CATALOG BIOSTIMULATION

HUBER AgroSolutions

ILSA The green evolution

2025

THE ILSA PROPOSAL

NUTRITION CATALOG

contains "intelligent" products able to modulate the release of nitrogen in sync with plant demand and in line with the new concepts of sustainable agriculture.

BIOSTIMULATION CATALOG

contains biostimulants and nutritional specialities with a specific action, based on molecules and natural substances able to act on plant primary and secondary metabolism, so responding to some of the plant's needs.

STRATEGIC BUSINESS UNITS

HUBER

AgroSolutions

Biolchim Concimi speciali | cifo dal 1965 | ILSA The green evolution | MATÉCSA Kertészeti Kft. | MILLER A HUBER COMPANY | West Coast Marine-Bio Processing Corp.

Huber Group Principles

As we continue to transform and improve products used around the world, the Huber Principles remain the foundation of our employees' business conduct. These are the core values that guide us in providing customer service, helping each other, and ensuring that the company remains a positive reality for future generations.

OUR MISSION

Enabling the professional farmer to realize and sustain greater growth

OUR VISION

To enhance growers' ability to sustainably nourish the world

OUR PROMISE

Solving your agricultural challenges with targeted performance

OUR PILLARS

PEOPLE
Professionals serving professionals.

PRODUCT
Performance products with a reputation for results.

PARTNERSHIP
Always in partnership to achieve more together.

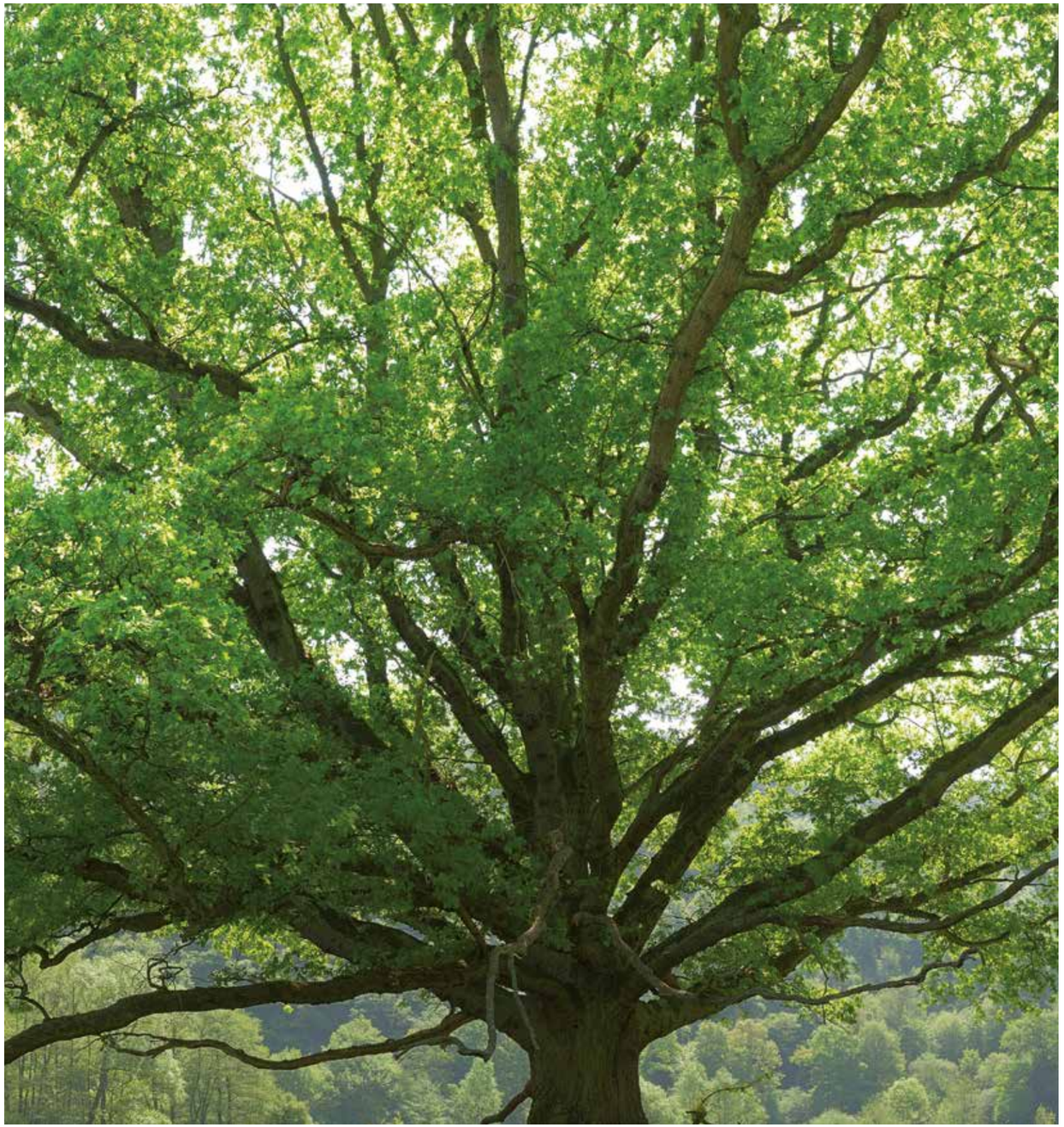
PREPERATION
Sustainable solutions that prepare the land for tomorrow

PROGRESS
Tailored innovation.

HUBER

ILSA

What we are is due to the effort, competence and passion of many people working to a common goal:
*“**make ILSA a solid and credible company**”.*
It is the result of continuous research, constant process and product innovation, respect, care and attention towards customers. Our solidity, credibility and will of continuous improvement allow us to compete worldwide and offer our customers real chances of economic and professional growth.



PRODUCTS ALLOWED IN ORGANIC FARMING BY BENEFIT

Benefit	Pag.	Products allowed in organic farming (pag. 58)	Pag.
QUALITY			
SIZE	PAG.38	ILSAFITOCELL	pag. 60
		ILSASTIMSET	pag. 62
		SOYBILS@	pag. 64
UNIFORMITY IN COLOUR AND RIPENING			
FLOWERING AND FRUIT SET	PAG.42	ILSAGIRMA	pag. 66
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PHOTOSYNTHESIS AND VEGETATIVE DEVELOPMENT	PAG.44	ILSAFITOCELL	pag. 60
GRADI BRIX			
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PRODUCTS THAT BELONG TO THE RANGE VIRIDEM®

PRODUCTS FOR SUSTAINABLE AND CONVENTIONAL FARMING BY BENEFIT

QUALITY

STRESS

MULTIPURPOSE

PRODUCTS FOR SUSTAINABLE AND CONVENTIONAL FARMING PAG. 88

PRODOTTI A MATRICE VEGETALE DEL PROGRAMMA VIRIDEM®

INDEX

Our history

A PATH OF GROWTH

1956

THE FIRM IS BORN IN 1956

Its founder's intuition was that of seeing in hide collagen a resource to be used to obtain nitrogen organic fertilisers. It is one of the longest-lived firms in the industry and its long history proves that ILSA has always been able to stay in the market with its products and meet through innovation the needs of an increasingly demanding and specialised agriculture.

1972

IN 1972 IT BECOMES THE MOST IMPORTANT ITALIAN MAKER OF ORGANIC FERTILISERS

Thanks to the acquisition of Ico S.p.A. and Valcoa S.p.A., it consolidates its leadership among the Italian makers of organic fertilsiers. In this same period it markets the first product with its own trademark, FERTORGANICO, still in production today.

1976

IN 1976 THE STRATEGIC CHOICE OF GIVING GREAT IMPORTANCE TO RESEARCH

The first partnership is forged with the Faculty of Agronomics of the Università Cattolica del Sacro Cuore of Piacenza, which lays the groundwork for the entire subsequent evolution of the ILSA research. Over the time new partnerships have been forged with a lot of universities and research institutes in Italy and abroad, promoting the constant improvement of production processes and the creation of new highly effective products.

1979

IN THE 1979 THE MOVE TO ARZIGNANO (VICENZA)

Being closer to the raw material from which AGROGEL® and GELAMIN®, the hydrolysed gelatins - one solid and the other fluid - for agricultural use, are obtained, means greater production capacity, greater chance of selecting the raw material itself, more efficient logistics and lesser environmental impact from transpor.

1993

IN 1993 THE ENZYMATIC HYDROLYSIS PLANT IS ACTIVATED

The plant for the production of liquid fertilisers marks in fact the company's entry in this market and in the biotechnology sector. It confirms the company's vocation to innovation, quality and care for the environment. This plant gives birth to GELAMIN®, the fluid gelatin for agricultural use from enzymatic hydrolysis, and the plant-derived products for plant biostimulation from the VIRIDEM® programme.

2001

IN 2001 THE ILSA MEDITERRANEO S.P.A. PLANT IS INAUGURATED

The production plant located in Molfetta, in the province of Bari, is the path chosen by the company to better serve the whole area of Southern Italy and meet the growing demand for its products coming from the countries of the Mediterranean basin.

2003

SINCE 2003 QUALITY CERTIFICATIONS HAVE CONFIRMED WITH FACTS OUR OPERATIONAL PHILOSOPHY

The corporate development has always gone hand in hand with a strong sense of social responsibility; environmental protection, safety at work, product safety and transparency to the outside have always been considered as corporate priorities.

2005

IN 2005 THE C.R.A. (CORPORATE RESEARCH CENTRE) IS INAUGURATED

35+ years of close partnerships with the most important research institutes result in the creation of the C.R.A., Corporate Research Centre, provided with growth chambers and the most modern equipment, which confirm the company's attitude towards product and process innovation.

2007

THE PUBLICATION IN THE OFFICIAL GAZETTE OF THE HYDROLYSED GELATIN FOR AGRICULTURAL USE

Thanks to AGROGEL®, 16 March 2007 will always remain an important date in the history of ILSA: the hydrolysed gelatin for agricultural use is introduced in the law ruling the use of fertilisers in Italy.

2009

IN 2009 THE ILSA BRASIL PLANT IS ACTIVATED

In the Rio Grande Do Sul state, in an area with a strong agricultural vocation, the new plant of the subsidiary ILSA BRASIL has been started to meet the growing demand for products based on AGROGEL® and GELAMIN®.

2010

IN 2010 IT LAUNCHES THE FIRST PLANT-DERIVED BIOSTIMULANTS

After seven years of research, following legal recognition and introduction of the Fabaceae hydrolysate in the category of products with a specific action on plants, the company presents to the market its first plant-derived biostimulant, ILSAC-ON, quickly followed by ILSASTIM+ and ILSAVIS+.

2014

IN 2014 ILSA RENEWS ITS TRADEMARK AND PRESENTS THE NEW PAY-OFF «THE GREEN EVOLUTION»

The ultimate frontier of the ILSA research generates a renewed corporate vision that is increasingly green and sustainable. With the launch of the new trademark, the new philosophy «the green evolution» is introduced: a prelude to the output of a new revolutionary range of products projecting the company into the future.

