







Founded in 1994, Open Green operates in the field ofplant nutrition and today with a new division dedicated tospecial granular fertilizers. In this catalogue we present the range of fertilizers andbioinducers from the range NUTRITIONAL SPECIALTIES, a sector on which Open Green has worked continuouslyin research and development of products with wide action spectrum, which are also capable to resolve a lot of nutri-tional pathologies which affect the quality and productivityof cultures. The agrochemical sectors of these products aretargeting either the extensive cultures such cereals, as wellas the more technologically advanced horticulture also intunnel and hydroponics. Open Green, has developed relationshipsin many countries by creating a network of technical informationand opportunities which allows it to be continuously adjournedand to strengthen its synergies with distributers and researchcenters. Open Green has succeded to be present also in interna-tional market, promoting and developing efficient and technolo-gically advanced products and techniques. Products listed in thiscatalogue are built with the most advanced production systems with choice of highest quality raw material to guarantee anexclusive quality standard of chelated microelements, bioinducers, watersoluble and foliar fertilizers, amino acids and exclusivespecialties. The quality of Open Green formulations is very pure; it does not create any phytotoxicity and many are from alimentaryorigin. Open Green offers accurate analysis of soil, leaf and waterin order to determine accurate fertilizing plans for an optimizeduse of this product range.

## Foliar fertilization

Foliar fertilization is a fertilizing technique that utilizers the ability of plants absorb water and mineral salts dissolved in it through the epidermis and the stomas of the leaves. The behavior of plants and the effectiveness of the interve-ntion varies according to different factors (plant species, leaf age, morphology, substances used, spraying methods,rtc.), it should in any case be considered that the plants are naturally carried radical mineral nutrition, so the dosages applicable to leaf fertilization are much lower than those for ordinary fertilization, although they are very effective. It should in any case be considered that the use of high doses of specific substances may lead to toxic effects. In general, leaf foliage is not suitable for nutritional purposes, but can be considered above all as an integrative inter-vention that allows the resolution of nutritional deficiencies, often frequent for the microelements (iron, zinc, copper,boron, manganese, molybdenum and the addition of amino acids and stimulants and quick-assimilating reinforces. The trace elements are absorbed in very limited quantities and nutritional deficiencies are usually caused by phenome-na insolubility or absorption antagonism rather than real defects in the soil. In this case leaf-based administration allows to get rid of the effects that have caused the deficiency.



In these two graphs we highligh the keyfeatures of foliar and fertile Open Green fertilizer

Graf. 1: demonstrates that all Open Greenleaves are absorbed in just 3 hours. On the other hand, the good products of the competition are already sold in 8-10 hours, up to 36 hours of standard products.

Graf. 2: shows the percentages of fertilizer absorbed.Open Green fertilizers are completely absorbed by the plant, on the other hand, already good competing products are absorbed at 60% and standards at 40%.

These enormous differences are given starting from the selection of raw materials: the purity, the absence of pollutants, the absence of heavy metals, the absence of chlorides, sulphates and carbonates.All this translates into a larger one penetra-tion and total absorption rate in the plant.



## Percentage of fertilizer absorption [%]

# Ramendo

## EC FERTILIZER Copper and iron chelated by EDTA

- CHEMICAL COMPOSITION
- Water soluble Copper (Cu)
- Copper (Cu) chelated with EDTA
  - Water soluble Iron (Fe)
  - Iron (Fe) chelated by EDTA
- 3% +/-0,4 0,5% +/-0,4 0,5% +/- 0,4

W/W

3% +/-0.4

Raw materials: Copper chelated by EDTA, Iron (Fe) chelated by EDTA

#### CHEMO - PHYSICAL INFORMATION

- Chemical name: Ethylendiaminetetracetic acid, copper and iron complex
- Type of chelate, international initials: EDTA
- Aspect: green-oil liquid
- Volumetric mass density: 1100 Kg/m<sup>3</sup>
- pH 1%: 6,5
- Smell: slightly EDTA

## CHARACTERI STI CS

- Specific against Bacteriosis
- Also preventive against peronospora
- Universally used to control copper deficiency by foliar uptake
- To be distributed at recognized deficiency every 8 days for 5-7 treatments
- ENDOTHERAPEUTIC; penetrates the leaf without being subject to washability
- Cicatrizant action after a hailstorm
- Dipping the roots before transplantation, may prevent against infections
- Very strong synergic action between copper and iron (2 naturally antagonist elements)



#### DOSAGES

Foliar treatment	g/hl	kg/ha
Straw cereals Soft/hard wheat	300-400	1,5-2
Melon	200-300	2-3
Tomato	300-500	3-5
Flower plants	200-300	2-3
Horticulture	300-400	3-4
Grapes	300-500	3-5
Olive	500-600	5-6
Sugar beet	200-400	2-4



# RAMENDO



EC FERTILIZER Compliante to the Reg. CE n. 2003/2003 of October 13 th

Authorized in Organic Farming according to EC Regulation N° 834/2007 of 28 June 2007



## Liquid

## **ENDOTHERAPIC...**



RAMENDO is a fertilizer that, entering the plant due to its endotherapicity, helps the plant to block the development of the parasites installed inside the plant organs.

