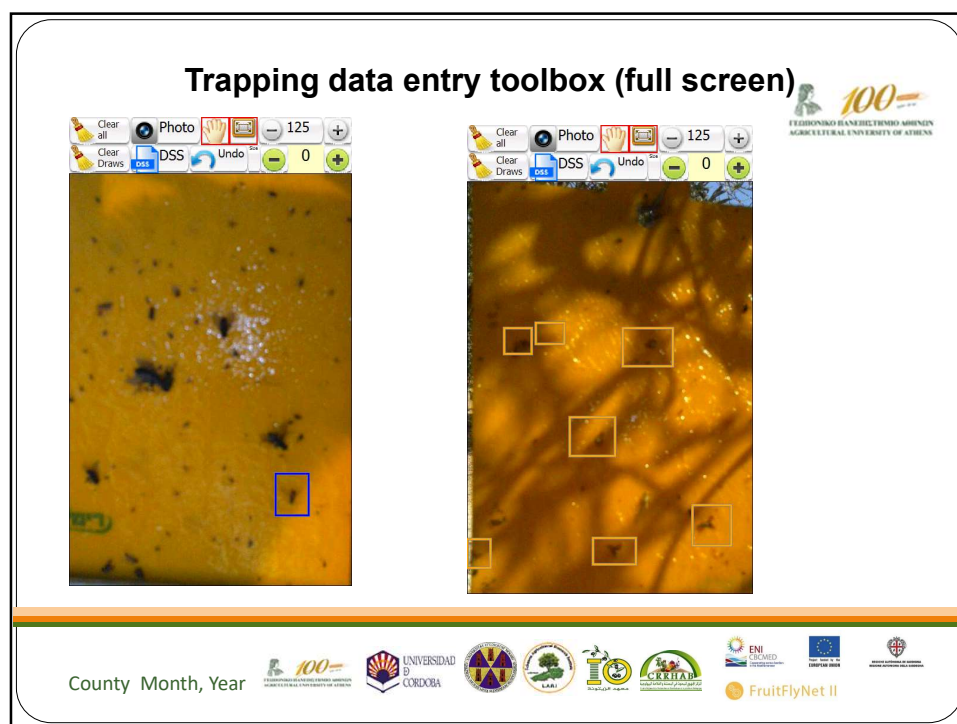
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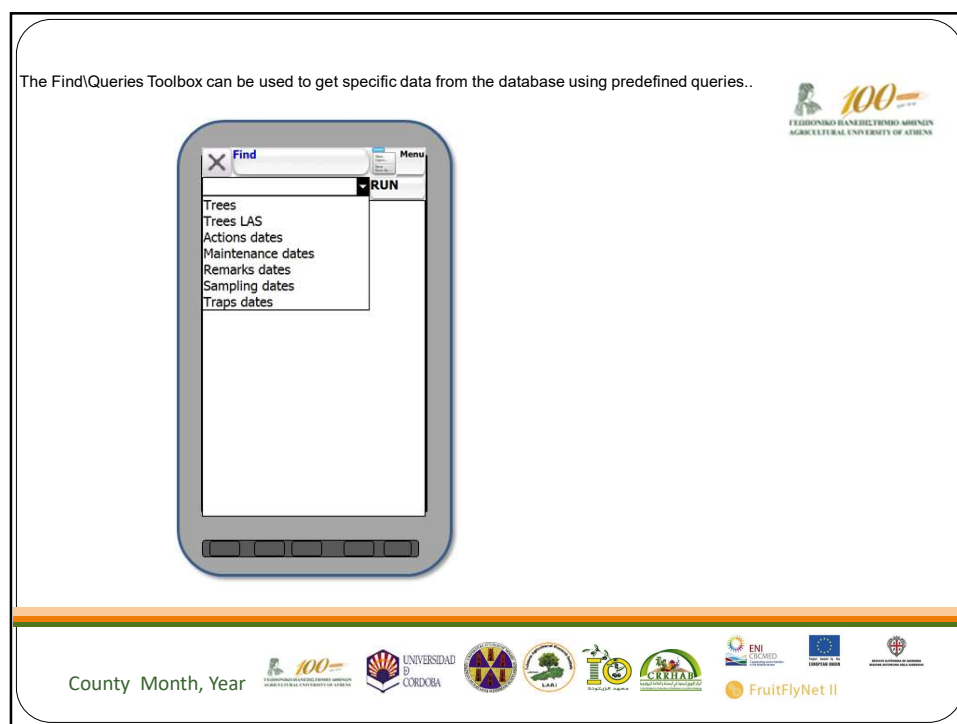
