

**JANUARY / 2025** 

#### **CROP NUTRITION AND BIOPROTECTION**

# CATALOG 2025



ADJUVANTS / BIOPROTECTORS / BIOSTIMULANTS / COPPERS / CROPS / GLUCCO / MACRONUTRIENTS / MICRONUTRIENTS / PLANT DEFENSE INDUCTORS / PLANT GROWTH REGULATORS / QUALITY + COLOR / ROOTING / REPELLENTS / SALINITY CORRECTORS / SEAWEED BIOSTIMULANTS / SEED TREATMENT / SILICON / SOLAR PROTECTOR



## INTRO

For over 30 years, perseverance has helped our team at Aspeagro through the many challenges of creating the best products and services on the market, therefore, with the same enthusiasm and their commitment and trust over the years and introduce our new Aspeagro Global Catalog.

We will further ensure our daily commitment so that you will keep on providing the same support as before. As a famous author once said:

"Where there is a will, there's always a way"

#### Dr. Juan J. Sanchez Andreu







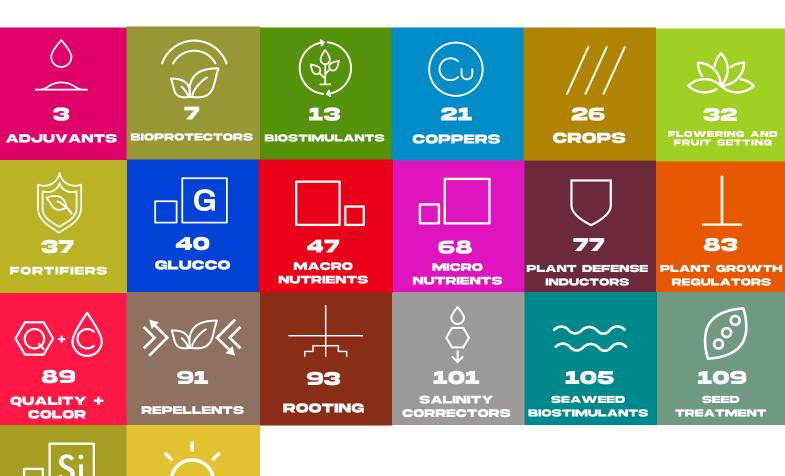




# 2025 CATALOG

CROP NUTRITION AND BIOPROTECTION

## INDEX





118 SOLAR

**PROTECTOR** 

SILICON

## 2025 CATALOG

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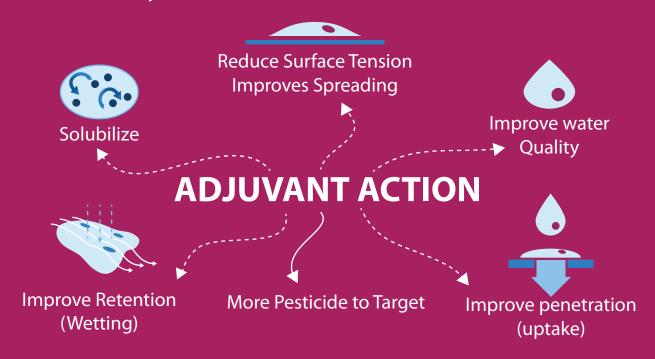
## **ADJUVANTS**



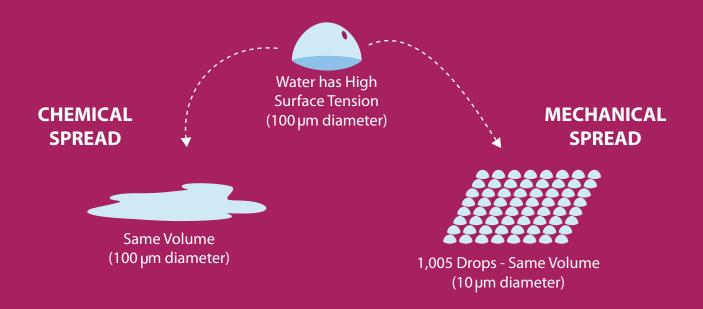


## **ADJUVANTS**

Any substance added to a spray tank separate from the formulation, that will enhance the properties of water so it can deliver the formulation faster and more efficiently.



# HOW TO INCREASE CONTACT BETWEEN SPRAY AND SURFACE





## LENOL 700



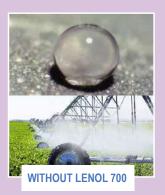
## ADJUVANT: PENETRANT - SURFACTANT - ACIDIFIER

#### **CHARACTERISTICS**

**LENOL 700** It is a non-ionic surfactant, multipurpose, with acidifying, penetrating and translocation action whose use increases the effectiveness of herbicides, insecticides, fungicides, foliar fertilizers and growth regulators.

**LENOL 700** reduces the surface tension of spray solutions to decrease the contact angle of the droplet with the plant surface, which results in a greater amount of coverage by improving the chemical into contact with the plant and uptake.

**LENOL 700** can also be used as acidifying to lower the pH of the solutions, preventing losses of active ingredient by alkaline hydrolysis.





# COMPOSITION% w/wLecithin35.0Propionic acid35.0Linear Ethoxylated Alcohol10.9



SPREADABILITY - provides better leaf spread to increase pesticide contact.

ADHESION - Droplets remain on target to ensure pesticide effectiveness.

PENETRATION - Provides better breakdown of waxy leaf cuticle to allow for enhanced pesticide penetration into the plant.

DROPLET MANAGEMENT - Better manages droplet size to minimize loss due to drift or evaporation.

ENVIROMENTAL - Made from natural occurring soybean oil.

#### **MULTIPURPOSE**

**Lenol 700** contains Lecithin and is formulated as a unique technology to allow you to expect more from your pesticide application. It delivers **five important benefits:** 



#### **DOSES AND APPLICATION**

GOAL	DOSES ml/100L	COMMENTS
Reduction of pH.	50 – 100 (> 8 pH) 30 – 50 (< 8 pH)	
Insecticides - fungicides.	50 - 100	Do not apply with high temperatures. Add to water in spray tank before adding PESTICIDE.
Herbicides	125 - 250 250 - 500	Recommended for use in mixing with defoliants, desiccants and for annual weed control. Use the highest dose of Lenol700 for the control of perennial and other weeds. (Equisetum bogotense) (Malva nicaensis), (Cynodon dactylon), (Cyperus rotundus).
Foliar fertilizers	100 - 250	Tank mixing with other agricultural chemicals may increase the potential for crop damage check with supplier.
Assistance in droplet size management	100-200	LENOL700 will reduce the fine droplets associated with, but not eliminate, off target movement. This is contingent upon good agricultural spraying practise and appropriate nozzle choice.

















## PINE 96



## ADJUVANT, NATURAL ENCAPSULATOR

#### **CHARACTERISTICS**

**PINE 96** is an adjuvant that enhances the efficacy of phytosanitary treatments. It is Non-Ionic, biodegradable, derived from pine resin and can be used in organic agriculture.

**PINE 96** forms an elastic adhesive film which encapsulates and keeps the pesticide on the foliage of the crop, allowing the passage of the systemic pesticides molecules to the inside of the leaf. This film reduces the effects of environmental factors, increasing the effectiveness of the applications.

**PINE 96** does not produce foam or clogged nozzles in addition to improving the initial deposit of pesticides and allows a redistribution of aerial or ground spraying, helping to improve coverage.

#### **MODE OF ACTION**

**PINE 96** is an adjuvant, which reduces the dynamic tension of the surface of the water.

- ADHERENT.
- NATURAL ENCAPSULATING AGENT.
- NATURAL PRODUCT.
- NON-TOXIC PRODUCT.
- PROTECTS AGAINST ULTRAVIOLET RAYS.
- PROTECTS AGAINST HEAT.
- PROTECTS FROM THE HIGH TEMPERATURES.
- NON-DANGEROUS PRODUCT FOR THE ENVIRONMENT.
- PROTECTS THE BIOLOGICAL INSECTICIDES.
- PROLONGS THE INTERVAL BETWEEN APPLICATIONS.
   REDUCES THE EVAPORATION.

### **APPLICATION**

DOSE	RECOMMENDATION
0.3 to 1.0 L / Ha with ground or aerial equipment.	
At a dose of 300 ml PINE 96 provides excellent adherent activity.  To prolong the biological activity of most insecticides and fungicides apply minimal doses of 0.5 to 1.0 L per hectare.	Expand the activity and increase the effectiveness of insecticides and fungicides applications in all crops.
250 to 300 ml/200 L of water, 100 ml / 200 L of spray.	Hydraulic gun or spray trees with air blast.
0.5 I / Ha to prolong the biological activity of the herbicide and increase retention of the herbicide	For herbicides applications.

# COMPOSITION %w/w Polymers terpenes 96,0 6,5



#### PRE-HARVEST INTERVAL

When the product is applied to the prolongation of the biological activity of pesticides, should not be applied to crops 30 days before harvesting, with the exception of copper fungicides or products based on Bacillus thuringiensis. At doses below 1 liter per hectare, the interval pre-harvest depends on the pesticide product with which it is mixed.

**PINE 96** is compatible with the commercial agrochemicals in the form of concentrated emulsions, soluble liquids, wettable powders and suspensions concentrated. However, if the compatibility is not known previously, test on a small scale.

#### **PACKING:**









into the root zone by reducing leaching losses.







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## **BIOPROTECTORS**







### **BIOPROTECTORS**

The intensive use of synthetic pesticides in pest control activities can cause resistance and thereforce resugence of target pests.

Undesirable effects of the environment, including reduction of natural enemies (predators and parasitoids) and beneficial insects, are also possible.

A mayor concern is the effects of synthetic pesticides on humna health. In hte last few decades biofertilizers have emerged as a potential alternative to synthetic insecticides. Currently, biofertilizers share only a small portion of global pesticide and fertilizer market, but growth is faster in this area than in synthetic products. This growth is mainly driven by a rising interest in the demand for organic agricultural products. This review will discuss biofertilizers history, categories, advantages, disadvantages, conventional and nonconventional extraction technology, and consumption.







# EOUISOL



#### **BROADSPECTRUM / BIOFUNGICIDE**

#### **CHARACTERISTICS**

**EQUISOL** contains natural active ingredients with fungicidal activity and elicitors of the defense mechanism against pests and diseases. **EQUISOL** is composed of chitosan hydrochloride, Equisetum arvense (horsetail) and willow bark extract (Salix spp. Cortex).

#### **Bactericidal activity:**

The bactericidal activity of chitosan is associated with its cationic character. The amino free groups, positively charged in an acidic medium, interact with negative charges of the cell membrane of fungi, changing the permeability of the plasma membrane, with the consequent alteration of its main functions.

#### **Fungicidal activity:**

Chitosan is a polysaccharide that acts as a bio remedial molecule and stimulates the activity of beneficial microorganisms in the soil, such as Bacillus, fluorescent, Pseudomonas, Actinomycetes, mycorrhizae and rhizobacteria, which alters the microbial balance in the rhizosphere, puting plant pathogens at a disadvantage, making them able to compete through mechanisms such as parasitism, antibiosis and induced resistance.

EQUISOL is a good natural fungicide that also induces the plant to improve its immune system.

**Antiviral Activity:**Pretreatment with chitosan significantly reduces viral infection in several plant species.

Applying chitosan has positive effects on plant growth, stimulating both seed germination and the growth of plant parts such as roots, shoots and leaves. The salicylic acid in willow bark extract produces a biostimulant effect on the various metabolic processes of the plant, also inducing plants to generate natural defense mechanisms

#### **ACTIONS**

- **ACTIVATES THE PLANTS DEFENSE MECHA-**
- **ALL-NATURAL FUNGICIDE.**
- IT FAVORS THE DEVELOPMENT AND GROWTH OF PLANTS.
- **RICH IN SILICA**
- STRENGTHENS THE PLANT TISSUE.

#### COMPOSITION

%w/w

Decoction of horsetail (Equisetum arvense)

2.0

Willow bark extract (Salix spp. cortex)

0,22

**Purified Chitosan** 

2.0



#### DOSES AND APPLICATIONS

Crops	Objective	Time of appl.	Nº Appl	Interval between appl	Dosage ml/hl	Crops	Objective	Time of appl.	Nº Appl	Interval between appl	Dosage ml/hl
Apple trees (Malus pumila, Malus domestica) Peach trees (Prunus persica)	Leaf fungi such as apple scab disease: Venturia inaequalis. Powdery mildew: Podosphaera		2-6	7 days	300-500	Tomato (Solanum lycopersicum)	Alternaria solani. Septoria leaf spot: Septoria	From the first visible inflorescence until the flower is about to open. Summer.	2	14 days	300-500
(Cramae percent)	leucotricha. Peach leaf curl: Taphrina deformans.					Strawberry (Fragaria x ananassa)  Gray mold: Botrytis cinerea. Powdery mildew: Podospher	Restart of growth until the end of fruiting from	4-8	5-14 days	300-500	
Grapevine (Vitis vinifera)	Downy mildew: Plasmopara viticola. Powdery mildew:	From the development of the first shoots	2-6	7 days	300-500	Raspberry (Rubus idaeus)	aphanis. Other fungi:Colletotrichum acutatum.	early spring to late summer.			
	Erysiphe necator.	until the berries start touching.				Potatoes (Solanum	Late blight: Phytophthora	From bud break to fruit ripening	4-8	5-14 days	300-500
Cucumber (Cucumis sativus)	Downy mildew: Podosphaera xanthii. Root fungi such as root rot or blight: Pythium spp.	From the ninth unfolded leaf until nine or more visible lateral shoots.	2	3-4 days	400-600	tuberosum)	inféstans Early blight: Alternaria solani Powdery mildew: Erysiphe chichoracearum	1 3			
EQUISOL is compatible with most phytosanitary and nutritional products on the market. Do not mix with alkaline products. If in doubt, carry out a prior compatibility test.  The product is suitable for use in organic agriculture according to Regulation (EU) 2018/848 and in compliance with the NOP standard.				rket. Do not mix 2018/848 and in	Ornamentals	Marsonia spp., Phragmidium mucronatum, powdery mildew, and downy mildew	One single foliar appliction when the first symptoms of the disease appear.	1		400-600	















# **NATUREX**



%w/w

NATUREX is a natural biofungicide based on Zinc, Tea tree (Melaleuca alternifolia ) oil and terpenic alcohols which prevents oxidative stress, and in particular, the damage caused by different fungi.

NATUREX contains Melaleuca Alternifolia Tea Tree Oil and anti-disease agents as well as other adjuvants to ensure nutrient uptake and improve product efficacy.

NATUREX is a natural Biofungicide that acts in a preventive and curative way, by inhibiting the development of spore germination, inhibition of mycelial growth and expansive lesion; inhibition in the production of sporangia, by suppression and eradication of colonies of pathogens present in fruits and leaves.

With its unique mode of action, NATUREX is an excellent tool for Resistance Management. It can be applied throughout the year without resistance and is non-toxic to crops, users and the environment.











Black sigatoka Powdery mildew Grey mold (Mycosphaerella fijiensis) (Erysiphe cichoracearum) (Botrytis cinerèa

Botrytis cinerea

Leveillula taurica Pseudomonas syringae

**Bacterial diseases** (Alternaria solami

- Multiple modes of action
- Control of a wide range of plant pathogens, particulary bacterial and ascomycete diseases

**DOSES AND APPLICATION** 

- Preventive and curative action
- Resistance management

### COMPOSITION

Melaleuca Alternifolia extract 20,0 Vegetable Oils 76,0 Zinc (Zn) 1,5 0,5 Manganese (Mn)



- No residues; no MRL

- Easily adapted sustaintable and IPM practices
- Non-Persistent in the environment

Fusarium head

Crop	Disease	Latin name	Dose ml/Ha	Crop	Disease	Latin name	Dose ml/Ha
Bananas	Black sigatoka Yellow sigatoka	Mycosphaerella fijiensis Mycosphaerella musicola	350-900	Rice	Blast Grain complex	Pyricularia oryzae Bipolaris oryzae	500-1000
Berries	Alternaria	Alternaria spp.	800-1500		Sheath blight	Rhizoctonia solani	
	Anthracnose Fruit rot	Colletotrichum spp. Rhizopus stolonifera		Tomato	Bacterial diseases	Pseudomonassyrigae Xanthomonas spp.	800-1500
	Grey mold	Botrvtis cinerea				Clavibacter michiganensi	'c
	Powdery mildew	Sphaerotheca macularis				Alternaria solani	,
Cucurbits	Powdery mildew	Sphaerotheca fuliginea	800-1500		Early blight	Botrytis cinerea	
		Erysiphe cichoracearum			Grey mold	Cladosporium fulvum	
Leafy greens	Powdery mildew	Erysiphe cichoracearum	500-1000		Leaf mold	Oidium spp.	
	White mold	Sclerotinia sclerotiorum			Powdery mildew	Leveillula taurica	
Peanuts	Early leaf spot	Cercospora arachidicola	800-1000			Erysiphe poligony	
Peppers	Alternaria rot	Alternaria alternata	800-1500	Vines	Grey mold	Botrytis cinerea	800-1200
	Anthracnose	Colletotrichum spp.			Powdery mildew	Erysiphe necator	
	Bacterial canker	Clavibacter michiganensis			Sour rot complex	Botrytis cinerea,	
	Bacterial spot	Xanthomonas campestris				Pennicillium, and others	

Apply NATUREX using suitable equipment to ensure thorough coverage of all foliage. A minimun of 200 L/Ha and a maximun of 1000L/Ha is recommended.

Wheat

#### **PACKING:**









Grey mold

Powdery mildew Syringae leaf spot





Fusarium graminearum 500-1000



## nematural Botanical



**NEMATURAL Botanical** is an organic product that must be applied to the soil by irrigation (drip, flood, spraying). At the time of its application, **NEMATURAL Botanical** causes nematode immobilization subsequently causing its death.

**NEMATURAL Botanica**l fully respects beneficial soil microorganisms.

The biostimulating effect of **NEMATURAL Botanical** L-Amino Acids makes the plant to grow new roots and will not suffer stress like in other chemicals application.

Due to its mode of action by contact, **NEMATURAL Botanical** has the advantage of not causing resistance to the application of the product, that is, by using an all-natural active principle.

### NEMATURAL BOTANICAL CONTROLS PLANT PARASITES NEMATODES AT THE SOIL













Meloidogyne sp.	Ditylenchus sp.	Rotylenchulus sp.
DOSES A	ND APPLICA	ATION

CROPS	L/Ha	APPLICATIONS (1,2 OR 3)
Garlic	10-20	Transplanting at 30 days.
Aubergine	10-30	Transplanting at 30 days.
Zuchini	10-20	At the beginning of crop.
Onion	10-20	Transplant - at 30 days.
Lawn	10-20	After cut - at 21 days - at 21 days.
Citrus	20-40	After fruit curd - at 30 days - at 45 days.
Ornamental	10-40	After cutting - at 30 days - at 30 days.
Strawberry	20-40	Transplanting at 21 days.
Fruit	10-20	After fruit set at 30 days.
Green bean	10-25	Beginning of crop.
Melon, watermelon	10-25	Transplanting at 21 days.
Potato	10-25	Seeding at 21 days.
Cucumber	10-20	Transplant - at 30 days - at 30 days
Pepper	15-30	Transplant - at 30 days - at 30 days
Pineapple	40-60	February - July
Banana	40-60	April - September
Tobacco	20-30	Transplant - at 30 days
Tomato	20-40	Transplant - at 30 days - at 30 days
Grape	15-40	After flowering - at 30 days.

Apply in sufficient water to move the product into the root zone. Apply to nematode-infested soil 14 days before planting or transplanting. Repeat applications at 6 week intervals as needed to suppress plant parasitic nematode populations during the crop period.



















#### FUNGICIDE & BACTERICIDE. ELICITOR

#### Characteristics

Q-SAN is a biopesticide composed of biochemicals obtained from natural sources (Chitin). Chitosan (poly-D-glucosamine) is a derivative of chitin obtained from the exoskeleton of marine crustaceans. It is a **potent inducer** of systemic acquired resistance against disease attacks. Q-SAN creates a biofilm around the plant tissue, preventing disease attacks while inducing the synthesis of fungistatic compounds. Plants treated with **Q-SAN** undergo biochemical and structural changes that lead to increased production, mediated by improved tolerance to water and heat stress.

DEFENSE INDUCER. VACCINE EFFECT. CHITOSAN OLIGOMERS ACT TO PROTECT PLANTS FROM THE MOST COMMON FUNGAL DISEASES.











TOMATO GREY MOULD PHYTOPHTHORA EARLY BLIGHT Botrytis cinerea INFESTANS

MILDEW

Erysiphe chichoracearum E. polygoni, Leveillula taurica





Phytophthora infestans





DISEASE ( P. Grisea ) Rice

SHEATH BLIGHT (R. Solani) Rice

**Effects** 

TOMATO LATE

It has fungicidal effects.

Significantly increases plant resistance and lignification.

Stimulates the synthesis of biochemical compounds.

Enhances balanced development of the aboveground and root systems.

#### COMPOSITION

%w/w

Chitin (Poly-D-glucosamine) Density:1,01 pH: 5

3,0





**Q-SAN** has fungistatic properties against both airborne and root diseases. When applied to plants, cells receive the same stimulus as if they were being attacked by a disease. This promotes the activation of the Systemic Acquired Resistance (SAR) mechanism, providing an immune response against diseases.

Stimulates the chitinolytic antagonist microflora of phytopathogenic nematodes.

Reduces transpiration in plants and enhances physiological water use efficiency.

Improves seed germination and emergence. Has positive effects on food storage.

**Double** action

#### **Doses and application**

CROPS	DOSE	NUMBER OF APPLICATIONS	TYPE OF APPLICATION	METHOD OF APPLICATION
APPLE, PEAR	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity.	Drip irrigation, injection, or soil spraying.
AVOCADO	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity	Drip irrigation, injection, or soil spraying.
BLUEBERRY, RASPBERRY, BLACKBERRY	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants	In the peak of root activity	Drip irrigation, injection, or soil spraying.
CITRUS	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity.	Drip irrigation, injection, or soil spraying.
GARLIC	5L / 100L	1	In seed condition.	Immersion (15 minutes).
GREENHOUSE TOMATO	15 L / 100L	1	Pre-planting	Immersion during 30 seconds in speedling
	5 – 10 L / ha	4	10 days after plantation every 7 days.	Irrigation
	5 – 10 L / ha	4	At the beginning of physiological maturity, every 7 days.	Irrigation
NURSERIES (GRAPEVINES AND AVOCADOS	Dilution at 1 or 2% (*)	2-3	Every 15 days, starting from the formed root.	Drip irrigation, injection, or soil spraying.

CROPS	DOSE	NUMBER OF APPLICATIONS	TYPE OF APPLICATION	METHOD OF APPLICATION	
OLIVE TREE	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity.	Drip irrigation, injection, or soil spraying.	
ONION	1 L / 100L	3	30 days before transplanting. Weekly applications.	Soil spraying (beds).	
	3 L / 100L	1	Before transplanting.	Root immersion (30 seconds).	
PEACH, NECTARINE, APRICOT, CHERRY	10L/ha new plantations / , 20L/ha adult plantations	1 – 2 depending on the general condition of the plants	In the peak of root activity	Drip irrigation, injection, or soil spraying.	
РОТАТО	From 3 to 7,5 L/ha	4	Every 10 days. Starting at 30 days after planting.	Irrigation.	
STRAWBERRY	5 L/ha	2	In the peak of root activity.	Drip irrigation, injection, or soil spraying.	
VINE, TABLE GRAPES, KIWI	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity.	Drip irrigation, injection, or soil spraying.	
WALNUT, ALMOND, EUROPEAN HAZELNUT	10L/ha new plantations / 20L/ha adult plantations	1 – 2 depending on the general condition of the plants.	In the peak of root activity.	Drip irrigation, injection, or soil spraying.	
Q-SAN is compatible with most commonly used phytosanitary products. When making an unknown mixture, it is recommended to perform a prior compatibility and miscibility test or consult with our Technical Department.					









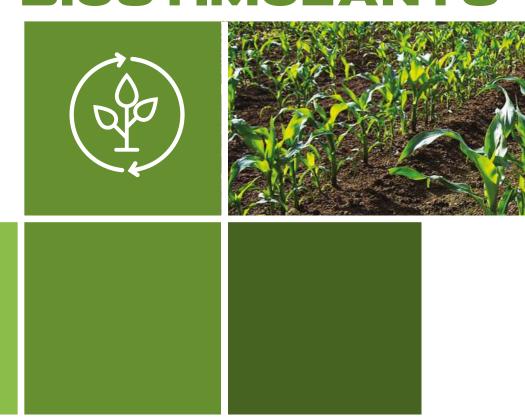






AND BIOPROTECTION

## **BIOSTIMULANTS**





## **BIOSTIMULANTS**

"Agricultural biostimulants include diverse formulations of compounds, substances and other products that are applied to plants or soils to regulate and enhance the crop's physiological processes, thus making them more efficient. Biostimulant act on plant physiology through different pathways than nutrients to improve crop vigor, yields, quality and post-harvest shelf life/conservation."

EBIC, 2013 (European Biostimulants Industry Council)

#### **EFFECTS**

Biostimulants foster plant growth and development throughout the crop life cycle from seed germination to plant maturity in a number of demostrated ways, including but not limited to:

- Improving the eficience of the plant's metabolism to induce yield increases and enhanced crop quality.
- Increasing plant tolerance to and recovery from abiotic stresses.
- Facilitating nutrient assimilation, translocation and use.
- Enhancing quality attributes of produce, including sugar content, colour, fruit seeding, etc.
- Regulating and improving plant water balance.
- Enhancing certain physicochemical properties of the soil and fostering the development of complementary soil microorganisms.
- What distinguishes biostimulants from traditional crop inputs?











#### **HUMIC & FULVIC ACIDS BIOSTIMULANT**



CROPS	APPLICATIONS	ANNUAL DOSAGE
Lawn Ornamental	5-6 app. 5-6 app.	5L / 1.000 m <sup>2</sup> 100 cc / 20 Lts
Vegetable	3-4 app.	1-2 L / 200 Lts

General dosage 1-3 Lts AOL / 200 Lts.

COMPOSITION	%w/v
Total Humic Extract	24,0
Total Humic Acids	12,0
Total Fulvic Acids	12,0
Potassium (K <sub>2</sub> O)	12,0
Total Organic Matter	45,0
pH 5 – 6	

**MOL** is a liquid humic acid corrector made from vegetable matter. **MOL** is a completely soluble microfiltered product.

When **MOL** is added to the SOIL it stimulates the root and micro organism growth, unlocking the nutrients that are in an unassimilable form for the plant.

**MOL** FOLIAR application improves the uptake and transport of nutrients as well as of other compounds (hormones, vitamins, etc...)

The application of issafe and easy throughout all stages of plant growth, from planting to harvesting.

Enhance efficiency of nutrient use Increase stress tolerance Decrease disease incidence Improves sprouting and root system



CROPS	SEASON	ANNUAL DOSAGE
Citrus fruits Fruit Trees Strawberries Cut flowers Open-air Horticultural crops Greenhouse Horticultural crops Maize Olive trees	From budding to mid-cycle From budding to mid-cycle Throughout the whole cycle Throughout the whole cycle Throughout the whole cycle Throughout the whole cycle In the first irrigations. Throughout the whole cycle From budding to mid-cycle	<ul> <li>100-130 cc / tree</li> <li>100-150 cc / tree</li> <li>100 litres / Ha</li> <li>100-120 litres / Ha</li> <li>80-100 litres / Ha</li> <li>100-120 litres / Ha</li> <li>50-80 litres / Ha</li> <li>100-150 cc / tree</li> <li>150-200 cc / tree</li> </ul>
Pear trees Wine grapes Table grapes	From budding to mid-cycle  From budding to mid-cycle  From budding to mid-cycle	30-50 litres / Ha 70-100 litres / Ha

SHAKE THE MOL CONTAINER WELL BEFORE OPENING. Keep MOL in the original container. Do not store below 0°C or above 40°C. When stored under normal storage conditions the product will keep its physical, chemical and biological properties for at least 3 years.

















#### **FULVIC ACID AND AMINO ACIDS**

#### **CHARACTERISTICS**

MOL AMYN is an extremely bioactive growth promoting and soil improving agent in liquid form with a high concentration of natural fulvic acids and amino acids. Mol Amyn is 100% water-soluble and suitable for all crop and garden cultures for foliage and soil application. It may be used alone or in combination with soluble fertilizers and currently, plant protection agents.