2016

IN 2016 THE SFE (SUPERCRITICAL FLUID EXTRACTION) EXTRACTION PLANT IS ACTIVATED

It is a clean process that allows extracting bioactive substances without using organic solvents and involves no heat stress. Because of its very low environmental impact, the FDA (Food and Drug Administration - U.S.) has conferred the GRAS (Generally Recognized as Safe) attribute to it. The combination between this new technology and the enzymatic hydrolysis technology has allowed the company to launch the VIRIDEM® programme, a guide to make plant-derived natural biostimulants that are efficient and can act on plant metabolism. A programme that can be summed up in a clear philosophy: «From plants for plants».

2017

IN 2017 ILSA BECAME A "LARGE COMPANY" THANKS TO THE AGREEMENT WITH BIOLCHIM SPA WHICH ACQUIRED 60% OF THE SHARE CAPITAL

The most important industrial and commercial Group at a world level in the bio-stimulant sector was established. The Group also includes the Italian company - CIFO, the Canadian company - West Coast Marine Bio Processing, producer of seaweed extracts and the Hungarian company - Matècsa, producer of peats and derivatives.

2019

CONSTRUCTION OF THE SECOND PRODUCTION PLAN IN RIO GRANDE DO SUL STATE, IN BRAZIL

Thanks to the new production plant, located just a few kilometers away from ILSA BRAZIL's one, operational since 2009, the production capacity of the company in Brazil reaches 52.000 tons.
The whole production made by Ilsa Rio Grande do Sul is currently intended for to the Central and South America markets.

2020

IN 2020 MERGER WITH ILSA MEDITERRANEO S.p.A

ESTABLISHMENT OF ILSA PCA IN EGYPT

Through a merging by acquisition process, the company ILSA MEDITERRANEO S.p.a becomes an integral part of ILSA S.p.A.

Thanks to ILSA PCA the biostimulants and special liquid fertilizers' availability doubles, and the **foundation** for a well-structured distribution network of ILSA fertilizers, in Egypt and in the COMESA's member states, is laid.

2022

J.M. HUBER CORPORATION TAKES OVER 40% OF THE SHARE CAPITAL OF ILSA S.p.A. AND THE WHOLE BIOLCHIM GROUP.

Biolchim, Cifo, ILSA, Matèsca and West Coast Marine has joined Huber Engineered Materials, becaming together with Miller Chemical and Fertilizers a key part of the business unit HUBER AGROSOLUTIONS.

HUBER AgroSolutions

ILSA PRODUCTION PLANTS

ILSA BRASIL
PORTAO
(Porto Alegre)

ILSA Brasil

ILSA
ARZIGNANO
(Vicenza)

ILSA

ILSA
MOLFETTA
(Bari)

ILSA

ICON EXPLANATION

ORGANIC FARMING
The "Agricoltura Biologica ILSA" logo certifies that the fertiliser can be used in organic farming.

FOLIAR APPLICATION
Foliar Fertiliser: it highlights the products to be supplied through leaves and characterised by safety of use, low molecular weight and the presence of mainly L-amino acids.

FERTIGATION
Fertigation: it highlights fertigation products characterised by purity, presence of mainly L-amino acids and easiness of use.

PLANT MATRIX
The products containing plant-derived matrices of vegetal origin obtained by enzymatic hydolysis or through super-critical CO_2 extraction, from yeasts, sugars, algae, fabaceae, etc.

VIRIDEM®
The "Powered by VIRIDEM®" trademark certifies that the product has been developed by following the VIRIDEM® programme aimed at developing plant-based natural biostimulants.

PEF/OEF
The mark indicate the study, realized by ILSA, of the environmental footprint organization, OEF (Organization Enviromental Footprint) and product, PEF (Product Environmental Footprint) .

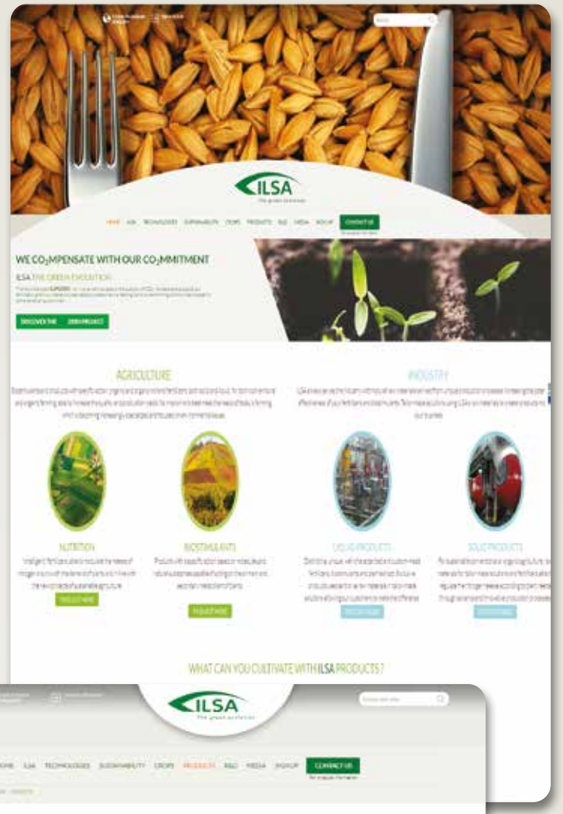
COMMUNICATION

Transferring the knowledge heritage accumulated in many years of work is one of the social responsibilities of ILSA.

ILSA includes among its social responsabilities the one to transfer its Heritage of knowledge accumulated in many years of work.

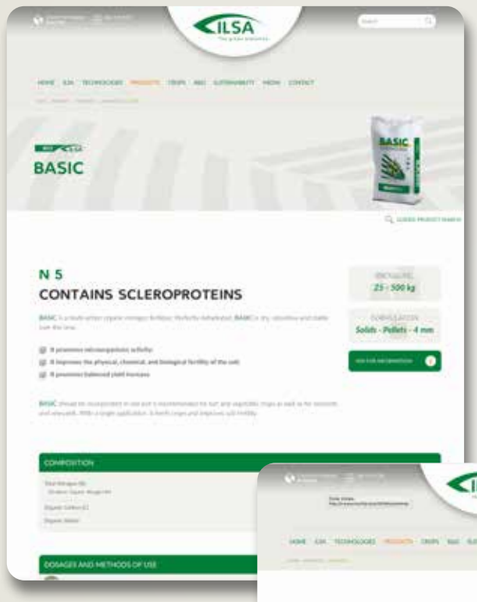
Services towards resellers and farmers

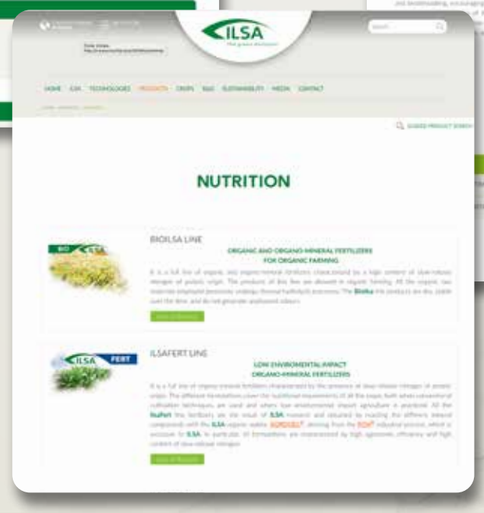
Agriculture is a dynamic and constantly evolving sector that requires specialised skills, also with regard to the introduction of new and increasingly sustainable production techniques.
Making those who operate in the agricultural sector aware of their role, not only in economic terms but also in social terms and regarding health and environmental protection, is one of the priorities that ILSA pursues by organising seminars, conferences and training courses intended for traders, technicians in the industry and farmers.

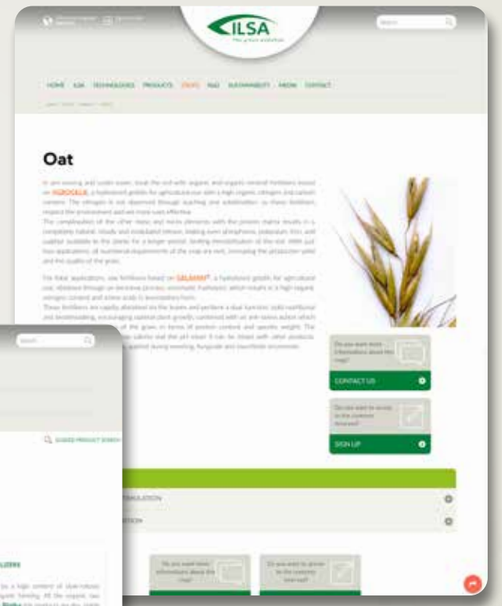


ILSA employs an in-house technical structure that is focused on daily spreading of, in addition to product value, agronomic, scientific and technological knowledge, with the aim of helping customers to identify the best technical solutions.
ILSA makes demonstration fields and in-field experiments, in Italy and abroad, collaborating with the R&D area. It takes care of collecting, drafting and spreading product and use information while meeting technicians, opinion leaders, resellers and farms to promote a more efficient use of its products.

BECOME A MEMBER
on
www.ilsagroup.com
You will have exclusive access to documents such as crop dossiers, technical data sheets and more...







COMMUNICATION TOOLS

To better support its customers, ILSA has developed a series of communication tools:

Websites

www.ilsagroup.com
www.agrogel.it
www.gelamin.it
www.viridem.it

Social

Linkedin
Twitter
Youtube (video tutorial)
Facebook
Instagram

Informative newsletters

Technical Good to know

Dossier

In-depth dossiers on crops and products

Technical Notes

Explanations on product ages and methods of use

Fertilisation Plans

Customised intervention plans, for every type of crop, both organic and conventional, based on the desired agronomic goals.