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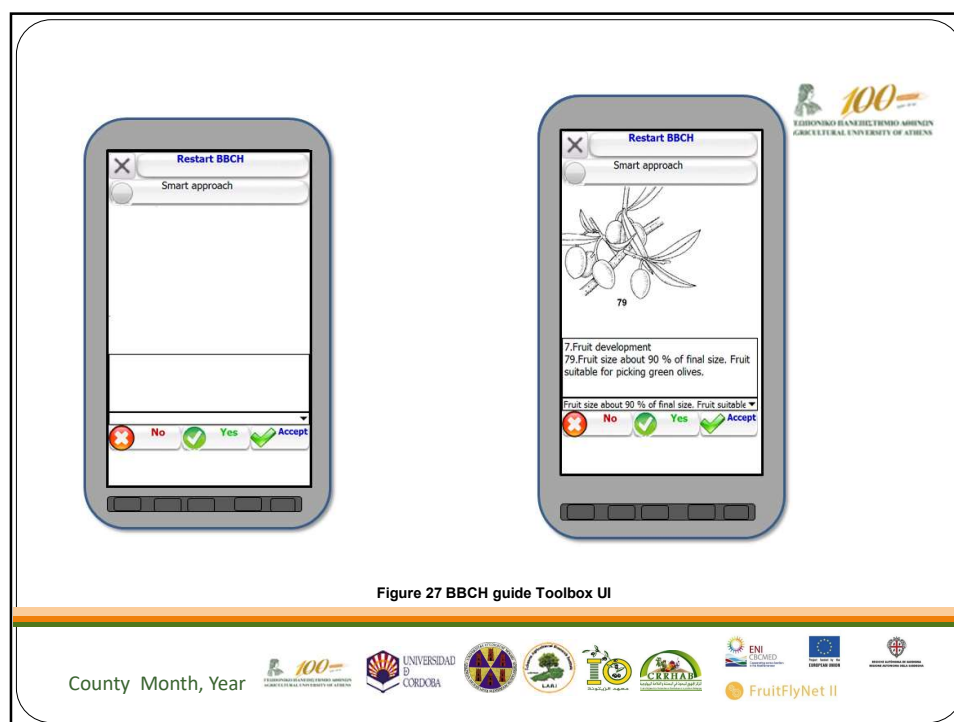
30



