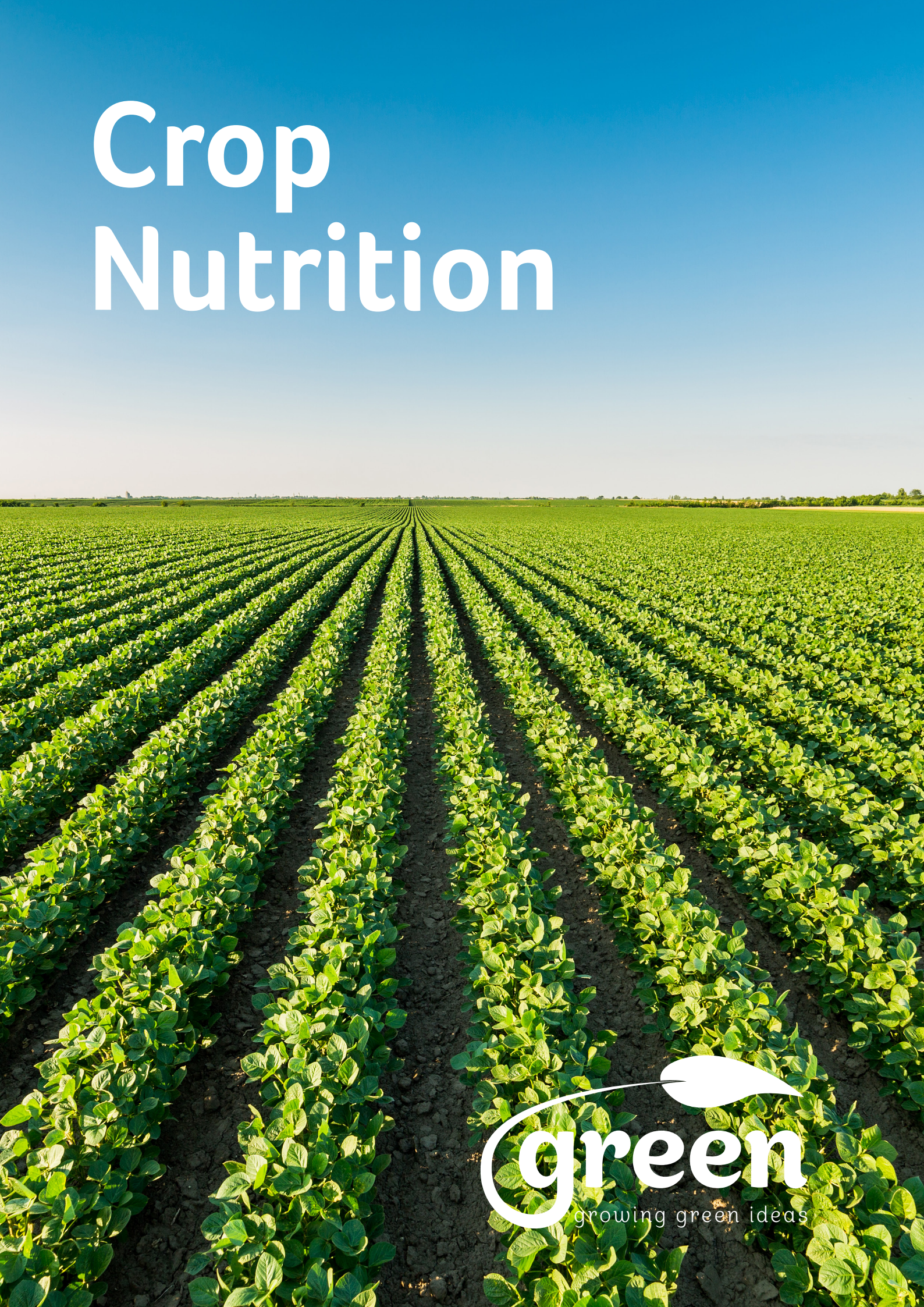
Crop Nutrition



green

growing green ideas

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Green Ravenna

green

growing green ideas

The Company

Green Ravenna was established in 1999, specializing its activities in Turf & Lawn care. Few years later, the Company enhanced its product portfolio, including products for Professional Farmers as well as Non-Professional Users.

Green Ravenna is part of an industrial group, entirely dedicated to the agribusiness, leading-edge in production and industrial research of Plant Protection Products aimed to introduce on the market new sustainable products for the crops.

Green Ravenna headquarters are located in the city centre of Ravenna, while its operative offices, including Administration, Logistic, Sales & Marketing and Research, are in Cotignola (Ravenna). The linear structure strenghten more and more the collaboration between different business areas.

Green Ravenna is active all around Italy, with more than 40 sale agents and 3 line managers, working day by day to match accurately and professionally our customers technical and commercial needs.

Beyond Italy, **Green Ravenna** distributes its products all over Europe, through a strong network of selected partners.

The Products

Green Ravenna markets a wide range of products both for the nutrition and protection of crops, plants and turf, covering the needs for both profesional and amateur users.

Before launching the products on the market, Green Ravenna Technicians test them in the fields to assess efficacy, efficiency and the different application techniques, in order to deliver the best possible products to our customers.

Green Ravenna respects the Nature and the Environment, developing environmental-friendly new products, suitable for both Conventional and Organic farming, taking care of users and people in the area.

Research & Development

Green Ravenna invests every resources for R&D. Every employee in the Company is dedicated to the study of farmers and market needs, through field trials and technical advices, in order to collect as much information as possible to develop new sustainable solutions.

Green Ravenna organization includes a Technical area that, in addition to the development of new products, supports the application through technical teaching to farmers, trying to obtain the best performances from all products.

Further to the internal development, **Green Ravenna** collaborates with internationally-recognized Universities, Research Centers and Companies to provide a wider portfolio of environmental-friendly solutions to our farmers.

Crops nutrition

As plants need nutrients and water to grow and produce, a balanced diet is as important for plants as it is for humans.

Plants balanced nutrition consists of:

- ***Macro-element***s: Nitrogen, Phosphorus and Potassium;

- ***Meso-elements:*** Calcium, Magnesium, Sulphur and Silicon;

- ***Micro-elements:*** Copper, Iron, Manganese, Zinc, etc.

All the nutrients above are essential to achieve the crops optimal yield, increasing farmers return on the investment. Each crop, each phenological stage and each production target (Brix grade, amount produced, etc.) needs different specific nutrients at different concentrations.

Beside the standard crop nutrition, plants need other substances, which are essential for the optimum production. These natural-origin organic and inorganic compounds are required to run and improve specific bio-chemical processes and activities, which lead, among others, to:

- Nutrients absorption enhancement and improvement;

- Pollen production and consequent pollination;

- Plant-hormones production;

- Biotic and abiotic stresses (such as drought, cold, heat, salt excess in soil, etc.) natural resistance.

Green Ravenna crops nutrition portfolio is composed both of crop nutrients and plant enhancers, which are needed to achieve the optimal yield in the fields.

Plant enhancers

Plant enhancers

Plants need nutrients and water to grow, but they are not always easy-available and easy-absorbable by crops in the field.

In the last years, Research has discovered several natural organic and inorganic substances, from microorganisms to seaweeds, either produced by plants or found in the Environment, which improve nutrients absorption, stimulating and supporting plants feeding and growth, and increase tolerance to Environmental stresses.

These natural substances improve plants physiological state, increasing nutrients absorption and efficacy, as well as acting bio-chemicals and physiological mechanisms, on which plants base their growth and natural resistance to abiotic (salt excess in soil, drought, heat and cold, etc.) and biotic stresses.

As in a balanced diet, plant enhancers should not be applied alone, but in combination with roots and foliar nutrients, they grant a uniform vegetation development, increase in photosynthesis efficiency and yield quantitative and qualitative improvement.

Biogreen

Plant growth promoter

Biogreen is a natural metabolic activator of vegetal origin, which triggers biochemical functions in plant tissues, fostering a balanced growth.

ADVANTAGES
Plants metabolism rebalanced after hydric/thermic stresses.
Fruits organoleptic properties enhancement.
Fruits setting improvement.
Shortened and leveled ripening time.
Increase in fruits sugar content.
Improvement in fruits storage.
Uniform and luxuriant blossoming.
Fertilizers assimilation and efficiency enrichment.

COMPOSITION	
Vegetal amino acids	*10-13%*
Fulvic acids	*5-7%*
Humic acids	*4-6%*
Sugars	*4%*
Water	*to 100%*

PHYS-CHEM PARAMETERS	
Density	*1,21 kg/L*
pH	*6,9*

PACKAGE	
Bag	*20x500 g (=20x0,41 L)*

Biogreen

APPLICATION RATES			
CROPS	RATE	No.	TIMING of APPLICATIONS
Grape *(Table- and Wine-)*	500 g/ha	3	Sprouting – Fruits setting – Development of fruits.
Citrus	500 g/ha	3	Sprouting – Pre-Blossoming – End of fruits setting.
Olive Tree	400-600 g/ha	3	Pre-Blossoming – Fruits setting - Fruits size about 50% of final size/Stones start lignification.
Pome fruits, Stone fruits, Actinidia	500 g/ha	3	Pre-Blossoming – Fruits setting - Fruits growth.
Tomato, Pepper, Eggplant	400-600 g/ha	3	First flower bud visible – After 15 days – After 15 days.
Strawberry, Melon, Watermelon, Zucchini	400-600 g/ha	3	Pre-Blossoming – After 15 days – After 15 days.
Potato	500 g/ha	3	Every 15 days from tubers formation.
Artichoke	500 g/ha	3	Every 15 days from main inflorescence buds visible.
Beans, Green Beans, Chick Peas	500 g/ha	3	Every 15 days from Inflorescence emergence.
Leafy vegetables	500-600 g/ha	3	Every 20 days.
Alfalfa	500-1.000 g/ha	1-2	Pre-Blossoming – Fruits setting *(for seed production cultivations)*
Ornamentals and Flowers	500 g/ha	3	Every 15-20 days from sprouting and/or growth.