MOL AMYN is a natural and versatile bio stimulant. It is produced through a bacterial fermentation process using plant raw

MOL AMYN contains a complex array of plant based soil biostimulants including natural phytohormones (cytokinins, auxinsm gibberellins), polyamines, antioxidants, betaines, peptides, secondary metabolites, polysaccharides, auxins, vitamins, carbohydrates and organic mater to improve nutrient availability in soil, resulting in a hight uptake in plants.

BIOAVAILABILITY

- HIGHLY SOLUBLE
- SMALL PARTICLE SIZE
- STABILITY

#### **ACTIONS**

- **OPTIMUM VIGOUR CROP**
- ✓ INCREASES STRESS TOLERANCE
- PROMOTES ROOT GROWTH
- **IMPROVE THE NUTRIENTS UPTAKE** AND TRANSPORT
- **INCREASES THE MICROBIAL ACTIVITY IN THE SOIL**
- ✓ YIELD AND QUALITY

#### COMPOSITION

%w/v

22,0%

16,5%

8,0%

Total Fulvic Acid Free Amino Acids **Total Polysaccharides** 

pH: 5-6

Density: 1,27 g/cc



#### **APPLICATIONS**

Foliar: 200-300 mls/100 water Fortirrigation: Drin: 5-10 L/ha

rerurngation: Drip: 5-10 L/na	
CROPS	Season and annual dosage
Blueberries and Cranberries	10L/ha Apply 3 times; budding, fruit setting and fruit sizing.
Cereals	Minimum dose: 4L/ha once. Can be applied mixed with herbicides. In summer cereals, apply at 35-40 days after seeding.
Fruiting vegetables and cut flowers	4-6 applications from the beginning of the crop, depending on stress and development.
Greenhouse vegetable	Apply through the cycle of the crop of the crop every 7-14 days; foliar or fertigate.
Orchards, Citrus, Subtropical and Olives	Apply and bud break, pre-bloom and once the fruit setting is complete. Use when crops stressed.
Vegetable (melon, watermelon, lettuce, etc)	Leafy crops: Apply regularly in early stage of growth.
Vines	Apply during vegetative growth; repeat 2 to 3 times from post berry set until the beginning of ripening.





















#### **CHARACTERISTICS**

MOL FULVIC is an organic amendment coming from plant remains, which added to the soil stimulates the growth of roots and microorganisms, and unlocks nutrients that are not assimilated by the plant (nitrogen, phosphorus, potassium, iron, manganese, copper, zinc, etc.).

MOL FULVIC is a product that is easy to use in drip irrigation systems (exudation, spraying) and cover. Foliar application of MOL FULVIC improves the absorption and transport of nutritional nutrients in the plant, as well as other elements: hormones, vitamins, etc.

The correct use of MOL FULVIC allows you to save on the dosage of other fertilizers, in addition to improving its absorption by the plant, and facilitating transport to places where nutrients are necessary for perfect development of the plant. is a vigorous metabolic activator, for its high content of fulvic acids.

**MOL FULVIC is a powerful metabolic activator** due to the high content of fulvic acids.

#### APPLICATION AND DOSAGE



#### **SOIL APPLICATION**

CROPS	STAGE OF APPLICATION	ANUAL DOSE
CITRUS	Spring-half cycle	100-140 cc/tree
FRUIT TREES	Spring-half cycle	100-160 cc/tree
STRAWBERRY	Whole cycle	120 L/Ha
CUT FLOWER	Whole cycle	100-120 L/Ha
OPEN HORTICULTURE	Whole cycle	80-120 L/Ha
GREEN HOUSE	Whole cycle	100-120 L/Ha
CORN	During the first irrigation	50-80 L/Ha
OLIVE TREE	Whole cycle	110-120 cc/tree
PEAR TREE	Spring-half cycle	30-50 L/Ha
GRAPE WINE	Spring-half cycle	30-60 L/Ha
GRAPE FRUIT	Spring-half cycle	70-100 L/Ha



#### **FOLIAR APPLICATION**

#### **GENERAL DOSE 1-3 L MOL/200L**

5 L /1000 m2 **RAYGRASS** 5-6 applications ORNAMENTAL 100 cc / 20 L 5-6 applications **HORTICULTURES** 1-2 L/200 L 3-4 applications



#### **SEED APPLICATION**

Submersion of seeds in a 0.05% solution (5ml/10L water), for approximately 5 hours, then dry.

#### COMPOSITION

%w/w

Total humic extract 41,5 38,5 **Fulvic Acid** 3,5 0,15 Total Nitrogen (N) Phosphorus (P<sub>2</sub>O<sub>5</sub>) Potassium (K<sub>2</sub>Ô) 5,0

Density: 1,28 pH: 5,7

#### **HIGH CONTENT OF FULVIC ACIDS**



**INCREASES PLANT GROWTH, YIELD AND NUTRIENT UPTAKE** 

**INCREASES GERMINATION OF SEEDS** 

#### **PREVENTS THE ABIOTIC STRESS**

Multiplies 2000x the microorganism of Fulvic Acids application, at























MOL SOLID is a highly concentrated potassium humate. It is a plant stimulant of the highest quality and improves soil conditions.

MOL SOLID can be applied to agricultural, horticultural and gardening plants by soil, and seed application.

COMPOSITION	%w/w
Total Humic Extract	85,0
Humic Acids	74,0
Fulvic Acids	11,0
Potassium (K <sub>2</sub> O)	11,0

**ORGANIC SOIL AMENDMENT** 

**ROOT DEVELOPMENT** 

**NUTRIENT UPTAKE** 

**THE GERMINATION OF SEED** 

MOL SOLID can be used to be alone or mixed with most fertilizers. As product solid granular form, it can be transported easily.

MOL SOLID is able to enhance the efficacy of fertilizers and reduces input costs.

### **APPLICATION AND DOSAGE**

CROP	OBJECTIVE	RECOMENDED APPLICATION
Soil application		
Cereals, potatoes, legumes (Spinklers and pivot system)	Soil conditioning, root growth stimulation, increasing of soil fertility and fertilizer utilisation	6-8 kg/ha divided into several doses (1-2 kg/ha) during the season and at the time of fertilzer application
Fruit trees (Apple, citrus)	Soil conditioning, root growth, increasing of soil fertility and fertilizer utilisation	8-10 kg/ha divided into several doses (1-2 kg/ha)
In all crops	Soil conditioning, increasing of soil fertility and fertilizer utilisation	6-8 kg/ha divided into several doses (1-2 kg/ha) during the season
Open field vegetable	Soil conditioning, root growth, increasing of soil fertility and fertilizer utilisation	6-8 kg/ha divided into several doses (1-2 kg/ha)
Ornamental plants and tree nursery, turf grass, landscaping (in general)	Soil conditioning, root growth, stimulation, increasing of soil fertility and fertilizer utilisation	8-10 kg/ha divided into several doses (1-2 kg/ha) or 1kg/m³ during the preparation of
Vegetables in greenhouses	Growth stimulant, and increases foliar fertilizer utilisation	150-300g/100Lwater every two weeks during the season

Foliar application

Growth stimulant, and increases foliar fertilizer penetration. Application: 150-300 g/1000L water every two weeks during the season

Seed treatment

Stimulation of seed germination and root growth. Application: 1kg/100kg seeds



















#### **CHARACTERISTICS**

by Aspe, which includes in its composition Macro and Micronutrients complexes with Fulvic Acids (natural chelating agents) extracted from liquid fossil. Ensures the immediate incorporation of nutrients to the plant's metabolism, as well as the activation of the breathing process.

Fulvic acids Biostimulants for improved nutrient uptake, balanced growth and to promote beneficial biology

#### **ACTION FULVIC ACIDS**

- Increases the microbiological activity in the soil
- Improves the availability and take up of soil nutrients
- Are excellent in transporting nutrients from the root to the plant
- Allows cellular membranes in helping the assimilation
- Enhances flowering and fructification
- Increases root formation

#### **DOSES AND APPLICATION**

#### 1. Enrichment of substrates

Mix 10-20 g. MOL COMBI. per m3 of substrate.

#### 2. Strawberries

**Foliar:** 30-60 g/100L; 2-6 treatments (total dose per crop: 100 - 200 g/1000 m²). Do not spray at flowering.

**Soil:** 50-100 g/1000 m2 and application, repeat the treatment every 3-5 weeks (total dose per crop: 300 - 500 g/1000 m<sup>2</sup>).

#### 3. Vegetables

**Foliar:** 20-50 g/L; 2-4 treatments (total dose per crop: 100 - 200 g/1000 m²). In radishes. Do not exceed concentrations of 10 g/100 L).

**Soil:** 50-100 g/1000 m2 and application, repeat the treatment every 2-4 weeks (total dose per crop: 200 - 600 g/1000 m²). Higher doses will be used on crops of high yield (tomato and cucumber in greenhouse, etc.).

#### COMPOSITION %w/w Organic matter 30,0 Fulvic acids 13,0 Calcium (CaO) (complexed by ligno) 3,5 Magnesium (Mg) 2,5 Boron (B) 0,7 Iron (Fe) (complexed by ligno) 5,0 Manganese (Mn) (complexed by ligno) 5,5 Zinc (Zn) (complexed by ligno) 5,5



#### 4. Nurseries

 $\textbf{Nurseries:} \ applications in spraying \ concentration \ 20\text{-}40\text{g}/100\text{L}.$ 

**Containers:** prepare a 0,05% solution (0,5 g/l) and apply at the rate of 200g per liter of substrate.

**Perennials:** irrigate with a solution 0,1% (1 g/L) at a rate of 100 - 150 g / 100 m<sup>2</sup>.

#### 5. Fruit trees

**Foliar:** 50-150 g/100L; 2-6 treatments (total dose per year: 3-8 Kg/Ha). **Soil:** 0,5-1,5 Kg/Ha and application, repeat the treatment every 2-5 weeks (total dose per year: 4-7 Kg/Ha).

**MOL COMBI** is compatible with the majority of fertilizers and plant protection products normally used. Do not mix with very acid solutions.

















# **STYM 25**



<b>3</b>	SOIL DOSAGE	Lts/ha
STRAWBERRIES	Every 10 days after transplanting	4
FRUIT TREES	From budding until the swelling of the fruit	6
BANANA PLANTS	Every 15 days between March and June	6
OLIVE TREES	Throughout the whole cycle	18
TABLE GRAPES	From budding until the end of the cycle	5
DRY FRUITS	From budding until the swelling of the fruit	5
CITRUS FRUIT	From flowering until the swelling of the fruit	12
COTTON	10 days after shooting until 20 days after the flowering	6
ORNAMENTAL PLANTS	Every 15 days after transplanting	4

<b>3</b>	FOLIAR DOSAGE	cc/100L
HORTICULTURAL CROPS	Every 10 days after transplanting	200
STRAWBERRIES	Throughout the whole cycle	200
TUBERS	Every 15 days	250
FRUITTREES	From budding until the swelling of the fruit	200-300
BANANA PLANTS	Every 15 days	250
OLIVETREES	Throughout the whole cycle	200-300
TABLE GRAPES	From budding until the end of the cycle	250
WINE GRAPES	From budding until the end of the cycle	2L/Ha
DRY FRUITS	From budding until the swelling of the fruit	200-300
CITRUS FRUITS	From flowering until the swelling of the fruit	200-300
BEET	2 applications every 15 days	2,5 L/Ha
COTTON	10 days after sprouting until 20 days after the	300
	first flower.	
ALFALFA	After every mowing	2,5 L/Ha
ORNAMENTAL PLANTS	Every 15 days after transplanting	250
LAWN	After sowing/Growth phase	3-5 L/Ha/30 cc/m

Foliar application of STYM 25 can increase amino acid and peptide availability for plant uptake by reducing the competition with soil microorganisms.

COMPOS	%w/v	
Free Amino Acids Organic Nitrogen (N) Organic Carbon ISI (Disease-Resistance Activator)		25,0 2,5 14,4 3,0
pH Density	6,7 1,16	

**STYM 25** is a natural bioactivator based on amino acids obtained through enzymatic processes, making **STYM 25** more efficient than chemical process based products. It is recommended for all crops and all times, especially when the plants need more nutrients such as in pre-blooming, setting, the swelling of the fruit, vegetative growth, for saline or climatic condition, etc. Aspe has developed a group of molecules that we call **I.S.I. capable of acting as disease resistance activators.** 

#### **INCREASES:**



YIELD



NUTRIENT UPTAKE



ROOT SYSTEM



THE SEED GERMINATION



INMUNOLOGICAL SYSTEM ACTION OF THE CROPS



















## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

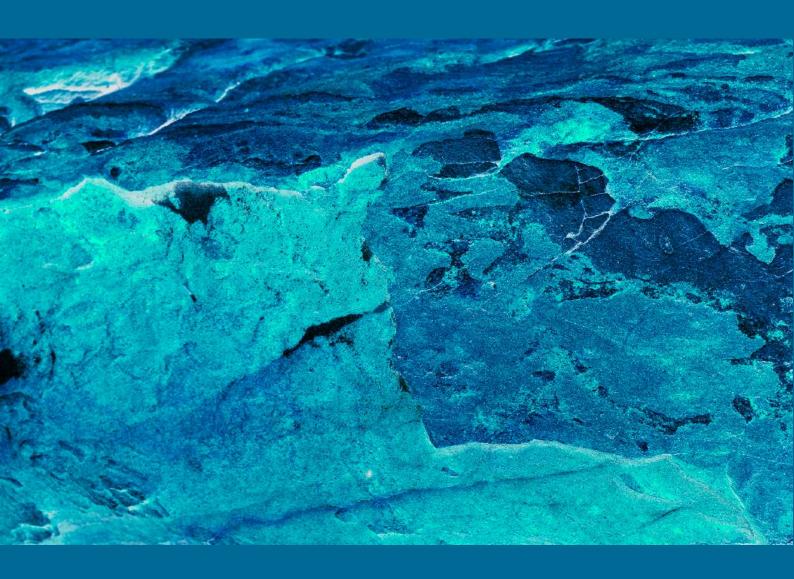
## **COPPERS**





## COPPERS

- Highly eficient formulation: Gel
- Maximum eficiency
- Uniform distribution on the plant surface
- Easy Absorption/Translocation
- Optimized size particles
- Important action fungicide/Bactericide







#### **COPPER OXYCHLORIDE** COLOIDAL. **DEFICIENCY CORRECTOR FUNGICIDE BACTERICIDE**





#### COMPOSITION %w/v

Copper (Cu) 38,0 Copper (Copper Oxychloride) 70,0

Density: 1,5

#### CUC 38 SC

with a copper content of 38% as concentrated suspension.

CUC 38 SC is used as a source of copper in large consumers crops of this element to prevent deficiency states. It has remarkable fungicidal action.

Adjust the dose according to nutritional needs and crop situation. Apply when the crop has enough leaves to get treatment. Do not apply during bloom. Do not apply to crops under plastic greenhouse. Do not mix with polysulphide, thiram or very acid or very alkaline reactive substances.

Shake the bottle before application; we recommend using machinery agitator.

- **RESISTANT TO BE WASHED AWAY BY RAINFALL**
- **COVERS LEAF SURFACE HOMOGENEOUSLY**
- SUPERB RESISTANCE TO DISEASE AND STRESS CONDITIONS
  - **HIGH COPPER CONCENTRATION**
- **FUNGICIDE PROTECTION**

#### **CROPS**

#### **DOSE IN FOLIAR APPLICATION**

Citrus • Fall 75 -150 cc / Hl, winter 200 - 250 cc / Hl

Horticultural • ► 150-300 cc / Hl

Woody crops • ► 150-350 cc / HI

Cereals •

Nuts • ► 150-175 cc / HI

Olive • - 200 -400 cc / HI, are advised to apply in spring, summer and fall.

Vigne 

In vegetation 100-250 cc / Hl and 150-300 cc / Hl in winter

→ 125 cc / HI and use 200L water per hectare is recommended to apply from the second true leaf cereal until the second appearance of the second node; in the presence of deficiency symptoms the concentration can be increased to 250 cc / HI maintaining the same water quantity per hectare















# COPPER GLUCONATE DEFICIENCY CORRECTOR FUNGICIDE BACTERICIDE



#### **CHARACTERISTICS**

Copper gluconate solution characterized by the ability of being well uptaken by both foliar and root.

It is used as a source of copper in the prevention and correction of deficiencies of this element. Remarkable, fungicidal-bactericide action (Botrytis, Fusarium, Mildiu, Monilia, Phoma, Phythium, Phytophtora, Rhynchosponium, Rhizoctonia, Sclerotinia, Spilocacea, Xanthomonas), since the copper chelated by the gluconic acid penetrates much better than other copper compounds (oxides) in the fungus spore inhibiting germination.

COMPOSIT	ION	%w/v	%w/w
Copper (Cu) Organic complexa D-glu	nt agent: conic acid	8,0	6,5
Density	1,23-1,33 g	ı/cc	



#### **DOES NOT STAIN THE PLANT**

SYSTEMIC ACTION

**RESISTANCE TO WASHING** 

IMPROVES CONSERVATION FRUITS

HIGH EFFICIENCY

#### **DOSES AND APPLICATIONS**

	FOLIAR	FERTIRRIC	SATION
LANDSCAPE	200-400 ml/hl	400 ml/hl	
CEREALS	2 L/Ha	-	
CITRUS	1,5-2 L/Ha,	2-3 L/Ha,	In spring and autumn
FRUIT TREES	2-3 L/Ha,	3-4 L/Ha,	Plefloral application and after harvesting
VEGETABLES	2-3L/Ha,	3-4L/Ha,	Depending on the conditions and cultivation
OLIVE-TREE	2-3 L/Ha,	3-4 L/Ha,	In spring, during the fruit development and autumn
VINE	2-3 L/Ha	-	According leaf development, as complement of phytosanitary treatments

It is recommended to treat between 6 and 25 °C. Avoid applications in cases of extreme drought, humidity, frost and rain. **Shake the container well for its homogenization.** In case of mixing with other products, always carry out a previous test. Incorporate this product into the last phase.

Compatible with most insecticides and fungicides. Do not mix with acids or alkalis. Not add amino acids.











#### **COPPER SULFATE DEFICIENCY CORRECTOR FUNGICIDE BACTERICIDE**

1,4

4,5-5

COMPOSITION

Copper (Cu)

Sulfur (SO<sub>3</sub>)

Density

рН

Copper sulfate



20% (200 g/L)

75%(750 g/L)

26%(260 g/L)

CUC 75 FLOW COPPER SULFATE is a flowable Copper sulfate used in foliar application.

The smaller particle size delivers a better plant coverage, which means better protection against fungal and bacterial diseases.

COPPER SULFATE formulation readily mixes in water and stays suspended longer than any other liquid

#### **KEY DISEASES CONTROLLED**

Especially active against: Alternaria, Anthracnose, Bacterial spot, Botrytis, Cercospora, Collectrochum spp., Downy mildew, Exorporium, Fire blight, Phomopsis, Pseudomonas leaf spot, Xanthomonas and different types of bacteria and repiles.

#### **KEY USES**

Preventive treatment for the following crops: Berries, vines and hops Seed dressings Chives **Tropical crops** Conifers Turfgrass Field crops, including citrus Vegetable crops **Ornamentals** 

# Action Bactericide - Fung Systemic - Broad Spectru CE CE 0

#### **COPPER SULFATE**



#### **DOSES AND APPLICATIONS**

Apply foliar spray diluted in water, shaking previously the container.

CITRUS	75-125cc/Hl <b>OLIVE</b>	300-600cc/HI
FRUITS TREES (WINTER)	250-400cc/Hl PISTACHIO	200-400cc/HI
FOREST NURSERIES	150-180cc/HI VEGETABLES	150-180cc/HI
HERBACEOUS&LIGNEOUS	150-250cc/Hl <b>VINE</b>	200-300cc/HI

Compatible with most insecticides and fungicides. Do not mix with acids or alkalis. Do not add amino acids.



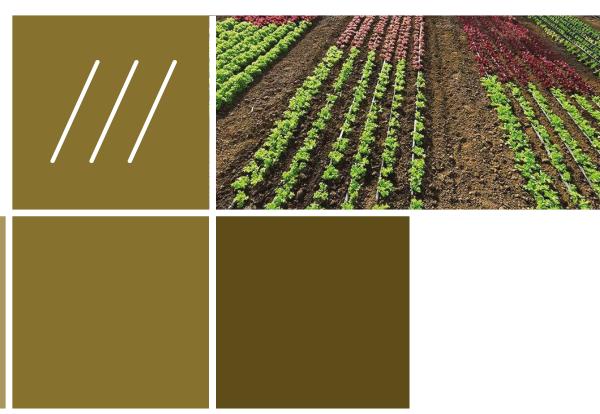




## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

## **CROPS**





### **CROPS**

The exponential development than has occurred in recent years in relation to plant nutrition of crops, means the possibility of developing fertilizer specially designed for a particular crop.

Thus, the knowledge of certain metabolic pathways that include: the assimilation of the nutrients, their transport specific, certain physiological actions, etc., leads us to design fertilizers including certain nutrients that intervene in physiological processes essential for certain species, as in the case of the elements Molybdenum and Boron in the enzyme nitrogenase, responsible for the fixation of atmospheric nitrogen in legumes, or the direct involvement of microelements such as Boron and Calcium in the production of sugars in certain species like the Brassicaceae. We could cite many examples thanks to as we have said before, the breaktrhough in plant nutrition.

Therefore, Aspe proposes a series of specific fertilizer products for various crops, based on current knowledge and our own experience acquired throughout our yeears of activity.







#### **BIOACTIVATOR, SPECIAL COTTON**

#### **CHARACTERISTICS**

KELOM COTTON's components mobilise the special plant process for the adaptation to particular stress conditions, increasing and maintaining the retention capacity of flowers and small fruits in the most advantageous positions and branches, to maximise production and the earliness of the crop.

BAAVIB	MIZE C	CTTON	DDODI	ICTION
IVIAXIN	/IIZE C	OTTON	PRUDU	JC I IUN

# INCREASED RETENTION AND QUALITY OF THE CAPSULES PRECOCITY

KELOM COTTON's is made of enzymes and growth substances from natural origin by a special fermentative extracting procedure from seaweeds, in order to stabilise and balance its composition, it contains organic acids (polyhidroxicarboxylic acids) and chelated micronutrients for the elimination of yield's limiting factors. Micronutrient is known to take part in essential enzymes needed to compensate the loss of cellular energy. The preparation is completed with a metabolic activator.

#### **APPLICATIONS AND DOSAGE**

Addition	Phenological stage	Dosage
1st 2nd	Beginning of flowering 40-45 days after the first addition	1,0 L/Ha 0,75 L/Ha

COMPOSITION %w/w Polyhydroxy carboxylic acids (PHCA) 25,0 Total amino acids 15,0 Betaine 9,0 Nitrogen (N) Organic 2,0 Iron (Fe) 1,68 Manganese (Mn) 0,63 Zinc (Zn) 0,34 Copper Cu) 0.04 Boron (B) 0,34 Molybdenum (Mo) 0,004



A HIGHER GROWTH AND YIELD IN COTTON CROPPING IS OBTAINED WITH KELOM COTTON

#### 1º Addition

- -Increases the number of fruitful branches and positions within them.
- -Issuance of all possible fruiting bodies.

#### 2º Addition

- -Retention around 60% of fruiting bodies.
- -Balanced development and maintenance of the emission of these organs.
- -Formation and ripening of fruits.
- -Precocity of the harvest and greater number of harvestable capsules in the 1st collection.



















FOLIAR FERTILIZER FOR OILSEED RAPE AND OTHER OILSEED PLANT (FLAX AND SUNFLOWER)

#### **CHARACTERISTICS**

RAPS MIX is a concentrated foliar nutrient solution with a tailored nutrient package to help oilseed rape crops reach their full potential.

The unique formulation of micronutrients has been specifically designed to boost oilseed rape growth particulary during the key establishment period. Essentially a brassica, the nutrient requirement of oilseed rape is substantial and very dierent from other arable crops such as cereals.

The micronutrients chelated by Gluconic acid, an organic molecule of natural origin bring several advantages, such as excellent solubility, biodegradability, and chemical stability of the complexes, even in alkaline conditions.

#### **ESPECIALLY FOR OILSEED PLANTS**

**RAPID UPTAKE** 

**EASY TO APPLY** 

#### **ACTIONS**

- BETTER QUALITY AND YIELD.
- IMPROVED MICRONUTRIENTS UPTAKE.
- REGULAR FLOWER AND MATURATION.

#### **FOLIAR APPLICATION**

OII SEED PADE - Winter oilseed ran

OILGELD RAFE - Willer Oliseed Tape	General Dose
Autumn 4-8 leaves unfolded	1 L/ha
Spring after start of growing season / beginning of main stem elongation	1 L/ha
Bud formation	1 L/ha
From the beginning of petal fall – until the beginning or pods development	f 1 L/ha
FLAX	General Dose
"Herringbone" phase	1 L/ha
Phase of rapid growth	1 L/ha

COMPOSITION	%w/w
Boron (B) water soluble	1,0
Manganese (Mn) water soluble	1,0
Magnesio (MgO) water soluble	1,2
Iron (Fe) water soluble	0,9
Zinc (Zn) water soluble	0,9
Molybdenum (Mo) water soluble pH: 4-5	0,5



OILSEED RAPE - Spring oilseed rape	General Dose
Leaf development – until beginning of mean stem elongation	1 L/ha
Bud formation – until beginning of flowering	1 L/ha
Bud formation – until beFrom the beginning of petal fall – until the beginning of pods developmentginning of flowering	1 L/ha
SUNFLOWER	General Dose
2-4 leaves unfolded	1 L/ha
Beginning of steam elongation	1 L/ha

#### **PACKING:**

flowering (optional)









Seting flower buds - until the beginning of



1 L/ha



## SUKRA

### B + Ca Solid

#### **BORON AND CALCIUM CORRECTOR**

#### **CHARACTERISTICS**

SUKRA BORON+Ca SOLID is a solid defiency corrector for foliar application or directly to soil by fertirrigation. For its high content of BORON, is used at low doses, and it's fully exploiting in crops.

In sugar beet prevents heart rot or root rot. In apple and pear, SUKRA BORON+Ca SOLID prevents bitter pit, and cracked. In grape, SUKRA BORON+Ca SOLID improves flowering and prevents the bunch, avoid small and wrinkled fruit. In the olive tree, SUKRA BORON+Ca SOLID prevents loss of production, and the deformation of the olive.

In horticulture, SUKRA BORON+Ca SOLID prevents heart rot in celery, the coiled of leaves in cauliflower and broccoli. In lettuce prevents hearts rotting and burning side, in stud prevents drying of the tip and stems, in potato avoid the necrotic of tubers with deformities.

#### **DOSAGE AND APPLICATION**

#### Horticulture, fruit, citrus, vines and olive trees:

• Weak deficiencies: 100-200 gr/100L

Moderate deficiencies: 300-400 gr/100L

Strong deficiencies: 500-600 gr/100L

Field crops (Sugar beet): 2-3 kg/ha

#### COMPOSITION

%w/w

Boron (B) Calcium (CaO) 15,0

7,0



#### **QUALITY AND POST-HARVEST LIFE**

#### **DOES NOT CONTAIN ETHANOL AMINE**

#### **COMPATIBILITY**

**SukraSolid B + Ca** is compatible with most products. Do not mix with mineral oils, alkaline products or sulfocalcics mixtures. Add as the last component.













#### **BIOSTIMULANT. SPECIAL RICE**

#### **CHARACTERISTICS**

RICE 3 is a new natural organic crop's food.

RICE 3 activates the biochemical functions in the plant, improving the metabolic process. It contains a naturally balanced mixture of Amino Acids available for proteins synthesis without energy uptake, saving biological energy. Furthermore RICE 3 contains natural bio promoters N-Acetyl Thiazolidine-4 Carboxylic Acid (ATCA) which through a slow enzymatic breakdown leads to the formation of proline which has a fundamental role to prevent the negative effects due to environmental stress (excessive heat, drought, poor fertilization, excessive rain fall etc.) and Cysteine, whose anti-oxidant activity stimulate the regeneration of the enzymes, the catalytic agents for the proteins syntesis, lowering the cells senescence, and a mix of micronutrients: Boron favors pollen germination, fruit set and the growing of tissues. Iron and Manganese plays a fundamental role in chlorophyll synthesis and also in catalytic reactions. Zinc promotes the production of auxins, favors fruit enlargement, the transport of phosphates, formation of seeds and their ripening.

