



**JANUARY / 2023**

**CROP NUTRITION AND BIOPROTECTION**

# **CATALOG 2023**



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

**35 YEARS TAKING CARE OF YOU**



# 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**





















[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 2023 CATALOG

**CROP NUTRITION AND BIOPROTECTION**

## INDEX

 <p><b>3</b> <b>ADJUVANTS</b></p>	 <p><b>7</b> <b>BIOSTIMULANTS</b></p>	 <p><b>18</b> <b>COPPERS</b></p>	 <p><b>24</b> <b>CROPS</b></p>	 <p><b>28</b> <b>FORTIFIERS</b></p>	 <p><b>31</b> <b>MACRO NUTRIENTS</b></p>
 <p><b>54</b> <b>MICRO NUTRIENTS</b></p>	 <p><b>67</b> <b>MICRO GLUCCO</b></p>	 <p><b>70</b> <b>PH CORRECTORS</b></p>	 <p><b>73</b> <b>PLANT DEFENSE INDUCERS</b></p>	 <p><b>80</b> <b>PLANT GROWTH INDUCERS</b></p>	 <p><b>86</b> <b>QUALITY + COLOR</b></p>
 <p><b>90</b> <b>ROOTING</b></p>	 <p><b>94</b> <b>REPELLENTS</b></p>	 <p><b>98</b> <b>SALINITY CORRECTORS</b></p>	 <p><b>101</b> <b>SEAWEED BIOSTIMULANTS</b></p>	 <p><b>106</b> <b>SILICON</b></p>	 <p><b>112</b> <b>SOLAR PROTECTOR</b></p>



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## ADJUVANTS

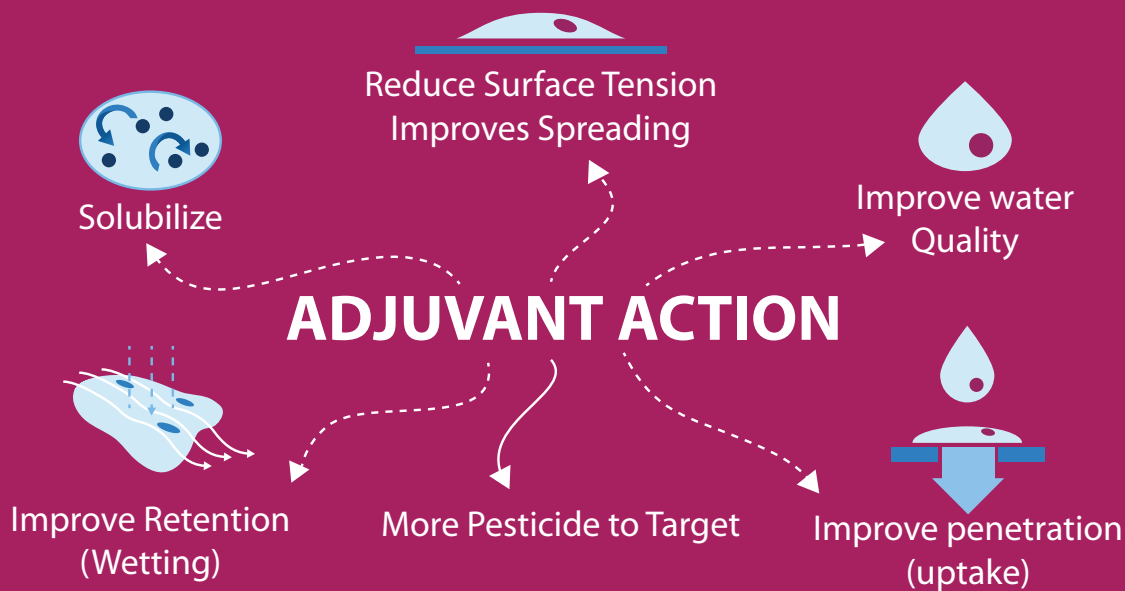


[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

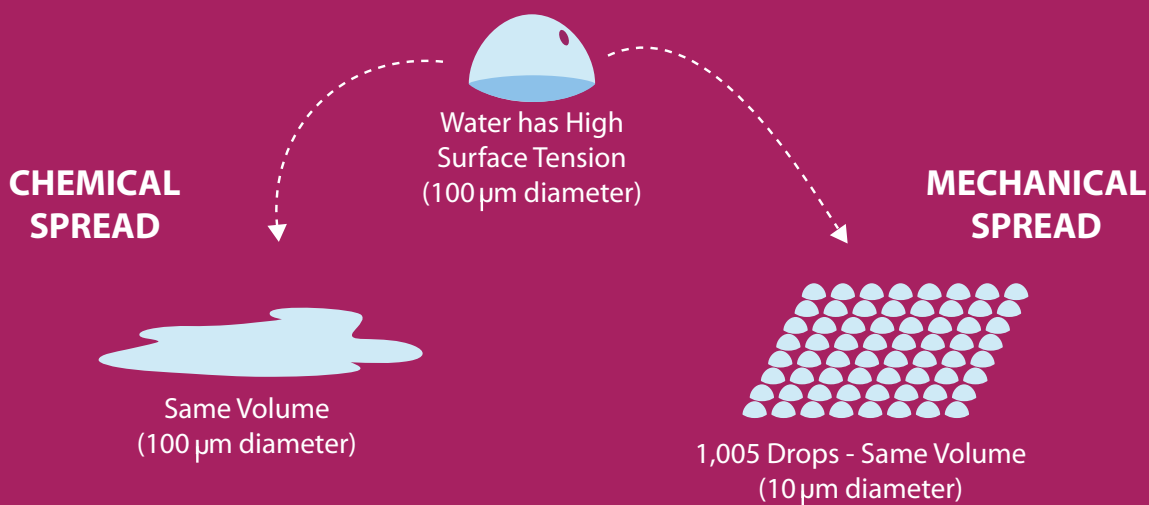


# ADJUVANTS

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.



WITHOUT LENOL 700



WITH LENOL 700

## 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

### COMPOSITION

% w/w

Lecithin	35.0
Propionic acid	35.0
Linear Ethoxylated Alcohol	10.9



**SOY LECITHIN - DERIVED**

**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.

GOAL	DOSES ml/100L	COMMENTS
<b>Reduction of pH.</b>	50 - 100 (> 8 pH) 30 - 50 (< 8 pH)	
<b>Insecticides - fungicides.</b>	50 - 100	Do not apply with high temperatures. Add to water in spray tank before adding PESTICIDE.
<b>Herbicides</b>	125 - 250 250 - 500	Recommended for use in mixing with defoliant, 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).
<b>Foliar fertilizers</b>	100 - 250	Tank mixing with other agricultural chemicals may increase the potential for crop damage check with supplier.
<b>Assistance in droplet size management</b>	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.

## PACKING:



NEW  
IMPORTED FROM  
SPAIN

# 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 l / Ha to prolong the biological activity of the herbicide and increase retention of the herbicide into the root zone by reducing leaching losses.	For herbicides applications.

## COMPOSITION

%w/w

Polymers terpenes  
pH

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:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## BIOSTIMULANTS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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. Biostimulants 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 demonstrated ways, including but not limited to:

- **Improving the efficiency 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



### FOLIAR APPLICATION

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

General dosage 1-3 Lts  / 200 Lts.



### SOIL APPLICATION

CROPS	SEASON	ANNUAL DOSAGE
Citrus Fruits	From budding to mid-cycle	100-130 cc / tree
Fruit Trees	From budding to mid-cycle	100-150 cc / tree
Strawberries	Throughout the whole cycle	100 litres/ Ha
Cut Flowers	Throughout the whole cycle	100-120 litres / Ha
Open-air Horticultural Crops	Throughout the whole cycle	80-100 litres / Ha
Greenhouse Horticultural Crops	Throughout the whole cycle	100-120 litres / Ha
Maize	In the first irrigations	50-80 litres/ Ha
Olive Trees	Throughout the whole cycle	100-150 cc /tree
Pear Trees	From budding to mid-cycle	150-200 cc / tree
Wine Grapes	From budding to mid-cycle	30-50 litres / Ha
Table Grapes	From budding to mid-cycle	70-100 litres / Ha

**SHAKE THE  CONTAINER WELL BEFORE OPENING.** Keep  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.

### COMPOSITION

%w/w

Total Humic Extract	20,0
Humic Acids	10,0
Fulvic Acids	10,0
Organic Nitrogen	0,5
Potassium (K <sub>2</sub> O)	7,5
Magnesium (Mg)	0,2
Density	1,27
pH	13,5

**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 is safe 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**

### PACKING:





**NEW**  
IMPORTED FROM  
SPAIN



## 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 Aryn 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 material.

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

### APPLICATIONS

Foliar: 200-300 mls/100 water

Fertirrigation: Drip: 5-10 L/ha

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.

### COMPOSITION

%w/v

Total Fulvic Acid	22,0%
Free Amino Acids	16,5%
Total Polysaccharides	8,0%
pH: 5-6	
Density: 1,27 g/cc	



### PACKING:





## CHARACTERISTICS

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

**MOL FULVIC** is a completely soluble, micro-filtered, easy to apply in the localized irrigation systems (drip, exudation, and aspersion) and gravity systems. The foliar application of **MOL FULVIC** improves the uptake and transport of nutrients in the plant and other compounds: hormones, vitamins, etc...

A proper use of **MOL FULVIC** will allow a saving in the dose of fertilizer, thus improving their uptake by the plant, facilitating their transport to the places where nutrients are necessary for the perfect plant development.

**MOL FULVIC is a strong metabolic activator because of the high fulvic acids content.**

## APPLICATION AND DOSAGE



### SOIL APPLICATION

CULTURE	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 / 200 L

RAYGRASS	5 L / 1000 m <sup>2</sup>	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
Fulvic Acid	38,5
Total Nitrogen (N)	3,5
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	0,15
Potassium (K <sub>2</sub> O)	5,0

Density: 1,28

pH: 5,7

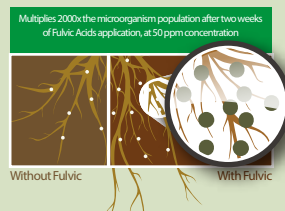
## HIGH CONTENT OF FULVIC ACIDS



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

**INCREASES GERMINATION OF SEEDS**

**PREVENTS THE ABIOTIC STRESS**



## PACKING:



NEW  
IMPORTED FROM  
SPAIN

# MOL SOLID



ORGANIC SOIL AMENDMENT



## COMPOSITION

	%w/w
Total Humic Extract	82,0
Humic Acids	78,5
Fulvic Acids	3,5
Potassium (K <sub>2</sub> O)	12,0
pH (10% solution)	10-11

ORGANIC SOIL AMENDMENT

ROOT DEVELOPMENT

NUTRIENT UPTAKE

THE GERMINATION OF SEED




**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.

**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
 <b>Soil application</b>		
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 fertilizer 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/m <sup>3</sup> during the preparation of
Vegetables in greenhouses	Growth stimulant, and increases foliar fertilizer utilisation	150-300g/100L water every two weeks during the season
 <b>Foliar application</b>		
Growth stimulant, and increases foliar fertilizer penetration. <b>Application:</b> 150-300 g/1000L water every two weeks during the season		
 <b>Seed treatment</b>		
Stimulation of seed germination and root growth. <b>Application:</b> 1kg/100kg seeds		

## PACKING:



Aspe





## CHARACTERISTICS

**MOL COMBI** is a product developed 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 m<sup>3</sup> of substrate.

### 2 Strawberries

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

**Soil:** 50-100 g/1000 m<sup>2</sup> 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 m<sup>2</sup>). In radishes. Do not exceed concentrations of 10 g/100 L).

