

Hort360 Pest Management Webinar

Emily Pattison
Total Grower Services

Principles of Pest Scouting

- ▶ Aim: To provide quantitative data collected in a consistent manner in order to be able to assist in comparing pest pressures from different times and locations in order to assist in decision making processes.



STEP 1: Make a Plan



- ▶ Satellite imagery is a great tool.
- ▶ Tweak the plan if needed
- ▶ The idea is to keep the monitoring process as consistent as possible

STEP 2: Use a Consistent Monitoring Method

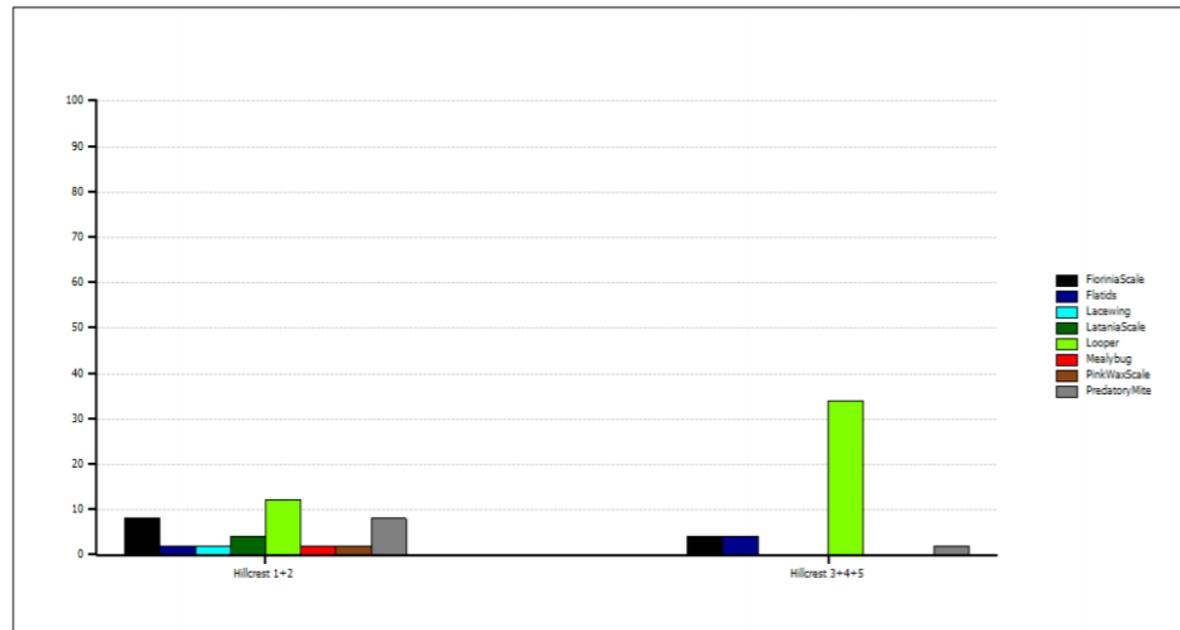
- ▶ Field of view method: 5 fields of view per site. E.g. 1 FOV = 1 side of a tree, 1 piece of fruit, the inside of a tree
- ▶ A conventionally excepted method, a majority of data is expressed and threshold data is written in this method
 - SO, if 3 loopers are found in 1 FOV the data is still recorded as one.
- ▶ The data is expressed as a % of FOVs with the pest present

EG. 3 FOVs have loopers present in a block with 6 sites

There are a total of 30 FOVs (6 sites x 5 FOVs per site).

$$3/30 = 10\% \text{ loopers}$$

Current Pests and Beneficials %





STEP 3: Data Collection, Trends and Decision Making

- ▶ Collecting the data over time to be able to see emerging patterns (specific to your farm), and better help make decisions.

Fruit Spotting Bug Presence



Advancements in Pest Monitoring

- ▶ Geotagging where pests are present allows the identification of hotspots, which can help target where sprays are applied as well concentrate monitoring efforts

1+2

-17.01190, 145.42839 12m 10/10

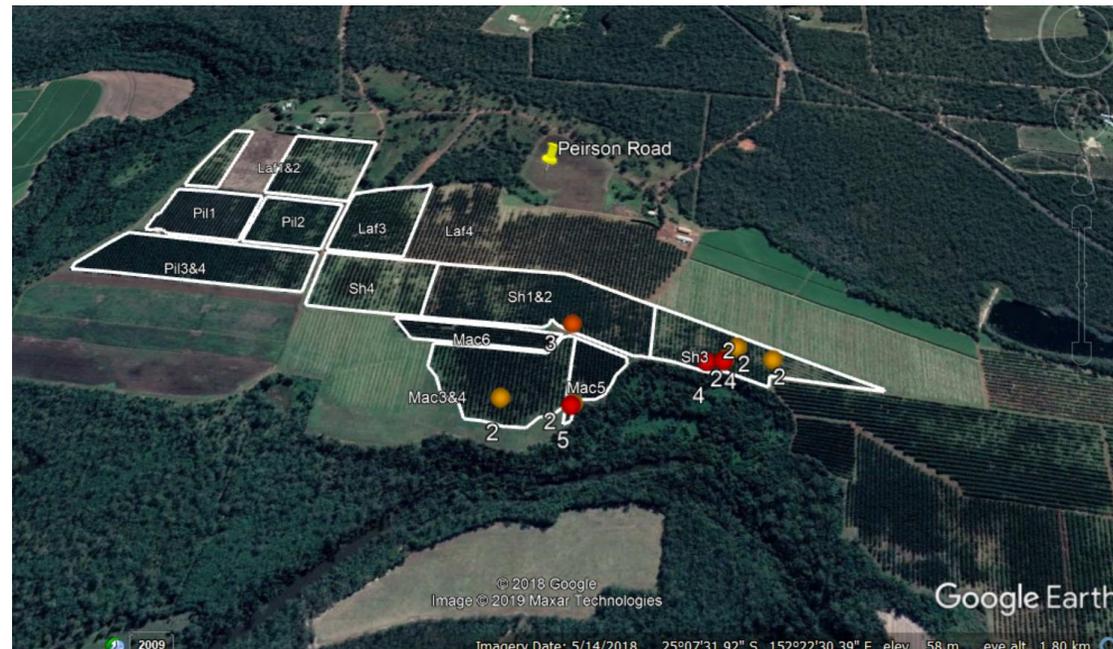
Avocado - Hass

Growth					
FLSH	ROOT	FLR	FRS	FRD	LFD
0	0	0	0	0	0

Size

0

Pest				
FSB	LOOP	MONO	LRR	TRSM
0	0	0	0	0



IPM: Bringing it all together

In order to think in terms of IPM, the following questions need to be asked:

- ▶ How is the weather going to affect pest populations?
- ▶ How does the soil moisture affect populations?
- ▶ How does nutrition affect pest populations?
- ▶ How does surrounding vegetation surrounding/in my orchard/farm affect pest populations?
- ▶ How does my equipment affect pest populations?
- ▶ How do other insects (e.g. beneficials) affect pest populations

Summary

- ▶ Use a consistent form of pest scouting in order to keep consistent records and help with management decisions
- ▶ Using the threshold method gives you access to some of the resource materials
- ▶ Bringing understanding of pests and whole systems to create an IPM strategy

Thank You!

Emily Pattison

Total Grower Services

emily@totalgrower.com.au

0497519937