

# BIOMIN® CAL-BORO



## Functional Calcium and Boron Liquid Fertilizer

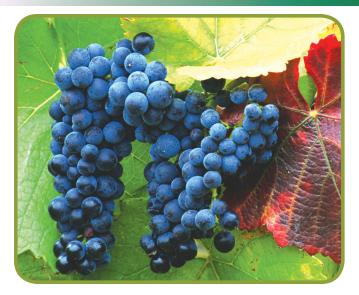
BIOMIN CAL-BORO contains a mixture of calcium and boron designed for soil or foliar applications. It is highly bioavailable and an excellent source of two essential elements that work together to build strong, healthy plants and fruit.

"Calcium is the brick and Boron is the mortar"
Calcium and boron work in concert to build strong cells. Calcium is an essential part of cell wall structure. Calcium plays a binding role in the complex polysaccharides and proteins that form the cell wall. Boron plays a critical role in the lignification process that stabilizes cell wall structure. Both nutrients must be readily available in order for the cell membranes to have integrity, otherwise leaking occurs.

Boron is critical for calcium uptake and mobility. Boron is required for all plant growth and plays an important role in the reproductive process of the plant (flower ,seed, fruit and nut tissues). Boron also influences conversion of nitrogen and carbohydrates into more complex substances such as protein, affects the transfer of sugars within the plant, exerts marked influence on cell division and aids in the formation of membranes.

Calcium must be present for the formation of new cells and boron must be present in order for cells to differentiate between meristematic and tissue cells. Cells may continue to divide under boron and calcium deficiency, yet structural components are not present resulting in leaking. Leaking cells are prone to attack from pests such as insects and various microorganisms.

Since calcium and boron function as the bricks and mortar inside cells, they are not readily mobile in most plants. They must be constantly supplied for optimum growth and fruit quality. Plants grown on calcareous soils often exhibit calcium deficiency and require foliar applications to correct.





# Advantages of Biomin Cal-Boro

- Highly available source of calcium and boron
- Rapid leaf uptake and utilization
- Combining boron and calcium increases the effect of both nutrients
- Improved fruit quality
- Compatible with most fertilizers and pesticides
- Unique formulation with ideal ratios for optimum effect
- Cost effective correction of deficiencies



### **APPLICATION NOTES**



#### IMPORTANCE OF BORON

- Maintains Calcium in a soluble form, thus insuring its proper utilization
- Needed at the location of actively dividing cells
- Key component of sugar translocation and carbohydrate metabolism
- Plays an important role in flowering, pollen tube germination formation, metabolism and hormone activity
- Essential for the relocation of calcium within the plant

#### IMPORTANCE OF CALCIUM

- Essential part of cell wall structure and integrity
- Must be present for new cells to form
- Many fruit related disorders are attributed to calcium deficiency e.g. blossom end rot and bitter pit.
- Yield and quality increase from supplemental calcium applications
- Enhances sturdiness and resistance of plants

#### **ALMONDS**

For increased almond production, apply **BIOMIN CAL-BORO** at "pink-bud" or between harvest and leaf drop. Applications just before bloom and just after petal fall will have the greatest impact on fruit set and ultimately yield.

#### **GRAPES**

Make first application at bud break or just prior to bloom. Apply 3 sprays 10-12 days apart starting after fruit set. In order to achieve superior fruit quality, make foliar applications with adequate water for good coverage.

#### **STRAWBERRIES**

**BIOMIN CAL-BORO** should be applied to the soil either through the drip or as a band application prior to planting. **BIOMIN CAL-BORO** can also be used as a foliar application. Strawberry varieties differ in their boron and calcium requirements. Adjust rate and frequency to suit your variety and growing conditions.

#### **TREE FRUIT**

Make first application at 5% bloom and second application at full bloom. The full bloom application is the most important. Calcium and boron are not mobile in most fruit trees. A repeat application after fruit set may be necessary. Generally, only one or two repeat applications are necessary.

#### **TOMATOES and OTHER VEGETABLES**

**BIOMIN CAL-BORO** should be applied in furrow before planting. Foliar applications should be made prior to flowering and just after fruit set.

#### **House Plants**

Apply 2 Tsp. of **BIOMIN CAL-BORO** per gallon of water and apply once a month. Vegetables and Large Plants: Apply 3-4 Tsp. per gallon of water and apply every 2-3 months or as needed.

#### **Lawn and Garden**

Apply 3-4 Tsp. per 1,000 sq. ft. and water in. Repeat every 4-6 weeks or as needed.

#### **Trees:**

**Foliar Application:** Apply 2-4 Tsp. per gallon of water and apply to the entire tree. Do not apply to runoff.

**Soil Application:** Apply 4-6 Tsp. per 1,000 sq. ft. and water in. Repeat every 4-6 weeks or as needed.

**Hydroponics:** 150 ppm



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