



# Ornamental Horticulture Program Research Project Sheet

<http://ir4.rutgers.edu/Ornamental/ornamentalProjectInformationSheets.cfm>

**Project Name:** Aphid Efficacy

<b>New</b>	<input checked="" type="checkbox"/>	<b>Ongoing</b>	<input type="checkbox"/>	<b>Completed</b>	<input type="checkbox"/>	<b>Duration if ongoing or completed:</b>	N/A
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**Project Description:**

Aphid efficacy has routinely surfaced in the biennial survey of grower needs. While multiple classes and subclasses for insect mode of action are currently available, growers continue to have difficulty managing these pests.

**Research Project Abstract (if available):**

**Abstract from 2015 Aphid Efficacy: A Literature Review**

In the past, IR-4 had conducted Ornamental Horticulture Surveys to poll growers, landscape care operators, researchers, extension personnel and others affiliated with the ornamental industry on needs and issues related to disease, insect, and weed management. In 2013, aphids were identified as one of the top five important insects of concern. This summary includes a review of experiments conducted from 1998 to 2013 on ornamental horticulture and food crops published in Arthropod Management Tests. During this time period, numerous products representing 35 active ingredients were tested as foliar or soil applications against several species of aphids known to attack ornamental crops. Although there were insufficient data for definitive conclusions, many of the older registered active ingredients, including, acephate, acetamiprid, bifenthrin, chlorpyrifos, dimethoate, flonicamid, imidacloprid, lambda-cyhalothrin, malathion, pymetrozine, spirotetramat, and thiamethoxam generally provided effective control. Similarly, several relatively new products, including cyantraniliprole, pyrifluquinazon, sulfoxaflor, and tolfenpyrad were effective.

**Target Species (Phytotoxicity, or common and Latin name of arthropod, pathogen, weed):**

TBD

**Target Crops (list tested crops if ongoing or completed project)**

TBD

**Target Product(s)(list tested products or numbered compounds if ongoing or completed project)**

TBD

**Product Registration and Research Status**

	<b>Fully Screened (also includes standards)</b>	<b>Partially Screened through IR-4 <sup>1</sup></b>	<b>Need Data Across Species ?</b>
Labeled Generally & Commercialized	See Table of Registered and Experimental Products for Aphid Management		
Labeled Generally But NOT Commercialized			
Labeled for Specific Aphids & Commercialized			
Labeled for Specific Aphids but NOT Commercialized			
Not yet registered or Labeled			
No longer available for development			

\* IR-4 Data contributed to registration decision – either adding pest to label or not pursuing further research

1 At least one species screened fully



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Area	Characteristic	Pro	Con
Availability & effectiveness of alternative management tools	A couple new active ingredients are available in current and new MOA classes	X	
	Many classes are currently available for growers		X
Damage potential of target			
Performance and crop safety of proposed products (from other systems)	Longer lasting products needed (issue not noticeable until population is high) – characterization of residual control	X	X
	Aphid sensitivity may be different to different materials	X	X
Compatibility with IPM, resistance management programs	Evaluate biologically based materials (if available for testing)	X	
	Aphids can be prone to resistance development and new classes of chemistry are a critical component	X	
Economics			
Geographic distribution			
Manufacturer interest in labeling products			
Other			