RICE 3 is compatible with most products used in agriculture unless strongly alkaline. RICE 3 must be applied in the cooler daytime period.

#### **EFFECTS**

- Improves photosynthesis, respiration, synthesis of carbohydrates, nucleic acids, lipids, etc
- Promote seed germination, blooming, seed enlargement
- Faster and improved development of the root's system
- Accelerated plant growth
- Better stress resistance

COMPOSITION		%w/w
Total aminoacids N-Acetyl Thiazolidine- Iron (Fe) chelated EDT Manganese (Mn) chel Copper (Cu) chelated Zinc (Zn) chelated EDT Boron (B)	A ated EDTA EDTA	17,0 1,00 0,18 0,10 0,18 0,10 0,08
Density at 20 °C	1,25 g/ml	



### APPLICATION AND DOSAGE

CROPS	Foliar spray ml/ ha per application	Nº applications	APPLICATION & INTERVAL
Rice Seeds	-	-	Before sowing leave the seeds for 24 hours in solution with 2 cc for 1 Lt water
Dry Rice	600-800	2	First application 45 days after sowing Repeat 70 days after sowing
Flooded Rice	500-700	2	At germination stage Repeat 10 days before tillering stage

For each application spray RICE 3 uniformly on the leaves using at least 400 liters of water per hectare.

is compatible with most products used in agriculture unless strongly alkaline. must be applied in the cooler daytime period.

















## BIOACTIVATOR. SPECIAL INDUSTRIAL CROPS

#### **CHARACTERISTICS**

Vital for Mn is specifially designed to improve crop yield and quality in potato and taproot crops (carrots, radish, sugar beet, etc.) Vital for Mn is rich in Manganese, a Micronutrient activator of multiple enzymes involved in photosynthesis and carbohydrate biosynthesis. The effect of manganese is supplemented by Macro and other Micronutrients that optimize the plant nutritional status and by the presence of phosphorus in a highly bioavailable form that improves nutrients uptake and transport.

As a result, **Vital** fol **M**<sup>n</sup> stimulates tuber formation, tuber enlargement, and starch accumulation, leading to increased number, size and quality of potatoes. Similarly, **Vital** fol **M**<sup>n</sup> stimulates the development and elongation of taproots.

INCREASES NUMBER, SIZE, AND QUALITY OF POTATO TUBERS

IMPROVES THE DEVELOPMENT OF TAPROOT CROPS

RECOMMENDED FOR CROPS WITH HIGH MANGANESE DEMAND

**Vital fol M**<sup>n</sup> can be mixed with all common formulations, except with products with alkaline reaction based on Copper and Sulphur, mineral oils and emulsions. A simple mixture test to check compatibility is advisable.

COMPOSITION	%w/w
Total Nitrogen	2,00
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	30,00
Potassium (K <sub>2</sub> O)	3,00
Boron (B)	0,01
Copper (Cu) chelated by EDTA	0,02
Iron (Fe) chelated by EDTA	0,02
Manganese (Mn)	4,00
Molybdenum (Mo)	0,001
Zinc (Zn)	0,01
Density 1,30	



#### **DOSAGE AND APPLICATION**

Crop	Time of application	Number of applications	Dosage
Industrial crops (potato, carrot, radish, sugar beet, green bean, broad bean, soybean)	At the beginning of the crop cycle	3-4 applications every 7-10 days	2,5-3 L/ha
Strawberry	At the beginning of the crop cycle	3-4 applications every 7-10 days	2,5-3 L/ha
Fruit trees	At pre-flowering and fruit enlargement	3-4 applications every 7-10 days	2,5-3 L/ha







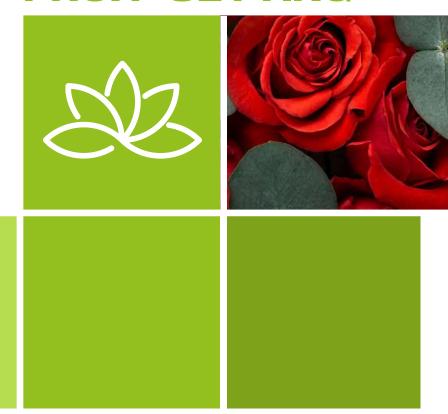




## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

# FLOWERING AND FRUIT SETTING





#### FLOWERING AND FRUIT SETTING

Flowering and fruit setting processes are key physiological stages for good crop production. In agriculture, flowering and fruit setting are prerequisites for crop production whenever fruit is harvested.

In order to have an optimum percentage of fruit setting after a good flowering, appropriate conditions between the crop physiological conditions and the climatic conditions during this stage must be met.

At the nutritional level, in the case of fruit trees, a factor that will determine flowering will be the post-harvest fertilization in the previous season. If the necessary nutrients have not been provided after harvest, the plant will not accumulate the necessary reserve substances after winter dormancy, as the reserve substances will be the source of nutrients for the plant until the beginning of plant development, when photosynthesis will produce the necessary nutrition once the plant has sprouted vegetatively.

At these flowering and fruit setting stages, in any crop, whether fruit or vegetable, the crop will require higher concentrations of micronutrients and calcium in addition to standard nutrition. Flower buds and subsequent flowering require zinc, boron, molybdenum and other nutrients in much higher amounts. It is essential that these elements are available for use at this stage, as they play a key role during flowering and fruit setting, because their deficiency causes physiological disorders in the crop, reducing the number of fruits per tree.

This category includes products designed to provide everything that various crops, such as fruit trees, vegetables, ornamental plants and more need to enhance their flowering and fruit-setting processes.







## FLOR SET **BMO**



#### CHARACTERISTICS

FLOR SET BMO is an innovative product, designed by ASPEAGRO, with action as bioregulator. It contains nutrients and organic components of vegetable origin. All of them favor the metabolic processes of the crop that supply energy to the plant. It is an improvement of the flowering and set of dofferent

FLOR SET BMO reactivates the cellular processes that favor the mooring of the fruits, avoiding the fruit fall. In the elaboration of FLOR SET BMO, processes are used that keep all active components soluble, for immediate uptake by the plant.

- PLANT ORIGIN
- CONTAINS SEAWEED EXTRACT
- AFFECTS THE FLOWERING AND FRUIT SET

#### **ACTIONS**

**INCREASES FRUIT SIZE AND UNIFORMITY INCREASES COMMERCIAL PRODUCTION AND REDUCES FRUIT LOSS** 

**AVOID PREMATURE FRUIT DROP INCREASES POLLEN QUALITY** STIMULATES THE FRUIT SETTING

Λ			$\Lambda$ T	





COMPOSITION	%w/w
Boron (B)	2,00
Molybdenum (Mo)	3,00
Phosphorous (P <sub>2</sub> O <sub>5</sub> )	8,00
Potassium (K <sub>2</sub> 0)	12,50
Ascophyllum nodosum extract	16,00
Mannitol	0,18



Crops	Rates per Application (Foliar and Soil) Stages and Recommendations	
APPLE	3.5 - 4.5 l/ha / From 20 mm fruit size 3-4 treatments each 12-15 days BBCH 71-72	
CITRUS	3.5 - 4.5 l/ha / From 15-20 mm fruit size 3 treatments each 15-18 days	
FRUIT TREES	3 - 4 I/ha / 3-4 treatments starting from fruit-set each 10-15 days	
GRAPEVINE	3.5 - 4.5 I/ha / Fruit size increasing: 1st appl: after fruit set 2-3 treatments each 10-15 days	
KIWI FRUIT	4.0 - 4.5 l/ha/ 1st appl: after fruit-set   2nd appl: 15 – 20 days after 1st treatment   3rd appl: 15 – 20 days after 2nd treatment   4th appl: 30 days after 3rd treatment	
OLIVE TREES	3.5 - 4.5 l/ha / Starting from stone lignification: 2 treatments also with agrochemical treatments	
PEAR	3.5 - 4.5 l/ha / From 20 mm fruit size 3-4 treatments each 12-15 days.	
RICE AND OTHER CEREALS	2 – 3 L/ha during the tillering and heading stages.	
STONE FRUIT	3.5 - 4.5 l/ha / 1st appl: from stone hardening   2nd appl: 8-10 days after 1st treatment   3rd appl: 8-10 days after 2nd treatment	
STRAWBERRIES AND SMALL FRUITS	3.5 - 4.5 I/ha / 3-4 treatments starting from fruit-set each 10-15 days	
TABLE GRAPE	3.5 - 4.5 l/ha / Fruit size increasing: 1st appl: berry at size 8-10 mm  2nd appl: berry at size 15-16 mm  3rd appl: veraison.	
VEGETABLES	3.5 - 4.5 l/ha / 3-4 treatments starting from fruit-set each 10-15 days	
*Use the product at the concentration of 3-5%		















## **FLOR SET** SOLID BMO



#### CHARACTERISTICS

FLOR SET SOLID BMO is a special product based on Molybdenum and Boron of high concentration, enriched with assimilable phosphorus. With synergic and stimulating effect of flowering and fruit set, which allows favoring the phase of growing of the fruits. FLOR SET SOLID BMO applications also corrects deficiencies of nutrients contained, avoiding physiopathies and crop yields. Both Boron and Molybdenum are essential in forced crops of multiple flowering whose fruit setting and growing phases overlap in time.

- BIOREGULATOR
- INCREASES FLOWERING, FRUIT **SET AND FATTENING OF FRUITS**
- INCREASES YIELD

#### **ACTIONS**

- REDUCES THE ABSCISSION OF FLOWER BUDS AND FRUIT DROP AT THE BEGINNING OF FRUIT SET.
- FAVORS THE DEVELOPMENT, GROWTH AND
  FATTENING OF FRUITS.
  INDUCES FLOWERING.

- INCREASES POLLEN QUALITY.
- STIMULATES THE FRUIT SETTING.

COMPOSITION	%w/w
Boron (B)	5,50
Molybdenum (Mo)	3,50
Phosphorous (P <sub>2</sub> O <sub>5</sub> )	22,50
Potassium (K <sub>2</sub> 0)	18,00
Ascophyllum nodosum extract:	20,00
Alginic acid	3,50
Mannitol	1,00



#### **APPLICATION**

CROPS	FOLIAR APPLICATION
VEGETABLES CUCURBITAE	100 – 150 g/hl // With a total of 2-3 applications; starting in pre-flowering before appearance of the first flower bouquet until fruit setting, repeating applications every 12-15 days.
CITRIC TREES, FRUIT TREES, OLIVE TREE AND VINE	100 – 150 g/hl // In fruit trees and citric trees, to encourage setting and development of the fruit, application in pre-flowering, petals fall, end of setting and growth. In olive tree, application before flowering and during fruit growth. In vine, application before flowering.
ORNAMENTAL PLANTS	100 – 150 g/hl // Application in pre-flowering to encourage flowering and to avoid abscission of flower buttons.
CROPS	DRIP IRRIGATION
VEGETABLES CUCURBITAE	1-1,5 Kg / Ha // Application dose by irrigation since beginning of flowering until the end of setting.
CITRIC TREES, FRUIT TREES, OLIVE TREE AND VINE	2-3 Kg / Ha // Application dose by irrigation starting applications before flowering.
ORNAMENTAL PLANTS	1-1,5 Kg / Ha // Application dose by irrigation to encourage flowering and to avoid abscission of flower buttons. Begin applications in pre-flowering.
It is compatible with most	of the phytosanitary products and phytonutrients used in agriculture. However, it is necessary to make a previous compatibility and selectivity test

#### **PACKING:**





of the products to apply.









## FLOWER 50

## PRE-FLOWERING FLOWERING AND FRUIT SETTING

#### **CHARACTERISTICS**

**FLOWER 50** provides Phosphorus immediately assimilated by the plant. **Especially indicated** in the stages of pre-flowering, flowering and fruit setting. Improve the phytosanitary status of the crops, powering the root system and increases the resistance to stress.

It can be used as a source of Phosphorus in citrus, fruit, vegetables, ornamental, vine, plant nursery etc, especially when the deficiency symptoms occur as a result of an excess of lime active on the soil.

**Phosphorus (P)** is essential for all known life forms, because it is a key element in many physiological and biochemical processes.

Component of each cell in all organisms, Phosphorus is essential and cannot be replaced by anything else. Phosphorus is the most influecing nutrient in the development of flowers and fruits.

By applying **FLOWER 50** in flowering, preowering and fruit setting, you get:

- Improved training and opening of the flowers
- Facilitates the work of pollinating insects
- More and better fruits

APLICATION	DOSE
Foliar	<b>100 - 200 c.c/HI</b> 1-2 L /Ha

COMPOSITION	%w/v
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	50,0
Free amino acids	2,0
Lysine	2,0
Total Organic Nitrogen (N)	0,6
Boron (B)	1,0
Calcium (Ca)	0,005
Density 1,4 pH 5 - 6	





#### **CROPS**

**CITRUS** 

STRAWBERRIES

FRUIT TREES

HORTICULTURAL CROPS

WALNUT

OLIVE

**VINEYARD** 













## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

### **FORTIFIERS**







### **FORTIFIERS**

Biofortification has been defined as the process that increases the concentration of bioavailable essential elements in the edible portions of crop plants through agronomic intervention. In addition, there is the possibility of using these plant products for both human and animal consumption, thus generating a micronutrient flow system.





## **PROTECTOR**



#### FORTIFYING, YIELD AND QUALITY

#### **CHARACTERISTICS**

**PROTECTOR** is a product designed by Agricola de Aspe. It's established as an organic product of vegetable origin. Because of its great purity and quick absorption in different vegetable tissues, PROTECTOR makes an essential product for the growth, maintenance and protection of plants.

Due to its complete systemia (ascending and descending) PROTECTOR stimulates a complete distribution throughout the whole plant and an immediate response from the plants's self-defense systems against external agents such as endogenous and exogenous fungi, agents such as downy mildew in viticulture, Verticilium in olive trees, Phytophtora nicotianae in Horticultural Crops, highly aggressive Eutypa in grape vines and several fruit crops (Eutipiosis), Phellinus igniarius, Stereum hirsutum, producers of yesca in grape vines and grape arbours, pH. Citrophthora in Citrus Fruits, Botrytis, Patristic pernospora in vegetable crops, several types of mildew and other fungi in vegetable crops, stone and pipfruit trees, tropical, subtropical and industrial crops, olive trees, dry fruits, flowers, ornamental plants, etc.

COMPOSITION	%w/v
Total Nitrogen (N) Ureic Nitrogen (N) Zinc water-soluble complex (Zn) Manganese water-soluble complex (Mn) Copper water-soluble complex (Cu)	4,8 4,8 1,0 2,0 2,0
Density 1,2 pH 2,0 Complexing agents: Aluminium Lignosulphonate and gluconic ac	cids



#### **APPLICATION**

CROPS	FOLIAR APPLICATION	DOSAGE
ALL CROPS GRAPEVINES	Wetting the whole plant, including its trunk, well. As a preventive measure, 2-3 times throughout the vegetative cycle Raise the dosage spraying the trunks.	200-400cc per 100lts of water 1 litre per 100 litres of water
CROPS	TRICKLE IRRIGATION	DOSAGE
ADULT TREE PLANTS CROP	Diluted in water before applying Diluted in water before applying Diluted in water before applying	10cc/ Ft 5cc/ Ft 1cc/ Ft
APRICOT COTTON	ALMOND AND HAZELNUT KHAKI CITRUS ORN.	AMENTALS STRAWBERRIES
GREEN BEANS LETTUCE	WATERMELON PEACH OLIVE POTATO PEA	AR AND APPLE TOMATO V













## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

### **GLUCCO**





### GLUCCO



**→** APPLICATION FOLIAR / SOIL

The products GLUCCO meet all the requirements for sustainable agriculture and offers farmers an efficient and natural source of macronutrients and micronutrients for foliar and soil.

GLUCONATES serve as an efficient nutrient carriers and further protect valuable nutrients from undergoing any undesirable chemical transformation under adverse pH conditions when applied directly to natural soil, thus enabling 100% bio-availability of essential nutrients to crops.

GLUCCO is safe to use because it is not phytotoxic and is environmentally friendly.

#### **GLUCCO CHARACTERISTICS**

- Natural nutrient chelates
- 100% water soluble
- Stable over wider pH range
- Compatible with most common agrochemicals
- Biodegradable and organic
- Highly efficient
- Quick and complete assimilation by plants
- For foliar, drip and fertirrigation applications
- Beneficial for variety of soils and crops
- Organic alternative







## **GLUCCO ZnB**



#### COMPLEXED ORGANIC ZN AND B CORRECTOR

#### **CHARACTERISTICS**

GLUCCO ZnB is a product developed to prevent and correct deficiencies of Boron and Zinc in all crops. The complexation of these nutrients by the gluconic acid molecule improves the uptake and transport of these nutrients in the crops.

Glucco ZnB is a product recommended for the preventive control and treatment of states in which there a deficiencies of Mn and Zn.

ZN and B com	nlex hv a	luconic organ	nic compound.
TIT GIIG D COIII		incomine or gain	no compound

#### Effective source of Zn and B.

- Formation of growth hormones
- Seed and grain formation
- Promotes maturity Plant heigh

- Transformation and consumption of carbohydrates

#### **BORON**

- **Protein synthesis**
- Formation of plant hormones

- Promotes maturity Increase in flowering set Affects nitrogen and carbohydrate metabolism
- **Water relation in plant**

COMPOSITION	%w/v
Zinc (Zn)	6,50
Boron (B)	4,00
Density: 1,37	



#### **DOSAGE AND APPLICATION**

Crop	Dosage	Objectives applications
Apples, Pears, apricots, peaches, cherries	2-3L/ha	Apply at 30% blossoming and again after harvest in the autumn. Do not exceed a 0.1 application rate (100ml ml/100l water) Apply as full cover spray before and after flowering as well as after harvesting.
Olives	1-2L/ha	
Citrus	25-50ml /tree 2-4L/ha	Apply in a minimun of 3000L water/ha as a full cover spray. Apply at a maximun rate of 4kg/ha. Do not apply more than once per year to young trees.
Cotton	1-2L/ha	Apply at first square, with first flowers and when bolls are forming.
Cruciferae(Lettuce, beetroot, celery)	1-2L/ha	Apply as a full cover spray and repeat every 3 weeks as required.
Flowers and Ornamental	s 1-2L	Apply at 4 weeks intervals as required.
Figs	1L	Apply as a full cover spray after budbreak, but before set of the breba crop. Repeat application after harvesting the main crop.
Lucern	1-2L/ha	Apply as a full cover spray 10 after each cutting.
Maize	5-15L/Ha 1-3L/ha	Apply evenly over soil surface before planting. Apply as a full cover spray and repeat as required.
Onions	1-2L/ha	Apply at pencil stage, bulb stage and 14 days after bulbing.
Potatoes	1-3L/ha	Apply as a full cover spray and repeat at 3-4 weeks intervals as required.
Strawberries	1-3L/ha	Apply once before flowering.
Sugar beet	2-3L/ha	Apply at 8-10 leaf stage and repeat as required.
Sunflowers	5-15L/ha 1-3L/ha	Apply evenly over soil surface before planting, apply as a full cover spray and repeat as required.
Tomatoes	1-2L/ha	Apply as a full cover spray and repeat as required.
Wine and table grapes	1-2L/ha	Apply just before flowering and then again directly after harvest. Do not exceed a 0,1% application rate (100grams/100l water).
Vegetables in general	2-4L/ha 200-300cc/100ml	Nutritional correction. From sprouting to post-harvest.

CAUTION: LIQUID ZONNEBOR: May be compatible with many agricultural chemicals. Its advisable to do a miscibility test prior to mixing with other chemicals. LIQUID ZONNEBOR: Should preferably be applied in the early morning or late afternoon. Do not apply to plants that are undergoing a period of moisture or heart stress.















## glucco Ca



#### **COMPLEXED ORGANIC CALCIUM CORRECTOR**

#### **CHARACTERISTICS**

**GLUCCO** Ca is a gluco-complexed liquid fertilizer for use as a foliar feed to maintain or increase calcium levels in plants

GLUCCO Ca is specifically designed to provide Calcium to fruit and vegetable crops more efficiently than other forms of Calcium. Gluconic acid complexes calcium ion enabling it to move into the plant via the phloem.

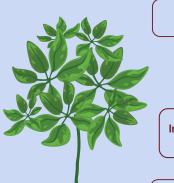
GLUCCO Ca complex reaches the fruit forming tissue, the sugar bond breaks down and the Calcium flows to where it is needed.

Unlike Calcium Chloride and Calcium Nitrate, GLUCCO Ca will not produce injuries to the foliage and fruit, such as burned leaves and spotted fruit enabling GLUCCO Ca to be used during the growing season.

#### **ADVANTAGES**

As rapidly absorbed by the Plant Root System and their regular use improves the uptake of nutrients by the plant roots enhancing better growth

Increases in number of leaves



Increases yield

Increases leaf area/size

Increases height of the plant

Better/increase dry weight

#### **COMPOSITION**

%w/v

Calcium (CaO) Density: 1,2

8,0

Natural Chelating Agent (Gluconic Acid)



Shake it before use

CAUTION: check compatibility with standard jar test.

#### DOSAGE AND APPLICATION

Crop	Aim / problem	Recommendation	Time
Cereals	Vitality, stalk stability	1-3 times 5 I/ha	From the beginning of tillering.
Citrus fruits	Vitality, fruit firmness, storage and transport stability.	2-5 times 5 I/ha	From fruit set.
General Vegetables	Vitality, fruit strength, storage and transport stability, against internal fire, margin necrosis and flower rot. $ \\$	2-5 times 5-10 l/ha	Once sufficient leaf mass had developed or from fruit set to harvest.
In all crops	For calcium supply, cell wall strength, reduction of radiation stress (anntioxidant), improvement of fruit quality and storage stability	5-10 I/ha (for leaf fertilisation with at least 500 litres of water. In case of application with the backpack sprayer 1%. Only in chloride-insensitive Cultures and not during flowering!)	When required
Oilseed rape	Vitality, stalk stability	1-3 times 5- 10 I/ha	From 4-leaf stage
Ornamental plants	Vitality, leaf quality, transport stability.	1-3 times 5 I/ha.	Once sufficient leaf mass has developed.
Pome fruit	$\label{thm:continuous} Vitality, fruit firmness, storage and transport stability. Bitter \ pit.$	4-6 times 5-10 I/ha.	From walnut size to harvesting.
Potatoes	Tuber and skin quality, improvement in storage life.	2-4 times 5 I/ha	From beginning of row closure.
Stone fruit	Vitality, fruit firmness, storage and transport stability.	2-5 times 5-10 I/ha.	From fruit set.
Strawberries	Vitality, fruit firmness, storage and transport stability.	2-4 times 5 I/ha.	From fruit set
Sugar beet	Quality, storage and transport stability.	1-3 times 5 I/ha	From 6- leaf stage.
Sunflowers	Vitality, stalk stability	1-3 times 5 I/ha	From 4-leaf stage
Table grapes	Vitality, berry skin firmness, storage and transport stability.	2-5 times 5 I/ha	Pea size to harvesting.
Tomato	Vitality, quality, firmness	Drip irrigation: 1 - 3 times I/ha Foliar application: 300 cc/hL (0.3%)	Carry out 3 - 4 treatments, from setting to the first clusters.
Wine grapes	Vitality, berry skin firmness, storage and transport stability	2-5 times 5 I/ha	Pea size to harvesting.















## **GLUCCO Ca+B**





**Complexed Organic Calcium and Boron Corrector** 

#### **CHARACTERISTICS**

GLUCCO CaB is a specialized liquid fertilizer for boosting growth & fruit quality. GLUCCO CaB is a fast-acting liquid fertilizer for improving fruit quality and protecting and fortifying new shoot growth. GLUCCO CaB is developed to be used as source of these elements and correct insufficiencies due to deficiencies or mbalances in the assimilation of these elements. Thanks to its complexing agent, it is absorbed and processed rapidly by the crop. GLUCCO CaB is specially developed to control aseptic blossom and rot in tomatoes, cucumbers, and olives, as well as fruit cracking due to deficiencies in some fruits, leaf necrosis in lettuce, bitier pit in apples, blackheart in carrots and celery, and witches' broom roots in nurseries.

CALCIUM is essential for maintaining bio-membranes and contributes to cell wall stabilization. It acts as an enzyme activator in osmoregulation, influencing cation-anion balance. Consequently, it plays crucial roles in enhancing resistance to diseases and abiotic stresses like drought, heat, and cold.

BORON is necessary for cell wall synthesis and cellular expansion. Deficiency in boron disrupts reproductive growth and reduces pollen viability, impacting seed production and yield. Insufficient boron can lead to malformed leaves and a decline in the quality of the harvested produce.

# COMPOSITION %w/v Calcium ( CaO ) 12,0 Boron (B) 1,25 Complexing Agent: Gluconic Acid Density: 1,38 g/cc



#### **DOSAGE AND APPLICATION**

CROP	RATE	TITME	CROP	RATE	TIME
Cucurbits	2-3L/ha 4-6L/ha	Apply from early fruits development through to	Potatoes	7,5L/ha	At tuber set and repeat 4 weeks later.
		harvest at 21 days intervals.	Strawberries	5L/ha	Every 7 days over the leaf.
Grape Table	5L/ha 8L/ha	Apply from flowering, then every 14-21 days or as required while fruit sizing.	Tree crops: pome, stone fruits	4L/ha	Apply from flowering or as required while fruit se⊠ng at 7-14 days intervals.
Grape Wine	3L/ha 5L/ha	Apply from flowering, then every 14-21 days or as required while fruit sizing.	Tree crops: Apple	5L/ha	Apply 5-6 ⊠mes star⊠ng at fruit set every 14-21 days.
Lettuce	3-5L/ha 4-6L/ha	Apply when leaf area is sufficient to accept spray, repeat 2-3 applica⊠ons as required.	Tomatoes	7L/ha	Apply when leaf area is sufficient to accept spray or from flowering onwards.
Mangoes	2-4L/ha	Apply from early development		14L/ha	Repeat at 14 days intervals
Wangoes	4-6L/ha through to harvest at 21 da	through to harvest at 21 days intervals.	GENERAL RATE: 5-7.	7.5L/ha	

GLUCCO CaB is compatible with most fertilizers and agrochemical products known, although

it is advisable to perform a previous test. Do not mix with natural oils, copper, sulphur or alkaline reaction products. It may present problems with fertilizing containing phosphates















## **GLUCCO Fe**



COMPLEXED ORGANIC IRON CORRECTOR

#### **CHARACTERISTICS**

**GLUCCO Fe** is a Fe complexed formulation with gluconic acid that gives stability to the product in extreme conditions. This complex ease the uptake and release of the nutrients in the plant.

#### WHAT IS Fe IMPORTANT FOR?

Iron deficiency. The most obvious symptom in plants is commonly called leaf chlorosis.

This is where the leaves of the plant turn yellow, but the veins of the leaves stay green.

Tipically, leaf chlorosis will start at the tips of new growth in the plant and will eventually work its way to older leaves on the plant as the deficiency gets worse.

Other signs can include poor growth and leaf loss, but these symptoms will always be completed with the leaf chlorosis.

