

Benefits of TerraNu[®] with Cranberries

TerraNu[®] Technology is proven to increase nutrient-use efficiency, leading to improved nutrient uptake. TerraNu Calcium™ is the next generation of crop nutrition with calcium, sulfur and boron in every granule.

Three Growth Stages of Cranberries:

✓ **Early Growth – Bloom**

- Using TerraNu Technology, calcium, sulfur, boron and other essential nutrients are infused into a carbon base and granulated for uniform application.
- Sulfur – considered a secondary nutrient – is actually needed in the same amount as phosphorus and is used to make proteins, amino acids and enzymes.
- Boron is essential for flowering, pollen and fruit production and is involved in the growth of pollen tubes.
- Boron aids in cell elongation and must be present in sufficient amounts for bud and flower retention on the plant.
- Calcium is needed for plant pollination.

✓ **Fruit Set** – Calcium is critical for quality fruit development. Boron helps drive calcium into the plant, improving uptake.

- Calcium improves nitrogen-use efficiency and is essential for normal plant growth (cell walls, cell division, tip growth and leaf development).
- Calcium increases crop quality, disease resistance and storability.

- Calcium improves nutrient uptake, increases soil biological activity and N fixation, strengthens plant health and improves crop yields.
- Boron improves tip growth, metabolism, sugar translocation, protein production and crop quality.

✓ **Bud Set/Bud Development** – TerraNu improves the ability of nutrient uptake for all essential nutrients. Improved nutrient uptake results in improved bud set for next year's crop.

- Boron is essential for flowering, and plays a key role in the induction of floral buds.
- Calcium mobilizes nutrients into the plant, increases plant sugar content and facilitates plant carbohydrate production, creating stronger plant health and improved crop yields.

Product	Rate	Application Timing	Application Method
TerraNu Calcium	50-100 lbs/acre	<ul style="list-style-type: none"> ▪ at bloom ▪ mid-Aug.-Sept. 	<ul style="list-style-type: none"> ▪ include 5 lbs/acre pheromone (talk to your local agronomist for specific information) ▪ inclusion as part of a complete fertility program

Cranberry Research

Cranberries & Mating Disruption

The multi-species mating disruption (MD) program conducted by Shawn Steffan, a UW-Madison College of Agricultural and Life Sciences professor of entomology and a USDA entomologist, continues to be tailored for the unique production system of cranberries. Six years of field trials indicate that black-headed fireworm and cranberry fruitworm populations can be significantly and consistently reduced using MD. More importantly, berry infestation rates can be reduced below that of insecticides alone (see figures 1 and 2; right).

Cranberries & Calcium

Studies have shown that the addition of a supplement containing calcium and boron during the flowering period led to increased fruit set (mid-bloom seems most effective), presumably due to the effect on pollen tube growth (DeMoranville and Deubert, 1987). There have been reports of increased flowering following fall applications of boron to fruit trees and lowbush blueberry, presumably an effect on bud formation (DeMoranville).

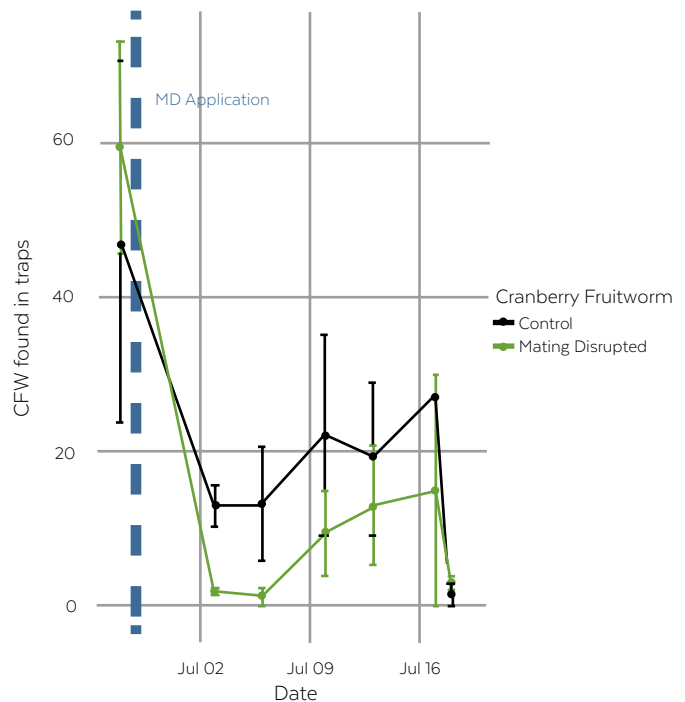


Figure 1

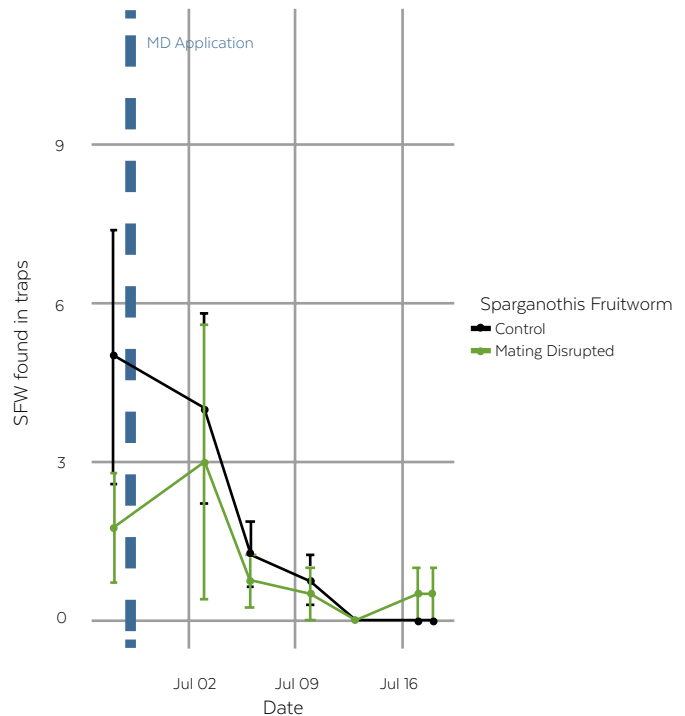


Figure 2