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Nodes GIS Layers of the mobile GIS

Node ID	Plot	Trap type	Sensor
1	LAS	e-trap	Temperature
2	LAS	e-trap	Temperature
3	LAS	e-trap	Temperature
4	LAS	e-trap	Temperature
5	LAS	e-trap	Temperature, Wind, RH
6-10	Conventional	Rimi trap	-
11-15	Control	Rimi trap	-

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The raster GIS Layers of the mobile GIS



Buffer zone

Buffer zone



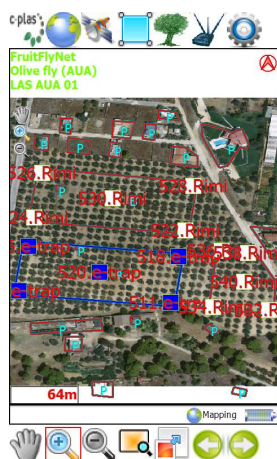
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The Traps GIS Layers of the mobile GIS



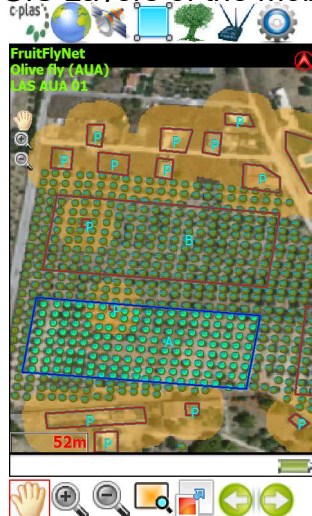
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The Trees GIS Layers of the mobile GIS



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PROTOCOLS: Sensors maintenance



DATE:...../...../2015. Start time: REGION: AUA, BLOCK:..... PLOT:..... Form Number:.....

SENSOR No/ TREE ID	SENSOR TYPE/ID	START TIME	STATUS (active Y or N)	REASON FOR NON- ACTIVE:		TIME	PART CHANGED	TEST - FUNCTION	NOTES	END TIME
				Power/ Timer	Capture/ Transmission/ OTHER					
1,	TRAP/ID:.....	.....								.....
Tree ID:.....	TEMP/ID:.....	.....								.....
	RH/ID:.....	.....								.....
2,	TRAP/ID:.....	.....								.....
Tree ID:.....	TEMP/ID:.....	.....								.....
	RH/ID:.....	.....								.....
3,	TRAP/ID:.....	.....								.....
Tree ID:.....	TEMP/ID:.....	.....								.....
	RH/ID:.....	.....								.....
4,	TRAP/ID:.....	.....								.....
Tree ID:.....	TEMP/ID:.....
	RH/ID:.....
5,	TRAP/ID:.....
Tree ID:.....	TEMP/ID:.....
	RH/ID:.....

End time: User's name:..... Signature:.....

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Trap monitoring

Protocol Type: **TRAP MONITORING** Form number:.....

DATE:...../...../2015, Start time: REGION: AUA, BLOCK:....., PLOT:.....

TRAP NUMBER/ ID/Tree ID	START TIME	TRAP SURF ACE	OLIVE FLY			NOTES	TIME	SENT WITH MOBILE	END TIME	OTHER INFO
			ADULTS	SIMILAR	COMPLEX					
1 ID:..... Tree ID:.....	A	<input type="checkbox"/> YES / .....	.....	.....
	B	<input type="checkbox"/> YES / .....	.....	.....
2 ID:..... Tree ID:.....	A	<input type="checkbox"/> YES / .....	.....	.....
	B	<input type="checkbox"/> YES / .....	.....	.....
3 ID:..... Tree ID:.....	A	<input type="checkbox"/> YES / .....	.....	.....
	B	<input type="checkbox"/> YES /
4 ID:..... Tree ID:.....	A	<input type="checkbox"/> YES /
	B	<input type="checkbox"/> YES /
5 ID:..... Tree ID:.....	A	<input type="checkbox"/> YES /
	B	<input type="checkbox"/> YES /

End time: User's name: Signature:

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Fruit sampling

Protocol Type: **FRUIT DAMAGE (FRUIT SAMPLING)**

Form Number: FFN5 Form Version: 1.0

SCENARIO: FORM: DATE:/...../2015, Start time: REGION: ... BLOCK: LAS, PLOT: A TREE

SELECTION METHOD: CULTIVAR:

CV NUM BER	CULTIVAR NAME	DATA	START TIME	Number of fruits collected	END TIME	DATA	START TIME	INFESTED	DATA ACQUISITION WITH MOBILE GIS	NOTES	END TIME
2									<input type="checkbox"/> YES		
3									<input type="checkbox"/> YES		
4									<input type="checkbox"/> YES		
5									<input type="checkbox"/> YES		
6									<input type="checkbox"/> YES		
7									<input type="checkbox"/> YES		
8									<input type="checkbox"/> YES		
9									<input type="checkbox"/> YES		
10									<input type="checkbox"/> YES		

End time: User's name: Signature:

County Month, Year

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