



syngenta®

# PEST LIFECYCLE DISRUPTED

*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 crop management (ICM) program for these hard-to-control pests.*

## *Key Benefits*

- Dramatically reduces fungus gnat larvae and adults within one-to-two weeks after treatment
- Safe to use in plant propagation
- Provides excellent control of leafminers that infest ornamental crops including chrysanthemums, gerbera and gypsophylla
- Controls fungus gnats in ornamental crops and bedding plants grown in landscapes, containers, greenhouses, shade houses and interiorscapes
- Provides excellent shore fly control in greenhouse settings
- No known phytotoxicity observed at labeled rates

## *Key Integrated Crop Management and Resistance Management Tool*

Citation is an integral part of integrated crop management programs and 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.

## *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 and 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.

## *Compatible with Biological Control Agents*

Citation is compatible with many biological control agents (BCAs). Citation has been tested and proven to have only a minimal population effect on the below BCAs.

- *Amblyseius californicus*
- *Amblyseius cucumeris*
- *Amblyseius andersoni*
- *Amblyseius swirskii*
- *Aphidius colemani*
- *Aphidius ervi*
- *Aphelinus abdominalis*
- *Aphidoletes aphidimyza*
- *Atheta coriaria*
- *Diglyphus isaea*
- *Encarsia formosa*
- *Eretmocerus eremicus*
- *Hypoaspis miles*
- *Orius insidiosus*
- *Phytoseiulus persimilis*



## 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

<i>Insects Controlled</i>	<i>Labeled Use Sites</i>
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.

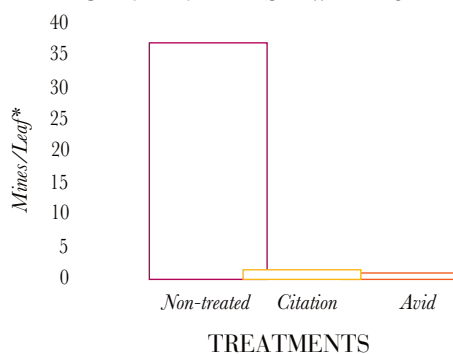
**For dipterous leafminer control:** Spray foliage to runoff when stippling first appears. Repeat applications at a seven-day interval or as necessary to maintain control for three applications and then rotate to Avid for three applications. Do not make more than a total of six applications per crop.

**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

Citation is ideal for preventive control, especially for high-value crops that are susceptible to leafminers, fungus gnats and shore flies. Citation has been evaluated for safety on many greenhouse and ornamental crops as both a foliar spray and a 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.

### CONTROL OF LEAFMINERS ON GERBERA DAISY WITH CITATION



\*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 plants that were untreated.

For more information on how Citation works to disrupt the pest lifecycle of leafminers, fungus gnats and shore flies, please visit [www.GreenCastOnline.com/Citation](http://www.GreenCastOnline.com/Citation)