TECHNICAL NOTES

Biogreen should be applied by foliar spray in crops most critic stages.

Biogreen can be applied along with neutral-reaction pesticides.

Application together with NPK and Chelated micro-elements fertilizers ensure a support to balanced nutrition for the crops.

Velvet

Mineral Organic NPK 3-5-5 + 7.5 fertilizer

Velvet is a mineral organic fertilizer made up of a organic-vitaminic complex, formulated with different vegetal-origin matters, with a direct effect both on soil and plants.

Velvet favors all the main plants processes, such as roots growth, flowering, fruits setting and fruits growth.

COMPOSITION	
Total Nitrogen (N)	*3%*
- ***Organic Nitrogen (N)***	*2%*
- ***Ureic Nitrogen (N)***	*1%*
Total Phosphorus pentoxide (P_2O_5)	*5%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*4%*
Potassium oxide (K_2O) *soluble in water*	*5%*
Organic Carbon (C) *from organic origin*	*7,5%*

PHYS-CHEM PARAMETERS	
Density	*1,16 kg/L*
pH *(1% sol.)*	*6,25*

PACKAGE	
Can	*4x6 kg (=4x5,17 L)*
Can	*25 kg (=21,55 L)*

Velvet

ADVANTAGES on soil:
Promotion of soil microbiota development, stimulating the growth of healthy and well-developed roots system.
Increase in mineral nutrients absorption (in alkaline soils), enriching the availability of blocked Phosphorus, Calcium and Iron.
Reduction in soil compaction, letting more air and water flow inside.
Balanced soil pH.
Slow release organic Nitrogen.

ADVANTAGES on plants:
Important energetic source for metabolic processes.
Regulation and promotion of endogenous hormones production, stimulating a balanced growth over the phenological stages.
Development of thicker vegetal tissues.
Improvement in fruits setting and reduction in pre-harvest fall, especially in conditions of temperature stresses.
Clear anticipation of fruits maturation, increasing their sizes.

APPLICATION RATES

CROPS	RATE	APPLICATION
Greenhouse vegetables	*2-3 kg/1.000 m² 2-5 kg/1.000 m²*	*1st:15-25 days after transplanting. - 2nd: Just after fruits setting. 3rd: Then every 15 days.*
Open Field vegetables and Industrial crops	*2-4 kg/1.000 m² 3-4 kg/1.000 m²*	*1st:20-30 days after transplanting. - 2nd: Just after fruits setting. 3rd: Then every 15 days.*
Orchards	*20-30 kg/ha 25-35 kg/ha*	*1st: Pre-flowering. 2nd: After fruits setting.*
Table grape	*20-30 kg/ha 25-35 kg/ha*	*1st: Flowering start. 2nd: Bunches begin to hang.*
Flowers	*4-5 kg/1000 m²*	*1st:10-20 days after transplanting. - 2nd: Pre-flowering. 3rd: Then every 20-30 days.*

In sandy soils, reduce the dosage to half of the recommended doses, but increase the number of applications to 1 per week.

TECHNICAL NOTES

Do not apply Velvet along with Calcium Nitrate and Copper Nitrate.

NemaTAN

CORRECTIVE – Chestnut Tannins extract

NemaTAN is a corrective liquid fertilizer, enriched with tannins extracted from Chestnut woods. The highly efficient extraction process allows 100% *pure polyphenols* and *organic acids* concentrate, with high chemical and biological activity in the soil.

Tannins and the several condensed polyphenols and organic acids (e.g. Cinnamic and Caffeic acid) allow to bond mineral and organic particles, improving soil structure. The reaction by these substances acidifies the substrate and reduces salt and alkaline stresses.

The enriching properties of *tannins extract* foster roots growth and absorption of useful nutrients, thanks to the bonds created with the recalcitrant mineral fraction (i.e. Ferric phosphate and Magnesium and Calcium oxides), inducing a progressive release over time.

NemaTAN is applied via *fertirrigation*, several times along the whole crop cycle starting from transplanting or vegetative growth restart.

COMPOSITION	
Tannins	*34%*
Organic Carbon (C)	*20%*

PHYS-CHEM PARAMETERS	
pH *(1% sol.)*	*3*

APPLICATION RATES

CROPS	*RATE*	*APPLICATION*
Orchards and Open Field vegetables	***20-30 kg/ha***	***3-4 applications**, every **10-15 days**.*
Greenhouse vegetables	***2-3 kg/1.000 m²***	*Apply at **transplanting**, then **after 10 days** from transplanting, apply **every 7 days**.*

PACKAGE	
Can	*4x6 kg*
Can	*25 kg*
IBC	*1.200 kg*

Agroglik®

EC FERTILIZER - PK solution 6-9 fertilizer

Agroglik® is containing a natural substance, *Glycine betaine*, which is neither a nutrient nor a growth regulator, but it is normally produced by plants when undergone environmental stresses, as *high or low temperatures*, *drought* and *soil salinity*.

Glycine betaine operates in the plant as natural osmotic regulator, optimizing the metabolism or reactivating it after stress conditions.

Glycine betaine preserves cellular functions because it bonds to cellular membranes and enzymes, keeping the ability to carry out metabolic function. Furthermore, it keeps the cellular turgor, avoiding loss of water and consequent cells collapse.

Agroglik® penetrates rapidly into the plant (within one day from application).

COMPOSITION	
Total Nitrogen (N)	*6%*
- ***Nitric Nitrogen (N)***	*1%*
- ***Ammoniacal Nitrogen (N)***	*1%*
- ***Ureic Nitrogen (N)***	*4%*
Potassium oxide (K_2O) *soluble in water*	*9%*

PHYS-CHEM PARAMETERS	
Density	*1,33 kg/L*

ADVANTAGES
Increase in plant resistance when exposed to high hydric and soil salinity stresses.
Increase in plant resistance to low temperatures.
Increase in yield, due to higher amount of fruits set and their higher weight.
Reduction in fruits cracking, usually due to high absorption of water.
Increase in fruits shelf-life.
Improvement in plant tissues integrity, thus better resistance to pathogens.

PACKAGE	
Bottle	*20x1 kg (=20x0,83 L)*
Can	*4x5 kg (= 4x4,13 L)*

Agroglik®

APPLICATION RATES

CROPS	EFFECT	RATE	TIMING	ADVICES
Grape	**Reduction in fruits cracking.** **Increase in fruits color intensity.**	**250-300 g/hL** **250-300 g/hL** **600 g/hL**	**3 Applications:** End of Blossoming Berries touching Before harvest	**3 applications in areas with late rains**, in order to foster fruits coloration.
Cherries, Figs, Nectarines, Apricot and other fruits that may have cracking problems	**Protect crops from freezing.** **Reduction in fruits cracking.** **Increase in fruits color intensity.**	**600 g/hL** **500 - 600 g/hL**	Before buds opening. Fruits changing color (green to yellow).	Apply with a wetting agent.
Tomato	**Increase in yield.** **Reduction in fruits cracking.**	**500 - 600 g/hlL**	During blossoming, with some fruits in the lower plants.	Apply with high Potassium-content products.
Fruity Vegetables (Pepper, Eggplant, Beans, etc.)	**Increase in fruits weight.**	**300 g/hL**	Apply at beginning of blossoming.	In case of staggered blossoming, the product may be applied to each flower head.
Leafy Vegetables (Lettuce, Salads, etc.)	**Increase in leaves consistency.**	**500 - 600 g/hL**	At half of crop cycle.	Applications after transplanting improve rooting and plant resistance.
Tobacco	**Improvement in drought resistance.** **Increase in leaves dry weight.**	**500 - 600 g/hL**	7^{th} - 9^{th} week after transplanting.	Apply twice, every 10 days.
Turf & Lawn	**Improvement in drought resistance.**	**600 - 800 g/hL**	After winter drought.	Apply twice.
Potato	**Increase in yield.**	**500 - 600 g/hL**	Start at tubers formation.	
Citrus	**Increase in fruits setting.**	**200 - 300 g/hL**	1 application when petals fall; or 2 applications at 75% and 100% of petals fallen.	
Olive Tree	**Increase in yield.**	**500 - 600 g/hL**	Every 30 days, starting from blossoming.	

TECHNICAL NOTES

Agroglik® is compatible with the most common fertilizers and pesticides.

Do not mix with Copper- and Sulphur-based, Mineral oils and emulsion products.