#### Can be used in fertigation

- It's especially suitable for foliar application, as it is very gentle and acts without phytotoxicity
- It's highly water-soluble
- It's stable in the pH value range 2 12
- It's suitable for use in organic agriculture
- Offers an environmentally friendly alternative due to its easy biodegradability (no accumulation in the soil and groundwater)
- Offers very good cost-effectiveness

#### **COMPOSITION**

%w/v

Iron (Fe) pH 6-7 Density: 1,2

6, 9

Natural Chelating Agent (Gluconic Acid)



#### **DOSES AND APPLICATION**

FOL	IAR APPLICATION			(Y) so	IL APPLICATION		
Crop	Aim/Problem	Recommendation	Time	Crop	Aim/Problem	Recommendation	Time
In all crops	To provide iron	3 - 7 L/Ha (in at least 300L water. Upon application with backpack sprayer 1%. Early application are more effective).	When required	Dessert Grapes	Prevention and alleviation of iron chlorosis	Lances per cane: 15-20 mL ( with 1L water )	In February/March
Dessert Grapes	Prevention and alleviation of iron chlorosis	3 - 7 L/Ha (not during flowering)	From 3 leaf stage	Ornamental Plants	Prevention and alleviation of iron chlorosis	5-10mL( with 1L water/ $m^2$ or for fertigation, a maximum of 400 mL in 1000L water.)	When required
Greens	Prevention and alleviation iron chlorosis	5 - 7 L/Ha (in at least 400L water. 50-70mL/100m² in at least 4L water/100m² ).	When required	Pome fruit	Prevention and alleviation iron chlorosis	3-7 L/Ha	In February/Marc
Ornamental Plants	Prevention and alleviation iron chlorosis	3 - 7 L/Ha (1L per 100L spray water, not during fflowering)	When required	Soft fruit	Prevention and alleviation iron chlorosis	Numerous applications 3-7L/ha	In spring from the start of vegetation
Pome fruit	Prevention and alleviation iron chlorosis	3 - 7 L/Ha	From hazelnut size	Stone fruit	Prevention and alleviation iron chlorosis	30-60mL/tree (in the irrigation procedure)	In February/March
Soft fruit	Prevention and alleviation iron chlorosis	400-500mL (per 100m row)	In February/March	Strawberries	Prevention and alleviation iron chlorosis	300-400mL (per 100m row)	In February/March
Stone fruit	Prevention and alleviation iron chlorosis	1-2 times, 3-7L/Ha	Fruit set to harvesting	Wine grapes	Prevention and alleviation iron chlorosis	Lances per cane: 15-20 mL ( with 1L water )	In February/March
Strawberries	Prevention and alleviation iron chlorosis	Numerous applications, 5-7L/ha	In spring from the start of vegetation				
Wine grapes	Prevention and alleviation iron chlorosis	3 - 7 L/Ha (not during flowering)	From 3 leaf stage				

#### **Cautions**

Glucco Fe is compatible with all commonly used plant protection products. Since not all the influences appaearing in practice are predictable, a miscibility test with small amounts of the products provided for the sprying is always useful. In case of mixture with fertilizers or plant protection products fill sprayer up to 2/3 with water and add products separately. Add Glucco Fe as the last componen. Apply immediately stiring constantly.















## GLUCCO K



#### **CHARACTERISTICS**

**GLUCCO K** is a potassium fertilizer with a neutral pH. It is fully soluble in water and can be assimilated by leaves or roots.

The potassium in **GLUCCO K** is complexed by gluconic acid, which facilitates the absorption and transport of potassium through the phloem. This is the pathway through which the element reaches the tissues of the fruit and the rest of the plant where it is needed. The periods of highest potassium demand coincide with the development, growth, and maturation of fruits, roots, and tubers.

Improves size and color.

Promotes fruit fatening and maturation.

Enhances resistance to water and thermal stress.

#### **COMPOSITION**

%w/v

Potassium (K<sub>2</sub>O) Density: 1,31 pH: 7

30,0

Natural Chelating Agent (Gluconic Acid)



#### **APPLICATION**

Сгор	Application	Dose
CITRUS COTTON FRUITS HORTICULTURAL OLIVE TREE	Curd, fatening before harvest 2-4 treatments throughout the crop cycle. In curd and coagulation, fatening before harvest. 2-6 applications during the crop cycle. In curd, in grilling, and before harvest.	Fertigation: 15-40 L / ha
ORNAMENTAL STRAWBERRIES SUGARBEET TROPICAL FRUIT WINE	<ul><li>2-4 treatments during the crop cycle.</li><li>1-3 treatments, barely fruit and tuber formation</li><li>From two months before harvest.</li><li>2-4 treatments during the crop cycle</li><li>During the fruit fatening and coloring period.</li></ul>	Foliar application: 300-600 mL / 100 liters

GLUCCO K is compatible with most fertilizers and phytosanitary products commonly used in agriculture. However, it is recommended to conduct a preliminary test before mixing them. To improve fruit quality (sugar, color, firmness, etc.), apply from the early stages of fruit development, with an interval of 10 to 20 days

Shake it before use















## **GLUCCO Mg**



#### **CHARACTERISTICS**

Magnesium deficiency corrector for foliar application, fertigation, and soil incorporation.

**EFFICACY:** Metallic ions sequestered by gluconic acid do not react with other soil components, even in highly acidic or calcareous soils.

**RAPID ACTION**: Glucco Mg, being derived from a natural sugar, quickly enters the plant's metabolism through foliar or root pathways. The application of chelated Magnesium ensures optimal absorption of this nutrient, particularly through foliar application, with high phytocompatibility.

#### THE ROLE OF Mg IN PLANT

- Mg is necessary for cell division and protein formation
- Mg is essential for plant respiration
- Mg acts as a phosphorus carrier in plants and is essential for phosphate metabolism
- Mg is the central component of chlorophyll

#### **GENERAL DEFICIENCY SYMPTOMS**

- Chlorotic leaves with brilliant colors
- Overall yellowing with green veins
- Dropping leaves
- Chlorosis appears first on older leaf tips, moves inward
- Necrotic spots on leaves
- Excessive, premature fruit drop

#### **COMPOSITION**

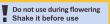
%w/v

Magnesium (MgO) Complexant Agent: Gluconic Acid Density: 1,32 6,0



### APPLICATION

Crop	Application mode	Dose
FRUIT TREES	SOIL	Nursery: 1,5 – 10cc/stock Young trees: 4 – 50cc/stock Trees in production: 10 – 150cc/stock
	FOLIAR	300 cc/hl since sprouting
CITRUS	SOIL	Nursery: 1 – 7,5cc/stock Young trees: 7,5 – 50cc/stock Trees in production: 20 – 125cc/stock
	FOLIAR	300cc/hl before flowering, after petals drop and at the beginning of summer sprouting.



Crop	Application mode	Dose
HORTICULTURALS	SOIL	1 – 2 cc/stock
	FERTIGATION	0,5 – 1L /ha
	FOLIAR	300cc / hl
STRAWBERRIES	SOIL	15 – 35L/ha
	FERTIGATION	10 – 30L/ha ( Repeat during the whole cycle )
	FOLIAR	300 cc / hl since planting
CORN, BEET	SOIL	1,5 – 2,5L/ha and application
	FOLIAR	300cc/hl















## GLUCCO Mn



#### **CHARACTERISTICS**

**GLUCCO Mn** is an organic fertilizer. Mn is chelated by gluconic acid, which makes an easier uptake and transport through the plant. This way it keeps or corrects the ideal levels of Mn in the crops. Manganese supplied to plants in Glucco Mn is:

Efficiently and quickly taken up by plants from solutions in foliar nutrition.

Safe for plants (according to the recommended doses).

Stable in multicomponent solutions used in foliar treatments.

#### Glucco Mn is essential for:

- Activation of enzymes for the synthesis of chlorophyll
- The assimilation of nitrogen.
- Synthesis of ascorbic acid
- Oxidation reduction reactions in photosynthesis

Manganese deficiency is shown by yellowing of leaves, black spots on the leaf, light green mottling between main veins, loss to quality, eg. Poor skin finish in potatoes.

#### WHY IS Mn IMPORTANT FOR?

Manganese is used in plants as a major contributor to several biological systems including photosynthesis, respiration and nitrogen assimilation. Manganese is also involved in pollen germination, pollen tube growth, root cell elongation and resistance to root pathogengs.

Transport of Mn within the phloem is limited. Therefore any deficiency symptoms will generally be visible first on the younger leaves. Severe deficiency symptoms can lead to interveinal yellowing with brown or grey flecks (grey speck in oats) and the brown discolouration of cotyledons and seeds of legumes.

Delayed maturity is another deficiency symptom in some species. White / Gray spots on leaves of some cereal crops are a sign of Manganese deficiency.

Once applied, either into the soil, hydroponics or foliar, product is readily assimilated by plants, and Mn on it moves free into floem.

#### **COMPOSITION**

%w/v

Manganese (Mn) pH 6-7

Density: 1.3

Natural Chelating Agent Gluconic Acid)



#### **Cautions**

Glucco Mn is compatible with the common plant protection products. Since not all the influences appearing in practice are predicatble, a miscibility test with small amounts of the products provided for th spraying is always useful. In case of mixture with fertilizers or plant protection products fill sprayer up to 2/3 with water and add products separately. Add Glucco Mn as the last component.

#### **FOLIAR APPLICATION**

Crop	Aim / problem	Recommendation	Time
In all crops	To provide Mn	1-3 L/Ha (with foliar fertilizer in at least 200 L water. Upon application with backpack sprayer 0.5% - 1% numerous applications of small amounts increase effectiveness)	When required
Cereals	Yield, N efficiency, photosyntesis rate, winter hardiness	2-3 L/ha (recommendation for winter cereals)	In autumn from the 3 leaf stage
Cereals	Tillering, yield, N effciency, stability	2-3 L/ha (recommendation for winter cereals)	In spring from the start of vegetation
Cereals	Tillering, yield, N effciency, stability	2 times, 2-3 L/ha (recommendation for summer cereals)	From 3 leaf stage.
Potatoes	Reduction in susceptibility to scab	2-3 L/ha	From 3 leaf stage.
Potatoes	Skin quality, resilence	1-2 times, 2-3 L/ha	From the beginning of row closure
Legumes (soy included)	Yield, photosynthesis rate, resilience, winter hardiness	1-2 times, 2-3 L/ha	From 6 leaf stage
Oilseed rape	Yield, photosynthesis rate, resilience, winter hardiness	2-3 L/ha	In autumn from the 4 leaf stage.
Oilseed rape	Yield, photosynthesis rate, resilience, winter hardiness	1-2 times, 2-3 L/ha	In spring from the start of vegetation through to the beginning of flowering
Sugar beet	Yield, photosynthesis rate, winter hardiness	3-5 times, 2-3 L/ha	From 6 leaf stage
General vegetables	Improvement on leaf quality, photosyntesis rate, N efficiency	2-3 times, 2-3 L/ha	Once sufficient leaf mass has developed















## GLUCCO Mo



#### **CHARACTERISTICS**

#### **CHARACTERISTICS**

Glucco Mo is a Mo formulation with gluconic acid that gives stability to the product in extreme conditions. Glucco Mo ease the uptake and release the Molybdenum in the system soil -plant.

**MOLYBDENUM – ROLE OF NUTRIENT** 

#### **OPTIMIZES PLANT GROWTH**

AIDS IN THE FORMULATION OF LEGUME NODULES.

CONVERTS NITRATED (NO $_{_{3}}$ ) INTO AMINOACIDS AND PROTEINS WITHIN THE PLANT

#### INVOLVED IN THE SYNTHESIS OF ABA.

CONVERTS NITRATES INTO AMINO ACIDSAND PROTEINS WITHIN THE PLANT.

ESSENTIAL FOR THE PROCESS OF SYMBIOTIC NITROGEN FIXATION BY RIZHOBIA BACTERIA IN LEGUME CROPS.



OPTIMIZE PLANT GROWTH

INVOLVED IN SYNTHESIS OF ABA

#### Consequences of molybdenum deficiency:

- Reduction of leaf lamina in legumes.
- Edge and full leaf chlorosis.
- Necrosis.
- Disruption of formation of cauliflower and broccoli heads,

**FOLIAR APPLICATION** 

- Cauliflower leaves become lanceolate and younger leaves are reduced ("whiptail").
- Poor nitrogen utilization, excessive accumulation of nitrates in vegetables
- Limited bonding of atmospheric nitrogen.
- Wraker resistance of diseases.

#### Cautions

Harmful if swallowed. Avoid contact skin, eyes and clothing. Causes eye irritation. Avoid spray mist. Wash hands thoroughly after using. In case of eye contact, flush eye with water for at least 10 minutes and get medical attention.

#### STORAGE AND DISPOSAL:

Do not contaminate water, foot, or feed by storage or disposal. Store in a cool, dry, locked area out of reach of children. Check the compatibility with chemical mixtures and hight phosphate and alkaline (high pH) solutions

Crop	Aim / problem	Recommendation	Time
Citrus Fruits	N efficiency, vitality, leaf quality (yellow spot)	1-4 times 0,25 L/ha	From white buds
In all crops	For molybdenum nutrition, N efficiency, yield, photosynthesis rate.	0,25 L/ha (as foliar fertilization in at least 200L water. Upon application with backpack sprayer 0,1%)	When required
General Vegetables	Yield, improvement in nodulation, N efficiency, vitality	1-2 times 0,25 L/ha	Once sufficient leaf mass has developed
Legumes	Improvement in nodulation, N efficiency, vitality	1-2 times 0,25 L/ha	From 6 leaf stage
Medicinal plants, scented plants and spice plants	Yield, improvement in nodulation, N efficiency, vitality	1-2 times 0,25 L/ha	Once sufficient leaf mass has developed
Oilseed rape	To prevent whiptail symptoms, vitality, N efficiency	1-2 times 0,25 L/ha	From 4 leaf stage
Pasture land	Improvement in nodulation, N efficiency, vitality.	2-3 times 0,25 L/ha	During the vegetation period.
Sugar beet	To prevent distorted curding and whiptail symptoms, vitality, N efficiency.	1-2 times 0,25 L/ha	From 6 leaf stage
Sunflowers	N efficiency, vitality	1-2 times 0,25 L/ha	From 4 leaf stage

#### **PACKING:**













%w/v

Molibdenum (Mo) Density: 1.2 6.0

Natural Chelating Agent (Hepta-Gluconic Acid)



## GLUCCO Zn



#### **CHARACTERISTICS**

**GLUCCO Zn** is a Zn fertilizers solution complexed with gluconic acid. Once applied, either into the soil, hydroponics or foliar, product is readily assimiliated by plants, and Zn ion it moves free into floem.

Zn (Zinc) in GLUCCO Zn is chelated by gluconic acid in a ferric ammonium salt, assimilable and usable form by the plant, both foliar and root application. This provides to the product a high solubility.

#### WHAT IS Zn IMPORTANT FOR?

**GLUCCO Zn** is a key contituent of many enzymes and proteins. It plays an important role in a wide range of processes, such as growth hormone production and internode elongation.

Zinc deficiency is probably the most commons micronutrient deficiency in crops worldwide, resulting in substantial losses in crop yields and human nutritional health problems.

Deficiency in Zinc might result in significant reduction in crop yields and quality. In fact, yield can even be reduced by over 20% before any visual symptoms of deficiency occur.

Symptoms of Zinc deficiency include one or some of the following:

- stunting reduced height
- Interveinal chlorosis
- Brown spots on upper leaves

COMPOSITION	%w/v
Zinc (Zn)	5.8
pH 6-7	
Density: 1.27	
Natural Chelating Agent (Gluconic	Acid)



FOLIAR APPLICATION						
Crop	Recommendation	Time				
In all crops	1-3 L/Ha (with foliar fertilizer in at least 200L of water. Upon application with backpack sprayer 0.25 - 0.5%)	When required				
Cereals	2L /Ha (recommendation for winter cereals)	In autumn from the 3 - leaf stage				
Cereals	2L /Ha (recommendation for winter cereals)	In spring from the start of vegetation				
Cereals	2 times, 2L /Ha (recommendation for summer cereals)	From 3 leaf stage				
Legumes (soy included)	1-2 times, 2L/Ha	From 6 leaf stage				
Maize	2 -3 L/Ha	From 4 leaf stage				
Hops	3 - 5 times, 2-3 L/Ha	0.5 m growth height to beginning of flowering				
Apples and Pears	3L	2 applications, one early season and again after harvest in a minimum of 500L. Apply in 500 to 2000L water per ha.				
Beans, groundnuts, peas, soybeans	2L	One to two applications early in 200L water per hectare.				
Brassicae ( cabbage, etc. )	2L	Apply at the first signs of a deficiency and repeat 3 to 4 weeks later if necessary. Apply in 500L water per hectare.				
Citrus	3L	Apply as a full cover spray in spring to all new growth. Two to three applications. Do not spray directly before or during harvest. Apply in 2000L water per hectare				
Cotton	2L	Do first application early in the season and repeat the application if required. Apply in 500L water per hectare				
Cucurbit (Pumkins, etc)	2L	Apply at the first signs of a deficiency and repeat 3 to 4 weeks later. Apply in 500L water per hectare.				
Lettuce	2L	One to two application early in the growing season. Apply in 500L water per hectare.				
Solanaceae ( peppers, etc. )	2L	Apply at the first signs of a deficiency and repeat 3 to 4 weeks later if necessary. Apply in 500L water per hectare.				
Solanaceae ( peppers, etc. )	2L	Apply very early in the season and then again after harvest. Apply in 500L water per hectare.				

### SCHEMATIC DIAGRAM OF THE CAUSES OF ZINC DEFICIENCY IN CROPS

	Low total Zinc content in		
Low manure application	soil (e.g. sandy soils)		High Soil pH (e.g. calcareous soils, heavily limed soils)
	ZINC DEFICIENCY CROP		,
Zinc inefficient crop varieties	Reduced yield		High Phosphate applications
	impaired quality		
High soil organic			High salt
matter content (e.g. histosols)	Waterlogging/flooding of soil (e.g. rice paddy)		concentrations (salinity)
	o. co (c.g. rice paday)		

#### Cautions

Glucco Zn is compatible with most agricultural remedies. It is however advisable to do a miscibility test prior to mixing with other chemicals. Do not mix Glucco Zn with highly alkaline material such as LIME SULPHUR and BORDEAUX mixture, or with any phosphate-containing fertilizers.



















**COMPLEXED ORGANIC MANGANESE** AND ZINC CORRECTOR

#### **CHARACTERISTICS**

 $\textbf{GLUCCO}\,\textbf{MnZn} is \, a \, product \, developed \, to \, prevent \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, of \, Manganese \, and \, Zincolonic \, and \, correct \, deficiencies \, and \, correct \, deficiency \, and \, correct \, and \, co$ in all crops. The complexation of these nutrients by the gluconic acid molecule improves the uptake and transport of these nutrients in the crops. GLUCCO MnZn is a product recommended for the preventive control and treatment of states in which there are deficiencies of Mn and Zn.

#### **IMPORTANCE OF ZINC IN PLANTS**

Zinc is an essential constituent of several important enzyme systems that affects many metabolic processes in the plant. It controls the synthesis of indoleacetic acid, and important plant growth regulator that is crucial for active growing tips and leaf enlargement. Terminal growth areas are affected first when Zinc is deficient. Zinc is also critical in the bud differentiation process.

#### **IMPORTANCE OF MANGANESE IN PLANTS**

Manganese plays a key role in chlorophyll production. Because it is used to split the water molecule during Photosynthesis. It is essential for plant health. Manganese also activates more enzym than any other nutrient. It is especially important in the production of proteins that are part of the plant's natural defenses against disease.

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HIGHER QUALITY AND YIELD

INCREASES THE VITAMIN C CONTENT

IMPROVE FROST TOLERANCE

OPTIMAL ASSIMILATION OF Mn AND Zn

PREVENTIVE AND CURATIVE ACTION

STIMULATES METABOLIC PROCESSES SUCH AS CHLOROPHYLL FORMATION

#### **COMPOSITION**

%w/v

Manganese (Mn) Zinc (Zn)

5.0 5.0

pH 6-7

Density: 1.27

Natural Chelating Agent (Gluconic Acid)



Mn and Zn complexed by gluconic organic compound

**Balanced composition** 

Effective source of Mn and Zn

#### **APPLICATION**

Crops	Dosages	Objectives application
Citrus, avocado	2-4 L/ha 200-300 cc/100L	Boost vegetative growth. Start of sprouting in spring. Start of sprouting in autumn
Fruit trees of bone and pips	2-4 L/ha 200-300 cc/100L	Nutritional correction. From sprouting to post-harvest.
Vegetables in general	2-4 L/ha 200-300 cc/100L	Nutritional correction. From sprouting to post-harvest.
Strawberries and berries	1-2 L/ha 100-200 cc/100L	Nutritional correction. At any time of vegetative development.
Melon, watermelon, cucumber	2-3 L/ha 200-300 cc/100L	Nutritional correction. At any time of vegetative development.
Potatoes	2-4 L/ha 100-200 cc/100L	Nutritional correction. At any time of vegetative development.

#### **Cautions**

GLUCCO MNZN is compatible with most of the available fertilizers and phytosanitary products, even though it is advisable to perform a previous test. Do not mix with mineral oils, dinocap or reactive alkaline products.









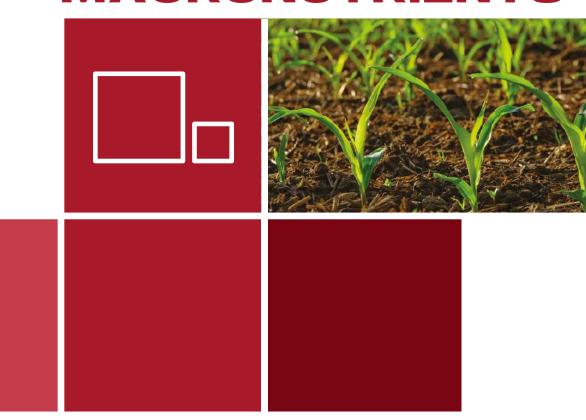






CROP NUTRITION
AND BIOPROTECTION

### **MACRONUTRIENTS**





### **MACRONUTRIENTS**

#### Nitrogen (N)

Nitrogen is the nutrient with the greatest influence on crop yield through the effect on chlorophyll and protein production.

- Intensifies the green colour (chlorophyll).
- Increases leaf size
- Increases growth rate
- Increases total yield
- Increases protein content

#### Phosphorus (P)

Phosphorus is important in root development, the ripening processes and particularly in the manufacture and use of sugars and complex carbohydrates. A good supply of phosphorus is essential in the early stages of a plant's life and for early maturity.

- Stimulates root development
- Helps plants to become stablished early in the season
- Encourages maturity

#### Potassium (K)

Potassium is associated with the regulation of water within the plant and with the control of water loss from the leaves. It is particularly important in plants than store large amounts of sugar and starch e.g. potatoes. It is also vital for the root nodule bacteria on legumes which fix nitrogen from the air.

- Encourages healthy growth
- Renders crops more resistant to drought and disease
- Improves the quality of the produce

#### Magnesium (Mg)

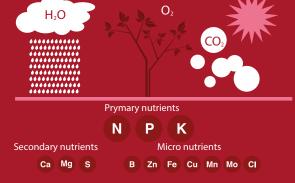
This nutrient is an important constituent of chlorophyll and a large number of enzymes necessary for normal growth. It plays an active part in the movement of nutrients, especially phosphate, within the plant and is associated with the control of water within plant cells.

#### Sulphur (S)

Sulphur is an essential component of several plant amino acids, the building blocks of protein. Deficiency of this element shows as pale leaves, and stunted growth. This results in reduced yields and protein contents. In parts of the world, air pollution has been reduced as cleaner industries emit less sulphur dioxide and there has been an increasing incidence of sulphur deficiency. This has especially occurred in crops with higher sulphur requirements such as oilseed rape, legumes, and grass cut for silage or hay.

#### Calcium (Ca)

Calcium is required for plant growth, cell division and elongation. Root and shoot tips and storage organs are affected by calcium deficiency as it is part of cell membranes. Calcium is also vital for pollem growth.











NPK FERTILIZER WITH TRACE ELEMENTS. GEL FORMULATION FOR FERTIRRIGATION AND FOLIAR APPLICATION

**SOLDENSO** Is a formulated nutritional product and not just a simple mixture of raw materials, as are most of NPK fertilizers in powder form.

solubility of all the nutrients, during use, while avoiding sedimentation in the storage containers of the nutrient solution. In contrast, common NPK water soluble powder fertilizers, which are produced through a mixture of raw materials, have increase variability in grain size that results in a non-uniform dilution of nutrients, since the smallest grains are dissolved firstly.

The conductivity and the salinity index are maintained in very low levels so that the soil will not be burndened with undesirable, salt concentration.

#### **CHARACTERISTICS**

Neutral pH, unlike most liquid foliar that are highly acidic or highly alkaline. SOLDENSO can be used at higher doses, not being aggressive with the cells that form stomas.

More comfortable for the farmer to dosing per volume instead of on weight.

Best solution in terms of speed and ease to use. Allow higher liquid dispersion homogeneity than solid products.

Guarantee solubility by its GEL formulation.

Adjuvant: promotes effectiveness of plant protection products when applied jointly.

Multiple formulas for different crops and different stages of growth.



During the vegetative and fruit stages



For application during the vegetative stage and stress situation



Improves the development of the root system and promotes flowering and fruit set

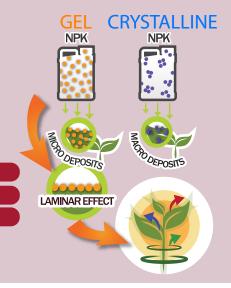


Improves fruit sugar content and promotes fruit development and size



**BETTER UPTAKE** 

HIGHER EFFICIENCY





















NPK FERTILIZER WITH TRACE ELEMENTS. GEL FORMULATION FOR FERTIRRIGATION AND FOLIAR APPLICATION

#### **SOLDENSO FORMULATIONS:**



SOL Denso Equal 27-27-27+Te
SOL Denso Equal 25-25-25+Te
SOL Denso Equal 22-22-22+Te
SOL Denso Equal 20-20-20+Te



SOL Denso Blue 45-00-00+Te
SOL Denso Blue 18-11-14+Te
SOL Denso Blue 28-11-14+Te



SOL Denso Green 10-50-10+Te
SOL Denso Green 13-40-13+Te
SOL Denso Green 20-30-10+Te
SOL Denso Green 10-30-10+Te



 SOL Denso Red
 00-00-60+Te

 SOL Denso Red
 12-05-42+Te

 SOL Denso Red
 04-40-55+Te

 SOL Denso Red
 10-10-50+Te



















NPK FERTILIZER WITH TRACE ELEMENTS. GEL FORMULATION FOR FERTIRRIGATION AND FOLIAR APPLICATION

## SOLDENSO SPECIALS<sup>+</sup>

#### **SOLDENSO SPECIAL FORMULATIONS:**



+ Amino Acids

**SOL Denso Equal** 

**SOL Denso Blue** 

**SOL Denso Green** 

**SOL** Denso Red

**SOL Denso Red** 

20-20-20+Te+3Aa

45-00-00+Te+3Aa

10-50-10+Te+3Aa

10-15-30+Te+3Aa

15-10-30+Te+3Aa



+ Fulvic Acids

**SOL Denso Equal** 

**SOL Denso Blue** 

20-20-20+Te+6,5%FA

19-09-11+Te+10%FA



+ Macronutrients

**SOL Denso Equal SOL Denso Equal** 

**SOL** Denso Blue

**SOL Denso Blue** 

SOL Denso Green

**SOL Denso Red** 

**SOL Denso Red** 

20-20-20+Te+4,7MgO

25-25-25+Te+3,8MgO

14-07-14+Te+14CaO

14-00-08+Te+17CaO+3,6MgO

12-65-05+Te+0,5MgO

09-09-39+Te+6,7MgO

18-11-59+Te+2,0MgO



+ Seaweed

SOL Denso Equal SOL Denso Blue

20-20-20+Te+5% Seaweed 19-09-11+Te+5% Seaweed



















COMPOSITION

Iron (Fe) chelating agent EDTA

Zinc (Zn) chelating agent EDTA

Copper (Cu) chelating agent EDTA

Manganese (Mn) chelating agent EDTA

Phosphorous Oxide(P<sub>2</sub>O<sub>5</sub>)

Potassium Oxide (K,O)

Total Nitrogen (N)

Molybdenum (Mo)

Boron (B)



%w/v 20.00

20,00

20,00

0.016

0.047

0,016

0,016

0.016

0,016

#### **SOLUBLE FERTILIZER**

#### **CHARACTERISTICS**

**SOLDENSO** is a formulated nutritional product and not just a simple mixture of raw materials, as are most of NPK fertilizers in powder form.

SOLDENSO has an uniform and simultaneous solubility of all the nutrients, during use, while avoiding sedimentation in the storage containers of the nutrient solution. In contrast, common NPK water soluble powder fertilizers, which are produced through a mixture of raw materials, have increase variability in grain size that results in a non-uniform dilution of nutrients, since the smallest grains are dissolved firstly.

The conductivity and the salinity index are maintained in very low levels so that the soil will not be burndened with undesirable, salt concentration.

Application is suitable for different crops: fruit trees, coffee, olive trees, vegetable crops, industrial crops, meadows, etc. It can be used in drip irrigation, foliar application and flood irrigation.

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Neutral	рН		uniike	most	IIquia	Tollar	tnat	are	nigniy	acidic	or r	ngniy	alkaline.
SOLD	ENS	O.	can be	used a	at high	er dos	es. no	t bei	ing agg	ressive	with	i the c	ells
46-4	E												

for the farmer to dosing per volume instead of on weight.