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

## COMPOSITION

%w/w

Fulvic acids	30,0
Calcium (CaO)	3,0
Magnesium (Mg)	3,0
Iron (Fe)	5,0
Manganese (Mn)	5,0
Zinc (Zn)	5,0
Boron (B)	1,0

Appearance: 4,5 % (N) p/p  
pH (solution 10%) 6 - 7



### 4 Nurseries

**Nurseries:** applications in spraying concentration 20-40g/100L.

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

## PACKING:



**NEW**  
IMPORTED FROM  
SPAIN

**STYM 25**



**AMINOACIDS**



**WITH  
I.S.I.  
IMMUNOLOGICAL  
SYSTEM INITIATOR**

## COMPOSITION

%w/v

Free Amino Acids	25,0
Organic Nitrogen (N)	2,5
Organic Carbon	14,4
ISI (Disease-Resistance Activator)	3,0

pH	6,7
Density	1,164,5 % (N) p/p

**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.**

	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

	FOLIAR DOSAGE	cc/100L
HORTICULTURAL CROPS	Every 10 days after transplanting	200
STRAWBERRIES	Throughout the whole cycle	200
TUBERS	Every 15 days	250
FRUIT TREES	From budding until the swelling of the fruit	200 - 300
BANANA PLANTS	Every 15 days	250
OLIVE TREES	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	2 L / 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 first flower.	300
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 / m2

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

## INCREASES:



**YIELD**



**NUTRIENT  
UPTAKE**



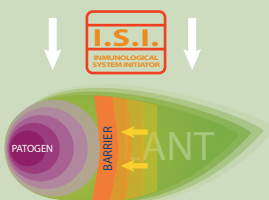
**ROOT  
SYSTEM**



**THE SEED  
GERMINATION**



**IMMUNOLOGICAL  
SYSTEM ACTION  
OF THE CROPS**



## PACKING:



**Aspe**



IMPORTED  
FROM EU



CHARACTERISTICS

**FORZA Plus** is a plant growth biostimulant and a highly concentrated liquid foliar fertilizer that is used as a supplement to a normal fertilization program.

**FORZA Plus** is a 10/20/5 NPK and contains a balanced concentration of trace elements, folcisteine and fulvic acids.

The **folcisteine** contained in **FORZA Plus** increases the plant biochemical reserves and optimizes the physiological pathways. These elements help the plant to withstand critical periods of its development. Folcisteine is a compound that penetrates into the plant.

FORZA Plus EFFECTS

- ASSISTS IN THE PLANT’S RECOVERY FROM ABIOTIC STRESS
- INCREASES CROP YIELD AND QUALITY
- HELPS TO RECOVER FROM THE HARMFUL EFFECTS OF STRESS (like the fall of flowers and fruits).
- INCREASES THE UTILIZATION OF NUTRIENTS

DOSAGE AND FOLIAR APPLICATION

Crop	Dose per 100 L water	Time of application
Alfalfa	200cc	10-15 days after every cutting.
Cotton	200cc-400cc	3 times, first application when the third true leaf unfolds. Repeat when first floral buds are visible and when 20% of bolls have attained their final size.
Cereals (wheat, barley, oats, rice)	200cc	2 times, first when the flag leaf sheath extends. Repeat when milky grain.
Strawberry	200cc	3 times, first when 9 or more leaves unfold. Repeat at the beginning of the stolon formation and after the 2nd harvest. Can be use monthly after the 3rd. harvest.
Fruit trees: Apple, Peach, Walnut and Citrus	200cc-400cc	3 times, first application when the new vegetative growth has more than 20 cm. Repeat 15 days after and when developing fruits.
Legumes; Peas, Beans, Soybean	200cc	2 times, first application when 9 or more leaves unfold. Repeat when the 3rd. side becomes visible.
Corn and Sorghum	200cc	2 times, first application when 4 true leaves unfold. Repeat when 6 true leaves are unfolded.
Potato	200cc-400cc	3 times, first application when 9-10 leaves of the main stem are unfolded. Repeat 15 days after and 20% of the total final tuber mass is reached.
Vegetables, Tomato and Pepper	200cc	3 times, first application 15/d after transplanting. Repeat at the beginning of the flowers bottom formation and when fruits have >1 cm diameter. For undetermined Tomato add one or more applications at a 15/d interval after the third application.
Cucurbits	200cc	3 times, first application 10 days after transplanting. Repeat two times more with 8-10 days interval.
Rice	400cc	The culture tillering.
Vine	200cc	2 treatments should be done every 10 days, starting in bloom.
All Crops in general	200cc-400cc	Foliar application during the period of growth and flowering.

**FORZA Plus** is compatible with most insecticides, fungicides, herbicides and fertilizers of agricultural use. It does not produce plant toxicity when used at the recommended rates.

COMPOSITION	% w/w	COMPOSITION	p.p.m
Fulvic Acid	5.00	Iron (Fe)	500
Folcisteine	4.50	Zinc (Zn)	100
Folic Acid	0.10	Manganese (Mn)	100
Nitrogen (Ammonium)	5.60	Boron (B)	80
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	19.50	Copper (Cu)	50
Potassium (K <sub>2</sub> O)	5.00	Molibdenum (Mo)	2
Magnesium (MgO)	0.05		



PACKING:

1L

5L

20L

1000 L





# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## COPPERS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# COPPERS

- Highly efficient formulation: Gel
- Maximum efficiency
- Uniform distribution on the plant surface
- Easy Absorption/Translocation
- Optimized size particles
- Important action fungicide/Bactericide
- (Preventive and Healing)



# CUC

## 38 SC

**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 / HI, winter 200 - 250 cc / HI
Horticultural	● ➤ 150-300 cc / HI
Woody crops	● ➤ 150-350 cc / HI
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 / HI and 150-300 cc / HI in winter
Cereals	● ➤ 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

### PACKING:





## CHARACTERISTICS

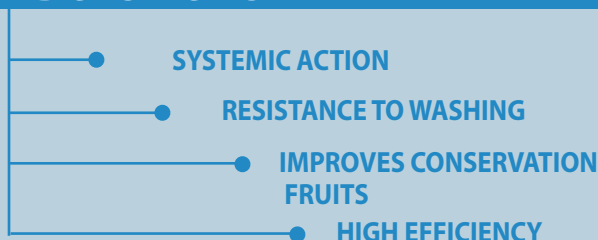
Copper gluconate solution characterized by the ability of being well uptaken by both foliar and root.

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, Phytophthora, Rhynchosporium, Rhizoctonia, Sclerotinia, Spilocaea, Xanthomonas), since the copper chelated by the gluconic acid penetrates much better than other copper compounds (oxides) in the fungus spore inhibiting germination.

## COMPOSITION

	%w/v	%w/w
Copper (Cu)	8,0	6,5
Organic complexant agent: D-gluconic acid		
Density	1,23-1,33 g/cc	

## DOES NOT STAIN THE PLANT



## DOSES AND APPLICATIONS

	FOLIAR	FERTIRRIGATION	
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.



## PACKING:



Allowed in ecological agriculture. Regl. CE 834/2007 y 889/2008



IMPORTED FROM EU



### 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.

### CUC 75 FLOW

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

## KEY DISEASES CONTROLLED

Especially active against: Alternaria, Anthracnose, Bacterial spot, Botrytis, Cercospora, Collectrochum spp., Downy mildew, Exorporium, Fire blight, Phomopsis, Pseudomonas leaf spot, Scab, 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	

## COPPER SULFATE

- ADHESION
- COVERAGE
- FORMULATION
- PROTECTION

## DOSES AND APPLICATIONS

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

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

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

## COMPOSITION

Copper (Cu)	20% (200 g/L)
Copper sulfate	75%(750 g/L)
Sulfur (SO <sub>3</sub> )	26%(260 g/L)
Density	1,4
pH	4,5-5



## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## CROPS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)



# CROPS

The exponential development that 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 breakthrough 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 years of activity.



# GRAIN START

## BIOSTIMULANT. SEED TREATMENT

**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 increasing the seeds germination percentage and providing a vigorous start for the plant.

### MODE OF ACTION

**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** favors 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 an 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



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

Apply **GRAIN START** directly to the seed in a container that provides a good distribution of seeds.

Place half of the seeds in a container and apply half of the required **GRAIN START** product on the surface of the seeds. Mix and stir manually or using suitable machinery. Add the remaining seed and the required **GRAIN START** and stir.

**GRAIN START** certainly applies in seeds treated with inoculants, fungicides and insecticides. It is advisable to first add the inoculant, fungicide and insecticide and then **GRAIN START**

### PACKING:



### 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.

### MAXIMIZE COTTON PRODUCTION

### 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 (polyhydroxicarboxylic 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	Beginning of flowering	1,0 L/Ha
2nd	40-45 days after the first addition	0,75 L/Ha

#### 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.

### 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 KE LOM COTTON

### PACKING:



### CHARACTERISTICS

**Vital fol Mn** is specifically designed to improve crop yield and quality in potato and taproot crops (carrots, radish, sugar beet, etc.) **Vital fol 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 Mn** stimulates tuber formation, tuber enlargement, and starch accumulation, leading to increased number, size and quality of potatoes. Similarly, **Vital fol Mn** 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 Mn** 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 ( $P_2O_5$ )	30,00
Potassium ( $K_2O$ )	3,00
Boron (B)	0,01
Copper (Cu) chelated by EDTA	0,02
Iron (Fe) chelated by EDTA	0,02
<b>Manganese (Mn)</b>	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

### PACKING:



# SukraFLOW

# SukraSolid

## Boron + Ca

## BORON AND CALCIUM CORRECTOR

### CHARACTERISTICS

**Sukra FLOWB +Ca** and **SukraSolid B +Ca** are a liquid and solid deficiency correctors 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 it heart disease or putrid of the root. In apple and pear prevents bitter pit, and cracks. In grape, improves the flowering and prevents the cluster fall and the formation of small and wrinkled fruits. In the olive tree, it prevents loss of production, and the deformation of the olive. In horticulture, it prevents hearth rot in celery, the coiled leaves in cauliflower and broccoli. In lettuce it prevents hearts rotting and burning side, in stud prevents drying of the tip and stems, in potato it avoids the necrotic of tubers with deformities.

### SukraSolid B +Ca

#### 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

### Sukra FLOWB +Ca

#### DOSAGE AND APPLICATION

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

- Weak deficiencies: 100-200 cc/100L
- Moderate deficiencies: 300-400 cc/100L
- Strong deficiencies: 500-600 cc/100L

**Field crops (Sugar beet):** 4-6 L/ha

### COMPOSITION

	<b>Flow</b> %w/v	<b>Solid</b> %w/w
Boron (B)	15,0	15,0
Calcium (CaO)	7,0	7,0

### QUALITY AND POST-HARVEST LIFE

### DOES NOT CONTAIN ETHANOL AMINE



### COMPATIBILITY

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

### PACKING:





**RICE 3** is a new natural organic food for crops.

**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 synthesis, 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.

### 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

### APPLICATION AND DOSAGE

CROPS	Foliar spray ml/ ha per application	N° applications	APPLICATION & INTERVAL
<b>Rice Seeds</b>	-	-	Before sowing leave the seeds for 24 hours in solution with 2 cc for 1 Lt water
<b>Dry Rice</b>	600-800	2	First application 45 days after sowing Repeat 70 days after sowing
<b>Flooded Rice</b>	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.

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

### COMPOSITION

%w/w

Total aminoacids	17,0
N-Acetyl Thiazolidine-4 Carboxylic	1,00
Iron (Fe) chelated EDTA	0,18
Manganese (Mn) chelated EDTA	0,10
Copper (Cu) chelated EDTA	0,18
Zinc (Zn) chelated EDTA	0,10
Boron (B)	0,08

Density at 20 °C	1,25 g/ml
pH (1% water solution)	8,0 + 0,5



### PACKING:





# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## FORTIFIERS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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.



## COMPOSITION

%w/v

Total Nitrogen (N)	4,8
Ureic Nitrogen (N)	4,8
Zinc water-soluble complex (Zn)	1,0
Manganese water-soluble complex (Mn)	2,0
Copper water-soluble complex (Cu)	2,0
Density	1,2
pH	2,0
Complexing agents:	
Aluminium Lignosulphonate and gluconic acids	

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, Phytophthora 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 peronospora 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.

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

ORNAMENTALS

STRAWBERRIES

GREEN BEANS

LETTUCE

WATERMELON

PEACH

OLIVE

POTATO

PEAR AND APPLE

TOMATO

VINE

## PACKING:



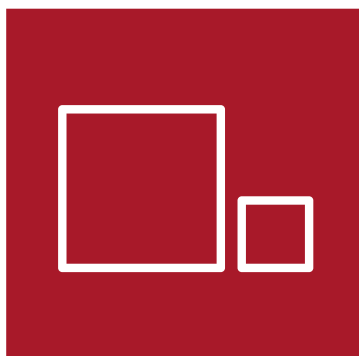
Aspe



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## MACRONUTRIENTS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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 final 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 established 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 that 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)

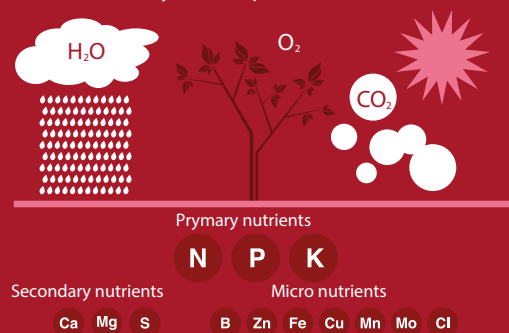
This nutrient is an important constituent of chlorophyll and a large number of enzymes necessary for normal growth. It plays an active part in the movement of nutrients, especially phosphate, within the plant and is associated with the control of water within plant cells.

