CALBON

Introduction:

- Natural chelating agent therefore high acceptance by plants.
- Quick absorption & delivery of Calcium to tissues where it is required.

Composition:

- Water Soluble Calcium (CaO):- 9%; Water Soluble Boron:- 1%
- Chelating Agent- Heptagluconic Acid: 100%
- Colour: Light Brown
- pH: 2.3
- Density: 1.3 g/cc
- Free from chloride, sulfate, and nitrate.

Calcium in Plants:

- It is immobile & remains in older tissue.
- Calcium is a primary constituent of cell walls & membranes and is involved in production of new growing parts & root tips.
- Deficiency of Calcium will adversely affect cell division; impair structural stability & permeability of cell walls.
- Increase of Calcium in Fruit, promotes longer storage life & resists a range of Physiological breakdown conditions (such as water core, Bitter pit, internal browning in Apples, Tip burn in Lettuce, Internal Rust spots in Potatoes & Blossom End Rot in Tomatoes, Bud Necrosis in Grapes) etc.
- Due to stronger cell walls provided to the plant by Calcium, Fungal spores are less likely to penetrate and germinate in host cells.
- Crops that suffer from diseases like Botrytis, Rhizoctonia, Phythium, & Fusarium can have greater resistance to such fungal attacks.

Reasons for Calcium deficiency:

- Excessive dry or wet soils
- Excessive Potash in soils
- Upper leaves are distorted & curled at edges
- Leaves may have yellow bands
- Leaves may turn brown & die.
- Roots develop poorly , are short & chubby and turn brown at an early age and have few root hairs
- The leaves of some plants hook downward and exhibit marginal necrosis
- In blossom end rot, pale brown sunken areas will develop around blossom end. (e.g. Tomatoes).
- Flower buds will fail to develop.
- In case of Grapes. Calcium deficiency creates bud Necrosis in Grape bunch

Symptoms of Calcium Deficiency:

- Slow root development. Roots may develop a dark color and in severe cases the growing point may die.
- New leaf growth may slow and leaf tips may stick together. Remember that calcium does not readily translocate within the plant. So deficiency symptoms will appear on the new growth.
- Poor nodulation by nitrogen fixing bacteria on leguminous plant roots. Ineffective nodules are white to grayish green inside while healthy nodules have dark pink interiors.

- Blossom end rot in tomatoes. Calcium and proper water management improve plant resistance to this problem.
- Aborted and shriveled fruit on peanuts. A shortage of calcium at "pegging" results in a high percentage of "pops".
- Darkened plumule or "black heart" in peanut seed. This reduces yield, quality and crop value.
- Pod rots diseases on peanuts. Pods are predisposed to fungus infections when calcium is deficient or out of balance with Mg and K

CALBON Benefits:

- It is free from Chloride, Sulfate and Nitrogen, and therefore ideal for crops during fruiting, Flowering & in periods during maturity.
- Ideally applied as a foliar fertilizer, CALBON is directly absorbed by leaves, Shoots and fruits.
- CALBON will also have a favorable effect in reducing sun damage

Recommended Application Rate:

Crop	Recommendation	No of applications & timing
Apples	To Prevent Bitter pit	5 applications beginning at petal fall
Grape	Improved fruit finish & storage	5 applications from beginning of berry setting to maturity
Oranges	To increase fruit firmness	2-3 applications
Strawberry	To increase fruit firmness	3 applications
Cabbage Lettuce Cauliflower	To Prevent Tip burn	2 –3 applications starting at head formation
Cucumber, Melons, Capsicum, Tomatoes	To Prevent Blossom end rot	3-6 applications from flowering & in times of heat stress
Potatoes	To Prevent Internal brown spot	3-6 applications from flowering & in times of heat stress
Onion	To Prevent Tip burn. To obtain Larger Onions with better storability	6 leaf stage onward 2-4 sprays
Vegetables	To get crisp and firm vegetables with shiny appearance	2 sprays at flowering to fruiting
Groundnut	To improve quality & yield	2-3 sprays beginning pegging
Leafy vegetables	For freshness and shiny appearance	1 spray 8-10 days before harvest
Ornamentals	To increase Vase life	Weekly application with Pesticides

Application Rate:

2 ml/Liter for foliar application.