Before mixing with other products, a compatibility test is suggested.

Betamax

ORGANIC NITROGEN FERTILIZER – mix of Organic Nitrogen fertilizers (N8)

Betamax is a solid organic Nitrogen fertilizer, able to provide to plants promptly assimilable Organic Nitrogen. The high content of *Glycine betaine* enables to balance the plant osmotic potential, maintaining a good cellular turgor even under salt, water or thermic stresses.

Glycine betaine is a methylated amino acid equipped with both Negative and Positive charge: this characteristic makes *Glycine betaine* an osmoprotectant, built-up by plants under stresses in order to hold water inside vegetal cells, protecting enzymes and life structures. The cellular turgor and metabolic processes help plants to tolerate any damage caused by *freeze*, *drought* or *excess of electrical conductivity in soil*. These characteristics prevent also fruits cracking, caused by plants hydration change. An adequate transpiration flow enables to bring all the essential nutrients, even those recalcitrant as *Calcium*, *Magnesium* and *Silicon*, to buds, leaves and fruits. It helps to reduce any *deficiency* and *physiological problem*.

Betamax increases yield and its quality, giving consistency and taste to fruits.

COMPOSITION	
Organic Nitrogen (N)	*8%*

PHYS-CHEM PARAMETERS	
pH *(1% sol.)*	*4,8-5*

APPLICATION RATES

CROPS	RATE	APPLICATION
Citrus	***100-200 g/hL*** *Foliar*	*Improves fruits setting and, if applied before fruits coloration, reduces fruits ageing and cracking.*
Grapes *(Wine- and Table-)*	***100-200 g/hL*** *Foliar*	*Improves fruits setting, sugars accumulation and grape color, reduces flowers fall, fruits cracking and Cluster-Tip Wilting.*
Orchards *(Stone fruits, Pome fruits, Actinidia)*	***100-200 g/hL*** *Foliar* ***2-4 kg/ha*** *Fertirrigation*	*Improves fruits setting and, if applied before fruits coloration, reduces fruits ageing and cracking.*
Potato	***2 kg/ha*** *Fertirrigation*	*Apply during tuber formation to increase yield and tubers quality.*
Fruity and Roots Vegetables *(Tomato, Melon, Cucumber, Carrots, etc.)*	***100-200 g/hL*** *Foliar* ***2 kg/ha*** *Fertirrigation*	*Improves fruits setting and, if applied before fruits coloration, reduces fruits ageing and cracking.*
Leafy Vegetables *(Lettuce, Spinach, Rocket, etc.)*	***2 kg/ha*** *Fertirrigation*	*After transplanting, to improve roots growth and reduce stresses. Apply along the whole crop cycle to save water and improve fruits consistency and storage.*

PACKAGE	
Bag	*20x1 kg*

TECHNICAL NOTES
Do not mix with Sulphur, Copper and mineral oils products.

Propolis

PLANT STRENGTHENER – Propolis extract

Propolis is a natural extract, containing only the *propolis* active fraction, made up of *vitamins* and *flavonoids*.

The extraction technique preserves intact the characteristics of this natural plant strengthener.

Thanks to the presence of *flavonoids*, *vitamins*, *resins*, *waxes* and other natural substances, ***Propolis*** stimulates the plants natural defenses.

Propolis fosters a prompt healing of the wounds due to pruning or shocks, favors pollination thanks to its attractive action on honeybees, improves post-harvest storage and reduces rots problems.

COMPOSITION	
Propolis	*10%*

PHYS-CHEM PARAMETERS	
Content in flavonoids *(Galangin)*	*25 g/L*

PACKAGE	
Bottle	*24x200 mL*
Bottle	*20x1 kg*
Can	*4x5 kg*
Can	*25 kg*

Propolis

ADVANTAGES

Stimulating properties. *Flavonoids stimulation of fundamental metabolic functions, such as respiration.*

Healing properties. *Promotion of trauma and pruning wounds fast healing, stimulating tissues regeneration and protecting the plant from pathogens attack.*

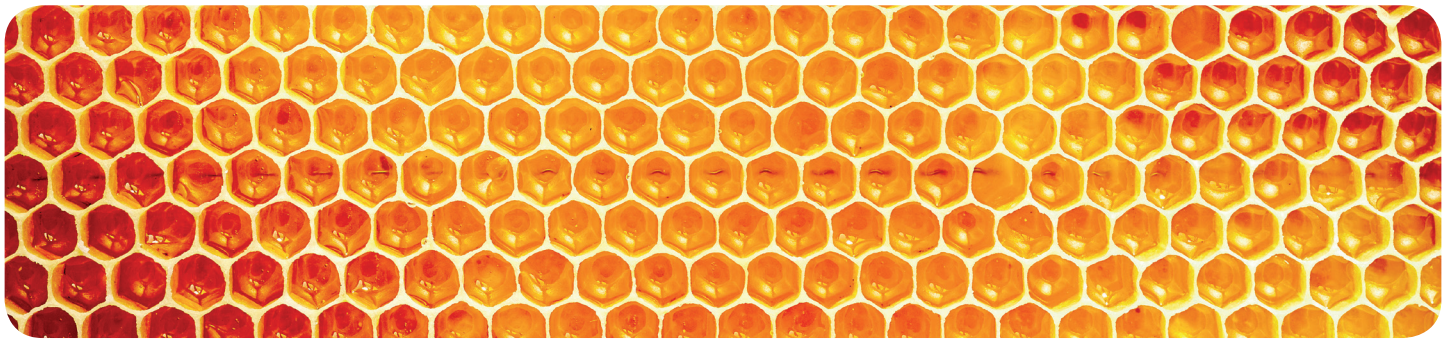
Bees attractant, fostering pollination.

Increase in resistance during harvest and shelf life in storage, if applied in pre-harvest.

Harmless for beneficial insects.

APPLICATION RATES

CROPS	RATE	APPLICATION
Grape, Pome fruits, Stone fruits, Actinidia, Olive trees, Citrus, Strawberry, Tomato, Lettuce, Vegetables, Flowers and Ornamentals	***200-250 g/hl*** *if applied alone* ***150-200 g/hl*** *if applied with pesticides*	***From pre-blossoming to harvest, every 15-20 days.*** *The most important applications are in:* ***pre-blossoming***, ***petals fall***, ***pre-harvest***, *if hailing or in case of strong pathogens attack, and in general mixing with pesticide when applied.*



Siliplant

Mixture of BTC Potassic Salts

Siliplant is a fertilizer with high content of Potassium, totally soluble in water, which creates an inorganic persistent film on leaves, disturbing pests.

WARNING
H-PHRASES:
H315 - H319

COMPOSITION	
Potassium oxide (K_2O) *soluble in water*	*10%*

PHYS-CHEM PARAMETERS	
Density	*1,3 kg/L*
pH	*> 11*

PACKAGE	
Bottle	*12x1 kg (= 12x0,83 L)*
Can	*4x5 kg (= 4x4,13 L)*

Siliplant

ADVANTAGES

- *Improvement in photosynthesis, promoting plants' growth.*
- *Increase in vegetal tissues mechanic resistance, important parameter to control fruits cracking and shelf life, thanks to Silicon deposition in cellular walls.*
- *Harassment for insects with puncturing and chewing mouths, thanks to an inorganic persistent Silicon film over leaves.*
- *Reduction in transpiration and increase in water absorption, during hydric stresses.*
- *Opposition to pathogens growth, reducing water availability and inducing plants resistance mechanisms.*

APPLICATION RATES

CROPS	RATE	APPLICATION
Pome fruits, Actinidia, Grapes, Olive, Walnut, Hazelnut	*2,5-3,5 kg/ha*	*Every 10-12 days, from pre-flowering to pre-harvest.*
Stone fruits		*After fruits setting, 2 treatments every 10-15 days.*
Strawberry and small fruits		*From pre-blossoming to harvest, every 10-12 days.*
Tomato, Pepper, Eggplant, Zucchini, Cucumber		*From transplanting to fruits production, every 8-10 days.*
Melon, Watermelon		*From blossoming, every 10-12 days.*
Potato, Onion, Garlic, Bean, Green bean		*Every 10-15 days, in the most critical stages of growth/production.*
Wheat	*5-6 kg/ha*	*Treatments at stem elongation, booting/heading, mixing with fungicides and/or herbicides.*
Rice		*Treatment at stem elongation, mixing with herbicides.*

Fogging uniformly on the plants, trying to wet the lower part of the leaves.

TECHNICAL NOTES

- *Do not mix with Acid-reaction, Calcium-, Copper- and Sulphur-based pesticides.*
- *If mixed with vegetable oils, do not pass 100 ml/hL.*
- *Before mixing with other products, a compatibility test is suggested.*

Sunscreen

CORRECTIVE - Lime suspension

Sunscreen is a soil corrector, based on *calcium carbonate*, in suspension of micro particles (<10 µm) that are absorbed directly by stomata.

Once absorbed, carbonate particles break, releasing CaO, needed to strengthen cellular walls, and CO_2, which allows a constant photosynthesis even during stress periods.

Sunscreen has a double effect:

- Contribution of *Calcium* to prevent and curate deficiencies as *Tomato Blossom End Rot* and *Apple pitting*;
- Increase in *CO_2 concentration* in leaves to improve and optimize photosynthesis process.

