

Efficacy of Management Tools for Armored Scale in Ground **Final**

Ornamental Protocol Number: 09-009

Objective: Determine efficacy of various products against armored scale on ornamental plants grown in ground. Do not conduct in containerized ornamentals..

Experimental Design:

Plot Size: Must be adequate to reflect actual use conditions.

Replicates: Minimum of 6 replications

Application Instructions: Applications should be made targeting crawler stage and using application equipment consistent with conventional commercial equipment.

Target Species: Camellia, Euonymus, Japanese Maple, and Tea scales. Contact your regional coordinator if other target species are of interest.

Plant Hosts: Use a plant host suitable for target scale species, recording species and variety used.

Use Site: Field In Ground. For greenhouse or field container, refer to protocol 09-005.

Evaluations: Record initial insect counts and then 7, 14 (prior to 2nd application), 28 and 42 days after initial application. Record phytotoxicity at each rating date on a scale of 0 to 10 (0 = no phytotoxicity; 10 = complete kill). If phytotoxicity is observed in treated plants, take pictures comparing treated and untreated plant material.

Recordkeeping: Keep detailed records of weather conditions throughout the test including temperature and precipitation, soil-type or soil-less media, application equipment, application volume per acre, irrigation, liner size, plant height & width, and plant growth stage at application and data collection dates.

Reports:

Reports submitted on the standard IR-4 Ornamental Horticulture Research Report Form are preferred. However, reports in the AMT Tests format are acceptable as long as those reports are amended with detailed experimental design and materials and methods, along with raw data, recordkeeping information, and any pictures.

A report submitted electronically is preferred but not required. If the report is provided electronically, the basic report can be sent in MS Word or WordPerfect, the recordkeeping information as pdf or other electronic documents, and the raw data in MS Excel or other suitable program such as ARM.

Please direct questions to: Cristi Palmer, IR-4 HQ, Rutgers University, 500 College Road East, Suite 201W, Princeton, NJ 08540, Phone 732-932-9575 x4629, palmer@aesop.rutgers.edu **OR** Ely Vea, 308 Aston Forest Lane, Crownsville, MD 21032, Phone & FAX#: 410-923-4880, E-mail: evvea@comcast.net.

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Revised By: CLP

Treatments:

Priority	#	Product	Rate	Application Instructions	Contact Information to obtain materials and any needed adjuvants
B	1	Aloft SC (clothianadin +bifenthrin)	10 fl oz per 100 gal	Sprenc	Arysta, Doug Houseworth, 904-321-0795, LJHouse9@aol.com
S/A	2	Distance (pyriproxifen)	12 fl oz per 100 gal	Apply as foliar spray to runoff when crawlers begin emerging.. Make second application after 21 days	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com
A	3	Flagship G (thiamethoxam)	227g per foot of height for shrubs	Broadcast evenly around the surface of the growing media	Syngenta, Nancy Rechsigl, 941-708-9338, nancy.rechsigl@syngenta.com
A	4	Flagship 25WG (thiamethoxam)	4gm/ft of shrub height or per inch of Trunk diameter (dbh)	One drench application	Syngenta, Nancy Rechsigl, 941-238-7413, nancy.rechsigl@syngenta.com
A	5	NNI-0101 (pyrifluquinazon)	18 fl oz per 100 gal	Foliar	Nichino, James C. Adams, 302-636-9001, jadams@nichino.net
A	6	Safari 2G (dinotefuran)	60 grams/ inch dbh for trees or foot of height for shrubs	One application. Broadcast dry by hand to the soil at base of trunk within 1 foot of trunk. Rake back mulch first if more than 1/2"	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com
S/A	7	Safari 20SG (dinotefuran)	In-ground: 6 grams/ inch dbh for trees or foot of height for shrubs	One application. Apply 1-2 quarts of drench solution/ foot of height for shrubs or inch of trunk diameter for trees. Apply to soil at base of trunk within 1 foot of trunk	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com
A	8	Talus (buprofezin)	21.5 fl oz/100 gal	Foliar application	SePro, Todd Bunnell, 317-216-5667, toddb@sepro.com
S/A	9	TriStar 30SG (acetamiprid)	8 oz per 100gal	Spray to wet; two foliar sprays on a 14 d interval with a wetting agent such as Capsil.	Cleary Chemical, Rick Fletcher, 732-329-8399, rick.fletcher@clearychemical.com
Standards (Pick One)	10a	Orthene TTO	See label directions		
	10b	Horticultural Oil	See label directions		
	11	Untreated	--	--	--
Optional		Arena 50 WDG (clothianidin)	In-ground: 2.4 grams/ inch dbh for trees or foot of height for shrubs	One application. Apply 1-2 quarts of drench solution/ foot of height for shrubs or inch of trunk diameter for trees. Apply to soil at base of trunk within 1 foot of trunk	Valent, Joe Chamberlin, 770-985-0303, jcham@valent.com