## 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 pollen growth.





**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 burdened 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.

GREATER PERSISTENCE

BETTER UPTAKE

HIGHER EFFICIENCY

## SOLDENSO YELLOW GEL

During the vegetative and fruit stages

## SOLDENSO BLUE GEL

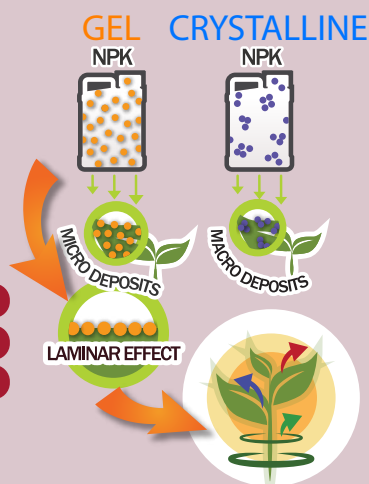
For application during the vegetative stage and stress situation

## SOLDENSO GREEN GEL

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

## SOLDENSO RED GEL

Improves fruit sugar content and promotes fruit development and size



## PACKING:







## SOLDENSO FORMULATIONS:

**SOLDENSO**  
YELLOW GEL

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

**SOLDENSO**  
BLUE GEL

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

**SOLDENSO**  
GREEN GEL

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

**SOLDENSO**  
RED GEL

SOL Denso Red	11-17-47+Te
SOL Denso Red	12-05-42+Te
SOL Denso Red	04-40-55+Te
SOL Denso Red	10-10-50+Te

## PACKING:





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

### SOLDENSO SPECIAL FORMULATIONS:

**SOLDENSO**

**+ 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**

**SOLDENSO**

**+ Fulvic Acids**

**SOL Denso Equal**  
**SOL Denso Blue**

**20-20-20+Te+6,5%FA**  
**19-09-11+Te+10%FA**

**SOLDENSO**

**+ 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**

**SOLDENSO**

**+ Seaweed**

**SOL Denso Equal**  
**SOL Denso Blue**

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

### PACKING:



# SOLDENSO 20+20+20+Te

Yellow



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.

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.

## COMPOSITION

%w/v

Total Nitrogen (N)	20,00
Phosphorous Oxide(P <sub>2</sub> O <sub>5</sub> )	20,00
Potassium Oxide (K <sub>2</sub> O)	20,00
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



## 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	3,0	300	1-2- applications before transplanting
Root soak	-	200	Soak roots prior to transplanting
Post transplant	2,0	200	Apply at tillering

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

## PACKING:



# SOLDENSO 45+00+00+Te

Blue Gel



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 burdened 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.

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.

## COMPOSITION

%w/v

Total Nitrogen (N)	45,00
Phosphorous Oxide(P <sub>2</sub> O <sub>5</sub> )	00,00
Potassium Oxide (K <sub>2</sub> O)	00,00
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



## 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-flowering 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.

## PACKING:



IMPORTED FROM EU

# SOLDENSO 12+05+42+Te

Red Gel



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 burdened 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.

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.

## COMPOSITION

%w/v

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



## APPLICATIONS

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

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

## PACKING:



# SOLDENSO 13+40+13+Te

Green



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.

**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.

## COMPOSITION

%w/v

Total Nitrogen (N)	13,00
Phosphorous Oxide(P <sub>2</sub> O <sub>5</sub> )	40,00
Potassium Oxide (K <sub>2</sub> O)	13,00
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



## APPLICATIONS

Crops	SOIL (L/ha)	FOLIAR (mL/100L)	APPLICATIONS DETAILS
Cereals	2-5	250	Early in crop cycle. 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.

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

## PACKING:





# AZOL



## NITROGEN LIQUID FERTILIZER OF CONTROLLED RELEASE

### CHARACTERISTICS

**AZOL** is a nitrogen fertilizer of high efficiency and persistence. The **N-urea** meets the immediate needs and the **N-formaldehyde** ensures progressive availability. Safe and environmentally friendly.

#### GENERAL ADVANTAGES

Progressive release.  
Compatible with pesticides.  
Foliar application.  
Reduce, drift and improves the absorption.  
Keep vegetative/productive balance in crops where (N) has direct influence on production.  
Risk of washing, maximum use of nitrogen, environmentally friendly.

#### BENEFITS CROPS

##### CEREAL

Specific weight increases  
Increases protein content  
Decreases risk of lodging

##### MAIZE

In the early stages homogenize the crops.

##### RICE

Increases the specific weight. Largest filled of the Spike.

##### OLIVE

Homogenized fruit ripening.  
Greater fruit size.  
Net increase production.

### COMPOSITION

%w/v

Total Nitrogen (N)	28%
N (Urea-formaldehyde)	85%
N (Ureic)	15%
Biuret, Max	less than 0,7%
pH(water 10%, 20°C)	9-11
Density (20°)	1,23-1,25kg/L



CROPS	DAYS	STATE OR USE MODE	DOSAGE
Cotton	n.p.	In the phenological stages of 4 sheets, after flowering and during capsule formation	5-8 l/ha - 6-10 kg/ha
Rice	n.p.	The emergence of the flag leaf	10-15l/ha - 12-19 kg/ha
Cereals	n.p.	1st treatment between full tillering to the first knot. 2nd treatment between flag leaf and flowering	10-25 l/ha - 12-31 kg/ha
Lawn	n.p.	Applications every 50-60 days	15-24 l/ha - 19-30 kg/ha
Citrus	n.p.	After fruit set and floral differentiation	5-10 l/ha - 6-12 kg/ha
Citrus	n.p.	End of winter, from vegetative recovery	64-96 l/ha - 80-120 kg/ha fertirrigation
large strawberries	n.p.	Beginning of flowering and repeat every 15 days	5-10 l/ha - 6-12 kg/ha
Stone fruit	n.p.	Fruit before flowering and repeat every 30 days	5-10 l/ha - 6-12 kg/ha
Stone fruit	n.p.	End of the winter to fruit set	64-96 l/ha - 80-120 kg/ha fertirrigation
Pome fruit	n.p.	Before flowering and repeat every 30 days	5-10 l/ha - 6-12 kg/ha
Pome fruit	n.p.	End of the winter to fruit set	64-96 l/ha - 80-120 kg/ha fertirrigation
Leafy vegetables	n.p.	The formation of the bud and repeat every 14 days	5-8 l/ha - 6-10
Horticultural	n.p.	Before flowering and applications every 10-14 days	5-10 l/ha 6-12 kg/ha
Horticultural	n.p.	At the beginning of the growing season	48-80 l/ha 60-100 kg/ha fertirrigation
Corn	n.p.	Early post-emergence, together with herbicides	10-15 l/ha - 12-19 kg/ha
Corn	n.p.	Acaricide treatment for spider mites	10-15 l/ha - 12-19 kg/ha
Olive	n.p.	Since before flowering and repeat every 30 days	5-10 l/ha - 6-12 kg/ha
Olive	n.p.	End of winter, from vegetative recovery	64-120l/ha - 80-150 kg/ha fertirrigation
Soy	n.p.	State R2-R3	4-8 l/ha - 5-10 kg/ha
Vine	n.p.	Post-flowering	5-10 l/ha - 6-12 kg/ha
Vine	n.p.	End of winter, from vegetative recovery	48-80 l/ha - 60-100 kg/ha fertirrigation

### PACKING:



# K Phosphate



## PHOSPHORUS AND POTASSIUM FERTILIZER

### CHARACTERISTICS

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

**K 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

**K 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 NODULES IN LEGUMINOUS

### COMPOSITION

%w/v

Phosphorus ( $P_2O_5$ )	45
Potassium ( $K_2O$ )	50
Density	1,7
pH (solution 10%)	7-8



### FOLIAR APPLICATION

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).

### PACKING:



Aspe



### CHARACTERISTICS

**K 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 wilting
- Aids in photosynthesis and food formation
- Reduces respiration, preventing energy losses
- Enhances translocation of sugar and starch
- Produces grain rich in starch
- Increases protein content of plants
- Builds cellulose and reduces lodging
- Helps retard crop diseases

### COMPOSITION

%w/v

Potassium ( $K_2O$ )

46,0

Nitrogen (N)

11,0

Density: 1,5



### DOSES AND APPLICATION

Crops	Rate L/Ha	Rate ml/100L	Details
Avocados	2,5	500	Multiple applications required up to 30 days before harvest
Apples	2,0	400	2-3 applications starting at petal fall to fruitlet stage
Citrus	2,0	400	1-3 applications
Cotton	2,5	500	2 applications at beginning and end of boll ripening. Apply with boron at 2 L/Ha
Flowers	2,0	400	3-4 applications during main growth stage
Grapes	2,0	400	2-3 applications from flowering to ripening
Maize	2,0	400	1-2 applications during growth period
Olives	2,0	400	3-4 applications during fruit development
Peppers & Tomatoes	2,5	500	2-3 applications from fruit set
Potatoes	2,0	400	2-3 applications from flowering to tuberisation
Rice	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.

### PACKING:



## 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 influencing nutrient in the development of flowers and fruits.**

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

Improved training and opening of the flowers

Facilitates the work of pollinating insects

More and better fruits

APPLICATION	DOSE
Foliar	100 - 200 c.c./HA 1-2 L/ha

## CROPS

CITRUS

STRAWBERRIES

FRUIT TREES

HORTICULTURAL  
CROPS

WALNUT

OLIVE

VINEYARD

## 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



## PACKING:



# Color K



POTASSIUM FERTILIZER



## COMPOSITION

%w/v

Potassium ( $K_2O$ )	50,0
Nitrogen (N)	3,0
EDTA	1,0

Density	1,49-1,53 @18°C
pH	11,5-12,5

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

## PACKING:



# Color K Xpress



SOLID POTASSIC FERTILIZER



## COMPOSITION

%w/w

Potassium ( $K_2O$ )	50,0
Total Nitrogen (N)	3,0
Magnesium ( $MgO$ )	1,0
Chelating Agent EDTA	5,0

## CHARACTERISTICS

**Color K Xpress** is a product with high potassium content, nitrogen and chelating agent EDTA. The presence of EDTA contributes by facilitating the absorption of 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.	<div><div></div><div>3-4 Kg/ha Optimal concentration 300g/hl-400g/hl Maximum concentration 1000g/hl On young and fragile foliage maximum 500g/hl</div><div></div></div>
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.	
FIELD CROPS Beets, potatoes, taproots	3-5 interventions on sufficiently developed foliage.	
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)

## PACKING:





# Color K Sea



SIZE, COLOR AND FLAVOUR OF FRUIT

## CHARACTERISTICS

**Color K Sea** is a liquid fertilizer with high potassium concentration, enhanced with seaweed extract and Boron.

## BIO POWERING FORMULATION

### THE COMBINATION OF COMPONENT IMPROVES:

FRUIT SIZE AND THE FRUIT COLOR

LIFE POST HARVEST OF FRUIT IN COLD STORAGE

THE SUGAR CONTENT OF THE FRUIT

STRESS TOLERANCE  
(WATER, TEMPERATURE...)

## COMPOSITION

%w/v

Potassium ( $K_2O$ )	25,0
Ecklonia maxima (seaweed extract)	3,0
Boron (B)	1,0



## DOSAGE AND APPLICATION

Vine	2 a 3	6-8 L/Ha	From pint in 7-5 days later.
Peach	2 a 3	3,5 L/Ha	Apply every 7 days for early varieties and every 15 days in late varieties, from development to start intermediate colored fruit.
Cherry-tree	2	7 L/Ha	Applying at least 2 times every 5 days, 10 and 15 days before harvest.
Kiwi	4	6-8 L/Ha	Apply every 20 days in the last third of fruit growth.
Olive	1 a 2	7,5 L/Ha	Apply every 7-15 days from fruit set.
Strawberry	2 a 3	3-5 L/Ha	Apply from the first fruit set fruit every 10-12 days.
Citrus	2 a 3	6-8 L/Ha	Apply from the first fruit set fruit every 10-12 days.
Tomatoes	4 a 6	6-8 L/Ha	Apply from fruit set of the 2nd to 5th bunch every 5-7 days.
Garlic and Onions	2	5 L/Ha	Apply 15 and 30 days before harvest.
Vegetables and Potatoes	2 a 3	3-5 L/Ha	Applying from 1/3 of development of the crop over the row, every 10-15 days.