COMPOSITION	
Total Calcium oxide (CaO)	*33,5%*

PHYS-CHEM PARAMETERS	
Density	*1,48 kg/L*
pH	*8,6*

PACKAGE	
Can	*4x7 kg (= 4x4,73 L)*

Sunscreen

APPLICATION RATES		
CROPS	**RATE**	**APPLICATION**
Grape	3-4 kg/ha	**3-4 applications from flowering.**
Pome fruits, Olives trees	3-4 kg/ha	**From fruits development**, to correct Calcium deficiencies.
Stone fruits, Actinidia	3-4 kg/ha	In **pre- and post-blossoming**, to correct Calcium deficiencies.
	15-20 kg/ha	**In post-harvest or during winter**, to foster buds maturation.
Citrus, Walnut, Hazelnut, Almond	3-4 kg/ha	**From fruits development.**
Tomato, Pepper, Eggplant, Melon, Watermelon, Zucchini, Carrots, Garlic and Onions	1-1,5 kg/ha	**Before transplanting**, to reduce transpiration and improve rooting.
	3-4 kg/ha	**3 treatments** between **beginning of flowering** and **fruits growth**.
Strawberry and small fruits	3-4 kg/ha	**Pre-Blossoming – fruits development – 15 days after.**
Potato	3-4 kg/ha	When plants are **15-20 cm height**, and then **15 days after.**
Lettuce & Salads	1-1,5 kg/ha	**50% of the head – 75% of the head – 15 days before harvest.**
Corn	3-4 kg/ha	**Between 4th and 6th leaf**, with post-emergence herbicides.
Sugar beet	3-4 kg/ha	**Between 4th and 6th leaf** and repeat treatment **2-4 weeks later**.
Rapeseed	3-4 kg/ha	**Between 6th and 8th leaf and pre-blossoming.**
Ornamentals	3-4 kg/ha	**2-4 treatments every 15-20 days** starting from the **3rd leaf**.
Soil fertilization for all crops	5-15 kg/ha	**Sprayed on the soil or via fertirrigation**.

TECHNICAL NOTES
Do not mix with products containing Phosphate, as well as with product that do not tolerate solutions with high pH.
Do not mix with Acid and/or Salty solutions.
Apply Oil-based products at least 2 weeks before Sunscreen. After Sunscreen application, avoid applying Oil-based product.
Before mixing with other products, a compatibility test is suggested.

Olio di Soia

PLANT STRENGTHENER – Soybean oil

Olio di Soia is a plant strengthener, obtained from *Soybean seeds cold pressing*. Thanks to its content of polyunsaturated fat, it is able to activate and improve the natural plant self-defenses towards abiotic and biotic stresses. Anti-transpiring and filming actions reduce water loss in the vegetal tissues, improving leaves wettability and plant resistance against diseases and pests.

Olio di Soia favors a better efficacy in phytosanitary treatments, reducing the time needed to penetrate the plant and the rain-off. If applied together with *Copper*, it enables to reduce the amount of the nutrient per hectare and increases its persistence.

Olio di Soia does not leave any residue either in plants or in crops, and it is safe for the Environment, beneficial insects and Non-Target Arthropods.

COMPOSITION	
Vegetable oil from Soybean	*60%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Grape, Olive, Pome fruits, Stone fruits, Citrus, Eggplant, Lettuce, Vegetables, Turf, Flowers and Ornamentals	***0,5 -1 L/hL***	*Apply **every 8-14 days**, wetting evenly up and under the leaves. Apply in the freshest hours of the day.*

PACKAGE	
Bottle	*24x250 ml*
Bottle	*20x500 ml*
Bottle	*12x1 L*
Can	*4x4,5 kg*

Kaolin Rock powder

PLANT STRENGTHENER – Kaolin milled rock

Rock powder is a natural product based on very fine *Kaolin milled rock*, which applied uniformly on plants, creates a whitish film on the vegetation, reducing heat stresses and consequent burns by UV and infrared refraction, without impeding gasses exchanges and jeopardizing fruits maturation.

Anti-transpiring and refracting actions reduce the temperature on the leaves and optimizes the use of water, leading to increase in yield, even with reduced water availability.

Furthermore, ***Rock powder***, reducing the time leaves are wet, creates a physical barrier towards pests and prevents the development of fungal diseases.

COMPOSITION

Kaolin rock powder *as it is from mechanical grinding*	*100%*

APPLICATION RATES

CROPS	RATE	APPLICATION
Olive, Tomato, Zucchini, Apple, Grapes, Orchards, Vegetables and Ornamentals	***2-5 kg/hL***	*Apply uniformly on plants, starting from **fruits formation**, and then continue **every 20-25 days** to maintain even coverage on leaves.* *In case of rain, apply again.*

PACKAGE

Bag	*4x5 kg*
Bag	*20 kg*

Humisol

HUMIC EXTRACTS from LEONARDITE

Humisol is a liquid fertilizer containing high amount of pure *Humic acids*.

Due to its energizing action on the plant growth, ***Humisol*** is preferable if applied together with other fertilizers, such as drip irrigation, liquid or water-soluble standard fertilizers as well as in mixture with micro- and meso-elements.

ADVANTAGES
Activation of soil natural fertility.
Improvement in roots growth.
Quicker seeds germination.
Improvement in nutrients absorption and translocation inside plants.
Improvement in sugars and protein synthesis, increasing yield and its quality.

COMPOSITION	
Organic Substance *(w/w of product)*	*16%*
Organic Substance *(w/w of dry matter)*	*70%*
Humic Organic substance/Organic substance	*93%*
Organic Nitrogen (N)/Dry Matter	*0,7%*
Carbon/Nitrogen (C/N)	*50*

PHYS-CHEM PARAMETERS	
Density	*1,1 kg/L*
pH *(1% sol.)*	*9,4*
Extractive Media	*KOH*

PACKAGE	
Can	*22 kg (= 20 L)*

Humisol

APPLICATION RATES

CROPS	FOLIAR	FERTIRRIGATION	APPLICATION
Actinidia	60-70 g/hL	15-20 kg/ha	Pre-flowering and after fruits setting.
Citrus	60-70 g/hL	15-20 kg/ha	1st: Spring - 2nd: Autumn
Sugar Beet	100-150 g/hL	8-10 kg/ha	Pre-seedling and pre-transplanting.
Turf and Sport courses	100-200 g/hL	5-10 kg/ha	Pre-seedling.
Cereals	100-150 g/hL	8-10 kg/ha	Pre-seedling.
Open Field Vegetables	60-80 g/hL	15-20 kg/ha	Pre-seedling and pre-transplanting.
Greenhouse Vegetables	50-70 g/hL	2 kg/1.000 m^2	4-5 applications per annual cycle.
Flowers and Ornamentals	50-100 g/hL	2-4 kg/1.000 m^2	Every 20 days since seedling.
Stone fruits	50-100 g/hL	15-20 kg/ha 80-120 g/plant	1-2 applications from trees growth restart.
Alfalfa, Corn	50-70 g/hL	8-10 kg/ha	Pre-seedling.
Olive trees, Pome fruits	50-100 g/hL	15-20 kg/ha 80-120 g/plant	1-2 applications from trees growth restart.
Tobacco	60-70 g/hL	15-20 kg/ha	Pre-seedling and pre-transplanting.
Grape	50-100 g/hL	15-20 kg/ha	Pre-flowering and after fruits setting.

TECHNICAL NOTES

Humisol is not harmful for plants, the Environment and beneficial insects.

Do not mix with Alkaline products, White oils, Sulphur, Copper and Polysulfide.

Before mixing with other products, a compatibility test is suggested.

Sitan

CORRECTIVE – Suspended liquid hydrolyzed proteins

Sitan is an organic fertilizer, containing Nitrogen in form of *natural-origin amino acids* and *peptides*, able to stimulate the vegetal biomass, even under stresses conditions and induce plants biochemical defensive mechanisms.

The application all along the crop cycle favors healthy and luxuriant plants and fruits.

COMPOSITION	
Organic Nitrogen (N)	*3%*
- ***Organic Nitrogen (N)*** *soluble*	*3%*
Organic Carbon (C)	*10%*

APPLICATION RATES		
EFFECT	***RATE***	***APPLICATION***
Fruity and vegetables crops *(Greenhouse and Open Field)****, Industrial crops, Tobacco, Ornamentals and Fresh herbs, Turf***	***3-5 kg/ha***	*Foliar application.*
	5-10 kg/ha	*Fertirrigation.*

TECHNICAL NOTES
Apply Sitan in the freshest hours of the day, when temperatures are around 20°C.
Store and use Sitan between 5 and 30°C.
Lowering Solution pH improves Sitan efficacy.

PACKAGE	
Bottle	*20x1 kg*
Can	*4x5 kg*

Biostar N11

Organic Nitrogen fertilizer

Biostar N11 is a water-soluble powder Nitrogen fertilizer, with high content of *amino acids*, obtained via hydrolysis of animal-origin selected proteins.

