



**XEDA**  
italia

a g r i b u s i n e s s

**20**  
**25**



# Sustainable Defence and Nutrition



“ **T**he reason why we daily work is to contribute to develop an eco-sustainable agriculture.

Through technological innovation we try to provide farmers with new natural solutions in order to protect, feed and guarantee quality productions that respect the environment.

This catalogue is a homage to all the people that every day work for **XEDA ITALIA** and with their talent and dedication turn the company vision into reality; it is a homage to all the people that dedicate all their efforts, passion, research and their life to the most important asset for humanity: **cultivate the land.** ”

**Alberto Sardo**

*President of Xeda International*



We operate in **4 different market** segments, offering solutions from **transplantation** to **preservation** and **processing** in stock



### **LABELLING**

Efficiency, flexibility, reliability and convenience: these are the features of the offer integrated for production and supply of adhesive labels and labelling machines for the identification of fruit and vegetables.



### **TREATMENTS**

A full range of plant protection products, fruit and vegetables preservation products, applied through our patented technology.



### **MACHINERY**

We design and manufacture machines and lines for processing and packaging of fruit and vegetables from the single conveyor to complete lines processing.



### **AGRICULTURAL PRODUCTS**

A complete range of products for Bio-control based on microorganism and plant extracts. Plant protection products, Fertilizers Biostimulants and Nutritional of high purity and quality.



## **Who we are**

**Xeda Italia** is an innovative and universal company in the market offering agricultural products and services **from the field to the processing warehouse**. We **produce** and **develop** natural products for the **defence** and **nutrition** of plants based on **microorganisms** and **plant extracts**, bringing to the market solutions which are effective and capable of generating value for farmers. Thanks to the **merger** with **Cedax** we have acquired a historical know-how and a complete range of products and services for **post-harvest**; allowing us to introduce ourselves to the market, as **the only agribusiness company** to have a portfolio with solutions for the entire life cycle of fruit and vegetable products.

## **What we do**

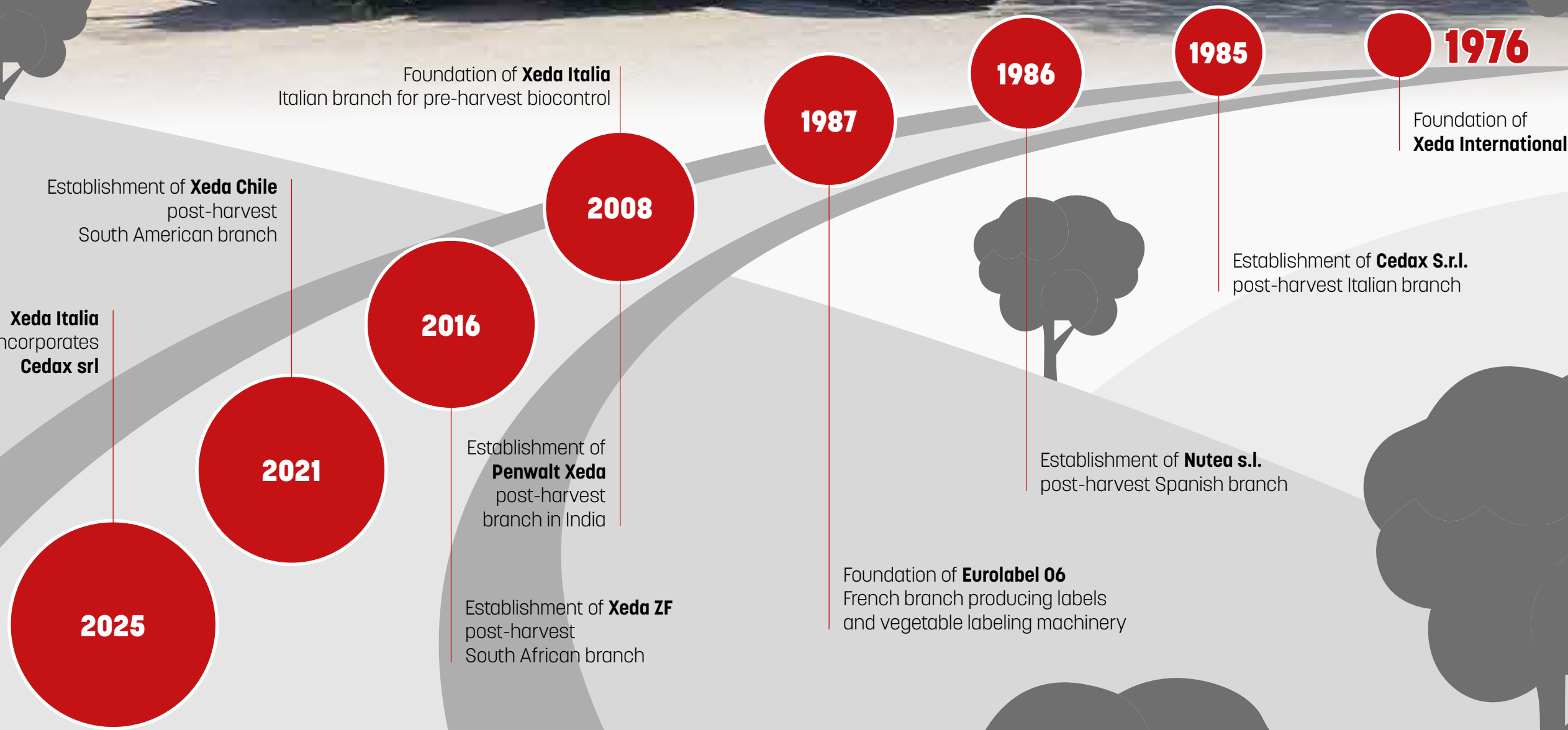
**Research and Development:** We invest significantly in R&D to discover new molecules and biotechnological applications.

**Production:** We use modern processes for the production of natural products and innovative technologies, guaranteeing high quality standards.

**Partnerships:** We work closely with universities, research institutes and other companies to promote innovation and growth in the sector.

## **Impact and Responsibilities**

We are committed to operate in an **ethical** and **sustainable** way, promoting the safeguarding of the socio-economic ecosystem of the agricultural world. We are active in community projects, working to ensure new solutions that can bring real added value to the sector.





## Why a high quality microorganism is rare

XEDA ITALIA production plan at industrial level considers both the DEVELOPMENT and the SCALE-UP of fermentation processes of phytopathogen antagonistic microorganisms from the laboratory to the bioreactor.

The bacterial and fungal strains used in our formulations are LEGALLY DEPOSITED in internationally recognized Microorganisms collections, which guarantees their conservation and purity. The production processes are accurately STANDARDIZED to ENSURE formulations with CONSTANT characteristics and activities.

### Standardized production process

- ▶ Preparation of inoculum in microbiology laboratory
- ▶ Industrial production in bio-reactor
- ▶ Biomass harvest
- ▶ Formulation and stabilization
- ▶ Packing

During all the production steps, a rigorous quality control check is applied to obtain commercial formulations with constant characteristics and high quality.



### Microbiology Laboratory



Strain vials



Culture liquid starter



#### Quality control:

- ▶ Biochemical tests
- ▶ Observation with microscope
- ▶ Morphological analysis



### Industrial production in bioreactor

When the liquid starter cultures pass all the laboratory tests, they are used for inoculation of 1500 litre bioreactor where the microorganisms growth takes place and the biomass is obtained.



In these phases all the processes are under absolute sterility conditions.

# How is a XEDA product born?

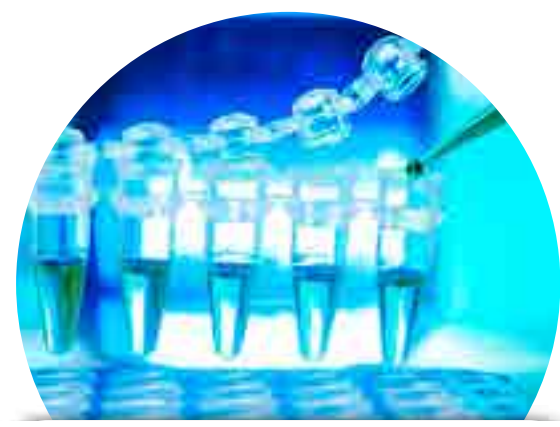


**XEDA ITALIA** carries out experimental and demo activities in Italy, in collaboration with Official Institutions, Universities and Test Facilities, which certify the value of Xeda products based on the highest market standards available.

Our products are accurately tested in the field, following strict protocols, before being put in the market.



**1 | Planning**



**2 | Formulation**



**4 | Trials in gep certified**



**5 | Marketing test**



**3 | Stabilization**



**6 | Sale**

# Business model

## SALE NETWORK

Sale to agricultural pharmacies and farms through the national network.

## PARTNERSHIP

Agrochemical distribution agreements with partner companies.

## PRIVATE LABEL

Production of customized products based on microbials for clients.

## SPECIFIC FORMULAS

All our solutions are completely customizable depending on partner needs. We set up a specific project for you.

## PACKAGING

Customizable solutions for packing solid and liquid products.

## LOGISTICS

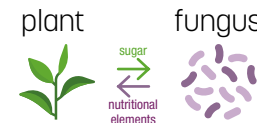
We are able to manage every type of transportation, with possibility of triangulations of products to save time and resources.



# Microbials

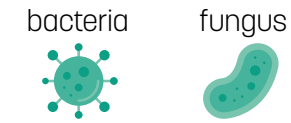
STRAIN	FORM
<i>Trichoderma asperellum</i> TV1	Solid/granular
<i>Metharizium anisopliae</i>	Solid/liquid/granular
<i>Bacillus subtilis</i> BSF4	Solid/liquid
<i>Bacillus amyloliquefaciens</i>	Solid/liquid
<i>Bacillus megaterium</i>	Solid/liquid
<i>Bacillus pumilus</i>	Solid/liquid
Micorrize: <i>Glomus intraradices</i> , <i>Glomus mosseae</i> , <i>Glomus aggregatum</i>	Solid/liquid
<i>Fusarium oxysporum</i> ipovirulento IF23	Solid/granular
<i>Azotobacter choococcum</i>	Solid/liquid
<i>Bacillus velezensis</i>	Solid/liquid

## mycorrhizae



In mycorrhizal symbiosis plant provides sugars to the fungus that accordingly provide a large amount of nutrients to the plant. In this way the treated plant has many advantages.

## PGPMO



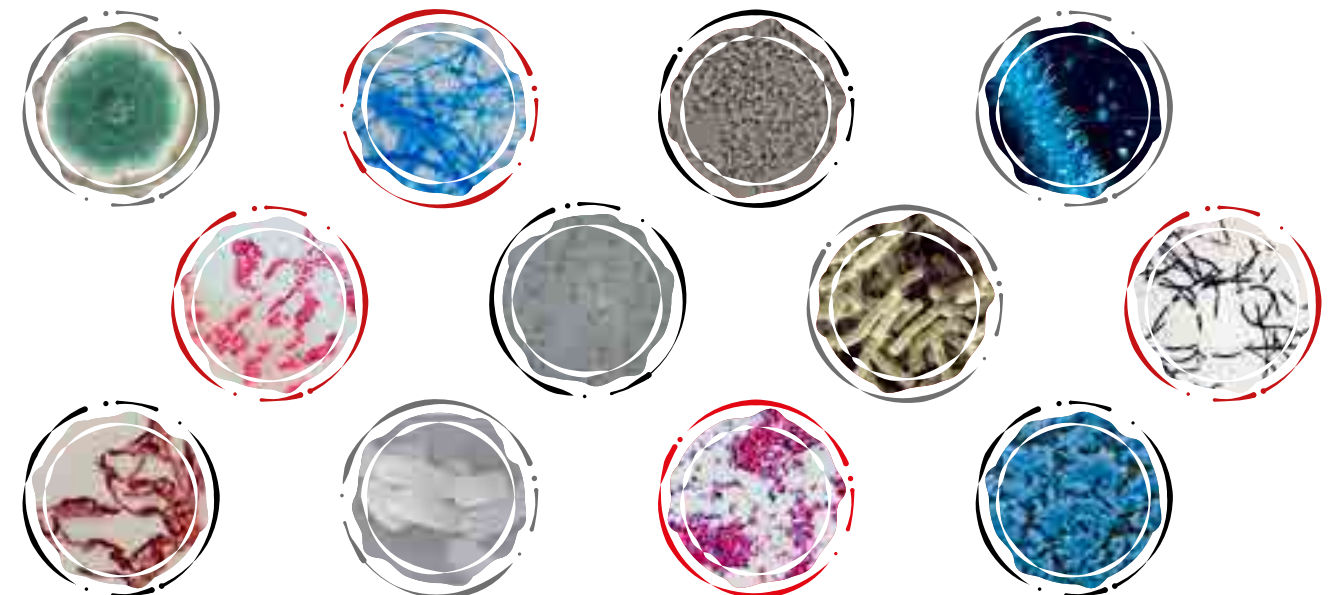
The term PGPMO is used to define microorganisms (bacteria or fungi) that have a beneficial effect on plant promoting their growth and/or increasing their resistance to stress.

## perfect synergy



The role of mycorrhizae is amplified by the presence of PGPMO necessary for their proper development, as for they promote **spore germination**, **root colonization** and **mycelium growth** increasing efficacy of mycorrhizae in the **nutrient absorption**.

+700% root growth	nutrient absorption	abiotic stress resistances	P phosphorous solubilization	Fe siderophores production	N nitrogen fixation	spore growth	> root colonization	mycelium growth
increase of soil fertility	Barrier to pathogens	root biofilter	Pgr elements production	competition to: colonization	resistance induction	nutrient absorption	phytostimulant compounds	pathogen antagonism



## DEFENCE and PROTECTION

### NEMATICIDES

15 ● EUGENIO®

### FUNGICIDES

17 ● XEDAVIR®

18 ● MICROSAP® CU PLUS **news**

### MICROORGANISMS

21 ● IF23

22 ● TA44

23 ● CAMYLLO

25 ● XEDAGREEN

26 ● SANDEK

27 ● SANDEK PLUS

28 ● SANDEK GOLD

29 ● META-X

31 ● META-X WG

33 ● TA44 WG

34 ● IF23 WG

### SPECIALS

35 ● XEDOIL **news**

36 ● ABT PLUS MICROGRANULO **news**

37 ● ABT PLUS

38 ● BLOKKER **news**

39 ● XEDAROS

40 ● ZX400

41 ● CUSAP

43 ● XEDALAV+

### PHYSICAL-PROTECTIVES

45 ● XEDASUN

### STRENGTHENER

46 ● CAOLINO

47 ● TRANLOW

49 ● PROPOLI A and B

50 ● PROPOLI G

51 ● ZEOLITE GOLD 95

53 ● OLIO DI SOIA F40

## NUTRITION and STIMULATION

### STIMULANTS

57 ● SUPERKING

58 ● KING

59 ● QUEEN

61 ● MEGASTYM®

62 ● ZYMOSTIM

63 ● BMA XEDA

64 ● ALGAXED

### CARBON BASED

66 ● BIOSIN

67 ● BIOSIN ENERGY

68 ● BIOSIN RED

69 ● PROTIENERGY

70 ● FERTIL AGRO L

### SOIL IMPROVERS

71 ● FERTIL HUMIC L

### MICROELEMENTS

72 ● FERTIL BORO L

73 ● FERAMIN M

74 ● FERTIL ZINCO

75 ● MICRONUTRIENTS

### LIGNOSULFONICS

77 ● XEDALIG-Ca

78 ● XEDALIG-Cu

79 ● XEDALIG-Fe



allowed  
in organic  
farming



foliar  
application



root  
application



VEG  
line



## DEFENCE and PROTECTION





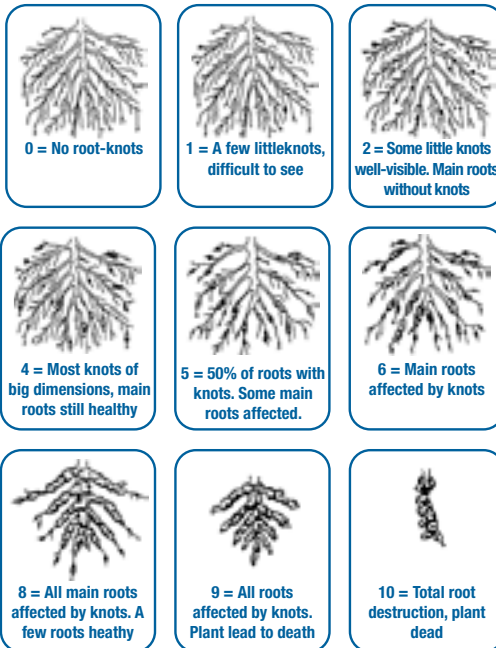


# DEFEATING NEMATODES IS NOT A WISH ANYMORE!!

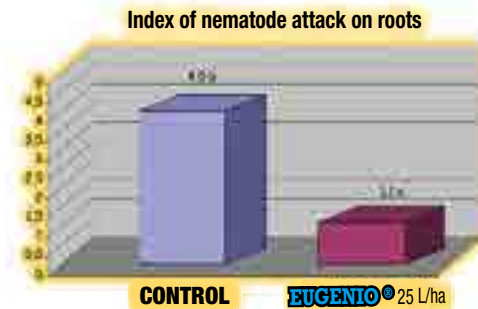
## Achievable results

### EVALUATION OF NEMATODE ATTACK

Bridge & Page scale (1980)

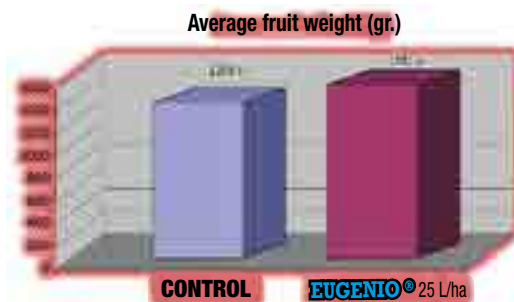
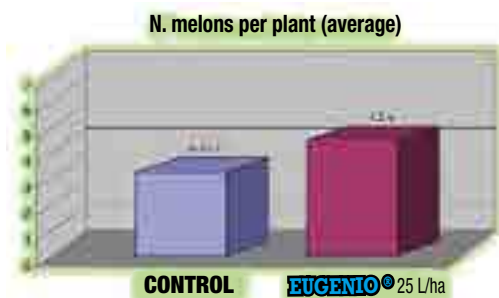


Data based on real trial



## Results achieved on MELON

Data based on real trial



## CORRECT USE

- Important to wet 10-15 cm of the soil affected by nematodes
- Apply the product in the SECOND PART of the irrigation cycle to prevent product dilution.

