

### SPECIALITY NUTRITION FOR CROPS













PRODUCT RANGE

### Balanced, specialised and fast-acting fertilisation for more productive crops.



01 **OUR COMPANY** 02 03 05 BIOSTIMULANTS 15 HELIO GREEN RANGE 23 HELIO TRACE RANGE 32

### CONTENTS

- **DISCOVER OUR FORMULATIONS**
- NUTRIENT SUPPLEMENTS
- OUR BUSINESS NETWORK





Since 2001, Heliopotasse has served plant growers through a worldwide network of distributors, continuing the work of former French potash group SCPA from its base in Alsace, in the east of France.

Our close communication with plant growers and distributors allows us to attend to their specific requirements by way of up-to-date and innovative products.

The quality of our products and their efficiency in the field are our main concerns.

We use the best raw materials and take great care over their processing so as to provide the best solution to the majority of aaronomic challenges that today's technology can provide. Heliopotasse provides a full range of nutrient supplements with guaranteed efficiency and profitability for farmers and plant growers.

To guarantee efficient nutritional products, Heliopotasse develops high-tech formulations with high-arade adjuvants that allow plants to quickly and completely assimilate minerals through the leaves or roots.

Our foliar nutrition products are available in liquid or powder form.

These formulations are designed used as a spray or in fertigation.



### **DISCOVER OUR FORMULATIONS**

Each product has been developed to ensure a complete, rapid and effective assimilation of nutrients by the leaf. They are specially combined with adjuvants that lead to high performance results.

### NUTRIENT SUPPLEMENTS

Heliopotasse nutrient supplements are divided into three ranges.

### BIOSTIMULANTS

Biostimulants are products that act on the physiology of plants in combination with nutrients in order to enhance the vigour, yield and quality of plants and crops. The innovative nature of our products is in the biological stimulating substances that are used to produce them: seaweeds, hormones, free amino acids, and microorganisms. They also have an indirect effect on pests and diseases, as they improve the crop's natural defences. Each product is formulated with high performance co-formulants to ensure complete, rapid and effective absorption of the nutrients and stimulating substances.

- HELIO BOOST
- HELIO COLOR
- HELIO FIT
- HELIO KELP
- HELIO ROOT
- HELIO STIM
- HELIO HUMIK

### HELIO GREEN RANGE

This range consists of high-tech products that combine NPK and secondary nutrients in a liquid form designed for use as a foliar spray. They favour the growth and development of plants during the whole life cycle of the crop, from seed germination to plant maturity. They are tailor-made to improve the efficiency of the plant's metabolism, encourage better flowering, and guarantee optimum fruit quality. Each product is formulated with high performance co-formulants to ensure complete, rapid and effective absorption of the nutrients.

- HELIO GREEN N
- HELIO GREEN P
- HELIO GREEN K
- HELIO GREEN CM
- HELIO GREEN S
- HELIO GREEN KB

### HELIO TRACE RANGE

This range consists of all our deficiency corrector products. From iron to molybdenum, the Helio Trace range provides you with the formula for achieving the top quality you want from your crops. Each product is formulated with high performance co-formulants to ensure complete, rapid and effective absorption of nutrients.

- HELIO TRACE BM
- HELIO TRACE Mx
- HELIO TRACE MZ
- HELIO TRACE CU
- HELIO TRACE Fe (f)
- HELIO TRACE Fe(s)
- HELIO TRACE Zn

03





# BIOSTIMULANTS













HELIC Providence National National Providence Providenc

05

### HELIO BOOST

### HELIO COLOR

HELIO FIT

HELIO KELP

HELIO ROOT

HELIO STIM

HELIO HUMIK





## HELIO BOOST

PHYSICAL CHARACT	ERISTICS	ADDITIC	ONAL INFORMATION		
Density 1.	quid 18 I months	Origin Storage Packaging	European Union Protect from frost 10 L (600 L pallet) 5 L (5 L x 3, 600 L po 1 L (1 L x 15, 600 L p		Helio BOOST NUTRITION STIMULANTE NPK COMPLETE de EQUILIBREE
CHEMICAL COMPOS	SITION				<b>MAR</b>
	Typical	Guaranteed		Typical	Tegen legade NPT (18.23.7) Anne dige Statement
Nitrogen (N) Phosphorus (P2O5) Potassium (K2O) Magnesium* (MgO) Boron (B)	0.11% 420 ppm	min 8.83% min 2.7% min 7.02%	Copper* (Cu) Iron* (Fe) Manganese* (Mn) Molydnenum (Mo) Zinc (Zn)	120 ppm 210 ppm 420 ppm 42 ppm 340 ppm	ECHARMAN FLECOPOLOSSE JUNE OF MANDANE ELECTRANCE TRANSPORTED IN 18 19 19 10
*EDTA chelated					DOSE: 5L/ha Concentration 5%

# Helio BOOST NUTRITION STIMULANTE NPI COMPLÈTE et FOUILIE Heliopotasse DOSE: 5L/ha

#### A combination of nitrogen, phosphorus, potassium, magnesium and trace elements essential to a plant's healthy development. The proportion of each ingredient is specific to the needs of the plant, allowing for improvement in its overall nutritional status.

NUTRIENT BOOST

#### WHAT IT DOES AND HOW IT WORKS

Helio BOOST improves the nutritional status of the crop. Applied foliarly as a spray, it activates the metabolism of each vegetal cell. Working on the whole plant, it improves the photosynthesis process and the plant's capacity to take in minerals through the root system. Helio BOOST is a versatile product suitable for a wide range of different crops. It is specifically adapted to aid in the nutrition, stimulation and arowth of the vegetative system. Helio BOOST is a ready-to-use liquid product that acts "softly" on the foliage for ease of use and safety of use.