Applied regularly by *foliar spray*, ***Biostar N11*** induces a rapid vigor growth, supports leaves and fruits growth in those stages when plants need energy (buds development, flowering and fruits growth), increases and improves the protein and phytohormones synthesis.

High *Glycine* and *Proline* contents improve the tolerance to abiotic stresses such as water, salt and low temperatures; *Glutamic* and *Aspartic* acids stimulate cellular division and photosynthesis; *Phenylalanine*, *Methionine*, *Leucine* and *Valine* improve the synthesis of colorful and flavor substances in the fruits.

Applied by *Fertirrigation*, ***Biostar N11*** is a source of organic matter and promptly available organic Nitrogen, fostering roots development and micro-elements absorption.

COMPOSITION	
Organic Nitrogen (N)	*11%*
- ***Organic Nitrogen (N)*** *soluble*	*11%*
Organic Carbon (C)	*40%*

PHYS-CHEM PARAMETERS	
pH *(1% sol.)*	*6,4*

PACKAGE	
Bag	*4x3 kg*
Bag	*1x10 kg*

Biostar N11

ADVANTAGES

- *Powerful anti-stress and bio-stimulant actions.*
- *Promptly available and concentrated source of Nitrogen.*
- *Increase in crops yield and quality.*

APPLICATION RATES

CROPS	FOLIAR	FERTIRRIGATION	APPLICATION
Orchards	2-3 kg/ha	5-10 kg/ha	**Pre-flowering, fruits development, fruits growth and ripening.**
Industrial crops	2-3 kg/ha		Apply along **with post-emergence herbicides and fungicides**.
Open Field vegetables	2-3 kg/ha	5-10 kg/ha	Every **10-15 days** along the **crop growth cycle**.
Greenhouse vegetables	3-4 kg/ha	3-6 kg/ha	Every **10-15 days** along the **crop growth cycle**.

TECHNICAL NOTES

- *Do not mix Biostar N11, or apply within some days, with alkaline product, oil-based insecticides, Dodine, Fosetyl-Al, Polysulfides, Triforine, Sulphur-based pesticides and Non-selective herbicides.*
- *Before pouring the product in the tank, solubilize in a small amount of water.*
- *Store between 10°C and 30°C.*
- *For all the applications, do not pass the recommended doses and respect the suggested timings.*

Biostar N14,5 TOP

ORGANIC NITROGEN FERTILIZER – Hydrolyzed animal skin

Biostar N14,5 TOP is a water-dispersible powder Organic Nitrogen fertilizer, with high content of *amino acids* obtained by hydrolysis of selected and premium animal proteins.

Applied by *foliar spray*, ***Biostar N14,5 TOP*** is rapidly and completely assimilated by leaves cuticles.

Amino acids and *oligopeptides* are quickly translocated to the plant most active metabolic organs to produce proteins, enzymes, sugars and phyto-regulators. Thanks to its wetting, sticking and vehicular action, ***Biostar N14,5 TOP*** improves foliar treatments efficacy, allowing to reduce pesticides dose.

Applied by *fertirrigation*, ***Biostar N14,5 TOP*** influences positively soil physical and chemical characteristics, providing slow-release organic Nitrogen and high amount of premium organic matter.

COMPOSITION	
Organic Nitrogen (N)	*14,5%*
- ***Organic Nitrogen (N)*** *soluble*	*14,5%*
Organic Carbon (C)	*49%*

PHYS-CHEM PARAMETERS	
pH	*6,5-6,7*

ADVANTAGES
Uniform vegetative growth and improvement in yield qualitative-quantitative characteristics and its storability.
Rapid overpass of vegetative growth shrinking, due to biotic and abiotic stresses (frost, hail, water stresses).
Compatibility with most of the foliar and roots fertilizers, enhancing their translocation and penetration inside plants.

PACKAGE	
Bag	*10x1 kg*
Bag	*5 kg*
Bag	*10 kg*
Bag	*20 kg*

Biostar N14,5 TOP

APPLICATION RATES

CROPS	RATE	APPLICATION
FOLIAR APPLICATION – rates expressed as kg/ha considering 4 hL/ha of water for grass crops and 6 hL/ha for trees.		
Citrus	1-1,2 kg/ha	Pre-flowering, fruits setting, fruits swelling and fruits coloring.
Cereals	0,5-1 kg/ha	Apply during **tillering** or together with **selective herbicides** and **post-emergence fungicides**.
Orchards (Grape, Pome fruits, Stone fruits, Olive, etc.)	1-1,2 kg/ha	Pre-flowering, fruits setting, fruits swelling and fruits coloring.
Industrial Grass crops	0,5-1 kg/ha	Apply together with **selective herbicides** and **post-emergence fungicides**.
Greenhouse flowers	0,5-1 kg/ha	Apply every **10-15 days** during **vegetative stage**.
Vegetables	**OF:** 0,8-1 kg/ha **GH:** 0,5-0,8 kg/ha	From **transplanting**, every **10-15 days**.
Strawberry	0,5-0,8 kg/ha	From **transplanting**, every **10-15 days**.
Plums	0,2 – 0,5 kg/ha	Pre-flowering, fruits setting, fruits swelling and fruits coloring.

CROPS	RATE
FERTIRRIGATION – kg/ha/irrigation shift	
Citrus and Orchards	2,5-3 kg/ha
Olive trees	2-3 kg/ha
Vegetables	2,5-3,5 kg/ha

ACTIVE INGREDIENT	RATE
Mix with Plant Growth Regulators	
Gibberellins	150-180 g/hL
Fruit setters	100-150 g/hL

CROP	RATE
Mix with Non-Selective Herbicides	
Every crop	1-1,5 kg/ha

CROPS	RATE
Applications after stress situation	
Citrus and Orchards	2-2,5 kg/ha
Cucurbits	**OF:** 0,8-1 kg/ha **GH:** 1-1,5 kg/ha
Solanaceae	**OF:** 0,8-1 kg/ha **GH:** 1-1,5 kg/ha
Stone fruits (except plums)	1-1,5 kg/ha
Pome fruits	1,5-2 kg/ha
Olive tree	1,5-2 kg/ha
Grape	1,2-1,8 kg/ha

Apply 2-4 times, every 7 days, starting just after the event that caused stress.

TECHNICAL NOTES

Do not apply mixed, or at least 7 days after, with Alkaline-reaction products, Oil-based Insecticides, Dodine, Fosetyl-Al, Sulphur-based products, Polysulfide, and Non-Selective Herbicides.

The application along with Copper-based and Sulphur-based pesticides can take place only on Tomato, Artichoke and Olive trees at maximum rate of 300 g/ha. In any case, test products phytotoxicity in a small area, before applying in the whole field.

The product can be phytotoxic on Prunus domestica (Plum) if applied at high rates and/or in climatic conditions which allow a very quick absorption by plants. Always test in a small area, before applying in the whole field.

Roots & foliar nutrition

Roots & foliar nutrients

Crops balanced nutrition is fundamental to achieve high yields.

Plant nutrition is based on the three macro-elements, i.e. Nitrogen, Phosphorus and Potassium, which are the nutrients most required by plants, and consequently need constant contribution during the cultivation.

In addition to macro-nutrients, cultivated plants need meso-elements, i.e. Calcium, Magnesium, Sulphur and Silicon, as well as micro-elements, which are required by plants for specific metabolic processes and activities. Meso- and micro-nutrients are as fundamental as macro-elements to obtain the best qualitative and quantitative crops yield, due to their part in fruits aroma, color and taste formation.

The insufficient availability of these nutrients, due to weather conditions, use of the nutrients by previous crops and the lack of them in the standard fertilizers, mainly containing macro-elements, leads to the need of integrating in plants diet, either to cure or prevent any physiological disorder caused by their absence.

Green Ravenna wide range of nutrients, containing different meso- and micro-elements at different concentrations, either for roots or foliar applications, allows to set up different fertilization programs, specific for each crop, phenological stage and production target (i.e. vegetation growth, Brix grade increase, fruits swelling, correct nutrients-deficiency, etc.)

Mizdor

EC FERTILIZER - Copper salt sulphate (S30)

Mizdor rapidly corrects *Copper-deficiencies*, micro-element necessary for chlorophyll and Vitamin A synthesis and for the correct running of the enzymes related to respiration, photosynthesis and Indoleacetic acid (Auxin) production.

Mizdor prevents the lack of *Sulphur*, meso-element fundamental to the production of *Sulphur* amino acids, as Cystine and Methionine, highly nutritive proteins, Biotin and Thiamine.

The synergic effect of the two nutrients enhances crops physiological and sanitary status and increases the preventive efficacy towards the most common physiological disorders.

WARNING
H-PHRASES:
H302 - H315 - H410

COMPOSITION	
Copper (Cu) *soluble in water*	*20%*
Total Sulphur (S)	*30%*

PHYS-CHEM PARAMETERS	
pH	*8,6*

APPLICATION RATES	
CROPS	***FOLIAR RATE***
Olive trees	***2,5 kg/ha***
Pome fruits	***2 kg/ha***
Grape and Citrus	***2-2,5 kg/ha***
Potato, Tomato, Strawberry, Vegetables, Ornamentals	***2-2,5 kg/ha***

PACKAGE	
Bag	*4x2,5 kg*

Kugard

EC FERTILIZER - Copper solution (Cu) Sulphate fertilizer

Kugard is an innovative liquid *Copper*-based fertilizer enriched in its formulation with Lignin Sulphonic Acid (LS).