RAMENDO can be distributed with normal or low-water equipment per hectare; in this case, suitable concentrations are recommended to be evaluated from time to time in specific cases.



# <u>ramendo</u>

## ...AND TRANSLAMINAR





## It can also be used in the following cases:

after a hailstorm as it exerts a healing action.

In these cases where it is necessary to obtain constancy of green color and thickness of leaves see for example: spinach, salads, etc.

in cases where the development of the plant is limited by access from stress caused by water stagnation.

Given above the ground it forms a semi-permeable membrane where it is necessary to maintain a more important percentage of humidity, or where the possibility of irrigation is scarce. (in fact, RAMENDO reacts with the silica dioxide present in the soil).



## Incas

## EC FERTILIZER

## Manganese and Zinc chelated with EDTA

## CHEMICAL COMPOSITION W/W

<ul> <li>Water soluble Manganese (Mn)</li> </ul>	3% +/-0,4
Manganese (Mn) chelated with EDTA	3% +/-0,4
<ul> <li>Water soluble Zinc (Zn)</li> </ul>	1,0% +/-0,4
<ul> <li>Zinc (Zn) chelated with EDTA</li> </ul>	1,0% +/-0,4

Raw materials: Manganese chelate (EDTA), Zinc chelate (EDTA)

## CHEMO - PHYSICAL INFORMATION

- Chemical name: Ethylendiaminetetracetic acid, Manganese and Zinc complex
- Type of product, international initials: EDTA
- Aspect: pinkish liquid
- Volumetric mass density: 1150 Kg/mc
- pH 1%: 6,5
- Smell: slightly EDTA



Compliante to the Reg. CE n. 2003/2003 of October 13 th

**EC FERTILIZER** 

Authorized in Organic Farming according to EC Regulation N° 834/2007 of 28 June 2007

## CHARACTERI STI CS

Chelated chemical complex in which the zinc content 1% is chemically linked to the manganese 3% throughout an EDTA which renders them extremely stable. INCAS is characterized by a high biologic action and a long-lasting persistence on leafs. INCAS positively acts on the biologic process of the treated plants and stimulates their endogenous mechanism of defence as well. The specific composition of this liquid ready-to-use formulation is conceived to penetrate the plant easily and rapidly. The nature of the formulation does not allow the formation of drops which cause burns to the leafs through the lens effect. Besides, the product is not washable.

- Efficient control of nutritional physiopathologies.
- Universally used to control manganese & zinc deficiency by foliar uptake and by fertirrigation
- Distribute at recognized deficiency every 8 days until disappearance of symptoms
- The product is SYSTEMIC; penetrates the leaf without being subject to washability.
- Allowed in organic farming



## DOSAGES

Foliar treatment	g/hl	kg/ha
Melon	200-300	2-3
Tomato	300-500	3-5
Floriculture	200-300	2-3
Horticulture	300-400	3-4
Grape	300-500	3-5
Olive	500-600	5-6
Sugar beet	200-400	2-4
Pomacee e Drupaceous	300-500	3-5

Fertirrigation:

kg 10-15 /ha on all crops

Please note: in foliar treatment the product has to be used during the coolest periods of the day.



## Liquid

## **CHARACTERISTICS**

LIQUID PRODUCT READY TO USE, HIGH

**BIOLOGICAL ACTION** 

AND SPEED OF AC-

TION

STIMULATE ENDO-GEN PROTECTIVE MECHANISMS



DEFENSE CORRECTOR OF MN AND ZN CHIMATE CHEMICAL COMPLEX WITH EDTA IN WHICH THE ZN IS CHEMICALLY COMBI-NED WITH MN

Some experiments developed over the years and results:



# Vegetik

#### EC FERTILIZER - PK fertilizer solution

CHEMICAL COMPOSITION

Water soluble Phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>) 30%

#### CHEMO - PHYSICAL INFORMATION

Chemical name: phospho-potassic fertilizer

Water soluble Potassium oxide (K<sub>2</sub>O)

- Type of product, international initials: PK fertilizer compound in solution
- Aspect: transparent/light blue liquid
- Volumetric mass density: 1360 1390 Kg/m<sup>3</sup>
- pH: 4,3 4,7
- Smell: none
- pH range: active between pH 3 10



## CHARACTERI STI CS

- Vegetik is a pure PK product, precursor of a new concept of fertilization.
- Unlike Mimetik (100% sequestrated), Vegetik is salified.
- Triggers the endogenous defence by stimulating the production of phytoalexins.