#### **RECOMMENDED USE**

Vines: 2-3 applications on separate bunches from start of flowering and shoot growth, then every 15 days. Fruit trees, citrus, nursery: 4 applications from petal fall, then every 15 days. Cereals: from stem elongation to booting, and from last leaf coming out to beginning of earring stage. Protein peas: 5/10 cm - start of flowering - flat pods Potatoes: 3-4 applications from start of tuber formation then every 15 days Maize, oilseeds, beets: 1-2 applications in case of difficult start then on well-developed foliage.

Vegetables: 3-4 applications every 10-15 days when growth starts.

# HELIO COLOR

RACTERISTICS	ADDITIO	NAL INFORM
Liquid 1.27 18 months	7 Storage	
MPOSITION		
Guarar	nteed	
aO) min 12	2.5%	
	Liquid 1.27 18 months MPOSITION Guarar	Liquid Origin 1.27 Storage 18 months Packaging MPOSITION Guaranteed

### WHAT IT DOES AND HOW IT WORKS

Helio COLOR contains high concentrations of calcium, preventing any physiological or nutritional imbalance in fruits and vegetables. Helio COLOR improves the grade of fruits and vegetables, their shelf life and their resistance to impact and bruising. Helio COLOR is a ready-to-use liquid product that acts "softly" on the foliage, making it safe to use and handle.

### **RECOMMENDED USE**

Fruit trees (stone and pip) and kiwifruit: 2 L/ha, maximum concentration 1%; 5-7 applications every 15 days from fruit swelling and up to 3 weeks before harvest. Red colour spray: vines, fruit trees 5 L/ha in minimum 200 L of water; 2 to 3 weeks before harvest Other crops and vegetables (outdoor): 2 L/ha, maximum concentration 1%; 4 to 6 applications every 10-14 days on well-established crops.

# BIOSTIMULANTS

#### ATION

Union om frost



#### OOST

e). Plays a role in meristematic activity.



# HELIO FIT

PHYSICAL CHAP	RACTERISTICS	ADDITIO	NAL INFORMATION	- 11
Appearance Density Shelf life CHEMICAL COI	Liquid 1.275 18 months MPOSITION	Origin Storage Packaging	European Union Protect from frost 10 L (pallet 600L)	Helio
Phosphorous (P	Guarar	9.5%		Heio 29 per ceto Mañose FR

opotasse

DOSE: 3L/ha Concentration 1.5%

#### NUTRIENT BOOST

Phosphorus: Energy transfer, membrane constituents, protein synthesis Potassium: Synthesis and transfer of sugars, second yield factor, photosynthesis, regulation of water feeding

#### WHAT IT DOES AND HOW IT WORKS

Helio FIT provides plants with phosphorus and potassium. Plants are strengthened, healthy and resistant to environmental assaults. It activates and balances the metabolism and absorption of nutrients, and promotes proper nutrition from soil reserves.

#### RECOMMENDED USE

Vines: 3-4 applications every 10 days from 5-6 leaves Fruit trees: 3-4 applications every 10 days from early fruit set Potato: 4 applications every 10 days from early tuber formation Salad: 3 applications every 10 days from recovery of vegetation Strawberry: recovery of vegetation and every 10 days Tomato: 4-6 leaves stage and every 10 days Radish: 3 applications every 10 days from sufficient leaves Melon: 3 applications every 10 days Other cultures: 3-4 applications every 10-12 days on sufficient foliage

# HELIO KELP

PHYSICAL CHA	RACTERISTICS	ADDITIO	NAL INFORI
Appearance Density Shelf life	Liquid 1.415 24 months	Origin Storage	Europear Protect fr Store in c direct sur
	I	Packaging	10L
CHEMICAL CO	MPOSITION		
	Guard	anteed	
	4) min 2205) min 220) min	7.05% 14.1% 18.7%	

Seaweeds contain hormones and polysaccharides that stimulate the formation of polyamines (growth stimulators) and phytoalexins (natural antibiotics). Amino acids improve nitrogen assimilation and protein synthesis, carbon storage and their transfer in the plant. They improve the source-to-sink transfer of nutrients and the synthesis of hormones and enzymes, and contain a vitamin cofactor that regulates the plant's metabolism during stress events.

#### WHAT IT DOES AND HOW IT WORKS

Helio Kelp promotes vegetative development during crop establishment thanks to its Green Effect, which boosts early nitrogen assimilation. It also improves late transfer of nitrogen from leaves to grain, thanks to its Stay Green Effect, which increases the efficiency of nitrogen metabolism.

FOLIAR APPLICATIONS: maximum concentration 1% (1 L in 100 L of water) Grapes: 2-3 L/ha; separated bunches / start of flowering / fruit set Fruit trees (stone and pip fruits, red berries): 2-3 L/ha; pre-flowering / petal fall Vegetables (e.g. carrot, salad, tomato): 2-3 L/ha; 1 to 2 applications every 10 days on well-developed foliage.

# BIOSTIMULANTS

#### **MATION**

n Union from frost. original container out of unlight and tightly closed.