The LS-complexed Copper fraction has controlled-release over time, high bio-availability and pH stability both with alkaline or acid pH, enabling low rates of application, high efficacy in curing *Copper-deficiencies*, long-lasting effects and low phytotoxicity.

Copper is an essential micro-element for photosynthesis, Red-Ox reactions and mineral Nitrogen assimilation processes.

Cereals, Alfalfa, Spinach, Carrots and Citrus are particularly sensitive to *Copper-deficiencies* and need annual supplements, especially in alkaline and organic-matter-poor soils.

The LS enriching and spreading actions improve stickiness to every leaves surface, a source of controlled-release Copper on leaves epidermis and Copper penetration in the first cellular layers.

If applied via *drip irrigation*, ***Kugard*** improves *Copper* absorption in every physical-chemical soil condition, keeping a controlled-release over time and avoiding cations leaches.

WARNING
H-PHRASES:
H315 - H318 - H410

COMPOSITION	
Copper (Cu) *soluble in water*	*5%*
Copper (Cu) *enriched with LS*	*2%*

PHYS-CHEM PARAMETERS	
Density	*1,21 kg/L*
pH *(10% sol.)*	*4*

PACKAGE	
Bottle	*12x1 kg (=12x0,83 L)*
Can	*4x5 kg (= 4x4,13 L)*

Kugard

ADVANTAGES

- *Controlled-release Copper.*
- *Quick curative effect for Copper-deficiencies.*
- *Resistance to rain-wash.*
- *Low Phytotoxicity risk and no Copper excess in the tissues.*
- *Stimulating effects on plant and protein synthesis.*

APPLICATION RATES

CROPS	RATE	APPLICATION
Grape, Olive, Pome fruits, Actinidia, Citrus	***2,5-3 L/ha***	***3-4 applications** along the whole crop cycle, starting from post-flowering, post-harvest and leaves fall.*
Strawberry, Fruity vegetables	***1,5-2,5 L/ha***	***3-4 applications**, every **10-12 days** along the whole crop cycle.*
Leafy vegetables	***1,5-2 L/ha***	***3-4 applications**, every **7-10 days** along the whole crop cycle.*
Industrial crops *(Potato, Cereals, Corn, Sugar beet)*	***2,5-4 L/ha***	***2 applications**, every **15-20 days** along the whole crop cycle.*
Nurseries, Flowers and Ornamentals	***2-3 L/ha***	***2-3 applications**, every **15 days** along the whole crop cycle.*
Fertirrigation	***5-10 L/ha***	***3-4 applications**, every **7-10 days** along the whole crop cycle.*

TECHNICAL NOTES

- *Kugard is compatible with the most common fertilizers and pesticides.*
- *Do not mix with mineral oils and oil-based insecticides.*
- *Before mixing with other products, a compatibility test is suggested.*

Bordogreen flow

EC FERTILIZER - Mixtures of micro-nutrient boron (B) and Copper (Cu) Sulphate

Bordogreen flow is a fertilizer, containing Boron and neutralized Copper Sulphate, which, thanks to its flowable formulation and particles fineness, has a great adhesiveness, covering and rain-wash resistance. Boron and Copper absorption by leaves is as fast as their translocation into plants' tissues.

Bordogreen flow guarantees better and prompt nutrients assimilation by the plants, better flowers fecundation (*Boron* favors pollen fertility) and balanced crops development (*Copper* has positive effects on metabolic activity).

DANGER
H-PHRASES:
H302 - H318 - H410

COMPOSITION	
Boron (B) *soluble in water*	*0,5%*
Copper (Cu) *soluble in water*	*10%*

PHYS-CHEM PARAMETERS	
Density	*1,24 kg/L*
pH *(1% sol.)*	*4-5*

APPLICATION RATES

CROPS	RATE
Pome fruits, Stone fruits, Actinidia, Walnut and Hazelnut	***6-7,5 kg/ha***
Citrus	***3,5-4,5 kg/ha***
Grape	***3,5-7,5 kg/ha***
Olive tree	***6,5-10 kg/ha***
Strawberry and small fruits, Vegetables *(Tomato, Pepper, Eggplant, Zucchini, Cucumber, Potato, Onion, Zucchini, Melon, Watermelon, Pumpkin, Cabbages, Lettuce, Artichoke)****, Industrial crops*** *(Sugar beet, Tobacco, Cereals, Rice)*	***6,5-7,5 kg/ha***

PACKAGE	
Bottle	*20x1 kg (= 20x0,81 L)*
Can	*4x5 kg (= 4x4,03 L)*
Bucket	*15 kg (= 12,10 L)*

Sitari® 40

CORRECTIVE - Sulphur suspension in water

Sitari® 40 is an enriched Sulphur-based fertilizer, with a special formulation, which increases efficacy, persistence and absorption.

The *Sulphur* active compounds stabilization by *terpenes* and *waxy substances* reduces both phytotoxicity, on the most sensible crops, and volatilization processes, harmful for greenhouses plastic and metallic structures.

Sulphur has several benefits both on soil and on plants: it increases *Nitrogen*, *Phosphorus* and *Iron* assimilation, balances soil pH and its solution, takes part in amino acids formation (*Cysteine* and *Methionine*), essentials for proteins and flavonoids biosynthesis.

Thanks to the longer persistence and resistance to rain-wash, *Sulphur* can be assimilated gradually and exercises its corrective action progressively over time.

WARNING
H-PHRASES:
H315

COMPOSITION	
Sulphur (S)	*40%*

ADVANTAGES
Improvement in Nitrogen assimilation and photosynthesis rates.
Increase in Cereals, Legumes and Industrial crops yield.
Increase in Cereals protein content and improvement in their qualitative parameters (W test, P/L test, Zeleny test).
Improvement in flavonoids and carotenoids biosynthesis, responsible for Onion, Garlic, Asparagus and Brassicas flavor.
Safe for Greenhouses structures.
Lower selectivity for the Sulphur-most-sensible crops.

APPLICATION RATES	
CROPS	***RATE***
Wheat, Barley, Oat, Corn, Rice, Sugar beet, Soybean, Sunflower, Legumes, Rapeseed, Cabbages, Potato, Tomato, Lettuce, Spinach, Carrots, Fennel, Artichoke, Hop, Apple, Pear, Peaches, Plums, Apricot, Almond, Hazelnut, Grapes and Olive tree	***2,5-3 L/ha***

PACKAGE	
Can	*4x2L*
Can	*10 L*

Sitari® 700 L

CORRECTIVE – Sulphur (S) suspension in water

Sitari® 700 L is an innovative fertilizer based on *Sulphur*, formulated in Suspension Concentrate (SC), designed to improve quality and quantity of cereals, industrial crops, grape and vegetables productions.

Sulphur lowers soil pH, enhancing micro-elements availability.

Furthermore, *Sulphur-deficiency* is a limiting factor for qualitative and quantitative yields, as it is a fundamental element for proteins synthesis.

WARNING
H-PHRASES:
H315

COMPOSITION	
Total Sulphur (S) *(700 g/L)*	*51%*

PHYS-CHEM PARAMETERS	
Density	*1,36 kg/L*
pH *(1% sol.)*	*4,9*

PACKAGE	
Bottle	*12x1 kg (=12x0,74 L)*
Can	*4x5 L*

Sitari® 700 L

ADVANTAGES

Increase in yield.

Increase in quality: total protein and gluten content.

APPLICATION RATES

CROPS	RATE	APPLICATION
Grapes	2-4 L/ha	
Pome and Stone fruits	2-3 L/ha	
Olive trees	2-4 L/ha	
Hazelnut, Almond	4-6 L/ha	
Cereals *(Wheat, Barley, Rice)*	4-8 L/ha	**1st: Beginning of stem elongation.** **2nd: Booting – Inflorescence emerging.**
Corn	4-8 L/ha	*Application at* **4th - 8th true leaves**.
Sugar beet, Soybean, Sunflower	4-8 L/ha	*Application at* **4th – 6th true leaves**. **For serious deficiencies**, *repeat applications* **every 10-14 days**.
Brassicas *(Cauliflower, Rapeseed, etc.)*	4-8 L/ha	
Vegetables	2-3 L/ha	
Tomato	2-3 L/ha	*Application at* **4th – 6th true leaves**. *If necessary, repeat application* **every 10-14 days**.
Potato	2-3 L/ha	*Application* **1 week after emergence**. *If necessary, repeat application* **every 10-14 days**.

TECHNICAL NOTES

Do not mix with mineral oils and alkaline pesticides.

In case of crop varieties sensible to Sulphur, it is advised to test the product in a small area before applying in the field.

Apply during the freshest hours of the day, possibly in the early morning.

Zolfo Ventilato

EC FERTILIZER – Elemental sulphur (S)

Zolfo Ventilato is a fertilizer based on elemental *Sulphur* for dry treatments.

It corrects *Sulphur-deficiencies*, typical of very vigorous plants and leached soils, improves ammoniacal Nitrogen absorption, stimulating the synthesis of proteins and vegetal parts containing *Sulphur*.