### PACKING:



# 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 yield

Increases leaf area/size

Increases height of the plant

Increases in number of leaves

Better/increase dry weight

## COMPOSITION

%w/v

Calcium ( CaO ) Water soluble

6.15

pH 9 - 10

Density: 1.2

pH: 9-10



! 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 l/ha	From the beginning of tillering.
Citrus fruits	Vitality, fruit firmness, storage and transport stability.	2-5 times 5 l/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 (antioxidant), improvement of fruit quality and storage stability	5-10 l/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 l/ha	From 4-leaf stage
Ornamental plants	Vitality, leaf quality, transport stability.	1-3 times 5 l/ha.	Once sufficient leaf mass has developed.
Pome fruit	Vitality, fruit firmness, storage and transport stability.	4-6 times 5-10 l/ha.	From walnut size to harvesting.
Potatoes	Tuber and skin quality, improvement in storage life.	2-4 times 5 l/ha	From beginning of row closure.
Stone fruit	Vitality, fruit firmness, storage and transport stability.	2-5 times 5-10 l/ha.	From fruit set.
Strawberries	Vitality, fruit firmness, storage and transport stability.	2-4 times 5 l/ha.	From fruit set.
Sugar beet	Quality, storage and transport stability.	1-3 times 5 l/ha	From 6- leaf stage.
Sunflowers	Vitality, stalk stability	1-3 times 5 l/ha	From 4-leaf stage
Table grapes	Vitality, berry skin firmness, storage and transport stability.	2-5 times 5 l/ha	Pea size to harvesting.
Wine grapes	Vitality, berry skin firmness, storage and transport stability	2-5 times 5 l/ha	Pea size to harvesting.

## PACKING:



## CHARACTERISTICS

**CaUP** is a liquid solution of calcium enriched with Manganese, Boron and Silicon.

**CaUP** is a completely chelated foliar fertilizer using complexes derived from natural plant sources: Gluconic acid. It is designed to address calcium (Ca) and magnesium (Mg) deficiencies that often occur at the same time.

Boron is added in the ideal ratio to improve the mobility of calcium in the plant and improves the uptake of potassium.

### It decreases the incidence of physiological disorders:

Bitter pit in apple trees, Cork in pear, black bat in grapes, apical necrosis in tomatoes, peppers, cucumbers, watermelons and melons; stained cavities in carrots, black heart in celery, tip burn in lettuce, internal burning (tip) in cabbage, internal necrosis in cabbages of Brussels and in potato tuber necrosis.

**CaUP** is suitable for all crops, especially for fruit, vegetables and ornamental. Use at times of high demand for calcium especially in the formation and maturation of the fruit is encouraged.

**Calcium** is involved in cell growth and multiplication as well as in regulating the pH in the root system. Also influences nitrogen uptake mechanisms and translocation of carbohydrates and proteins within the plant.

**Manganese** is predominant in metabolism of organic acids. Role in important enzymes involved in respiration and enzyme synthesis. Direct influence on sunlight conversion in chloroplast.

## COMPOSITION



%w/v

Calcium (CaO)	15,0
Magnesium (Mg)	2,0
Boron (B)	0,5
Silicon (SiO <sub>3</sub> )	1,0

**Boron** is important in protein synthesis. Promotes maturity. Affects nitrogen and carbohydrate metabolism. Increase flowering set.

**Silicon** promotes resistance to disease and pest, uptake of nutrients and enhances resistance to environmental stress and quality of fruit.



 FOLIAR		 FERTIRRIGATION
Fruit and citrus	150-300 cc/100l, 2-3 applications	6-12 l/ha between 3 and 4 applications
Horticultural	150-300 cc/100l, first half of the cycle	4-9 l/ha between 3 and 4 applications
Ornamental and flowers	150-250 cc/100l	2-8 l/ha during the first half of the cycle

**Warnings:** if you mix compounds previous compatibility test is recommended. Shake well before use

## PACKING:





### 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 floriculture 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 caused 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 l/ha	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. Multiple applications.
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.

#### PACKING:



## CHARACTERISTICS

**KELOM CaForte** is a Calcium deficiency corrector that is applied as a foliar spray or through fertirrigation. A faster response will be observed when foliar is being applied, especially during periods of stress (drought, high temperature, etc...).

Calcium from **KELOM CaForte** is quickly uptaken and translocated to the growing points of the plant. In addition, the **Free amino acids** present in the formulation are used by the plant to increase its photosynthetic activity and other metabolic processes, thus reducing the stress factors and mobilizing the active Calcium.

**KELOM CaForte** prevents and corrects **Calcium deficiency in plants**.




- Blossom end rot (apical necrosis) in tomatoes, peppers, eggplants and watermelons.
- Watercore and glassiness in melons.
- Internal leaf and curb defects in cauliflower.
- Internal browning of Brussels sprouts.
- Leaf tipburn in spinach, lettuce, celery, cabbage and strawberry.
- Internal browning, hollowheart, storage disorders, and poor skin set in potatoes.
- Cavity spot in carrots.
- Bitter pit, cork spot, cracking, internal brownspot, and water core in apples.
- Hypocotyl necrosis in beans and other legumes.
- Meristem death or distortion of new growth from meristems in many plants (cupped leaves).
- Cracking in mango, cherry and plum.

## DOSAGE AND APPLICATION

### CROPS

- HORTICULTURE** → Tomato, Pepper, Cucurbitis, Lettuce, Strawberry, Celery, Cabbage, Broccoli, etc.
- FRUITCROPS** → Apple, Pear, Peach, Cherry, Plum, Citrus, Grapes.
- TROPICAL FRUITS** → Banana, Pineapple, Mango, Durian, Papaya, Cocoa, Guava.
- FIELD CROPS** → Cotton Potato, Sugar beet, Rice, Turf, Pastures.

### DOSAGE

-  Horticulture and field crops Apply 3-6 ml/L or 3-6 L/ha.
-  Fruit/Vine crops Apply 5-10 ml/L or 5-10 L/ha.
-  Drip or localized irrigation Apply 15-30 L/ha.

## COMPOSITION

%w/w

Calcium (CaO)	8,0
Boron (B)	0,2
Free amino acids	4,6
Total amino acids	6,1



FIRMNESS IMPROVEMENT

PRESERVATION IMPROVEMENT

LESS PHYSIOPATHY INCIDENCE

MORE MARKETABLE FRUITS

## PACKING:





# KELOM Mg Flow



MAGNESIUM CORRECTOR

## CHARACTERISTICS

**KELOM Mg flow** its a concentrated magnesium fertilizer as suspension with 30% magnesium.

For the preventive and curative treatment of magnesium deficiencies in agricultural and horticultural crops. Magnesium is the powerhouse behind photosynthesis in plants. Without magnesium, chlorophyll cannot capture sun energy that is needed for photosynthesis to occur. In short, magnesium is required to give leaves their green color. Magnesium in plants is located in the enzymes, in the heart of the chlorophyll molecule.

Magnesium is also used by plants for the metabolism of carbohydrates and in the cell membrane stabilization.

Prevents chlorosis since it stimulates the production of chlorophyll, xanthophyll and carotene

Improved the formation and movement of sugars, standardizing the maturity

Avoids the premature loss of leaves

Improves the absorption and transport of phosphorus

Help the nitrogen metabolism of avoiding excesses of ammonium in the tissues

High penetration

Wide coverage

## COMPOSITION

%w/v

Magnesium (Mg) 30,0  
Density at 20°C: 1,4 g/cc  
pH: 9-10



## APPLICATIONS

Crops	L/Ha	L/100L	Details
Rice and winter cereals	2 - 4	1 - 2	From leaf development until beginning of flowering.
Maize	2 - 4	1 - 2	4-5 leaf stage
Sugar beet	2 - 4	1 - 2	1 application at 4-6 leaf stage onwards.
Oilseed rape	3 - 4	1,5 - 2	1-2 application from 4-6 leaf stage onwards
Horticultural crops	2 - 4	1 - 2	1 application at 4-6 leaf stage
Potato, tomato fields, crops, melon, watermelon	3 - 4	1 - 2	2-3 application during vegetative growth
Grapevine	2 - 4	1 - 2	Application at sprouting, visible bunch and fruit setting
Apple and pear trees	2 - 4	0,2 - 0,4	1-2 application after petals fallen
Fruit trees	2 - 4	0,2 - 0,4	Application fruit setting
Kiwi trees	3 - 4	0,6 - 0,8	Application at leaf development, pre-flowering, fruit development

### Cautions

For preventive treatment the smaller rates are sufficient. If plants show slight deficiency symptoms, the higher rates should be applied in 3-4 week intervals till the deficiency is cured. Plants suffering from a severe deficiency are weakened and should be treated repeatedly with the lower rate at 2 week intervals. This fertilizer is miscible with virtually all common plant protection agents; it is not miscible with strongly alkaline products or with mineral oils. A simple compatibility test with the intended mixing partners is recommended before practical use.

### PACKING:





## CHARACTERISTICS

**STOPCaB** is a solid formulation with Calcium in N.O.C. (Natural Organic Complexant) form and Boron as a synergic nutrient Boron helps Calcium mobility through 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 physiopathies 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.

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

### C 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.

### B 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

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 of 10 hl/ha

## COMPATIBILITY

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

## PACKING:

1 Kg

5 Kg

20 Kg



IMPORTED  
FROM EU

## COMPOSITION

%w/w

Calcium (CaO)	34,0
Boron (B)	2,0
N.O.C. (Natural Organic Complexant)	64,0
pH (watery solution 1%)	7 ± 0,5



## 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.**

# Pronat

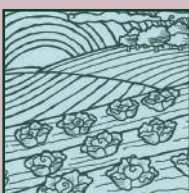


ALL-IN-ONE FOLIAR FERTILIZER

**Pronat** 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

Total Nitrogen (N)	28% w/v	Zinc (Zn)	170 mg/l
Phosphorus	11% w/v	Auxines	600 ppm
Potassium	14% w/v	Cytokinins	2000 ppm
Boron (B)	170 mg/l		
Copper (Cu)	170 mg/l		
Iron (Fe)	480 mg/l		
Manganese (Mn)	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 Stock	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 Ornamentals	Early spring growth	-	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 leaf 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

## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## MICRONUTRIENTS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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
- Affects 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
- Intensifies color
- Improves flavor of fruits and vegetables

## Iron (Fe)

- Promotes formation of chlorophyll
- 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

## Molybdenum (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 SUGARS	☀					



# 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.

**B** Boron (B) exist primarily in soils solutions as the  $BO_3^{3-}$  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**

**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. Although Zn is required only in small amounts, high yields are impossible without it.

### COMPOSITION

%w/v

Boron (B) 11,5  
Zinc (Zn) 4,0

Chelating agent:  
EDTA (ethylenediaminetetraacetic acid)



Improves Flowering

Increases Vegetative Growth

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

### DOSES AND APPLICATION

Crops	Foliar	Application&Interval
Stone-pipe fruit	1-2 L/Ha	Perform 1-2 applications in bursting of buds and perform 1-2 applications in fruit set
Vine and Olive	1-2 L/Ha	Perform 1-2 applications in pre-flowering and make 1-2 applications 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, Soybeans, Cereals	2-3 L/Ha	Perform the application with sufficient foliar mass developed.
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 foliar mass developed
Woody crops	3-4 L/Ha	POST-HARVEST: After the harvest and before the fall of leaves, always with active green leaves
<b>General Drip Application:</b>		3-5 L/Ha Distributed in 2-3 applications according to the needs of the crop

### 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.

### PACKING:



# 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 celeriac, 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)	11,0
Total Nitrogen (N)	4,8
Density	1,35-1,40 @ 18°C
pH (10% solution)	8,0-9,0



### DOSAGE AND APPLICATION

Crop	Objective	Recommendation
In all crops	Supply with boron	1-4 l/ha as a foliar application in 200-400 l water or 5-8 l/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 l/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	1-2 x 3 l/ha as soon as enough leaves are 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	2-4 l/ha in autumn from 4 till 6 leaf-stage
	Regular blossom-time and maturity, output, supply with boron	2-4 l/ha in spring until beginning of blossom
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
Hop	Development of bud and sprout, quality	3-5 x 0,1 % until flowering

### PACKING:





# KELOM

## Fe 13



IRON EDTA CHELATE CORRECTOR

### CHARACTERISTICS

Iron EDTA chelate, **KELOM Fe 13** provide the necessary chelated iron, stable, soluble and directly assimilated by plants.

The product is easily assimilated and uptaken by plants, the results are quick and visual in foliar application.

Very efficient in nutrient solutions. **KELOM Fe 13** contains fully chelated iron and stable in a wide pH range. It does not react with the salts commonly used in fertigation and hydroponics that can block uptake by the plant.