#### NUTRIENT BOOST

#### RECOMMENDED USE

# HELIO ROOT

PHYSICAL CHAR	ACTERISTICS	ADDITION	IAL INFORMATION	
Appearance Density Shelf life CHEMICAL COM	Liquid 1.27 IPOSITION	Origin Storage Formulation	France Store in a dry, well-ventilated space. Root biostimulant + free amino acid + humic substances	Helio ROOT
Nitrogen (N) Phosphorus (P20 Potassium (K20		5% 9%		10 L Heliopotasse
	I	Ν	IUTRIENT BOOST	

Humic acids have auxin-like activity, influence the production of RNA, which is essential for many biochemical mechanisms in the cell, and have chelating properties.

Pure L-Tryptophan is the natural precursor of the auxin hormone.

Pure L-Methionine is the natural precursor of ethylene. Ethylene acts in synergy with auxin. Acreciactive is a new aeneration molecule that occurs naturally in plants. At Heliopotasse, our chemical engineering and agricultural teams have developed a way of extracting and formulating ACRECIACTIVE in order to biostimulate root hairs by acting in synergy with auxin.

#### WHAT IT DOES AND HOW IT WORKS

Helio Root is a root activator made up of four ingredients. It biostimulates the root development system and tuber formation of crops by enhancing the effectiveness of auxin during rhizogenesis.

#### **RECOMMENDED USE**

### **SOIL APPLICATION** (dilute to 0.5%-1% concentration)

Vegetables, tomato, cucumber and pepper: 10 L/ha; from transplanting or on young plants every 15 days Fruit trees, kiwifruit: 5 L/ha from bud burst

Citrus: 5 L/ha from beginning of shoot growth until beginning of flowering (about 10% of flowers open) every 15 days

Grapes: 5 L/ha from bud burst Potato: 10 L/ha from emergence

Beets: 5 L/ha from 4 leaves

Rape: 5 L/ha from 4-6 leaves

FOLIAR APPLICATION (3x3 L/ha every 10-15 days, maximum concentration 3%) Vegetables, tomato, cucumber, cabbage, etc.: on sufficiently developed foliage Young perennials (vines, fruit trees): on sufficiently developed foliage Maize: from stage 15 (BBCH scale) Root dipping: 1 ml per plant



PHYSICAL CHAR	ADDITIO	NAL INFOR			
Appearance Density Shelf life	Liquid 1.28 24 months	Origin Storage Packaging	Europea Protect f 100 L (pc 200 L (pc Tank 100		
CHEMICAL COM	CHEMICAL COMPOSITION				
	Guarar	nteed			
Nitrogen (N Total amino acio	· ·	6.3% 37.5%			

### NUTRIENT BOOST

Nitrogen: essential constituent of proteins, enzymatic role, photosynthesis Amino acids present: alanine, istidina proline, arginine, isoleucine, serine, aspartic acid, leucine, treonine, glutamine acid, lisine, tyrosine.

### WHAT IT DOES AND HOW IT WORKS

Helio STIM feeds the plant through the leaves and roots. Thanks to its amino acids, it stimulates the plant to enable it to better withstand stress (drought, salinity, frost, pest attacks). Helio STIM provides the plant with organic nitrogen for gradual release to energize and encourage its growth.

Total amino acids: 37.5% Organic Nitrogen: 6% Organic Carbon: 22%

**RECOMMENDED USE** 

### FOLIAR APPLICATION

Vegetable crops: 2-3 L, use every 15 days and during periods of stress Fruit trees, vines, citrus: 4 L, use before flowering and during periods of stress

### SOIL APPLICATION

Vegetable crops: 20-50 L use on soil before sowing or transplanting, and during periods of stress Fruit trees, vines, citrus: 40-80 L, use before flowering and during periods of stress



#### RMATION

an Union from frost allet 500L) allet 800L) 001



DOSE: 3L/ha Concentration 1.5%

## HELIO HUMIK

PHYSICAL CHARA	ADD	
Appearance Density pH (1% solution) Solubility (20°c) Granulometry	Black microgranules 0.62 10.9 300g/L 0.125 - 0.500 mm	Origin Storage

#### CHEMICAL COMPOSITION

	Typical	Guaranteed
Total humic extract Humic acids Fulvic acids Organic matter on dry basis Organic nitrogen on dry basis (Norg) C/N ratio	45% 41% 4% 73.6% 0.74% 50	min 42% min 39% min 3.6%



### NUTRIENT BOOST

ADDITIONAL INFORMATION

Italy

Store in a dry,

ventilated space

Humic acids have auxin-like activity and influence the production of RNA, which is essential for many biochemical mechanisms in the cell. They also have the great effect of creating colloids to form stable compounds with metal ions.

Fulvic acids stimulate the activity of some enzymes. As a foliar application, they can prevent chlorosis by increasing the absorption of Mg2+ and Fe2+ ions. They greatly improve the stay green effect.

#### WHAT IT DOES AND HOW IT WORKS

Humic acids improve the soil structure in many ways. They increase the CEC, the organic matter content, and they improve the capacity of the soil to hold on to water and nutrients. They also have a buffering role in acidic soils and reduce the toxicity levels of heavy metals. Fulvic substances have an effect on several metabolic processes, such as photosynthesis and respiration, and they stimulate root initiation and development. They also have a great chelating effect. What's more, you can treat seeds in a solution of Helio Humik to increase the germination rate.

#### RECOMMENDED USE

Vegetables in greenhouses: 10-20 kg/100 m2 during soil preparation or 0.5 kg/100 m2 per 50 L of water using a foliar spray in 2-3 applications.