### IDEAL BASED ON TOTAL WATER VOLUME:

50% WATER    30% EUGENIO®    20% WATER

# EUGENIO®

### CHARACTERISTICS

EUGENIO® is a natural formulation based on clove oil extracted from *Eugenia caryophyllata* (better known as cloves) with a high nematostatic and nematicide action. EUGENIO® mainly acts against eggs where, interfering on normal embryogenesis, it drastically reduces the larvae hatching rate. Fundamental is also the nematostatic action against larvae that, once in contact with the product, lose their mobility and thus the capacity to gather with the plants roots and continue their vital cycle. In case of prolonged immobility, it is possible to have also the death of larvae (nematicide action).

### TARGET PESTS

Nematods of genus: *Meloidogyne* spp., *Tylenchorhynchus* spp., *Pratylenchus* spp., *Xiphinema* spp., *Heterodera* spp., *Ditylenchus* spp.

### DOSAGE AND APPLICATION METHOD

EUGENIO® is a natural product that has to be applied to the soil to contain nematodes in greenhouse production of tomato, eggplant, pepper, melon, watermelon, pumpkin, zucchini and cucumber. The application program allows a maximum number of 8 applications at interval of 7-10 days (for a total of 250 L/ha of product) according to the following table:

APPLICATION	DOSE
Pre-transplanting, pre-sowing	5 L / 1000 m <sup>2</sup>
Post-transplanting	3-5 L / 1000 m <sup>2</sup>

*Pre-transplanting, pre-sowing:* apply the product through fertigation. If the soil is dry, irrigate the soil the day before the application of the product.

*Post-transplanting, post-sowing:* apply the product in the central part of the irrigation cycle, extending the cycle with only water for 10-15 minutes.

### WARNING

Store the packaging away from sunrays in a fresh and dry place. Following these conditions the product maintains its efficacy for at least 3 years.

In case of mixture with other formulations it must be respected the longest waiting period. It must be observed the precautionary rules for the most toxic products. If intoxication events happen, inform the doctor about the mixture made.

### COMPATIBILITY

The product is mixable with other agrochemicals.

### PHYTOTOXICITY

The product, applied as specified in the label, is not phytotoxic for crops.

**NB.** Product under registration. Marketable with derogation of exceptional use for 120 days.

### APPLICATIONS ADVICE

Combine with chemical nematocides and/or ABT PLUS liquid or microgranular for a perfect synergy.

*Use agrochemical with caution. Before using always read the label and the product information.*

*It is recommended to pay the proper attention to the appropriate warning phrases and symbols as laid down in the labelling.*



### COMPOSITION

Clove oil  
g 20 (203 g/L)

Co-formulants  
q.s. to g 100

### FORMULATION

Concentrated emulsion

### REGISTRATION

Ministry of Health  
n. 17616  
of 05.06.2020

### CLP CLASSIFICATION



WARNING

### AVAILABLE IN PACKS OF:

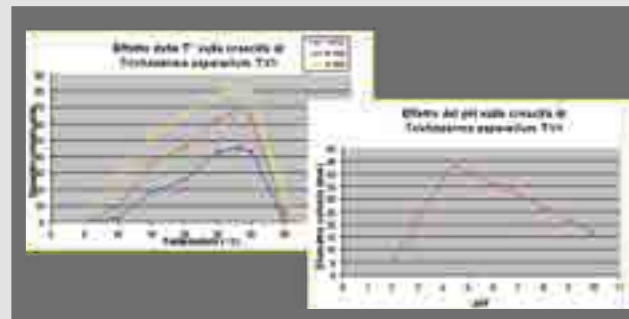
5 lt



# Natural solution for controlling soil fungal diseases

First and unique formulation regularly registered based on *Trichoderma asperellum*: a new specie recently identified with specific morphological and molecular characteristics, to which belong the strain TV1.

Antagonist microorganism widely present in the environment and not genetically modified.



Quick growth and abundant conidia and chlamyospore give to strain TV1 a high competitiveness and capacity of space and growth substrate colonization at variable values of pH, salinity and temperature.

High suppression and containment against root rot agents as *Pythium* spp., *Phytophthora capsici*, *Rhizoctonia solani* e *Verticillium* spp.  
Gradual improvement of rhizosphere health.



Usable in nursery, greenhouse and in the field in organic and integrated pest management strategies.

No Phytotoxicity.

Mixable with all insecticide, fertilizer, herbicides and most of fungicides.

▶ promote  
plant  
development

▶ prevent and  
heal soil  
fungal disease

▶ allowed  
in organic  
farming

## XEDAVIR®

### CHARACTERISTICS

XEDAVIR® is a product based on *Trichoderma asperellum*, an antagonist fungus with high competitiveness and high capacity of space and growth substrates colonization, and also the capability of defense of resources against other soil organisms.

These characteristics, together with a high adaptability to different soil and weather conditions, make it an ideal antagonist in the soil, where it contains and represses the main agents of root rots as *Pythium* spp., *Phytophthora capsici*, *Rhizoctonia solani* and *Verticillium* spp.

The strain TV1 is commonly present in the environment (in soil) and it is not genetically modified.

### PERIOD, DOSAGE AND APPLICATION METHOD

Horticulture crops (garlic, asparagus, basil, chard, artichoke, cardoon, carrot, cabbage, chervil, cucumber, chicory, onion, watermelon, canola, watercress, lamb lettuce, chives, bean, green bean, fennel, strawberry, endive, lettuce, lavender, marjoram, mallow, aubergine, lemon balm, melon, mint, potato, pepper, tomato, leek, parsley, radicchio, rape, radish, rosemary, oilseed rape, rocket, sage, shallot, escarole, celery, spinach, tobacco, thyme, pumpkin, courgette), officinal herbs, flowers, ornamentals, lawns and sports grounds.

APPLICATION	DOSE
In greenhouse and open field	5 Kg/ha
In topsoil and peats	0,5 - 1 Kg/m <sup>3</sup>

Apply the product in advance, in pre-sowing or pre-transplanting, at sowing or at transplanting. Depending on weather conditions and on crop length (if medium-long) it is recommended to repeat the treatment after 15 days, at the lower dose to improve the colonizing action obtain by the first application.

### COMPATIBILITY

The product is mixable with all insecticides, fertilizers, herbicides, fungicides (except products based on azoxystrobin, chlorthalonil, dicloran, iprodione, mancozeb, penconazole, thiram, tolclofos-methyl e pyraclostrobin).

### APPLICATIONS ADVICE

Combine with FERTIL HUMIC L to speed up the microorganism development.



### COMPOSITION

*Trichoderma asperellum*  
strain TV1 2,8%  
1 x 10<sup>7</sup> UFC/g

### FORMULATION

Wettable powder

### REGISTRATION

Ministry of Health  
n. 13838  
of 06.10.2008

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg

*Use agrochemical with caution. Before using always read the label and the product information.  
It is recommended to pay the proper attention to the appropriate warning phrases and symbols as laid down in the labelling.*

# MICROSAP® CU PLUS

## CHARACTERISTICS

MICROSAP® CU PLUS is a fungicide based on tribasic copper sulphate with a low active ingredient content. The patented formulation gives the formula high surface coverage and persistence on the plant. The low rates of active ingredient delivered to the crop allow for high application flexibility, at the same time a strong fungicidal and bactericidal activity.

## DOSES AND METHODS OF USE

CROP	ADVERSITY	FORMULATED DOSES PER APPLICATION	WATER VOLUMES	MAX. ACTIVE SUBSTANCE DOSE PER APPLICATION	MAX. NR. OF TREATMENTS PER YEAR
Wine grapes	Downy mildew	3-5 l/ha	3-10 hl/ha	269 Kg/Ha	10
Potato	Downy mildew	3-4 l/ha	3-6 hl/ha	215.2 g/ha	4
Tomato and Aubergine (open field)	Downy mildew	3-4 l/ha	3-4 hl/ha	215.2 g/ha	6

**Vine grape:** intervene when the conditions for the development of the disease occur and continue every 7 days from outstretched leaves depending on the weather and suspend 15 days before harvest (if necessary). In the event of a severe attack, stick to the maximum doses and reduce the treatment interval.

**Potato:** start applications when conditions for disease development occur and continue at 7-8 day intervals depending on the weather. Suspend treatments 14 days before harvest.

**Tomato, Aubergine (open field):** intervene when conditions for disease development occur and continue at 7-8 day intervals depending on weather and vegetative development. For transplanted crops, start applications after the transplant crisis has passed and repeat at 7-10 day intervals depending on climatic conditions and vegetative development. Suspend treatments 3 days before harvest.

## COMPATIBILITY

In case of mixing with other formulations, carry out a compatibility test beforehand. When mixing with other formulations, the precautionary rules prescribed for more toxic products must be observed. In the case of mixing with other formulations, the longest deficiency times must be observed. In the event of intoxication, inform the doctor of the mixing performed.

## PHYTOXICITY

The product at the doses and for the authorised crops is not phytotoxic.

## SAFETY INTERVAL

Suspend treatments 15 days before harvest for vines, 14 days for potatoes and 3 days for other crops.

## APPLICATIONS ADVICE

Combine with BLOKKER.

*Use agrochemical with caution. Before using always read the label and the product information. It is recommended to pay the proper attention to the appropriate warning phrases and symbols as laid down in the labelling.*



## COMPOSITION

Metal copper  
(in the form of tribasic sulphate) g 5 (53

Co-formulating agents  
as needed at g. 100

## FORMULATION

Liquid

## REGISTRATION

Ministry of Health  
No. 17443 of 09.10.2023

## CLP CLASSIFICATION



## AVAILABLE IN PACKS OF:

1 lt - 10 lt

# MICROORGANISMS PRODUCER



*Trichoderma Asperellum TV1 - B.Subtilis - B.Amylolyquefaciens  
Metarhizium - Mycorrhizae - Fusarium hypo-virulent*

Xeda's production and formulation  
High quality standards • Customers guarantees

# MADE IN ITALY

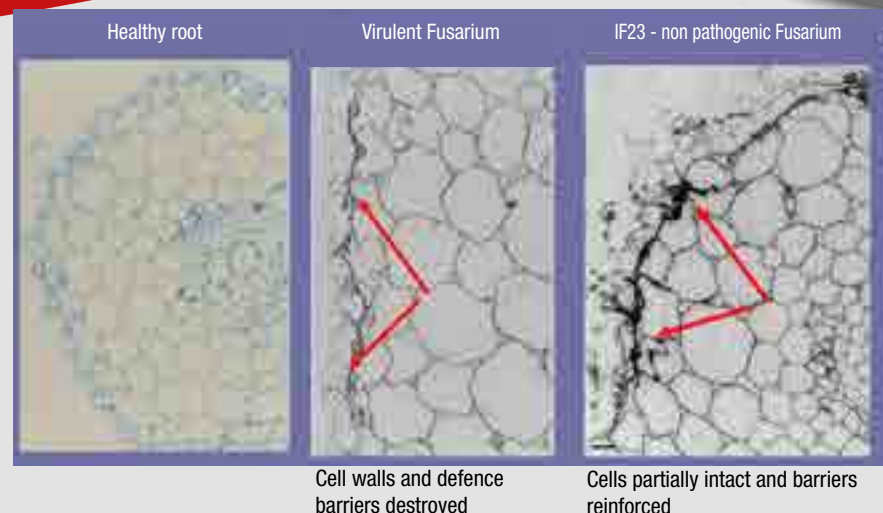
 **XEDA**  
italia  
a g r i b u s i n e s s



# How does IF23 work?

antibiosis	☹️
competition	☺️
parasitism	☹️
induced resistance	☺️

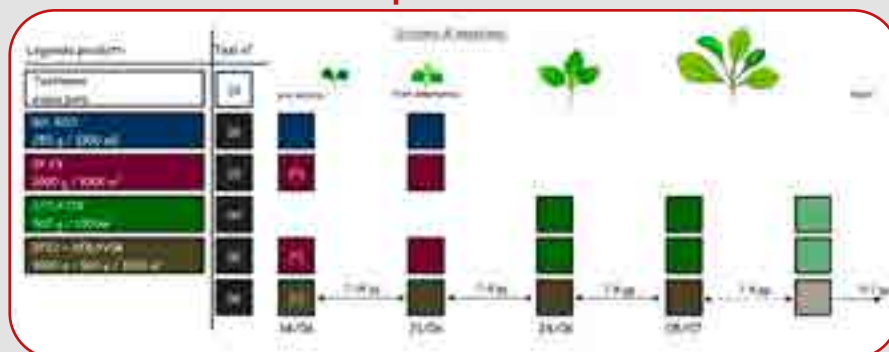
- The mechanism of action of IF23 is unique and it is different from the one of other microorganisms. Indeed, it penetrates the root system, inducing the thickening of cell walls.
- This leads to a more performing root system against plant diseases like kiwi root rot disease.



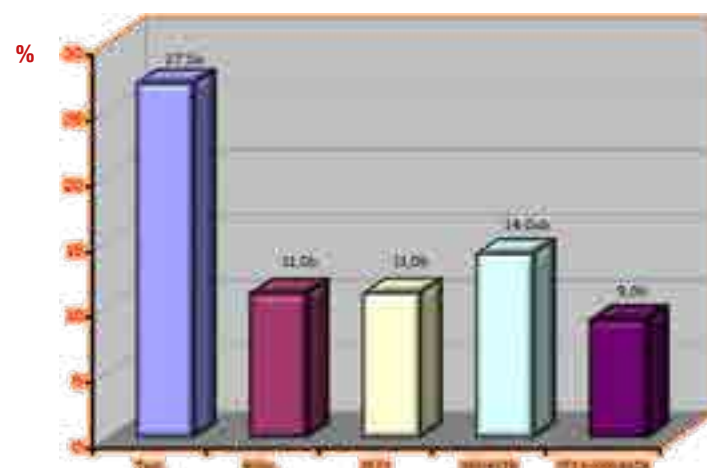
Cell walls and defence barriers destroyed

Cells partially intact and barriers reinforced

## Official trial on lettuce at Sele plain



% of plants infected by Fusarium sp. on 12/7 (harvest)



# IF23

## CHARACTERISTICS

The strain IF23 has a unique mechanism of action that works in two ways: competition for space and nutrients and resistance induction.

At all the levels the key factor is the space colonization and the nutrients subtraction. Moreover, the physical presence of hypo virulent Fusarium (or not pathogenic), seems to elicit mechanisms of acquired, specific or systemic resistance to subsequent attacks of pathogenic *Fusarium*.

The ability to penetrate in the plant vascular tissues prompts, through resistance induction, the thickening of the cell wall of the root system, giving it a higher tolerance to plant diseases like kiwifruit root rot disease.

The mechanisms of action is only preventive. The antagonist microorganism is not effective against active infections even if not visible.

The strain IF23 is commonly present in soil and it is not genetically modified. It is totally selective for the plant and it is not toxic for human and the environment.

## PERIOD, DOSAGE AND APPLICATION METHOD

IF23 must be applied preventively complying with the following rules.

- Mixed to the growth substrate (topsoil and peat) before sowing and transplant. When the treatment is made in per-sowing in nursery, it is preferable to repeat the treatment also at the transplant in field. In any case, add the product in the substrate uniformly.
- Treatment in greenhouse and/or field through superficial irrigation being careful that the product is incorporate in depth thanks to soil tillage or irrigation after the application.
- Localized treatment in greenhouse and/or field in furrows or in transplant holes through superficial spray or application of the product in powder.
- Treatment before potting preparing the substrate with the same method of topsoil and peat preparation.
- Treatment on kiwifruit through fertigation beginning at fruit set stage. Repeat 2-3 times each 15 days.

APPLICATION	DOSE
Mixed with topsoil and peat	2-3 Kg/m <sup>3</sup> of substrate
In nursery	200-300 g/hl
In greenhouse and/or open field	0,5 - 2 Kg/1000 m <sup>2</sup>
In pot	2-4 g/plant
Kiwifruit	5 kg/ha

## COMPATIBILITY

IF23 is totally compatible with fertilizers, insecticides, residual herbicides and fungicides based on dicloran, etridiazole, tolclofos-methyl, propamocarb, thiophanate methyl, procymidone and vinclozolin. Avoid extemporary mixtures with products containing iprodione, prochloraz and carbendazim.

## TECHNICAL NOTE

Combine with XEDAVIR and FERTIL HUMIC L.



## COMPOSITION

Nitrogen (N) organic  
5%  
Phosphoric anhydride (P<sub>2</sub>O<sub>5</sub>)  
1,5%

Microorganism:  
*Fusarium oxysporum* hypo virulent strain IF23

## FORMULATION

Wettable powder

## REGISTRATION

n. 0011587/15

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

1 kg - 5 kg

# TA44

## CHARACTERISTICS

TA 44 is a specific formulation for root applications, made of mycorrhiza and antagonistic microorganisms with high enhancing properties.

### Mycorrhizae

#### Benefits:

- Increase of the number of root shots and better growth and development of roots
- Increase of mineral nutrient absorption as nitrogen, potassium and magnesium and especially the ones with a slow diffusion in the soil (soluble phosphates, zinc, boron)
- Increase of resistance to water stress and salinity
- Improvement of soil structure thanks to the formation of aggregates.

### Trichoderma spp. and rhizobacteria

#### Benefits:

- Stimulus of root growth and plant production
- Inhibition of the activity of harmful microorganisms in the rhizosphere
- Reduction and inactivation of noxious compounds or root development inhibitors
- Increase of availability and absorption of nutrients
- Increase of efficiency of nitrogen supply and use
- Production of stimulant compounds (enzymes, growth factors, hormones, vitamins).

TA 44 application allows improvement of soil fertility, efficacy of nutrition, roots and plant growth, promoting better health of rhizosphere to the detriment of plant inhibitor compounds and other microorganisms included the microorganisms responsible for root rots.

## DOSAGE AND APPLICATION METHOD

Horticultural crops, flowers and ornamentals, nurseries.

APPLICATION	GREENHOUSE	OPEN FIELD
To soil (pre-sowing or pre-transplant)	300-500 g/1000 m <sup>2</sup>	3-5 Kg/ha
Topsoil and peat	0,5-1 Kg/m <sup>3</sup>	

### Fruit trees.

APPLICATION	PLANTING/RE-PLANTING	TO VEGETATIVE RESTART
New orchards	10 g/lant	5 Kg/ha through fertigation
Orchards in production	—	5 kg/ha through fertigation
Fallacies recovery	20 g/plant	20 g/lant
Treatment to medium and large fruit trees	—	5 g/injection (each 2 m <sup>2</sup> approximately)

### Concia delle sementi

CROP	APPLICATION	DOSE
Spring and winter cereals (Common wheat, Durum wheat, Barley, Rye, Triticale, Oat, etc.)	Application to the seed	500 gr/100 kg of seed
Alfalfa	Application to the seed	500 gr/100 kg of seed

Dissolve 5 gr of TA44 for 1 kg of seed using a proper water volume to mix the entire quantity of seed (optimum 1 l of water for 100kg of seed). Mix accurately and homogeneously the solution with seed.