Results from demonstration fields, in Italy and Abroad

Results of in-field activity

Product information material

(technical data sheets, safety data sheets, fertilisation plans and application instructions, dépliant)

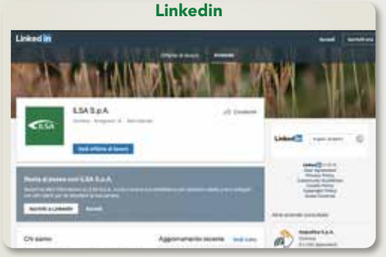
www.ilsagroup.com

www.gelamin.it

www.agrogel.it

www.viridem.it

Linkedin

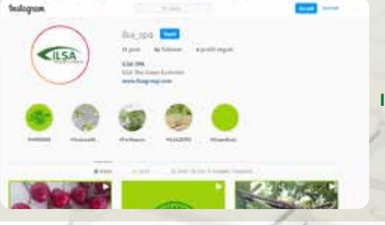


Canale Youtube

Twitter

Facebook

Instagram



ILSA'S NEWSLETTERS

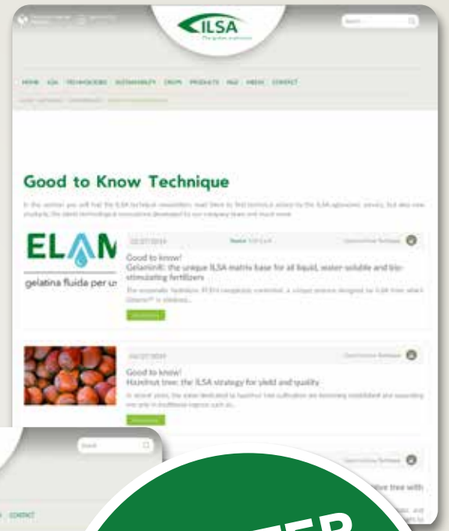
GOOD TO KNOW

The appointment with the information

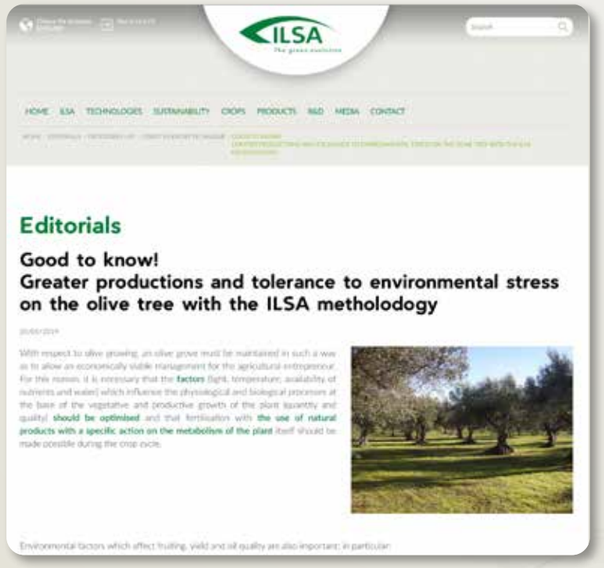
"Good to know Technique" is our periodical newsletter of information on plant nutrition, with previews, updates and technical training. "Good to know Commercial" is Ilsa's periodical newsletter of commercial information. The recipients of these two free newsletters are those interested in the dynamics of general business and the agriculture world, that is, both Ilsa's friends and people who, out of curiousity or interest, want to find out the business core of a company that in the past 50 years has been working to improve the health and yield of crops. Our wish is to give technical and commercial information (also very in-depth) in a gentle way through easy and quick reading.

We think that science has been key in our history and believe that spreading and sharing knowledge can be the only way to continue growing. Our wish is that the "Good to know" newsletters can generate a fruitful exchange of views, having in mind an agriculture capable of overcoming business and environmental sustainability challenges as well as meeting the needs of this and future generations.

You only need to register to www.ilsagroup.com.



REGISTER
on
www.ilsagroup.com!
You will receive the Good to Know more suitable for you!



FCEH

FULLY CONTROLLED ENZYMATIC HYDROLYSIS

1

SFE

SUPERCRITICAL FLUID EXTRACTION

2

ILSA's production processes.

With "The green evolution", ILSA can count on particularly efficient production technologies for more responsible and sustainable agriculture.

These technologies are highly automated and unique of their kind because they are the only ones capable of producing modulated release solid organic fertilizers (a process called: FCH® - Fully Controlled Hydrolysis) and liquid fertilizers with predetermined molecular weight in the production phase (process called: FCEH®).

In recent years, the company has supplemented FCH® and FCEH® with the SFE® (Supercritical Fluid Extraction) extraction process.

These three technologies has been used in the food, pharmaceutical and cosmetics sectors for years.

By implementing and integrating the processes of enzymatic hydrolysis and supercritical extraction, the company has created strongly characterised and efficient biostimulants.

No other company in the world owns and uses these two technologies together to create products that enhance the performance and well-being of cultivated plants.

FCEH

FULLY CONTROLLED ENZYMATIC HYDROLYSIS

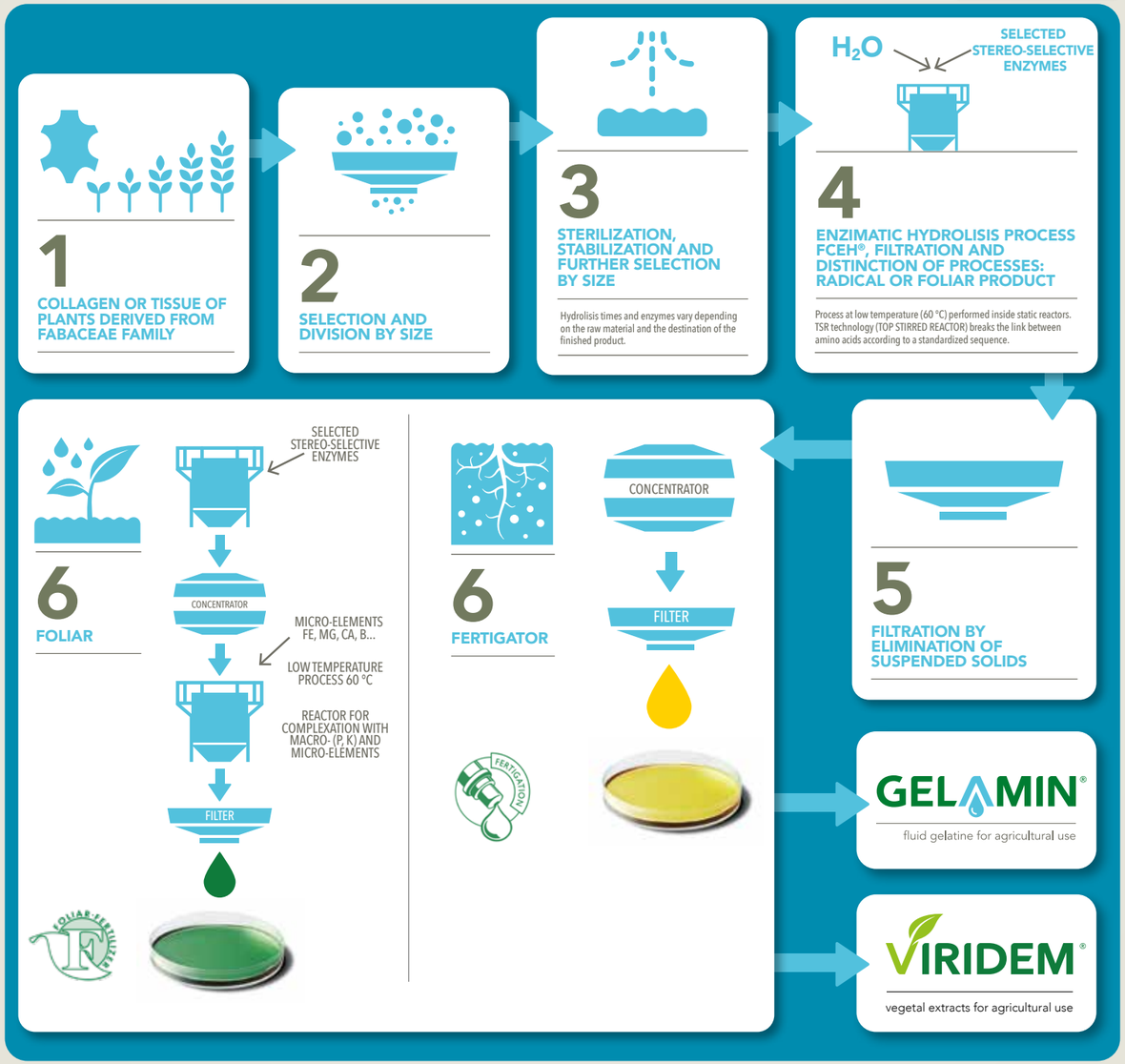
SFE

SUPERCRITICAL FLUID EXTRACTION

FCEH® IN 6 STEPS

ENZYMATIC HYDROLYSIS

FCEH
FULLY CONTROLLED ENZYMATIC HYDROLYSIS



ENZYMATIC HYDROLYSIS is a production process defined as "gentile process" because it involves the use of proteolytic and cellulolytic enzymes which "cut" the target molecules at specific points and it takes place inside static reactors at low temperatures (50-55°C). This allows us to obtain enzymatic hydrolysates which are characterised by:

- **HIGH EFFICIENCY THANKS TO PRESERVING THE CHEMICAL AND BIOLOGICAL CHARACTERISTICS OF THE BIOACTIVE MOLECULES PRESENT IN THE RAW MATERIALS**
- **PRODUCTS WHICH ARE HOMOGENEOUS AND STABLE OVER TIME**
- **THE POSSIBILITY OF MIXING PRODUCTS WITH ANY FORMULATION DESIGNED FOR LEAF OR ROOT APPLICATION THANKS TO THE LOW SALINITY**
- **SUB-ACID PH WHICH PROMOTES ABSORPTION OF THE PRODUCTS WHICH ARE MIXED WITH THEM**

GELAMIN® is a fluid hydrolysed gelatine, from animal origin, for agricultural use which, thanks to its special characteristics, is the essential matrix of many of all ILSA's liquid and water-soluble fertilisers.

GELAMIN® is characterised by a high efficiency of use and:

- a high nutritional efficacy thanks to the high content of nitrogen and organic carbon, completely soluble and bio-available;
- a bio-stimulating action as it contains more than 50% of total amino acids in the form of polypeptides, peptides and free amino acids predominantly in levorotatory form, the only form used by plants;
- a rapid absorption through leaf and root thanks to the high purity and stability of the protein matrix;
- a rapid action in preventing any nutritional deficiencies thanks to the complexing action of the amino acids with macro, meso and micro elements.

The **ENZYMATIC HYDROLYSATE OF FABACEAE**, is obtained through the use of proteolytic and cellulolytic enzymes from plant tissues belonging to the Fabaceae family.

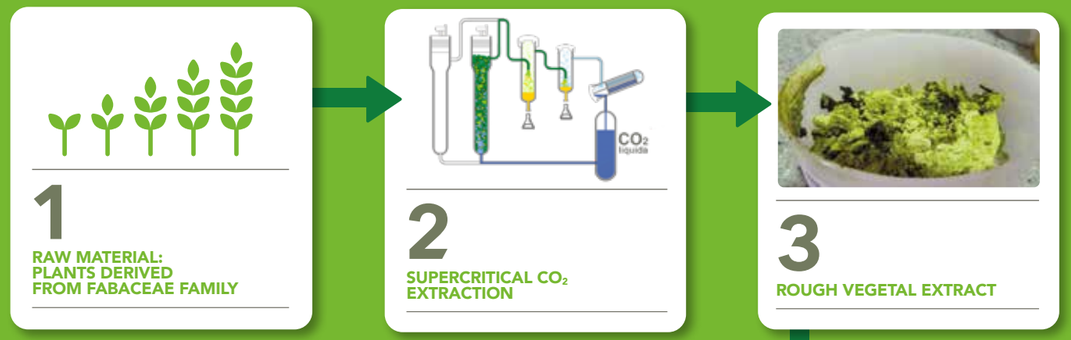
The **ENZYMATIC HYDROLYSATE OF FABACEAE** is characterised by:

- an increase in the productivity and quality of agricultural production thanks to its bio-stimulating effect, linked to the presence of a pool of organic molecules acting directly and indirectly on the primary and secondary metabolism of plants;
- a multiple action on the plant as it increases its tolerance to stress and stimulates rooting, vegetative growth, flowering, fruit setting, the final quality of the produce and the shelf-life;
- a highly efficient use and therefore a reduced dosage.