### DOSAGE AND APPLICATION

Cereals, Grain Legumes, Oilseed crops, Cotton, Corn	0.5-1.0 kg/ha	Foliar
Potatoes and other tuber crops	1.0 kg/ha	Foliar
Vegetables, cucurbits	0.5-1.0 kg/ha 5-10 kg/ha 1-3 kg/ha	Foliar Soil Fertigation
Grape vines (wine and table)	50-80 g/100 L 1-2.5 kg/ha	Foliar Soil
Apples, Nut crops, Citrus, Mangoes, Stonefruit, Avocados, Pineapples, Olives	50-100 g/100 L 1-2.5 kg/ha	Foliar Soil Fertigation
Strawberries, other berry crops	0.5-1.0 kg/ha 5-10 kg/ha 1-2.5 kg/ha	Foliar Soil Fertigation
Ornamentals	0.25-0.5 kg/ha 5-10 kg/ha 1-2.5 kg/ha	Foliar Soil Fertigation

Do not apply during flowering nor color fruit change. Do not use by foliar application on plum or apricot trees.

When applied with other EDTA foliar fertilisers products, the combination must not exceed the maximum hectare rate for each individual product for a specific crop.

### COMPOSITION

Iron (Fe), EDTA chelated

%w/w  
13,0

pH (10% in water) 4,5

pH stability range 3-7



### IRON CORRECTOR

COMPATIBLE

EFFECTIVE

QUALITY

SOLUBLE

### PACKING:

1Kg

5Kg



IMPORTED FROM EU



# 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 of 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)	13,5
Total Manganese (Mn)	13,5
Total Nitrogen (N)	5,8
Total Sulfur	15,0

Density	1,55
pH (10% solution)	5,5-6,5



### 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 hereinafter
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 leaf. 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 settling of the nutrient particles. This is reversible on shaking. Always shake container before opening.

### PACKING:



## CHARACTERISTICS

**KELOM<sup>Fe</sup>** 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

CHELATE ORTHO-ORTHO

STARTING

CHELATE ORTO-PARA

HIGH LEVEL

PLANT CHLOROPHYLL

## DOSAGE AND APPLICATION

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

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

## COMPOSITION

	%w/w
Total EDDHA iron	6,0
Iron chelated ortho-ortho	4,8
Iron chelated ortho-para	0,3
Iron total (Fe)	6 + 0,4
pH (1% in water)	7,5 - 8,5
pH interval stability	3 - 11



## PACKING:



# 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)	3,00
Copper (Cu)	0,40
Zinc (Zn)	5,00
Boron (B)	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.

## PACKING:



# 2023

## CATALOG

CROP NUTRITION AND BIOPROTECTION

### MICRO GLUCCO



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# MICRO GLUCCO

- ➔ MICRONUTRIENTS COMPLEX
- ➔ CORRECTORS OF DEFICIENCIES
- ➔ 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

## GLUCCO CHARACTERISTICS

- Highly efficient
- Quick and complete assimilation by plants
- For foliar, drip and fertirrigation applications
- Beneficial for variety of soils and crops
- Organic alternative



# 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.

Typically, 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

## DOSES AND APPLICATION



### FOLIAR APPLICATION

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	3 - 7 L/Ha (not during flowering)	From 3 leaf stage
Greens	Prevention and alleviation iron chlorosis	5 - 7 L/Ha (in at least 400L water. 50-70mL/100m <sup>2</sup> in at least 4L water/100m <sup>2</sup> ).	When required
Ornamental Plants	Prevention and alleviation iron chlorosis	3 - 7 L/Ha (1L per 100L spray water, not during flowering)	When required
Pome fruit	Prevention and alleviation iron chlorosis	3 - 7 L/Ha	From hazelnut size
Soft fruit	Prevention and alleviation iron chlorosis	400-500mL (per 100m row)	In February/March
Stone fruit	Prevention and alleviation iron chlorosis	1-2 times, 3-7L/Ha	Fruit set to harvesting
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



### SOIL APPLICATION

Crop	Aim/Problem	Recommendation	Time
Dessert Grapes	Prevention and alleviation of iron chlorosis	Lances per cane: 15-20 mL ( with 1L water )	In February/March
Ornamental Plants	Prevention and alleviation of iron chlorosis	5-10mL with 1L water/m <sup>2</sup> or for fertigation, a maximum of 400 mL in 1000L water.)	When required
Pome fruit	Prevention and alleviation iron chlorosis	3-7 L/Ha	In February/March
Soft fruit	Prevention and alleviation iron chlorosis	Numerous applications 3-7L/ha	In spring from the start of vegetation
Stone fruit	Prevention and alleviation iron chlorosis	30-60mL/tree (in the irrigation procedure)	In February/March
Strawberries	Prevention and alleviation iron chlorosis	300-400mL (per 100m row)	In February/March
Wine grapes	Prevention and alleviation iron chlorosis	Lances per cane: 15-20 mL ( with 1L water )	In February/March

## COMPOSITION

%w/v

Iron (Fe) 6, 9  
pH 6-7  
Density: 1,2

Natural Chelating Agent (Gluconic Acid)



## Cautions

Glucoco Fe is compatible with all commonly used plant protection products. Since not all the influences appearing in practice are predictable, a miscibility test with small amounts of the products provided for the 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 Glucoco Fe as the last componen. Apply immediately stirring constantly.

### PACKING:



# GLUCCO Mn



**COMPLEXED ORGANIC  
MANGANESE CORRECTOR**

## 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 pathogens.

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) 6.0

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 predictable, a miscibility test with small amounts of the products provided for the 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, photosynthesis rate, winter hardness	2-3 L/ha (recommendation for winter cereals)	In autumn from the 3 leaf stage
Cereals	Tillering, yield, N efficiency, stability	2-3 L/ha (recommendation for winter cereals)	In spring from the start of vegetation
Cereals	Tillering, yield, N efficiency, 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, resilience	1-2 times, 2-3 L/ha	From the beginning of row closure
Legumes (soy included)	Yield, photosynthesis rate, resilience, winter hardness	1-2 times, 2-3 L/ha	From 6 leaf stage
Oilseed rape	Yield, photosynthesis rate, resilience, winter hardness	2-3 L/ha	In autumn from the 4 leaf stage.
Oilseed rape	Yield, photosynthesis rate, resilience, winter hardness	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 hardness	3-5 times, 2-3 L/ha	From 6 leaf stage
General vegetables	Improvement on leaf quality, photosynthesis rate, N efficiency	2-3 times, 2-3 L/ha	Once sufficient leaf mass has developed

### PACKING:





# GLUCCO Mo



**COMPLEXED ORGANIC  
MOLYBDENUM CORRECTOR**

## 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<sub>3</sub>) INTO AMINOACIDS AND PROTEINS WITHIN THE PLANT

INVOLVED IN THE SYNTHESIS OF ABA.

CONVERTS NITRATES INTO  
AMINO ACIDS AND  
PROTEINS WITHIN THE  
PLANT.



OPTIMIZE PLANT  
GROWTH

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

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

## FOLIAR APPLICATION

## COMPOSITION

%w/v

Molibdenum (Mo)

6.0

pH 9 - 10

Density: 1.2

Natural Chelating Agent (Hepta-Gluco-



### 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, food, 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 high 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:



# GLUCCO Zn



**COMPLEXED ORGANIC  
ZINC CORRECTOR**

## CHARACTERISTICS

**GLUCCO Zn** is a Zn fertilizers solution complexed with gluconic acid. Once applied, either into the soil, hydroponics or foliar, product is readily assimilated 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
- Distorted leaves

## COMPOSITION

%w/v

Zinc (Zn) 5.8  
pH 6-7  
Density: 1.27

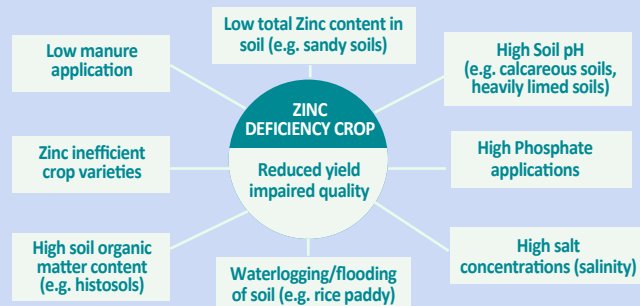
Natural Chelating Agent (Gluconic Acid)



## 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.
Brassicace (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 (Pumpkins, 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



## Cautions

Glucoco 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 Glucoco Zn with highly alkaline material such as LIME SULPHUR and BORDEAUX mixture, or with any phosphate-containing fertilizers.

## PACKING:



# GLUCCO Mn Zn

COMPLEXED ORGANIC MANGANESE  
AND ZINC CORRECTOR



## CHARACTERISTICS

**GLUCCO MnZn** is a product developed to prevent and correct deficiencies of Manganese 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 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 enzyme than any other nutrient. It is especially important in the production of proteins that are part of the plant's natural defenses against disease.

HIGH PENETRATION

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) 5.0

Zinc (Zn) 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.

### PACKING:





# GLUCCO FMZ

COMPLEXED ORGANIC IRON,  
MANGANESE AND ZINC CORRECTOR

## CHARACTERISTICS

**GLUCCO FMZ** is a unique liquid fertilizer with iron, manganese and zinc that is complexed with gluconic acid. This makes an easier transport through the phloem / xylem ( systemic ) directly to the areas of growth and developmen of the plant.

This complex provides small molecules, giving a better uptake by the stomas and radial cells.

This results in chelate micronutrients Fe, Mn and Zn by gluconic acid, allowing:

**MAXIMUM FOLIAR UPTAKE**

**FAST AND DIRECT TRANSPORT NUTRIENTS VIA XYLEM AND PHLOEM**

**AVAILABLE MIXTURE AND APPLICATION WITH MOST OF THE FERTILIZERS AND PESTICIDES**

**MAXIMUM EFFICIENCY**

**GLUCCO FMZ distributes nutrients to points of:**

- Vegetative growth (leaves, root hairs, stems and branches).
- Reproductive growth (buds, owers, fruits and seeds).

The unique formulation **GLUCCO FMZ** has been specially developed for correcting multiple deficiencies of iron, manganese and zinc in differents crops (or early vegetative stages), appearance of the fruit and the beginning of growing, to improve quantitative and qualitative parameters of the harvest.

## FOLIAR APPLICATION

Crop	Recommendation	Time
Citrus	Since the vegetative beginning to pre-owering. Since post-owering until the fruit.	2-3 L/Ha
Pomaceous fruit trees (Apple, pear)	From the first leaves of the outbreak until pre-owering. Since the fall of petals until the fruit.	2-3 L/Ha
Drupe fruit (plum, peach, cherry, etc)	Since the fall of petals until the fruit.	2-3 L/Ha
Wine grape	From sprouting until preflowering. From post/fruit set until the formation of the grains.	2-3 L/Ha
Table grape	Preflowering. Post elongation	2-3 L/Ha
Kiwi	From sprouting to preflowering	2-3 L/Ha
Hazel, nuts	From sprouting to preflowering. Post-fruit set	2-3 L/Ha
Horticultural outdoors: Solanaceae (tomato, pepper, eggplant, etc), cucurbits (melon, watermelon, cucumber, zucchini, etc)	First vegetative phases, Growing of fruit or edible parts	2-3 L/Ha
Horticultural greenhouse	Same steps outdoors horticultural with reduced doses	
Artichoke	Start spring growth. Start formation of the head.	2-3 L/Ha
Potato plant	Plant of 15 cm. Preflowering, after 15 days.	2-3 L/Ha
Field crops (soybean, sorghum, sugar beet, tobacco, sunower, rice, rapeseed, etc)	Pre- flowering and start formation edible parts	2-3 L/Ha
Alfalfa	First vegetative phases after cutting	2-3 L/Ha
Ornamental	Since vegetative starts to prefloration	2-3 L/Ha

## Cautions

**GLUCCO FMZ** is compatible with most of phytosanitary products for vegetal protection, except alkaline formulations, mineral oils and polysulfurous. It is not compatible with fertilizers, based in phosphate based solutions or high pH.