Thanks to its purity and formulation finesse, ***Zolfo Ventilato*** allows an even and optimal distribution.

WARNING
H-PHRASES:
H315

COMPOSITION	
Total Sulphur trioxide (SO_3)	*245%*

APPLICATION RATES		
CROPS	***SOIL RATE***	***FOLIAR RATE***
Stone fruits, Pome fruits, Olive trees, Grape, Actinidia, Strawberry, Hazelnut, Vegetables, Flowers, Ornamentals, Cereals and Sugar beets	***200-400 g/10 m²***	***200-400 g/100 m²***

PACKAGE	
Bag	*20x1 kg*
Bag	*4x5 kg*
Bag	*20 kg*

Zolfo Green

CORRECTIVE – Sulphur (S) powder

Zolfo Green is applied on alkaline and high in *Sodium* soils.

It is suggested to correct alkalinity excesses in soil, which are responsible for the difficult growth of sensible crops and for the reduced assimilation of the fundamental nutrients.

Zolfo Green is a fine, milled elemental *Sulphur*, promptly effective, and allows a rapid oxidation in Sulfuric acid, balancing soil pH.

Furthermore, *Sulphur* is a fundamental meso-element for the synthesis of Biotin (Vitamin B7), of amino acids, Cysteine and Methionine, necessary for the protein content in cereals and qualitative characteristics of fruits and vegetables.

WARNING
H-PHRASES:
H315

COMPOSITION	
Total Sulphur (S)	*80%*

APPLICATION RATES

CROPS	*FOLIAR RATE*
Stone fruits, Pome fruits, Olive trees, Grape, Actinidia, Strawberry, Hazelnut, Vegetables, Flowers, Ornamentals, Cereals and Sugar beets	***4-6 kg/100 m²***

PACKAGE	
Bag	*20x1 kg*
Bag	*4x5 kg*
Bag	*20 kg*

Pro-F

EC FERTILIZER – PK solution 9-12 fertilizer

Pro-F is an innovative fertilizer, based on phosphoric-potassic oleate, able to bring highly effective and assimilable *Phosphorus* and *Potassium* to the plants.

Thanks to the build-up of a protective film, which enhances leaves and fruits aspect, consistency and storability, ***Pro-F*** enables to increase the epidermis thickness and plants tolerance to biotic and abiotic stresses.

The best application timings are inflorescence emergence, pre-flowering and at the beginning of ripening and when fruits are fully ripened.

Pro-F as an intense cleansing, wetting and sticking action, able to degrade and remove the *honeydew* produced by several piercing and sucking insects such as *psylla, aphids, citrus flatid planthopper* and *scale insects*. Leaves will shine back and acquire again their typical green color.

COMPOSITION	
Phosphorus pentoxide (P_2O_5)	*9%*
Potassium oxide (K_2O)	*12%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Olive tree, Citrus	***500-600 g/hl***	*Wet uniformly the upper and lower leaves' faces.* *Do not apply during flowering and when temperatures are above 30-32°C.* *Do not use waters rich in Calcium and Magnesium.*
Grape, Orchards	***400-500 g/hl***	
Actinidia	***350-400 g/hl***	
Vegetables, Ornamentals	***350-400 g/hl***	

PACKAGE	
Bottle	*24x300 g*
Bottle	*20x1 kg*

Micosprint

Mineral NP fertilizer + humic acids

Micosprint is a *NP fertilizer*, enriched with *humic acids*, designed to determine a marked starter effect on sown and transplanted crops. The application takes place with a micro granular fertilizer spreader, localizing the product during seedling or transplanting.

P_2O_5 high content, and its synergy with *humic* and *fulvic acids* contained in soluble humates, favors a rapid roots and vegetation growth, helping plants to overpass transplanting or seedling crisis.

Humic and *fulvic acids*, beside a quick roots growth, enhance essential nutrients absorption.

Granules dimensions, having a contact surfaces with soil 5x bigger than a standard granular fertilizer, ensures a prompt and entire nutrients absorption.

Ammoniacal Nitrogen nourishes the crops since the beginning of their life, improving release and efficacy over time.

COMPOSITION	
Total Nitrogen (N)	*15%*
- ***Ammoniacal Nitrogen (N)***	*15%*
Phosphorus pentoxide (P_2O_5) *soluble in water and in neutral ammonium citrate*	*43%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*41%*
Humic acids	*1%*

PHYS-CHEM PARAMETERS	
Density	*0,85-0,95 kg/L*
Granule Dimensions	*1,2-2,5 mm*

PACKAGE	
Bag	*25 kg*

Micosprint

ADVANTAGES

- *Rapid and total Phosphorus availability in every growth stage.*
- *Starter effect and roots stimulation.*
- *During germination, Micosprint helps to overpass post-transplanting and cold crisis*
- *Application can take place together with the seeds in the hopper.*

APPLICATION RATES

CROPS	RATE	APPLICATION
Orchards (Pome fruits, Stone fruits, Olive tree, Grape, Citrus, Actinidia)	60-80 g/tree	Localized before transplanting or at transplanting.
Open field crops	40-60 kg/ha	Localized before transplanting or at transplanting.
Greenhouse crops	6-8 kg/1.000 m^2	Localized before transplanting or at transplanting.
Industrial crops (Sugar beet, corn, Wheat, Barley, Soybean, Tobacco)	30-60 kg/ha	Localized at seedling.
Legumes	50-60 kg/ha	Localized at seedling.
Nurseries	15-20 g/plant	Localized before transplanting or at transplanting.
Flowers and Ornamentals	5-10 g/plant	Localized before transplanting or at transplanting.
Soil preparation	1,5-2 kg/m^3	Mix with soil or peat.
Turf	15-20 kg/1.000 m^2	Apply uniformly at seedling or over the turf during Spring.

TECHNICAL NOTES

In case of lacking Phosphatic fertilization, increase the rates; reduce the rate in case of soils rich in Phosphorus.

Larth® Ca-Mg

EC FERTILIZER - Calcium nitrate solution (Mg4)

Larth® Ca-Mg is a fertilizer specifically developed for fertirrigation applications in Greenhouses, Open Fields and Hydroponics.

The components purity, enhanced by the liquid formulation, grant *Easy-to-use* and quick absorption.

Larth® Ca-Mg has a high content in *Calcium* and *Magnesium*, which, applied via fertirrigation, aim to prevent physiological plant disorders, such as:

- Tomato Blossom End-rot,
- Melon physiological drought,
- Vegetables leaves drought,
- Leafy vegetables Tip-Burn,
- Grapes Cluster-Tip Wilting,
- Apple Bitter Pit and Stone fruits cherry cracking.

Magnesium stimulates chlorophyll formation and the consequent increase in photosynthesis activity, enhancing yield as well as more intense fruits and leaves colors.

WARNING
H-PHRASES:
H318

COMPOSITION	
Total Nitrogen (N)	*8%*
- ***Nitric Nitrogen (N)***	*8%*
Calcium oxide (CaO) *soluble in water*	*10%*
Magnesium oxide (MgO) *soluble in water*	*4%*

PHYS-CHEM PARAMETERS	
Density	*1,49 kg/L*
pH	*2,5*

PACKAGE	
Can	*25 kg (= 16,78 L)*

Larth® Ca-Mg

ADVANTAGES

Improvement in fruits quality, consistency and storability.

Applications after transplanting enable to oxygenate and warm soil in roots proximity, helping plants to overcome rapidly the transplanting crisis.

APPLICATION RATES

CROPS	RATE	APPLICATION
FERTIRRIGATION		
Tomato, Melon, Eggplant	10-15 kg/1.000 m^2	After transplanting, fruits setting and fruits growth.
Leafy vegetables	8-12 kg/1.000 m^2	Apply at development of harvestable vegetative plant parts and after 8-10 days.
Celery, Fennel	10-15 kg/1.000 m^2	From 4^{th}-5^{th} true leaves unfolded, apply every 10-20 days.
Table grape	9-12 kg/1.000 m^2	Bud swelling, after fruits setting and berries growth.
Other crops	10-15 kg/1.000 m^2	
Flowers and Ornamentals	8-10 kg/1.000 m^2	Apply minimum **4 times in the main growth stages**.

FOLIAR SPRAY: 150-300 g/hl, *depending on crop and its sensitivity.*

HYDROPONICS: 2-10 kg/L of hydroponic solution. *The rates may vary according to crop and its needs.*

TECHNICAL NOTES

Do not mix with products containing Phosphorus (P) and Sulphur (S).

Apply in the freshest hours of the day, possibly in the early morning.

In Greenhouses applications, do not overpass 150 g/hl (0,15%).

Bryston L11

EC FERTILIZER - Boron ethanol amine

Bryston L11 is a liquid fertilizer, specifically designed to prevent and cure physiological disorders caused by *Boron-deficiency*.

The ethanol amine organic complex grants a quick and uniform distribution in the treated crops.

Bryston L11 could be applied during flowering as it is not phytotoxic.

ADVANTAGES
Improvement in flowering and fruits setting, pollen production and sugars transportation from leaves to reserve organs.
Prevention and cure of internode shortening, Grape aborted berries, Cork of Apple and pears, Olive low fruit setting and Sugar beet heart rot.