SFE® IN 5 STEPS

SUPERCRITICAL CO_2 EXTRACTION

SUPERCRITICAL FLUID EXTRACTION



1
RAW MATERIAL:
PLANTS DERIVED
FROM FABACEAE FAMILY

2
SUPERCRITICAL CO_2
EXTRACTION

3
ROUGH VEGETAL EXTRACT

4
MIXING AND
STANDARDIZATION

5
VEGETAL EXTRACT
IN SUSPENSION

VIRIDEM®
vegetal extracts for agricultural use

THE PLANT EXTRACT PROCESS: SFE®

The process called SUPERCRITICAL FLUID EXTRACTION allows extracting bioactive substances from plant matrices and is performed by using Carbon Dioxide (CO_2) as extraction fluid, in supercritical conditions.

SUPERCRITICAL FLUID EXTRACTION

The extraction of bioactive substances from plant matrices is performed by using Carbon Dioxide (CO_2) as extraction fluid, in supercritical conditions.
The solvent power of CO_2 can be regulated by increasing or diminishing pressures and/or temperatures.
By adequately modifying pressure (which can reach 1.000 bar) and temperature (never over 80 °C) conditions, such process allows creating very selective unique extractions with different levels of oils, waxes and desirable extracts.
The plant raw materials, suitably dried and ground, are introduced into the plant and Carbon Dioxide (CO_2), a gas that under specific environmental conditions (temperature of 31.1 °C and pressure of 73.8 bar) is found in a supercritical stage, is brought to the desired temperature and pressure, so starting the extraction stage.
Once the extraction is completed, the operating pressure is reduced and CO_2 loses its solvent force, releasing the substances extracted, which are available in a concentrated form.
The extracts obtained are microbiologically stable and do not need preservatives.
Differently from conventional procedures, the selectivity of the ILSA extraction process does not entail heat stress in raw materials or require using organic solvents.
Because of its very low environmental impact, the FDA (Food and Drug Administration - U.S.) has conferred the GRAS (Generally Recognized as Safe) attribute to this industrial process.

The ILSA products with a specific action can act on plant metabolism to respond to specific qualitative and quantitative needs like, for example, size increase and uniformity, stimulation of flowering, sprouting and vegetative growth, fruit set and reduction of premature fruit drop, photosynthesis and vegetative growth, plant biomass increase, rooting, internode shortening, higher Brix level, resistance to fruit cracking and rot and shelf-life increase. They increase plant tolerance to abiotic stresses and support plants even under adverse conditions such as excessive soil salinity, temperature leaps and heat and water stresses. They reduce nitrate accumulation in leaves and support plants in stress situations caused by the application of agrochemicals. Last, they can foster plant nutrition by facilitating the assimilation of macro- and micro-elements.

VIRIDEM® PROGRAMME

ILSA has been engaged for years in a programme called VIRIDEM®, aimed at developing natural plant-based biostimulant products with a clear philosophy:

«From plants to plants.»

With VIRIDEM® «The green evolution» takes one more important step forward.

VIRIDEM®

vegetal extracts for agricultural use

VIRIDEM® is the ILSA programme that brings together the company's scientific heritage to develop its plant-derived biostimulants. Through the VIRIDEM® programme, ILSA embraces the philosophy of creating products for plants by starting from the plants themselves. Thanks to years of research, this work programme sums up the most advanced knowledge in molecular biology, applied microbiology, proteomics, metabolomics, physiology, chemistry and bioprocesses.

VIRIDEM® comes from the identification of bioactive substances inside different plant species, extracted with low environmental impact technologies and made available to plants in their full potential. The result is a complete range of natural and efficient products acting on plant metabolism: fertilizers with a specific action improving plant physiological processes and making plants vigorous, more productive and responsive to environmental stresses.

VIRIDEM® also represents the ILSA proposal to create conservative agricultural techniques aiming at preserving soil functions, protecting soil to improve its adaptation to climate changes with water saving solutions, and allowing using fertilisers in a more and more efficient, sustainable and integrated manner.

VIRIDEM® is all of this: observing nature, understanding its mechanisms and extracting its essence to help it with its own tools.

«From plants to plants.»

THE VIRIDEM® PROGRAMME IN THE FIELD OF BIOSTIMULANTS REPRESENTS:

- Excellence in research oriented towards developing products for a more and more sustainable agriculture
- Excellence in selecting plant raw materials and experimenting specific substances extracted from them
- Excellence in the method of extracting bioactive substances
- Excellence in the ability to combine them to create biostimulant and nutritional products that are both innovative and highly efficient.

VIRIDEM® PROGRAMME IN 12 STEPS

VIRIDEM®
vegetal extracts for agricultural use

STUDY AND ANALYSIS

1
IDENTIFICATION OF THE PLANT MATRIX

2
IDENTIFICATION OF THE COMPOUNDS (TARGET SUBSTANCES)

3
IDENTIFICATION OF THE STAGE IN THE PHENOLOGICAL CYCLE WHERE THE PLANT PRODUCES MOST COMPOUNDS (TARGET SUBSTANCES)

DEVELOPMENT

4
CHEMICAL AND PHYSICAL CHARACTERISATION OF THE MATRIX AND OF SUBSTANCES

5
TUNING OF PARAMETERS AND OF THE MOST EFFICIENT AND EFFECTIVE EXTRACTION PROCESS IN PRESERVING THE INTEGRITY OF COMPOUNDS (TARGET SUBSTANCES)

TEST AND VERIFICATIONS

6
LAB TEST AND PROTOTYPE CHARACTERISATION

7
TEST IN GROWTH CHAMBER

8
TEST IN CONTROLLED ENVIRONMENT OR IN GREENHOUSE

9
TEST IN OPEN FIELD

10
IDENTIFICATION OF EFFECTS, DOSES AND BENEFITS OF THE FINAL PRODUCT

IMPLEMENTATION AND LAUNCH

11
LAUNCH PLAN APPROVAL AND INDUSTRIAL START-UP

12
PACKAGING AND PRODUCT LAUNCH

FROM VIRIDEM® THE EXCELLENCE OF PLANT-DERIVED PRODUCTS WITH A SPECIFIC ACTION

It is estimated that in the world at least 30% of production is lost because of environmental stresses to which plants are subjected.

Adverse conditions limiting the quantity and quality of agricultural productions.

ILSA has launched a line of products with a specific action that are completely natural, very effective and made with lowest environmental impact technologies.

ILSA innovation in the world of products with a specific action.

The ILSA products with a specific action can act on plant metabolism to respond to specific qualitative and quantitative needs like, for example, size increase and uniformity, stimulation of flowering, sprouting and vegetative growth, fruit set and reduction of premature fruit drop, photosynthesis and vegetative growth, plant biomass increase, rooting, internode shortening, higher Brix level, resistance to fruit cracking and rot and shelf-life increase. They increase plant tolerance to abiotic stresses and support plants even under adverse conditions such as excessive soil salinity, temperature leaps and heat and water stresses. They reduce nitrate accumulation in leaves and support plants in stress situations caused by the application of agrochemicals. Last, they can foster plant nutrition by facilitating the assimilation of macro- and micro-elements.

PHOTOSYNTHESIS AND VEGETATIVE DEVELOPMENT

TOLERANCE TO HEAT AND WATER STRESS

SALINITY TOLERANCE

SHELF-LIFE

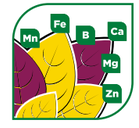
CRACKING AND ROT

FLOWERING AND FRUIT SET

ROOTING

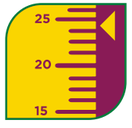
UNIFORMITY IN COLOUR AND RIPENING

SIZE



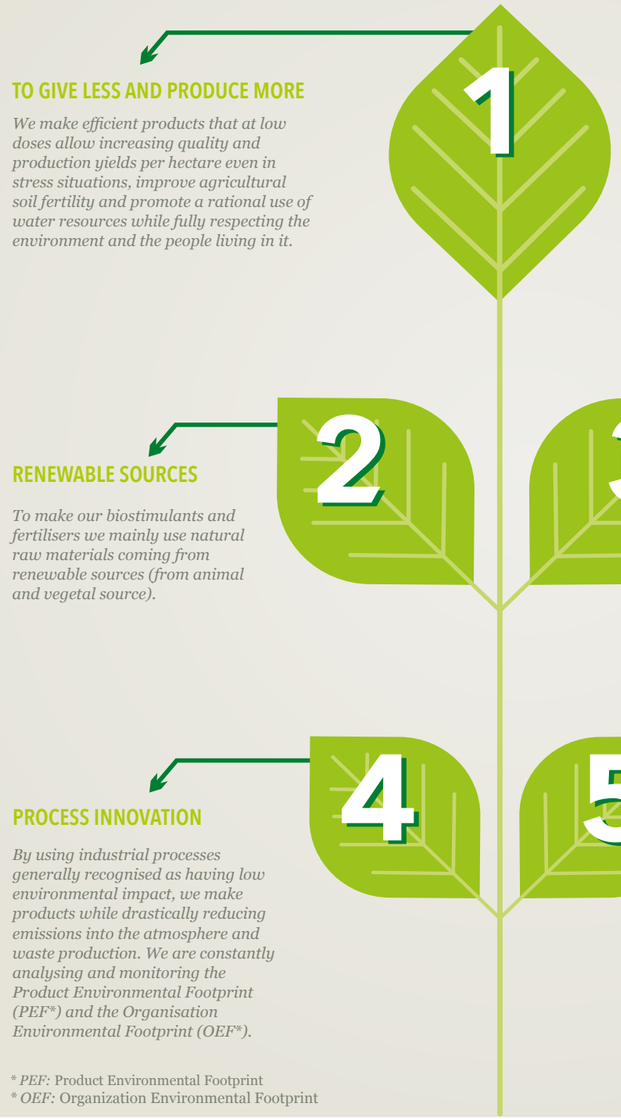
NUTRITION AND NUTRIENT UP-TAKE

PLANT BIOMASS



DEGREES BRIX

ILSA MANIFESTO ON AGRICULTURAL SUSTAINABILITY



1 TO GIVE LESS AND PRODUCE MORE

We make efficient products that at low doses allow increasing quality and production yields per hectare even in stress situations, improve agricultural soil fertility and promote a rational use of water resources while fully respecting the environment and the people living in it.

2 RENEWABLE SOURCES

To make our biostimulants and fertilisers we mainly use natural raw materials coming from renewable sources (from animal and vegetal source).

3 PRODUCT INNOVATION

The C.R.A. (Corporate Research Centre) applies «white» biotechnologies that, through the use of enzymes, allow developing products obtained by transforming natural raw materials that contain bioactive substances for plants.

4 PROCESS INNOVATION

By using industrial processes generally recognised as having low environmental impact, we make products while drastically reducing emissions into the atmosphere and waste production. We are constantly analysing and monitoring the Product Environmental Footprint (PEF) and the Organisation Environmental Footprint (OEF*).*

5 TRAINING AND DISCLOSURE

The correct use of products and the reduction of the environmental impact from their use also depend on good training and information activities addressed to the distribution system and to end-users.

