UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Gelatinous Bait for Argentine Ant

Instructions for preparing and deploying in vineyards

Materials Required

Bait Supplies

1. Table sugar
2. Boric Acid (technical grade)
3. Polyacrylamide water storing crystals: *2-4 mm; Soil Moist, JRM Chemical*
4. Water

Supplies for Measuring and Mixing

5. Macrobin(s) with lid
6. Drill with stirrer attachment or similar tool
7. Bucket to measure sugar and water
8. Smaller container to measure crystals
9. Scale and container to measure toxicant
10. Appropriate personal protective equipment (PPE)
11. Labels to attach to macrobin indicating contents (boric acid)

Bait Preparation

Use this table to calculate component amounts (adjust accordingly if not using 100% boric acid)

Finished Volume	Water	Sugar	100% Boric acid	Polyacrylamide crystals	Target a.i. concentration
150 gal (568 L)	135 gal (511 L)	284 lb (142 L)	2840 g	8750 ml (7590 g)	0.5%
12 gal (45.4 L)	10.8 gal (40.8 L)	22.8 lb (11.4 L)	227 g	700 ml (600 g)	
2 gal (7.6 L)	1.8 gal (6.8L)	3.8 lb (1.9 L)	38 g	115 ml (99 g)	

Bait Mixing Instructions

Add 1/3 of total water to macrobin

Add sugar to water in macrobin.

Stir continuously to dissolve.

A **trolling motor** may be used to stir the sugar.

Once sugar is dissolved, **add** remaining water.

Put on PPE and **measure** boric acid.

Add boric acid to small containter with water**.**

Mix to dissolve completely.

Add boric acid to macrobin & **mix** thoroughly.

Measure the polyacrylamide crystals.

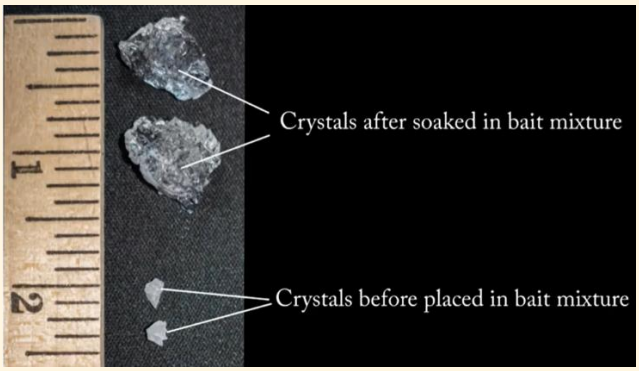
Add to macrobin.

Cover macrobin.

Affix appropriate labels indicating pesticide.

Wait 12 hours (or overnight) for water-storing crystals to expand and absorb bait mixture.

Crystals should be fully expanded but not floating in excess liquid.



Apply the Bait

Attach spreader to ATV or tractor for broadcast application.

Calibrate the spreader to apply 10 gallons of hydrated crystals per acre.

Apply hydrated crystals in alternate rows.

Plan to make 2 applications, at 4 to 6-week intervals in spring.

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Watch the Video

"Mixing Gelatinous Bait Targeting Argentine Ants in Vineyards"
www.youtube.com/watch?v=mg9cN6F2Gb0

Additional Resources

Mealybug and vineyard ant identification, detection, and monitoring:
https://ucanr.edu/county/napa-county-ucce/pest-and-disease-identification-and-management

References

Cooper M., M. Hobbs, C. Boser, L. Varela. 2019. Argentine ant management: using toxin-laced polyacrylamide crystals to target ant colonies in vineyards. Catalyst 3:23-30.

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