

Monitor Vineyards for Sugar Feeding Ants

Instructions for monitoring ants in a vineyard



Why monitor for ants?

Simple visual assessment of vineyards can help identify presence/absence of ants but can't accurately gauge population density. Monitoring can help provide a more accurate picture.

It can also be useful in determining when to apply ant bait. Initial monitoring can be done to show where and what type of ants are present. Then apply ant bait and monitor again to check relative density. If needed, ant bait can be applied again.

4 steps to monitor for ants:

1. Select sampling vines
2. Mix the attractant
3. Deploy attractant in vineyard
4. Score ant activity

Materials:

Sugar	Cotton balls
Water	Forceps
2- liter container	Score Sheet
Bucket	Optional: Clipboard for recording score sheet

Step 1: Select Sampling Vines

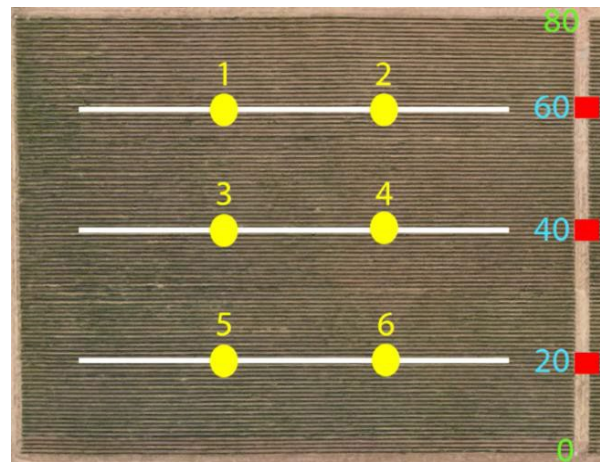
Choose vines evenly over a block, avoiding edges.

If you are only interested in the presence/absence of ants in a block, aim for about 6 vines over 3 rows.

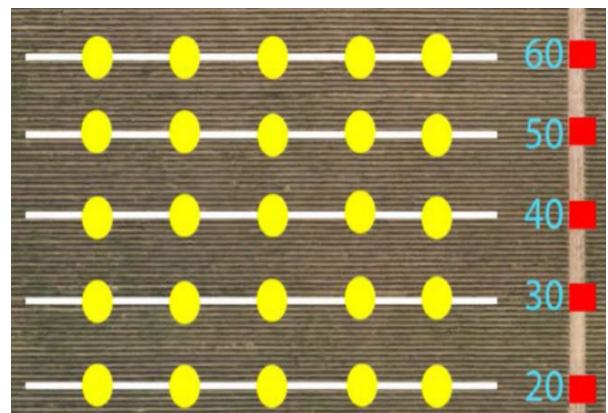
For example, in a block with 80 rows...

Start with row 20 & sample in 3 evenly spaced rows up to row 60 (R20, R40, R60)

Sample 2 vines in each row



When evaluating effects of bait, sample more vines (dependent on time and resources)



In irregular shaped blocks, varying numbers of rows and vines can be selected, so long as sampling vines are evenly distributed.

Step 2: Mix the attractant

Cotton balls soaked in 25% sugar water mimic honey dew & attract ants

Steps to mix 2-liters of attractant

1. Add 500 ml of sugar to the container
2. Add 1500 ml of warm water (fill to 2 liters)
3. Stir to dissolve sugar
4. Pour solution into storage container and refrigerate



Step 3: Deploy attractant in vineyard

1. Add cotton balls to bucket
2. Pour generous amount of attractant into bucket
3. Stir until cotton balls are completely soaked
4. Use forceps to place one cotton ball on each sample vine



**Before bloom,
place them at the
base of the vine**



**After fruit set,
place them at the
head of the vine**



Step 4: Score ant activity

Wait up to 2 hours for ants to colonize the cotton balls, then return to the sample vines to evaluate and score ant activity.

Count ants under, on and 1-inch around the cotton ball. It's impossible to count every ant, so we use a judgment system:

0= No ants



**1= Low
(1-10 ants)**



**2= Medium
(11-49 ants)**



**3= High
(50+ ants)**



(Shown on gel bait)

You can use a score sheet to record the ratings for each cotton ball.

Vineyard: *Phoenix's Leap* Cotton ball: *Ground*

Date: *June 16th* Time OUT: *08:30* Time IN: *10:30*

Row 15	Rating				Row 25	Rating				Row 35	Rating			
Vine	0	1	2	3	Vine	0	1	2	3	Vine	0	1	2	3
15	/				15	/				15	/			
20	/				20	/				20	/			
25	/				25	/				25	/			
30	/				30	/				30	/			
35	/				35	/				35	/			
40	/				40	/				40	/			
45	/				45	/				45	/			
50	/				50	/				50	/			
55	/				55	/				55	/			
60	/				60	/				60	/			

Row 45	Rating				Row 55	Rating				Row 65	Rating			
Vine	0	1	2	3	Vine	0	1	2	3	Vine	0	1	2	3
15	/				15	/				15	/			
20	/				20	/				20	/			
25	/				25	/				25	/			
30	/				30	/				30	/			
35	/				35	/				35	/			
40	/				40	/				40	/			
45	/				45	/				45	/			
50	/				50	/				50	/			
55	/				55	/				55	/			
60	/				60	/				60	/			

Additional Resources

Mealybug and vineyard ant identification, detection, and monitoring: <https://ucceviticulturenapa.wixsite.com/uccevitnapa>

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Educational video: Monitoring for Sugar Feeding Ants



[How to monitor vineyards for Argentine ants - YouTube](#)