* *PEF:* Product Environmental Footprint
* *OEF:* Organization Environmental Footprint

ORGANIC CERTIFICATIONS

Organic farming employs cultivation techniques that avoid over-exploiting natural resources, in particular soil, water and air.

ILSA has a wide range of organic and organic-mineral fertilisers, both solid and liquid, used by organic farms, in Italy and all over the world. The company is regularly subjected to inspections on part of specific accredited certification bodies to determine the compliance and allowance of ILSA's technical means in organic farming.
The products allowed are distinguished by the brand "**ILSA Organic Farming**".

Below is the list of certification bodies to which ILSA refers by submitting the controls required by their protocols for the use in organic farming.

MEZZI TECNICI AIAB

FiBL

KIWA BCS ÖKO-GARANTIE GMBH

CONTROL UNION SERVICES

OMRI

ILSA IS BRILLIANT COMPANY

The only one in the agricultural sector, ILSA is among the 30 Brilliant Companies of Italy selected by Kotler Publishing and Weevo.

An award that comes directly from the father of modern marketing for innovation in modular green biotechnologies, capable of solving the environmental problem of tanned leather trimmings in tanning clusters worldwide and producing highly efficient fertilisers and biostimulants for sustainable agriculture.

Do you want to find out why ILSA became Brilliant?
Go to www.ilsagroup.com

30 brilliant company

THE FIRST AWARD FOR SUSTAINABLE COMPANIES THAT GIVE VALUE TO ITALY AND TO GREEN BIOTECHNOLOGIES

SIZE

ILSASTIMSET pag. 62 ILSAFITOCELL pag. 60 SOYBILS@ pag. 64 ILSAFORMA pag. 90

In every plant fruits represent the survival organs of the species: for this reason they must be numerous and have a very good structure. After fecundation, fruit cells begin to multiply intensely to then stretch and enlarge, defining fruit size. This stage affects not only those who grow them, but also consumers.

The enlargement process requires the action of natural hormones regulating the various cell steps. During fruit growth a nutritional competition takes place between fruits, buds and sprouts. Nutritional imbalances (excesses or deficiencies), temperature leaps, hard environmental conditions or excess fruits with regard to the plant's conditions can hamper fruit growth.

In order to increase the size of fruits and vegetables, an efficient hormonal and nutritional balance is needed, starting from the previous fruit set stage.

The ILSA products with a specific action on increasing size contain amino acids, peptides, proteins, algae extracts, betaines and other plant extracts that act on the plant's physiology and allow fruits to fall in commercially superior size categories, limiting adverse nutritional and environmental stresses.

UNIFORMITY IN COLOUR AND RIPENING

Conventional Farming

ILSAKOLORADO pag. 92

Every ripe fruit reaches its ideal growth point through a series of internal changes affecting:

- *a change in the colour*
- *pulp softening*
- *an increase in sugars*
- *the presence of flavours*

The colour is typical to both the species and the variety and each colour corresponds to a particularly effective substance for human health also, which is indication of a specific set of beneficial effects on the organism. The accumulation of these substances is at its peak at the time of full ripening and is indication of quality. Definitively, it is the result that sums up the quality of the farmer's agronomic choices.

The ILSA products with a specific action on colour and ripening uniformity, based on potassium, betaines, polysaccharides and other plant extracts, facilitate greater production of the natural pigments responsible for the final colour and allow balancing nutrient distribution among fruits, so to have a harvest as simultaneous as possible.

FLOWERING AND FRUIT SET

ILSAGIRMA pag. 66

Organic Farming

ILSAVEGETUS pag. 68

Flowering is affected by genetic and environmental (temperature, photoperiod, soil type, biological balances) factors. Proper synchronisation leaves and flowers' stages production is also decisive. When plants receive appropriate light and temperature signals from the environment, meristem cells start to proliferate, giving rise to inflorescences. The synchronisation between vegetative and reproductive boosts is linked to specific hormonal and enzymatic balances regulating leaf development, which is able to provide sufficient energy to support flowers and fruits.

The increase in flowering and, above all, in the number of fruits set, that is, the final yield, depends on the plant's nutritional balance and the efficiency of the enzymatic systems responsible for physiological processes.

The ILSA products with a specific action on flowering and fruit set, based on plant extracts, act by positively stimulating the vegetative/productive activity of plants, regulating nutrient distribution and allowing the plant to maturate a greater number of fruits.

PHOTOSYNTHESIS AND VEGETATIVE DEVELOPMENT

Organic Farming

ILSAFITOCELL pag. 60

Conventional Farming

ILSAVIVIDA pag. 94

In the presence of sunlight, by using atmospheric carbon dioxide and metabolic water and thanks to chlorophyll photosynthesis, green plants produce organic substances, especially carbohydrates. Chlorophyll photosynthesis is a fundamental natural process to obtain organic compounds from inorganic substances and is the only biologically important process capable of transforming solar energy, on which life on Earth depends. This process depends on plant tissues, their nutrition and hydration state and the intensity of bioactive enzymes.

Efficient photosynthesis produces all the carbohydrates, amino acids and lipids that plants need during their vegetative development.

Plant tissue development is linked to the activity of meristems, which give rise to intense cell multiplication and division. To improve photosynthesis and the growth of leaves and sprouts, it is necessary to promote meristematic activity while limiting stress conditions.

The ILSA products with a specific action on photosynthesis and vegetative development, based on amino acids, proteins, phosphorus, betaines, glycosides and other plant extracts, help to overcome climate stresses and, at the same time, allow proper photosynthesis and increased crop growth.

DEGREES BRIX

Conventional Farming

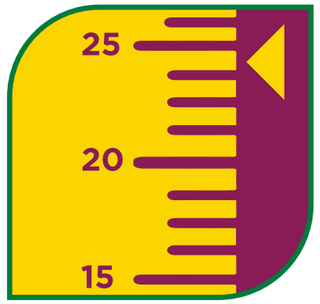
ILSAGRADER pag. 96

The final quality and, therefore, the commercial value of grapes, peaches, strawberries, melons and other fruits greatly depends on the sugar degree at harvest. Obviously, the greater the value of final production, the higher is the farmer's income.

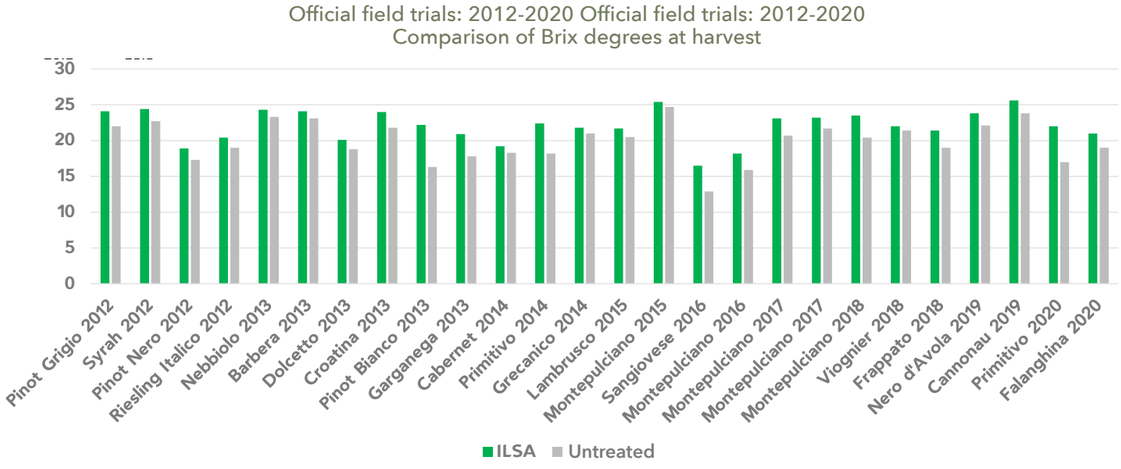
The sugar degree is measured in degrees Brix: the degree Brix expresses the amount of sugars contained in fruits and vegetables, in wine and drinks and in the intermediate products of sugar preparation; it does so by measuring the solid substances dissolved in a liquid. For instance, a 25 degrees Brix solution contains 25 grammes of solid substances per 100 grammes of total liquid.

The degree Brix, specific for each type of fruit, measures the ripening degree and the overall quality reached by fruits. The greater the degree Brix, the greater are quality and transformation potential. The ensemble of agronomic and environmental choices and the genetic potential of crops strongly affect the degree Brix.

The ILSA products with a specific action on the sugar degree, based on polysaccharides, potassium, betaines, algae extracts and other plant components, foster the production of sugars by the plant and their transfer into the final product, so also improving the balance between flavours and savours.



Summary of ILSA Official field trials 2012-2020:
Comparison of Brix degrees at harvest



ROOTING

Organic Farming

ILSAORGAMIT-R pag. 70

Also acts on PLANT BIOMASS

Conventional Farming

ILSADEEPDOWN pag. 98

In plants all activities are regulated by typical plant hormones that, with different functions, interact and are interdependent. Also, when combining they affect the production of other hormones, regulate specific and complex activities and are largely responsible for the plant's development speed. A few substances facilitate auxin accumulation in root tissues, that is, make early root production easier. Their presence stimulates the plant's natural potential to produce roots in highly fertile soils.

A root stimulator must ensure good root development during the stages of germination, seedlings rooting and vegetative growth. It also helps maintain roots in good health by preparing the crop for the following stages of flowering and fruit set. Finally, it is expected to exert an anti-stress function in the post-repotting stages and in times of drought or excessive heat.

To allow a good vegetative start of plants, which lays the groundwork for a good final production, it is essential to improve the development of root systems. In particular, in the stages of seedlings germination and rooting, initial stresses (shock from transplanting) must be reduced.

The ILSA products with a specific action on increasing rooting, based on phosphorus, humic substances, amino acids and plant extracts, foster the accumulation of natural hormones in the basal part of plants and, accordingly, an easier and faster root development.

SHELF-LIFE

Organic Farming

ILSADURADA pag. 72

Shelf-life is the time within which a particular food must be consumed, under certain preservation conditions, following which degradation happens at the sensory level (smell, colour and savour), at the nutritional level (degradation of proteins and other substances) and from the hygienic point of view (microbiological contamination and proliferation of bacterial colonies). Shelf-life directly depends on the level of maturation and health of plant products and on the processing they can endure.

Extending the shelf-life of fruits and vegetables allows managing all post-harvest operations more easily and extend market life, so preventing sensory, nutritional and hygienic degradation from jeopardising the final product quality. All of this means to better exploit agricultural productions commercially.

The ILSA products with a specific action on increasing shelf-life, based on amino acids, humic substances and other selected plant extracts, have a strong anti-oxidising and regulating action on the cell processes that keep fruits and vegetables good for longer.

TOLERANCE TO HEAT AND WATER STRESS

Organic Farming

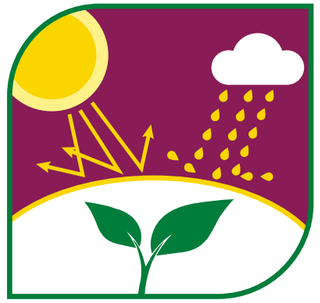
ILSATERMIKO pag. 74

The weather conditions characterising each geographical area comprise the whole of climate factors such as temperature, solar radiation, atmospheric precipitation, wind, humidity, soil evaporation, etc. The growth of plants is linked to their environment. Each plant species has, towards each environmental factor, a tolerance level within which it performs its vital functions.