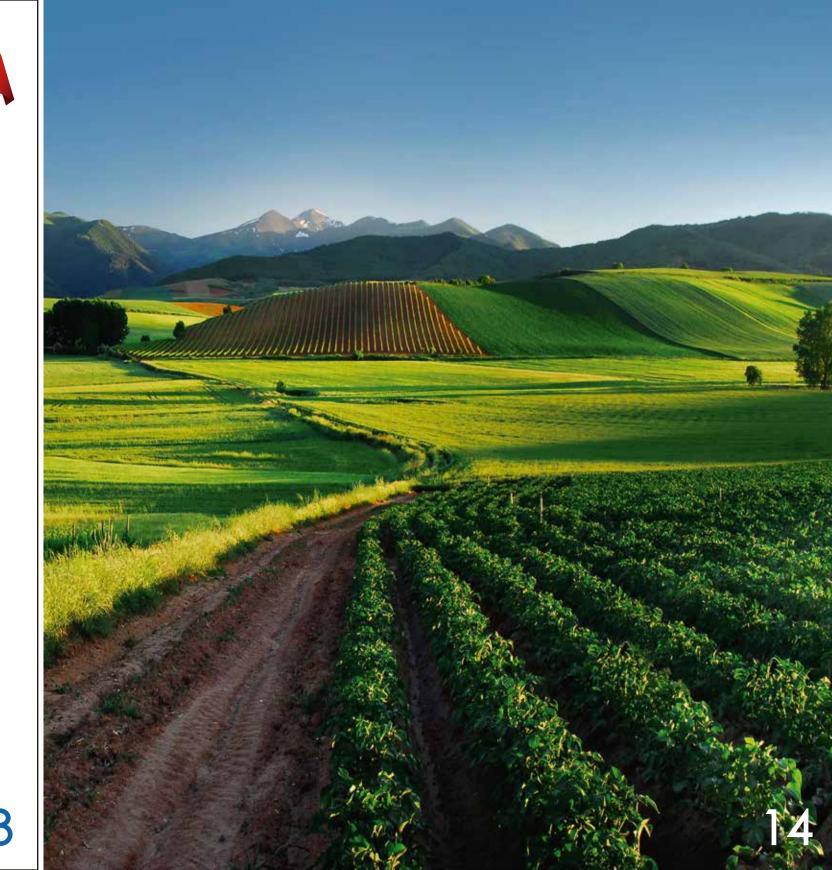
Horticultural fruit trees: 0.5-2 kg/tree when planting or 10-15 kg/m2 with the first fertiliser

Open field vegetables: 10-15 kg/m3 during soil preparation or as a band application with the first soil fertiliser application.

Cereals, potato: 300-400 kg/ha during soil preparation or as a band application with the first soil fertiliser application, or 2-4 kg per 200 L of water/ha using a foliar spray in 4-6 applications.

Ornamental plants and tree nursery: 10-15 kg/m3 during the preparation of substrates.

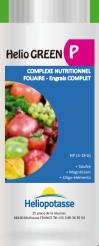
Turf grass: 20-30 kg/100m2 during soil preparation for lawns or 100kg/100m2 annually. Seed Treatment: 2kg/100kg seeds per 200 L of water

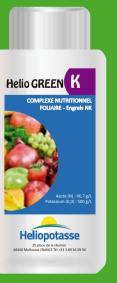


# HELIO GREEN RANGE









Helio GREEN CN COMPLEXE NUTRITION Heliopotasse 25 place de la réunion 100 Mulhouse FRANCE Tél + 33 3 89 36 39 5 54



15



16

### HELIO GREEN N

24 months

Guaranteed

16.10% 4.02%

8.10%

min

min

min

PHISICAL CHARACTERISTICS							
Appearance	Liquid						
Density	1.24						

DUVELOAL OUT DA OTEDICTIOS

CHEMICAL COMPOSITION

(N)

(MaO)

(SO3)

Shelf life

Nitrogen

Sulphur

Maanesium

Origin European Union Protect from frost Storage Packaging 100 L (pallet 500L)

ADDITIONAL INFORMATION

200 L (pallet 800L) Tank 1000 L



#### 40L in 100L water Concentration 40%

#### NUTRIENT BOOST

Nitrogen: essential constituent of proteins, enzymatic role, photosynthesis Sulphur: protein constituents, enzymatic role, photosynthesis Magnesium: photosynthesis, synthesis of carbohydrates and lipids

#### WHAT IT DOES AND HOW IT WORKS

Helio GREEN N is a foliar nitrogen fertiliser enriched with magnesium and sulphur. The minerals contained in this product are all 100% water soluble and specifically adapted for use on crops that need a little boost to improve their quality and yield. Helio GREEN N is a ready-to-use liquid product that acts "softly" on the leaf for ease and safety of use. The combined effects of the nitrogen and sulphur in this product increase the efficiency of spraying.

RECOMMENDED USE

Cereals: 40 to 60 L- from second node to earring stage

Vines: 25 L applications from softening of berries to improve quality

Fruit trees: 1 x 10 L application when 50% of leaves have fallen to promote further leaf fall, 1 x 20-30 L application post-harvest before leaf fall to encourage new growth

Rape: 20 to 40 L – 1 to 2 applications C1 and D2. May be combined with Baronia LS

Sunflower: 20 to 40 L – 1 to 2 applications from 5-6 leaves to the end of bud. May be combined with Boronia LS Potato: 1 x 20 to 40 L application until tuber formation to avoid premature senescence of leaves Other crops\*: 40 to 60 L on sufficiently developed vegetation

\* For other crops and crops under protection, always carry out a test to the maximum concentration of 20% to observe the plant's response.

