



Technical Bulletin

 **FarMore® FI400**
Cucurbits

syngenta®

TM



Optimize Productivity and Profitability with **FarMore FI400 Cucurbits**

High-value, small-seeded vegetables need a healthy start to ensure maximum seed germination and stand establishment. FarMore® FI400 Cucurbits technology from Syngenta is the first comprehensive combination of separately-registered seed protection products, proprietary application technologies and dedicated seed treatment services that maximizes production value of crops including cucumber, melon (cantaloupe and honeydew), pumpkin and squash by enhancing performance and quality.



FarMore Technology Offers Superior Disease Protection

Providing early-season protection against certain diseases, FarMore FI400 Cucurbits technology includes a combination of three proven and complementary fungicides that provide the first line of defense and protection against several key seed and seedling diseases including:

- *Rhizoctonia* spp.
- *Fusarium* spp.
- *Pythium* spp.
- General damping-off and seedling blight

Excellent Early-season Insect Protection

FarMore FI400 Cucurbits technology contains a second generation neonicotinoid, thiamethoxam, which protects against excessive foliage damage in young plants from:

- Cucumber beetles
- Flea beetles
- Leafminers

Thiamethoxam also eliminates or reduces the chance of virus transmission by certain insects including:

- Aphids
- Thrips
- Whiteflies

A Novel Approach to Cucurbit Protection

FarMore Technology includes a seed company or seed technology provider applied combination of the following separately registered seed protection products delivered directly on the vegetable seed.

FUNGICIDES	INSECTICIDE
Apron XL® (mefenoxam)	Cruiser® 5FS (thiamethoxam)
Maxim® 4FS (fludioxonil)	
Dynasty® (azoxystrobin)	

The key to FI400 Cucurbit seed treatment technology success is early season disease and insect protection from planting to stand establishment. The unique combination of active ingredients provides a barrier around the seed while also protecting emerging foliage protecting seedlings from the most damaging pathogens and insects that challenge cucurbits. With this early season protection in place the grower can be sure his plants are protected and off to the best start. Later fungicide or insecticide applications can be easily timed to meet the needs of the growing crop. The use of FarMore FI400 Cucurbits technology may also, in some cases, eliminate the need for one early foliar spray.

FarMore FI400 Cucurbits technology provides a window of protection when the plants emerge to prevent pest damage before foliar applications can be made. This provides cucumber, melon, pumpkin and squash growers with consistent performance to enhance seedling emergence, maximize plant stand establishment, stimulate early-season vigor and plant health, and protect yield potential.