## COMPOSITION

%w/v

Iron (Fe) water soluble	2.6
Manganese (Mn) water soluble	2.6
Zinc (Zn) water soluble	2.6

Natural Chelating Agent (Gluconic Acid)



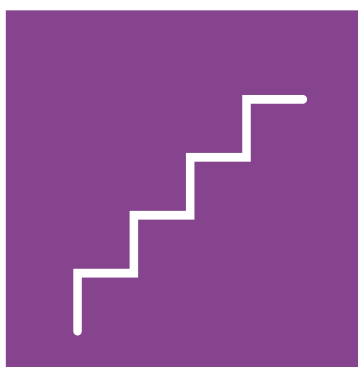
## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## PH CORRECTORS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# PH CORRECTORS

Each active material is stable provided that it is within a certain pH range. Above this optimum pH range, the active material is degraded and greatly diminishes its effectiveness. This phenomenon is known as alkaline hydrolysis.

With pH is achieved:

- Control the pH of the solution to be applied keeping it stable.
- Avoid the alkaline hydrolysis.
- Improvement efficiency of: pesticides, PGR, foliar fertilizers.

## pH optimum for some phytosanitary products

Insecticides	pH optimum	Insecticides	pH optimum	Fungicides	pH optimum	Herbicides	pH optimum
Abamectin	6-7	Fenazaquin	6-7	Benalaxyl	6	Alachlor	6
Acetamiprid	5-7	Formetanate	5-7	Captan	6	Atrazine	5,5-6,5
Amitraz	5	Fosalone	5	Carbendazim	6-7	Bentazon	5,7
Azinphos-methyl	5-6	Imidacloprid	5-6	Cymoxanil	5-6	Diclofop- methyl	5,5-7
Bacillus thuringiensis	5-6	Lufenuron	6-7	Dinocap	6-7	Diuron	7
Benfuracarb	6-7	Methiocarb	6-7	Epoxiconazole	6-7	Fenmedifam	5,5-6,5
Bifenthrin	5,5	Methomyl	6-7	Famoxadone	5-6	Fluazifop-p-butyl	6-7
Carbaryl	6-7	Pirimicarb	6-7	Folpet	6	Glyphosate	5
Cifluthrin	6-7	Phosmet	5-6	Fosetyl-Al	7	Glufosinate	7
Cypermethrin	6-7	Propargite	6,5	Iprodione	6	Linuron	7
Clorpirifos	6,5	Tau-Fluvalinate	6-5	Kresoxim-Methyl	6-7	Metribuzin	7
Deltamethrin	6-5	Trichlorfon	7	Mancozeb	5-6	Oxifluorfen	6-7
Diazinon	7	Thiodicarb	5-6	Metalaxyl	6	Propanil	7
Dimethoate	5-6			Oxychloride	7	Quizalofop-p-ethyl	5-6,5
Dinitroanilines	5,5			Pyrimethanil	6-7		
				Tebuconazole	7		





## CHARACTERISTICS

**KELOM pH Triple** is a triple action product that has the following characteristics:

1. Its acidifying characteristics allows to **REGULATE THE pH OF THE SOLUTION** of the application between 4.5 to 6.5 (depending on the dosage used).
2. Increases the foliar dispersion. **SURFACTANT EFFECT**. It reduces surface tension of water by increasing wetting and spreading properties that improves pesticides and fertilizers performance and reduces losses and phytotoxic effects
3. **THE SYSTEM CONTAINS A pH VALUE INDICATOR BY COLOR** which helps an adequate preparation of the solution.

For these three reasons, **KELOM pH Triple** improves the effectiveness of phytosanitary treatments to prevent degradation and facilitate not only a more uniform distribution, but also an enhanced uptake.

## DOSAGE AND APPLICATION

Dosages necessary to carry 1.000 L of solution at pH 6:

- If the pH of the solution is 7.0 a 8.0: 400 - 600 c.c.
- If the pH of the solution is 8.0 a 9.0: 500 - 600 c.c.
- If the pH of the solution is 9.0 a 10.0: 600 - 1000 c.c.

Fill the tank with a volume of water higher than the products to add:

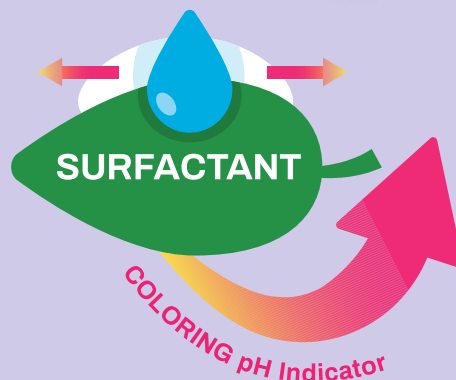
Add **KELOM pH Triple** shaking the solution, put the products of treatment and complete the deposit, then apply.

In case of hard water, increase the doses by 20%.

## COMPOSITION

%w/w

Total Nitrogen (N)	3.0
Ureic Nitrogen	3.0
Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> )	15.0



## COLORIMETRIC pH INDICATOR TABLE

COLOR	RED	PINK	ORANGE	YELLOW	LIGHT YELLOW
pH SOLUTION	<5	5-5,5	5,6-5,9	6-6,5	>7

## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

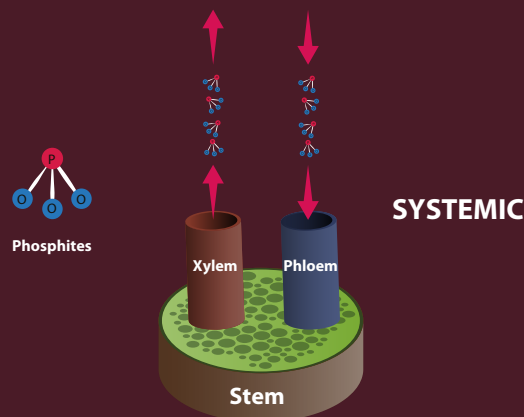
## PLANT DEFENSE INDUCTORS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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.

It 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 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, tomatoes, cucurbits, vegetables and ornamentals.
- Brown blight of conifer fences.
- Damping-off in turf and lawns.





## CHARACTERISTICS

**immunor** 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: Phytoththora spp., Plasmopara viticola, Bremia, Pseudoperonospora, Peronospora, Pythium and also 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 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, tomatoes, cucurbits, vegetables and ornamentals.
- Brown blight of conifer fences.
- Damping-off in turf and lawns.

## COMPOSITION

%w/w

Potassium Phosphonate	95,0
Phosphorus ( $P_2O_5$ )	57,0
Potassium ( $K_2O$ )	38,0



## DOSAGE AND APPLICATION

Crop	Application	Doses/treatment	Spray volume	Remarks
CITRUS AVOCADO TOP FRUITS	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, Summer and beginning of Autumn. In top fruits, treat once or twice in pre-blossom or/and petal fall, to prevent Fire blight.
	Foliar spray (mistblower)	600 g/hl	300 - 1.200 l/ha	
	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 Folpet or Mancozeb are recommended.
TABLE GRAPES	Foliar spray	250 g/hl	600 - 1.000 l/ha	
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: 1st: three (3) true leaves stage. 2nd: 15 days later. 3rd: 15-21 days later.
FENCES OF CONIFERS	Foliar spray	250 g/hl	600 / 1.000 l/ha	Make 4 treatments every month from Spring to mid Summer.
	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 cubensis (fortnightly (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 capsici attacks, 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 sp and Rhizoctonia treat (in tank mix) with Chlorothalonil and Flutolanil.

## PACKING:





## CHARACTERISTICS

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

- Gummosis and watery in citrus.
- Root rot diseases. Pythium, Phytophthora.
- 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.

## 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.

## INJURIES DESINFECTANT

Apply with a brush on the wound area a broth at a concentration of 350-700 cc / l (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.

## COMPOSITION

%w/w

Phosphorus ( $P_2O_5$ )

30

Potassium ( $K_2O$ )

20

Density 1,4 g/cc

pH (1% solution) 4 - 5



Best flowering and fruiting

Greater weight and fruit size

Increase in fruit quality

## CROPS

CITRUS

VEGETABLES

OLIVE

ORNAMENTALS

FRUIT TREES

VINE

POTATO

## PACKING:



CHARACTERISTICS

**KELOM PHOS AL** is a liquid fertilizer suitable for the treatment of citrus, fruit and vegetables, which stimulates growth and improves the quality of the fruit.

The phosphite ion is a relatively simple compound but of great importance in plant health: it has a fungicidal effect against the type of Oomycete fungi and it's also an excellent nutrient.

Its fungal activity is twofold:

- **On the one hand, it is involved in activating natural plant defense systems.** The phosphite ion causes changes in the cell wall of the Oomycete, resulting fractions that act as external elicitors, triggering all the process of activation of defenses.
- **The phosphite ion exerts a direct effect on fungal metabolism.** This ion competes with phosphorus in different metabolic pathways catalyzed by various enzymes fosforilatives. In this way, the processes involved in energy transfer of the fungus suffer a considerable delay and may even be blocked.

DOSAGE AND APPLICATION



FOLIAR APPLICATION

- Avocado, citrus, orchards, gardens, ornamental plants and potatoes: 300-400 cc/hl  
Make 2 applications
- Strawberries and vegetables: 250-300 cc/hl
- Olive and vine: 200-400 cc/hl.



FERTIRRIGATION

- Avocado, citrus, orchards, gardens, ornamental plants and potatoes: 10-20 L/ha  
In two consecutive watering; at the end of the irrigation
- Strawberries and vegetables: 5-10 L/ha
- Olive and vine: 10 cc/m2.

WOUND DISINFECTANTS

Apply with a brush in the wound area in a broth concentration of 500-800 cc/l broth.

COMPOSITION

%w/w

Phosphorus (P <sub>2</sub> O <sub>5</sub> )	21,4
Aluminum (Al)	4,2
Density	1,32 g/cc
pH	2 - 3



The richness in phosphorous and Aluminium promotes migration of sugar to the fruit.

Fertilizer rich in phosphorus and Aluminium which promotes flowering and the roots of plants and corrects deficiencies thereof.

Excellent preventive and curative activity against:

- Citrus Gummosis
- Root rot and neck in fruit
- Peronospora of grape
- Mildew of onions and garlic
- Phytophthora

PACKING:





CHARACTERISTICS

**KELOM PHOS CU** is a plant defense inductor and copper deficiency corrector enriched with 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.

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.

COMPOSITION

%w/w

Phosphorus (P <sub>2</sub> O <sub>5</sub> )	25.0
Copper (Cu)	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

PACKING:





### CHARACTERISTICS

**KELOM PHOS MN ZN** is a soluble liquid that has in its formulation phosphites of manganese (Mn) and zinc (Zn) used as contribution of these elements and in the correction of shortcomings due to deficiencies or imbalances in the assimilation of them by the plants in all vegetable crops.

**KELOM PHOS MN ZN** is manufactured under strict quality standards by KELOM - Spain, ensuring his composition as well as its effect on all crops.

### MODE OF ACTION

The perfect balance that smakes is that it stimulates self-defense mechanisms (phytoalexins), giving the plants a strengthening in trunk, neck and root on any type of horticultural, fruit cultivation, citrus or floriculture.

It has an excellent solubility which allows an immediate incorporation to the sap flow of the plant through the roots, stems, leaves, etc. Foliar and root applications are recommended and fertigation, while the addition of adjuvants is not necessary.

Performs the following functions:

- Controls and corrects the deficiencies of Mn and Zn due to deficiencies or imbalances of these elements which are very necessary for a proper development in different cultures.
- Due to the character, which is attributed, as inhibitor of the reproductive cycle of fungi, it prevents fungal attacks such as watering and rot (Phytophthora, downy mildew, etc).
- Balanced phosphorus contribution, macro element indicated and recommended for a proper nutrition from the plant in all of their vegetative periods.

### COMPOSITION

%w/w

Phosphorus (P <sub>2</sub> O <sub>5</sub> )	14,5
Zinc (Zn)	5,0
Manganese (Mn)	3,0

Density at 20°C	1,3 g/cc
pH	2 - 3



CROP	DOSE	APPLICATION TIME
Citrus, fruit	3-4 cc/l. in foliar application 4-9 l/ha soil application at the end of the irrigation	Period of maximum vegetative development. Make 2 treatments every 7-9 days.
Vegetables, strawberries, ornamental	3-4 cc/l. in foliar application 4-9 l/ha down at the end of irrigation	Period of higher vegetative development. Make 2-5 applications every 7-10 days.
Climbing vine, vine	1.5-3 cc/l. in foliar application	Period of higher vegetative development.
Saplings	1.5 cc/l. immersion	All crops: fruit trees, citrus, strawberries, vegetable transplant plants, ornamental
Painting	500 cc/l.	Painting and impregnated the trunk and the branches on the affected parties

Do not mix with oils, copper compounds or alkaline reaction products. If you want to mixtures with fungicides, insecticides, organic products etc, are recommended first to test compatibility.