# HELIO GREEN P

PHYSICAL CHAR	ACTERI	STICS	ADDITIO	NAL INFOR
Appearance Density Shelf life CHEMICAL COM		onths	Origin Storage Packaging	Europec Protect 1 10 L (pa
		typical	Guarc	inteed
Nitrogen (N Phosphrous (P2 Magnesium (M Sulphur (SC Boron (B) Copper (C Iron (Fe Manganese (M Molydnenum(M Zinc (Zr	2O5) gO) D3) u) s) n) o)	360 ppm 100 ppm 180 ppm 360 ppm 40 ppm 290 ppm	min min min	4.1% 18.5% 4.4% 8.7%

Provides a combination of nitrogen, phosphorus, potassium, magnesium and trace elements essential to the healthy development of crops. The proportion of each ingredient is specific to the needs of the plant, allowing an improvement of the overall nutritional status of the plant. The balance of trace elements contained in this product is similar to that found in the sap of plants. The trace elements are, for the most part, in a chelated form, increasing their level of absorption, assimilability and circulation in the plant.

#### WHAT IT DOES AND HOW IT WORKS

Helio GREEN P improves the nutritional status of the crop. Used as a foliar spray, it activates the metabolism of each plant cell. Working on the whole plant, it improves the photosynthesis process and plant's capacity to take in minerals through the root system. The balance of Helio GREEN P is particularly adapted to the needs of potatoes during tuber formation and cereals when growth starts. Helio GREEN P has a natural and gradual effect on growth and on the storing of quality substances.

#### RECOMMENDED USE

Potato: 3-4 applications from start of tuber formation, then every 10-15 days Vegetables: 3-4 applications every 10 days when growth starts Field crops: 1-2 applications in case of difficult start, then on well-developed foliage Fruit trees, citrus, nursery: 2-3 applications from petal fall then every 10 days

#### RMATION

an Union from frost allet 600L)



Dose: 5L/ha Maximum concentration 2.5%

#### NUTRIENT BOOST

# HELIO GREEN K

PHYSICAL CHAR	RACTERISTICS	ADDITIO	NAL INFORMATION	
Appearance Density Shelf life	Liquid 1.53 18 months	Origin Storage Packaging	European Union Protect from frost 10 L (pallet 600L) 20 L (pallet 560L)	Helio GREEN K COMPLEXE NUTRITIONNEL FOLLARE - Engrals NK
CHEMICAL CO	MPOSITION Guarai	nteed		
Nitrogen (N Potassium (K	) min 2O) min	3.1% 32.7%		Anter (N) - 462 py Personium (N, 0) - 500 g/t Heliopotasse By Brack Bir Hanner Biblio Multicuter (Model Wir H3 3 Bir Str 34

Dose: 3-4L /ha Maximun concentration 1.5%

#### NUTRIENT BOOST

Nitrogen: essential constituent of proteins, enzymatic role, photosynthesis Potassium: synthesis and transfer of sugars, second yield factor, photosynthesis, regulation of water feeding

#### WHAT IT DOES AND HOW IT WORKS

Helio GREEN K has been specifically designed and balanced to optimize the maturity and the quality of the grape crop and the fruits at the end of the cycle. As a foliar application, it helps with the transfer of elaborated substances from the leaves to the fruits and berries. Helio GREEN K is a 100%-soluble potassium concentrate that works in synergy with nitrogen.

#### RECOMMENDED USE

Vines: 2-4 applications every 10-15 days from fruit set and during ripening. Fruit trees: 2-3 applications every 15 days from fruit growth and continuing up to 2 weeks before harvest. Field crops (beets, potato, etc.): 3-5 applications on sufficiently developed foliage Vegetables\* (tomato, sweet pepper, melon, lettuce): 3-5 applications on sufficiently developed foliage Fertigation: 7-15 L/ha per application (to be diluted to a maximum of 10% in the stock solution)

\* For other crops in greenhouses, you should do a preliminary test (max. concentration 0.3%) to observe the plant's response.

HELIO GREEN CM

PHYSICAL CHAR	ADDITIO	NAL INFO		
Appearance Density Shelf life CHEMICAL COM	Liquid 1.33 24 mo	onths	Origin Storage Packaging	Europe Protect 10 L (po
		Guard	anteed	
Magnesium (	P2O5) MgO) CaO)	min min min	4.5% 1.12% 13.4%	

#### NUTRIENT BOOST

Calcium: improvement in harvest quality (shelf life, firmness, grade, etc.); plays a role in meristematic activity. Phosphorus: energy carrying, membrane constituents, protein synthesis. Magnesium: photosynthesis, synthesis of carbohydrates and lipids.

#### WHAT IT DOES AND HOW IT WORKS

Helio GREEN CM prevents any physiological and nutritional imbalance in the vegetative process (such as tip burn, apical necrosis or vitrescence). Thanks to its specially designed balance of calcium, phosphorus and magnesium, Helio GREEN CM improves a harvest's grade, shelf life and resistance to impact and bruising. The rigorous choice of food quality raw materials, and its double filtering manufacturing process, means that Helio GREEN CM ensures 100% solubility. Helio GREEN CM is a ready-to-use liauid product that acts "softly" on fruits, for ease of use, safety of use, and safety for consumers.

#### RECOMMENDED USE

Fruit trees (stone and pip fruits): 6-8 L, concentration 2%, 5 applications every 15 days from fruit growth and continuing up to 3 weeks before harvest.

Vegetables (tomato, lettuce, melon, celery, etc.): 6 L, concentration 1.5%, 3 to 5 applications every 10-15 days on well developed foliage.