Plants have organic temperatures similar to those of the surrounding environment. Below 0 °C photosynthesis is almost absent and the plant enters a state of latent life; above 50 °C protoplasm coagulation begins. Within this range each species and variety finds its ideal conditions.

To withstand extreme conditions, for example excessive heat or cold, plants modify water availability and solute concentration in the sap. Stresses from high or low temperatures and from water deficiency or excess can jeopardise the vital functions of crops (photosynthesis, vegetative development and nutrient absorption) with noticeable impact on production and, consequently, final quality.

The ILSA products with a specific action on tolerance to heat and water stress, based on specific amino acids, potassium and selected plant extracts, allow a smooth progress of cell processes, so helping crops produce at high levels even under adverse conditions.



SALINITY TOLERANCE

It also acts on SIZE

Organic Farming

ILSASTIMSET pag. 62

Salinity causes serious damage to agriculture and plant productivity. High sodium concentrations reduce water absorption by roots and damage cells, so seriously threatening the plant's survival. The plant reacts to saline stress first by blocking the activity of sprouts, then by accelerating the senescence of already developed tissues. If somehow it manages to survive, its productivity will certainly be compromised.

At the physiological level, plants suffer three types of salinity damage: osmotic, nutritional and toxic.

Osmotic damage is due to a reduction of cell turgor that involves the alteration of metabolic processes and the inhibition of growth.

An increased concentration in tissues of a few ions, sodium in particular, has a toxic and denaturating effect towards cytoplasmic enzymes. This leads to reduced early growth (leaf area reduction and shortened internodes) and afterwards, in the most serious cases, browning, spread necroses and death of tissues.

Excess salinity, due to the use of brackish waters or excessive use of mineral fertilisers, can cause problems of absorption by crops and, in the most serious cases, damage at the cell level leading to stunted growth, no production and death of plants.

The ILSA products with a specific action on salinity tolerance, based on amino acids, proteins, polysaccharides and other plant extracts, limit the negative factors linked to salinity, promoting the absorption of nutrients and water and allowing crops to grow and produce even in difficult conditions.

MULTIPURPOSE

ILSAPOLICOS
pag. 80

Organic Farming

ILSAC-ON
pag. 76

ILSASTIM+
pag. 78

ILSAMIN N90
pag. 82

MACRILS@
pag. 84

SPLINTER NEW
pag. 86

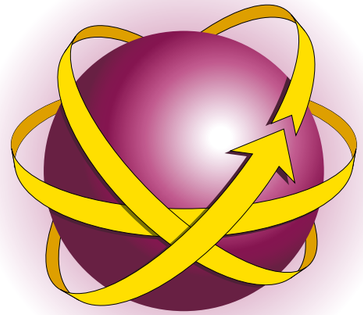
Well-being (to be well) is a state characterising every plant's life quality and involves all its aspects. The concept of well-being is not centred on the idea of absence of pathologies, but on the concept of overall good health (vegetative, physiological and reproductive) and a condition of harmony between the plant and the environment.

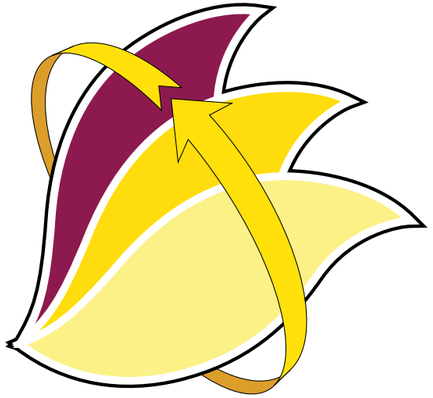
Healthy plants better and sooner respond to stress, give higher yields and quality and produce constantly every year.

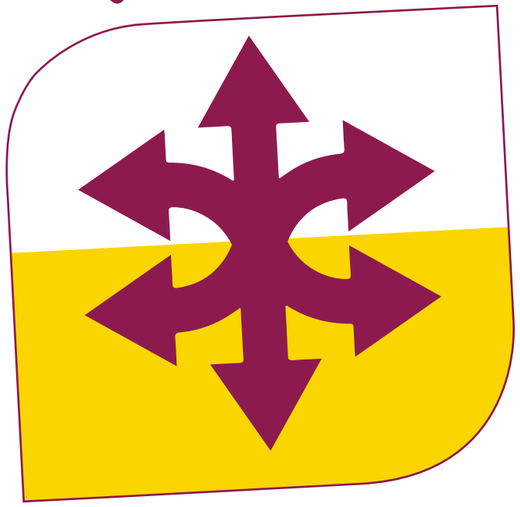
Specific substances with multiple actions positively stimulate plant metabolism, so promoting the all-round smooth progress of vegetative and productive stages, from the development of roots and plant biomass to good fruit formation and ripening.

The ILSA with a specific action and multifunctional products, based on triacontanol, free L-amino acids and other specific plant and animal derived substances, are able to regulate the plant's endogenous enzymatic systems through totally natural processes.

In one solution, they meet several needs in crops and provide continuous support throughout the plant's cycle, integrating seamlessly with fertilisation and other agronomic management practices and increasing their effectiveness.







PRODUCTS ALLOWED IN ORGANIC FARMING

PRODUCTS ALLOWED IN ORGANIC FARMING

ILSA FITOCELL

BIOSTIMULANT

SIZE

PHOTOSYNTHESIS AND VEGETATIVE DEVELOPMENT

Benefits:

- Stimulates the vegetative development and rachis elongation.
- It increases photosynthetic efficiency, plant biomass and fruit size.
- Improves rapid recovery due to frost or hail stress.

Benefits

- It provides energy during vegetative stages and reduces sensitivity to saline stress.
- It balances osmotic exchange by stimulating cell wall permeability.
- It increases the number and size of fruits.

1 kg

5 kg

Characterising substances:

- PEPTIDES FROM THE VEGETAL SOURCE
- FREE AMINO ACIDS AND PEPTIDES WITH LOW MOLECULAR WEIGHT
- ORGANIC TRIACONTANOL AND PLANT EXTRACTS

	COMPONENTS	PLANT-BASED PEPTIDES	FREE AMINO ACIDS AND OLIGOPEPTIDES	ORGANIC TRIACONTANOL AND PLANT EXTRACTS
ACTIONS	VEGETATIVE DEVELOPMENT AND REGENERATION OF PLANT TISSUES	✓	✓	✓
	INCREASE IN PLANT BIOMASS AND FRUIT SIZE	✓	✓	✓

Physico-chemical characteristics:

LIQUID COLOR	BROWN
pH	5.0 ± 0.5
DENSITY	1.21 ± 0.02 kg/dm³
CONDUCTIVITY C.E.	2.0 ± 0.20 dS/m

Composition:

TOTAL NITROGEN (N)	5%
OF WHICH: ORGANIC NITROGEN (N)	5%
ORGANIC CARBON (C)	19.5%
TOTAL AMINO ACIDS	31%
FREE AMINO ACIDS	3.5%
ORGANIC TRIACONTANOL	5 mg/kg

FOLIAR FERTILIZER

ORGANIC VEGETAL MATRIX

Contains in particular

ALFALFA PROTEIN HYDROLYSATE

What is it?

ILSAFITOCELL *is a biostimulant from vegetal source, obtained through an enzymatic hydrolysis process hydrolysing alfalfa tissues. The exclusive FCEH® process, patented by ILSA, allows the extraction of organic nitrogen, natural triacontanol, plant extracts and amino acids, partly free and in levorotatory form , the only form used by plants and only the enzymatic hydrolysis process can fully guarantee.*

What does it do?

The components of **ILSAFITOCELL** *allow having more effects on cultivated crops.*

WHAT IT DOES FOR VEGETATIVE DEVELOPMENT: ILSAFITOCELL *stimulates the vegetative development of newly formed shoots, particularly the elongation of the flower clusters and the rachis on the vine allowing more regular flowering and fruit formation. Applied after any frost, hail, or other extreme weather events,* **ILSAFITOCELL** *allows a rapid regeneration of plant tissues and the rebalancing of physiological processes.*

ILSAFITOCELL WHAT IT DOES FOR THE FRUIT SIZE: ILSAFITOCELL *boosts the fruit size and quality in terms of firmness, uniformity size, aroma, sugar content and, in particular the RAN vine (readily assimilable nitrogen).*

How is it used?

ILSAFITOCELL *should be applied by foliar application on tree and vegetable crops, in different phases of the crop cycle, depending on the final goal: during the development of the flower clusters, after freezing or cold returns and in the post-fruit setting, to stimulate an increase the fruit size and quality. The nature of* **ILSAFITOCELL'S** *components allows it to be used in organic farming.*

Directions for use*

CROP	kg/ha	NOTES
KIWI, CITRUS	3-4	3-4 applications, every 15-20 days, from pre-flowering to fruit development
POME FRUITS, STONE FRUITS	2,5-3	3-4 applications, every 15-20 days, from pre-flowering to fruit development
STRAWBERRY	2,5-3	Every 10 to 15 days from pre-flowering throughout the harvest time
TOMATE, PEPPER, MELON, WATERMELON, AUBERGINE, CUCUMBER, COURGETTE	2-2,5	3-5 applications, alternately, from vegetative growth to fruit enlargement
POTATO, CARROT, FENNEL, CABBAGES, ASPARAGUS, GARLIC AND SCALLION	1,5-2,5	2-4 applications every 8-10 days from 10 days after transplanting
LETTUCE, CHICORY AND READY-PREPARED CROPS	2-2,5	2-4 applications every 8-10 days from 10 days after transplanting
BLUEBERRY, RASPBERRY AND OTHER SMALL FRUITS	2,5-3	3-4 applications, every 15-20 days, from pre-flowering to fruit development
OLIVE TREE	2,5-3	From blossoming to olive ripening every 15 days
TABLE AND WINE GRAPES	3-a	3-4 applications, every 15-20 days, from pre-flowering to fruit development

Post-frost/hail application: 3-4 kg/ha, to promote regeneration of plant tissue.

** The doses shown should be considered merely indicative and may vary according to pedoclimatic conditions and expected average yields. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use them on crops, please refer to the website*

ILSA STIMSET

POWERED BY VIRIDEM

OSMOTIC BALANCER IN
THE FRUIT GROWTH STAGE

SIZE | **SALINITY TOLERANCE**

5 kg

20 kg

Benefits

- It provides energy during vegetative stages and reduces sensitivity to saline stress.
- It balances osmotic exchange by stimulating wall permeability.
- It increases the number and size of fruits.

What is it?

ILSASTIMSET *is an osmotic balancer based on amino acids and peptides of animal and plant origin, protein nitrogen and other essential plant extracts to stimulate plant metabolism and promote cell turgor.*

What does it do?