Protection Against Cucumber Beetles



Treated with FarMore FI400 Cucurbits

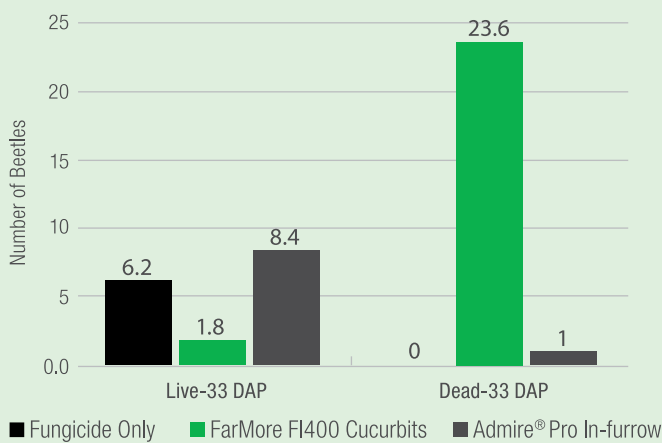


Untreated



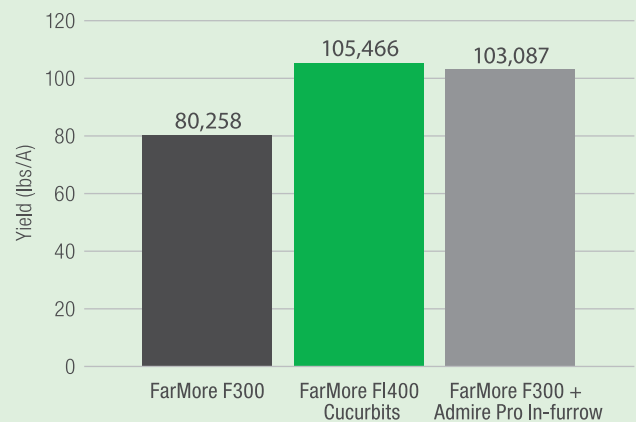


Alive and Dead: Striped and Spotted Cucumber Beetles Vlaspik Cucumbers



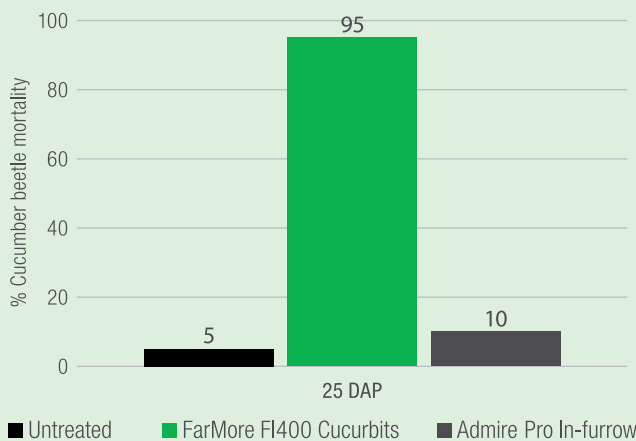
Source: Syngenta trial, E Hitchner, 2008
Trial: USEBU1012008, Salem County, NJ. Note: Admire Pro 7 fl oz/A

Cucumber Yield Wainright Supreme Variety



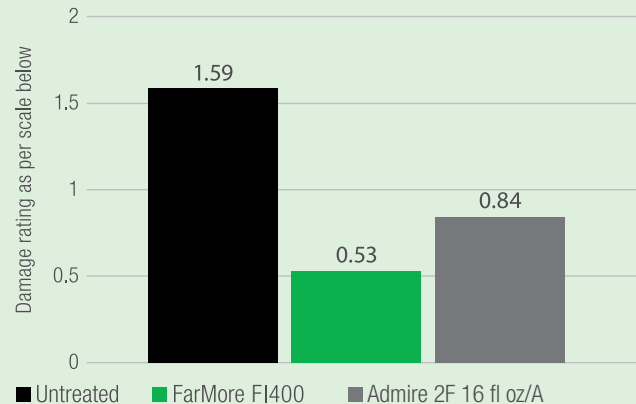
Source: Syngenta Trial, S. Sanborn, 2008
Trial: USNI0U1152008, 2008, Pepin County, WI Note: Admire Pro 7 fl oz/A

Cucumber Beetle: Percent Dead Vlaspik Cucumbers Variety



Source: Tom Kuhar, Associate Professor, Dept. Entomology, Eastern Shore AREC, Virginia Tech, 2008. Note: Admire Pro: 7 fl oz/A, 96 hours at the 4 leaf stage

Cucumber Beetle Protection in Pumpkins Hybrid Pam Variety



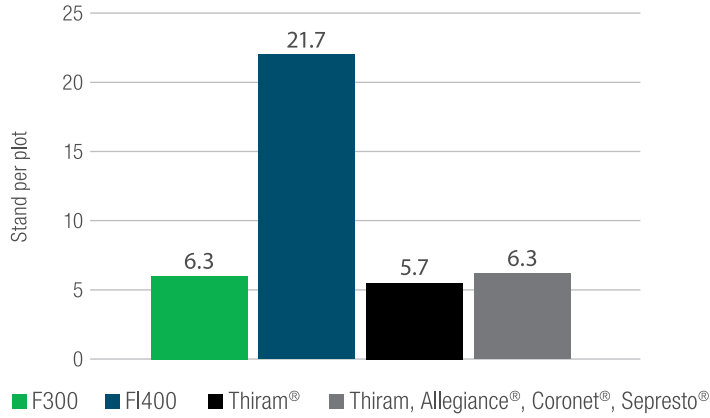
Source: C. Welty, Associate Professor, Dept. of Entomology, Ohio State University Columbus, OH, June 2005. Note: Admire rate: 2.9 fl oz per 1000 ft of row, which is 16 fl oz per acre for rows 8 ft apart. Two leaf stage.

Damage rating used on 10 plants per plot, on scale 0 to 3; 1 = light (few small gouges, affecting <10% of leaf area); 2 = moderate (many small or several large gouges, on 10 to 50% of area); 3 = heavy (many large gouges, on >50% of area).