## APPLICATIONS ADVICE

Combine with FERTIL HUMIC L to speed up the microorganism development.



### COMPOSITION

Organic matrix (simple vegetable soil improver not composted)

*Trichoderma* spp.  
1x10<sup>7</sup> UFC/g

Mycorrhizae 4% (endomicorrize *Glomus* spp.)

Bacteria of the rhizosphere (*Bacillus* spp.)  
1 x 10<sup>3</sup> UFC/g

### FORMULATION

Wettable powder

### REGISTRATION

n. 0012039/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg

# CAMYLLO

## CHARACTERISTICS

CAMYLLO is a specific formulation for root applications, made of mycorrhizae and antagonistic microorganisms with high enhancing properties.

Mycorrhizae increase the number of early roots and guarantee a higher growth and development, increasing mineral nutrient absorption like nitrogen, potassium and magnesium, especially those with a slow diffusion in soil (soluble phosphates, zinc, and boron).

The Bacillaceae in the product, *B. amyloliquefaciens* and *B. lentus*, promote root growth and increase plant production through: inhibition of the activity of pathogen microorganisms in the rhizosphere, increase of availability and absorption of nutrients, increase of the efficacy of uptake and use of nitrogen, decrease and inactivation of toxic compounds or inhibitors of root development, production of stimulating substances (enzymes, growth factors and natural hormones, vitamins). The use of CAMYLLO ensures soil fertility and nutrition efficiency, promoting better health conditions of the rhizosphere to the detriment of plant inhibitors and pathogen microorganisms that attack the root system and the root crown like *Pythium* spp., *Fusarium* spp., *Botrytis* spp., *Sclerotinia* spp., *Rizoctonia* spp. and *Verticilium* spp. and of microorganisms in crop residues (in field and on seeds) like *Alternaria* spp, *Colletotrichum* and *Pseudomonas*. The presence of more species of *Bacillus* spp. guarantees a very quick action while the liquid formulation allows the application of the product with all the type of equipment.

## DOSAGE AND APPLICATION METHOD

Fruit trees, vegetables, flowers and ornamentals

APPLICATION	METHOD	DOSE
To soil	Pre-sowing Pre-transplant Repeat each 2 weeks	200-300 gr/1000 mq 2-3 kg/ha
Foliar	In consideration of weather conditions and of crop length	200-300 g/hl

## WARNINGS

Respect interval of 7-8 days between applications. In case of more frequent treatments, decrease dosage.

## APPLICATIONS ADVICE

Combine with PROPOLI for a more homogeneous distribution, higher adhesion and persistence, MEGASTYM® promotes growth. Ideal for fungicidal strategies.



### COMPOSITION

Organic matrix (simple vegetable soil improver not composted)

Bacteria of the rhizosphere (*Bacillus amyloliquefaciens*, *Bacillus lentus*)  
1 x 10<sup>9</sup> UFC/g

Mycorrhizae 1% (*Glomus* spp.)

### FORMULATION

Liquid solution

### REGISTRATION

n. 0012038/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg



WITH MYCORRHIZAE

WITHOUT MYCORRHIZAE



FRUITS COUNT ON THE PLANT

Data	N. of total tomatoes (on 20 plants)	
	Without Mycorrhizae	With Mycorrhizae
April 15 <sup>th</sup>	13	48
April 24 <sup>th</sup>	97	115
May 8 <sup>th</sup>	136	190



HARVEST AND WEIGHT OF FRUITS

Data	Total weight in grams	
	Without Mycorrhizae	With Mycorrhizae
June 5 <sup>th</sup>	2.668	2.920
June 7 <sup>th</sup>	796	1.490
June 9 <sup>th</sup>	826	1.100
June 17 <sup>th</sup>	3.900	3.950
June 24 <sup>th</sup>	3.400	4.200
Subtotal	11.590	13.660 (+17%)
July 3 <sup>rd</sup>	12.150	9.780
Total	23.740	20.520

# XEDAGREEN

## CHARACTERISTICS

XEDAGREEN is a soil inoculum composed mainly of arbuscular mycorrhizal fungi belonging to the genus *Glomus* spp. that live in symbiosis with cultivated plants developing on their roots and activating favorable exchange processes.

The plant-endo-mycorrhiza symbiosis is durable in time and occurs by contact of the fungus with the roots and it appears as an extension of the roots (branching of fungal mycelium inside and outside of the root) that increases the root surface improving the physiological process of the plant: phosphate nutrition, oligo elements absorption, growth factors production in intercellular exchanges, abiotic and biotic stress tolerance. Endo-mycorrhizae play an important role especially in those plants with rough root systems, underdeveloped or with few root hairs, since the symbiosis creates external and internal branching of mycelium increasing the absorbing surface.

## USE BENEFITS

- Strengthening of roots development
- Improving absorption of ions with a low concentration in the circulating solution or with low mobility in soil (phosphorus and micro elements)
- Protection against toxins and heavy metals
- Improvement of soil structure through an increase of humic substances
- Rebalance of microbial population in the rhizosphere
- Improving of rooting from graft base

## DOSAGE AND APPLICATION METHOD

Applicable on horticulture crops, tree fruits, flowers, ornamentals open field crops.

CROP	APPLICATION	METHOD	DOSE
Herbaceous plants	Sowing in nurseries	Fertigation, spraying, bath by immersion	0,2 g/plant
	Sowing, transplant or fallancies recovery in greenhouse and in field	Fertigation, spraying	500 g/1.000 m <sup>2</sup>
Fruit trees	Bare-root plants	Spray roots of scions before planting	Fruit trees: 1 Kg/400 lt of water
		Submerge for few seconds the roots in the suspension before planting (min. 2.000 plants)	Vine shots 2 kg/20 lt of water
	Planted trees	Inject the solution in the canopy projection area, each 40-50 cm (5 lt of solution per injection)	1 kg/500 lt of water

Solution preparation: gradually pour the product in a bucket and dissolve it by mixing, pour in the tank and keep the tank in agitation during the application.

## COMPATIBILITY

Avoid impromptu mixture with fungicides. The use of XEDAGREEN assumes the application of fractional phosphorous fertilisation, keeping unaltered the supply of the other elements.

## APPLICATIONS ADVICE

Combine with FERTIL HUMIC L to speed up the microorganism development.



## COMPOSITION

Organic matrix (simple vegetable soil improver not composted)

Mycorrhizae 6% (endomicorrize *Glomus* spp.)  
25 propagules/g

*Trichoderma* spp.  
1 x 10<sup>3</sup> UFC/g

Bacteria of the rhizosphere (*Bacillus* spp.)  
1 x 10<sup>3</sup> UFC/g

## FORMULATION

Wettable powder

## REGISTRATION

n. 0012036/15

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

5 kg



# SANDEK

## CHARACTERISTICS

SANDEK is a specific action product (inoculum of mycorrhizae) that contain organic matrix, mycorrhizae (*Glomus* spp.), *Trichoderma* spp. and mainly bacteria of the rhizosphere (*Bacillus subtilis* in concentration not lower than  $10^9$  UFC/g).

SANDEK use allows to improve fertility of soil, efficacy of nutrition and roots and vegetative plant growth, preparing favourably the plant to overcome biotic and abiotic stresses.

A good nutritional level of plants is an important precondition for their health and thus for quality of production; it is fundamental to create an unfavourable environment for all the microorganisms that are able to negatively affect crop production.

## DOSE AND APPLICATION METHOD

Usable on horticulture crops, flowers, ornamentals and fruit trees.

APPLICATION	APPLICATION METHOD	DOSE
To soil	1st treatment just before sowing or transplanting and the following ones at the same dosage every 2 weeks until the root apparatus has reached the optimal development	200-300 g/1000 m <sup>2</sup> 2-3 Kg/ha
In pots and other containers	1st treatment at the planting and then continue applications every 2 weeks until the full rooting of the plants	100 g/100 litres of water
Idroponica e fuori suolo	For the first filling of the plant, before each cultivation cycle	100 g/100 litres of water
	Until complete development of plants in case of filling up	50 g/100 litres of circulating solution
Fogliare	According to weather conditions and crop duration, plan multiple applications	200-300 gr/100 litres of spraying solution

## COMPATIBILITY

The product is mixable with fertilizers, insecticides, many herbicides and fungicides. Refer to available compatibility tables to verify the compatibility with agrochemicals for extemporary mixtures.

## APPLICATIONS ADVICE

Combine with PROPOLI for a more homogeneous distribution, higher adhesion and persistence, MEGASTYM® promotes growth. Ideal for fungicidal strategies.



### COMPOSITION

Organic matrix  
(simple vegetable soil improver not composted)

Bacteria of the rhizosphere  
(*Bacillus subtilis*)  
 $1 \times 10^9$  UFC/g

*Trichoderma* spp.  
 $1 \times 10^3$  UFC/g

Mycorrhizae 4%  
(endomicorrize *Glomus* spp.)

### FORMULATION

Wettable powder

### REGISTRATION

n. 0012038/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg



# SANDEK PLUS

## CHARACTERISTICS

SANDEK PLUS is a specific formulation for root applications, based on mycorrhizae and antagonist microorganisms with high enhancing capacity.

Mycorrhizae increase the number of root shots and ensure a better growth and root development, moreover they increase the absorption of mineral nutrients like nitrogen, potassium and magnesium and in particular the ones with a slow diffusion in the soil (soluble phosphates, zinc and boron); another important action is the increase of resistance to water and salinity stress.

*Bacillus subtilis*, *B. megaterium* and *B. pumilus* influence root and vegetative growth and plant productivity through: inhibition of the activity of pathogen microorganisms in the rhizosphere, increase of availability and absorption of nutrients, increase of the efficacy of uptake and use of nitrogen, decrease and inactivation of toxic compounds or inhibitors of root development, production of enzymes, vitamins, growth factors and natural hormones. The use of SANDEK PLUS allows to improve the soil fertility, the efficacy of nutrition and vegetative and root growth, promoting a better health condition of the rhizosphere to the detriment of plant inhibitors and pathogen microorganisms that attack the root system and the root crown like *Pythium* spp., *Fusarium* spp., *Botrytis* spp., *Sclerotinia* spp., *Rizoctonia* spp. and *Verticilium* spp. The presence of more species of *Bacillus* spp guarantees a fast action and a better solubility and thus adaptability to different types of application systems.

## DOSE AND APPLICATION METHOD

Vegetable crops, flowers and ornamentals.

APPLICATION	METHOD	DOSE
To soil	Carry out a first treatment just before sowing or transplant and continue with treatments at the same dosage each 2 weeks until the root system reaches the optimal development and floral buds are formed.	200-300 g/1000 m <sup>2</sup> 2-3 Kg/ha
In pot and other containers	Wet uniformly the soil applying the solution at potting and continue the treatments every 2 weeks until complete rooting	100 g/100 litres of water
Hydroponics and soilless	For the first filling of the systems, before each cultivation cycle	100 g/100 litres of water
	Until complete development of the plants in case of refills, integrating the refill water or applying at intervals of about two weeks	50 g/100 litres of circulating solution
Foliar	Depending on weather conditions and crop length, forecast more applications	200-300 g/100 litres of water

## WARNINGS

In consideration of the weather and of the crop length (if medium-long) it is recommended to repeat the treatment at the lower dose to improve the colonizing action obtained with the first application.

## APPLICATIONS ADVICE

Combine with PROPOLI for a more homogeneous distribution, higher adhesion and persistence, MEGASTYM® promotes growth. Ideal for fungicidal strategies.



### COMPOSITION

Organic matrix  
(simple vegetable soil improver not composted)

Bacteria of the rhizosphere  
(*Bacillus subtilis*,  
*Bacillus megaterium*,  
*Bacillus pumilus*)  
 $1 \times 10^9$  UFC/g

Mycorrhizae 1%  
(*Glomus* spp.)

### FORMULATION

Water solution

### REGISTRATION

n. 0012038/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg



# SANDEK GOLD

## CHARACTERISTICS

SANDEK GOLD is a liquid formulation based on mycorrhizae and antagonist microorganisms with high stimulating capacity. The innovative formula combines microorganisms with eluate; a natural organic component obtained from the fermentation of lactic bacteria that acts as a booster for bacteria strains contained in the product.

The presence of *Bacillus subtilis* and *B. amyloliquefaciens* allow the production of lipoproteins that, degrading the biofilm produced by pathogens, activate the induced systemic resistance (ISR) of the plant.

*B. Megaterium* influences plant and root growth and the productivity of plant increasing the availability and absorption of nutrients.

All these factors allow SANDEK GOLD to make plant more tolerant to different stresses included the ones due to bacterial and fungal infections. The presence of different species of *Bacillus spp.* guarantees a quick action, a high solubility and adaptability to different distribution systems.

## DOSAGE AND APPLICATION METHOD

Vegetable crops, tree fruits, olive, grapes, ornamentals and extensive crops.

APPLICATION	APPLICATION METHOD	DOSE
To soil	Carry out a first treatment just before sowing or transplant and continue with treatments at the same dosage each 2 weeks until the root system reaches the optimal development and floral buds are formed.	100-150g/1000 m <sup>2</sup> (1-1,5Kg/ha)
In pot and other containers	Wet uniformly the soil applying the solution at potting and continue the treatments every 2 weeks until complete rooting.	50 g/100 litres of water
Hydroponics and soilless	For the first filling of the systems, before each cultivation cycle.	50 g/100 litres of water
	Until complete development of the plants in case of refills, integrating the refill water or applying at intervals of about two weeks.	50 g/100 litres of circulating solution
Foliar	Depending on weather conditions and crop length apply each 7 dd.	100-150g/100litres of water (1-1,5kg/ha)

## WARNINGS

In consideration of the weather and of the crop length (if medium-long) it is recommended to repeat the treatment at the lower dose to improve the colonizing action obtained with the first application.

## ALLOWED IN ORGANIC FARMING

Raw materials: Inoculum of mycorrhizae.

## APPLICATION ADVICE

Combine with PROPOLI for a more homogeneous distribution, higher adhesion and persistence, MEGASTYM® promotes growth. Ideal for fungicidal strategies.



### COMPOSITION

Type of organic soil improver:  
simple soil improver  
not composted)

Content in mycorrhizae 1%  
Content in bacteria  
of the rhizosphere  
(*Bacillus subtilis*, *Bacillus amyloliquefaciens*,  
*Bacillus megaterium*)  
2 x 10<sup>10</sup> UFC/g

*It does not contain  
genetically modified  
organisms or pathogens*

### FORMULATION

Water solution

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg



# META-X

## CHARACTERISTICS

META-X is an innovative specific liquid formulation based on mycorrhiza and antagonist microorganisms with beneficial capacities. Mycorrhizae increase the number of early roots and guarantee a higher growth and development, increasing mineral nutrient absorption like nitrogen, potassium and magnesium, especially those with a slow diffusion in soil (soluble phosphates, zinc, boron). *Bacillaceae* present in the product, stimulate root growth and increase plant production through: inhibition of the activity of pathogen microorganisms in the rhizosphere, increase of availability and absorption of nutrients, increase of the efficacy of uptake and use of nitrogen, decrease and inactivation of toxic compounds or inhibitors of root development, production of stimulating substances (enzymes, growth factors and natural hormones, vitamins). Chitosan increases the performances of the product acting as elicitor of plant defenses, prompting cell wall and tissues thickening. META-X promote the development of *Metarhizium anisopliae* which through the production of specific toxins like destruxin and the secretion of hydrolytic enzymes like proteases, lipases and chitinases allow the plant to be more resistant and tolerant against biotic stresses, like, in example, beetles, flies, lepidopterans and click beetles.

## DOSAGE AND APPLICATION METHOD

Fruit trees, vegetables, flowers and ornamentals.

APPLICATION	APPLICATION METHOD	DOSE
To soil	Pre-sowin, Pre-transplant, repeat each 7-15 dd	300-500 ml /1000 m <sup>2</sup> 3-5 l/ha
Foliar	Depending on the weather conditions and crop length	300-500 ml/hl

Apply the product with enough water volume to obtain a complete and uniform coverage. Apply the product preferably during the coolest hours of the day when relative humidity is higher.

## WARNINGS

Comply with minimal interval of 7-10 days between applications. In case of more frequent treatments, decrease proportionally the dosage. Always test the product on small surfaces before using. If the product is properly stored in a cool place, the shelf life is 24 months.

## APPLICATIONS ADVICE

Combined with natural insecticides enhances performance.



### COMPOSITION

Mycorrhizae  
1%

Bacteria of the rhizosphere  
(*Bacillus spp.*)  
1 x 10<sup>6</sup> UFC/g

*Metarhizium anisopliae*  
1 x 10<sup>8</sup> UFC/g

### FORMULATION

Liquid solution

### REGISTRATION

n. 0030948/20

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg





# LINE GRANULTECH®

## Microgranular Microorganisms



Preparation  
of soil in  
pre-sowing

Granular  
formulation  
for the first  
vegetative  
stages

Transplant

Sowing  
in field

100%  
Biodegradable

Localized  
sowing

## META-X WG

### CHARACTERISTICS

META-X WG is an inoculum of mycorrhizae perfectly balanced in innovative micro-granules based on natural gypsum used as carrier, of diameter of 0,3-1 mm. The mycorrhizae increase the number of root shots and ensure a higher growth and development, increasing the absorption of mineral nutrients. The bacteria of the rhizosphere present in the product stimulate the root growth and increase plant productivity through inhibition of the activity of pathogenic microorganisms. META-X WG improves the development of *Metharizium anisopliae* that, through the production of specific toxins like destuxin and the secretion of hydrolytic enzymes like proteases, lipases and chitinases allow the plant to be more resistant and tolerant against biotic stresses like for example insects like beetles, flies, homoptera, lepidopterans and whiteflies.



