



enhanced
by Omya

OmyaPro[®] Calcium

Available Calcium for Crop Nutrition



THINKING OF TOMORROW

What is OmyaPro[®] Calcium?

OmyaPro[®] Calcium is a new way of providing Calcium as a foliar application to your crop.

It is a reactive and natural source of Calcium in the form of a wettable powder that can be easily applied directly to the crop. Due to its ultra-fine particles it forms a fine, evenly dispersed cover on the crop to supply the plant with Calcium.

Benefits

- Increased fruit firmness as Calcium gives stability to the fruits
- Improved plant health due to high amount of Calcium (36% Ca)
- Higher marketable yield



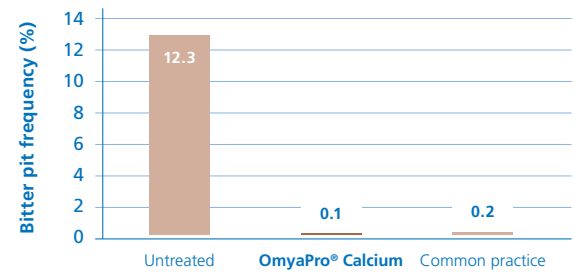
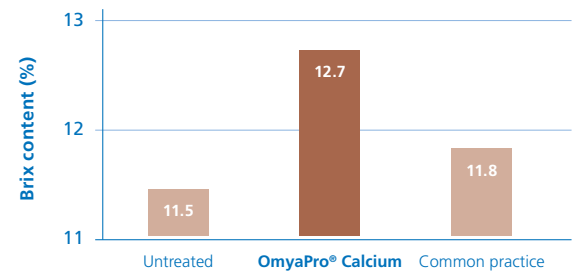
How OmyaPro® Calcium will improve your crop?

The benefits of OmyaPro® Calcium were demonstrated in a variety of trials.

Example: apples (Idared variety)

Field trial data showed an increase of Brix content with OmyaPro® Calcium.

Furthermore, trials showed an improved quality of the fruits treated with OmyaPro® Calcium which can be observed by less fruits showing symptoms of Bitter pit.





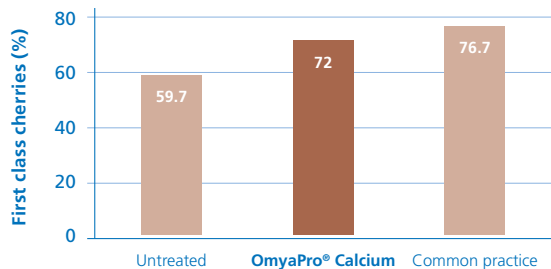
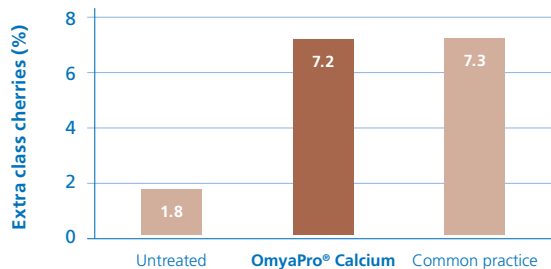
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Example: cherries (Early Lory variety)

The foliar application of Calcium via OmyaPro® Calcium increased the quantity of 'extra' class and 'first' class cherries.

It was shown that the application of 10kg/ha is sufficient to significantly improve the fruit quality.



Calcium gives strength to your crop and fruits

Calcium is an essential component of the cell walls and cell membranes, providing stability to the plant cell.

A deficiency of Calcium leads to necrotic tissues and typical symptoms such as:



Blossom end rot in tomatoes



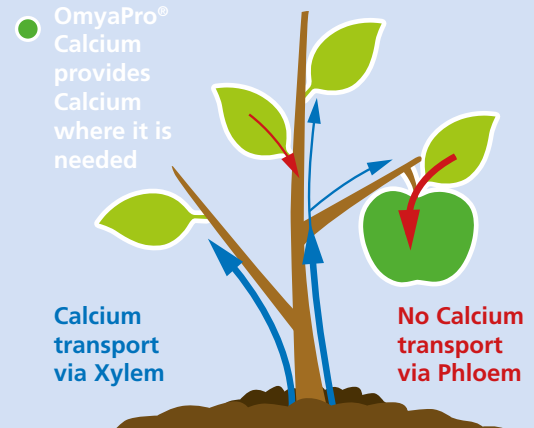
Bitter pit in apples



Tipburn in lettuce

Did you know?