#### Precautions:

- In case of accidental ingestion go to a medical center.
- It is recommended to take normal precautions in application of the product, use gloves and protect your eyes
- If there is direct contact with eyes or prolonged contact with skin, wash the affected area with plenty of water

### PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## PLANT GROWTH REGULATORS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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 Absciscic acid (ABA) Jasmonic acid

## GENERAL FUNCTIONS

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

# BLATSTIM



BIOSTIMULANT PLANT  
GROWTH REGULATOR

## CHARACTERISTICS

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

**BLATSTIM** increases the quality and the quantity of the harvest, while providing a greater defense against stress and pathogen attacks (virus, bacteria).

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 cellular division and decrease 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	2-3 treatments : from pre-flowering, until post-flowering or fruit filling.	50 cc/HL	Better flowering Bigger fruits Higher oil content
Vegetable and Strawberry	3 treatments: from pre – flowering each 20 days.	50-100 cc/HL	Higher quality 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 tolerance 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

## PACKING:



# STOP FRUIT



PLANT GROWTH REGULATOR

## PRECAUTIONS

**STOP FRUIT** is completely soluble in water, which affects the processes related to 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

ANA  
(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 l / 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

## PACKING:



Aspe





# GROWTH MIX



PLANT GROWTH REGULATOR

## CHARACTERISTICS

**GROWTH MIX** is a balanced plant growth regulator 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.

**Excellent 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
Cysteine	500 ppm	Nitrogen (N) 9,0
Tiamine	1110 ppm	
Inositol	200 ppm	

**Optimal hormonal balance**



## 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.

## PACKING:



**Aspe**





## CHARACTERISTICS

**CYTOK** is a water/soluble synergetic powder containing an array of major and trace elements. It acts as a valuable supplement to soil applied fertilizer programs and provides the nutrients needed to induce blooming and fruit set.

Application of **CYTOK** has proven successful in improving plant vigor, crop quality, early maturity and increased yields.

**CYTOK** is unique in its mode of action, resulting in heavy bloom and fruit set. The balance of nutrients in **CYTOK** encourages faster transition from plant vegetative stage to the reductive stage of development, resulting in early maturity and increased yields.

**CYTOK** is compatible with most liquid insecticides and/or fungicides.

**Stimulates early growth of the crop, early flowering, the fruit set and increased vegetative growth.**

## COMPOSITION

	%w/w
CYTOKININS	175 ppm
Nitrogen (N)	10,0
Phosphorus (P2O5)	52,0
Potassium (K2O)	8,0
Boron (B)	0,020
Zinc (Zn)	0,050
Copper (Cu)	0,050
Molybdenum (Mo)	0,0005
Manganese (Mn)	0,050
Iron (Fe)	0,100

pH 4,36



## DOSE AND APPLICATION

**Beans (fresh/dry):** Apply 700 gr/Ha at first bloom.

**Corn and Grain sorghum:** Apply 560 gr/Ha at tasseling.

**Cotton:** Apply 420-560 gr/Ha directed to foliage immediately prior to bloom and 6 gr/Ha 2 weeks later. Apply 2-3 gr/Ha later in the season if growing conditions are good.

**Field peas:** Apply 420-560 gr/Ha after first bloom.

**Melons and cucumbers:** Apply 280-420 gr/Ha when plants begin to bloom. Repeat at 14-day intervals throughout growing season.

**Oranges:** Apply 700 gr/Ha when trees begin to bloom.

**Outdoor/indoor flowering shrubs, ornamental plants:** Apply 140 gr/Ha of water sprayed in a fine mist every 14 days during the growing season.

**Soybeans:** Apply 700 gr/Ha as blossom begin to form.

**Strawberries, tomatoes, squash and peppers:** Apply 490-700 gr/Ha when plant begin to blossom. Repeat at 7-10 day intervals during growing season.

**Turf:** Apply 140 gr/1000m<sup>2</sup> to maintain height and color.

**Wheat and rice:** Apply 420-560 gr/Ha early in the growing season, prior to panicle initiation stages.

This product may be applied alone or in a tank mix with insecticides and/or fungicides. Apply with any spray nozzle and equipment that delivers a fine, even mist to ensure coverage. Do not apply this product through any type of irrigation equipment.

## PACKING:

1Kg

5Kg



NON TOXIC



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## QUALITY + COLOR

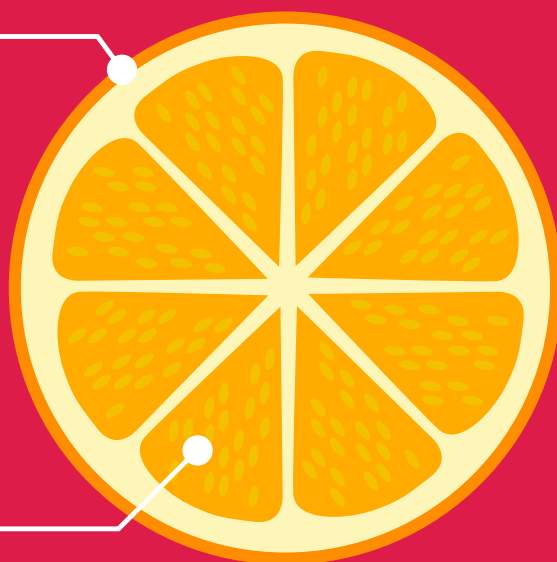


[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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



**VITAMIN C**





## 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.

## PACKING:



Allowed in ecological agriculture. Regl. CE 834/2007 y 889/2008"



IMPORTED FROM EU



## CHARACTERISTICS

**Kalitat** is a product specially designed to improve the uniformity, coloration, consistency and maturation of the fruit. **KALITAT** is a product that includes 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

## COMPOSITION

%w/w

Total Nitrogen (N)	3,0
Potassium (K <sub>2</sub> O)	5,0
Calcium (CaO)	5,0
Magnesium (MgO)	2,0
Polysaccharides	25,0
Uronic acid	2,0
Boron (B)	0,1
Zinc (Zn)	0,1



## FOLIAR APPLICATION

Crops	Doses
<b>Fruit crops</b> (table grapes, wine, apple, pear, peach, nectarine, apricot, cherry, kiwi, etc.)	ml 400-450/hl make 2-3 close treatments (7 days) beginning from veraison
<b>Citrus fruits, oil and table Olive</b>	ml 400-450/hl make 2-3 close treatments (7 days) beginning from veraison
<b>Vegetable and industrial crops in full field</b> (industrial and table tomatoes, pepper, eggplant, strawberry, watermelon, melon, Borlotti beans, sugar bean, etc.)	ml 400-450/hl make 2-3 close treatments (7 days) beginning from veraison
<b>Greenhouse vegetable crops</b>	ml 300-400/hl make two treatments on each fruiting stage from mid enlarged fruits
<b>Flowering plants, ornamentals and cut flowers</b>	ml 200-300/hl

## SOIL APPLICATION

All crops	lt 0,8-1,0/1000m <sup>2</sup> by half enlarged fruit. we recommend the mixture with chelapotash 4kg/1000m <sup>2</sup>
-----------	--

## PACKING:

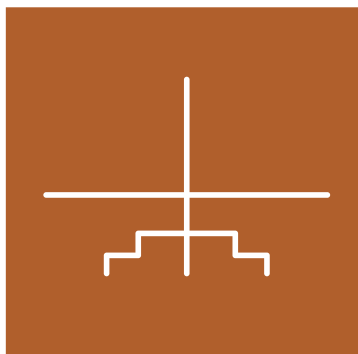




# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## ROOTING



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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 responsables 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

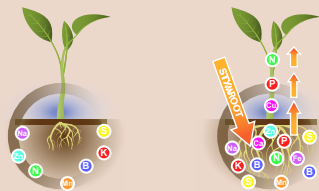




COMPOSITION	%w/w
Free amino acids	8,00
Nitrogen (N) Total	5,80
Phosphorus (P <sub>2</sub> O <sub>5</sub> )	5,00
Potassium (K <sub>2</sub> O)	4,00
Iron (Fe)	3,50
Manganese (Mn)	0,80
Zinc (Zn)	0,08
Boron (B)	0,10
Molybdenum (Mo)	0,04
Density	1,27
pH	6-7

**STYMA 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.

**STYMA 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 STYMA ROOT

STYMA ROOT

The use of **STYMA 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 .

**STYMA ROOT** It 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.

### PACKING:



Allowed in ecological agriculture.  
Regl. CE 834/2007,  
889/2008 and 673/2016



# STYMA ROOT SOLID



## BIOSTIMULANT ROOT SYSTEM

### CHARACTERISTICS

**STYMA ROOTSOLID** 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.

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

**STYMA 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 **STYMA ROOTSOLID** 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 stages.

Recommended for:

**STYMA 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 greater 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 **STYMA 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**

### 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
<b>FIELD APPLICATIONS</b>		
Transplant	100g for each 100L of water	Apply at the time of transplantation or one week after applying 400g per 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	Dilute the product in irrigation water. Apply to the 2nd, 3rd and 4th week after transplantation

**STYMA ROOTSOLID** 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 **STYMA 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 **STYMA ROOTSOLID** 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.

### COMPOSITION

%w/w

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



### PACKING:



Allowed in ecological agriculture.  
Regl. CE 834/2007,  
889/2008 and 673/2016



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## REPELLENTS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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.

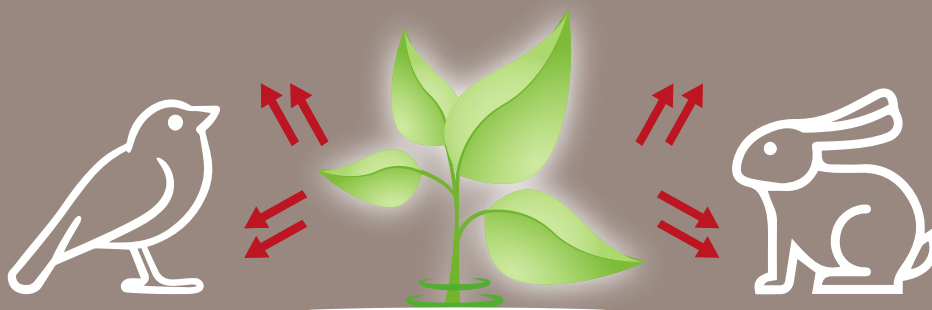
The repellent products avoid this type of damage in a natural way and 100% safe for the environment and crops.

These products generate a repellence by means of unpleasant odors or flavors preventing the attacks 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.



BIRD REPELLENCY

MAMMAL REPELLENCY





# BIRDS REPELLENT



REPELLENT FOR BIRDS

## 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

**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.

### PACKING:



# MAMMAL REPELLENT



REPELLENT FOR MAMMALS

## 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.

### PACKING:



# 2023

## CATALOG

CROP NUTRITION AND BIOPROTECTION

### SALINITY CORRECTORS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# SALINITY CORRECTORS

Saline and sodium chloride soils are an important problem for plants, specially plants that are sensitive to salinity. High levels of sodium bring about the increase levels of salinity and the dispersion of colloids destroying the soil structure and causing poor ventilation that affects to the growth of the roots.

The consequences are: not enough water and introduction of the roots, erosion problems, low germination and high stress for the plants.

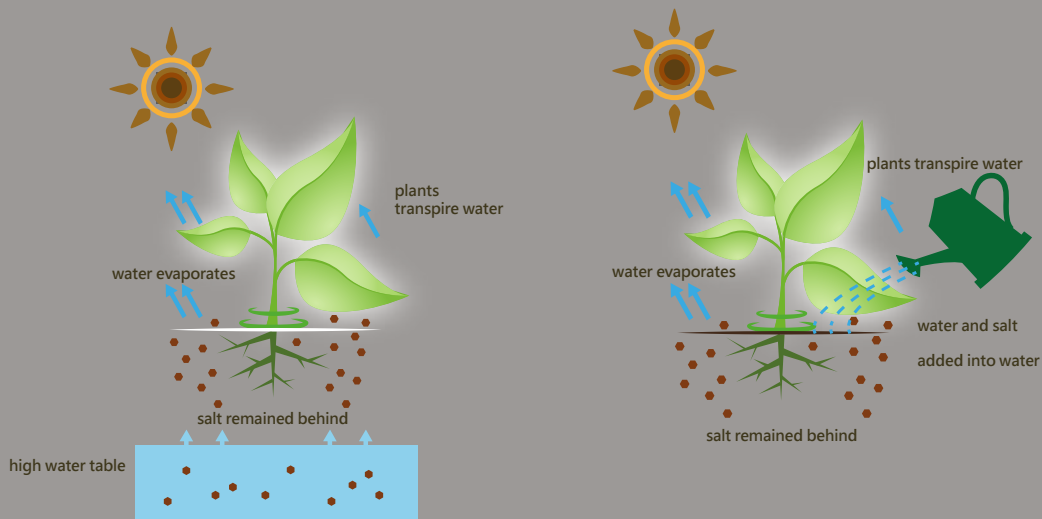
## EFFECTS IN PLANTS ARE:

Osmotic effect

Low availability of nutrients

Loss of structure

Toxicity effect



## CHARACTERISTICS

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

**KELOM<sup>Sal</sup>** contributes and releases calcium to the soil, decreasing and correcting calcium deficiency suffered by crops.