### DOSAGE AND APPLICATION METHOD

CROP	METHOD	DOSE
Horticultural crops	In soil preparation Hilling From transplant to harvest	1,5-3 kg/1000 mq 15-30 kg/ha
Fruit trees, Grapevine, Olive	Application along the row	15-20 kg/ha
Turfs	Apply to soil and bury	15-25 kg/ha
Flowers, Ornamentals	Apply at transplant	15-30 kg/ha
Substrate preparation	Mix accurately with the substrate	1,5-3 kg/m <sup>3</sup>
In pot	Mix carefully	15 gr/pianta

### COMPOSITION

White granular gypsum

Microorganisms:  
Bacteria of the Rhizosphere  
(*Bacillus* spp)  
1 x 10<sup>6</sup> UFC/g  
*Metarhizium anisopliae*  
1 x 10<sup>8</sup> UFC/g  
Mycorrhizae 1%

### FORMULATION

Microgranular

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

10 kg



# TA44 WG

## TA44

Who begin with  
a strong root  
is half done.



## TA44 WG

### CHARACTERISTICS

TA44 WG is an inoculum of mycorrhizae perfectly balanced contained in innovative micro-granules with a diameter of 0,3-1,2 mm obtained from plant virgin biomasses with a high content in lignin, the second most abundant bio-polymer in the world. TA44 WG ensures the supply of microorganisms and slow release nutrients at the same time and it is completely biodegradable. The peculiar production process maintains the microbial content in the final product.

TA44 WG is particularly suitable to re-balance the microbiome of soil:

- Improves the defense of plants from the first vegetative phases;
- Improves the root system efficacy;
- Provides a balanced content of fungi and bacteria of the rhizosphere;
- Improves the water and nutrient availability;
- Improves the soil conditions ensuring better performances of the crop.

### DOSAGE AND APPLICATION METHOD

CROP	APPLICATION METHOD	DOSE
Vegetables	In soil preparation, pre-transplant, pre-sowing	1,5-2,5 kg/1000 mq 15-25 Kg/ha
Fruit trees, Grapevines, Olive	Apply along the row at vegetative regrowth	15-20 kg/ha
Turf	2 applications: one in autumn and one at spring	15 kg/ha
Legumes	Apply with micro granulator at sowing	20-25 kg/ha
Extensive crops	Apply with micro granulator at sowing	15-25 kg/ha
Flowers, Ornamentals	Apply at transplant	15-25 kg/ha
Substrate preparation	Mix accurately with the substrate	1-1,5 kg/m <sup>3</sup>



### COMPOSITION

Total Nitrogen: 5  
Organic nitrogen: 5  
Phosphoric anhydride P<sub>2</sub>O<sub>5</sub> 12  
Phosphoric anhydride (P<sub>2</sub>O<sub>5</sub>)  
soluble in Formic Acid  
at 2% 6,65  
Sulfur trioxide (SO<sub>3</sub>) 4,2  
Iron (Fe) 0,5  
Organic Carbon 14,80%

Microorganisms *Mycorrhizae*  
(Endo-mycorrhizae  
*Glomus* spp) 4%

Bacteria of the Rhizosphere  
(*Bacillus* spp) 1 x 10<sup>3</sup> UFC/g  
*Trichoderma* spp 1 x 10<sup>7</sup> UFC

### FORMULATION

Micro-granular

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

10 kg

# IF23 WG

## CHARACTERISTICS

IF23 WG is a fertilizer targeted for root applications in innovative micro-granules with a diameter of 0,3-1,2 mm obtained from virgin plant biomasses with a high content of lignin, the second most abundant bio-polymer on the Earth. Its use allows to improve soil fertility, nutrition efficacy and root and vegetative growth of plants, promoting a better health conditions of the rhizosphere making it suppressive to the detriment of plant inhibitor substances and root or crown pathogenic microorganisms. Particularly, the presence of hypo-virulent *Fusarium* strain IF23 allows the colonization and the competition for space and nutrients in the rhizosphere, on roots surface and in vascular tissues. The capability of penetrating in the vascular tissues of the plant causes, through resistance induction, the thickening of cell walls in the root system giving it a higher tolerance against plant diseases. IF23 WG ensures the contemporary supply of microorganisms and slow release nutrients and it is completely biodegradable.

## DOSAGE AND APPLICATION METHOD

For all vegetable, flower and ornamental crops in preventive applications in pre-sowing or pre-transplant.

- Mixed in the growth substrate (topsoil and peat) before sowing and transplant;
- Greenhouse and/or field application through micro granulators or with a light scattering being careful to bury the product through harrowing;
- Localized treatment in greenhouse and/or open field in furrows or in transplant holes;
- Treatment before potting, preparing the substrate with the same manner as specified for topsoil and peat preparation.

For fruit trees applied between rows from the fruit set

APPLICATION	DOSE
Mixed with topsoil and peat	1,5-3 kg/m <sup>3</sup>
In greenhouse and/or open field	20-30 kg/ha
In pots	10 gr/plant
Fruit trees	20 kg/ha at interval of 15dd



### COMPOSITION

Total Nitrogen: 5  
 Organic Nitrogen: 5  
 Phosphoric anhydride P<sub>2</sub>O<sub>5</sub> 12  
 Phosphoric anhydride (P<sub>2</sub>O<sub>5</sub>)  
 soluble in Formic Acid  
 at 2% 6,65  
 Sulfur trioxide (SO<sub>3</sub>) 4,2  
 Iron (Fe) 0,5  
 Organic Carbon 14,80%

Microorganisms:  
*Fusarium oxysporum*,  
 hypo-virulent strain IF23  
 1x10<sup>7</sup> UFC/g

### FORMULATION

Micro-granular

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

10 kg

# XEDOIL

## CHARACTERISTICS

XEDOIL is a product based on Neem oil, historically used in agriculture as a natural remedy. It is a product of plant origin obtained from the oil seeds of the Neem tree by a physical process in which none of the components of the final isolated substance has undergone a chemical reaction.

## DOSAGE AND APPLICATION METHOD

RADICAL APPLICATION: 3-5 l/ha (300-500 ml/hl)

FOLIATE APPLICATION: 3-5 l/ha (300-500 ml/hl)

WHEN COMBINED WITH PHYTOSANITARY: 1-2 l/ha (100-200ml/hl)

Number of recommended applications: 3-5

## COMPATIBILITY

XEDOIL can be applied in combination with all technical means, but small-scale trials are recommended to test its mixability.

SHAKE WELL BEFORE USE, keep the emulsion in agitation throughout the treatment.

It is recommended to apply with an aqueous solution of pH 5.8-6.5.

## PRECAUTIONS FOR USE AND WARNINGS

The product solidifies at temperatures below 10°C. To restore it to its original state, simply heat it in hot water. Store at a temperature between 15°C and 30°C. In the event of liquid spillage, collect with sawdust and/or sand. During use, use gloves and avoid contact with eyes and mouth.

XEDOIL has the characteristics of neither a fertilizer nor a plant protection product. The packaging, quality of the products used and composition provide sufficient information to consumers in accordance with Article 6 of Italian Legislative Decree 206/2005 as amended.

## APPLICATION ADVICE

Combine with XEDAROS or use in strategy with chemical and/or natural insecticides.



### COMPOSITION

Neem oil 95%  
 with emulsifier

### FORMULATION

Liquid solution

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 lt - 5 lt

# ABT PLUS MICROGRANULO

## CHARACTERISTICS

ABT PLUS MICROGRANULO is a micro-granule organic fertilizer with a phospho-azotised base enriched with iron, making it particularly suitable for application during transplanting for a booster effect on the root system. Thanks to a special production process, the high-quality microgranule is activated with plant extracts. This makes ABT PLUS MICROGRANULO a versatile fertilizer capable of making the root system resistant to various stress situations, such as those created by soil infected by nematodes and wireworms, thus being suitable to be used in a strategy with agrochemicals.

Ideal for synergistic and complementary use of synthetic nematicides and other ECOSUSTAINABLE techniques (solarisation - steam sterilisation - nematode-tolerant rootstocks).

## DOSAGE AND APPLICATION METHOD

ABT PLUS MICROGRANULO can be applied to all types of agricultural crops throughout the growing cycle.

- APPLICATION TO THE SOIL: 15-25 Kg/Ha

We recommend the first application at transplanting time and follow with liquid ABT PLUS. In the absence of an optional irrigation system a second application with ABT PLUS MICROGRANULO.

## COMPATIBILITY

Do not mix ABT PLUS MICROGRANULO with fertilizers, pesticides or other agricultural, chemical or natural products.

## APPLICATION ADVICE

Apply in strategy with chemical and/or natural nematicides.



### COMPOSITION

Total nitrogen (N) 5%  
Organic nitrogen (N) 5%  
Phosphoric anhydride (P<sub>2</sub>O<sub>5</sub>) total 12%  
Phosphoric anhydride (P<sub>2</sub>O<sub>5</sub>) soluble in mineral acids 12%  
Organic carbon (C) of a biological nature 14.8%  
Iron (Fe) 0.5

MINERAL FERTILIZERS:  
soft natural phosphate  
ORGANIC MATRICES:  
leather and hydrolysed leather

### REGISTRATION

Microgranular

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

10 kg

# ABT PLUS

## CHARACTERISTICS

ABT PLUS is liquid fertilizer composed of zinc complexed in a specific formulation enriched with plants extracts able to stimulate the formation of new roots (auxin-like action) and to favour growth and protection of the root system.

Its specific composition makes it rich of saponins, tannins, polyphenols and glucosides, which are able to strengthen and invigorate the root system, making it more resistant to the attacks of teluric rhizosphere parasites like nematodes and soil pathogens. It is also useful in all situations of zinc deficiency because this microelement is associated to numerous enzymes and it is involved in natural synthesis of amino acids and auxins.

Specifically, ABT PLUS allows the formation of a micro hydrating-lubricant film that determines the following benefits:

- Improvement of absorption capacity and of diffusion of nutritional substances;
- Increase of abiotic stress tolerance (salinity, drought, quick temperature changes);
- Stimulation of root metabolism also during low temperature periods;
- Attenuation of effects induced by toxins and heavy metals;
- Delay of senescence of root tissues.

It is ideal for the synergic use and for the integration of synthetic nematicides and other ECOSUSTAINABLE techniques (soil solarisation - steam sterilization - nematode resistant rootstock...).

## DOSAGE AND APPLICATION METHOD

Apply the product with irrigation water, being careful to use it in the second watering turn, to prevent an excessive dilution and/or dispersion in depth.

CROP	APPLICATION	DOSE
Vegetables and flowers transplanted (medium-long cycle)	8-12 dd after transplant	3 l/1000 m <sup>2</sup>
	Repeat at intervals of 14 dd for a maximum of 5 applications per crop cycle.	3-5 l/1000m <sup>2</sup>
Vegetables and flowers sowed (short cycle)	Only once before sowing or at sowing	5-10 l/1000 m <sup>2</sup>
Fruit trees	Repeat at intervals of 14 dd from vegetative upturn	5-10 /ha
Kiwifruit	Repeat at intervals of 14 dd from vegetative upturn	5-10 l/ha
Grapevine	Repeat at intervals of 14 dd from vegetative upturn	5-10 l/ha

## COMPATIBILITY

Do not mix ABT PLUS with fertilizers, agrochemicals, or with other agricultural products, natural or chemical.

## APPLICATION ADVICE

Apply in strategy with chemical and/or natural nematicides.



### COMPOSITION

Zinc (Zn) 2%

Plant origin complexing agents

### FORMULATION

Emulsionable concentrate

### REGISTRATION

n. 0040180/23

### CLP CLASSIFICATION



WARNING

### AVAILABLE IN PACKS OF:

5 kg

# BLOKKER

## CHARACTERISTICS

BLOKKER is a natural product with a high concentration of tannins (27%), plant extracts and elicitors. Due to its formulation and high mixability, it is perfectly suited for use alone or as part of defence strategies with fungicidal plant protection products aimed at containing powdery mildew, downy mildew, bacteriosis, grey mould and tickling. BLOKKER exhibits high adherence to sprayed surfaces.

BLOKKER acts dynamically and with multiple mechanisms on the plant, giving the sprayed solution a direct action on the pathogen and/or an induction of resistance mechanisms.

Thanks to the organic nature of the product, BLOKKER enables higher production and better crop quality.

## DOSAGE AND APPLICATION METHOD

BLOKKER can be applied to all types of agricultural crops during all phenological phases.

- FOLIATE APPLICATION: 600-1200gr/hl
- BABY LEAF, LETTUCES AND SIMILAR: 600-800gr/hl
- IN COMBINATION WITH AGROCHEMICALS: 150-200gr/hl

Number of recommended applications: 3 to 7

## COMPATIBILITY

BLOKKER can be applied together with fertilizers and agrochemicals. Shake well before use. Check mixability before mixing with other products. It is recommended to apply with an aqueous solution with an acid pH for maximum mixability.

## APPLICATIONS ADVICE

Combine with MICROSAP® CU PLUS.

It can be included in conventional and biological fungicide strategies.



### COMPOSITION

Organic carbon (C)  
of organic origin 18%

Tannins 27%

### FORMULATION

Liquid

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 6 kg

# XEDAROS

## CHARACTERISTICS

XEDAROS is an organic mineral fertilizer in suspension with an innovative and patented formulation that allows the maximum surface coverage of the plant and high resistance to washout. XEDAROS is rich in free amino acids, vitamins and minerals, that are crucial in proteins and enzymes biosynthesis processes and in cell division and replication, behaving as regulators of plant functions. Thanks to its composition it improves the nutrient absorption strengthening plant tissues making the plant more tolerant to stresses.

## DOSAGE AND APPLICATION METHOD

Both foliar and root application.

CROP	PERIOD	FOLIAR
Lettuce and similar, Rocket, Baby-leaf (included brassica), Spinach and similar	During the whole vegetative cycle	600ml-1l/hl
Melon, Watermelon, Cucumber, Courgette, Pumpkin		
Aubergine, Pepper, Tomato		
Pome and stone fruits		
Table and wine grape		
Citrus		
Olive		
Strawberry and berries		
Cereals and extensive crops		

Apply the product each 5-7 days based on the environmental conditions keeping a ratio with low water volume of 1l/hl. For root applications use 10-15l/ha.

## STORAGE

Store in a dry and cool place, away from children, sunlight and heat sources. When opened, store in the original container tightly closed. Maintain the container vertical and safe avoiding the possibility of falls and collisions.

## USE/HAZARD IDENTIFICATION

Shake well before using. If used in combination with other products, follow all the requirements indicated in the technical data sheet and in the label.

## ORGANIC COMPONENTS

Fruit and cereals stillage.

Fluid extract of yeast containing brown seaweeds.

## APPLICATIONS ADVICE

Combine with XEDOIL or apply in strategy with insecticides of chemical and/or natural origin.



### COMPOSITION

Nitrogen (N) total 3,45%  
Nitrogen (N) organic 3,45%

Phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>)  
total 6,8%

Phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>)  
soluble in mineral acids 6,8%

Carbon (C) organic  
of biological origin 7,5%

### FORMULATION

Fluid in suspension

### REGISTRATION

n. 0039318/23

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1,2 kg - 6 kg

# ZX400

## CHARACTERISTICS

ZX400 is a fluid mixture of Sulphur containing a specific natural mineral carrier that gives to the formulation a high capacity of superficial coverage, easiness of assimilation, selectivity on the plant and efficacy with a low content of Sulphur. ZX400 helps to quickly overcome stresses prompted by nutritional unbalance and by unfavourable environmental conditions besides it promotes the natural resistance of the plant against the main fungal diseases.

## DOSAGE AND APPLICATION METHOD

CROP	DOSE
Grapewine	3 - 5 kg/hectare
Olive	4 - 6 kg/hectare
Fruit trees	4 - 6 kg/hectare
Table grape	4 - 6 kg/hectare
Horticultural crops	2 - 4 kg/hectare
Extensive crops	4 - 6 kg/hectare

Use minimum 300-400 L of water/hectare per application. Use only in case of evident need. Pour the product in the tank of the sprayer and add the remaining water volume.

## CHEMICAL - PHYSICAL PROPERTIES

pH = 7,30 ± 0,5  
 Specific weight (at 20°) = 1,32 Kg/L  
 For applications use water with pH >=6

## COMPATIBILITY

Do not use the product ZX400 in replacement of agrochemicals. Do not mix the product with EC formulations. Do not acidify the water.

## APPLICATIONS ADVICE

Combine with BLOKKER. Use in fungicidal strategies.



### COMPOSITION

Sulphur (S)  
 water soluble  
 40%

Raw materials:  
 Sulphur element  
 (CAS. 7704-34-9)

### FORMULATION

Liquid solution

### REGISTRATION

None

### CLP CLASSIFICATION



WARNING

### AVAILABLE IN PACKS OF:

1kg - 5 kg

# CUSAP

## CHARACTERISTICS

CUSAP is a fluid mixture of microelements with low copper rate containing a particular natural mineral carrier that gives the formulation a high surface coverage capacity, ease of assimilation and translocation in the surface layers of plant tissues. Co-formulants of vegetal origin are synergistic with copper. CUSAP helps plants to overcome quickly stresses caused by nutritional imbalance and adverse environmental conditions, as well as helping the plant in developing its natural resistance to main cryptogams such as Downy Mildew and Bacteriosis.

## PERIOD, DOSAGE AND APPLICATION METHOD

CUSAP can be applied at 7 days interval during all the crop cycle. For the maximum performance it is recommended to work with a solution of pH 5,8-6,5.

COLTURA	DOSE
Grapewine	4-5 kg/ha. Use minimum 400-600 L of water/ha per application
Olive	4-5 kg/ha. Use minimum 600-1000 L of water/ha per application
Fruit trees	4-5 kg/ha. Use minimum 600-1000 L of water/ha per application
Table grape	4-5 kg/ha. Use minimum 400-600 L of water/ha per application
Extensive crops	4-5 kg/ha. Use minimum 400-600 L of water/ha per application
Horticultural crops	3-4 kg/ha. Use minimum 400-600 L of water/ha per application
Fresh-cut crops	3-4 kg/ha. Use minimum 400-600 L of water/ha per application

Add the product in the tank of the sprayer and reach the volume with water.

## CHEMICAL-PHYSICAL PROPERTIES

pH 4,00 ± 0,5. Specific weight at 20 °C = 1,25 kg/L

## APPLICATIONS ADVICE

Combine with BLOKKER. Use in fungicidal strategies.



### COMPOSITION

Copper (Cu)  
 Oxychloride total 5,0%  
 Zinc (Zn)  
 Water soluble 1,0%

Activated with 0,1% of humic extracts from Leonardite.  
 Extracting mean KOH

### FORMULATION

Liquid solution

### REGISTRATION

n. 0040182/23

### CLP CLASSIFICATION



WARNING

### AVAILABLE IN PACKS OF:

1 kg - 5 kg



# THE PERFECT COMBINATION!

## COPPER and SULPHUR

In a formulation with a patented carrier with low content of active principle



- Excellent solubility
- High selectivity
- High superficial coverage
- Washout resistance
- Synergist plant-based co-formulants


**XEDA**  
 italia  
 a g r i b u s i n e s s

# XEDALAV+

## CHARACTERISTICS

XEDALAV+ is a liquid fertilizer for foliar application, containing zinc in a particular formulation with a high anti-stress activity. Zinc is an essential trace element for all plants, which benefit especially in the early vegetative phases, since it is an important precursor of the production of auxins. In addition, the combined effect of mineral nutrients results in a strong recovery action of treated plants during growth slowdowns, determined by adversities of different nature.

