

MBI-203

EP Bioinsecticide

A new product to protect your citrus block from serious pests



Introducing MBI-203

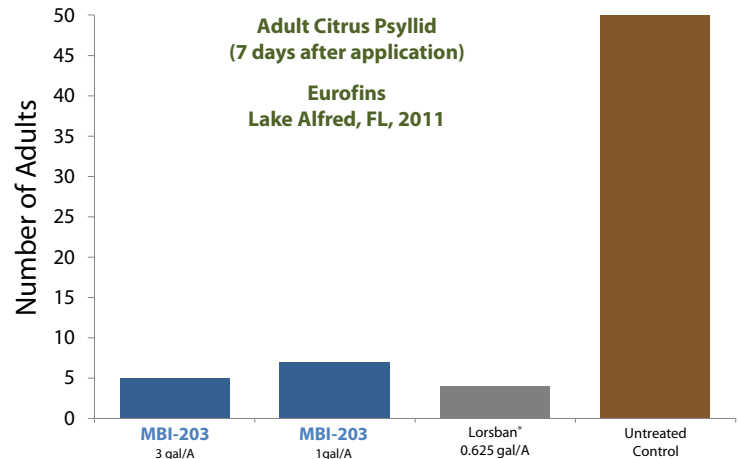
MBI-203 is a unique new generation insecticide/miticide that provides selective control of certain lepidopteran insects as well as lygus, plant bugs, psyllids, thrips plus most species of plant parasitic mites. The active component of MBI-203 is the spent fermentation media and cells from *Chromobacterium subtsuge* strain PRAA4-1T. Its natural origin and mainstream performance make it the product of choice for base programs, integrated programs and chemical residue management. MBI-203 presents negligible effect on pollinators and other beneficial insects. Shortest REI and PHI provide maximum flexibility.

Ideal Partner for Resistance Management & IPM Programs

Controlling Asian Citrus Psyllid requires an integrated program of cultural and biological strategies plus insecticide applications. Preventing the development of resistant pest populations requires an integrated approach of utilizing products with different chemistries and modes of action.

MBI-203 presents a new mode/mechanism of action with activity through contact, ingestion, and repellency. Symptoms of the pest after exposure to MBI-203 will include feeding cessation, weight loss and pest death.

MBI-203 has minimal impact to beneficial insects that are necessary for pollination and is non-toxic to predators and parasites that are key components to reducing psyllid populations and managing other citrus pests.



- Treatments evaluated 7 days after application.

Use MBI-203 on the Following Citrus Crops:
Grapefruit • Lemons • Limes
Oranges • Tangerines

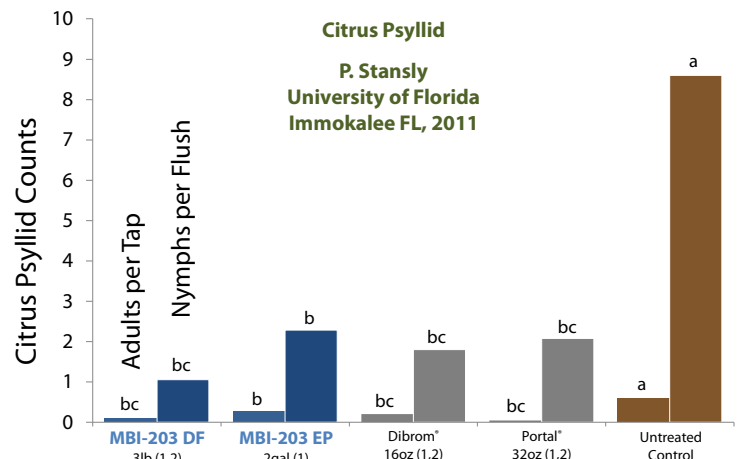
Use MBI-203 for Control of the Following Pests:

Chewing Pests:

Fruittree leafroller • Orangedog
Citrus cutworm • Citrus leafminer

Sucking Pests:

Mealybugs • Two-spotted spider mite
Citrus red mite • Asian citrus psyllid



- Treatments applied on 1= Aug 22, 2= Sep 5.

- Treatments evaluated on Sep 8.

Best Use Recommendations- General Pest Control and Asian Citrus Psyllid

General Pest Control

MBI-203 is a highly selective insecticide/miticide for use against listed insects and mites. Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting newly hatched nymphs and larvae is important for optimal results.

Thorough coverage of infested plant parts is necessary for effective control. MBI-203 does not have systemic activity.

For control of Lepidoptera pests apply MBI-203 at 4 quarts per acre with a quality adjuvant. For control of sucking pests, including Asian citrus psyllid, apply MBI-203 at 8 quarts per acre with a quality adjuvant that contains a silicone component. Under heavy pest populations, use the higher label rates, shorten the spray interval, and/or increase the spray volume to improve coverage.

Repeat applications at an interval sufficient to maintain control, usually 7-10 days depending upon plant growth rate, insect and mite activity, and other factors. If attempting to control an insect population with a single application, make the treatment when egg hatch is essentially complete but before economic damage occurs.

To enhance control, consider tank mixing with contact insecticides/miticides.

Always use a good quality non ionic surfactant (NIS) containing at least 75% surface agent.

Asian Citrus Psyllid

Controlling Asian Citrus Psyllid with foliar sprays of MBI-203 begins by first targeting overwintering adults. By employing MBI-203 early in your program and before adults begin egg laying in new leaf flushes; you will control the populations before they increase beyond manageable levels.

Applications against overwintering populations can be followed by treating the spring flush. Asian Citrus Psyllid eggs are usually laid by the female into new leaf buds and the "feather stage" of the leaf before unfurling. When applying product for the control of adults and nymphs use a surfactant with a silicone component to insure adequate coverage into the folds of the new leaf flush. Studies by the University of Florida researchers indicate that a silicone surfactant greatly increases control of the nymph stage.

Features & Benefits:

- 3 New Modes of Action: Active through ingestion, contact, and repellency
- Re-Entry Interval (REI) = 4 hours
- Pre-Harvest Interval (PHI) = 0 days
- Use with ground or aerial applications
- Minimum risk to beneficial insects
- NOP compliant and OMRI approved



www.MarroneBio.com

For more information on MBI 203, contact your local retailer, or call:

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