Other crops (vines, etc.)\*: 6 L, concentration 2%, 2 to 4 applications every 10-15 days on well-developed foliaae.

\* For protected crops, you should do a preliminary test at a concentration of 1% and observe the plant's response

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#### ORMATION

ean Union ct from frost allet 600L)



# HELIO GREEN S

PHYSICAL C	HARACTERIS	TICS	ADDITIC	ONAL INFORMATION	
Appearanc Density Shelf life CHEMICAL (	e Liquid 1.33 18 mc	onths	Origin Storage Packaging	European Union Protect from frost 10 L (pallet 600L)	Helio CREEN COMPLEXE NUTRI FOLMIE - Engrais S or
Nitrogen Sulphur	(N) (SO3)	Guara min min	inteed 9% 75.5%		
					Dose: 5L/h
				NUTRIENT BOOST	

Sulphur: protein constituents, enzymatic role, photosynthesis

WHAT IT DOES AND HOW IT WORKS

Helio GREEN S prevents and corrects sulphur deficiencies in all crops when using a foliar or soil application. Helio GREEN S guarantees high yields and improves harvest guality (dry material, grades, colouring, etc.). It contains nitrogen and sulphur in highly concentrated liquid forms, is 100% soluble and is very pure, making it 100% efficient.

Helio GREEN S is a ready-to-use liquid product that acts "softly" on foliage and fruits, allowing for ease of use, safety of use and safety for the consumer.

#### RECOMMENDED USE

Cereal (deficiency in sulphur)-5L/ha - maximum concentration 5%%: 1 to 2 applications from beginning stage to ears 1cm.

Improvement of quality (protein): from second node to ears developing.

Field crops (maize, oilseeds...) 5L/ha - maximum concentration 3%: other crops prone to sulphur deficiency\*\* 1 to 3 applications every 10-15 days.

\*Increase dose to 10 L in the event of a curative application at a concentration of 5%. \*\*For protected crops, you should do a preliminary test at a concentration of 2.5% and observe the plant's response.

# HELIO GREEN KB

PHYSICAL CHA	RACTE	ADDITIO	ADDITIONAL INFOR		
Appearance Density Shelf life	Liqu 1.46 36 r		Origin Storage	France Protect t containe	
			Packaging	and tigh 10 L	
CHEMICAL CO	OMPOSI	<b>IION</b>			
		Guar	anteed		
Phosphorus (P2O5) Potassium (K2O) Boron (B)		min min min	16.4% 21.7% 0.55%		

Phosphorus: energy carrying, membrane constituents, protein synthesis Potassium: synthesis and transfer of sugars, photosynthesis, water regulation and management

Helio GREEN B is specifically designed and formulated to optimize the maturity and quality of the grape crop at harvest. Absorbed through the foliage, it helps with the transfer of assimilates from the leaves to the fruit. Helio GREEN B is a 100%-soluble potassium concentrate formulated to work in synergy with phosphorus for maximum effect.

#### FOLIAR APPLICATION

Grapes: 3-5 L/ha in 200 L min. of water, 2-4 applications every 10-15 days from fruit set and during ripening. Fruit trees and kiwifruit: 5 L/ha in 200 L min. of water, 4-6 applications every 10-15 days starting as fruit begins to develop and continuing up to 2 weeks before harvest. Field crops: 3-5 L/ha in 200 L min. of water, 3 to 5 applications on sufficiently developed foliage. Vegetables: 3-5 L/ha in 500 L min. of water, 3 to 5 applications on sufficiently developed foliage.

#### RMATION

from frost. Store in original ner, out of direct sunlight htly closed.



#### NUTRIENT BOOST

#### WHAT IT DOES AND HOW IT WORKS

#### RECOMMENDED USE



HELIO TRACE RANGE







23









### HELIO TRACE BM

PHYSICAL CHAR	ACTERISTICS	ADDITIO	NAL INFORMATION	
Appearance Density Shelf life	Liquid 1.35 18 months	Origin Storage Packaging	European Union Protect from frost 10L (pallet 600L)	
CHEMICAL COM	MPOSITION Guarar	I		
Nitrogen (N Boron (B) Manganese (M Molybdenum(M	) min 4. ) min 8.8 (n) min 0.0	4% 6% 9%		

#### NUTRIENT BOOST

Boron: aids shoot growth, sugar transfer, protein synthesis, meristematic activity and growth, use of auxin in the plant.

Manganese: enzyme activation, photosynthesis, nitrate reduction and protein synthesis. Molybdenum: Nitrate reduction, protein synthesis, contributes to the nodulation of legumes.

#### WHAT IT DOES AND HOW IT WORKS

Helio TRACE BM is a multipurpose product. It is made up of a completely balanced formulation and is especially suited to the needs of oilseeds. Helio TRACE BM is made up of high-purity nutrients and is totally soluble.

RECOMMENDED USE

#### **SOIL APPLICATION**

All crops: 5 to 8 L before sowing or planting FOLIAR APPLICATION (3 L/ha) maximum concentration 1.5% Sunflower: 2 applications from 5 pairs of leaves to pre-flowering Sugar beet: 2 applications during starting period and on well-developed foliage Rapeseed: 1-2 applications from 2/3 leaves to start of flowering Pea: 1-2 applications from 5/6 leaves to pre-flowering Vegetables and fruit trees\*: 1 to 2 applications on well-developed foliage or before and after flowering

\*For protected crops, you should do a preliminary test and observe the plant's response.