## PERIOD, DOSAGE AND APPLICATION METHOD

For leaves application with water volumes of 1000-1500 l/ha. Apply the product not later than the veraison phase.

CROP	DOSE
Fruit trees, vegetables, flowers, ornamentals, extensive crops	250 ml/hl
Citrus	500 ml/hl
Flowerbeds, lawn, recreational green areas, sport grounds	200 ml/hl

Apply the product when the plant is dry at the coolest hours of the day, preferably until morning. Use only in case of acknowledged need. Do not exceed the recommended dosage. Use water with a pH next to neutrality.

## COMPATIBILITY

Do not mix with acid or alkaline-based products. In case of extemporary mixtures, make preliminary tests for physical compatibility and selectivity.

## APPLICATIONS ADVICE

Use in all integrated control strategies after application of the insecticide.



## COMPOSITION

Zinc(Zn) 2%  
Water soluble

## FORMULATION

Liquid solution

## REGISTRATION

n. 0040179/23

## CLP CLASSIFICATION



WARNING

## AVAILABLE IN PACKS OF:

1 kg - 5 kg



# XEDASUN

## CHARACTERISTICS

The application of XEDASUN leads to the formation of a protective film from the action of UV rays and infrared while containing excessive thermal levels on the surface of the fruit. XEDASUN is not washed away by rain or irrigation, it is not phytotoxic and does not interfere on the normal ripening and colouring processes of the fruit. Sunstroke and sunburn are an important stress factor for the plant that cause external damage (colour, resistance) and internal damage (taste, texture) which adversely affect the quality and marketability of fruit and vegetables.

## DOSAGE AND APPLICATION METHOD

CROPS	DOSE	APPLICATIONS
All horticultural and fruit crops	10l/ha	Apply XEDASUN 2-3 times at a distance of 7-10 days during the phenological stages most susceptible to solar damage

Apply by spraying at the indicated dose, on both sides of the crop or on the side most exposed to the sun (fruit exposed to the evening sun) depending on the orientation of the rows and the particular conditions of each orchard and greenhouse.

## COMPATIBILITY

XEDASUN can be mixed with chemical or natural fertilizers and plant protection products.

RAW MATERIALS: Suspension of limestone only of natural origin.



### COMPOSITION

Calcium oxide  
CaO to 24% p/p

### FORMULATION

Liquid

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

25 lt



# XEDASUN

**Production loss due to sunburn  
IT'S NO LONGER A PROBLEM**





# CAOLINO

## CHARACTERISTICS

CAOLINO is a product of natural origin that creates a thin whitish layer of mineral particles, used to cover the surface of fruit trees and horticulture crops. Reflecting sun light, CAOLINO substantially reduces wetting time of plant surfaces and the incidence of sunburns and burns caused by the sun. The product CAOLINO, reflecting infrared rays, decreases the temperature of plant organs, improves the photosynthesis and has an indirect physical effect on the development of some phytophagous insects and fungal diseases.

## PERIOD, DOSAGE AND APPLICATION METHOD

CROP	DOSE
All	3-6 Kg/100 litres of water

The application volume per hectare varies according to the density of the crop and the size of the plant, it should be sufficient to wet just the surface of the leaves and fruits.

For full coverage, at least two applications are recommended.

For large trees (3-4 m) use volumes of 1000 l/ha, for smaller plants such as grapevine 300-500 l/ha. The first two applications shall be carried out at the maximum concentration (6 kg/100 l).

For subsequent applications the concentration can be reduced to 3 kg per 100 litres of water.

## COMPATIBILITY

The product does not show any peculiar side effects in mixtures with other formulations, nonetheless is always advisable to make miscibility tests with a small amount of product. In any case, it is useful to make sure to add CAOLINO first.

## APPLICATION ADVICE

Particularly suitable with fungicidal plant protection products to enhance the performance of the defense strategy.



### COMPOSITION

Rock powder 100%  
Obtained, as it is, from  
mechanical grinding  
of kaolin exempt  
from contaminants

### FORMULATION

Wettable powder

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

20 kg

# TRANLOW

## CHARACTERISTICS

TRANLOW is a natural aqueous emulsion of natural origin with a high antiperspirant activity. In particular, TRANLOW, reducing water loss in plants and delaying stomata closure, carries out a double function: protective of water balance and balancing of the plant metabolism. Indeed, the reduction of leaves transpiration involves a reduction of excessive vegetative activity with a rebalance of the root system activity and of all phenological phases directly related to the productivity of the plant. Used by foliar application, TRANLOW reduces water loss of the plants in anticipation of high temperature variations caused by rain and/or by the arrival of sudden cold or hot winds. In all these situations, temperature changes can cause water stress and consequential damages to the most exposed and less resistant organs of the plant as buds, flowers and young shoots.

## PERIOD, DOSAGE AND APPLICATION METHOD

CROP	PERIOD	DOSE	APPLICATION ADVANTAGES
All	In the hottest periods of the season and in prediction of high temperature changes	150 ml/hl	Reduction of water loss and dehydration, increased resistance to drought periods

Moreover:

CROP	PERIOD	DOSE	APPLICATION ADVANTAGES
Citrus	Veraison	200 ml/hl	Cracking reduction
	30 dd before harvest	100 ml/hl	Increased fruit size, reduction of post-harvest drying, better shelf-life
Stone fruits	Veraison	200 ml/hl	Cracking reduction
	30 dd before harvest	100 ml/hl	Cracking reduction, increased fruit size, better colour and shelf-life
Pome fruits	50 dd before harvest	100 ml/hl	Cracking, sunburn and non-parasitic blast disease reduction
Grapevine	30 dd before ripening	100 ml/hl	Better shelf-life, delay in maturation (table grapes)
Actinidia	Pre-harvest	100 ml/hl	Better shelf-life
Vegetables, strawberry, bean, berries	At transplant	200 ml/hl	Better establishment
	20 dd before harvest	100 ml/hl	Increase of turgidity and of shelf-life
Potato	Post-flowering	250 ml/hl	Uniform tubers
Sugarbeet	Full vegetative development	250 ml/hl	Increased root size
Nurseries and seedbeds	3 dd before transplant	200 ml/hl	Increase of stress resistance, better establishment
Flowers, ornamentals, nursery of forest plants, parks and urban green areas	In autumn	250 ml/hl	Cold, smog and acid rains protection

## COMPATIBILITY

TRANLOW is compatible with the normal products used in agriculture: foliar fertilizers, chemical or organic crop protection products.



### COMPOSITION

Soybean oil  
40% (=400 g/l)

### FORMULATION

Water emulsion

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 lt - 5 lt - 25 lt



# Walnut Bacterial Disease Trial

Location: Cesena (FC) - 2021

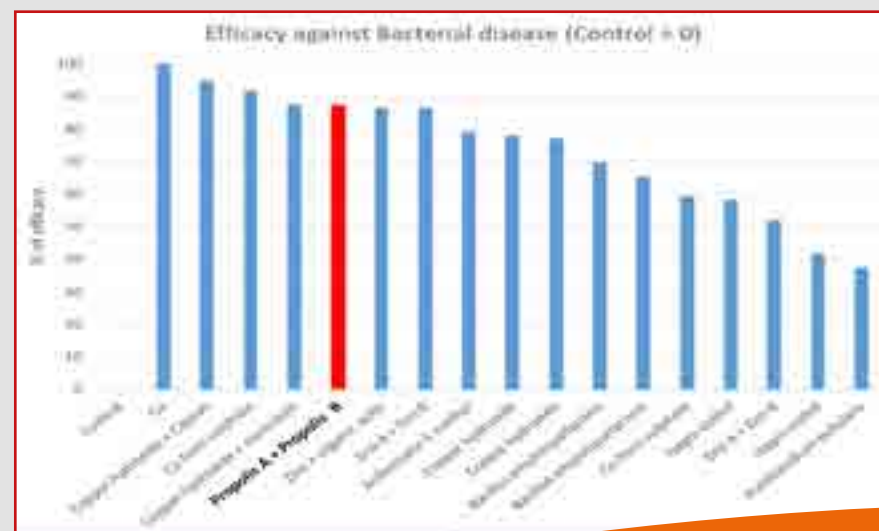
TABLE 1 – GENERAL INFORMATION

Crop	Walnut
Thesis	Untreated and 17 commerciali (o combinazioni)
Dosage	Table 2
N. applications	Unique application before bacterial inoculum (18/8/2021)
Evaluation	1 week after bacterial inoculum



TABLE 2 – TESTED THESIS

Thesis	Active principle	A.P. (% o g/L)	Form.	Dose
1				
2	Copper hydroxide	35%	WG	300 g/hl
3	Copper hydroxide + mancozeb	35% + 75%	WG	300 g/hl - 200 g/hl
4	Copper hydroxide + Captan	35% - 80%	WG - WDG	300 g/hl - 225 g/hl
5	Bacillus amyloliquefaciens	5x10(10) CFU/g	WG	150 g/hl
6	Bacillus amyloliquefaciens	5x10(10) CFU/g	WG	150 g/hl
7	Zn + organic acids	2%	L	0,50%
8	Cu	5%	WG	400 g/hl
9	Cu from sulphate	190	SC	400 ml/hl
10	Cu from sulphate	190 - 60	SC - SL	400 ml/hl + 300 ml/hl
11	Copper hydroxide	37,5	DP	185 g/hl
12	Aurobasidium pullulans	2x2,5x10 (11) CFU/g	WG	150 g/hl - 600 g/hl
13	Acibenzolar S-methyl	50	WG	5 g/hl
14	Eno A + Eno B	-	L	Low dose
15	Eno A + Eno B	-	L	High dose
16	Propolis water + alcohol	-	L	150 + 150 ml/hl
17	Isagro coded	-	L	1%
18	Isagro coded	-	L	2%



EFFICACY OF THESIS VS CONTROL

Trial made by



# PROPOLI A and B

## CHARACTERISTICS

PROPOLI A and PROPOLI B are formulations containing propolis obtained by beehive scraping from local beekeepers. Important, beyond the characteristics of the formulation and of the extraction method (water and ethylic alcohol maceration), is the origin of the propolis that defines the main characteristics and the efficacy of the final solution. The formulations obtained are maintained in different packages for a higher stability. The propolis harvested from honeybees, on native plant species, is composed of a mixture of substances that are able to stimulate in plants the natural defenses for opposing to several diseases.



## PERIOD, DOSAGE AND APPLICATION METHOD

APPLICATION	DOSE
Honeybees attractive	Propoli A 1 lt/ha o 100 ml/hl
Protective and invigorating	Propoli B 1 lt/ha o 100 ml/hl
In presence of wounds and in pre-harvest	Propoli A 1,5 lt/ha o 150 ml/hl
	Propoli B 1,5 lt/ha o 150 ml/hl

## COMPOSITION

**PROPOLI A**  
Propolis  
(from macerated 5%) 1,20%

**PROPOLI B**  
Propolis  
(from macerated at 5%)  
2,90%

## FORMULATION

**PROPOLI A**  
Water solution

**PROPOLI B**  
Solution with ethylic alcohol

## REGISTRATION

None

## CLP CLASSIFICATION

**PROPOLI A**  
None

**PROPOLI B**



DANGER

## AVAILABLE IN PACKS OF:

1 lt - 5 lt

# PROPOLI G

## CHARACTERISTICS

PROPOLI G is an enhancer of natural defenses of plants, obtained from the active fraction of propolis, which is composed of flavonoids, flavones, vitamins and oligo elements, to apply in aqueous mixture, during the vegetative phase of plants. Propolis is the product composed by the harvest, the elaboration and the modification by honeybees, of many plant substances. PROPOLI G is permitted on all the crops and it is specifically advised on stone fruits, pome fruits, grapevines, kiwis, horticulture crops and ornamentals in organic, biodynamic and conventional agriculture.

## APPLICATION BENEFITS

- Speeds up the healing of wounds (caused by hail, thinning, pruning, harvest, etc.)
- Is effective against all stresses, strengthens the capacity of resistance to temperature changes
- Creates a hostile environment for pathogens and enhances the natural defenses of the plants
- Improves the shelf-life of edible products when applied in pre-harvest
- Non-toxic, it does not have a waiting time, it does not stain.

## PERIOD, DOSAGE AND APPLICATION METHOD

Foliar application on horticulture crops, fruit trees, flowers and ornamentals, open field crops.

CROP	DOSE	PERIOD
Applied by itself	200-250 ml/hl	In pre flowering At petals fall
In mixture with pesticides	150-200 ml/hl	In pre-harvest In high stress periods

Do not apply with high temperatures. Shake before use. PROPOLI G does not have a waiting time.

## COMPATIBILITY

PROPOLI G is not phytotoxic or mixable with fertilizers and agrochemicals, it is recommended to test the miscibility with phosphites. If mixed with agrochemicals follow the relative waiting times.

## APPLICATIONS ADVICE

Combine with the SANDEK, CAMYLLO or fungicidal and bactericidal strategies.



### COMPOSITION

Propolis in glycolic solution 8 % w/w  
(Galangins 6500 mg/kg)

### FORMULATION

Solution

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 lt - 5 lt

# ZEOLITE GOLD 95

## CHARACTERISTICS

ZEOLITE GOLD 95 is a sedimentary rock of volcanic origin, composed mainly of silicon oxide and aluminium oxide. The fundamental characteristic of zeolites is the presence of many empty spaces in their structure that gives them several physical properties as a high cation exchange capacity and the ability of absorbing a large amount of water that can be released when the temperature changes, like a sponge. This feature can be effectively used to drastically reduce the humidity present on plants, creating an unfavourable environment for fungal disease development. Moreover, the peculiar composition in minerals of the product allows breaking the water layer on vegetation speeding up the drying process. The two mechanisms, thus, permit a faster drying of the plant and the creation of an hostile environment for pathogen propagation as grey mould and powdery mildew. Furthermore, the quick “drying” characteristic has an optimal efficacy for micro-wounds healing, that are the main entry sites of infections. The high cation exchange capacity (217 meq/100 g) allows absorbing a large amount of unwanted molecules, like, for example, heavy metals. The action of ZEOLITE GOLD 95 is exclusively physical-mechanic and it does not interfere with the normal physiological processes of the plant. The product is highly micronized (particles lower than 20 micron), that enables a uniform coverage on the plant and increases the efficacy.

## QUALITATIVE CHARACTERISTICS

- High purity (>90% Clinoptilolite)
- High porosity (45-50% of pores)
- Pores dimension (4-4,5 A°)
- High water absorption
- High specific surface covered
- High CEC (cation-exchange capacity)

## APPLICATION AND DOSAGE

POWDERY TREATMENT:

6-8 kg/ha also in mixture with other similar products (i.e. Sulphur).

TREATMENT WITH SPRAYER:

2-5 kg/ha also in mixture with agrochemical (Copper, Sulphur, etc.) on all crops.

Used by itself: 10-12 kg/ha at interval of 7-15 days depending on weather conditions and dose used.

ZEOLITE GOLD 95 can be used at variable dosage in compost, topsoil, paste for trunk coating and biodynamic preparations.

## MISCIBILITY

The product is mixable with the common agrochemicals except those with alkaline reaction and mineral oils. It is recommended to make preliminary tests before treating.

## APPLICATIONS ADVICE

Particularly indicated with agrochemicals for fungicide strategies. Paired with ZX400 and CUSAP increase and exalt the performance.



### COMPOSITION

Clinoptilolite > 90%  
Quartz, Feldspar, Biotite < 10%  
Silicon oxide (SiO<sub>2</sub>) 70%,  
Aluminium oxide (Al<sub>2</sub>O<sub>3</sub>) 12.2%  
Calcium oxide (CaO) 3-5%,  
Magnesium oxide (MgO) 1.2%  
Potassium oxide (K<sub>2</sub>O) 3.3%,  
Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) 2%

### FORMULATION

Micronized powder

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

10 kg

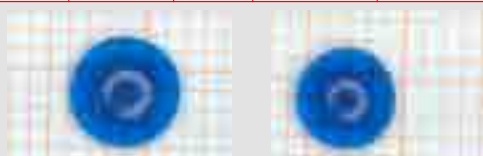


Formulations based on **OLIO DI SOIA** (in stable emulsion) do not have any biological activity: they only act by physical action.