ILSASTIMSET *ensures more efficient water and nutrient uptake and correct vegetative development from the early stages up to the fruit development stages.*

WHAT IT DOES FOR THE SIZE: *By balancing water and nutrient uptake,* **ILSASTIMSET** *allows more and larger sized fruits to ripen. Indeed, the cell elongation that accompanies fruit development is due not only to hormonal factors but also to cell turgor, essential to keep the plant tissues rigid. For this reason, by promoting osmotic exchange within cells, a balance is achieved that allows water to penetrate and promote cell turgor.*

WHAT IT DOES FOR SALINITY TOLERANCE: *Even in conditions of high salinity of the circulating soil solution (therefore with a high "solute potential"), the use of* **ILSASTIMSET** *promotes the absorption of water inside the cells, helping the plants remain rigid. Moreover, the low salinity and pH values and the supply of organic carbon improve the soil structure and rebalance the pH at the rhizosphere level, limiting saline stress.*

How is it used?

ILSASTIMSET *is designed to accompany the vegetative development and post-setting stages of fruit and vegetable crops. It must be applied by fertigation, alone or mixed with other formulations.*

Characterising substances

PROTEIN NITROGEN AND CARBON

ANIMAL- AND PLANT-DERIVED AMINO ACIDS AND PEPTIDES

	COMPONENTS	PROTEIN NITROGEN AND CARBON	AMINO ACIDS AND PEPTIDES	PLANT-DERIVED AMINO ACIDS
ACTIONS	CELL TURGOR AND TISSUE CELL ENLARGEMENT		✓	✓
	REGULATION OF FLOWERING, FRUIT SET AND FRUIT DEVELOPMENT	✓	✓	✓

Chemical and physical features

LIQUID COLOUR	BROWN
pH	5.5 ± 0.5
DENSITY	1.20 ± 0.02 kg/dm³
CONDUCTIVITY E.C.	1.20 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	8%
of which: ORGANIC NITROGEN (N) (% p/p)	8%
ORGANIC CARBON (C) (% p/p)	22%

FERTIGATION

ORGANIC VEGETAL MATRIX

Contains in particular

PLANT EXTRACTS

Directions for use*

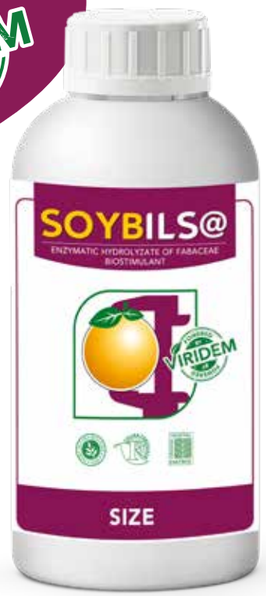
CROP	DOSE	NOTES
INDUSTRIAL TOMATO, PEPPER, POTATO, AUBERGINE	25-30 kg/ha	3-5 applications, alternately, from vegetative growth to fruit enlargement
MELON, WATERMELON, COURGETTE, CUCUMBER, STRAWBERRY	20-25 kg/ha	3-5 applications, alternately, from vegetative growth to fruit enlargement
TOMATO AND OTHER FRUIT VEGETABLE CROPS IN THE GREENHOUSE	3-5 kg/1.000 m²	3-5 applications, alternately, from vegetative growth to fruit enlargement
POME FRUITS AND STONE FRUITS	15-25 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development
TABLE AND WINE GRAPES	15-25 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

SOYBILS@

POWERED BY VIRIDEM

ENZYMATIC HYDROLYZATE OF FABACEAE BIOSTIMULANT



1 kg

5 kg

20 kg

Benefits

- Stimulates cell multiplication.
- Increases and uniform the size of the fruits.
- Raises both plants' tolerance to stress and fruit quality.

Characterising substances

FREE AMINO ACIDS AND OLIGO-PEPTIDES FROM A VEGETAL MATRIX

NATURAL TRIACONTANOL FROM VEGETAL MATRIX

BETAINES AND POLYPHENOLS

	COMPONENTS	FREE AMINO ACIDS AND OLIGO-PEPTIDES FROM A VEGETAL MATRIX	NATURAL TRIACONTANOL FROM VEGETAL MATRIX	BETAINES AND POLYPHENOLS
ACTIONS	INCREASE AND UNIFORM FRUIT SIZE	✓	✓	✓
	QUALITATIVE FEATURES AND SHELF-LIFE	✓	✓	✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH	4,0 ± 0,5
DENSITY	1,20 kg/dm³
CONDUCTIVITY E.C.	1,80 ± 0,20 dS/m

Contains in particular

ENZYMATIC HYDROLYZATE OF FABACEAE

Composition

TOTAL AMINO ACIDS	14%
FREE AMINO ACIDS	3,0%
NATURAL TRIACONTANOL	>6 mg/kg
ORGANIC (N) NITROGEN WATER SOLUBLE	>3,0%
ORGANIC (C) CARBON	>20,0%
BETAINES	>5,0%

FOLIAR FERTILIZER

ORGANIC VEGETAL MATRIX

SIZE

What is it?

SOYBILS@ *is a liquid vegetal biostimulant obtained through an enzymatic hydrolysis process of soybean tissues, belonging to the Fabaceae family. It contains organic nitrogen and carbon, amino acids from a vegetal matrix both in free and oligo-peptides form, betaines, polyphenols and natural triacontanol.*

What does it do?

The high concentration of amino acids, in particular glutamic acid and aspartic acid, betaines and natural Triacontanol stimulates the cell multiplication process increasing DNA and protein biosynthesis. This allows **SOYBILS@** *to have a direct action on the vegetative development and fruit swelling stage. Furthermore, the product allows uniform fruits with size distribution belonging to the most commercially valid classes. Furthermore, the combined effect of other specific amino acids (leucine, serine, lysine, valine, alanine), polyphenols, natural triacontanol and betaines allows both to improve the qualitative characteristics of the fruits (in terms of Brix degrees, firmness, dry matter) and to have an antioxidant action reducing abiotic stress effect during fruit swelling and fruit ripening stage.*

How is it used?

SOYBILS@ *could be used by foliar application, from the post-fruit setting of vines, trees, and vegetables. Starting from the beginning of the fruit formation stage, it stimulates the cell multiplication process, balancing fruit development, and increasing stress tolerance and final quality. The vegetal raw material and the natural process used allow using* **SOYBILS@** *in organic farming.*

Directions for use*

CROP	DOSE	NOTES
ACTINIDIA, CITRUS	2-2.5 kg/ha	Every 12-15 days, from fruit swelling to fruit ripening
STONE FRUIT, BLUEBERRY, RASPBERRY, AND OTHER SMALL FRUITS	2-2.5 kg/ha	2-4 applications, every 10-12 days, starting from post fruit setting
STRAWBERRY	2.5-3 kg/ha	Every 10-12 days, from post-flowering until the harvest period
MANGO, AVOCADO, BANANA AND OTHER TROPICAL FRUITS	2-2.5 kg/ha	2-4 applications, every 10-12 days, starting from the fruit setting
POME FRUITS	2-2.5 kg/ha	3-4 applications, every 10-15 days, starting from the fruit setting
TOMATO, PEPPER, MELON AND OTHER FRUIT VEGETABLES	2.5-3 kg/ha	3-4 applications, every 7-10 days, from the first fruit set
OLIVE	1.5-2 kg/ha	2-4 applications, every 10-12 days, starting from the fruit setting
TABLE AND WINE GRAPES	1.5-2 kg/ha	3-4 treatments during berries swelling, every 10-15 days

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA GIRMA

FLOWERING, FRUIT SET, REDUCTION OF PREMATURE FRUIT DROP

5 kg

20 kg

Benefits

- It stimulates abundant and uniform flowering.
- It increases the percentage of attached fruits.
- It reduces the influence of stresses that cause fruit drop.

What is it?

ILSAGIRMA *is a flowering and fruit setting biopromoter based on protein nitrogen, amino acids and plant extracts.*

What does it do?

ILSAGIRMA *supports the hormonal and enzymatic balances that regulate the flowering and fruit setting stages. These two stages are indeed strongly affected by the presence of nutrients and by enzymatic and hormonal systems that govern carbon metabolism and other physiological reactions in the plant. Temperature and water fluctuations or light deficiencies can negatively affect the photoperiod and the processes leading to fruit formation, so it is important to provide specific support substances.*
In **ILSAGIRMA**, *the presence of yeast extracts strongly stimulates flowering, accompanied by the action of fucoidans, laminarins and specific amino acids for the vegetative and flowering/fruit setting stages, such as proline, glutamic acid and glycine.*

How is it used?

ILSAGIRMA *is designed to stimulate flowering and increase the fruit setting percentage of fruit trees and horticultural crops, thus increasing their final yield. It must be applied by fertigation, alone or mixed with other formulations, starting from pre-flowering and during the early stages of fruit development.*

Characterising substances

- **PROLINE**
- **GLUTAMIC ACID**
- **GLYCINE**
- **LAMINARINS**
- **FUCOIDANS**
- **YEAST EXTRACTS**

	COMPONENTS	ESSENTIAL AMINO ACIDS	LAMINARINS, FUCOIDANS	YEAST EXTRACTS
ACTIONS	FLOWERING STIMULATION	✓	✓	✓
	BALANCED FRUIT SET AND RIPENING	✓	✓	

Chemical and physical features

- **LIQUID BROWN COLOUR**
- **pH 5.0 ± 0.5**
- **DENSITY 1.17 ± 0.02 kg/dm³**
- **CONDUCTIVITY E.C. 1.10 ± 0.20 dS/m**

Composition

TOTAL NITROGEN (N) (% p/p)	**5%**
of which: ORGANIC NITROGEN (N) (% p/p)	**5%**
ORGANIC CARBON (C) (% p/p)	**18%**

Contains in particular

- **FLUID YEAST EXTRACT CONTAINING BROWN ALGAE**
- **FLUID HYDROLYSATED ANIMAL EPITHELIUM**

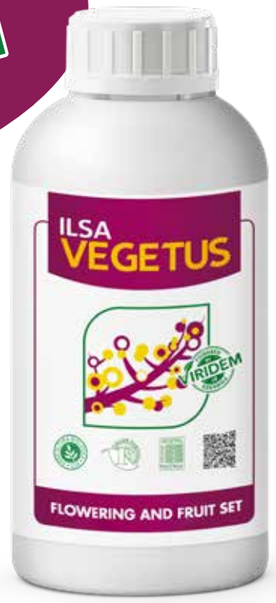
Directions for use*

CROP	DOSE	NOTES
IINDUSTRIAL TOMATO, PEPPER, AUBERGINE	15-20 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development
MELON, WATERMELON, COURGETTE, CUCUMBER, STRAWBERRY	15-20 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development
TOMATO AND OTHER FRUIT VEGETABLE CROPS IN THE GREENHOUSE	2-3 kg/1.000 m²	3-4 applications, every 10-15 days, from pre-flowering
CHERRY TREE, PEACH TREE, PLUM TREE, APRICOT TREE	15-25 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development
APPLE TREE, PEAR TREE, ACTINIDIA, CITRUS	15-25 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development
WINE GRAPES, OLIVE TREE	15-25 kg/ha	3-4 applications, every 15-20 days, from pre-flowering to fruit development

**The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA VEGETUS

PROMOTES FLOWERING AND FRUIT SET
BIOSTIMULANT



1 kg

5 kg

Benefits

- It promotes the synchronisation of flowering.
- It stimulates anthesis and meristem activity even abiotic stress occurs.
- It promotes fruit setting and reduces fruit drop.