COMPOSITION	
Boron (B) *soluble in water*	*11%*

PHYS-CHEM PARAMETERS	
Density	*1,37 kg/L*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
FOLIAR APPLICATION		
Sunflower, Rapeseed, Alfalfa, Sugar beets	***2-3 kg/ha***	*Apply **2-3 times**, every **10-15 days**.*
Grapes, Orchards, Olive trees, Vegetables	***150-250 g/hL***	
ROOTS APPLICATION		
Preventive effect	***3-5 kg/ha***	*Apply **2-4 times along the whole crop cycle**.*
Curative effect	***5-7 kg/ha***	
It is suggested the application of **Bryston L11** with amino acids fertilizers **(BIOSTAR N14,5 TOP)** in order to improve both their efficacy.		

PACKAGE	
Bottle	*20x1 kg (= 20x0,73 L)*

Iron Green 31

EC FERTILIZER - Iron salt (sulphate)

Iron Green 31 is a microgranular fertilizer, with high content of *Iron*, suitable for every crop to prevent and/or cure *Iron-deficiencies*, which are characterized by leaves yellowing.

Thanks to its *preventive action*, ***Iron Green 31*** should be applied along with the soil preparation, then continue applying regularly, especially on Grape, Citrus and Orchards, which are the crops most affected by *Iron-deficiencies*. It creates an extraordinary green color in the turf and brightens flowers colors.

Thanks to its acid pH, ***Iron Green 31*** is particularly suitable for alkaline soils, rich in lime, where it improves nutrients absorption. Finally, it effectively contrasts *musk formation*, creating an unwelcome environment for its development.

In few hours, ***Iron Green 31*** enhances plants color, avoiding all the typical contra-indications of Nitrogen application, such as diseases, turf over-growth and reduced resistance to drought.

WARNING
H-PHRASES:
H302 - H315 - H319

COMPOSITION	
Iron (Fe) *soluble in water*	*31%*
Sulphur trioxide (SO_3) *soluble in water*	*45%*

PHYS-CHEM PARAMETERS	
pH *(1% sol.)*	*2,5*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Turf, Flowersbeds and green areas	***30-50 g/m²***	*Apply by broadcast or by mixing with cultivation substrate. Apply every **20 days** at **20-40 g/m²** to **avoid musk formation**.*
Grape, Orchards	***0,4-0,8 kg/tree***	*Mix with soil under trees crown and then water.*
Soil preparation	***50-100 g/m³*** *of peat*	*Mix evenly with peat.*

PACKAGE	
Bucket	*4x5 kg*

Best Energy

EC FERTILIZER - NPK (Mg) 17-17-17 (2) by blending fertilizer

Best Energy is a water-soluble microcrystalline fertilizer, with high content of balanced NPK elements and chelated micro-elements, aimed to completely nourish every plant. It can be applied both via *fertirrigation* or *foliar spray* to promptly bring all the nutrients to plants and correct any nutrients deficiency.

Best Energy improves plants yield and a luxuriant and intense growth.

COMPOSITION	
Total Nitrogen (N)	*17%*
- ***Nitric Nitrogen (N)***	*4%*
- ***Ammoniacal Nitrogen (N)***	*2%*
- ***Ureic Nitrogen (N)***	*11%*
Phosphorus pentoxide (P_2O_5) *soluble in water and in neutral ammonium citrate*	*17%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*17%*
Potassium oxide (K_2O) *soluble in water*	*17%*
Magnesium oxide (MgO) *soluble in water*	*2%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Flowers and green plants	***150-200 g/hL***	***Apply every 2 weeks.***
Orchards	***250-300 g/hL***	***2-4 applications since vegetative restart****, along with pesticide.*
Citrus	***300-400 g/hL***	***1st: application after flowering. – 2nd: during summer.***
Turf	***300-600 g/hL***	***Apply every 2-3 weeks.***
Vegetables	***150-300 g/hL***	*Apply just **after transplanting**. Then **4-5 applications, every 15-20 days**.*

PACKAGE	
Bag	*20x1 kg*

Best Energy K

EC FERTILIZER - NPK (Mg) 12-6-30 (4) by blending fertilizer

Best Energy K is a water-soluble microcrystalline fertilizer, with high content in *Potassium*. Its application is suggested for all the crops in their intermediate and final growth stages.

Best Energy K improves fruits color, sugars content and qualitative characteristics. On flowers and ornamental plants, it enhances their vigor and stimulates prolonged and luxuriant flowerings.

COMPOSITION	
Total Nitrogen (N)	*12%*
- ***Nitric Nitrogen (N)***	*6%*
- ***Ammoniacal Nitrogen (N)***	*2,5%*
- ***Ureic Nitrogen (N)***	*3,5%*
Phosphorus pentoxide (P_2O_5) *soluble in water and in neutral ammonium citrate*	*6%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*6%*
Potassium oxide (K_2O) *soluble in water*	*30%*
Magnesium oxide (MgO) *soluble in water*	*4%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Grapes *(Wine- and Table-)*	***300-400 g/hL***	***From fruits color change until 2 weeks before harvest.***
Orchards	***250-300 g/hL***	***From fruits formation to pre-harvest.***
Olive tree	***300-400 g/hL***	***From stones lignifying until harvest.***
Citrus	***300-400 g/hL***	***From fruits setting to pre-harvest.***
Vegetables	***200-300 g/hL***	*Apply several times* ***since leaves unfold to fruits growth.***
Strawberry	***250-300 g/hL***	***2-3 applications after flowering.***
Turf	***350-450 g/hL***	***Apply every 3 weeks.***

PACKAGE	
Bag	*20x1 kg*

Concime universale plus

Granular NPK fertilizer 15-4-14

Concime Universale Plus is a granular mineral fertilizer, able to bring to plants the needed nutrients during the whole crop cycles.

The nutrients balanced amount allows a healthy and luxuriant growth, high number of flowers and fruits, rich in color and taste.

Highly soluble *Phosphorus* and *Potassium*, entirely derived from nitrate, can be easily absorbed by every crop. Thanks to a biodegradable polymeric membrane, 30% of the Nitrogen ensures a constant release over 2-3 months, time-span variable according to weather conditions.

COMPOSITION	
Total Nitrogen (N)	*15%*
- ***Nitric Nitrogen (N)***	*4,1%*
- ***Ammoniacal Nitrogen (N)***	*6,5%*
- ***Ureic Nitrogen (N)***	*4,4%*
Phosphorus pentoxide (P_2O_5) *soluble in water and in neutral ammonium citrate*	*5%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*4%*
Potassium oxide (K_2O) *soluble in water*	*14%*
Total Magnesium oxide (MgO)	*3%*
- ***Magnesium oxide (MgO)*** *soluble in water*	*2,5%*
Sulfur trioxide (SO_3) *soluble in water*	*21%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Vegetables *(Fruity and Leafy)*	***30-40 g/m²***	*Apply at **transplanting**, **end of Winter**, during **flowering** and at **maturation till harvest**.*
Orchards, Grape, Olive tree and Citrus	***50-70 g/m²***	*After application, water the soil and the product.*
Ornamentals	***40-60 g/m²***	***Avoid direct contact with roots.***
Turf	***30-50 g/m²***	

PACKAGE	
Bag	*10x2 kg*

Concime per Agrumi

Granular NPK fertilizer 15-6-15

Concime per Agrumi is a complete granular fertilizer specific for Citrus.

Thanks to its formulation, which contains all the micro-elements in addition to *Magnesium* and *Sulphur*, ***Concime per Agrumi*** favors a healthy and luxuriant buds and leaves growth, promotes the photosynthetic activity and flowering and allows to harvest more fruits, rich in color and taste.

Thanks to a biodegradable polymeric membrane, 30% of the Nitrogen ensures a constant release over 2-3 months, time-span variable according to weather conditions.

The application during growth and production stages brings to reduce pre-harvest fruits fall, to optimize sugars deposit and to make plants greener and healthier.

COMPOSITION	
Total Nitrogen (N)	*15%*
- ***Nitric Nitrogen (N)***	*4,1%*
- ***Ammoniacal Nitrogen (N)***	*6,5%*
- ***Ureic Nitrogen (N)***	*4,4%*
Phosphorus pentoxide (P_2O_5) *soluble in water and in neutral ammonium citrate*	*6%*
- ***Phosphorus pentoxide (P_2O_5)*** *soluble in water*	*5%*
Potassium oxide (K_2O) *soluble in water*	*15%*
Total Magnesium oxide (MgO)	*3%*
- ***Magnesium oxide (MgO)*** *soluble in water*	*2,5%*
Sulfur trioxide (SO_3) *soluble in water*	*21%*

APPLICATION RATES		
CROPS	***RATE***	***APPLICATION***
Citrus	*In soil:* ***30-50 g/m²***	*Apply at* ***transplanting***, ***Winter end***, ***during flowering*** *and* ***from maturation till harvest***. *After application, water the soil and the product.* *Avoid direct contact with the roots.*
	In pots: ***60-120 g/pot*** *depending on plant dimension*	

PACKAGE	
Bag	*10x2 kg*

Crops nutrition

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