The specialty of formulations, obtained with physical-mechanical process, is to favour the formation of a continuous and uniform film on sprayed plant organs

**ADHESION AND UNIFORMITY OF SPRAYED DROPS**

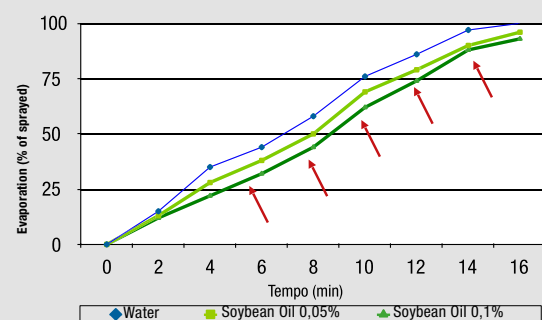
Nozzle	Pression (bar)	Drops dimension (VDM in µm)		
		PURE water	OLIO DI SOIA 0,05%	OLIO DI SOIA 0,1%
XR 11001	5.0	138	166 (+20%)	176 (+28%)
XR 11003	3.0	238	289 (+21%)	299 (+26%)



**DRIFT SENSIBILITY**

Nozzle	Pure water (A)	+ oil 0,05% (B)	Drift Reduction (A-B)/A	+ oil 0,1% (C)	Drift Reduction (A-C)/A
XR 01 (small drops)	80,07	74,63	6,8%	74,14	7,4%
XR 03 (medium drops)	21,58	10,58	51,0%	12,21	43,4%
XR 03 (large drops)	6,41	5,18	19,2%	5,05	21,2%

**DROPS EVAPORATION**



**ADJUVANT EFFICACY (IN % ON CONTROL) OF OLIO DI SOIA IN MIXTURE WITH: DELTAMETHRIN**

N. prova	Product	Dose (ml/ml)	Number of applications	Evaluation (dd after the last treatment)	
				DAT+7	DAT+14
Tomato aphid	Untreated control	-	-	23,3 <sup>(1)</sup> a	9,5 <sup>(1)</sup> a
	Deltamethrin	0	1 (A)	37,7 b	50,4 b
	Deltamethrin + soybean oil	50 + 100		64,0 c	64,7 c
Cabbage butterfly	Untreated control	-	-	14,6 <sup>(2)</sup> a	15,3 <sup>(2)</sup> a
	Deltamethrin	0	1 (A)	78,2 b	73,7 b
	Deltamethrin + soybean oil	30 + 100		92,6 c	83,1 c
Grape vine Thrips	Untreated control	-	-	6,8 <sup>(3)</sup> a	7,6 <sup>(3)</sup> a
	Deltamethrin	0	3 (A,B,C)	19,2 b	15,2 b
	Deltamethrin + soybean oil	50 + 100		34,2 c	35,9 bc
Tomato aphid	Untreated control	-	-	2,2 <sup>(4)</sup> a	2,4 <sup>(4)</sup> a
	Deltamethrin	0	3 (A,B,C)	64,2 b	52,7 b
	Deltamethrin + soybean oil	50 + 100		79,0 c	63,9 c

**AZADIRACHTIN**

Peach aphids	Untreated control	-	-	65,8 <sup>(1)</sup> a	56,4 <sup>(1)</sup> a
	Azadirachtin	150	2 (A,B)	89,1 b	79,3 b
	Azadirachtin + soybean oil	150+100		89,6 b	88,8 bc
Potato bug	Untreated control	-	-	4,3 <sup>(2)</sup> a	3,7 <sup>(2)</sup> a
	Azadirachtin	150	1 (A)	44,7 b	52,4 b
	Azadirachtin + soybean oil	150+100		67,1 cd	72,0 c
Rose thrips	Untreated control	-	-	7,1 <sup>(3)</sup> a	6,2 <sup>(3)</sup> a
	Azadirachtin	150	1 (A)	46,1 b	33,6 b
	Azadirachtin + soybean oil	150 + 100		52,8 b	45,8 c
Tomato cutworm	Untreated control	-	-	2,2 <sup>(4)</sup> a	2,4 <sup>(4)</sup> a
	Azadirachtin	150	3 (A,B,C)	46,9 b	11,5 b
	Azadirachtin + soybean oil	150 + 100		65,4 c	29,5 c

**PYRETHRUM**

Tomato aphid	Untreated control	-	-	23,3 <sup>(1)</sup> a	9,5 <sup>(1)</sup> a
	Pyrethrum + pbo	100	1 (A)	38,3 b	52,6 b
	Pyrethrum + pbo + soybean oil	100 + 100		47,5 c	70,3 cd
Apple aphid	Untreated control	-	-	69,8 <sup>(1)</sup> a	46,3 <sup>(1)</sup> a
	Pyrethrum + pbo	60	3 (A,B,C)	70,5 b	52,5 b
	Pyrethrum + pbo + soybean oil	60 + 100		87,3 c	76,9 c
Potato bug	Untreated control	-	-	4,3 <sup>(2)</sup> a	3,7 <sup>(2)</sup> a
	Pyrethrum + pbo	100	1 (A)	50,6 b	51,2 b
	Pyrethrum + pbo + soybean oil	100 + 100		77,6 c	80,5 c
Tomato cutworm	Untreated control	-	-	2,2 <sup>(4)</sup> a	2,4 <sup>(4)</sup> a
	Pyrethrum + pbo	100	2 (A,B)	77,4 b	72,2 b
	Pyrethrum + pbo + soybean oil	100 + 100		94,6 c	93,0 c

(1) average n. individuals alive/sprout - (2) average n. individuals alive/plant  
 (3) average n. individuals alive/flower - (4) average n. damaged fruits/plant  
 For each trial the data followed by the same letter in the same column do not differ according to Duncan test (for p=0,05)

**OLIO DI SOIA F40**

**CHARACTERISTICS**

OLIO DI SOIA F40 is a natural water emulsion of vegetable origin with a high energizing activity. In particular, OLIO DI SOIA F40 strengthens plant resistance to abiotic stresses, activating specific plant internal physiological and molecular mechanisms that increase the adaptation of the plant to the stress itself. This stimulus to the biochemical responses of the plant lead to, if present, heal the damages by the stress itself.

OLIO DI SOIA F40 is obtained by mechanical extraction and it is treated only with physical processes.

**DOSAGE AND APPLICATION METHOD**

USE	APPLICATION METHOD	DOSE
By itself	Pour the product in a bucket and then insert in the atomizer	200-500 ml/hl
Paired with pesticides	Pour the product in the tank and add pesticides for the treatment	100-150 ml/hl

**COMPATIBILITY**

OLIO DI SOIA F40 is compatible with all insecticides and all the products made up of copper oxychloride, hydroxide, sulphate and Bordeaux mixture.

**APPLICATIONS ADVICE**

Ideal to be combined with plant protection products insecticides and fungicides.



**COMPOSITION**

Food grade vegetable oil extracted from soybean 60%

Thinner (water) q.s. to 100%

**FORMULATION**

Water emulsion

**REGISTRATION**

None

**CLP CLASSIFICATION**

None

**AVAILABLE IN PACKS OF:**

1 lt - 5 lt - 25 lt

# STRATEGIES

Scan the QR code to discover our **INNOVATIVE** strategies



**POME FRUITS**



**STONE FRUITS**



**OLIVE**



**TABLE GRAPE**



**WINE GRAPE**



**CITRUS**



**NUTS**



**SOLANACEAE**



**CUCURBITS**



**SALAD CROPS**



**BABY LEAF**



**BRASSICACEAE**



**POTATO**



**BERRIES**



**FLOWERS**



**OTHER VEGETABLE CROPS**



**CEREALS and OILSEED CROPS**



## NUTRITION and STIMULATION



The power of plant extracts!

Innovative formulations that belongs to LineaVEG are obtained by:

- ✓ Fluid distillers dried grain and fruit extracted without ammonium salts
- ✓ Cold extraction of seaweeds, without using chemical substances, that amplifies the natural action of stimulation and nutrition

The quality of raw materials and the specific formulations give to the products of LineaVEG:

- ✓ High content of *Betaines* that are an important resource to promote the treated plant.
- ✓ Vegetable natural matrix easily absorbed by the plant in few hours from the application.
- ✓ High content of Amino acids that gives energetic power for speeding up the functions of the treated plant.



LINEAVEG

the perfect mix of seaweeds and plant extracts obtained through controlled fermentative processes



# SUPERKING

## CHARACTERISTICS

SUPERKING is a development promoter with a high content of organic nitrogen, amino acids and peptides specifically studied for the use in fertigation. The totally vegetable raw materials that compose the product are treated through an enzymatic hydrolysis process that keep the characteristics and the high biological activity unaltered thanks to the use of a patented enzyme. The specific productive process allows to obtain a particularly low granulometry making it highly soluble in water.

Thanks to the particular formulation SUPERKING has a nutritional action supplying high amounts of organic nitrogen, activates the plant metabolism improving its development and it favours, thanks to the high organic carbon contents, the activity of microbial flora of the soil.

The high content in Glycine and Glutamic acid increases the complexing power of the microelements and promotes the photosynthesis.



## COMPOSITION

- Nitrogen (N) organic 15,5%
- Carbon (C) organic of biological origin 50%
- Glycine 25,5%
- Glutamic acid 8,1%
- Proline 14%
- Hydroxyproline 14,6%

## FORMULATION

Press cakes

## REGISTRATION

n. 0028697/20

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

1 kg - 5 kg - 10 kg

## DOSAGE AND APPLICATION METHOD

Apply in localized fertigation in the area around the root. Wet abundantly the soil before the application.

CROP	PERIOD	CONTINUOUS APPLICATION	STANDARD APPLICATION
Fruit trees	From fruit-set and fruit formation, for the entire fruit growth phase. Post-harvest: promotes the accumulation of reserve substances	4-6 kg/ha 3-4 applications each 7 days	8-12 kg/ha 2 applications at distance of 8 dd
Tomato, pepper, eggplant	From fruit-set and fruit formation, for the entire fruit growth phase	3-5 kg/ha each 7 dd 4-5 applications per cycle	8-10 kg/ha 2 applications at distance of 8 dd
Zucchini, cucumber, pumpkin, watermelon, melon	From fruit-set and fruit formation, for the entire fruit growth phase	3-5 kg/ha each 7 dd 4-5 applications per cycle	8-10 kg/ha 2 applications at distance of 8 dd
Olive	From fruit-set and fruit formation, for the entire fruit growth phase	4-6 kg/ha 3-4 applications each 7dd	8-12 kg/ha 2 applications at distance of 8 dd
Lettuce e baby leaf	During the higher growth phase	3-5 kg/ha each 7 dd 4-5 applications per cycle	8-10 kg/ha 2 applications at distance of 8 dd
Strawberry	From fruit-set and fruit formation, for the entire fruit growth phase	3-5 kg/ha each 7 dd 4-5 applications per cycle	8-10 kg/ha 2 applications at distance of 8 dd
Table and wine grapevine	From pre-flowering to harvest	4-6 kg/ha 3-4 applications each 7dd	8-12 kg/ha 2 applications at distance of 8 dd
Potato	During the higher growth phase	3-5 kg/ha each 7 dd 4-5 applications per cycle	8-10 kg/ha 2 applications at distance of 8 dd

## Content:

Glycine (25,5%), Glutamic acid (8,1%), Proline (14%), Hydroxyproline (14,6%).

## WARNINGS

To use only in case of acknowledged need. Do not exceed the recommended doses.

# KING

## CHARACTERISTICS

KING is a specific action Bio-stimulant with a high content of amino acids, enriched with B, Mn, Zn. Thanks to its innovative formulation it is particularly suitable for improving rooting and promoting the vegetative development. It has an optimal anti-stress function against external adversities or unfavourable conditions and it allows to increase yield improving plant metabolism. The presence of microelements moreover allows to compensate possible micro-deficiencies and correct them. The richness of KING both in Betaines and in Amino acids makes it a great resource for bio stimulating the treated plant. The 31% of amino acids of totally plant origin characterizes KING giving it an energetic power to accelerate the functions of treated plants.

On soil:

- Gives energy for useful soil microorganisms
- Controls the availability of nutritional elements according to plants absorption, without losses by leaching or immobilization.

On plants:

- Stimulates and favours the development of new roots strengthening them
- Facilitates cell division and cell elongation for the benefit of roots and sprouts
- Reduces the susceptibility to biotic and abiotic adversities
- Intensifies the phyto-strengthening activity with a consequential increase of production.

## DOSAGE AND APPLICATION METHOD

CROP	EPOCA	FOGLIARE	FERTIRRIGAZIONE	PIENO CAMPO
Lettuce and similar, Rocket, Baby-leaf (Brassicaceae included), Spinach and similar	At transplant During the entire vegetative growth	200 g/hl	300-400g/1000 m <sup>2</sup>	3-4 Kg/ha
Melon, watermelon, cucumber, zucchini, pumpkin	At transplant During the entire vegetative growth until fruit-set	200 g/hl	300-400 g/1000 m <sup>2</sup>	3-4 Kg/ha
Eggplant, pepper, tomato	At transplant During the entire vegetative growth until fruit-set	200 g/hl	300-400 g/1000 m <sup>2</sup>	3-4 Kg/ha
Pome fruits and stone fruits	From pre-flowering until fruit size increase	200-300 g/hl	400-500 g/1000m <sup>2</sup>	4-5 Kg/ha
Table and wine grapevine	From pre-flowering until fruit size increase	200-300 g/hl	400-500 g/1000 m <sup>2</sup>	4-5 Kg/ha
Citrus	From pre-flowering until fruit size increase	200-300 g/hl	400-500 g/1000 m <sup>2</sup>	4-5 Kg/ha
Olive	From pre-flowering until fruit size increase	200-300 g/hl	400-500 g/1000 m <sup>2</sup>	4-5 Kg/ha
Strawberry	From pre-flowering until fruit size increase	200-300 g/hl	400-500 g/1000 m <sup>2</sup>	4-5 Kg/ha
Artichoke	From active growth stage to flower heads differentiation	200-300 g/hl	400-500g/1000 m <sup>2</sup>	4-5 Kg/ha
Potato	From the first vegetative development phase	200-300 g/hl	400-500 g/1000 m <sup>2</sup>	4-5 Kg/ha

### Amino acids conten

Aspartic acid (1,536) Glutamic acid (2,592) Alanine (2,56) Arginine (2,253) Phenylalanine (0,621) Glycine (8,16) Hydroxyproline (4,66) Isoleucine (0,458) Histidine (0,22) Leucine (0,918) Lysine (0,985) Methionine (0,278) Proline (4,470) Serine (0,713) Tyrosine (0,195) Threonine (0,294) Tryptophan (0,016) Valine (0,672)  
Tot: 31,552% (of which 4,8% free amino acids)

## WARNING

Respect between each treatment an interval of 8-10 days.



### COMPOSITION

Nitrogen (N) organic 5%  
Nitrogen (N) total 5%  
Carbon (C) Organic of plant origin 16%  
Free amino acids 4,8%  
Total amino acids 31,55%

Betaines 5%  
Boron (B)  
Water soluble 0,2%  
Manganese (Mn)  
water soluble 0,5%  
Zinco (Zn)  
water soluble 0,7%

### FORMULATION

Water suspension

### REGISTRATION

n. 0028699/20

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg - 10 kg - 25 kg

# QUEEN

## CHARACTERISTICS

QUEEN is a bio-stimulant with a specific action and an innovative formulation.

The fluid agro-food stillage present in its composition is composed by a mixture of stillages: the one from soybean oilcakes with high purity and selected with the one obtained from fruits and cereals; which gives the product a high content in organic nitrogen. The mixture of algae *Ecklonia* and *Ascophyllum* contained in the formulation results decisive in the synthesis process of enzymes and proteins and in cellular division and multiplication processes, acting thus as regulator of plant functions. Thanks to its composition, rich in protein plant substances, it improves the crop development, brings organic matter to the soil, increases nutrient absorption and the environmental stresses recovery.

- The presence of Betaines helps the plant to resist to environmental stresses: temperature variations, drought, high salinity. It also prevents the excessive water loss in cells.
- The 23% of amino acids of totally plant origin characterizes QUEEN giving it an energetic power to increase the functions of the treated plant.

## DOSAGE AND APPLICATION METHOD

CROP	PERIOD	FOLIAR	FERTIGATION	OPEN FIELD
Lettuce and similar, Rocket, Baby-leaf (Brassicaceae included), Spinach and similar	During all vegetative growing phases	150-200 g/hl	1-1,5 kg/1000 m <sup>2</sup>	10-15 Kg/ha
Melon, watermelon, cucumber, zucchini, pumpkin	From the fruit-set and for the entire fruit growing phase	150-200 g/hl	1-1,5 kg/1000 m <sup>2</sup>	10-15 Kg/ha
Eggplant, pepper, tomato	From the fruit-set and for the entire fruit growing phase	150-200 g/hl	1-1,5 kg/1000 m <sup>2</sup>	10-15 Kg/ha
Pome fruits and stone fruits	From flowering to fruit formation and for the whole fruit growing phase	300-400 g/hl	2-3 kg/1000 m <sup>2</sup>	20-30 Kg/ha
Table and wine grapevine	From flowering to fruit formation and for the whole fruit growing phase	300-400 g/hl	2-3 kg/1000 m <sup>2</sup>	20-30 Kg/ha
Citrus	From flowering to fruit formation and for the whole fruit growing phase	300-400 g/hl	2-3 kg/1000m <sup>2</sup>	20-30 Kg/ha
Olive	From flowering to fruit formation and for the whole fruit growing phase	300-400 g/hl	2-3 kg/1000 m <sup>2</sup>	20-30 Kg/ha
Strawberry and berries	From flowering to fruit formation and for the whole fruit growing phase	150-200 g/hl	1-1,5 kg/1000 m <sup>2</sup>	10-15 Kg/ha

### Amino acids content:

Aspartic acid (1,128) Glutamic acid (1,9) Alanine (1,88) Arginine (1,65) Phenylalanine (0,460) Glycine (5,99) Hydroxyproline (3,42) Isoleucine (0,34) Histidine (0,16) Leucine (0,67) Lysine (0,72) Methionine (0,204) Proline (3,28) Serine (0,52) Tyrosine (0,14) Threonine (0,18) Tryptophan (0,011) Valine (0,49)  
Tot:23,17% (of which 6% free amino acids)

## WARNINGS

Respect in each treatment an interval of 8-10 days.



### COMPOSITION

Nitrogen (N) organic of plant origin 5%  
Nitrogen (N) total 5%  
Carbon (C)  
Organic of plant origin 16%  
Free amino acids 6%  
Total amino acids 23,17%

### FORMULATION

Water suspension

### REGISTRATION

n. 0028698/20

### CLP CLASSIFICATION

None

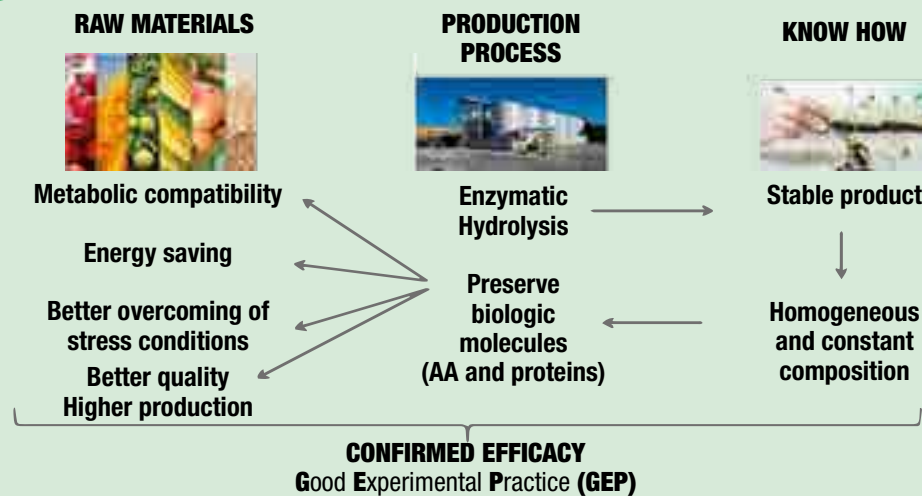
### AVAILABLE IN PACKS OF:

1 kg - 5 kg - 10 kg



# MEGASTYM®

MEGA STIMULATION, MINIMAL EXPENSE OF ENERGY FOR THE PLANT



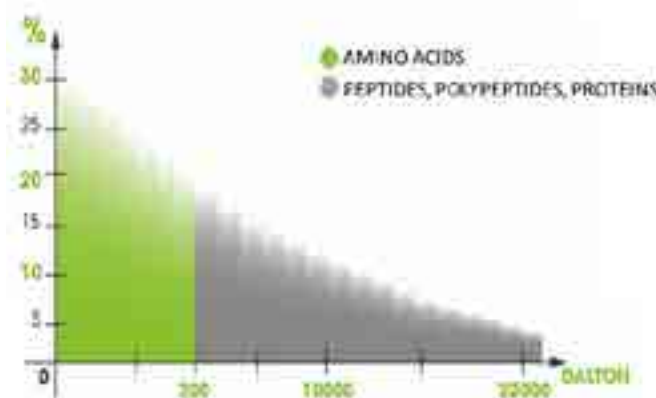
## PLANT PROTEINS AND AMINO ACIDS

MEGASTYM® reduces the metabolic consumption because supply free amino acids in laevorotatory form (-) L.

