

# Managing Clearwing Borers in Woody Ornamentals. **DRAFT 2**

## **Ornamental Protocol Number: 08-007**

**Objective:** Determine efficacy of soil drenches or trunk applications with various products against clearwing borers of ornamental plants.

### **Experimental Design:**

**Target Species:** Clearwing borers

**Plot Size:** May be individual plants in a field setting.

**Replicates:** A minimum of 6 replications required if relying on natural field populations.

**Application Instructions:** Applications should be made using application equipment consistent with conventional commercial equipment.

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

**Use Site:** Field in-ground or container.

**Evaluations:** Use suitable rating scheme to evaluate efficacy at 0, 3 months, 6 months and 1 year after application, or until no control is achieved. Record plant height & width at initial and final evaluations only. 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](mailto:palmer@aesop.rutgers.edu) **OR** Ely Vea, 308 Aston Forest Lane, Crownsville, MD 21032, Phone & FAX#: 410-923-4880, E-mail: [evvea@comcast.net](mailto: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   |
|----------------------|----|---|--|---|--|
| A                    | 1  | DPX-E2Y45                               | 1 quart per 100 gallons  | Apply as a trunk spray  | Dupont, Chuck Silcox, 302-999-5953, <a href="mailto:charles.a.silcox@usa.dupont.com">charles.a.silcox@usa.dupont.com</a>             |
| B                    | 2  | TriStar (acetamiprid)                   | 6 ml per inch dbh  | Trunk injection or trunk spray. For trunk sprays include an organosilicate penetrant.                           | Cleary Chemical, Rick Fletcher, 732-329-8399, <a href="mailto:rick.fletcher@clearychemical.com">rick.fletcher@clearychemical.com</a> |
|                      | 3  | Tolfenpyrad                             | 24 fl oz per 100 gal   | Apply to run off  | Nichino, James Adams, 302-636-9001 x 8, <a href="mailto:jadams@nichino.net">jadams@nichino.net</a>                                   |
| C                    |    | Aloft SC (clothianadin +bifenthrin)     | 5 fl oz per 100 gal<br>10 fl oz per 100 gal  | Sprenc  | Arysta, Doug Houseworth, 904-321-0795, <a href="mailto:LJHouse9@aol.com">LJHouse9@aol.com</a>  |
|                      |    | Discus (imidacloprid + cyfluthrin)      | 44 ml per inch dbh   | Soil drench in suitable volume (1 liter per pot)  | OHP, Dick Lindquist, 406-587-2562, <a href="mailto:rlindquist@olympichort.com">rlindquist@olympichort.com</a>                        |
|                      |    | Scimitar (lambda-cyhalothrin)           | 5oz/100 gal  | Directed spray to the trunk. Use a NIS or Silicone surfactant<br>Application should target ovipositional period | Syngenta, Nancy Rechcigl, 941-238-7413, <a href="mailto:nancy.rehcigl@syngenta.com">nancy.rehcigl@syngenta.com</a>                   |
|                      |    | Tick-EX EC (Metarhizium anisopliae F52) | Dilute 1 part EC with 3 parts oil (provided)   | Apply as trunk spray  | Novozymes Biologicals Inc., Jarrod Leland, 540-302-1225, <a href="mailto:JRRL@novozymes.com">JRRL@novozymes.com</a>                  |
| Standards (Pick One) | 4a | permethrin                              | See label directions   |   |  |
|                      | 4b | Thiodan (endosulfan)                    | See label directions   |   |  |
|                      | 4c | Onyx (bifenthrin)                       | <u>Bark Borers:</u><br>1 pint per 100 gallons<br>2 pints per 100 gallons   | Apply as a trunk spray  | FMC, Bobby Walls, 919-735-3862, <a href="mailto:bobby_walls@fmc.com">bobby_walls@fmc.com</a>   |
|                      |    |   | <u>Other borers:</u> Ash borer, banded ash clearwing borer, Dogwood borer, Lesser peachtree borer, Lilac borer, Oak borer, Bronze Birch Borer, and Flatheaded appletree borer. |   |  |
|                      |    | 8 oz per 100 gal<br>12.8 oz per 100 gal |  |   |  |
|                      | 5  | Untreated                               | --   | --  | --   |