Best solution in terms of speed and ease to use. Allow higher liquid dispersion homogeneity than solid products.

Guarantee solubility by its GEL formulation.

Adjuvant : promotes effectiveness of plant protection products when applied

NEW Yellow Gel	
SOLDEN!	
Gal Mineral NPK Fertilizers	SOLDENSO Soil / Foliar Indicates Metavolism
Action C.C.	<u> </u>
₹	





#### APPLICATIONS

Crops	SOIL (L/ha)	FOLIAR (mL/100L)	APPLICATIONS DETAILS
Cereals	2-5	600	1-2 applications.
Citrus	2,0 - 3,0	200-300	2-3 applications with 15 day intervals.
Fruits and Vines	1,5 - 3,0	100-200	Apply before flowering. Repeat every 15 days.
Ornamentals	1,0 - 2,0	50-100	Use low rate on young or delicate plants.
Potatoes	2,0 - 3,0	400	1-2 applications early in crop cycle.
Sugar Beet	3,0	500	1-2 applications early in crop cycle.
Vegetables	2,0 - 2,5	200	2-4 applications once transplanting established
Rice: Seed nursery Root soak	3,0	300 200	1-2- applications before transplanting Soak roots prior to transplanting
Post transplant	2,0	200	Apply at tillering



















#### **SOLUBLE FERTILIZER**

#### **CHARACTERISTICS**

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More comfortable for the farmer to dosing per volume instead of on weight.

Best solution in terms of speed and ease to use. Allow higher liquid dispersion homogeneity than solid products.

**Guarantee solubility by its** GEL formulation.

Adjuvant: promotes effectiveness of plant protection products when applied jointly.

COMPOSITION	%w/v
Total Nitrogen (N) Phosphorous Oxide(P <sub>2</sub> O <sub>5</sub> ) Potassium Oxide (K <sub>2</sub> O) Boron (B) Iron (Fe) chelating agent EDTA Copper (Cu) chelating agent EDTA Manganese (Mn) chelating agent EDTA Zinc (Zn) chelating agent EDTA Molybdenum (Mo)	45,00 00,00 00,00 0,016 0,047 0,016 0,016 0,016





#### **APPLICATIONS**

CROP	TIME OF APPLICATION	INTERVAL	DOSAGE
Rice	Rooting to tillering stage. Spray 2-3 times per cropping.	10-14 days	50-75ml/ 16L water
Corn	1 week after germination. Spray 3-4 times per cropping.	7-10 days	50-75ml/ 16L water
Fruiting Vegetables (tomato, eggplants, hot and sweet pepper, okra)	7-10 days after transplanting to end of vegetative stage. Spray 3-4 times/cropping	7-14 days	50-75ml/ 16L water
Brassicas (cabbage, cauliflower, broccoli, mustard, pechay, pakchoy)	3 to 4 true leaves stage to maturity. Spray 3-4 times per cropping.	10-14 days	50-75ml/ 16L water
Leafy Vegetables (Lettuce, Celery, Spinach)	3 to 4 true leaves stage to maturity. Spray 3-4 times per cropping.	7-10 days	50-75ml/ 16L water
Legumes / Cucurbits (Sitao, Beans, Upo, Ampalaya, Patola, Pipino, Squash, Watermelon, Melon)	4 to 6 true leaves stage to end of vegetative stage. Spray 3-4 times per cropping.	10-14 days	50-75ml/ 16L water
Onions / Garlic	7 to 10 days after transplanting to bulb formation. Spray 3-4 times per cropping.	10-14 days	50-75ml/ 16L water
Plantation Crops (Banana, Pineapple)	Vegetative stage to pre-pflowering stage.	21-28 days	50-75ml/ 16L water
Root Crops (Potato, Carrots, Cassava, Ube, Kamote)	3-4 true leaves stage to tuber formation. Spray 4-5 times per cropping.	10-14 days	50-75ml/ 16L water
Fruit Trees (Mango, Papaya, Citrus, Cacao, Pomelo, Durian, Coffee)	Apply during growing stage and off-season period.	10-14 days	50-75ml/ 16L water
Ornamentals / Cut- Flowers / Herbs	4-6 true leaves stage. Do regular maintenance feeding.	10-14 days	50-75ml/ 16L water

SOLDENSO can be combined with almost all the fertilizers and pesticides. In case of doubt we recommend a trial or consult our technical department.















Green





**%w/v** 13.00

#### **SOLUBLE FERTILIZER**

#### **CHARACTERISTICS**

**SOLDENSO** is a formulated nutritional product and not just a simple mixture of raw materials, as are most of NPK fertilizers in powder form.

**SOLDENSO** has an uniform and simultaneous solubility of all the nutrients, during use, while avoiding sedimentation in the storage containers of the nutrient solution. In contrast, common NPK water soluble powder fertilizers, which are produced through a mixture of raw materials, have increase variability in grain size that results in a non-uniform dilution of nutrients, since the smallest grains are dissolved firstly.

The conductivity and the salinity index are maintained in very low levels so that the soil will not be burndened with undesirable, salt concentration.

Application is suitable for different crops: fruit trees, coffee, olive trees, vegetable crops, industrial crops, meadows, etc. It can be used in drip irrigation, foliar application and flood irrigation.

•		_	
Nautual all	unlika mast liquid (	foliar that are highly	acidic or highly alkaline.
Neutrai pm,	unnke most nquia i	onar that are mignly	acidic of flightly alkalifie.
SOLDENSO	can be used at highe	r doses, not being agg	ressive with the cells
that form s	tomas.		

More comfortable for the farmer to dosing per volume instead of on weight.

Best solution in terms of speed and ease to use. Allow higher liquid dispersion homogeneity than solid products.

**Guarantee solubility by its GEL formulation.** 

Adjuvant promotes effectiveness of plant protection products when applied jointly.



#### **APPLICATIONS**

Crops	SOIL (L/ha)	FOLIAR (mL/100L)	APPLICATIONS DETAILS
Cereals	2-5	250	Early in crop cyrcle. Followed by 2nd application 14 days later.
Paprika	2,0 - 3,0	200-300	1st application 3 weeks after transplanting, followed with a 2nd application 14 days later.
Roses and Ornamentals	2,0 - 3,0	200-300	Monthly applications on perennials. 2 applications 14 days apart on annual during initial growth stages.
Strawberries	3,0	300	Single application 3 weeks after planting.
Tomatos and Peppers	2,0 - 3,0	200-300	1st application 3 weeks after transplanting, followed by a 2nd application 14 days later.
Vegetables	3,0	200-300	1 to 2 applications early on in growth period of crop.
Other crops	2,0 - 2,5	300	For crops with phosphate deficiencies, repeat at 10-14 days intervals as required.

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#### **PACKING:**



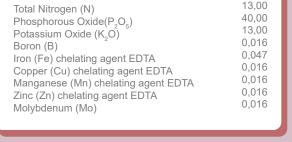












COMPOSITION







%w/v 00.00

00,00

60,00

0.016

0.047

0,016

#### **Red Gel**

#### **SOLUBLE FERTILIZER**

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leutral pH, unlike most liquid foliar that are highly acidic or high alkaline. SOLDENSO can be used at higher doses, not being aggressi with the cells that form stomas.

comfortable for the farmer to dosing per volume instead of o weight.

solution in terms of speed and ease to use. Allow higher liquid dispersion homogeneity than solid products.

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Adjuvant: promotes effectiveness of plant protection products when applied jointly.



### **APPLICATIONS**

Zinc (Z	nese (Mn) chelating agent EDTA (n) chelating agent EDTA denum (Mo)	0,016 0,016 0,016
ly ve	Red Gel 00+00+60+Te	ted Gel
id	Soil / Foliar	DENSO

COMPOSITION

Iron (Fe) chelating agent EDTA

Copper (Cu) chelating agent EDTA

Phosphorous Oxide(P<sub>2</sub>O<sub>5</sub>)

Potassium Oxide (K,O)

Total Nitrogen (N)

Boron (B)

CROPS	SOIL (L/ha)	FOLIAR (mL/100L)	APPLICATION DETAILS
Cereals	3.5	350	For Potassium deficiencies, repeat every 10-14 days as necessary
Citrus	1	100	1 application at fruit setting
	2-3	200-300	1 application after fruit setting
	3	300	1 Application in Summer
	3	300	1 Application in September-October
Paprika	2-3	200	1st application 3 weeks after transplanting, follow with a 2nd application 14 days later
Roses & Ornamentals	2-3	200-300	Monthly applications on perennials. 2 applications 14 days apart on annuals during initial growth stages
Stone Fruits (Foliar)	3	300	1 Application at petal fall
	2	200	1 Application at the start of fruit set
	2-3	200-300	1 Application one month before harvest
Strawberries	3	300	Single application 3 weeks after planting
Tomatoes & Peppers	3-4	300-400	1st application 3 weeks after transplanting, follow by a 2nd application 14 days later
Vegetables	3-4	300-400	1 to 2 applications early on in growth period of crop
Other crops	3	300	For crops with phosphate deficiencies repeat at 10-14 day intervals as required

ᡚΡΕΝSO can be combined with almost all the fertilizers and pesticides. In case of doubt we recommend a trial or consult our technical department.















**Red Gel** 





%w/v

#### **SOLUBLE FERTILIZER**

#### **CHARACTERISTICS**

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#### ADDITIONS

W APPL	ICATI	ONS	
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Other crops	3	300	For crops with phosphate deficiencies repeat at 10-14 day intervals as required

ᡚΡΕΝSO can be combined with almost all the fertilizers and pesticides. In case of doubt we recommend a trial or consult our technical department.















Total Nitrogen (N)	12,00
Phosphorous Oxide(P <sub>2</sub> O <sub>5</sub> )	05,00
Potassium Oxide (K <sub>2</sub> O)	42,00
Boron (B)	0,016
Iron (Fe) chelating agent EDTA	0,047
Copper (Cu) chelating agent EDTA	0,016
Manganese (Mn) chelating agent EDTA	0,016
Zinc (Zn) chelating agent EDTA	0,016
Molybdenum (Mo)	0,016







### PHOSPHORUS AND POTASSIUM FERTILIZER

#### **CHARACTERISTICS**

**Phosphate** is a high solubility mineral fertilizer for foliar or fertirrigation application.

Phosphate it has a particularly formulation suitable to be applied when required to provide an adequate supply of phosphorus and potassium in specific vegetative stages. The proper ratio of phosphorus-potassium

**Phosphate** promotes color and flavor and favoring the flowering.

FERTILIZER RICH IN PHOSPHORUS AND POTASSIUM

**BETTER FLOWERING** 

**ROOT DEVELOPMENT** 

**OPTIMAL FRUIT DEVELOPMENT** 

IMPROVES THE DEVELOPMENT OF

COMPOSI	%w/v	
Phosphorus (P <sub>2</sub> O <sub>2</sub> Potassium (K <sub>2</sub> O)	45 50	
Density pH (solution 10%)	1,7 7-8	









FOL	IAN APP	LICATION
CROPS	DOSES	PERIOD OF APPLICATION
Apple and Pear	4-5 L/Ha	From the end of flowering.
Beet	5 L/Ha	When the crop has 4-6 leaves. Repeat after 10-14 days if necessary.
Cereals	5 L/Ha	During tillering. Repeat after 10-14 days if necessary. An application between the emergence of the spike and the end of flowering can also be beneficial for the development of the crop.
Citric	4-5 L/Ha	With the new shoots of spring.
Corn	4-5 L/Ha	With 4-6 leaves and repeat the treatment 10-15 days later.
Cotton	4-5 L/Ha	At the beginning of flowering.
Garlic and Onion	4-5 L/Ha	At the beginning of the crop
Olive	200-400ml/hl	Apply in pre flowering and fruit setting
Potatoes	10 L/Ha	To increase the number of tubers, apply at the beginning of tubers formation. To increase the size of the tubers, from the beginning of the fattening and repeat at least once during the fattening, starting 10 days after the first treatment.
Rape	5 L/Ha	In autumn when the crop has 6-8 leaves. Repeat in spring.
Rice	3-4 L/Ha	Between the beginning and the end of reed period formation
Vine	4-5 L/Ha	Apply from the separate inflorescences

### SOIL APPLICATION

Fertirrigation application: 5-10 L/Ha Repeat 2 or 3 times depending on the needs of the crop.

Post harvest application: Some crops can need a post-harvest application, depending on the nutritional status of the crop / soil and the type of cycle of the same (deciduous/evergreen).

















#### **CHARACTERISTICS**

**Nitrate GEL** is a highly concentrated, water soluble emulsion containing both Potassium and Nitrogen.

Potassium increases crop yield and improves quality. It is required for numerous plant growth processes.

Visual deficiencies of potassium are light mottling of the leaves around the margins and between the veins.

- Increases root growth and improves drought resistance
- Activates many enzyme system
- Maintains turgor, reduces water loss and witing
- Aids in photosynthesis and food formation
- Reduces respiration, preventing energy losses
- Enhances traslocation of sugar and starch
- Procduces grain rich in starch
- Increases protein content of plants
- Builds cellulose and reduces lodging
- Helps retard crop diseases

COMPOSITION	%w/v
Potassium (K <sub>2</sub> O) Nitrogen (N)	46,0 11,0
Density: 1,5	



#### **DOSES AND APPLICATION**

Crops	Rate L/Ha	Rate m	nl/100L Details
Avocado	s 2,5	500	Multiple applications required up to 30 days before harvest
Apple	s 2,0	400	2-3 applications starting at petal fall to fruitlet stage
Citru	s 2,0	400	1-3 applications
Cotto	n 2,5	500	2 applications at beginning and end of boll ripening. Apply with boron at 2 L/Ha
Flower	s 2,0	400	3-4 applications during main growth stage
Grape	s 2,0	400	2-3 applications from flowering to ripening
Maiz	e 2,0	400	1-2 applications during growth period
Olive	s 2,0	400	3-4 applications during fruit development
Peppers & Tomatoe	s 2,5	500	2-3 applications from fruit set
Potatoe	s 2,0	400	2-3 applications from flowering to tuberisation
Ric	e 2,0	400	2 applications starting at flowering

K NITRAGEL GEL should be stored in frost free conditions with optimum storage range between 5-40°C.
K NITRAGEL GEL is a non-hazardous and not flammable foliar fertilizer. Always shake the container before opening.

















## Color K





**TRADITION** 

INNOVĂTION

COMPOSITION	%w/v
Potassium (K <sub>2</sub> O) Nitrogen (N) EDTA	50,0 3,0 1,0
Density: 1,49-1,53 @18°C	

**Color K** is a concentrated formulation containing potassium and nitrogen. The presence of EDTA increases the efficiency by improving the availability of potassium in the plant when it most needs it. **RECOMMENDED FOR ALL TYPES OF CROPS**.

**Color K** helps the plant create a leaf environment uninviting to leaf pathogens such as podery midew and botrytis.

#### THE CONCENTRATION OF SUGARS

THE AVERAGE FRUIT WEIGHT

THE FRUIT SIZE

THE PRODUCTION

CROPS	STATE	DOSAGE
Citrus Fruits:	Apply when the fruit is setting, swelling and before harvesting.	<b></b>
Cotton:	2-4 treatments during the crop's life cycle.	
Fruit Trees:	Apply when the fruit is setting, swelling and before harvesting.	
Grapes:	Apply when the fruit is swelling, ripening and gaining colour.	FOLIAR DOSAGE:
Horticultural Crops:	2-6 applications throughout the crops vegetative cycle.	200-500 cc / 100 Lts
Olive Trees:	Apply when the fruit is setting, swelling and before harvesting.	FERTIRRIGATION DOSAGE:
Strawberries:	1-3 treatments during flowering, fruit formation and formation of the tubers.	1 0-30 Lts / Ha every 15 days.
Sugar Beet:	From 2 months before harvesting and onwards.	
Tropical Fruits:	2-4 treatments during the crop's life cycle.	

**DILUTION**: Recommended water rate is 500-1500 Litres per hectare. **Always shake the container before opening**.















# Color K Xpress





COMPOSITION	%w/w
Potassium (K <sub>2</sub> O)	30,0
Total Humic Extract	30,0
Humic Acids	3,0
Fulvic Acids	27,0
Total Nitrogen (N)	2,0

#### **CHARACTERISTICS**

**Color K** Xpress is a product with high potassium content, nitrogen and chelating agent EDTA. The presence of EDTA contributes facilitating the absorption micronutrients in the soil.

Color K Xpress should be applied in stages of potassium peak demand, specially during the formation and maturation of the fruit.

**HIGHER SIZE FRUIT** 

**BEST CONSISTENCY** 

**MORE INTENSE COLOUR** 

**ADVANCEMENT OF RIPENING** 

CROPS	FOLIAR	DOSAGE
VINEYARD	2-4 applications separated by 10-15 days starting from the nouasion stage and during ripening.	
FRUIT TREES Stone fruits Pip fruits	2-3 applications separated by 15 days starting at the beginning of fruits growth and up to 2 weeks before harvest.	3-4 Kg/ha Optimal concentration 300g/hl-400g/hl
FIELD CROPS Beets, potatoes, taproots	3-5 interventions on sufficiently developed foliage.	Maximum concentration 1000g/hl On young and fragile foliage maximum 500g/hl
VEGETABLES Tomatoes, pepper, melon	3-5 interventions on sufficiently developed foliage.	
	FERTIRRIGATION	
	Use 7-15 kg/ha per application. (to be diluted to 10% maximum in the mother solution)	

















PREVENTION OF PHYSIOPATHOLOGIES CAUSED BY Ca AND Mg DEFICIENCIES

#### **CHARACTERISTICS**

**KELOM Ca Mg Aa** is a fully water soluble fluid emulsion fertilizer that allows an immediate and well-balanced uptake of calcium and magnesium, even in conditions of water imbalance and environmental stresses. It is highly effective in any stage of the crop cycle by foliar application. The presence of aminoacids is useful to the plant in the fruit enlargement stage.

**KELOM Ca Mg Aa** in fruits prevents and cures physiopathologies such as bitter pit in apple trees and rachis dessication in grapes. In horticulture prevents and cures physiopathologies caused by calcium and magnesium deficiencies: blossom and rot in tomato and pepper, desiccation of leaf stalk, leaf margin in melon, collar tip in salad. In floricultre increases leaves and flowers growth and color and prevent leaf spot.

#### THE COMBINATION OF COMPONENT ELEMENTS:

- Increases the sugar content of the fruit.
- Improves fruit firmness, color and skin.
- Prevents and cures physiopathologies causes by Ca and Mg deficiencies.
- Increases resistance to fruit cracks and browning.
- Lengthens shelf-life and storability.

### COMPOSITION

%w/v

Calcium (CaO)	24,00
Magnesium (MgO)	3,00
Iron (Fe)	0,075
Manganese (Mn)	0,15
Copper (Cu)	0,06
Zinc (Zn)	0,03
Boron (B)	0,075
Molybdenum (Mo)	0,0015
Aminoacids	10,00

Density 1,5 pH (10% solution) 5,5-6



#### **DOSAGE AND APPLICATION**

CROP	CONDITION CONTROLLER		RATE ml/100l	APPLICATION DETAILS
Apples	Bitter pit	2,0 - 3,0	200 - 300	5 - 7 applications starting at the first sign of growth. Combine with cover sprays.
Avocados	Pulp spot	4,0 - 8,5	400 - 850	Multiple applications.
Broccoli	Brown head	2,0 - 3,0	200 - 300	4 - 6 applications starting shortly before head formation.
Brussels Sprouts	Internal browning	4,0 - 6,0	400 - 600	Multiple applications.
Cabbage, Cauliflower, Lettuce, Endive	Tip burn	2,0 - 4,0	200 - 400	4 - 6 applications starting shortly before head formation.
Celery, Chicory	Black heart	3,5 - 5,0	350 - 500	Weekly applications starting shortly before black heart symptoms arise.
Cherries, Plums	Cracking	3,5 - 6,0	350 - 600	3 - 4 applications starting 6 - 8 weeks before harvest.
Cotton	Square shedding	4,0	400	3 applications between 5 - 7 leaf stage and flowering.
Cucumbers, Melons, Peppers, Tomatoes	Blossom end rot	1,5 - 3,5	150 - 350	6 - 12 applications during periods of heat stress.
Grapes	Reduction of stem dieback and shot berry	3,0 - 6,0	300 - 600	3 - 4 applications from beginning of berry softening to maturity.
Kiwi	Blossom end rot	4,0 - 8,5	400 - 850	Multiple applications.
Ornamentals	Improved vase life	2,5	250	Weekly applications.
Peaches, Nectarines	Improved fruit firmness	3,5 - 5,0	350 - 500	4 - 5 treatments from fruit-set.
Potatoes	Internal brown spot	2,5 - 5,0	250 - 500	Multiple applications during periods of heat stress.
Pears	Superficial scald	4,0 - 6,0	400 - 600	Multiple applications.
Strawberries and other berries	Increased fruit firmness	6,0	600	3 applications in conjunction with last pre-harvest pesticide sprays.















#### **CHARACTERISTICS**

STOP Ca B is a solid formulation with Calcium in N.O.C. (Natural Organic Complexant) form and Boron as a synergic nutrient Boron helps Calcium mobility though the plant, reaching the fruits.

It is quickly fixed in the vegetal tissues and therefore it is particularly useful to produce fruits and berries more resistant to physiopaties and to strokes during harvest, to improve their keeping and to reduce the cracking (or splitting) of fruits. Applied just after fruit-set, it stimulates cell division and increases the size of fruits.

**STOP GO B** gives higher resistance to salinity, drought (reducing the drop of flowers, leaves, fruits) and late frost to any kind of plants.

#### CALCIUM

- Involved in activation of enzymes as a cofactor
- Controls fruit ripening.
- Participates in the selectivity of the membrane plant.
- Involved in cell division and cell elongation.

#### BORON

- Essential in cell division and meristem development.
- Controls movement of sugars, starches and amino acids.
- It is closely related to Calcium to prevent the fall of flowers and fruits.
- Involved in fruit ripening.

#### HARDNESS AND CONSISTENCY FOR FRUITS

#### **DOSAGE AND USE**

COMPOSITION	%w/w
Calcium (CaO) Boron (B) N.O.C. (Natural Organic Complexant) pH (watery solution 1%) $7 \pm 0.5$	34,0 2,0 64,0



#### **ADVANTAGES**

- Effective in the treatment of the bitter pit on Apple trees.
- Solves the blossom-end rot problem in tomatoes and leaf spot in pepper.
- Cure melon leaf drying and tip burn in lettuce, endive and escarole.
- Effective against cracks in the stone fruit.

CROPS	Fertigation Kg/ha	Foliar spray gr/100 l water	APPLICATION
FLOWER AND ORNAMENTALS	2 - 4	100 - 200	Before flowering.
HORTICULTURE	4 - 8	100 - 150	After fruit set every 15 - 25 days.
NURSERY	2 - 3	200 - 300	In case of stress condition.
INDUSTRIAL CROPS		150 - 250	In cereals before the formulation of the panicle, generally before flowering.
ORCHARDS, VINEYARDS, CITRUS		250 - 500	After fruit set, along the season every 15 days.
the dose refers to a volume of water o	f 10 hl/ha		

#### **COMPATIBILITY**

Good compatibility with all phytosanitary products, except for the products containing high percentage of phosphorus and sulfur.











## Pronat



#### **ALL-IN-ONE FOLIAR FERTILIZER**

**Prollat** contains the best seaweeds to create a concentrate emulsion of macro and micronutrients



Increases the production of crops in danger of stress caused by high temperatures, water deficiency and viruses.



#### **COMPOSITION**

Manganese (Mn)

Total Nitrogen (N) Phosphorus	28% w/v 11% w/v	Zinc (Zn) Auxines	170 mg/l 600 ppm
Priospriorus	. ,		
Potassium	14% w/v	Cytokinins	2000 ppm
Boron (B)	170 mg/l		
Copper (Cu)	170 mg/l		
Iron (Fe)	480 mg/l		

170 mg/l

**Pronat** includes essential nutrients and organic matter from seaweed extract. It stimulates the root development, nutrients and water uptake.

**CONCENTRATE EMULSION OF MICRO AND MACRONUTRIENTS WITH SEAWEED EXTRACT** 

### **FOR ALL CROPS**

CROP	TIMING	RATE (L/Ha)	RATE (ml/l water)	COMMENTS
Bulb & Outdoor Flower	From 2 true leaves	2	-	Use early to promote root growth, later applications will help to increase plant height and number of flower.
Cereals	2-6 leaves to 1st node	3	100-200	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Promotes root growth and improves uptake of nutrients from the soil
Field Vegetables	When crop is under stress or during rapid growth	2	-	Repeat as necessary every 10-14 days
Grassland	As required or when stress is evident	3	-	Repeat as necessary every 10-14 days
Hardy Nursery Stok	2-6 leaves to 1st node.	3	0.5-3	Use early to promote root growth. Use lower rate on young plants and repeat after 14 days. Promotes root growth and reduces transplant shock.
Legumes, Field and Root Vegetables	As required or when stress is evident.	3	-	Repeat as necessary every 10-14 days
Oilseed Rape	Early spring growth	3	-	Apply if soil and weather conditions prevent optimum growth or to relieve crop stress. Promotes root growth and improves uptake of nutrients from the soil

CROP	TIMING	RATE (L/Ha)	RATE (ml/l water)	COMMENTS
Potatoes	3-4 weeks after emergence	2	-	Promotes root growth and improves canopy cover
	Bulking	5		Follow with 2-3 applications at 14 day intervals once crop meets across the rows.
Protected Edibles	From 2 true leaves	0.5-1	-	Use early to promote root growth. Use lower rate on young plants and repeat after 14 days. Promotes root growth and reduces transplant shock
Protected Omamentals	Earlyspringgrowth	-	0.5-2	Promotes root growth and improves canopy cover. Use lower rate on young plants and repeat after 14 days
Soft Fruit	4-8 true leaves	2	-	Use early to promote root growth, later applications will help to improve bud promotion.
Sugar Beet	4-8 teaf stage	3	-	Promotes root growth, protects against stress.
Tree Fruit	Once new leaf 80% open	3	-	Promotes growth, protects against stress, aids fruit swell and skin finish









CROP NUTRITION
AND BIOPROTECTION

### **MICRONUTRIENTS**





### **MICRONUTRIENTS**

#### Boron (B)

- Essential of germination of pollem grains and growth of pollen tubes
- Essential for seed and cell wall formation
- Promotes maturity
- Necessary for sugar translocation
- A ects nitrogen and carbohydrate

#### Copper (Cu)

- Catalyzes several plant processes
- Major function in photosynthesis
- Major function in reproductive stages
- Indirect role in chlorophyll production
- Increase sugar content
- Intensiÿes color
- Improves ,a vor of fruits and vegetables

#### Iron (Fe)

- Promotes formation of chlorphyll
- Acts as an oxygen carrier
- Reactions involving cell division and growth

#### Manganese (Mn)

- Functions as a part of certain enzyme systems
- Aid in chlorophyll synthesis
- Increases the availability of P and Ca

#### Molvbdenum (Mo)

- Required to form the enzyme "nitrate reductase" which reduces nitrates to ammonium in plant
- Aids in the formation of legume nodules
- Needed to convert inorganic phosphates to organic forms in the plant

#### Zinc (Zn)

- Aids plant growth hormones and enzyme system
- Necessary for chlorophyll production
- Necessary for carbohydrate formation
- Necessary for starch formation
- Aids in seed formation

FUNCTIONS ELEMENTS	BORON	COPPER	IRON	ZINC	MANGANESE	MOLYBDENUM
PHOTOSYNTHESIS		*	*		*	
GROWTH	*			*		
FERTILITY	*	*				
PROTEIN SYNTHESIS		*		*	*	
LIGNIN SYNTHESIS		*				
NITROGEN FIXATION		*	*			*
REDUCTION OF NITRATES	\$	*	*		*	*
TRANSLOCATION SUGAR	*					



## BORZINC



**BORON AND ZINC CORRECTOR** 

#### **CHARACTERISTICS**

**BORZINC** is a liquid fertilizer that contributes a very good relation of Boron and Zinc, that applied in a suitable dose and in the propitious phenological moments, raises the levels of these nutrients in an efficient form.

Thanks to its specific formulation, **BORZINC** is especially recommended to apply in pre-flowering and fruit setting of all crops.