Amino acids reach a maximum weight of 200 Dalton.

30% of amino acids of MEGASTYM® have a weight between 0-200 Dalton.

This amino-gram confirms the presence of free amino acids in MEGASTYM®.

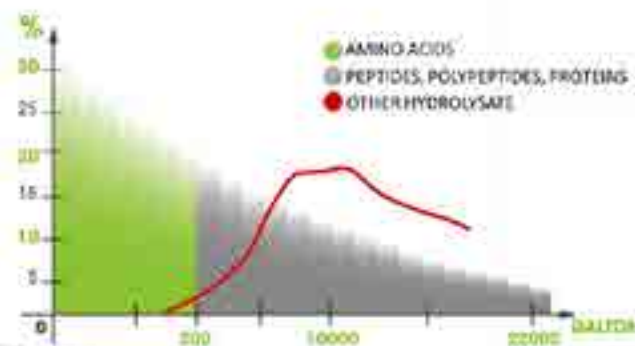


In the market there are hydrolysed products with amino acids with mass higher than 200 Dalton (because aggregated with peptides, polypeptides and proteins)

Those molecules have dimensions larger than single amino acids and the leaves absorb them.

The plant can not directly metabolize these molecules.

The plant needs to break peptidic bonds to make amino acid free wasting energy.



# MEGASTYM®

## CHARACTERISTICS

MEGASTYM® is a fluid protein concentrated of completely plant origin with a high content of free amino acids (31%) vitamins and chelated microelements. Iron is fundamental in photosynthesis, Zinc stimulates fruit set and young tissues reproduction and Manganese is an important catalyser in enzymatic processes. Thanks to a patented enzymatic hydrolysis process, proteins and amino acids are preserved. The innovation of MEGASTYM® is the supply of 418 gr/l of free amino acids in laevorotatory form with a low molecular weight (maximum 200 dalton), quickly absorbable. The plant in this way do not need to break peptide bonds to make available the amino acids allowing a huge energetic saving on all processes of protein, enzyme and sugar biosynthesis; both in normal and stress conditions.

## DOSAGE AND APPLICATION METHOD

Foliar application

CROP	APPLICATION PERIIOD	DOSE kg/ha
Vegetables and flowers in open field	2-3 treatments from pre-flowering to fruit enlargement	3-5
Vegetables and flowers in greenhouse	2-3 treatments from pre-flowering to fruit enlargement	3-5
Leafy vegetables	2-3 treatments in the inital pases of crop cycle	3-5
Citrus, Kiwifruits, Pome fruits, Stone fruits, Grapevine and Olive	3 treatments from pre-flowering to post- fruit set	3-5
Cereals, Rice	1-2 treatments from ear rise	3-5

The cited values refer to applications made with normal volume equipment.

Fertigation application

CROP	APPLICATION PERIIOD	DOSE kg/ha
Pome fruits, Stone fruits, Citrus, Olive, Grapevine, Kiwifruit	From pre-flowering to pre-harvest	30-60
Vegetables in open field	From pre-flowering to pre-harvest	40-80
Vegetables in greenhouse	From pre-flowering to pre-harvest	30-50
Ornamentals	From pre-flowering to pre-harvest	50-70

## WARNING AND COMPATIBILITY

The product is compatible with most fluid fertilizers both mineral and organic, although it is recommended to make preliminary tests to verify the compatibility. Do not mix MEGASTYM® with mineral oils. Avoid prolonged expositions at high temperatures (30-35 °C) to avoid possible fermentative processes with alterations of the product characteristics.



## COMPOSITION

- Nitrogen (N) total 3,2%
- Nitrogen (N) organic 3,2%
- Phosphorous pentoxide (P<sub>2</sub>O<sub>5</sub>) water soluble 3,9%
- Potassium oxide (K<sub>2</sub>O) water soluble 3,2%
- Carbon (C) organic of biological origin 10%
- Iron (Fe) chelated with EDTA 1 %
- Manganese (Mn) chelated with EDTA 0,5%
- Zinc (Zn) chelated with EDTA 0,5%

## FORMULATION

Water solution

## REGISTRATION

None

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

1 kg - 5 kg



# ZYMOSTIM

## CHARACTERISTICS

ZYMOSTIM contains natural organic substances derived from the controlled fermentation of vegetable extracts and substrates of cultures of microorganisms that produce molecules able to exalt the maximum natural potential of the crops. ZYMOSTIM, made through two separate fermentative processes, contains, in balanced ratios, the whole spectrum of macro and micronutrients, associated to bio-catalyser enzymes essential to the vegetative development and production of the plants. The most remarkable contents are represented by free amino acids, chelated microelements, vitamins, enzymes, natural growth factors.

Advantages from ZYMOSTIM application:

- Better yield of fertilizer supply
- Better rooting
- Higher vegetative development
- Resistance to quick temperature reductions
- Higher easiness of vegetative recovery after stops due to stresses
- Better fruit-set, fruit growth and final fruit size
- Increase of fruit natural pigmentation and better colouring
- Increase of sugar content.

## DOSAGE AND APPLICATION METHOD

Apply the product by foliar application.

CROP	APPLICATION PERIOD	DOSE
Fruit trees, grapevine, citrus	- pre-flowering - petals fall - fruits growth	200 ml/hl
Vegetables in open field	- post-transplant - pre-flowering - growth (1-2 applications)	150-200 ml/hl
Vegetables in greenhouse	- post-transplant - pre-flowering - growth (1-2 applications)	150-200 ml/hl
Flowers, ornamentals, nurseries, Golf courses, stadiums and recreational green areas	- Beginning or at cultivation cycle resumption (apply each 10-15 days)	100-150 ml/hl

## WARNINGS

The product is mixable with foliar fertilizers and defense products.



### COMPOSITION

Set of plant bacteria extracts and organic-minerals

### FORMULATION

Water suspension

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 lt - 5 lt

# BMA XEDA

## CHARACTERISTICS

BMA XEDA is a powdery fertilizer made of the brown seaweed *Ascophillum nodusum*, that is collected in the Atlantic Ocean.

The presence, at high concentration, of carbohydrates, amino acids and vitamins naturally present in the seaweed, has a secondary stimulating effect on the plant metabolism that exalts the qualitative and quantitative yield and in particular promotes:

- Better rooting;
- Better vegetative development;
- Resistance to quick temperature lowering;
- Higher hydration;
- Better fruit-set;
- Better yield of fertilizer supply;
- Increase of fruit dimension and colouring;
- Increase of sugar content.

## DOSAGE AND APPLICATION METHOD

Apply the product by foliar application.

CROP	APPLICATION PERIOD	DOSE
Fruit trees, grapevine	Each 15-20 days from pre-flowering to veraison	120-150 g/hl
Horticulture crops	At transplant or post-transplant	180-250 g/1000 m <sup>2</sup>
	Each 10-15 days from post-transplant to fruit enlargement	100-120 g/hl
Flowers, nurseries, recreational green areas	Each 10-15 days from the beginning of vegetative growth	120-150 g/hl



### COMPOSITION

Potassium oxide (K<sub>2</sub>O) 19%  
Organic Nitrogen (N) 1%  
Betaine 0,1%  
Mannitol 5%  
Organic Carbon (C) 20%

### FORMULATION

Water dispersible powder

### REGISTRATION

n. 0012041/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg



# ALGAXED

## CHARACTERISTICS

ALGAXED is a liquid fertilizer of totally plant origin obtained, through an innovative extraction process, from brown seaweeds (*Ascophyllum nodosum*).

This process does not involve the use of chemical extractive substances nor high temperature, but a physical extraction that never reaches more than 30°C.

ALGAXED has a light sea smell and an incredibly rich composition of growth promoters, nutrients, minerals, vitamins, carbohydrates and amino acids, very similar to the one of a fresh harvested seaweed.

ALGAXED is a rather dense liquid, since, because of the cold processing, it preserves intact all the alginate of the fresh seaweed, of fundamental importance as it works as complexing and carrier agent for all the other elements contained or added to it. The action of all of these natural components, present in the formulation in balanced ratio, has a stimulating impact on the plant metabolism and has a strong energetic effect. Depending on the application period, it especially induces on the plant:

- Better rooting;
- Higher vegetative development;
- Resistance to quick temperature lowering;
- Higher hydration;
- Better fruit-set;
- Better yield of fertilizer supply;
- Increase of fruit dimension and colouring;
- Increase of sugar content.

CROP	APPLICATION PERIOD	DOSE
Fruit trees, grapevines, olive	From the first vegetative steps, then at intervals of 10-15 days	200-300 g/hl
Vegetables	From the first real leaves or from the establishment of plantlets, then at intervals of 10-15 days until harvest	200 g/hl
Flowers, ornamentals	From beginning of vegetative development for the entire cycle until blossom formation. Do not apply with visible petals	100-200 g/hl
Industrial crops, oilseed crops	From the first true leaves until pre-harvest every 15-20 days	2-3 kg/ha
Cereals	From the vegetative re-growth to elongation make 3-4 treatments	2-3 kg/ha
Fodder plants, turfs	After each mowing	3-4 kg/ha



### COMPOSITION

Seaweed 15%  
 Nitrogen (N) organic 1,2%  
 Carbon (C) total organic of biological origin 10%

### FORMULATION

Water suspension

### REGISTRATION

n. 011582/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 6 kg

# MEGASTYM®

100% vegetable energy with chelated microelements

- ▶ Conveys herbicides
- ▶ Conveys fungicides
- ▶ Overcomes stresses
- ▶ Increases quantity and quality





# BIOSIN

## CHARACTERISTICS

BIOSIN is an organic-nitrogen fertilizer with a high quantity of free low molecular weight amino acids, with a function of nutritional balancer and plant stimulator. Repeated applications of BIOSIN elicit in the plant a strong acceleration of all metabolic processes, with a balanced vegetative development, an improvement of productions and an increase of plant resistance to adversities. The product, thanks to its great penetration capacity, enters the cell cytoplasm where it plays a fundamental role in increasing the natural endogenous enzymatic set. The amino acids, beyond being an immediate stock for the protein biosynthesis processes, are strong growth factors.

## DOSAGE AND APPLICATION METHOD

CROP	APPLICATION PERIOD	DOSE	
		FOLIAR	ROOT
Fruit trees, grapevines, citrus	- pre-flowering - fruit set - fruit growth	200 g/hl	15-20 kg/ha
Horticultural crops	- post-transplant - pre-flowering - at the beginning of the productive phase	150-200 g/hl (open field) 100-150 g/hl (in greenhouse)	10-20 kg/ha (open field) 1-1,5 kg/1000m <sup>2</sup> (in greenhouse)
Flowers, ornamentals, nurseries, golf courses, stadiums and recreational green areas	- at the beginning or at the vegetative regrowth - in active growth phases	100-150 g/hl	15-20 kg/ha (open field) 1-1,5 kg/1000m <sup>2</sup> (in greenhouse)

## WARNINGS

Respect intervals of 7-8 days between applications. In case of more frequent applications, reduce proportionally the dosage. At the highest dosage and in protected crops it is believed more rational to use the product by itself. Do not apply to the edible parts of the plant.



## COMPOSITION

Nitrogen (N) organic 7,7%

Carbon (C) organic of biological origin 23%

## FORMULATION

Water suspension

## REGISTRATION

n. 0012033/15

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

1 kg - 5 kg - 30 kg  
250 kg - 1250 kg



# BIOSIN ENERGY

## CHARACTERISTICS

BIOSIN ENERGY is an organic-mineral fertilizer N-P-K with the addition of microelements, with stimulating and nutritional action, obtained from the combination of amino acids of plant origin associated to mixed nitrogen and potassium salts and microelements. Its fluid formulation, easily dispersible in water, makes it particularly suitable for foliar application and fertigation, by itself or with other soluble mineral fertilizers.

The union of nitrogen, phosphorus and potassium with an organic component of high quality, determines the reduction of phenomena of insolubility (especially phosphorus and microelements), of washing (nitrogen) and it ensures a gradual release of nutritional elements. Thanks to the high nitrogen content, present as nitric, ammoniacal, ureic and organic nitrogen with a gradual and extended availability, BIOSIN ENERGY assures a quick, progressive and balanced nutrition as a consequence of the presence of calibrated quantities of phosphorous and potassium. The presence of chelated microelements as well as amino acids contained in the organic nitrogen fraction, promote a higher plant activity, activating all vital processes. BIOSIN ENERGY stimulates the development and the fruit setting, decreases the flowers fall, and improves the fruits size, their ripening and their preservability.

## DOSAGE AND APPLICATION METHOD

CROP	APPLICATION	APPLICATION PERIOD	DOSE
All crops	Foliar	- pre-flowering - post-flowering - veraison	150-250 g/hl
	Fertigation	- at vegetative regrowth - after fruit setting	20-30 kg/ha

## WARNINGS

BIOSIN ENERGY applied through foliar application is mixable with all the products for crops defense.



## COMPOSITION

Nitrogen (N) total 14%  
Nitrogen (N) organic 2%  
Nitrogen (N) ureic 12%  
Phosphorous pentoxide (P<sub>2</sub>O<sub>5</sub>) 7%  
Potassium oxide (K<sub>2</sub>O) 7%  
Carbon (C) organic of biological origin 6%  
Boron (B) 1%  
Iron (Fe) EDTA 0,5%  
Manganese (Mn) EDTA 0,1%  
Zinc (Zn) EDTA 0,02%  
Copper (Cu) EDTA 0,01%  
Cobalt (Co) EDTA 0,002%  
Molybdenum (Mo) 0,001%

## FORMULATION

Water suspension

## REGISTRATION

n. 0011588/15

## CLP CLASSIFICATION



WARNING

## AVAILABLE IN PACKS OF:

1 kg - 5 kg - 30 kg

# BIOSIN RED

## CHARACTERISTICS

BIOSIN RED is an organic-nitrogen potassium fertilizer with a high content of free amino acids with a low molecular weight, enriched with potassium salts of high purity and solubility.

The methodical and repeated applications of BIOSIN RED as recommended in the following table allow highly increasing the fruit colour and the sugar content, improving at the same time the conservation of fruits.

## DIRECT ACTION

- Increases the fruits colour;
- Highlights the flowers colour;
- Increases the sugar content and the taste.

## INDIRECT ACTION

- In mixture with other products, facilitates absorption and channelling
- In mixture with foliar fertilizers it behaves as an organic chelator, especially with iron and magnesium-based formulations.

## DOSAGE AND APPLICATION METHOD

CROP	APPLICATION PERIOD	DOSE	
		FOLIAR (g/ha)	FERTIGATION (kg/ha)
Stone fruits, Pome fruits	From fruit set each 15-20 days	250-300	20-30
Grapevine	From veraison each 15-20 days	250-300	20-30
Citrus	From the end of veraison each 15-20 days	200-250	15-25
Vegetable crops	From the beginning of production each 10-15 days	150-200	10-20
Flowers	From the appearance of the first blooms repeat each 15-20 days	200-250	15-25

## COMPATIBILITY

BIOSIN RED is mixable with all agrochemicals except products containing copper salts (oxychlorides, hydroxides).



## COMPOSITION

Nitrogen (N) total 4%  
 Nitrogen (N) organic 4%  
 Potassium oxide (K<sub>2</sub>O) water soluble 16%  
 Carbon (C) organic of biological origin 11%

## FORMULATION

Water suspension

## REGISTRATION

n. 0012144/15

## CLP CLASSIFICATION

None

## AVAILABLE IN PACKS OF:

1 kg - 5 kg - 10 kg

# PROTIENERGY

## CHARACTERISTICS

PROTIENERGY is a fertilizer, rich in amino acids, peptones and polypeptides, for open field applications, for fertigation, for potting and soilless crops.

The absorption by roots is assured thanks to the high penetration capacity typical of amino acids and polypeptides, which, beyond being absorbed singularly, present the chelating-complexing properties towards micro and macro-elements in the rhizosphere.

PROTIENERGY has a bio-stimulating effect on general metabolism, revitalizes the rhizosphere increasing the density of microbial population. Repeated applications promote protein synthesis and stimulus to the growth, increase photosynthetic activity with a substantial rise of sugar compound concentration.

## DOSAGE AND APPLICATION METHOD

CROP	APPLICATION METHOD	DOSE
Fruit trees, grapevine, olive	Open field	15-20 kg/ha
	Localized	30-50 g/plant
	Fertigation	10-15 kg/ha per treatment
Horticulture crops	Open field	20-30 kg/ha in pre-sowing
	Fertigation	10-15 kg/ha per treatment
Flowers - ornamentals, nurseries	Open field	15-20 Kg/ha
	In peat and compost	1 Kg/m <sup>3</sup>
Extensive herbaceous crops	Open field	6-10 Kg/ha



## COMPOSITION

Nitrogen (N) organic 6,7%  
 Carbon (C) organic 21%

## FORMULATION

Water suspension

## REGISTRATION

n. 0012144/15

## CLP CLASSIFICATION



WARNING

## AVAILABLE IN PACKS OF:

10 kg - 30 kg - 250 kg  
 1250 kg



# FERTIL AGRO L

## CHARACTERISTICS

FERTIL AGRO L is a nitrogen liquid fertilizer of plant origin that is obtained from the residue of the fermentation of beet molasses.

FERTIL AGRO L is an organic fluid fertilizer for soil regeneration with a organic nitrogen and potassium oxide supply. The presence of a high quantity of amino acids and sugars exalts the microbial lifeforms in the soil, increases the enzymatic activity and gives to vigor to the young plants speeding up their growth. The residues of previous crop like stubble, stalks, leaves, etc., treated and buried restore organic matter in a short time.

## DOSAGE AND APPLICATION METHOD

FERTIL AGRO L is a liquid fertilizer that can be used by foliar application, by fertigation and as it is directly on soil.