Caution:

- Not for Human / Medicinal use
- Keep away from Eyes & Skin

Manufactured by:

Cam-Ferti, S.L Spain

Cam Ferti, S.L.Spain.

FOSFONIC 03020 (Plant Disease Resistance Promoter)

Introduction

- Fosfonic 03020: Plant disease resistance promoter, based on Potassium Phosphite.
- Fosfonic 03020 has a double action: acts as both fungicide & plant nutrient.
- Fosfonic 03020 brings on a positive influence on root health due to specific exudates from roots, which promote growth of certain beneficial micro-organisms, and suppresses plant pathogenic fungi (phycomycetes).

Composition:

Element	W/W	W/V
Water soluble Phosphoric Anhydride (P_2O_5)	30 %	42 %
Water soluble Potassium Oxide (K_2O)	20 %	28 %

Specifications:

- Appearance Clear Yellowish Colour Liquid.
- pH:- 4.5
- Density (g /ml):- 1.43

FOSFONIC 03020 Benefits:

- Increases the natural defenses of plants against pathogenic fungi.
- Induces the development of the root system, increased root mass and blooming
- Suppresses root knot nematodes when, used in conjunction with Sea rich

Internationally, it is well documented that Plant diseases caused by Phytopthera, Pythium, Rhyzoctonia, (Downy mildew of grape, cucurbits, Late blight of Tomato, Koleroga of Arecanut, Gummosis in citrus etc can be effectively controlled by use of Fosfonic 03020(Phosphite).

Fosfonic 03020(Phosphite) is highly mobile molecule, which is readily absorbed & translocated throughout the plant, both via xylem and phloem and by both leaves & roots. Fosfonic 03020 is true systemic with ability to move up from leaf to root and from root to leaf. Fosfonic 03020 is fungistatic. Fosfonic 03020 alters the fungal wall and inhibits its further proliferation by suppressing the spore formation. It inhibits oxidative phosphorylation (Energy Production) in the disease organism itself.

Research Findings:

Research indicates that Phosphite primes the plant for a rapid and intense response to infection, involving heightened activation of a range of defence responses, such as production of Phytoalexins. Phytoalexins are low-molecular-weight antimicrobial compounds that are produced after infection by microorganisms.

After releasing phytoalexins, rest of the plant starts producing other compounds that increase the plant resistance to infection. As a result, plants quickly produce tannins, specific amino acids, lignins to combat fungal diseases. Growth of Mycelia and Sporulation is prevented (Anti-Sporulant). It also walls off the pathogen by killing off surrounding plant cells, called hypersensitive reaction. In addition, lignifications and cell wall fortification (cell walls are thickened) takes place. Lytic enzymes are also produced by the plant, which in conjunction with the rest of the plant response can cause death of the disease.

These responses are called systemic acquired resistance (SAR), and induced resistance (IR).The functional potassium in Fosfonic 03020 also provides a certain level of disease protection by keeping the plant cell turgid and inducing growth.

Difference between Phosphate and Phosphite:

- Phosphite are absorbed by plants and incorporated into cells as phosphite ions ($H_2PO_3^-$)
- The Phosphate (PO4) in fig.1 differs from the Phosphite (PO3) in fig.2 in its stability. The Phosphate is very stable where as Phosphite is unstable and therefore, is quickly taken up by the plant. The Phosphite is many times more efficient and effective in disease control than phosphate. Phosphite ions have direct fungistatic effects on certain plant pathogens, a benefit that is not found with phosphate

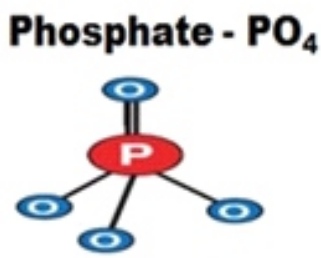

Figure1
Phosphate (PO4) VERY STABLE

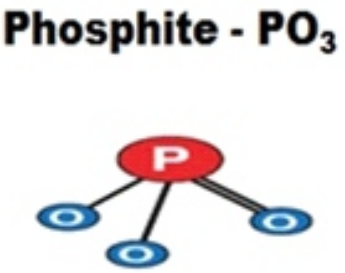

Figure2
Phosphite (PO3) UNSTABLE

Unlike Phosphate (PO4), Phosphite ion is not involved in any phase of phosphorus metabolism (ATP production, photosynthesis, or respiration); Hence PO3 products are not fertilizers. Over time (after several months), Phosphite can be converted by bacteria to phosphate.