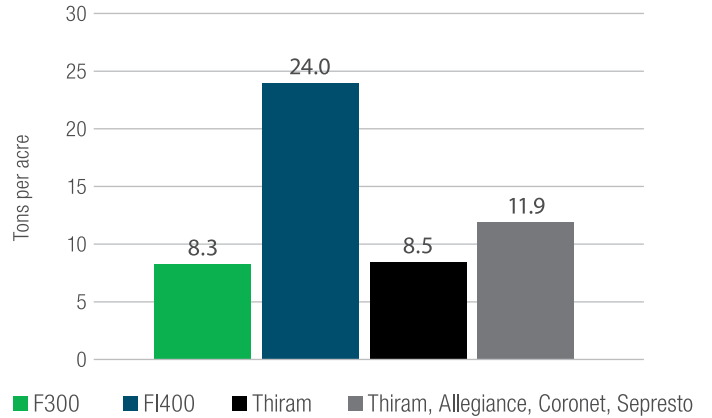
Stand Count for Cantaloupe

Athena Variety



Increased Cantaloupe Yield

Athena Variety

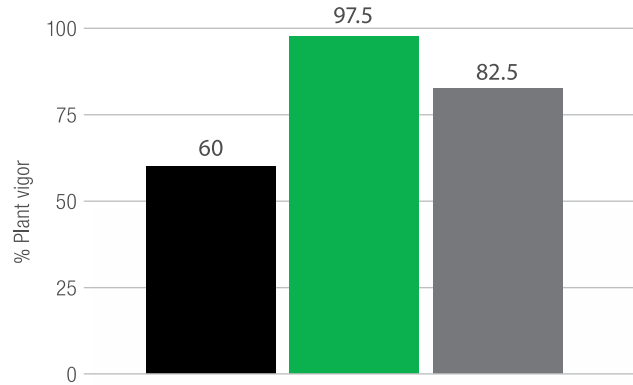
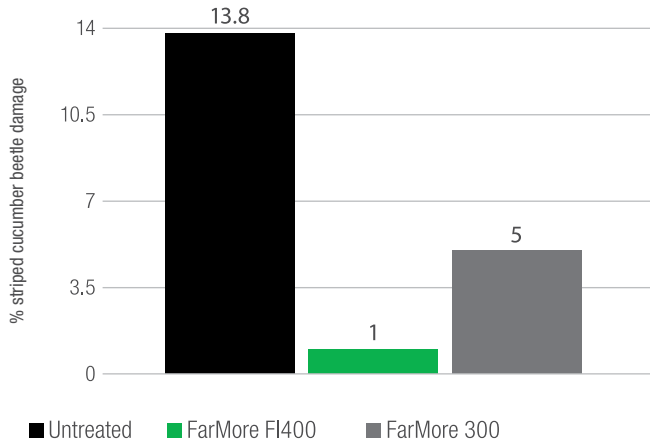


Source: Syngenta trial, C. Clemens, Conducted under heavy seed corn maggot pressure.
Trial: USWFSU1172013, 2013, Hermiston, OR

Source: Syngenta trial, C. Clemens, Conducted under heavy seed corn maggot pressure.
Trial: USWFSU11702013, 2013, Hermiston, OR

Reduced Striped Cucumber Beetle Damage to Pumpkins

Dickenson Variety



Source: Syngenta trial, B. Ulmer 2006
Trial: US4B0U7992006, 2006, Champaign, IL. Evaluations conducted in Illinois 26 days after planting



How is FarMore FI400 Cucurbits technology different from current practices in cucurbit production?

	FARMORE FI400 CUCURBITS	CURRENT INDUSTRY PRACTICES	THE BENEFIT
Meeting Grower Needs	✓	X	FarMore FI400 Cucurbits technology contains thiamethoxam, a systemic insecticide that is absorbed and redistributed inside the plant system. This allows for a sustained action of the product to provide protection against harmful sucking and chewing pests of cucurbits (including cucumber beetle) from the beginning of plant establishment.
More Than Insect Protection	✓	X	FarMore FI400 Cucurbits technology combines three different fungicides in addition to the insecticide, thereby helping protect the seed and young plants from damaging pathogens.
Peace of Mind for the Grower	✓	X	Cucumber, cantaloupe and squash seed is highly valuable. Every seed must produce a plant, and every plant must be protected from the start. FarMore FI400 Cucurbits technology provides the safeguard of pest protection to the seed through the early season of growth and development and well into the season. The use of FarMore FI400 Cucurbits technology may also, in some cases, eliminate the need for one early foliar spray.
Safety to the Cucurbit Crop	✓	X	By virtue of providing protection from the beginning, FarMore FI400 Cucurbits technology eliminates the need to repeatedly walk fields. Minimizing human traffic in the field is an important advantage.
Value to the Grower	✓	X	FarMore FI400 Cucurbits technology is compatible with other suitable soil- and foliar-applied products to provide a comprehensive solution for growers. In addition to its broad portfolio of products, Syngenta offers service and support which can prove to be vital in increasing the value of a grower's crop.
Syngenta Total Investment in Industry Growth	✓	X	Committed to future growth and success of the industry, Syngenta has a strong pipeline of products in development for cucurbits. Syngenta also invests in the long-term health of the industry through support of various grower and vegetable industry organizations.

For more information, visit www.Syngenta-US.com or contact your local Syngenta reseller or representative.

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