# HELIO TRACE Mx

	PHYSICAL CHA	RACTERIS	TICS	ADDITIONAL INFOR						
•	Appearance Density Shelf life	1 onths	Origin Storage s Packaging		Europea Protect f 10L (pall					
	CHEMICAL COMPOSITION									
			Т	ypical	G	uarantee				
	Boron	(B)	0	7	min	198 pj				
	Copper Iron	(Cu) (Fe)	2	7 ppm	min	1- 1				
	Manganese Molybdenum Zinc	(Mn) (Mo) (Zn)		24 ppm 90 ppm	min	570 pj				

#### NUTRIEN

Provides a combination of trace elements essential to the healthy development of the crop. The proportion of each element is specific to the needs of the plant, allowing an improvement in its overall nutritional status. The balance of trace elements is similar to that found in the sap of plants. The trace elements are, for the most part, in a chelated form, increasing their level of absorption, assimilability and circulation through the plant.

#### WHAT IT DOES AND HOW IT WORKS

Helio TRACE Mx is a complete and balanced liquid formulation containing all the trace elements essential to plants in nutrient solutions. When used in fertigation, Helio TRACE Mx complements and balances the major nutrients (nitrogen, phosphorus, potassium and magnesium).

#### RECOMME

Helio TRACE MX is formulated for use via direct injection or using stock solutions. Dose should be calculated according to the crop's requirement and equipment being used. Safety standards advise using this fertiliser at a working solution of between 0.1 and 1.5 kg/m3 after dilution.

#### RMATION

an Union from frost allet 600L)

ed

opm

opm opm



#### BOOST

#### NDED USE

### HELIO TRACE Mz

PHYSICAL CHAI	RACTERISTICS	ADDITIO	NAL INFORMATION
Appearance Density Shelf life	Liquid 1,3 18 months	Origin Storage Packaging	European Union Protect from frost 10L (pallet 600L)
CHEMICAL CO	MPOSITION		
	Guar	anteed	
Manganese (N	O3) min An) min n) min	12.8% 5.38% 3.84%	

#### NUTRIENT BOOST

Zinc: growth hormone synthesis, enzymatic functioning, protein synthesis Manganese: Enzyme activation, chlorophyll synthesis, nitrate reduction and protein synthesis Sulphur: protein constituents, enzymatic role, photosynthesis

#### WHAT IT DOES AND HOW IT WORKS

Helio TRACE Mz prevents and corrects the deficiencies in zinc and manganese of all crops, and can be applied to foliage or soil. Helio TRACE Mz guarantees high yields and improves the quality of the harvest (dry material, grade, colouring). It provides the nutrients zinc, manganese and sulphur in highly concentrated liquid forms, which are 100% soluble and very pure so as to be 100% efficient.

Helio TRACE Mz is a ready-to-use liquid product that acts "softly" on foliage and fruits for ease of use, safety of use and safety for consumers.



#### **USE ON FOLIAGE**

Fruit trees (apple, stone fruits, citrus) apart from apricot: 5 L, maximum concentration 1%; 2 applications at flowering stage and then when fruit appears, and a further 2 applications during fruit development. Vegetables and other crops sensitive to zinc deficiency\*: 5 L, maximum concentration 1%; 1 to 2 applications on sufficiently developed foliage every 10 days.

#### **USE ON SOIL**

5 to 10 L depending on the level of recovery required.

\* For other crops and crops under protection, conduct a preliminary test at a concentration of 0.5% to observe the crop's behaviour.

# HELIO TRACE CU

PHYSICAL CHA	RACTE	RISTICS	ADDITIONAL INFOR			
Appearance Density Shelf life CHEMICAL CO		3 months	Origin Storage Packaging	Europec Protect 1 10L (pall		
		Guard	anteed			
Copper* (C	Cu)	min	7.5%			
*EDTA Chelated	b					

#### NUTRIEN

Copper: enzymatic role, role in photosynthesis, protein synthesis, lignin synthesis, ear fertility

#### WHAT IT DOES AND HOW IT WORKS

Helio TRACE Cu prevents and corrects deficiencies in copper of all crops, and can be applied to foliage or soil. Helio TRACE Cu guarantees high yields and improves the quality of the harvest. It provides the nutrient copper in highly concentrated liquid form, which is 100% soluble and very pure so as to be 100% efficient. Helio TRACE Cu is a ready-to-use liquid product that acts very "softly" on foliage for ease of use and safety of use. The copper is concentrated to allow for the fastest absorption and greatest systematic effect on the plant.

RECOMM

#### SOIL APPLICATION

All crops: 3 L/ha, maximum concentration 1%, 5-10 L before sowing or planting. FOLIAR APPLICATION

Cereals: 1.5 L/ha, maximum concentration 0.75%, 1 to 2 applications from beginning stage to ears 1cm. Maize and other crops: 1 L/ha, maximum concentration 0.5%, 2 to 3 applications in case of difficult start then on well developed foliage.

#### **AUTUMN TREATMENT OF FRUIT TREES**

Copper chelate is known for its healing and defoliating effects. Dose for fruit trees: 10 L/ha. Use a large volume of water in 1000 L/ha.