**EC FERTILIZER** 

Compliante to the Reg. CE n. 2003/2003 of October 13 th

- Penetrates the plant in only 3-6 hours.
- Systemic product (ascending & descending action).
- Low application rates.
- Mostly used by foliar uptake, nevertheless it can be also implied in fertirrigation, where it is stable between pH 3 10.

W/W

20%

Foliar treatment Specialized Applicable also with U.L.V.

Radical treatment e fertirrigation Recommended



## DOSAGES

Foliar: Universally a g 350-400/hl or kg 3,5-4/ha.

**Fertirrigation:** Universally a **kg 10-15/ha** also divided into 2-3 treatments .





## **CHARACTERISTICS**

#### MINERAL LIQUID PK FERTILIZER

рН	5 - 6	
DENSITY	1,36 - 1,39	
COLOR	TRANSPARENT	
FORMULATION	LIQUID	
PRODUCT	COMPLEX	

## COMPOSITION

Phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> )	30%
Potassium oxide (K <sub>2</sub> O)	20%

Potassium phosphite 100%



FITOALESSINE are substances produced by plants as an ANTINFECTIONAL RE-ACTION with ASPECIFIC action (ie directed against all pathogens); thanks to their systemic activity (both ascending and descending) the immune defenses of the plant become much more effective, making the plant practically unassailable by external pathogens.

MORE PRODUCTION OF ENDOGENIC ENZYMES
 (ex: catalase that inhibit the pathogen enzymes involved in the immune
 reaction)

PRODUCTION OF SPECIFIC METABOLITES



# Verbel

#### BIOINDUCER

## Amino-acids, L. Amino-Acids, Proteins, Vitamins, Natural chelates

#### CHEMICAL COMPOSITION

- Amino acids
- L. Amino acids
- Proteins
- Vitamins
- Naturally chelated microelements

#### CHEMO - PHYSICAL INFORMATION

- Chemical name: Amino acids, Free amino acids, Proteins, Vitamins, Natural chelates
- Type of product, international initials: Bioinducer
- Aspect: brown liquid
- Volumetric mass density: 1300 Kg/mc
- pH 1%: 7,0
- Smell: nessuno
- Natural components: Corn, soy.

#### CHARACTERI STI CS

- Effective control for nutritional deficiencies.
- Helps recovery from environmental stress damaging to the plant and consequently to production.
- Universal product thanks to its flexibility, trigger, speed, agility
- Penetrates the plant in only 3-6 hours
- Favours the improvement of crop production
- Optimizes the dimension of fruit
- Improves the organoleptic characteristics
- Makes the calibre of fruits much more constant
- Improves the brix grade of fruits



#### DOSAGES

Foliar treatment	g/hl	kg/ha
Cereals	300-400	3-4
Grape	150-250	1,5-2,5
Olive	150-250	1,5-2,5
Apple, pear	150-250	1,5-2,5
Kiwi	150-250	1,5-2,5
Drupaceous	150-250	1,5-2,5
Citrus	150-250	1,5-2,5
Ornamentals	150-250	1,5-2,5
Nurseries	150-250	1,5-2,5
Strawberry	150-250	1,5-2,5
Horticolture	150-250	1,5-2,5

#### Fertirrigation:

10-20 Kg/ha applied 3-5 during the vegetative cycle on all crops.





Valina, leucina, glicina, alanina, isoleucina, arginina, develop the organoleptic characteristics



Prolina, acido Glutammico they develop the fruit set



Fenilalanina reinforce color



Valina, leucina, glicina, listina, acido glutammico chlorophyll photosynthesis improve

## CHARACTERISTICS

- 35% more essential amino acids than the average normal formulated
- It is absolutely neither toxic nor phytotoxic to plants in the various phenological stages or to useful insects
- more balanced percentage between L and D amino acids
- low molecular weight, short chain.
- homogeneity and flexibility of use
- contains vitamins, macro-meso and naturally chelated microelements, Ca, Mg, S, Fe, Zn, Mn, B, Cu, Co, Mo
- salinity, proportionally to the amino acid charge, very low.
- 100% of vegetaler Mais and Soy origin.
- Authorized in organic farming
- 14% of L amino acids.

## WHAT IS THE USE OF VERBEL ?

OBJECT R	ESPONSE TO THE STRESS	WITH VERBEL
Stomata	Closing	Opening
Photosynthesis	Reduction	Increase
Senescence	Acceleration	Slowdown Contribution in
Amino Acids	Accumulation	assimilable form







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