Fosfonic 03020 (Phosphite) for Citrus and Avocado:

Citrus and Avocado leaves are notoriously impervious to phosphate, Phosphite is more readily absorbed into plant tissues than phosphate in Citrus and Avocado. The conversion of phosphite to phosphate may result from slow chemical oxidation or by oxidizing bacteria and fungi that have been found living on citrus and avocado leaves. Foliar application of phosphite has proven to be more than just a fungistatic. It increases floral intensity, yield, fruit size, total soluble solids and anthocyanin concentrations; usually in response to a single application.

Citrus/Orange: A single pre bloom foliar application of phosphite, increase flower number, yield and total soluble solids approximately 10 months later at harvest compared with an untreated control

Application Rate:

- Foliar Spraying: 2-3 ml. / litre of water.
- Root Dip: It also can be used at transplanting by dipping the roots into a 0.25% solution
- Via Root: 2.5-3.5 litre per acre per treatment through drip
- Injuries decontamination: prepare a 6% solution and apply with a paintbrush for gummosis in citrus.

Compatibility:

Do not to mix this product with mineral oils, copper compounds, dicofol, dimethoate, dinocap and products rich in calcium or with those products containing a strong alkaline reaction.

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K10 Remedy for Potash Deficiency

Specifications:

- Chelated Water Soluble Potassium (K2O)- 10% (w/w)
- Chelating Agent- Heptagluconic Acid-100%
- pH - 6.5;
- Density - 1.20 g/c.c.

K 10 Benefits:

- It increases size and weight of Fruits, Vegetables.
- It improves colour and Quality of Fruits, Vegetables.
- Imparts better shelf life.
- It helps in increasing Brix.

Application Rate:

- Spray @2-3 ml/ per Liter, 3-4 times during ripening/maturity stage of crop at 7-15 days interval.
- For improving sugar content and colour of fruits we recommend application of K10 with Madhoo.

Caution:

- Don't mix with Oils, Sulphur, Products of Alkaline reaction or Phosphoric Fertilizers.
- Not for Human/Medicinal use.

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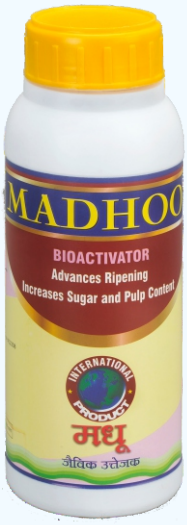
Cam-Ferti, S.L Spain

Cam Ferti S.L., Spain

MADHOO



Introduction:

Madhoo works by activating all the metabolic process in the plant, stimulating photosynthetic activity as well as assimilation of Sugars in Plant

Specifications:

Guaranteed Analysis	**(W/W)**
Bio-Activator	1.50%
WS Potassium Oxide (K2O)	3.40%
Sulphuric Anhydride (SO3)	2.60%
Colour	Transparent
pH.	6.2 - 7
Density (g /c.c.)	1.32

MADHOO Benefits:

- Helps in increasing biomass (Pulp) and greater photosynthetic activity.
- Helps in increasing sugars in fruits like Grapes (for Raisins as well as Table), Mango, Oranges, Strawberry, Pineapple, Papaya, Pomegranate and Figs.
- Helps in advancing and more homogeneous ripening of fruits.
- For Improving sugar content and colour of fruits, We recommend application of K10 with Madhoo

Foliar Application:

In general, 2-3 applications @ 400ml/acre between fruit settings to fruit ripening.

For Grapes:

- 1st application at 100% cap fall stage.
- 2nd application at 6mm berry size.
- 3rd application at berry softening stage.

Recommendations and Advices:

- In case of contacts with eyes or skin, wash immediately with plenty of water.
- Keep out of the reach of children.
- Keep away from food, drinks and feed.

Application Rate:

400 ml/acre per application

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