CROP	DOSE			
	FOLIAR	OPEN FIELD	LOCALIZED	FERTIGATION
Fruit trees, grapevine, olive	100-200 g/hl	100-150 kg/ha	50-100 g/plant	10-15 kg/1000 m <sup>2</sup> for each treatment
Horticulture crops	250-300 g/hl	-	-	10-15 kg/1000 m <sup>2</sup> for each treatment
Flowers, nurseries, ornamentals	150-200 g/hl	-	5-10/1000 m <sup>3</sup> (in topsoil and peat)	5-10 kg/1000 m <sup>2</sup> for each treatment
Extensive herbaceous crops	-	60-100 kg/ha	-	-



### COMPOSITION

Nitrogen (N) organic  
2,5%

Potassium oxide (K<sub>2</sub>O)  
5%

Carbon (C) organic  
of biological origin  
10%

### FORMULATION

Water suspension

### REGISTRATION

n. 0012145/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg - 30 kg  
250 kg - 1250 kg



# FERTIL HUMIC L

## CHARACTERISTICS

FERTIL HUMIC L is a liquid formulation for foliar and root applications, based of humic acids obtained from Leonardite through extraction with potassium hydroxide.

The use of FERTIL HUMUC L gives the following benefits.

### To the plant

- Stimulating action on cellular metabolism.
- Improvement of absorption and translocation of nutritional elements.
- Improvement of plant resistance to water and temperature stresses.

### To the seed

- Increase of germinability and of germinative energy.

### To the soil

- Improvement of the structure with activation of soil microflora and micro fauna.
- Increase of exchange capacity through the formation of mineral chelated elements that escape to the blocking action of the soil.
- Increase of soil fertility and of assimilation degree of nutritional elements.
- Increase of buffer capacity of soil with the reduction of pH variation.
- Increase of water retention capacity in soil with the reduction of water stress for the plant.

CROP	APPLICATION PERIOD	FOLIAR FERTILIZATION g/100 lt	FERTIGATION	
			IN GREENHOUSE kg/1000 mq	OPEN FIELD kg/ha
Horticulture crops, strawberry	In post-transplant to promote rooting	100	1-2	10-15
Grapevine	From vegetative regrowth make 3-4 applications	120		15-20
Citrus	At vegetative regrowth in fruit set phase. Fruit enlargement.	120		15-20
Stone fruits, Apple, Pear	From vegetative regrowth make 3-4 applications	120		15-20
Olive	Before flowering and fruit enlargement	120		10-15
Ornamentals, Flowers	At transplant and in the following phases 3-4 applications	100	2-4	15-20
Nurseries	During the initial growth phase make 2-3 applications	100	1-2	10-15
Herbaceous industrial crops	During the development apply each 15-20 days	120	-	-



### COMPOSITION

Organic matter  
on total as it is 14%

Total organic matter on dry  
matter 65%

Umified organic matter  
on organic matter 87%

Nitrogen (N) organic 0,6%  
C/N Ratio 62

### FORMULATION

Water suspensio

### REGISTRATION

n. 0012146/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg - 25 kg  
200 kg - 1000 kg



# FERTIL BORO L

## CHARACTERISTICS

FERTIL BORO L is a fertilizer with a high titre of boron in liquid formulation in a complexed form, where the organic complex ETHANOLAMINE allows a quicker and homogeneous boron transport into the crop, making it more available for foliar and root applications.

Boron is important for the transport of hydrates of carbon and for absorption of cations, especially calcium. Moreover, it prevents an excessive polymerization of sugars in the zones where the synthesis of carbohydrates happens. The boron aids the cell division and the protein synthesis; it is a fundamental micronutrient for pollen germination, an important activator of flowering, fecundation and fruits set. The boron deficiency is characterized by necrosis of vegetative apices, shortening of internodes and atrophy of apical buds, blackening and decay of soft tissues, shoots drying, terminal leaves fall and inadequate fruits set.

FERTIL BORO L is a systemic formulation that can be used in soil application but, thanks to its absorption readiness, can be also efficaciously used for foliar applications.

## DOSAGE AND APPLICATION METHOD

The choice of dosage and the number of applications is in function of the deficiency intensity. On fruit trees and grapevine the root application is made only in case of severe deficiencies.

CROP	APPLICATION PERIOD	DOSE	
		FOLIAR	ROOT
Pome fruits	- green buds - pre-flowering - post-harvest	80-100 g/hl	6-8 kg/ha
Stone fruits	- corolla separation - post-fruits set	80-100 g/hl	6-8 kg/ha
Grapevine	- sprouting - separated bunches - fruits set	80-100 g/hl	2-4 kg/ha
Citrus, olive	-pre-flowering - fruits set	200-300 g/hl	2-4 kg/ha
Horticulture crops	- from 4-6 true leaves	150-200 g/hl	2 kg/ha
Sugar beet	- 4-6 true leaves - 8-10 true leaves	120-150 g/hl	2-3 kg/ha
Leguminous plants for grains and forage	- 10-15 cm height - pre-flowering	120-150 g/hl	2-3 kg/ha
Sunflower, rapeseed	- from the first vegetative phases	150-200 g/hl	2-3 kg/ha
Flowers, ornamentals	- from the first vegetative phases	80-100 g/hl	2-4 kg/ha



### COMPOSITION

Boro (B) 11%  
Complexing agent  
ethanolamine

### FORMULATION

Water emulsion

### REGISTRATION

n. 0012143/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 6 kg - 30 kg



# FERAMIN M

## CHARACTERISTICS

FERAMIN M is the result of a production technology based on sulphuric synthesis, that leads to the achievement of an EDDHSA chelation that currently, among iron chelates usable by root application, gives the best nutritional and corrective performances.

FERAMIN M is featured with:

- WDG formulation that do not produce dust.
- Solubility 500 g/l.
- Immediate wettability.
- Maximum purity.
- Concentration of ortho isomer minimum 80%.
- No foam formation.
- High persistence in the soil.
- Nontoxic (total absence of cyanide).

FERAMIN M is the optimal solution against yellowing due to ferric chlorosis, but also in the re-balancing of other microelements absorption (i.e. manganese transport). The preventive and/or curative action leads to an evident greening of the plant thanks to a very quick absorption.

## DOSAGE AND APPLICATION METHOD

The choice of the dosage and the number of applications is in function of the intensity of the deficiency. Use the highest dose in curative applications. Dissolve the product in water and apply in fertigation.

CROP	DOSE	
	Structure forming	Production
Pome fruits, grapevine, stone fruits, citrus	30-50 g/plant	50-100 g/plant
kiwifruit, olive	40-50 g/plant	50-100 g/plant
	50-100 g/plant	50-100 g/plant
Horticulture crops, strawberry	1-2 kg/1000 m <sup>2</sup>	2-3 kg/1000 m <sup>2</sup>
Flowers, ornamentals	2-3 kg/1000 m <sup>2</sup>	6-8 kg/ha
Herbaceous industrial crops	6-8 kg/ha	

## COMPATIBILITY

The product is compatible only with humic acids, therefore it is recommended not to mix FERAMIN M with other fertilizers or agrochemicals.



### COMPOSITION

Iron (Fe) chelate  
with EDDHSA 6%

### FORMULATION

Water dispersible granules

### REGISTRATION

n. 0012141/15

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 25 kg

# FERTIL ZINCO

## CHARACTERISTICS

FERTIL ZINCO is a formulation that is used in the cure and prevention of zinc deficiencies and its peculiar EDTA chelated form provides a high and quick absorption of the element.

Being associated to many enzymes (dehydrogenases, aldolases, phosphatases, isomerases), zinc is necessary for both the catalytic activity of the enzyme and for the stability of its structure. It is moreover involved in the biosynthesis of tryptophan and of indole acetic acid, in mobilizing growth hormones (auxins) and affects the starch formation and seeds maturation. Zinc deficiency clearly appears with the development reduction of the plants, characterized by small and pale leaves and deformed leaf margins. Typical is the formation of very small leaves (rosette) in the apex of rickety branches, the fruits are small, decoloured and irregular. The zinc deficiency can be induced by an excessive calcination.

FERTIL ZINCO is a systemic formulation that can be used in soil applications but, thanks to its assimilation readiness, can be efficaciously used in foliar applications. The formulation is stable at pH between 4-7.

## DOSAGE AND APPLICATION METHOD

The choice of dosage and of the number of applications is in function of the deficiency intensity. Apply highest dosage in curative applications.

CROP	DOSE	
	FOLIAR	FERTIGATION
Pome fruits	50-100 g/hl	4-6 kg/ha
Horticulture crops	40-60 g/hl	4-5 kg/ha
Grapevine	50-100 g/hl	4-6 kg/ha
Industrial crops	80-120 g/hl	4-6 kg/ha
Cereals	80-120 g/hl	4-6 kg/ha



### COMPOSITION

Zinc (Zn) chelated  
with EDTA 15%

### FORMULATION

Water dispersible granules

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 5 kg

# XEDANUTRIENTS

## CHARACTERISTICS

XEDANUTRIENTS contains, in a balanced way, the most important microelements useful to the plant, it is recommended in prevention and care of evident deficiencies but also in the case, often frequent, where the symptoms are not clear and diversified. The importance of microelements depends on their absolute specificity in physiological and biochemical functions of the plant; iron, copper and molybdenum have a fundamental role in photosynthesis, zinc stimulates fruit setting and reproduction of young tissues, manganese is a cofactors in many enzymatic processes. The balanced supply of microelements promotes an optimal nutritional status of the soil, where the presence of all necessary elements results in positive interaction phenomena (synergy). XEDANUTRIENTS is a systemic formulate that can be used in soil application but, thanks to its assimilation readiness, can be effectively used in foliar application too. Range of pH ensuring good stability of the chelated fraction: 2-12.5.

## DOSAGE AND APPLICATION METHOD

It is recommended to make 3-4 applications in function of deficiency intensity.

Apply the highest dosage in the curative applications.

CROP	APPLICATION PERIOD	DOSE	
		FOLIAR	FERTIGATION
Fruit trees	- Pre-flowering - After 20-30 days	150-250 g/hl	15-20 kg/ha
Grapevine	- Pre-flowering - After 20 days	150-200 g/hl	15-20 kg/ha
Vegetables	- From first vegetative phases - After 20 days	100-200 g/hl	4-6 kg/ha
Floriculture, ornamental, nurseries golf courses	- From first vegetative phases - After 20 days	100-200 g/hl	4-6 kg/ha



### COMPOSITION

Copper (Cu)  
soluble in water 1,2%

Copper (Cu)  
chelated EDTA 1,2%

Iron (Fe)  
soluble in water 3,6%

Iron (Fe)  
chelated EDTA 3,6%

Manganese (Mn)  
soluble in water 3,6%

Manganese (Mn)  
chelated EDTA 3,6%

Molybdenum (Mo)  
soluble in water 0,10%

Zinc (Zn)  
soluble in water 1,2%

Zinc (Zn)  
chelated EDTA 1,2%

### FORMULATION

Water dispersible granules

### REGISTRATION

None

### CLP CLASSIFICATION

None

### AVAILABLE IN PACKS OF:

1 kg - 25 kg



# XEDALIG

The new line of products based on microelements complexed with lignin sulphonates acids

*Lignin sulphonates are compounds derived from the sulphonation of lignin, a natural polymer that is extracted from trees, a natural and renewable resource. The function is to “complex” organic ions (microelements for example), neutralising their charges, so that they can enter in the leaf and provide the farmers with a natural and biodegradable complexing agent.*

In comparison with synthetic chelating agents (EDTA, DTPA...), the LIGNIN SULPHONATE is recognized as similar substance by the plant that absorbs it transforming it into nutrient.

Differently from chelates, products complexed with lignin sulphonates provide low amounts of carbon and sulphur, which are essential for crops.

It does not cause phytotoxicity because the metal is made less “aggressive” by lignin (organic matrix).

Lignin sulphonates are SOLUBLE, and thus, when melted they do not decant.

The **WG formulation**, in contrast with powders, guarantees an optimal dispersion in the tank and a great advantage in dosage.

**Authorized in organic farming**

**No phytotoxicity**

**Do not slow down metabolic processes**

**Quick efficacy against deficiencies**

**Totally biodegradable**

**WG FORMULATION**

## XEDALIG-Ca

### CHARACTERISTICS

XEDALIG-Ca is a fertilizer based on calcium formate in an innovative micro-granule that allows a water solubility higher than 99% and a great advantage in dosage in comparison with powders. The formate is a salt derived from formic acid that is able to carry efficacely Calcium in the plants making it more available. This formulation is particularly active in quickly healing and preventing plant disorders due to calcium deficiency (Bitter pit in pome fruits, blossom-end rot in Solanaceae, dessication of leaf margins in vegetables, physiological drying of melon) and improving the texture of green tissues and of fruits, increasing their shelf life. The special formulation make the product very selective for the treated vegetation.

### DOSAGE AND APPLICATION METHOD

CROP	APPLICATION METHOD	DOSE (kg/ha)
Grapevine	Treat each 10-15 days from pre-flowering to fruit enlargement	2-2,5
Vegetables	Treat each 7-15 days from fruit set to fruit enlargement	2-2,5
Leafy vegetables	Treat each 10-15 days for all the cycle	2-2,5
Olive	Treat each 7-15 days until symptoms disappearance	2-2,5
Pome fruits, stone fruits, kiwifruits, citrus, nuts	Treat each 10-15 days from pre-flowering to fruit enlargement	2-2,5
Flowers and ornamentals	Treat each 7-15 days until symptoms disappearance	200-250 gr/hl

### WARNINGS

For professional use. Avoid mixing with products containing Sulphur. Use only in case of acknowledged need. Do not exceed the proper doses.

**DO NOT DISPOSE THE CONTAINER IN THE ENVIRONMENT. AVOID THE CONTACT WITH THE EYES AND THE SKIN.**



### COMPOSITION

Calcium oxide (CaO)  
soluble in water 34%

Formate 56%

Zinc (Zn)  
water soluble 0,5%  
Copper (Cu)  
water soluble 0,5%

### FORMULATION

Water dispersible granules

### REGISTRATION

None

### CLP CLASSIFICATION



DANGER

### AVAILABLE IN PACKS OF:

1 kg



# XEDALIG-Cu

## CHARACTERISTICS

XEDALIG-Cu is a fertilizer based on copper complexed with lignin sulphonate in an innovative micro granule that allows a water solubility higher than 99% and a great advantage in dosage in comparison with powder products. This formulation is particularly active in quickly healing or preventing copper deficiencies, a fundamental element for cellular respiration. The special complexing agent makes the product very selective to treated vegetation.

- Unique formulation lignin sulphonate in WG (micro granules).
- Water solubility higher than 99%.
- Dose lower than powders.
- High selectivity on crops.

## DOSAGE AND APPLICATION METHOD

The choice of dosage and of the number of applications is in function of the deficiency intensity. Apply the highest dosage in the curative applications. Dissolve the product in water and apply in fertigation.

CROP	APPLICATION METHOD	DOSE (kg/ha)
Cereals, Sugar beet	Treat each 10-20 days until symptoms disappearance.	0,5-1
Grapevine		
Vegetables		
Olive		
Pome fruits, Stone fruits, kiwifruits, Citrus, Nuts	Treat each 10-20 days until symptoms disappearance.	50-100 g/hl
Flowers and ornamentals		

Complexing agent: Lignin sulphonate (LS) acid.

Interval of pH that ensures a good stability of complexed fraction: 2-10.



### COMPOSITION

Copper (Cu)  
water soluble 11%

Copper (Cu)  
total complexed with LS 8,8%

### FORMULATION

Water dispersible  
micro granules

### REGISTRATION

n. 0032679/21

### CLP CLASSIFICATION



DANGER

### AVAILABLE IN PACKS OF:

1 kg

# XEDALIG-Fe

## CHARACTERISTICS

XEDALIG-Fe is a fertilizer based on iron complexed with lignin sulphonate acid in an innovative micro granule that allows a water solubility higher than 99% and an advantage in dosage in comparison with powders. This formulation is particularly active in quickly healing or preventing iron deficiencies, a fundamental element for photosynthesis. The special complexing agent makes the product very selective to the treated vegetation.

- Water solubility higher than 99%.
- Dose lower than powders.
- High selectivity on crops.
- Totally biodegradable.

## DOSAGE AND APPLICATION METHOD

CROP	APPLICATION METHOD	DOSE (kg/ha)
Cereals, Sugar beet	Treat each 10-20 days until symptoms disappearance	2-3
Grapevine	Treat each 10-20 days until symptoms disappearance	1-2
Vegetables	Treat each 10-20 days until symptoms disappearance	1-2
Olive	Treat each 10-20 days until symptoms disappearance	1-2
Pome fruits, Stone fruits, Kiwifruits, Citrus, Nuts	Treat each 10-20 days until symptoms disappearance	1-2
Flowers and ornamentals	Treat each 10-20 days until symptoms disappearance	100-200 g/hl
Soil application	Before vegetative regrowth and before winter hibernation; during the productive cycle when ferric chlorosis symptoms appear	10 Kg/ha

Complexing agent: Lignin sulphonate (LS) acid.

pH interval that allows a good stability of complexed fraction: 2-10.



### COMPOSITION

Iron (Fe)  
Water soluble 10%

Iron (Fe)  
total complexed  
with LS 8%

### FORMULATION

Water dispersible  
micro granules

### REGISTRATION

n. 0032190/21

### CLP CLASSIFICATION



WARNING

### AVAILABLE IN PACKS OF:

1 kg - 10 kg

# SOCIAL



Scan the QR code and **WATCH THE VIDEO**



**XEDAVIR®**



**MEGASTYM®**



**OLIO DI SOIA F40**



**EUGENIO®**



**ERBICIDA PREMIUM GREEN**



Maximize  
cherry production



Strawberry  
strategy



Maximize the production  
of processing tomato



Roots Defence  
and Biostimulation



Transplant  
strategy



Olive tree biostimulation  
and defence strategy



**GROWUP®**  
XEDA DIGITAL PROJECT



**Follow us on**

A farmer, whose wheat always won the first price at the regional fair, used to share the best seeds with all neighbour farmers.

When it was asked him why, he answered:

*“Wind carries the pollen from one field to another, thus if my neighbours grew low quality wheat, the crossed pollination would decrease the quality of my harvest. That’s why I consider important that they would sow only the best seeds”.*

**All that we give to the others we give it to ourself.**





Via Filippo Guarini, 15 | 47121 Forlì (FC)

Tel. (+39) 0543 780600 | info@xeda.it

[wwwxeda.it](http://wwwxeda.it)

