



# TARGETED CONTROL OF LEAFMINERS, FUNGUS GNATS AND SHORE FLIES

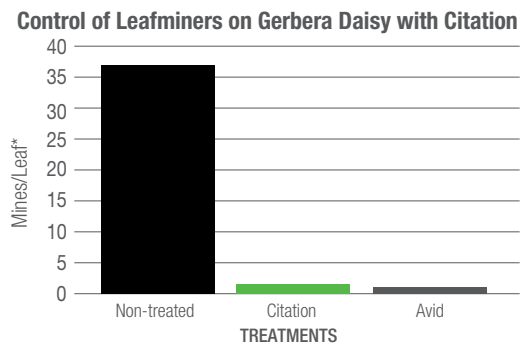
Citation® insect growth regulator (IGR) disrupts the lifecycle of destructive dipterous pests such as leafminers, fungus gnats and shore flies. Citation is a unique tool for use within an integrated pest management program for these hard-to-control pests.

## CITATION OFFERS THE FOLLOWING BENEFITS

- Dramatically reduces the number of fungus gnat larvae and adults within one-to-two weeks after treatment
- Safe to use in plant propagation
- Compatible with beneficial insects and nematodes
- Provides excellent control of leafminers that infest ornamental crops including chrysanthemums, gerbera and gypsophylla
- Provides excellent control of fungus gnats in landscape, container, greenhouse, shade house grown ornamental bedding plants, ornamental crops and interiorscapes
- Provides excellent shore fly control in greenhouse settings
- No known phytotoxicity observed at labeled rates

## PROVEN CONTROL

As an IGR, Citation has a unique mode of action (MOA) to prevent and control destructive pests. Citation disrupts the normal larva growth development by interfering with the formation and release of essential insect molting hormones. Affected dipterous larvae are unable to advance to the next stage of development and die, breaking the life cycle and stopping plant damage.



\*Number of mines per leaf 4 days after 8 weekly applications of Citation at 2.66 oz and Avid at 8.0 oz per 100 gallons; *L. trifolii* is the pest species. Trial conducted by Dr. J.F. Price at Agric Res. & Ed. Bradenton, FL

On gerbera daisies infested with leafminers, Citation controlled more than 10 times the amount of leafminers per leaf than those plants that were untreated.



## FLEXIBILITY

Citation is labeled for use on most major ornamental crops in a variety of use sites including indoors, outdoors and interiorscapes. It can be applied by spray or drench in addition to low-volume application systems such as electrostatic sprayers and thermal foggers.

### CITATION

INSECTS CONTROLLED	LABELED USE SITES
Leafminers	Greenhouses
Fungus gnats	Lath- and shadehouse grown ornamental bedding plants and ornamental crops
Shore flies (greenhouses only)	Landscape ornamentals interiorscapes
	Container and field-grown ornamentals

## DIRECTIONS FOR USE RECOMMENDATIONS

**Rate:** Mix one (2.66 oz) water-soluble pouch per 100 gallons of water.

**For dipterous leafminer control:** Spray foliage to runoff when stippling first appears. Repeat applications at a seven-day interval or as necessary to maintain control for three applications and then rotate to Avid® miticide/insecticide for three applications. Do not make more than a total of six applications per crop.

**For fungus gnat and shore fly control:** Apply as a spray or drench to all surfaces where insects may breed. This includes the potting media surfaces, bench tops, undersides of benches, and the areas under benches that may be contaminated with potting media or algae. Repeat applications on 7-to-14 day intervals rotating with a different mode of action after three consecutive applications to minimize re-infestation.

## CROP SAFETY

Particularly for high-value crops that are susceptible to leafminers, fungus gnats and shore flies, Citation is ideal for preventative control. Citation has been evaluated for safety on many greenhouse and ornamental crops as a foliar spray and drench. No phytotoxicity has been observed at recommended rates. For plants not listed on the label, test a small group to evaluate before applying to the entire crop.

## KEY INTEGRATED PEST MANAGEMENT AND RESISTANCE MANAGEMENT TOOL

Citation is an integral part of integrated pest management programs. Citation works well as a rotational partner with Avid and Flagship® insecticides. Additionally, Citation is compatible with beneficial insects and nematodes and can be used in rotation or in combination with beneficials to control leafminers, fungus gnats and shore flies.



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