#### RMATION

an Union from frost illet 600L)



#### **BOOST**

#### NDED USE



# HELIO TRACE Fe (f)

PHYSICAL CHARA	CTERISTICS	ADDITIO	NAL INFORMATION
Appearance Density Shelf life	Liquid 1.3 24 months	Origin Storage Packaging	European Union Protect from frost 10L (pallet 600L)
CHEMICAL COMP	OSITION		
	Guar	anteed	
Iron* (Fe)	min	7.15%	
*EDTA Chelated			

# HELIO TRACE Fe (s)

PHYSICAL CHAR	RACTERISTICS		ADDITIO	DDITIONAL INFOR	
Appearance Density Shelf life CHEMICAL COI	Liquid 1 36 months MPOSITION		Origin Storage Packaging	Europed Protect 1kg (pd 10kg (p 2 boxe	
	Gu	arantee	d		
Iron* (F	e) mir	n 6%	, )		
*EDTA Chelatec	ł				

#### NUTRIENT BOOST

Iron: respiration, chlorophyll formation, functioning of the photosynthetic systems, protein metabolism, nitrate reduction

#### WHAT IT DOES AND HOW IT WORKS

The anti-chlorosis effect of iron. In perennial plants, vines and fruit trees, iron deficiencies (visible or non-visible ferric chlorosis) are common and made more frequent by climatic phenomena.

Helio TRACE Fe (f) allows the serious consequences of this on yield and harvest quality to be avoided. Its chelated EDTA form means that it is able to act rapidly and systematically to optimize the photosynthetic functioning of the plant.

RECOMMENDED USE

#### FOLIAR APPLICATION

All crops: 1L/ha, maximum concentration 1% 1-3 applications every 8-10 days as necessary.

### FERTIGATION

Helio TRACE Fe can be used via direct injection (stock solution). Safety standards advise using this fertiliser at a working solution of between 20ml and 100 ml/m3 of water after dilution.

NUTRIEN

Iron: respiration, chlorophyll formation, functioning of the photosynthetic systems, protein metabolism, nitrate reduction

#### What it does an

Helio TRACE Fe (s) Ultra is specially formulated with purified active nutrients, for quick and long-lasting effects on soil, thanks to its balance of ORTHO and PARA forms. Helio TRACE Fe (s) is immediately soluble in the treatment mixture.

#### RECOMME

Vines: 25-50 kg or 5-10 g/plant Fruit trees: 25-80 kg or 30-100 g/plant Vegetables and other crops: 20-50 kg or 2-5 g/m2

Helio TRACE Fe Sol should be added directly to the water treatment after filling the tank of the application device.

29

# PRMATION

ean Union t from humidity pallet 400 kg) pallet 800kg) es of 400 kg)



#### BOOST

#### D HOW IT WORKS

NDED USE

## HELIO TRACE Zn

#### PHYSICAL CHARACTERISTICS

Liquid Appearance 1.24 Density Shelf life 36 months

Packaging

Origin

#### France Protect from frost. Store in original Storage container, out of direct sunlight and tightly closed. 101

ADDITIONAL INFORMATION



Zinc\*

\*EDTA Chelated

CHEMICAL COMPOSITION

(7n)

min 7.47%

Guaranteed

Maximum concentration 1%

Zinc: growth hormone synthesis, enzymatic functioning, protein synthesis

Helio Trace Zn prevents and treats zinc deficiencies in all crops, and can be applied to foliage or soil. Helio Trace Zn contains high concentrations of zinc that prevent and therefore efficiently treat the zinc deficiency, which can seriously impact yield and harvest quality.

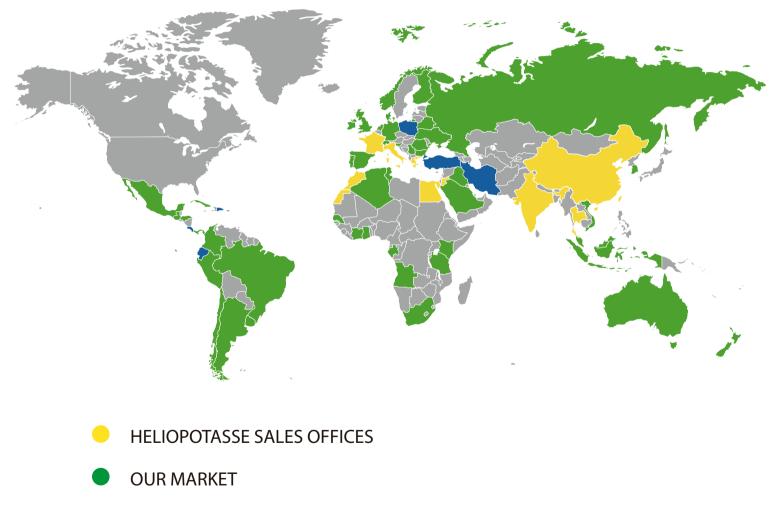
Helio Trace Zn is a ready-to-use liquid product for foliar and soil application. Its EDTA chelated form means that it is able to act fast and systematically to optimize photosynthetic activity in the plant.

#### FOLIAR APPLICATION

Bean: 0.75 L/ha, 1 application from green bud stage Flax: 3.5 L/ha, 1 application from 3-4 cm Maize: 3 L/ha, 1 application from 5-6 leaves Pea and soybean: 0.7 L/ha, 2 applications from 8-10 cm and then green bud Apple tree, pear tree, cherry tree: 1.5 L/ha in 600 L water min., 2 applications from flower buds visible, and then just before flowering. Plum tree: 1.5 L/ha in 600 L water min., 3 applications from inflorescence buds swelling to flower buds visible, and then from separated flower buds

**SOIL APPLICATION** All crops 3-4 L/ha before sowing or planting.

# INTERNATIONAL FERTILISER MARKETING COMPANY





### **OUR BUSINESS NETWORK**



### Do you have a question about plant nutrition?

### Please contact us !



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