Boron (B) exist primarily in soils solutions as the BO<sub>3</sub><sup>3-</sup> anion the form commonly taken up by the plants. One of the most important micronutrients affecting membranes stability, B supports the structural and functional integrity of plant cell membranes. Boron-deficiency symptoms first appear at the growing points, and certain soil types are more prone to boron deficiencies.

Influences on fertilization and fruit set Meristematic activity and growth **Protein synthesis Sugar migration** Use of auxins by plants

**Enzymatic function Growth Hormone Synthesis Protein synthesis** 



Zn Zinc (Zn) is taken up by plants as the divalent Zn 2+ cation. It was one of the first micronutrients recognized as essential for plants and the one most commonly limiting yields. Althought Zn is required only in small amounts, high yields are impossible without it.

**DOSES AND APPLICATION** 

#### **COMPOSITION**

%w/v

Boron (B) Zinc (Zn)

115 4.0

Chelating agent:

EDTA (ethylenediaminetetraacetic acid)



#### **Improves Flowering**

**Increases Vegetative Growth** 

Specially formulated for fruit trees sensitive to deficiencies of Boron and Zinc

Crops	Foliar	Application&Interval	
Stone-pipe fruit	1-2 L/Ha	Perform 1-2 applications in bursting of buds and perform 1-2 ap	plications in fruit set
Vine and Olive	1-2 L/Ha	Perform 1-2 applications in pre-flowering and make 1-2 applicati	ons in fruit set
Citrus	1-2 L/Ha	Perform 1-2 applications in bud swelling	
Berries	1-2 L/Ha	Perform 1-2 applications in floral button status	
Sunflower, Colza,	2-3 L/Ha	Perform the application with sufficient foliar mass developed.	
Soybeans, Cereals			
Maize	2-3 L/Ha	Performs the application with sufficient foliar mass developed.	
Potato	2-3 L/Ha	Perform the applications with 15 cm of height and in the state	of tuber formation
Horticultural	2-3 L/Ha	After harvest and before the fall of leaves, always sufficient fo	liar mass developed
Woody crops	3-4 L/Ha	POST-HARVEST: After the harvest and before the fall of leaves,	always with active green leaves
General Drip Ap	oplication:	3-5 L/Ha Distributed in 2-3 applications according to the ne	eeds of the c rop

#### **Cautions**

In woody and horticultural crops, it is not recommended to exceed the concentration of 0,2% (2L per 1000L of water); except in post-harvest applications. In extensive, it is not recommended to exceed the concentration of 1% (1L per 1000L of water). Using mixtures with other products, a compatibility test with small amounts of products is always needed. Does not apply during flowering nor color fruit change.















## **BORON**



#### **BORON DEFICIENCY CORRECTOR**

#### **CHARACTERISTICS**

**BORON** is a liquid boron deficiency corrector for foliar or soil application. In sugar beet it prevents heart diseases or putrid of the root. In apple and pear, **BORON** prevents bitter pits and cracks. In grape, prevents the bunch, avoiding small, wrinkled fruits.

In olive, **BORON** prevents the loss of production and the deformation of the olive. In horticulture, **BORON** prevents heart rot in cellery, the coiled leaves in cauliflower and broccoli. In lettuce it prevents heart rotting and burning side; in stud it prevents the drying of the tip and stems; in potato it avoid the necrotic of tubers with deformities.

The most important physiological effects of Boron in plants are:

Cell wall structure	
Cell division	
Sugar transport	
Flowering and fruiting	
Plant hormone regulation	

#### **COMPOSITION**

%w/w

Boron (B)

Density: 1,35-1,40 @ 18°C

11,0



#### **DOSAGE AND APPLICATION**

Crop	Objective	Recommendation
In all crops	Supply with boron	1-4 I/ha as a foliar application in 200-400 I water or 5-8 I/ha as a soil application. During application with knapsack sprayer at 0,5%
Pit fruit	Pollen germination, flower quality, fruit setting, calcium transport, skin quality	2-3 x 1 l/ha from red bud until petal fall
Pit fruit, Stone fruit, Strawberries, Berries, Table grapes	Storage of reserve substances, regeneration, resistance against cold, flower quality	2 x 1 l/ha after harvest
Stone fruit	Flower quality, fruit setting	1 I/ha beginning of blossom time
Table grapes	Flower quality, fruit setting, regular maturity	2 x 1 l/ha from increasing of flower cluster until beginning of blossom
Fruit vegetables	Flowering, fruit setting, supply with boron	1-2 x 2 l/ha before blossom when enough leaves are developed
Crucifers, leaf vegetables, bulbous vegetables	Inner quality, against heart necrosis in cabbage, supply with boron	1-2 x 2-3 l/ha as soon as enough leaves are developed
Asparagus, root vegetables, tuberous plants	Quality (cracks; empty asparagus or tubers; inner scald), supply with boron	developed
Cereals	Output, supply with boron	0,5-1 l/ha until end of tillering, a deficiency proof by leaf analysis provided
Potatoes	Inner quality, supply with boron	1-2 x 1 l/ha at meeting across the rows
Maize	Pollen quality, graining, grain yield, energy density, supply with boron	3 l/ha from 4 leaf stage onwards
Oil seed rape	Resistance against cold, regular flower and maturation, yield Regular blossom-time and maturity, output, supply with boron	
Sugar beet	Against heart and dry rot, output, quality, supply with boron	1-2 x 3 l/ha between 6-leaf-stage and meeting across the rows
Нор	Development of bud and sprout, quality	3-5 x 0,1 % until flowering

















## **KELOMFe**



#### **EDDHA CHELATED IRON**

#### **CHARACTERISTICS**

**KELOMFe** is an iron chelate, stable and highly soluble in water, with a clear celerity and shock effect and persistence. The chelating agent EDDHA provides extreme stability, even at higher pH.

The iron is essential for the chlorophyll synthesis and for the plant development. The iron takes part in the different levels of electron transportation chain, fundamental for the cell respiration and in the metabolism of enzymes and proteins. It also has an important role in the nitrogen fixation.

PERSISTENCE	<b>&gt;</b>	CHELATE ORTHO-ORTHO
STARTING		CHELATE ORTO-PARA
HIGH LEVEL		PLANT CHLOROPHYLL

# COMPOSITION Total EDDHA iron Iron chelated ortho-ortho Iron chelated ortho-para Iron total (Fe) PH (1% in water) PH (1% in water) PH interval stability 7,5 - 8,5 PH interval stability 3 - 11



#### **DOSAGE AND APPLICATION**

CROPS	DOSAGE g/tree	TREATMENT PERIOD
Fruit and Citrus Trees		
Breeding of plants 3 - 5		Fruit tree and Vine Crops
Seedlings	5 - 15	Apply by the end of winter or beginning of
Young trees	15- 25	spring, matching up with start of new
Producting trees	25 - 50	sprouts.
Very grown trees and affected by the ferric	50 - 100	Citrus / fruit and other evergreen
chlorosis		crops
Vineyard	One application during the spring or at the beginning of the summer, before the	
Young stocks	3 - 5	second sprouting.
Producing stocks	5 - 10	
Grapevine	10 - 25	
Horticultural and Ornamental Crops		
Beginning of season growth	1 - 2 g/m <sup>2</sup>	Apply from the beginning of crop or after uprooting.
Full growth	2 - 5 gm <sup>2</sup>	aprooting.
Strawberries (Hydroponic)	80-120g/1000l water	

**KELOM Fe** is compatible with pesticides as well as most commonly used fertilzers. It is advisable to confirm compatibility by preparing a sample of the mix at the intended concentrations.















## KELOM Mn Zn Flow



#### **MANGANESE & ZINC CORRECTOR**

#### **CHARACTERISTICS**

Special formulation that helps prevent and correct manganese and zinc deficiency states simultaneously.

KELOM Mn Zn Flow is a highly concentrated suspension (Flow) of Zinc and Manganese salts and is chloride free and fully water soluble. A combined application of Zn and Mn is more effective than single sprays o their own.

As a result to the physical characteristics of **KELOM Mn Zn Flow** it is possible to optimize the uptake of nutrients (Zn and Mn) and a longer stay of the product on the leaf, so that the period of effectiveness of the application is extended.

KELOM Mn Zn Flow contributes to rapid recovery of the plants affected by frost or other weather events, and also provides the sulfur and nitrogen plants, these being the main constituent elements of the enzymes.

**INCREASES THE SIZE OF LEAVES, SHOOTS AND FRUITS** 

IMPROVES QUALITY (INCREASES 'TSS' CONTENT OF THE FRUIT)

INCREASES YIELD. A HIGHER NUMBER OF FRUIT PER TREE

#### COMPOSITION

%w/v

Total Zinc (Zn) Total Manganese (Mn) Total Nitrogen (N) **Total Sulfur** 

13,5 13,5 5,8

Density 5,5-6.5 pH (10% solution)

15,0



#### **DOSAGE AND APPLICATION**

CROP	L/ha	cc/100L water	APPLICATION
Berries, Strawberry, Raspberry,	1,5	200 cc/hl	Apply in early sprouting and pre-flowering
Leaf vegetables	1-2	300 cc/hl	Apply with 4-6 true leaves hereinazer
Vegetable, tomato, onion, etc.	1-2	300 cc/hl	Apply with 5 leaf to flowering
Ornamental	1-2	300 cc/hl	Apply in early shoot growth
Citrus	3-5	150-200 cc/hl	At the start of spring shoot growth, repeat 20 days later. Repeat application during shoot growth summer-autumn
Peach, olive, cherry, hazelnut	3-5	150-200 cc/hl	Apply from green tips to 5-8 cm sprouts. Apply higher dose in post-harvest 30 days before leaf fall.
Apple, pear	3-5	150-200 cc/hl	During vegetative growth, starting from green leap. Repeat every 10-15 days. Apply higher dose in post- harvest.
Table grapes, wine, grape	3-5	150-200 cc/hl	Apply with sprouts 30-60cm, repeat to flowering. Apply postharvest higher dose 30 days before the start of fall leaves.

The spray tank should be filled with half of the required amount of water. Measure the required amount of KELOM Zn Mn FLow and add to the tank maintaining constant agitation. Add remaining water and spray. KELOM Zn Mn Flow should be stored in frost free conditions with optimum storage range between 5-40°C. In situations of prolonged storage there may be slightly setling of the nutrient particles. This is reversible on shaking. Always shake container before opening.















## KELOM MIX FLOW



#### **MULTIPLE DEFICIENCIES CORRECTOR**

#### **CHARACTERISTICS**

**KELOM MIX FLOW** is a GEL chelated micronutrient fertilizer containing Boron, Copper, Iron, Manganese, Molybdenum and Zinc for foliar and soil application to prevent deficiencies and to treat Iron, Manganese, Copper, Zinc, Boron and Molybdenum deficiency in a wide range of crops.

A concentrated liquid alternative to EDTA powder. **KELOM MIX FLOW** avoids all the problems associated with storage, handling and mixing powdered chelate; no dust, no weighing, no mess and no problems with storing partly used containers.

- HIGH CONCENTRATION FOR A LIQUID CHELATE
- GOOD TANK MIX ABILITY
- VERY SAFE FORMULATION
- FOR ALL KIND OF CROPS
- QUICK AND EFFECTIVE ASSIMILATION

#### **ACTIONS**

CORRECTS SEVERES MICRONUTRIENTS DEFICIENCIES.

YIELD AND QUALITY IN CROPS.

EDTA (CHELATING AGENT), FACILITATES THE UPTAKE AND TRANSPORT TO THE PLANT.

COMPOSITION	%w/v
Iron (Fe)	7,50
Manganese (Mn) Copper (Cu)	3,00 0,40
Zinc (Zn) Boron (B)	5,00 0,65
Molybdenum (Mo)	0,20
Chelating Agent EDTA	



APPLICATION	
Foliar	Dosage and Treatment
General dose	1–1,5L/Ha or 100–150 ml/100L . Applied when symptoms appear.
Horticultural	3 x 75–100 ml/hl of water (3 x 0,5–1L/Ha) At 10-15 days intervals, beginning when the foliage is enough.
Fruit trees, vines, citrus and olive trees	100 ml/100L of water (1L/Ha) First bloom. 100 ml/100L of water (1-1,5L/Ha) After fruit set.
Cereal, Field crops, Industrial crops	1L/Ha During the crop cycle.
Potatoes and Vegetable Bulb	4 x 1L/Ha At 7/10 days intervals, starting at 10 cm of growth. Apply in a minimum of 500L/Ha water.
Ornamental plants	75–150 ml/hl of water (0,5–1,5L/Ha) 2-4 applications with intervals of 7-10 days at the beginning of the growing season.















## KELO M MIX SOLID





#### **MULTIPLE DEFICIENCIES CORRECTOR**

**KELOM MIX SOLID** is a solid compound, highly-soluble in all types of water and whose Iron, Manganese, Copper, Zinc, Boron, Molybdenum and Magnesium micronutrients contribute simultaneously to the plant by providing the necessary dosage of nutrients that are indispensable for the perfect development of any crop.



COMPOSITION	%w/w
Boron (B)	1,5
Copper (Cu) chelated with EDTA	0,6
Iron (Fe) chelated with EDTA	4,00
Manganese (Mn) chelated with EDTA	3,00
Molybdenum (Mo)	0,05
Zinc (Zn) chelated with EDTA	4,00

#### **CHARACTERISTICS**

Except for the Boron and Molybdenum, the other nutrients in **KELOM MIX SOLID** are included in a molecule (EDTA, ethylenediaminetetraacetic acid) that protects them in the soil and, when applied to the leaves, facilitates their uptake and transport to the plant.

Its unique manufacturing process obtained by chemical mixing in the liquid phase ensures a complete chelation and a total homogeneity; keeping the same composition, size, density, color and guaranteed nutritional balance in each microgranule.

**KELOM MIX SOLID** allows easy and correct dosage which offers instant solubility and high agronomic efficiency; obtaining good yields and high quality crops.

RATE AP	PLICATION	CRITICAL COMMENTS
1-1.5 kg/ha	Foliar	Apply early season, tillering and bolting.
1-2 kg/ha	Foliar	Apply after each grazing or cutting.
1 kg/ha	Foliar	Apply up to 4 applications from 10cm stage until post flowering, at 7-10 day intervals. Apply in a minimum of 500L/ha of water.
0.5-1 kg/ha 5-10 kg/ha 2-3 kg/ha 2-3 kg/1000L	Foliar Soil Fertigation Hydroponics	Apply up to 3 applications at 10-15 day intervals when sufficient foliage is present. Apply in a minimum of 500L/ha of water.  Apply before sowing, transplanting or beginning of plant growth.  Apply every 7-10 days during the crop cycle.  Apply as required- 1L of prepared solution per 100 L irrigation water. Use the higher rate during crop development or periods of high temperature or duringshorter and cooler days.
100 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha	Foliar Fertigation	Apply 2-3 times during the crop cycle. Apply by dilute application only. Do not exceed maximum per hectare rate. Minimum water rate of 500L per ha. Apply every 7-10 days during the crop cycle.
50 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha	Foliar Fertigation	Apply 2-3 times during the crop cycle. Apply by dilute application only. Do not exceed maximum per hectare rate. Minimum water rate of 500L per ha. Apply every 7-10 days during the crop cycle.
0.5-1.5 kg/ha 5-10 kg/ha	Foliar Soil	Apply when sufficient foliage is present. Apply in a minimum of 500L/ha of water. Apply before sowing, transplanting or beginning of plant growth.
2-3 kg/ha 2-3 kg/1000L	Fertigation Hydroponics	Apply every 7-10 days during the crop cycle. Apply as required- 1L of prepared solution per 100 L irrigation water. Use the higher rate during crop development or periods of high temperature or during shorter and cooler days.
	1-1.5 kg/ha  1-2 kg/ha  1 kg/ha  0.5-1 kg/ha  5-10 kg/ha 2-3 kg/1000L  100 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha 50 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha  0.5-1.5 kg/ha 2-3 kg/ha  2-3 kg/ha	1-1.5 kg/ha Foliar  1-2 kg/ha Foliar  1 kg/ha Foliar  0.5-1 kg/ha Foliar  5-10 kg/ha Soil Fertigation Hydroponics  100 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha Fertigation 50 g/100L or 0.5-1.0 kg/ha 2-3 kg/ha Fertigation  50 g/100L or Foliar Fertigation  6.5-1.5 kg/ha Foliar Soil  2-3 kg/ha Fertigation















## KELOM ZN SOLID

ORGANIC ZN COMPLEX CORRECTOR

#### **CHARACTERISTICS**

Kelom Zn Solid is a zinc compound in the form of an organic complex. It is recommended for crops with high zinc requirements such as corn, potatoes, cereals, fruit trees, strawberries, onions, spinach, and soybeans. Kelom Zn Solid is recommended for soils with a high pH, high phosphorus content, and a lack of oxygen in the root zone. Zinc is an essential element in plant nutrition. It is needed in protein metabolism and forms a part of the enzyme system which regulates plant growth. Zinc is ranked high on the list of plant foods as one of the most limiting factors in crop production.

#### **CAUSES OF ZINC DEFICIENCY IN CROPS**

Low manure Low total zinc High soil pH applications content in soil ZINC Zinc inefficient crop High phosphate **DEFICIENT** varieties applications **CROP** High soil organic Waterlogging / High salt concentramater content flooding of soil tions

**DOSES AND APPLICATION** 

#### **COMPOSITION**

Zinc (Zn) pH (1%) 6,5 ± 0,5 %w/w 30,00



- BETTER ROOT DEVELOPMENT
- MORE VIGOROUS SHOOT GROWTH
- BETTER FLOWER FORMATION AND FRUIT SET
- MORE UNIFORM MATURITY
- MORE EFFICIENT UTILIZATION OF SOIL AND FERTILIZER NUTRIENTS

CROP	FERTIGATION	FOLIAR SPRAY
APPLE	400 – 800 GR / 1000L m2 per application	100 – 150 gr / 100L
CEREALS	200 – 300 gr / 1000 m2	80 – 120 gr / 100L
CITRUS	400 – 800 GR / 1000L m2 per application	100 – 150 gr / 100L
CORN	200 – 300 gr / 1000 m2	80 – 120 gr / 100L
CUCUMBER	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L
LETTUCE	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L
MELON	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L
OLIVE TREE	300 – 400 gr / 1000 m2 per application	100 – 120 gr / 100L
PEAR	400 – 800 GR / 1000L m2 per application	100 – 150 gr / 100L
PEPPER	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L
POTATO	200 – 300 gr / 1000 m2	80 – 120 gr / 100L
TOMATO	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L
VINE	300 – 400 gr / 1000 m2 per application	100 – 120 gr / 100L
ZUCCHINI	300 – 1500 GR / 1000 m2 per application	100 – 120 gr / 100L













## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

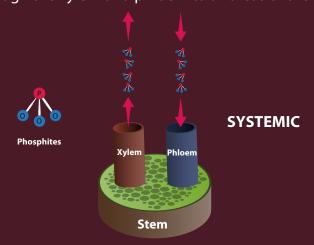
## PLANT DEFENSE INDUCTORS





## PLANT DEFENSE INDUCTORS

The phosphite molecule contains three oxygen atoms that give high mobility in the plant tissue and soil. They are systemic compounds, easily absorbed and translocated through the xylem and phloem to all areas of the plant.



The phosphite is highly mobile within plants, unlike many fungicides. This means that you get protection throughout the plant.

PLAN INDUCTOR DEFENSE (PIS) is easily absorbed by leaves, roots and also through bark of trees. Due to its up and down systemic action, it acts readily over sensitive tissues:

- 1) INDIRECT ACTION. Increasing the host resistance against fungi attacks.
- **2) DIRECT ACTION.** Slowing the growth of the pathogen and inhibiting the formation of spores.

Its stimulates the production of Phytoalexins, which enhance host natural defences against Oomycets fungi: Phytophthora spp., Plasmopara viticola, Bremia, Pseudoperonospora, Peronospora, Pythium and also some bacteriae: Pseudomonas and Erwinia.

- It is specially recommended to prevent diseases caused by these pathogens, such as:
  - Water spot and brown rot in citrus (fruits).
- Foot rot and trunk-branch canker (Gummosis) in avocados, citrus, top furits and ornamental trees.
- Fire blight in top fruits.
- Downy mildew in table and vine grapes, lettuces and onions.
- Blight of pepper.
- Root rot and downy mildew in: strawberries, tomatoes, cucurbits, vegetables and ornamentals.
- Brown blight of conifer fences.
- Damping-o in turf and lawns.



## <u>inmunor</u>





INDUCTOR OF THE NATURAL PLANT DEFENSE.
CRYSTALLINE POTASSIUM PHOSPHONATE

#### **CHARACTERISTICS**

**inmunor** is a greater activator of the natural defense of the plant against certain pathogenic fungi and bacteria.

It stimulates the production of Phytoalexins, which enhance the host's natural defences against Oomyces fungi: Phytohtora spp., Plasmopara viticola, Bremia, Pseudoperonospora, Peronospora, Pythyum and also bacteriae: Pseudomonasand Erwinia.

It is specially recommended to prevent diseases caused by these pathogens, such as:

- Water spot and brown rot in citrus fruits.
- Foot rot and trunk-branch canker (Gummosis) in avocados, citrus, top fruits and ornamental trees.
- Fire blight in top fruits.
- Downy mildew in table and vine grapes, lettuces and onions.
- Blight of pepper.
- Root rot and downy mildew in: Strawberries, toma toes, cucurbits, vegetables and ornamentals.
- Brown blight of conifer fences.
- Damping-o in tur f and lawns.

#### COMPOSITION

%w/w

Potassium Phosphonate Phosphorus (P<sub>2</sub>O<sub>5</sub>) Potassium (K<sub>2</sub>O) 95,0 57,0 38,0

·



#### DOSAGE AND APPLICATION

Crop	Application	Doses/treatment	Spray volume	Remarks	
	Foliar spray (H.V.)	250 g/hl	1.000 - 3.000 l/ha	Three (3) preventive treatments per season are recommended: in the beginning of Spring,	
CITRUS AVOCADO	Foliar spray (mistblower)	600 g/hl	300 - 1.200 l/ha	Summer and beginning of Autumn. In top fruits, treat once or twice in pre-blossom or/and petal fall, to prevent Fire blight.	
TOP FRUITS	Trunk painting	300 g/l	-	Scratch the infected part of the stem and paint the affected area. In case of high pressure of the disease, make three (3) treatments per season.	
	Soil (through drip irrigation)	5 - 7 kg/ha	-	Make 2 preventive treatments: 1st in spring: 2nd in autumn.	
STRAWBERRIES	Soil (through drip irrigation)	2,5 - 5 kg/ha	-	Make 2 - 3 treatments from rooting to flowering to prevent attacks of Phytophthora cactorum.	
	Foliar spray	250 g/hl	800 - 1.000 l/ha	From the start of flowering to end of harvesting, make 3 - 4 treatments.	
VINEYARD	Foliar spray (mistblower)	500 g/hl	300 - 500 l/ha	Treat every 15 days from flowering to ripening. A tank mix with preventive fungicides as	
TABLE GRAPES	Foliar spray	250 g/hl	600 - 1.000 l/ha	Folpet or Mancozed are recommended.	
LETTUCE and leaf crops	Foliar spray	2,5 Kg/ha	600 - 1.000 l/ha	Two (2) treatments are recommended: 1st: 7-10 days after transplanting. 2nd: 15 days later.	
ONIONS	Foliar spray	1,5 - 2,5 Kg/ha	300 - 500 l/ha	Three (3): preventive treatments per season are recommended: 15t: three (3) true leaves stage. 2nd: 15 days later. 3rd: 15-21 days later.	
FENCES OF	Foliar spray	250 g/hl	600 / 1.000 l/ha	Make 4 treatments every month from Spring to mid Summer.	
CONIFERS	Soil (drip irrigation or drenching)	10 g/m of fence	-	•Use up to 20-30 g in case of isolated big trees (soil drenching).	
TOMATOES/ CUCURBITS	Foliar spray	150 - 250 g/hl	800 - 1.000 l/ha	To prevent attacks of Phytophthora infestans/ Pseudoperonospora cubensifortnightly (15 days) from flowering until mid-end harvesting. A tank mix with Aliado is recommended to also control Alternaria.	
PEPPERS	Soil (through drip irrigation or drenching)	2.5 Kg/ha	-	To prevent Phytophthora capsiciattacks, treat every 15-21 days from one week after transplanting to harvesting. A tank mix with Hymexazol is recommended to also control Pythium.	
TURF & GOLF COURSES	Foliar or sprinkler irrigation	0,75 -1 Kg/1000m <sup>2</sup>	-	Monthly treatments from beginning of Spring to mid Autumn are recommended. To control also Helminthosporium spand Rhizoctonia, treat (in tank mix) with Chlorothalonil and Flutolanil	











#### **CHARACTERISTICS**

Solution of potassium phosphite at 50%, free of chloride. The presence of phosphorus as a phosphite ion provides a prophylactic effect against oomicosis:

- Gummosis and watery in citrus.
- Root rot diseases. Pythium, Phytophtora.
- Mildius foliar.

As a source of PK, it should be used in a stage of high uptake of these nutrients: formations of the root system, flowering and fruit set.

**KELOM PHOS 30 20** Phosphite generates defensive molecules in the plant. Phytoalexins and PR Proteins that attack on the pathogen.

These defensive molecules send alarm signs to the cells that haven't been attacked yet.

#### **DOSE AND APPLICATION**



#### **FOLIAR APPLICATION:**

- Avocado, citrus, orchards, gardens, ornamentals and potato: 200-300 cc/hl.
- Strawberries and vegetables: 250-350 cc/hl.
- Olive and vine: 200-400 cc/hl.



#### **FERTIRRIGATION:**

- Avocado, citrus, orchards, gardens, ornamentals, potato and fruit trees: 6-15 L/ha. Post harvest, and before flowering in citrus; in the spring, early summer and early autumn wet well and the skirt of the trunk.
- Strawberries and vegetables: 4-10L/ha every 20 days.

#### COMPOSITION

%w/w

Phosphorus (P<sub>2</sub>O<sub>5</sub>) Potassium (K,Ô)

30 20

Density 1,4 g/cc pH (1% solution) 4 - 5



Best flowering and fruiting

Greater weight and fruit size

#### **INJURIES DESINFECTANT**

Apply with a brush on the wound area a broth at a concentration of 350-700 cc / I (3.5-7 liters L/10).

Before preparing the final mixture, a compatibility test has to be done.

Do NOT mix directly with acid products of strong reaction, neither emulsifiable product with an alkaline reaction.

#### **CROPS**

**CITRUS** 

**VEGETABLES** 

OLIVE

**ORNAMENTALS** 

**FRUIT TREES** 

STEMIC

VINE

**POTATO** 

















## KELOM PHOS CU



#### **CHARACTERISTICS**

**KELOM PHOS CU** is a plant defense inductor and copper deficiency corrector enriched phosphorus in the form of phosphite ion. The combined application of copper and phosphite ion allows on a single application to prevent copper deficiency at the same time strengthens the plant against the presence of parasitic fungi. Besides its high phosphorus content makes it an ideal complement for fertilization in flowering time or transplantation.

Increases the resistance of plants to environmental, nutritional and/or pathological critical situations.

#### **DOSE AND APPLICATION**



#### **FOLIAR APPLICATION:**

- Avocado, citrus, orchards, gardens, ornamental plants and potatoes: 300-450 cc / hl 2 applications

- Strawberries and vegetables: 250-350 cc / hl
- Olive and Vine: 200-400 cc / hl.



#### FERTIRRIGATION:

- Avocado, citrus, orchards, gardens, ornamental plants and potatoes: 7-20 L / ha

In 2 consecutive irrigations; at the end of irrigation

- Strawberries and vegetables: 6-9 L / ha
- Olive and Vine 10 cc/m2.

#### INJURY DISINFECTANT

Brushing in the injury area broth at a concentration of 500-700 cc / l.

COMPOSITION

%w/w

Phosphorus (P<sub>2</sub>O<sub>5</sub>) Copper (Cu)

25.0 6.0

Density

1,4 g/cc



**KELOM PHOS CU** provides the proper amount of high energy phosphorus and copper, obtaining:

Best flowering and fruiting

Greater weight and fruit size

Increase in fruit quality

Protection against pathogens

Before preparing the final mixture, a compatibility test has to be done.

Do NOT mix directly with acid products of strong reaction, neither emulsifiable product or a product with alkaline reaction.













## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

## PLANT GROWTH REGULATORS





## PLANT GROWTH REGULATORS

**PGR** are compounds produced naturally by plants and are essential for regulating their own growth. They act by controlling or modifying plant growth processes, such as formation of leaves and flowers, elongation of stems, development and ripening of fruit.

#### **CLASSIFICATION**

Class	Action	Examples
Promoters	Cause faster growth	Auxins Cytokinins Gibberellins Brassinosteroids
Inhibitors	Reduce growth	Ethylene Abscisic acid (ABA) Jasmonic acid

#### **GENERAL FUNCTIONS**

- Auxins (cell elongation)
- **Gibberellins** (cell elongation + cell division / translated into growth)
- **Cytokinins** (cell division + inhibits senescence)
- **Abscisic acid** (abscission of leaves and fruit + dormancy induction of buds and seeds)
- Ethylene (promotes senescence, and fruit ripening





## BLATSTİM



#### **CHARACTERISTICS**

**BLATSTIM** is a organic biostimulant that works without altering the natural processes of metabo lism in crops.

BLATSTIMincreases the quality and the quantity of the harvest, while providing a greater defense against stress and pathogen attacks (virus, bacteries).

#### It acts at 2 levels:

Provides thiol groups, which increase the enzyme activity and plant metabolism, favoring the vegetative development and a better harvest.

- Promotes flowering and fruit setting
- Improves the foliar fertilizers and biostimulants efficiency
- Stimulates seed germination and sprouting
- Defense against stress
- First vegetative stages: it improves root development and it speeds up the formation of vegetative structures
- Pre-flowering: increase of fertilization and the quantity of ripened fruit
- Setting: improvement of celular division and dicrease the fruits fall
- Beginning of fruit fattening: increase the final size

COMPOSITION	%w/v
AATC	5,0
L-Aminoacid	6,1
Folic Acid	0,10



CROPS	TREATMENT	DOSES	EFFECTS
Olive Vegetable and Strawberry	<ul> <li>2-3 treatments: from pre-flowering, until post-flowering or fruit filling.</li> <li>3 treatments: from pre – flowering each 20 days.</li> </ul>	50 cc/HL 50-100 cc/HL	Better flowering Bigger fruits Higher oil content Higher quiality Higher harvest Higher plant growth
Citrus	3 treatments: from pre – flowering until the beginning of the color change of the fruit.	40-60 cc/HL	Better flowering Higher size of fruits Higher harvest
Potatoes	From 4-6 leaves each 20 days.	30-80 cc/HL	Higher harvest
Fruit tree and Subtropicals	Treatments from petal fall and continue at a rate of 15-20 days.	50-60 cc/HL	Improves fruit set Improves stress tolers Higher harvest
Table and wine grape	Pre – flowering, post flowering each 15 days.	40-50 cc/HL	Higher sugar content Higher harvest
Cereals and rice	Stress situation.	500 cc/Ha	Higher harvest
Sugar beet	Growth.	300-600 cc/Ha	Higher harvest
Cotton	Growth.	500-600 cc/Ha	Higher harvest













## STOP FRUIT



**PLANT GROWTH REGULATOR** 

#### **PRECAUTIONS**

which affect on the processes related into fruit abscission. The abscission occurs by formation of several layers of specialized cells that ensure the connection between the fruit and plant. Auxin **STOP FRUIT** promotes abscission when applied immediately after fruit set, but, if applied later, its effect is to delay fruit abscission preventing fruit drop.

is licensed for clearing of apple fruit, and apple and pear trees to prevent fruit drop.

#### THINNING FRUIT AND TO AVOID FRUIT FALL

**USAGE INSTRUCTIONS:** If you have no experience with **STOP FRUIT** or similar products, consult the technical service of the company.

**SAFETY TERM:** There is no safety term between the last application and harvest term security.

#### **COMPOSITION**

%w/v

(1-Naphthaleneacetic acid) SL (85 g/l)

8,5



#### DOSAGE AND APPLICATION

**STOP FRUIT** apply by spraying, wetting the fruit well, with the indicated doses for guidance. Treatment is done when the temperature is between 15 and 25 °C, and avoid the presence of dew such as the hours of high heat and will NOT MIX WITH OTHER PRODUCTS if compatibility is unknown.

#### **FRUIT THINNING**

**Only Apple:** 15-20cc/hl apply where the old wooden central fruit have a size of 10-15 mm in diameter, approximately 15-21 days after full flowering.

#### **AVOID FRUIT DROP**

APPLE 40cc/hl PEAR 15-25cc/hl Apply between 3 and 10 days before harvest, possibly repeated treatment with a ten to fifteen days. In late harvest varieties of higher doses may be required.

#### **APPLICATION CONDITIONS**

High relative humidity (> 70%). High water volumes are recommended 1000-1500 I / ha
Avoid treat with high or very low temperatures. Ideal 15-22°C
It is preferable to treat at dusk or on cloudy days.
The ANA is destroyed by UV

#### **STORAGE**

Store in original container in a cool place (not direct sunlight), dry and locked out of reach of children. Do not allow product to freeze











## GROWTH MIX



#### **PLANT GROWTH REGULATOR**

#### **CHARACTERISTICS**

**GROWTH MIX** is a balanced plant growth regula tor with nutrients, amino acids and fulvic acids, all of great importance and which have an impact on physiological and metabolism processes of plants. All components in **GROWTH MIX** are in assimilable form by leaves and other plant organs.

The balance between the concentrations of auxins, gibberellins and cytokines in **GROWTH MIX** allows to have a significant contribution of these compounds to the plant without causing a hormonal imbalance.

#### **Excelent flowering and fruit set**

#### **COMPOSITION**

%w/w

Gibberellines 500 ppm Calcium (Ca) 0,8 **Auxines** 500 ppm Zinc (Zn) 2,0 Cytokinins 200 ppm Fulvic Acids 25,0 Cisteine 500 ppm Nitrogen (N) 9,0 **Tiamine** 1110 ppm

200 ppm



Inositol



#### DOSAGE AND APPLICATION

Chard, spinach and open leaf lettuce: Apply 0.75 to 1 L/Ha of 3 to 4 weeks after emergence.

**Cotton:** Apply 0.75 to 1 L/Ha at the time of first or second squares. Apply mainly in medium and low size varieties or to exit from a stage of stress.

Garlic and onions: Apply 0.75 to 1 L/Ha in the moments before the bulb differentiation (10-12 weeks after planting).

Alfalfa: Apply 0.75 to 1 L/Ha after each cut when regrowth appears.

Celery: Apply 0.75 to 1 L/Ha of 4 to 6 weeks before cutting.

Broccoli, Cauliflower, Cabbage and Lettuce: Apply 0.75 to 1 L/Ha at the beginning of the formation of the head (inflorescence).

**Scallion and leek:** Apply 0.75 to 1 L/Ha at 30 days after transplantation for leek and 45 days after planting for onions, repeated 30 days later.

Cucurbits (cucumber, melon and watermelon): Apply 0.75 to 1 L/Ha when the plants are 3-5 true leaves. Repeat at the beginning of the formation of elvers, continue every 15 days until the last cut.

Cereals (wheat, barley, oats, triticale): Apply 0.75 to 1 L/Ha when full tillering, beginning of stalk formation and boot stage.

**Melon:** In plantations with 1 or 2 years, apply 0.75 to 1 L/Ha during the cycle. In cultured 3 more years to 2 applications with 30-day interval between each. The first when the plant is 30 cm height and the second 50cm height.

Flowers: Apply 0.75 to 1 L/Ha at the time of the appearance of the flower stems.

**Beans, Green Beans, Soybeans:** Apply 0.75 to 1 L/Ha at the time of the appearance of flower buds and repeat 1-3 times every 15 days.

Maize and sorghum: Apply 0.75 to 1 L/Ha between 6 and 8 fully developed leaves, and if possible repeat in full bloom.

Potato: Apply 0.75 to 1 L/Ha at the time of tuber initiation and repeat 15-30 days later.

**Tomato, pepper and aubergine:** Apply 0.75 to 1 L/Ha to the appearance of the flowers, repeat every 2 or 3 weeks until the last commercial flowering.

Tobacco: Apply 0.75 to 1 L/Ha at 30 days after transplanting and repeat 30 days later.

Citrus, avocado, mango, papaya and guava: Apply 150 to 200ml per 100L of water to the appearance of repeating blooms 30 days.

**Apple and peach:** Apply 150 to 200ml per 100L silver tips water (apple) and green tips (peach) and repeat when the fruit has 1 to 2 cm diameter.

**Strawberry:** Apply 0.75 to 1 L/Ha once a month, starting at the time of appearance of the first flower cluster.





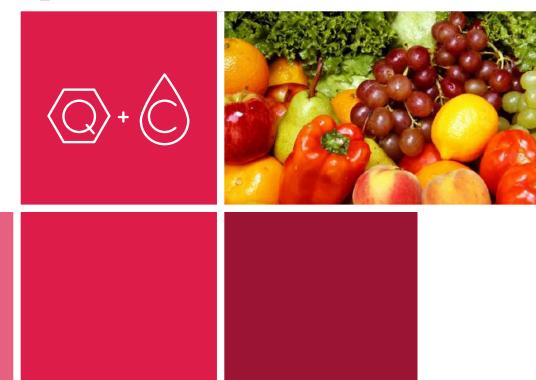








## QUALITY + COLOR





### QUALITY + COLOR

#### **EXTERNAL LEVEL**

IMPROVES APPEARANCE

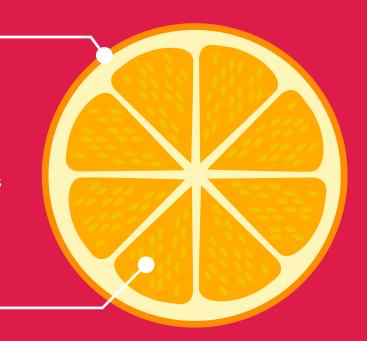
Size, shape, gloss and color

IMPROVES FEEL

Firmness, texture and peel thickness

REDUCES DEFECTS

Cracks, creases, marks and flaws



#### **INTERNAL LEVEL**

- IMPROVES TASTE sweetness, bitterness, sourness, saltiness and juice content
- IMPROVES TEXTURE

Tenderness, firmness, crispness, crunchiness, chewiness and fibrousness

#### **HIDDEN LEVEL**

• IMPROVES STORAGE AND SHELF LIFE

By reducing water loss and decay, discoloration, bruising and other mechanical injury, wilting and texture changes



IMPROVES PROCESING QUALITY



IMPROVES NUTRITIVE VALUE -

Content of sugars, proteins, starch, soluble solids, vitamins and minerals







## Fruit Q



#### **CHARACTERISTICS**

**FRUIT Q** is an innovative product. Result of experience and research of Aspe. Its special formulation acts both structurally in fruits and vegetative organs of the plant, so stronger tissues are obtained

The components of **FRUIT Q** stimulate the elasticity of the cell wall of the plant and especially in the fruits.

The physiopathies (cracking, sunburn ...), **FRUIT Q** helps to avoid the depreciation of the fruit (cracking) and limiting the entry of pathogens and the spread of diseases (leprosy, screening, monilia ...)".

**FRUIT Q** improves marketing of the fruit after harvest presenting fruit and vegetables without marks, healthier and more consistent.

#### **ANTI-CRACKING EFFECT**

**INCREASES THE ORGANOLEPTIC QUALITY OF THE FRUITS** 

**ORGANIC PRODUCT 100% NATURAL** 

**SHELF-LIFE IMPROVEMENT** 

**PROTECTS AGAINST SUNBURN** 

#### **COMPOSITION**

100% (phospholipids, glycolipids and natural polymers)









#### **FOLIAR APPLICATION**

#### Foliar application: 3-5cc/L (300-500 cc/hL).

The doses have to be optimized according to the characteristics of the soil and water, as well as the greater sensitivity of each crop. It is advisable to repeat the treatment at intervals of 10-15 days. It acts by contact, so it is recommended to wet the entire surface of the vegetable well.

#### **Phytotoxicity**

There are no known incompatibilities with commonly used insecticide and fungicide products, although compatibility tests are recommended. Do not mix with products with a strong acid reaction. It can be mixed with most other commonly used products, although a compatibility test is recommended.

#### **Security Term**

It has no residues, nor waiting period.

#### **Usage Precautions**

It does not need any special application and handling conditions. Do not store in areas with too high temperature.

#### **Observations:**

Read carefully the contents of the container label. The content of this page is for informational purposes only.















## Kalitat



#### **CHARACTERISTICS**

**Kalitat** is a product specially designed to improve the uniformity, coloration, consistency and maturation of the fruit. KALITAT is a produc**Kalitat**:ludes a special form in the quality and production of the fruit, as a consequence of its active biological components

Kalitat incorporates an organic molecular polymer of high weight, which confers more elasticity, hydration and firmness to the skin of the fruits. The contribution of calcium (Ca) and magnesium (Mg), give Kalitat the ability to reduce the permeability of cell membranes and the absorption of water, helping to increase the firmness of the fruit and, therefore, extend its useful life.

The **Kalitat** balanced formulation, designed with an organic matrix rich in polysaccharides, macro and microelements, key elements in the process of fruit setting and ripening, has been achieved because of a careful selection of various components, prepared in an optimal balance. The result is a product with the highest quality and efficiency.

**IMPROVES NATURALLY FRUIT COLOR** 

**INCREASES FRUIT CONTENT OF SUGAR** 

**IMPROVES FRUITING AND PROLONG SELF LIFE** 

IMPROVES THE CALIBRE AND FIRMNESS OF THE FRUIT

ADVANCES THE FRUIT RIPENING

#### **APPLICATION**

<b>FOLIAR</b>		
Crops	Application	Dose cc/l
Citrus	Fruit growth End of growth Pre-maturity	4 4-5 4-5
Cut flower (CARNATION, LILY, GERBERA, ROSE)	At floral bud differentiation and pre-flowering	2-2,5
Egg plant	From berry growth every 10-15 days	3-4
Grape	From grain growth every 20-25 days	3-4
Kiwi	Fruit growth After summer vegetative rest	4 4 (2 applications)
Melon	From fruit growth (egg-sized) every 10-15 days	3-4
Pepper	From berry growth every 10-15 days	3-4
Pome fruit	Fruit growth End of growth Pre-maturity	4 4-5 4-5

COMPOSITION	%w/w
Total Nitrogen (N)	3,0
Potassium (K2O)	5,0
Calcium (CaO)	5,0
Magnessium (MgO)	2,0
Polysaccharides	25,0
Uronic acid	2,0
Boron (B)	0,1
Zinc (Zn)	0,1



Crops	Application	Dose cc/l
Stone fruit	Fruit growth End of growth Pre-maturity	4 4-5 4-5
Strawberry	From fruit whitening every 8-10 days	3-4
Sugarbeet	12-14 leaf stage Two weeks later	3 3
Tomato	From berry growth every 10-15 days	3-4
Watermelon	From fruit growth (egg-sized) every 10-15 days	3-4
FERTIGATION		Dose
Horticulture	At fruit development and every 10-15 days	3-4 l/ha
Floriculture	At floral bud formation	4-7 l/ha









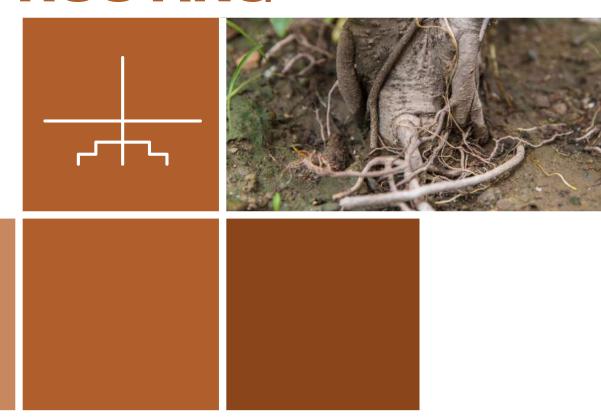




## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

## ROOTING





### ROOTING

The root system of the plant is responsible of exploring the soil and take the water and mineral nutrients from it; an abundant root is one of the most direct and economical ways to increase efficiency in nutrient absorption, whatever is its income mechanism, "mass flow, diffusion or interception.

The relationship between a good root system and adequate vascular tissue formation is direct and together they establish one of the most important bases for the achievement of crop's greater productive potential.

In addition, at the root takes place the synthesis of the hormones that are responsibles for regulating the metabolism of the plant in processes as division, cell thickening and elongation, senescenc, fruit set and growth, etc.

#### **CHARACTERISTICS**

- Stimulates effectively the root system development.
- Helps plant overcome post-transplantation stress.
- Is safe, natural, highly innovative and easy to use.
- Maximizes plant's performances









#### **BIOSTIMULANT ROOT SYSTEM**



	SOIL DOSAGE	Lts/ha
Horticultural	3-5 applications after sowing or transplanting, during the early stages of cultivation and the entire crop cycle	5-8
Fruit and Citrus	3-4 applications after transplantation, during the early stages of cultivation and in the crop cycle	6-10
Strawberry	4-6 applications after transplantation, during the early stages of cultivation and in the crop cycle	6-8
	FOLIAR DOSAGE	
Horticultural, vine, melon, kiwi, citrus, olive, hazelnut		200-250 ml/100Lwater
Meadow	Under stress conditions.	2-2,5 1/100Lwater
	EXTENSIVE CROPS FOLIAR DOSAGE	Lts/ha
Maize	1-after the beginning of vegetation - development of	1-15
011	leaves (BBCH 10-14)	
Oilseed rape	1-after the beginning of vegetation -development of leaves (BBCH 10-14)	1-1.5
	2-the root system regeneration after the beginning of spring vegetation (BBCH 19/20)	1-15
Potato	1- development of leaves (BBCH 10-14)	1-1.5
Sugar beet	1-after the beginning of vegetation - development of leaves - youth stage (BBCH 10-16)	1-1.5
	2-development of leaves – rosette growth – crop cover (BBCH 18-33)	1-1.5
Wheat	1-after the beginning of vegetation - development of leaves - 3 leaves unfolded (BBCH 10-13)	1-1.5
	2-the root system regeneration after the beginning of spring vegetation (BBCH 21/22)	1-1.5

COMPOSITION	%w/v
Total Nitrogen (N)	2,85
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	14,20
Potassium (K <sub>2</sub> O)	17,00
Iron (Fe) EDTA	0,17
Manganese (Mn) EDTA	0,17
Zinc (Zn) EDTA	0,17
Free Aminoacids	2,85

**STYM ROOT** is a natural rooting and biostimulant specially developed and formulated with free and codifiable amino acids, enriched with NPK and essential microelements chelated of rapid assimilation, indicated to stimulate and enhance the development of the root system, as well as the biological activity and physiological processes of the plants.

**STYM ROOT** revitalizes, gives vigor and energy to the crops, while at the same time acting as an activating complex of the enzymatic plant metabolism.





NO STYM ROOT

The use of **STYM ROOT** is particularly suitable for:

- To increase the development of the root system at the time of transplantation in the first phases of cultivation.
- Stimulate the growth and general development of the plant in the first moments, as well as in situations of any type of stress.
- It facilitates the synthesis of amino acids and the obtaining of protein, with a considerable saving of energy.
  - It contributes to crops with essential easy assimilation fertilizer units.

STYM ROOT is compatible with a large part of plant protection and foliar fertilizers, except with mineral oils, cupric and organocupric products, sulfur or any very alkaline product. However, it is necessary to carry out a preliminary test of compatibility and selectivity of the products to be applied.























#### **BIOSTIMULANT ROOT SYSTEM**

#### **CHARACTERISTICS**

STYM ROOT SOLID is a plant biostimulant that promotes development and root growth, in foliar and soil applications directly in the root areas, its effect contributes to increase the flow of nutrients from the soil solution to the plant, granting plants with greater resistance to adverse environmental effects.

STYM ROOTSOLID has a high concentration of Phosphorus (fast assimilation) and specific organic extracts rooting inducing for any stage of crop

STYM ROOTSOLID provides the conditions and elements necessary for the development of the root, increasing its growth and obtaining an increase in the vigor and resistance of the crop.

Each molecule of STYM ROOT SOLID has a specific function in the stimulation of root system development. In addition, the composition of Stym root solid is in a specifically studied balance in favour the development of the crop during the first

Recommended for:

**STYM ROOTSOLID** is used at the beginning of the plant activity to stimulate the growth of the roots and favour the activity of the plant in the first stages; in cases of stress, it also activates the plant. Its use is recommended for all kind of crops.

The relationship between the good root system and the proper formation of vascular tissues, is direct and together establish one of the most important bases for achieving a greate productive potential of the crop.

In addition to this, it is at the root that most hormones are responsible for regulating plant metabolism are synthesized in important processes as cell division, thickening and elongation; senescence, fruit setting and growth fruit, etc.

#### Principal actions of STYM ROOTSOLID

#### Induction of absorbent root hair formation

Root strengthening, thanks to the participation of phosphorus and potassium of high assimilation

Increasing its growth and obtaining an increase in the vigor and resistance of the crop

In a stressful situation allows the reinforcement of the root zone necessary for the recovery and reactivation of crops

Increases the number of the crops

#### COMPOSITION

%w/w

Nitrogen (N) Total 7,00 Phosphorus (P<sub>2</sub>O<sub>5</sub>) 35,0 Free amino acids 20,0 Indolbultyric acid (IBA) 1500 ppm Naphthyacetic acid (ANA) 500 ppm



STYM ROOTSOLID STYM ROOTSOLID

#### **DOSES AND APPLICATION**

CROP	DOSAGE Kg/Ha	APPLICATION TIME		
Substratum or substrate for trays	Dissolve 125-250g in enough water to humidify 100 kg of substrate	Use the low dosage at temperatures below 20°C and the high dosage at temperatures higher than 20°C		
Nurcery bad and trays	100g for each 200L of water	Apply once a week, starting in the third week of seeding development		
FIELD APPLICATIONS				
Transplant	100g for each 100L of water	Apply at the time of transplantation or one week after applying 400g pero 100L of water, apply directing to the base of the plant		
Foliars	0.5 to 1 Kg/ha	Apply in the second and third weeks after transplantation		
Drip irrigation	2kg/Ha	Dllute the product in irrigation water. Apply to the 2nd, 3rd and 4th week after transplantation		

STYM ROOT SOLID is applied by sprinkler a dissolved solution in the amount of water indicated in the recommendation.

In the case of newly transplanted seedlings it is suggested to apply STYM ROOTSOLID when the root activity is starting (1-5 days after transplantation), be careful that the product may stay deep in the root. For best results, it is recommended to repeat the treatment once or twice at a weekly interval.

In establishment annual crops we suggest applying **STYM ROOT SOLID** at an interval of 10-15 days, preferably during the cutting season. In the case of perennials apply it on when it starts the "root development" or during fruiting. For a better result it is recommended to repeat the treatment 2 or 3 times.

It is recommended to be mixed with registered products in authorized crops, but compatibility test, It is suggested to avoid mixing with Calcium-base products non chelated.













## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

## REPELLENTS





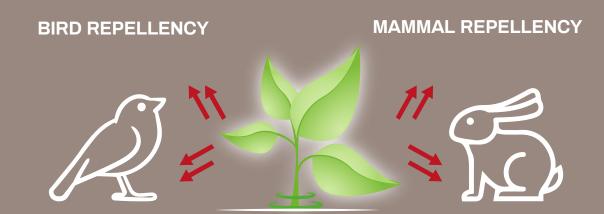
### REPELLENTS

In many occasions, damage to agriculture occurs when animals such as mammals or birds eat or destroy in any way the plantings and plantations of any kind.

The repellent products avoid this type of damage in a natural way and 100% safe for the environment and crops.

These products generate a repellence by means of unpleasant odors or flavors preventing the atacks from eating or coming back to the plantation. In addition these products do not leave residues in the plant or the fruit, so it does not affect the characteristics of quality of the harvest and avoids the safety term.









## BIRDS REPELLENT



#### **CHARACTERISTICS**

BIRD Repellent is a powerful biodegradable product for all kinds of birds, to be used in those places where rest, feed or nest.

Its taste and odor is very unpleasant for birds, causing the eviction of them from the place of the application.

It acts as a birds repellent without affecting them or cause them harm. Its effect is purely repellent.

DISSOLVES EASILY IN WATER AND CAN BE APPLIED WITH ANY TRADITIONAL SPRAY EQUIPMENT.

DOES NOT ALTER THE PHYSIOLOGY OF FRUITS, UNCHANGED THEIR ORGANOLEPTIC OR AESTHETIC FEATURES.

IT HAS NO RISK OF WASTE AND OTHER POLLUTING ELEMENTS IN THE HARVEST.

**ORGANIC PRODUCT 100% NATURAL** 

NATURAL CROP PROTECTION AGAINST ATTACKS OF BIRDS COMPOSITION %w/v
Methyl Anthranilate 30,0



#### **DOSAGE AND APPLICATION**

For all kinds of birds; sparrows, pigeons, gulls, swallows, blackbirds, magpies, crows, etc. Apply 3 to 5 L/ha

Repellency active period: seven days.

In an application perform a week before harvest.

In two applications do at fourteen days and seven days before the harvest.

Apply with conventional equipment (1000 L/ha water), electrostatic (60 L/ha water), back pump and/or pressurized. For aerial applications, apply the product with volumes of moistening of 40-50 L of water/ha. Do not apply this product on wet surfaces. Shake well before using.

Do not apply with adjuvants, surfactants, adherents, dispersants, etc. It is incompatible with styrene and some plastic products, paints and varnishes. If you want to mix with any pesticide or fertilizer perform a compatibility test.

WAITING PERIOD: 8 DAYS BEFORE HARVEST

#### **COMPATIBILITY**

Do not mix with acids or alkaline products. Non-flammable, non-corrosive, non-explosive.













## MAMMAL REPELLENT



#### **CHARACTERISTICS**

MAMMAL Repellent is a potent repellent of botanical origin with some action bioinsecticide, formulated with extract of seeds and fruits of hot pepper.

By vapors given off by performs an effective repellent action against rabbits, hares, deer and wild boars and other animal pests for crops.

DISSOLVES EASILY IN WATER AND CAN BE APPLIED WITH ANY TRADITIONAL SPRAY EQUIPMENT.

DOES NOT ALTER THE PHYSIOLOGY OF FRUITS, UNCHANGED THEIR ORGANOLEPTIC OR AESTHETIC FEATURES.

IT HAS NO RISK OF WASTE AND OTHER POLLUTING ELEMENTS

**ORGANIC PRODUCT 100% NATURAL** 

NATURAL CROP PROTECTION AGAINST ATTACKS OF MAMMALS

#### **COMPOSITION**

%w/v

Oleoresin capsicum (hot pepper extract)

5,0



#### **DOSAGE AND APPLICATION**

Foliar application: 200-300 cc/hl Fertigation: 2 L/ha

Two to three treatments per crop cycle. It is recommended to treat first thing in the morning or late in the afternoon. Do not mix with coppers and sulfur. Use water spray with pH neutral or slightly acidic. In the case of mixtures consult our technical service. Avoid contact with skin or eyes, wash with abundant water if it occurs. If it is necessary for persistent itching should be washed with water in a solution of bicarbonate to neutralize the effect; therefore the use of gloves and protective glasses is recommended. Do not ingest the product. If there is some dizziness by the use of repellent moves rapidly by placing it in a well ventilated area.

It can also be applied with a brush, paint the surface with a broth of water and product at 25%. Period of active repellency: 30-40 days depending on weather conditions

WAITING PERIOD: 8 DAYS BEFORE HARVEST

#### **COMPATIBILITY**

Do not mix with acids or alkaline products. Non-flammable, non-corrosive, non-explosive.











## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

### SALINITY CORRECTORS









#### **CHARACTERISTICS**

**DOWN SAL** has a quick effect of desalination and it doesn't affect to the soil organic matter. It keeps cleans the irrigation systems, increasing the speed of the water to uptake into the soil, expanding it and releasing nutrients.

**DOWN SAL** has low toxicity and it's biodegradable.

**DOWN SAL** is a aquous solution of polymaleic acid, if it's integrated to the soil, it solubilizes the calcium, magnesium and sodium: the first

two replace sodium at the myceliums, keeping the last one in the disposition to be lixiviating for the irrigation water.

With **DOWN SAL** you can achieve:

#### **BENEFITS**

Accelerates the lixiviating of the salts with a positive and inmediate response of the crop.

Keeps the quality of the soil.

Makes easier the tasks for crops.

