

Verimark® Insect Control

Powered by Cyazypyr® active



Best Management Practices.

For use of Verimark® insect control powered by Cyazypyr® active via tray drench in vegetables.

Help your vegetables realize their ultimate potential. Verimark insect control is a groundbreaking product that provides you with early-season protection from insect pests for visibly vigorous plants from start to finish. Verimark insect control helps growers produce a stronger crop in the field for a more appealing crop at harvest.

Protect your crop's potential for a better harvest

Verimark insect control offers a new mode of action against a cross spectrum of sucking and chewing pests for a healthier and more resilient crop. Applications early in the crop cycle can help protect tender seedlings from feeding damage and transmission of some pest-vectored diseases, including tomato yellow leaf curl virus, tomato spotted wilt virus and cucurbit yellow stunting disorder virus when used as a part of a virus-management program.



Traveling spray boom over cantaloupe seedling trays.



Close-up of vegetable transplant trays (cucurbits pictured above, cabbage below).



Calculating Verimark® insect control powered by Cyazypyr® active dose and water volume

To determine the appropriate dose of Verimark® insect control powered by Cyazypyr® active and the amount of water needed for a tray drench application in vegetables, use the worksheet below and then follow these directions.

- Mix the amount of Verimark insect control in the volume of water needed to drench the desired number of trays and follow application instructions.
- Adjust the tank mix to pH 4-6, if needed.
- Make sure to employ continuous agitation when using a nurse tank.
- Verimark insect control can be dosed into an overhead irrigation boom using a dosatron. Proper calibration to deliver the target amount per transplant is critical.



Dosatron injecting treatment solution into an irrigation boom.

Calculating Verimark insect control dose and water volume worksheet

To determine the appropriate dose of Verimark insect control and the amount of water needed for a tray drench application in vegetables, complete items A through E and then use the values in calculations F through I.

(A) Desired rate of Verimark insect control (fluid ounces per acre): _____

(B) Number of plants per acre to be planted: _____

(C) Number of plants in each tray: _____

(D) Total number of trays to be treated: _____

(E) Amount of water needed per tray*: _____

(F) Fluid ounces of Verimark insect control per transplant = $\frac{\text{Desired rate}}{\text{Number of plants per acre}} = \frac{(A)}{(B)} =$ _____

(G) Fluid ounces of Verimark insect control per tray = Fluid ounces of Verimark insect control per transplant x number of plants in each tray = (F) _____ x (C) _____ = _____

(H) Total fluid ounces of Verimark insect control = Fluid ounces of Verimark insect control per tray x number of trays = (G) _____ x (D) _____ = _____

(I) Total volume of water = Number of trays x amount of water needed per tray = (D) _____ x (E) _____ = _____

* Determine the amount of water needed to thoroughly drench a transplant tray without runoff at the bottom of the tray. See "Directions for application" on next page. The amount of water needed may vary depending on the size of the transplant and soil plug. Multiply the amount of water needed per tray times number of trays to be treated.

Always read and follow all label directions and precautions for use.

Directions for application

- Use only on transplants grown in soil/potting media.
- Make application within three days of transplanting in the field.
- If possible, discontinue watering 24 hours or less if weather dictates that frequent irrigation is needed before treatment so spray solution is absorbed quickly into the soil.
- Make sure application equipment is clean and free of previous pesticide, fertilizer or deposits of any other material.
- Make sure all nozzles are spraying, and use a flow meter to monitor flow throughout the application.
- Apply as a broadcast, low-pressure, coarse, high-volume spray so that the solution runs off from the foliage to the soil in the tray, but it does not run off from the bottom of the tray. Flat fan nozzles may provide better droplet and spray distribution.
- If necessary e.g., when dense seedling foliage is present or spray residues are visible on leaves, make a second pass with water only before the spray solution dries to wash solution from foliage and into the soil. It is critical to drive as much of the spray solution as possible into the soil to maximize product performance.
- Allow tray to dry before transporting to the field for planting, and do not handle prior to four hours after the application without appropriate personal protection equipment.
- Do not mix any other product when applying Verimark® insect control powered by Cyazypyr® active except acidifying agents, if needed, using this method unless compatibility and crop safety has been shown with the tank mix.
- Verimark insect control has been tested on representative crops of labeled crop groups where this application method is allowed. Not all crops within a crop group or all varieties have been tested for crop tolerance to Verimark insect control with this application method. Before treating all plants, test a small number of plants to confirm the crop safety of Verimark insect control applied as a tray drench.



Transplant tray-drench application of Verimark insect control using traveling spray boom.

Setting plants in the field

- Once trays are dry, continue watering transplants as needed until planted in the field to minimize water stress and to make sure the active ingredient translocates from the roots to the leaves. Verimark insect control will remain in the treated soil plug even after multiple irrigations.
- When transplanting in the field, handle transplants carefully to avoid treated soil loss from the plug.
- Verimark insect control works best when adequate moisture is maintained in the transplant plug area so that the roots can continue to translocate the product to the foliage.
- Verimark insect control controls a wide spectrum of chewing and sucking pests and helps manage whitefly- and thrip-vectored diseases e.g., tomato yellow leaf curl virus, cucurbit yellow stunt disorder virus and tomato spotted wilt virus through reduced feeding, population control and delaying onset and secondary spread of the virus. For best results when managing insect-vectored diseases, foliar applications of whitefly or thrip adulticides may be needed soon after transplanting.
- Labeled rates for this application method work well for the most common planting densities of labeled crops in the U.S. Typical planting densities that have been tested are shown in the table below. Higher planting densities will result in less active ingredient per plant and may provide shorter residual control.
- A tray-drench application of Verimark insect control provides long-lasting control of three to five weeks of labeled pests. The higher rate (13.5 fl. oz./A) provides better protection from insect-vectored diseases and longer residual control, providing a better opportunity for improved yields and quality.

Planting density of various vegetable crops tested with Verimark insect control		
Crop Group	Crop	Plants Per Acre
Fruiting vegetables	Processing tomatoes	7,500–8,000
	Fresh tomatoes	3,500–6,000
	Bell peppers	7,000–17,500
Brassica/cole crops	Cabbages	27,000–47,000
	Cauliflower	10,000–13,500
	Broccoli	8,000–40,000
Cucurbits	Cucumbers	8,000–9,300
	Squash (bush and vine)	1,200–6,000
	Watermelons	1,700–2,600
	Cantaloupes	1,800–5,000
Leafy vegetables	Lettuce (head and romaine)	10,000–33,000
	Celery	30,000–50,000



Broccoli transplants after tray-drench application of Verimark® insect control powered by Cyazypyr® active.

Managing Resistance

- Only one soil application i.e., tray drench, transplant water, shank injection, in-furrow spray, etc. can be made.
- If a soil application is made, only one drip chemigation application of Verimark insect control can be made later in the crop season.
- Use an insect control product with a different mode of action i.e., not Group 28 during the first six to eight weeks after making a soil application of Verimark insect control.

Verimark insect control treated cantaloupe plugs



Cantaloupe transplants were kept in trays for 14 days for crop safety observations after Verimark insect control treatment at 13.5 oz./A. Plugs treated with Verimark insect control showed similar or better root mass than untreated plugs, indicating good crop safety with this particular variety.

Contact your local FMC retailer or representative to learn how you can produce a more appealing crop at harvest with Verimark insect control from FMC.

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