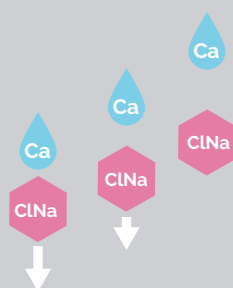
**KELOM<sup>Sal</sup>** increases the rate of Soluble Calcium, occulate the soil and improves drainage in compacted soils.

**KELOM<sup>Sal</sup>** 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, KIWI 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

**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 until 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

**KELOM<sup>Sal</sup>** 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

**KELOM<sup>Sal</sup>** it is compatible with insecticides, nematicides, fungicides and herbicides edaphological use.

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

**KELOM<sup>Sal</sup>** can not be used with mixtures of herbicides based trifluralin

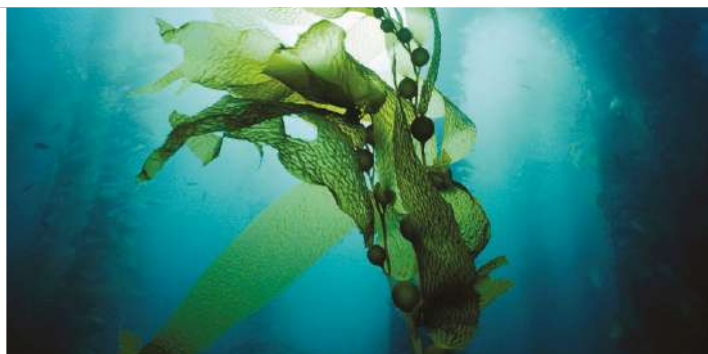
## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

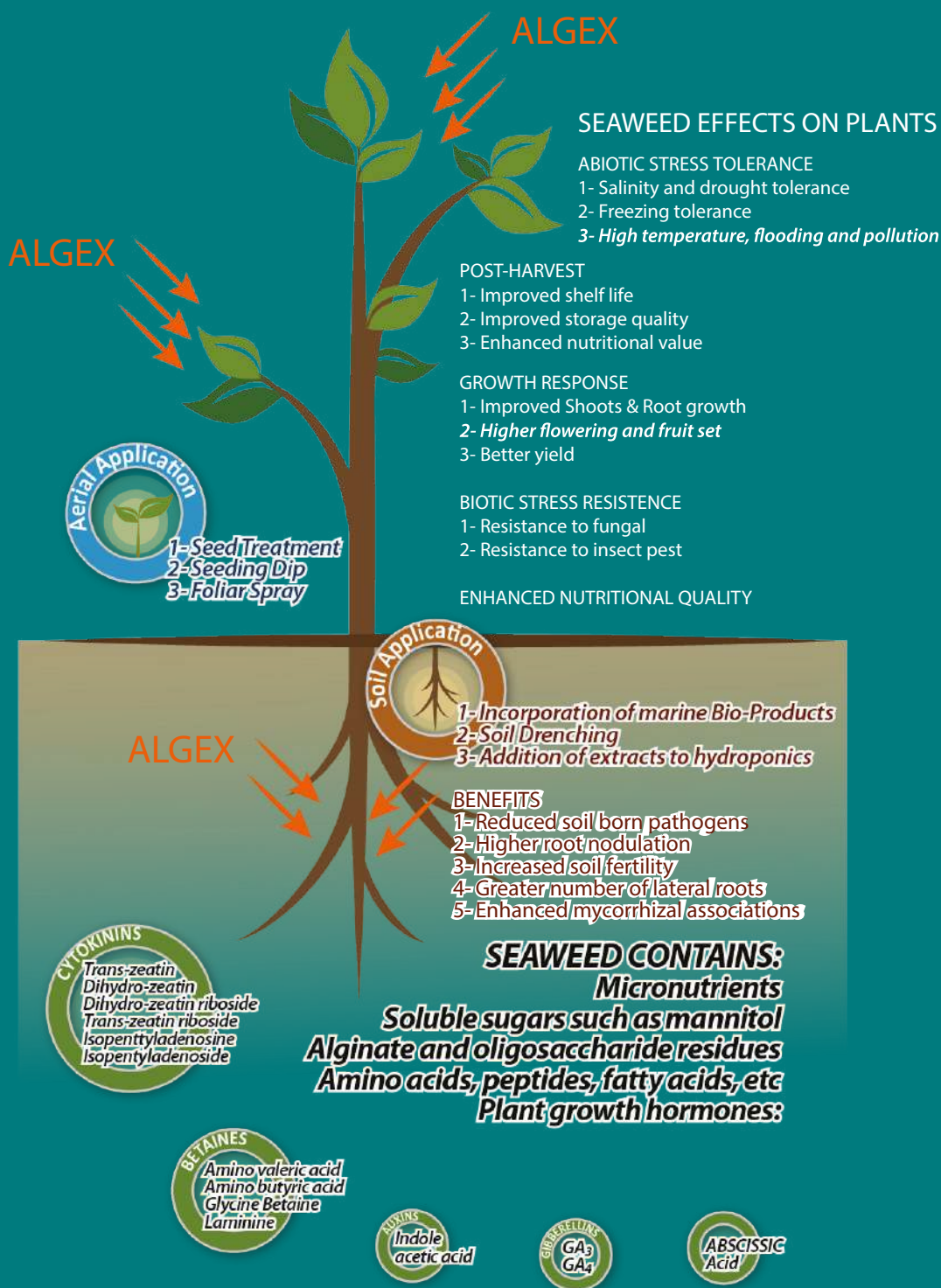
## SEAWEED BIOSTIMULANTS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)



# SEAWEED BIOSTIMULANTS



# Algex



SEAWEED EXTRACT. BIOSTIMULANT  
ASCOPHYLLUM NODOSUM

## CHARACTERISTICS

**Algex** is a natural stimulant that is capable of intensifying the vegetal metabolism and the efficiency of the crops.

**Algex** is a proper phytofortifier for all types of crops, especially **CITRUS, STRAWBERRIES, FRUIT TREES, OLIVE TREES, ORNAMENTALS and VINE**. It is recommended during the phases of greater vegetative activity (transplantation, flowering, fruit setting and fruit growth) or under unfavourable conditions (frosts, drought, hail, pests, diseases, etc.).

## SEAWEED EFFECTS ON PLANTS

### ABIOTIC STRESS TOLERANCE

- 1-Salinity and drought tolerance
- 2-Freezing tolerance
- 3-High temperature, flooding and pollution

### POST-HARVEST

- 1-Improved shelf life
- 2-Improved storage quality
- 3-Enhanced nutritional value

### GROWTH RESPONSE

- 1-Improved Shoot&Root growth
- 2-Higher flowering and fruit set
- 3-Better yield

### BIOTIC STRESS RESISTENCE

- 1-Resistance to fungi
- 2-Resistance to insect pest.

## COMPOSITION

%w/v

Ascophyllum Nodosum sp	25
Total Organic Matter	37,5
Fulvic Acids	21,8
Potassium (K <sub>2</sub> O)	5,25
Manitol	1,75
Organic Acid	3
	ppm
Equivalent Citocinetic Activity	250



## DOSES AND APPLICATIONS

CROP	Fertirrigation L/Ha	Foliar Spray ml/100L water	APPLICATION & INTERVAL
Flowers and Ornamentals	4	100	Before transplanting, before flowering
Horticulture	5 - 6	100 - 150	After the transplanting, before flowering
Nursery	2	50 - 80	In case of etiolation
Industrial crops	10 - 20	100 - 150	After transplanting, before flowering
Orchards, Vineyards and Citrus	15 - 30	150 - 200	Before flowering, at the fruit set and before ripening.

**COMPATIBILITY:** Good compatibility with all phytosanitary products. With products based on trace elements, reduce the dose and make a test.

## PACKING:



# 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 development
- Improves plant nutritional health
- Increases desirable yield
- Improves plant vigor
- Maximizes crop potential during periods of stress

## COMPOSITION

%w/w

Seaweed Extract	50,0
Manitol	2,0
Alginic Acid	5,0
Humic Extracts	40,0
Humic Acids	32,5
Fulvic Acids	7,5



Microgranulated

## 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...



**SOIL** 1-2 Kg/Ha (max. 1 Kg/100L)



**FOLIAR** 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.

## PACKING:

500g

1 Kg

5 Kg

20 Kg



# 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-α 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.**

## COMPOSITION

%w/w

Seaweed extract ( <i>Ascophyllum Nodosum</i> )	40
Free Aminoacids	10



## DOSES AND APPLICATIONS

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

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

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.

## PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## SILICON



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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 stability 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.



Nutrition

Fungicide

Miticide

Insecticide





THE NEW NUTRIENT.  
SILICON FERTILIZER

# 6 KEYS TO ACHIEVE GROWTH AND YIELD SILICON INCREASE

## 1 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 stability 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.





# Silic<sup>ON</sup> Ca Flow



CALCIUM SILICATE. FERTILIZER

## CHARACTERISTICS

**Silic<sup>ON</sup> 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 ripening of the fruits. **Calcium** makes vegetal tissues more resistant.

**NUTRITION**

**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

### Cell Structure

Si accumulated in the epidermal tissues increases the mechanical stability 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, Cadmium, 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> )	24,0
Calcium (Ca)	15,0
Density	1,40
pH	7-8



## 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

## PACKING:



**Aspe**

Allowed in ecological  
agriculture. Regl. CE 834/2007  
y 889/2008



IMPORTED  
FROM EU

## CHARACTERISTICS

**Silic<sup>ON</sup> 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<sup>ON</sup> Ca Mg Flow** prevents the effect of calcium deficiencies (apical necrosis, fruit cracking and early maturation) and **Magnesium** deficiencies (photosynthetic activity reduction). Crops treated with **Silic<sup>ON</sup> 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 stability 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, Cadmium, 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

### PACKING:





### CHARACTERISTICS

**Silic<sup>ON</sup> 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<sup>ON</sup> 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> )	17,5
Iron (Fe)	3



### NUTRITION

### FUNGICIDE

### MITICIDE

### INSECTICIDE



#### FOLIAR APPLICATION

Crop	Treatments	Water (L)
Cereals	2 - 4	200-300
Trees	2 - 4	500-1000
Horticultural	2 - 4	400-600

Dosage: 0,5 l/ha

### PACKING:



# 2023 CATALOG

CROP NUTRITION AND BIOPROTECTION

## SOLAR PROTECTORS



[WWW.ASPEAGRO.COM](http://WWW.ASPEAGRO.COM)

# 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 film that blocks and reflects some of the direct sunlight to reduce the fruit's surface temperature and the probability of sunburn.

The wax-based product forms a film that absorbs some of the damaging UV radiation and reflects a small amount of the incoming radiation.

These product must be applied several times 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.



## CHARACTERISTICS

**Sunscreen** is a solar protector for fruit and vegetables based on Magnesium Oxide in an excipient 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 tree 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
<b>FRUIT TREES:</b> Apple trees, Pear trees, Lemon, Orange, Tangerine, Clementine, Grapefruit, Olives, Peaches, Nectarines, Pomegranates, Persimmons, Avocado	<b>5-10 Kg/100 L water</b>	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	<b>4-7 Kg/100 L water</b>	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 conditions.

## COMPOSITION

## %w/w

Ca ( CaO )	55,00
Mg ( MgO )	0,15



## QUALITY AND HEALTH IN PRE-HARVEST



**REFLECTS UV RAYS**



**PROTECT FROM HIGH TEMPERATURES**



## PACKING:





## 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 ( $\text{CaO}_2$ )	34,00
Silicon ( $\text{CaSiO}_3$ )	5,00
pH (solution 1%) 7-8	



**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.,

## PACKING:







**WE ALSO GROW UP ON  
SOCIAL NETWORKS**

**WE COUNT ON YOU**



[www.aspeagro.com](http://www.aspeagro.com)



[www.aspeagro.com](http://www.aspeagro.com)  
[export@aspeagro.com](mailto:export@aspeagro.com) / [gm@aspeagro.com](mailto:gm@aspeagro.com)