



Patented
technology

CA-B-SUL



**HIGH CALCIUM, SULPHUR
AND BORON FORMULATION
WITH OSMOPROTECTOR
WITHOUT NITROGEN**

pH
4.7

Ca-B-Sul



Packaging size: 200g, 1 kg, 5 kg

Ca-B-Sul is a highly concentrated calcium fertilizer synergized with Sulphur and Boron, pH buffer, a complex adjuvant system and glycine betaine. It is the perfect product to use during flowering to increase the fruit set rate. The absence of nitrogen in the formulation makes it more suited than products on calcium nitrate basis. Glycine betaine is an osmo-regulator that will protect the plant against abiotic stresses such as drought or salt stress and will facilitate calcium uptake and increase fruit quality.

Calcium and boron are structural components in cell walls. Deficiencies of these elements will compromise the plant cell wall integrity leading to quality issues of the marketable products such as blossom end rot, tip burning, bitter pit or internal browning. Calcium improves the quality and consistency of the fruits and prevents decay, while boron improves the synthesis and transport of sugars. These factors, together with the powerful osmo-regulator, will minimise physiological disorders related to calcium deficiency and drought stress, increase the fruit set rate and increase the overall fruit quality.

Sulphur is an essential element in forming proteins, enzymes, vitamins, and chlorophyll in plants. Thus, sulphur is an important factor in determining the nutritional quality of foods. Also, it plays an important role in the defense of plants against stresses and pests.

Density: +/- 1.45 kg/liter

Specifications	W/W	W/V
Calcium Oxide (CaO), soluble in water	16.4 %	23.8 %
Sulphur Trioxide (SO ₃), soluble in water	21.3 %	30.9 %
Boron (B), as boric acid, soluble in water	0.765 %	1.11 %
Boron (B), as boron monoethanolamine, soluble in water	0.979 %	1.42 %
Glycine Betaine	5.0 %	7.25 %

Calcium

Calcium is needed for biomembrane maintenance. It helps in cell wall stabilization as an enzyme activator, in osmoregulation, and in the cation-anion balance and thus also plays important roles in resistance to diseases and abiotic stresses such as drought, heat and cold.

Boron

Boron is required for cell wall synthesis and cell expansion. Boron deficiency disrupts reproductive growth, shoot and root growth, pollen viability and hence influences seed set and yield. A lack of boron can result in deformed leaves and poor quality of harvested product.

Sulphur

Sulphur is integral to all living plant cells and helps to produce amino acids involved in chlorophyll production, proteins and vitamins. It contributes to plant growth and seed formation, improves winter hardiness and helps plants resist diseases.

Why use Ca-B-Sul

- Unique gel formulation in a water soluble form.
- High concentration of available calcium, sulphur and boron.
- Low pH product suitable for foliar spray and drip irrigation.
 - In foliar spray: acts as a buffering agent and maintains the stability of plant protection products and increases their efficacy.
 - In drip irrigation: it keeps the irrigation systems clean and increases the soil micronutrient availability.
- Absence of nitrogen: more flexibility in use throughout the entire growth cycle until harvest.
- Prevents malformations and flower abortion caused by saline and drought stress.
- Stronger fruit set.
- Fruits with better quality, longer shelf-life and more resistant to transport and storage.
- Avoids physiological disorders such as blossom end rot, tip burning, bitter pit and internal browning.
- Increases protein content in cereals.
- Low in chloride.

Recommendations

Drip irrigation

Apply 5 - 10 kg/ha/application early in the season in case of calcium deficiency and repeat throughout the crop cycle until harvest.

Foliar application

Spray with 3 - 8 kg/ha/application; repeat as recommended. Never exceed a concentration of 0.5% (5g/l of water). Always use in sufficient water volume to guarantee full coverage of the foliage.

Crop	Rate of use (kg/ha)	Application rates	Application timing
Cereals	3-4	1-2	From first node until flowering.
Rice	3-4	1-2	Beginning of tillering until flowering.
Corn	3-4	1-2	Apply on tillering and before silking stage.
Sugar beet	3-5	2-3	Applications at 4 - 6 leaf stage, at row closure and during tuber growth.
Cotton	3-4	1-2	During the vegetative growth and on green bolls.
Potato	5-6	3-4	Apply on tuber initiation, repeat at the beginning of tuber growth and during tuber fattening.
Tomato/ Pepper	6-8	4-5	Apply during the accelerated vegetative growth, before flowering, after fruit setting and during the fruit growth and fattening stage.
Leafy vegetables	3-5	2-3	Apply with 2 week intervals, starting from the accelerated vegetative growth till 15 - 20 days before harvesting.
Apples/ Pears	6-8	4-5	Applications start after fruit set with 2 - 3 week intervals until 15 - 20 days before harvesting.
Grapes/ Berries	5-6	4-5	Apply throughout the growing season, from new shoot stage, after fruit set, véraison stage till 15 days before harvesting.
Citrus	5-6	4-5	According to deficiency, the applications may start on spring shoots, then after fruit set, after June drop, during fruit growth till before maturity.
Banana	6-8	4-6	Apply from vegetative growth until beginning of fruit apparition. Perform 2 extra applications directly on cluster during fruit maturation.
OSR	3-5	2-3	1st application: In Sep.- Oct. during leaf development - rosette formation (stage B). 2nd application: During stem elongation after winter dormancy (stage C). 3rd application: At free buds (stage D2).

Mixing and application

Fill half of the spray tank with clean water, add the required amount of Ca-B-Sul, complete the filling and apply without delay. Add first in the sprayer when mixing with other agrochemicals or fertilisers. Avoid spraying when temperature is high or when the plant is under any kind of stress. For best results, spray in the early morning or late evening when a certain amount of moisture is present in the plant. Spray with low pressure and avoid run-off. Do not mix with alkaline substances, products containing phosphates, nitrates or other sulphates, combustible materials and reducing agents.



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