Greatest assimilation by the plant.

Safety and not polluting use.

#### COMPOSITION

%w/w

Polymaleic acid Density: 1,1 33,0



#### With **DOWN SAL** you can achieve:

- Greatest disponibility of Ca in the plant
- Better relations between Ca/Mg and Ca/Na
- Ionic exchange of Sodium x Ca. Ameliorative of the structure and capacity of the drainage in soils.



#### **DOSES AND APPLICATIONS**

	Crops	L/Ha	ml/100L	Details
--	-------	------	---------	---------

**Alfalfa** 5 L/Ha at the first irrigation and 2,5 L/Ha at the irrigations next to each cut.

Avocado, citrus, stone fruit 2-4 L/Ha at the first irrigation of the season previous to the budding and 1-2 L/Ha at each

trees, seed trees, louquat irrigation during the formation of the fruit until 8-16 L /Ha per year.

and bananas

**Cotton** 8 L/Ha at the irrigation before to the sowing time or 4 L/Ha at each one of the firsts two

irrigations.

**Grass** 5-10 L/Ha at the first irrigation and 2,5 L/Ha at successive irrigations.

**Cucurbitaceae, pepper and** 4-7 L/Ha before the sowing time or transplants y 2,5 L/Ha at the next irrigation.

tomato

**Asparagus** 5-10 L/Ha at the first irrigation and 2,5-5 L/Ha at successive irrigations until add up to 10-14 each

year

Horticultural and 4-8 L/Ha at the first irrigation of the season and 1-2 L/Ha weekly until add up to 8-16 each year

industrials

**Strawberries** 8-16 L/Ha each year

Artichoke, cabbage, lettuce, 12-15 L/Ha each year. It's recommended integrating in the irrigation water 200-400 cc/m 3

beetroot and carrot















#### **CHARACTERISTICS**

**KELOM** Sal adds to the soil water soluble calcium and organic acids, in soluble and stable form, drastically reducing the "toxic" level of complex colloidal sodium.

**KELOM**Sal reduces salinity, decreasing the levels of: electrical conductivity (EC), exchangeable sodium percentage (ESP) and Sodium Absorption Ratio (SAR/SAR)

**KELOM**Sal contributes and releases calcium to the soil, decreasing and correcting calcium deÿciency su°ered by crops.

**KELOM**Sal increases the rate of Soluble Calcium, occulate the soil and improves drainage in compacted soils.

**KELOM** Sal improves soil structure by increasing the germination capacity of the crops that have problems with "crust formation".

COMPOSITION	%w/w
Complexed Calcium oxide (CaO)	10,0
Water soluble Calcium (CaO)	10,0
Total Nitrogen (N)	4,0



#### **DOSAGE AND APPLICATION**

#### **CROP**

#### **SOIL DOSES AND APPLICATION**

**AVOCADO, KIWY AND** 50-70 L / Ha in 2-4 irrigations from spring to harvest.

**CHERIMOYA** 

**LUCERNE** 50-60 L / Ha in 4-5 treatments from the second irrigation **CITRUS** 50-70 L / Ha in 2-4 treatments from shooting to fall.

**STRAWBERRY** Initial planting (Oct-Nov) 10-15 L/Ha. From pre-flowering to fruit set (Dec-Mar) 4-5 L/Ha and week. Full production/Mar-Jun) 3-4 L/Ha and week.

**FRUIT TREES** 75-125 L / Ha divided between three irrigations.

**INDUSTRIALS** 20-30 L / Ha divided into several irrigations from the fourth leaf.

ORNAMENTAL AND 40-60 L / Ha divided between 3-5 irrigations. HORTICULTURAL

KIICULIUKAL

**BANANA** 40-60 L / Ha to 2-3 applications during the growing season.

**TOMATO** Plantation 1-1.5 cc/plant. Preflowering-Beginning harvest 4-7 L/Ha and week.

Full production 3-5 L / Ha and week

**VID AND GRAPE** 30-50 L / Ha, 3-5 applications util the color change

#### **BULB SALTS WASHING**

Treatment is recommended at initiation of culture. (First watering) to wash the salts. Washing Dose: 25-50 liters / ha

is completely soluble in water, so it can be applied through irrigation systems (drip, pivot, etc) on crops that need it: vegetables, fruit, citrus, ornamentals, etc..

#### **COMPATIBILITY**

KELOMSal it is compatible with insecticides, nematicides, fungicides and herbicides edaphological use.

**KELOM**Sal it is compatible with most fertilizers used in agriculture except fertilizers rich in phosphates, phosphoric acids.

KELOMSal can not be used with mixtures of herbicides based trifluralin







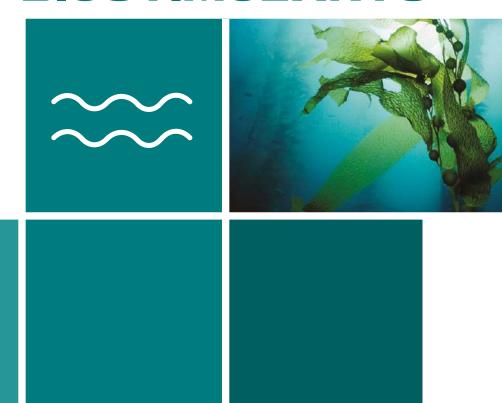




## 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

### SEAWEED BIOSTIMULANTS





### **SEAWEED** BIOSTIMULANTS





1-Reduced soil born pathogens

2-Higher root nodulation
3-Increased soil fertility
4-Greater number of lateral roots
5-Enhanced mycorrhizal associations

### **SEAWEED CONTAINS:**

**Micronutrients** 

Soluble sugars such as mannitol Alginate and oligosaccharide residues
Amino acids, peptides, fatty acids, etc
Plant growth hormoness













## Algex Solid

SEAWEED EXTRACT. BIOSTIMULANT ASCOPHYLLUM NODOSUM

#### **CHARACTERISTICS**

**Algex Solid** is a spray-dried, microgranular powder-based growth biostimulant, manufactured from Ascophyllum nodosum which improves the coloring of crops.

#### **INCORPORATES:**

- Natural Phytohormones

   (auxins, cytokinins, betaines and gibberellins)
- Plant Aminoacids
- Humic and fulvic acids

**Algex Solid** contains natural substances that act as growth promoters, which increase the yield and vigor of crops and improves their color.

The product can be applied throughout the growing season to achieve higher growth and vegetative development.

#### **BENEFITS**

- Improves root growth and plant developement
- •- Improves plant nutritional health
- Increases desirable yield
- Improves plant vigor
- Maximizes crop potential during periods of stress

COMPOSITION Seaweed Extract	%w/w
	25,0
Manitol	1,0
Alginic Acid	1,0
<b>Total Humic Extracts</b>	40,0
Humic Acids	37,0
Fulvic Acids	3,0
Free Aminoacids	25,0



#### **DOSE AND MODE OF APPLICATION:**

Fill half of the spray tank, add the product and finish filling.

Apples, Banana, Beans, Broccoli, Cabbage, Capsicum, Carrots, Cauliflower, Citrus, Cocoa, Coffee, Corn, Cucumbers, Eggplant, Fruit trees, Grapes, Lettuce, Olive, Onions, Pears, Peas, Pineapple, Potatoes, Rice, Soyabean, Stone fruit, Strawberries, Tomatoes...





60-80 gr/100L

**Algex Solid** can be mixed with all common formulations, except for products with alkaline reaction, oils, based on and sulfur, mineral oils and emulsions.













# Algex Amyn



SEAWEED EXTRACT WITH AA. BIOSTIMULANT.
ASCOPHYLLUM NODOSUM

## **CHARACTERISTICS**

**Algex Amyn** is a product that combines in a balanced way the action of the L- $\alpha$  amino acids of vegetable origin and the Seaweed Extract of Ascophyllum Nodosum, obtaining a complete biostimulant.

Due to the synergy between amino acids of vegetal origin (deriving from enzymatic hydrolysis, a process that does not alter their structure and functionality) and seaweed (rich in natural growth promoters), Algex Amyn:

- PROMOTES ENERGY SAVING AND METABOLIC ACTIVITY
- PROMOTES THE SYNTHESIS OF PROTEINS AND NATURAL SUBSTANCES
- STIMULATES ROOT DEVELOPMENT, GERMINATION AND FLOWERING.
- IMPROVES FRUIT SETTING, RIPENING AND FRUIT COLOR, INCREASING QUALITY AND QUANTITY.
- HELPS PLANTS TO OVERCOME STRESS CONDITIONS AND IN THE MOST CRITICAL TIMES OF THE GROWING SEASON.

40
10



# **DOSES AND APPLICATIONS**

CROP	PERIOD OF APPLICATION	FOLIAR DOSES
Horticultural	One week after transplantation. Four applications every 10 days.	100-250 cc/hl
Citrus, fruit trees, olive, banana, vine	In preflowering, fruit set and fruit development in times of stress.	250-300 cc/hl
Cereals	1-2 uses between stem elongation and spike initiation	100-250 cc/hl
Maize	1 application with plants 25-50 cm	100-150 cc/hl
Cotton	After removing the plastic, early flowering and a month later	250-300 cc/hl
Ornamental and green houses	During growth and development 250	
Grass and turf	At the beginning of vegetation and after each cut	100-250 cc/hl

**FERTIRRIGATION DOSES** For all crops a dose of 2,5-5 L/ha per applications is recomended

Avoid mixtures of **Algex Amyn** with copper or mineral oil products.

Doses are approximate and may vary depending of the area characteristics and crops needs.





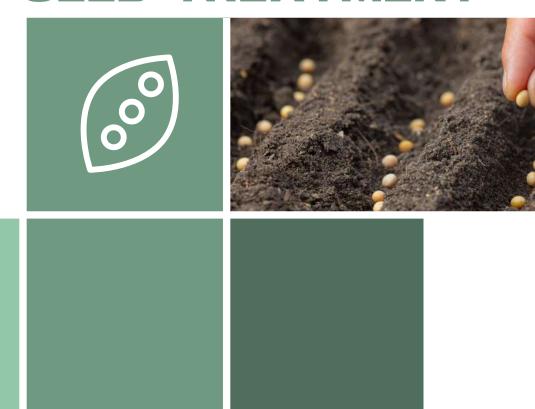




# 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

# SEED TREATMENT





# SEED TREATMENT

Seed treatments are used to promote germination rates, build stronger roots, and provide starter nutrition that enables critical plant processes that build plant immunity.

Seed treatments, like GRAIN START, work by delivering micronutrients directly to your seeds.

Micronutrient seed treatment is the ultimate technique for meeting the early nutrient demand of emerging crops. Left untreated, seedlings must rely on small seed reserves and a very limited root system. Micronutrient seed treatments significantly increase nutrient reserves in the seed to provide optimal support to early plant development, which leads to stronger stock establishment and better yields. With a faster start, nutrient reserves in the soil can be accessed much faster by the developed root system.

With the complete nutrients gained from seed treatments, plants don't need to rely on existing soil resources. Each growth stage is faster due to an optimum nutrient supply.







## **BIOSTIMULANT. SEED TREATMENT**

# **CHARACTERISTICS**

GRAIN START is extracted from vegetables and seaweed. GRAIN START contains amino acids and other natural nutrients which provide the nutrition-energy to seeds, thus increas ing the seeds germination percentage and providing a vigorous start for the plant.

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GRAIN START has an excellent sticking ability to seeds. After a seed treatment with GRAIN START, the product will cover all the seeds surface, and after the germination of root from the seed, the product will be immediately be uptaken by the plant. It provides the nutrition and energy for the plant to emerge from the soil, improving its root development in the process. GRAIN START avors a greater number of plants ready to produce, resulting in an increase in the final productivity.

- INCREASES GERMINATION OF SEEDS
- ENHANCES ROOT DEVELOPMENT
- INCREASES VIABILITY INOCULANTS
- HAS EN EFFECT ON THE UNIFORMITY AND SPEED OF EMERGENCE.
- PROTECTS THE SEED FROM DESICCATION

COMPOSITION	%w/w
Total aminoacids	9,0
Free aminoacids	6,0
Total nitrogen (N)	5,0
Total organic matter	30,0
Seaweed extract	6,0
Total organic matter	30,0



## **APPLICATION**

CROPS	DOSE L/1000Kg	APPLICATION
Wheat	1-1,5	Dilute it with water to 10L of total volume
Corn	2-2,5	Dilute it with water to 12L of total volume
Sunflower	1,5	Dilute it with water to 10L of total volume
Soy	2	Dilute it with water to 10L of total volume
Rice	2	Dilute it with water to 10L of total volume
Rape	3-4	Dilute it with water to 12-15L of total volume

Apply GRAIN START directly to the seed in a container that ensures good seed distribution.

Place the mitad de semillas in a container and apply half of the GRAIN START product required to the surface of the semillas. Mezclar and remover manually or using a suitable machine. Add remaining semilla and required GRAIN START and review.

GRAIN START is applied semi-treated with inoculants, fungicides and insecticides.













# 2025 CATALOG

CROP NUTRITION
AND BIOPROTECTION

# SILICON





# SILICON

## Silicon (Si)

Specially developed silicon formulations to improve plant growth, biomass.

#### **INCREASES GROWTH AND YIELD**

#### **Resistance to Disease and Pest**

Si deposition in the epidermis tissues provides a physical barrier to pathogens and insects, allowing for a reduction in the frequency of chemical applications

#### **Cell Structure**

Si accumulated in the epidermal tissues increases the mechanical estability of the plant. Reduces the incident of lodging

## **Photosynthetic Activity**

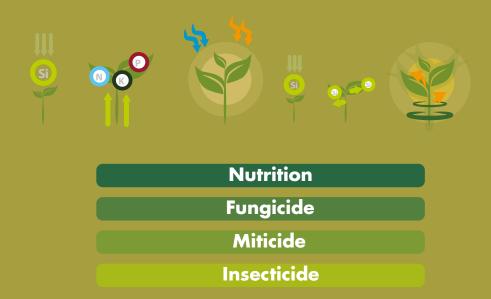
The improved structure produces stronger stems with more erect leaves, increasing its ability to capture light

## **Uptake of Nutrients**

Particularly Nitrogen, Phosphorous, Potassium and Micronutrients

## **Resistance to Environmental Stress**

- · Reduced drought and heat stress. The deposition of Si in the plant tissues reduces transpiration rates.
- · Reduce salt stress by inhibiting Sodium uptake.







# 6 KEYS TO ACHIEVE GROWTH AND YIELD SILICON INCREASE

Resistance to Disease and Pest

Si deposition in the epidermis tissues provides a physical barrier to pathogens and insects, allowing for a reduction in the frequency of chemical applications.

**2** Cell Structure

Si accumulated in the epidermal tissues increases the mechanical estability of the plant. Reduces the incident of lodging.

**3** Photosynthetic Activity

The improved structure produces stronger stems with more erect leaves, increasing its ability to capture light.

**4** Uptake of Nutrients

Particularly Nitrogen, Phosphorous, Potassium and Micronutrients.

- 5 Resistance to Environmental Stresses
  - · Reduced drought and heat stress. The deposition of Si in the plant tissues reduces transpiration rates.
  - · Reduce salt stress by inhibiting Sodium uptake.
  - · Alleviate toxicity of heavy metals: Iron, Manganese, Cadmiun, Aluminium, and Zinc by regulating plant uptake
- 6 Post Harvest Life

Si can associate with cell wall proteins where it might exert an active production of defence compounds.



















#### **CALCIUM SILICATE. FERTILIZER**

## **CHARACTERISTICS**

Silic Ca Flow is a fortifier of plant tissues for foliar and soil use whose purpose is to increase the tolerance of the crop to the attack of pathogens, increasing the life of the fruit and increasing the resistance of the plant and the fruit to the physical damages caused by friction, manipulation, etc.

**Calcium** is a key element in all stages of a plant's cycle. It is essential for growing reaching from germination up to ripeningof the fruits. Calcium makes vegetal tissues more resistant.

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**FUNGICIDE** 

MITICIDE

INSECTICIDE

Resistance to Disease and Pest

Si deposition in the epidermis tissues provides a physical barrier to pathogens and insects, allowing for a reduction in the frequency of chemical applications

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**Photosynthetic Activity** 

The improved structure produces stronger stems with more erect leaves, increasing its ability to capture light

**Uptake of Nutrients** 

Particularly Nitrogen, Phosphorous, Potassium and

- Resistance to Environmental Stress
  Reduced drought and heat stress. The deposition of Si in the plant tissues reduces transpiration rates.
  Reduce salt stress by inhibiting Sodium uptake.
  Alleviate toxicity of heavy metals: Iron, Manganese,
- Cadmiun, Aluminium, and Zinc by regulating plant uptake

#### **Post Harvest Life**

Si can associate with cell wall proteins where it might exert an active production of defence compounds

COMPOSITION	%w/v
Silicon (SiO <sub>3</sub> ) Calcium (Ca)	24,0 15,0
Density	1,40



# DOSAGE AND APPLICATION

Crops	Doses (L/ha/application)		
	SOIL	FOLIAR	
Garlic and onion	5-10	1-4	
Banana		0.5-1	
Berries	7-15	1-4	
Crucifers	5-10	1-3	
Cucurbitaceae	5-10	1-4	
Fruit trees			
Gramineae	5-10	2-4	
Lettuce		1-4	
Legumes		1-4	
Ornamental	7-15	2-6	
Papaya	5-10	1-6	
Grass	10-40		
Solanaceous	5-10	1-4	
Carrot	5-10	1-3	

















**CALCIUM & MAGNESIUM** SILICATE. FOLIAR FERTILIZER

### **CHARACTERISTICS**

Silic Ca Mg Flow is used as a source of Calcium and Magnesium in plant nutrition programs.
The application of this product prevents and corrects Calcium deficiencies aggravated by slight deficiencies of Magnesium and Boron. Regular foliar application of **silic Ca Mg Flow** prevents the effect of calcium deficiencies (apical necrosis, fruit cracking and early maduration) and Magnesium deficiencies (photosyntheticc activity reduction). Crops treated with Silic Ca Mg Flow have better vegetative growth and higher harvest yield.

**Resistance to Disease and Pest** 

Si deposition in the epidermis tissues provides a physical barrier to pathogens and insects, allowing for a reduction in the frequency of chemical applications

**Cell Structure** 

Si accumulated in the epidermal tissues increases the mechanical estability of the plant. Reduces the incident of lodging

Photosynthetic Activity
The improved structure produces stronger stems with more erect leaves, increasing its ability to capture light

**Uptake of Nutrients** 

Particularly Nitrogen, Phosphorous, Potassium and Micronutrients

- Resistance to Environmental Stress
  Reduced drought and heat stress. The deposition
- of Si in the plant tissues reduces transpiration rates.
  Reduce salt stress by inhibiting Sodium uptake.
  Alleviate toxicity of heavy metals: Iron, Manganese, Cadmiun, Aluminium, and Zinc by regulating plant uptake

#### **Post Harvest Life**

Si can associate with cell wall proteins where it might exert an active production of defence compounds

COMPOSITION	%w/v
Silicon (SiO <sub>2</sub> )	27,00
Calcium (CaO)	23,50
Magnesium (MgO)	8,25
Density	1,50
pH	5-6



NUTRITION

**FUNGICIDE** 

MITICIDE

INSECTICIDE

# **DOSAGE AND APPLICATION**

Crops	Dose (Foliar cc/100L)	Application
Horticultural	300-400	Apply 3-4 times at 2 weeks intervals since 15 days post-transplantation
Grapevine and Kiwi	200-300	Apply since 20 cm buds every 15 days (min. 3 applications)
Pome and Stone fruit	200-300	Apply since newly formed fruits until colour change
Pome fruits	250-350	Start applications in newly formed fruits, applying at 15 days intervals
Citrics	300	Apply during bud growth during spring and fall
Berries	200-300	Apply since budding until harvest at 15 days intervals
Potato	300-400	Start applications 30 days after emergence to improve photosynthesis

















# **CHARACTERISTICS**

**Silic** Fe activates natural immune systems of plants and stimulates their growth and development. It contains silicon which is easily absorbed by plants, strengthening cell walls and stimulating numerous vital processes in the plant.

**Silic** Fe as an immunity stimulant is one of the main elements of the strategy to support the natural resistance of plants STRESS CONTROL SYSTEM.

- DESIGNED FOR EXTENSIVE CROPS
- PREVENTIVE / CURATIVE ACTION
- OPTIMAL MISCIBILITY
- LOW COST OF TREATMENT(0.5L/HA)

# **ACTIONS**

- INCREASED PLANT TOLERANCE TO ADVERSE GROWING CONDITIONS (E.G. DROUGHT AND OTHER ABIOTIC STRESSES).
- LIMITED INFLUENCE OF BIOTIC STRESS CAUSED BY PATHOGENS AND/OR PEST ATTACK.
- · STIMULATED ROOT GROWTH IN YOUNG PLANTS.
- IMPROVED CROP YIELD, QUALITY AND STORAGE PARAMETERS.

# **DOSAGE AND APPLICATION**



## **SOIL APPLICATION**

Irrigate the plants 3-6 times in the vegetative period with a 0.1% product solution (100ml of product in 100 liters of water).

#### LEAF FERTILIZATION:

Apply at critical times for plant growth and development every 10-14 days. To increase the resistance of plants to periodic water shortages - perform at least one treatment before the expected period of water shortage, and then 2-3 treatments every 5-7 days.

For more information consult our Aspeagro technical service.

# **COMPOSITION**

%w/v

Silicon (SiO<sub>2</sub>) Iron (Fe) 17,5 3



# **NUTRITION**

**FUNGICIDE** 

**MITICIDE** 

**INSECTICIDE** 

FOLIAR APPLICATION				
Crop	Treatments	Water (L)		
Cereals	2 - 4	200-300		
Trees	2 - 4	500-1000		
Horticultura	2 - 4	400-600		
Dosage: 0,5	l/ha			









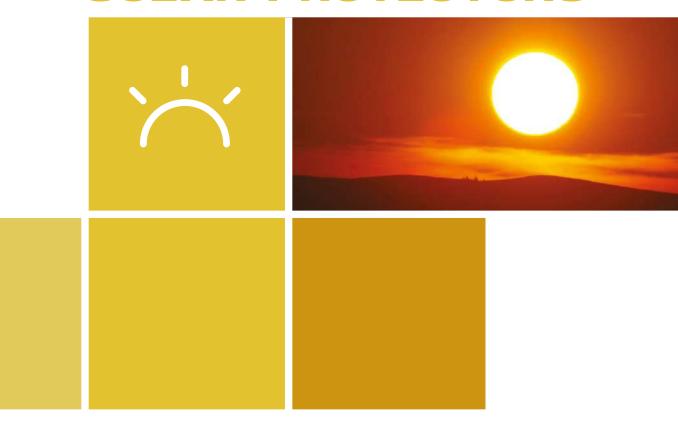






CROP NUTRITION
AND BIOPROTECTION

# **SOLAR PROTECTORS**





# SOLAR PROTECTOR

## What causes sunburn fruit?

The energy of sunlight can cause damage to the sunexposed surface layers of fruit. Sunburn is more due to radiative force of the sun than air temperature.

# Types of apple sunburn

- 1 Sunburn necrosis
- 2. Sunburn browning
- 3. Photo-oxidative sunburn (or bleaching)



# What are spray-on sun protection products?

Leaves and fruit of agricultural crops can be sprayed with suspension of tiny, white mineral particles (clay or calcium carbonate) or with wax emulsions to create a film that provides some protection from the damaging effects of sunlight.

PROTECTED WITH SUNSCREEN



UNPROTECTED



# How do they work?

The mineral particles form a white ÿlm that blocks and re°ec ts some of the direct sunlight to reduce the fruit's surface temperature and the probability of sunburn.

The wax-based product forms a ÿlm that absorbs some of the damaging UV radiation and re°ec ts a small amount of the incoming radiation.

These product must be applied several tiemes during the season to maintain a protective cover on the fruit as it. These products must be applied several times during the season to maintain a protective cover on the fruit as it increases in size.

All spray-on sun protection products must be applied before severe summer heat wave conditions occur and applications must be maintained throughout the hot season to maintain coverage on the expanding fruit.

Resellers usually recommend a minimum of three to four applications, separated by seven to 21 days. More frequent applications are likely to provide greater protection.







#### **SOLAR PROTECTOR**

# **CHARACTERISTICS**

Sunscreen is a solar protector for fruit and vegetables based on Magnesium Oxide in an excipent of Calcium Carbonate, which reduces damage by heat and sunburn stress.

Sunscreen reduces the temperature of the leaf, allowing the stomatal opening to extend for a longer time, increasing photosynthesis. The reflective action of its particles illuminates in a better way inside the three or any other plant, improving fruit and color in the darkest places.

Sunscreen is designed to be applied by any phytosanitary treatment standard equipment and also by aerial.

# **DOSES AND APPLICATIONS**

CROP	DOSES	REMARKS
FRUIT TREES: Apple trees, Pear trees, Lemon, Orange, Tangerine, Clementine, Grapefruit, Olives, Peaches, Nectarines, Pomegranates, Persimmons, Avocado	5-10 Kg/100 L water	Apply in aqueous solutions in a traditional way, with nebulizer. It is recommended to apply on two consecutive passes and in opposite directions. It is necessary that the tree is completely covered (homogeneous distribution) and white color. Make 3-5 applications every 7 days maximum. These applications should be initiated before the period of maximum susceptibility. Use wetting from 1500 to 3000 L/ha
<b>VEGETABLES:</b> Tomatoes, Peppers, Melon, Watermelon	4-7 Kg/100 L water	It's recommended to apply on a volume of 600L/ha two consecutive passes in opposite directions. Apply during periods of higher susceptibility corresponding to the start of veraison when the fruit begins to change from green to orange.

**Application time:** applications should begin when temperatures exceed the thermal threshold established by the technicians of the area.

Frequency of application: every 20 to 30 days, depending on weather conditions and/or rate of growth of the fruit.

Number of applications: 3-4 applications per season and depending on weather

COMPOSITION	%w/w
Ca(CaO)	55,00
Mg(MgO)	0,15



# **QUALITY AND HEALTH IN PRE-HARVEST**

































#### **SOLAR PROTECTOR**

# **CHARACTERISTICS**

**Sun Screen Flow** is a micronized calcium carbonate liquid sunscreen and next-generation silicon, designed to provide protection to the plant and fruit during the period of growth, improving the health of the plant and eliminating sunburn.

The foliar application of **Sun Screen Flow** at the defined dosage, allows to create an indirect protection of the plant and the fruits from sunburn and more generally from thermal stress. The homogeneous film that forms on the plant protects the crops from UV rays: reducing absorption and increasing the light diffusion.

- Reduces the temperature in plants and fruits by 3 - 4 °C
- Reduces damage from sunburn
- Improvement of post-harvest quality
- Protects against water stress
- Enhances the fruit color
- Extends post-harvest life
- Reduces the attack of insects
- Prevents mildew and oidium
- Easy removal in post-harvest

COMPOSITION	%w/v
Calcium ( CaO <sub>2</sub> )	34,00
Silicon ( CaSiO <sub>3</sub> )	5,00



**NEW formulation with Si!** 

## **DOSES AND APPLICATIONS**

**Sun Screen Flow** can be used on many crops, such as: almonds, apples, apricots, citrus, figs, grapes, melons, nectarines, olives, peaches, pears, plums, tomatoes, walnuts and watermelons.

CROP	APPLICATION PER SEASON	AMOUNT OF FORMULATED/Ha	AMOUNT OF WATER/Ha	TOTAL SEASON/Ha
Apples	3	20-30 L/Ha	800-1000 L/Ha	800-1000 L/Ha
Citrus	3	20 L/Ha	800-1000 L/Ha	800-1000 L/Ha
Tomatoes	3	20 L/Ha	750 L/Ha	750 L/Ha
Melons	2	20 L/Ha	1000 L/Ha	1000 L/Ha
Watermelons	2	20-30 L/Ha	1000 L/Ha	1000 L/Ha
Grape	2	10-20 L/Ha	1000 L/Ha	1000 L/Ha
Pomegranate	3	20 L/Ha	1000 L/Ha	1000 L/Ha
Avocado	3	20 L/Ha	1000 L/Ha	1000 L/Ha

Before using the product, read the label determinedly. Use reserved to farmers and professional applicators. To avoid risks to people and the environment follow the instructions.,

















# WE ALSO GROW UP ON **SOCIAL NETWORKS**

# WE COUNT ON YOU













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