Calcium is transported in the plant with the water stream (xylem) driven by transpiration. Once at its destination it cannot move anymore. Also it is immobile in the phloem. Thus, the transport to the phloem-fed fruits is restricted. Foliar application of OmyaPro® Calcium provides Calcium where it is needed.



Questions & Answers

What does OmyaPro® Calcium uniquely solve?

1. Traditional products do not provide a lasting reservoir to the crop. Calcium uptake is only possible directly after application, this means a short availability of Calcium. Due to the immobility of Calcium in soil and plant tissues, it can't be remobilized and transported to new developing tissues once in place. Therefore, the Calcium effect with traditional products is too low or too brief.

OmyaPro® Calcium however provides a kind of reservoir of Calcium on the leaf surface – even after rainfall. The Calcium supply is durable and remains bio-available to developing leaves and fruits until the next application. The application timing has been optimized for each crop.

2. OmyaPro® Calcium contains 50% CaO-equivalents as traditional products. But, there is no overdosing possible with OmyaPro® Calcium due to the crop safety of the formulation.

3. OmyaPro® Calcium is a natural source of Calcium. Most other traditional Calcium products are derived from a synthetic or other chemical reaction processes.

All the competitive Calcium products are fully soluble in water and transparent grades. How about OmyaPro® Calcium?

OmyaPro® Calcium immediately goes into suspension and the water becomes white. However, the innovative manufacturing process makes OmyaPro® Calcium extremely fine and reactive. The whiteness remaining on the crop surfaces is evidence of the applications longevity. OmyaPro® Calcium works proactively and for a long duration to cover the irregular needs of Calcium by the plant especially when it is not possible or convenient to spray.

Did you observe any clogging issues with OmyaPro® Calcium and can you mix it with other foliar applied products, such as PPP?

The “white water” will spray through filters and nozzles without problems. Physical compatibility was tested with a variety of foliar applied products without observing any issues so far. However, jar tests are recommended prior to any mixing.

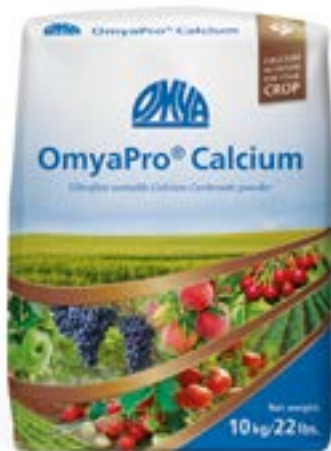
How is the Calcium taken up by the crop?

There are two mechanisms that explain how Calcium from OmyaPro® Calcium is taken up – through the leaf surface and/or through stomata. OmyaPro® Calcium on the leaf surface converts to the Calcium ion (Ca++) in the presence of an acidic environment on the surface of fruit and leaves. The extremely fine particle size accelerates this process. Then, the free Calcium ion is absorbed through the surface tissues. The other route of uptake is passage of ultra-fine OmyaPro®

Calcium through the stomata on the surface of leaves and fruits. The acidic environment within the tissue liberate free Calcium ions. The advantage of OmyaPro® Calcium is the durable, extended supply of Calcium. This is different than traditional Calcium products that provide a shorter-duration or lower quantity of Calcium.

Are there applications where OmyaPro® Calcium is not the first choice?

Any fruits that are not washed or processed before sale, should not be treated with OmyaPro® Calcium since the potential whiteness on the fruits or flowers may be undesired when “aesthetics” are crucial to the consumer. OmyaPro® Calcium is designed for foliar application, not for direct application to the soil.



Recommended rates

Pome fruits:

Apply 5 kg/ha at bud break and 5–10 kg/ha from petal fall to harvest every 7–10 days

Stone Fruits:

Apply 5–10 kg/ha 3 times at petal fall, at 28 and 14 days before harvest

Vegetables:

Apply 5–10 kg/ha 14 days after transplant and repeat, if necessary, every 7–14 days

Lettuce and fresh salads:

Apply 10 kg/ha 14 days after transplant and repeat, if necessary, after 7–14 days

Strawberries:

Apply 10 kg/ha before flowering and continue 3 times every 7–10 days

Grapevine:

Apply 10–20 kg/ha at fruit set and repeat every 10–14 days.

The application at berry pea-sized stage and when berries begin to touch has a beneficial effect against the bunch molds.

Kiwifruits:

Apply 5–10 kg/ha 3 times from fruit set to harvest



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<https://www.omya.com/OmyaProCalcium>

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