What is it?

ILSAVEGETUS *is a plant biostimulant based on the enzymatic hydrolysate of Fabaceae, in which natural triacontanol, phenolic compounds and other bioactive plant extracts have a positive effect on the primary metabolism of plants.*

What does it do?

ILSAVEGETUS *improves the plant's vegetative activity by regulating the distribution of nutrients and positively stimulating all stages leading to the initial development of the fruit.*
In fruit plants, while the fruits of the current season are forming and developing, the new vegetation grows and the flower buds are "prepared" for the following year and, for this reason, the plant must distribute nutrients and synchronise the vegetative and reproductive stages, which are linked to specific hormonal and enzymatic balances that must support flowers and fruits.
ILSAVEGETUS *stimulates the activity of the enzymes that regulate the reactions of carbon and nitrogen metabolism, thus promoting photosynthesis, flowering and fruit setting, even at times of stress. Enzymatic and hormonal regulation allows more fruit to be harvested, thus limiting fruit drop and increasing final production.*

How is it used?

ILSAVEGETUS *is designed for the vegetative development and flowering stages of fruit and vegetable crops, increasing their final yield. It must be applied by foliar application, alone or mixed with boron or other trace elements, starting from the pre-flowering stage and during the early stages of fruit development.*

Characterising substances

- **TRIACONTANOL FROM VEGETAL SOURCE**
- **PHENOLIC COMPOUNDS**
- **BIOACTIVE PLANT EXTRACTS**

	COMPONENTS	TRIACONTANOL FROM VEGETAL SOURCE	PHENOLIC COMPOUNDS	PLANT EXTRACTS
ACTIONS	STIMULATION OF FLOWERING AND FRUIT SET	✓	✓	✓
	REDUCTION OF PREMATURE FRUIT DROP	✓		✓

Composition

TOTAL AMINO ACIDS (% p/p)	**5%**
FREE AMINO ACIDS (% p/p)	**1.5%**
NATURAL TRIACONTANOL (mg/kg)	**6.0**

Chemical and physical features

- **LIQUID BROWN COLOUR**
- **pH 5.5 ± 0.5**
- **DENSITY 1.15 ± 0.02 kg/dm³**
- **CONDUCTIVITY E.C. 1.70 ± 0.20 dS/m**

Contains in particular

- **ENZYMATIC HYDROLYSATE OF FABACEAE**

Directions for use*

CROP	DOSE	NOTES
APRICOT TREE, CHERRY TREE, PEACH TREE, NECTARINE, PLUM TREE, CITRUS, HAZELNUT	1.5-2.5 kg/ha	2-3 applications every 7-12 days, from the first flower buds
APPLE TREE, PEAR TREE	1.5-2.5 kg/ha	2-4 applications, every 10-15 days, starting when the shoots length are 10-15 cm
MELON, WATERMELON, CUCUMBER, COURGETTE	1.5-2 kg/ha	3-4 applications, every 8-10 days, starting from post-transplantation
PEPPER, TOMATO, AUBERGINE, POTATO	2-2.5 kg/ha	3-4 applications, every 8-10 days, starting from post-transplantation
OLIVE TREE	1.5-2 kg/ha	2-4 applications, every 10-15 days, starting from vegetative growth
ACTINIDIA	1.5-2.5 kg/ha	2-4 applications, every 10-15 days, starting when the shoots length are 10-15 cm
ORNAMENTAL CROPS (ROSE, CARNATION)	0.15-0.3 kg/1000m²	3-4 applications, every 10-15 days, starting from pre-flowering
WINE GRAPES	1.5-2.5 kg/ha	2-4 applications, every 10-15 days, starting when the shoots are 10-15 cm

**The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA ORGAMIT-R

PRODUCT WITH A SPECIFIC EFFECT ON SOIL:
INOCULATION WITH MYCORRHIZAL FUNGI

1 kg

20 kg

Benefits

- It increases the volume explored by the roots.
- It promotes the uptake of phosphorus and other elements in the soil.
- It-reduces post-transplantation stress.

What is it?

ORGAMIT-R *is a product with a specific action that contains Mycorrhizae, Trichoderma and Rhizosphere Bacteria, which act at the level of the soil-plant system to improve root development and root uptake, especially in stressful conditions.*

What does it do?

ORGAMIT-R *has a multiple effect in the soil and on the roots of the plants, creating all the ideal conditions to increase uptake efficiency, in particular in exhausted and asphyxiated soils. The pool of microorganisms found in* **ORGAMIT-R** *rebalances the microbial flora of the rhizosphere, increasing microbiological fertility and availability of nitrogen, phosphorus and other elements which are already in the soil, but not available.*
ORGAMIT-R *promotes the harmonious development of the entire root system, both of the primary and secondary roots and the root hairs, increasing the volume of soil explored by the roots and the uptake efficiency of the plant.*

How is it used?

ORGAMIT-R *must be applied by fertigation, on tree and vegetable crops, both during the early vegetative stages and during the fruit swelling stage, when root activity is more intense. It is also ideal for new tree plantings and nursery production. It can also be applied by foliar application, at times of particular stress, improving the general well-being of the plants.*
ORGAMIT-R *can be mixed with most of the formulations available on the market, including pesticides, except for copper-based or antibacterial products that may affect the survival of the microorganisms themselves.*

Characterising substances

MYCORRHIZAE
TRICHODERMA
RHIZOSPHERE BACTERIA

Composition

MYCORRHIZAE	0.1%
RHIZOSPHERE BACTERIA	10^7 CFU/g
TRICHODERMA	10^4 CFU/g

Physical and chemical characteristics

AMBER YELLOW LIQUID
pH 5.1 ± 0.5
DENSITY 1.13 ± 0.02 kg/dm³
ELECTRICAL CONDUCTIVITY (E.C.) 0.54 ± 0.20 dS/m

Dosage and method of use*

CROP	kg/ha	NOTES
CEREALS	15-20	Early vegetative stages
TOMATO, POTATO AND OTHER VEGETABLES IN THE OPEN FIELD	15-20	After transplantation and/or after fruit-setting
TABLE AND WINE GRAPES, OLIVE TREES, CITRUS FRUIT, STONE FRUIT, POME FRUIT	15-25	Vegetative growth and/or after fruit-setting
NURSERIES	15-25	Early vegetative stages
NEW TREE PLANTINGS	10-20	After transplantation

Foliar application: 2.5-4 kg/ha, mixed with common foliar interventions, at times of stress during the whole plant cycle.
** The reported dosages are to be considered purely indicative and may vary according to the soil and climatic conditions and the expected average yields. For more information on the product (technical data sheet, safety data sheet, dossier, etc.) and for further information on doses and methods of use on crops, refer to the website www.ilsagroup.com*

ILSA DURADA

POWERED BY VIRIDEM

PROMOTES SHELF-LIFE
BIOSTIMULANT

20 kg

Benefits

- It extends the shelf-life of fruit and vegetables after harvesting.
- It increases the firmness of pulp and skin.
- It facilitates harvesting operations.

Characterising substances

- TRIACONTANOL FROM VEGETAL SOURCE
- AROMATIC POLYKETIDES
- NARINGIN DERIVATIVES
- GALLIC ACID
- CAFFEIC ACID
- CHLOROGENIC ACID
- VITAMIN B6

ACTIONS	COMPONENTS	TRIACONTANOL FROM VEGETAL SOURCE	AROMATIC POLYKETIDES	POLYPHENOLIC ACIDS AND PHENYLPROPANOIDS	VITAMIN B6
	OXIDATION REDUCTION	✓	✓	✓	
	PRESERVATION OF CONSISTENCY AND SAVOUR	✓	✓	✓	✓

Chemical and physical features

- LIQUID BROWN COLOUR
- pH 5.5 ± 0.5
- DENSITY 1.15 ± 0.02 kg/dm³
- CONDUCTIVITY E.C. 1.75 ± 0.20 dS/m

Composition

TOTAL AMINO ACIDS (% p/p)	5%
FREE AMINO ACIDS (% p/p)	1.5%
NATURAL TRIACONTANOL (mg/kg)	12.0

Contains in particular

- ENZYMATIC HYDROLYSATE OF FABACEAE

FOLIAR FERTILIZATION

ORGANIC VEGETAL MATRIX

SHELF-LIFE

What is it?

ILSADURADA *is a plant biostimulant based on enzymatic hydrolysate of Fabaceae, consisting of triacontanol of natural origin, vitamins (in particular B6) and specific plant compounds with intense antioxidant activity, which extend the shelf-life of fruit and vegetables after harvesting.*

What does it do?

ILSADURADA *delays the phenomena of rotting, loss of firmness and taste of fruit and vegetables, phenomena governed both by processes at the cellular level (loss of turgor, degradation of pectin) and by biotic factors, which cause rotting and rancidity. The high amount of triacontanol of natural origin acts by improving the uptake efficiency of the absorbed nitrogen, promoting the transformation of nitrates and ammoniacal nitrogen into amino acids and thus preventing them from accumulating in fruits and leaves. In addition to this, the presence of vitamins, aromatic polyketides and naringin derivatives, polyphenolic acids and phenylpropanoids (gallic acid, chlorogenic acid, caffeic acid) affects secondary metabolism, thanks to the accumulation of antioxidants and the activity of enzymes that defend against oxidative stress (peroxidase, catalase), caused by the presence of free radicals.*
ILSADURADA *increases shelf-life and guarantees the final quality of fruit and vegetables, even if they are destined for distant markets or large-scale retailers.*

How is it used?

ILSATURADA *is designed to increase the shelf-life of stone fruit, pome fruit, table grapes, citrus fruits, small fruits, tomatoes, peppers, melons and even leafy vegetables, especially fourth range products. It must be applied by foliar application, alone or mixed with other formulations, starting from the final stages of fruit development.*

Directions for use*

CROP	kg/ha	NOTES
APRICOT, CHERRY, PEACH, NECTARINE, PLUM TREE	2-2.5	2-3 applications, every 10-12 days, from pre-veraison
LETTUCE AND OTHER CULTURES FOR FRESH VEGETABLES	1.5-2	2-3 applications, every 7 days, from 3 weeks before harvest
APPLE TREE, PEAR TREE, ACTINIDIA	2-2.5	2-3 applications, every 10-12 days, from pre-veraison
MELON, COURGETTE, CUCUMBER	1.5-2	2-3 applications, every 10-12 days, from pre-veraison
BLUEBERRY, STRAWBERRY AND OTHER SMALL FRUITS	1.5-2	2-3 applications, every 10-12 days, from pre-veraison
TOMATO, PEPPER AND OTHER SOLANACEAE	1.5-2	2-3 applications, every 10-12 days, from pre-veraison
TABLE AND WINE GRAPES	2-2.5	2-3 applications, every 10-12 days, from pre-veraison

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA TERMIKO

IMPROVES RESISTANCE TO HEAT AND WATER STRESS
BIOSTIMULANT

1 kg

5 kg

Benefits

- It prevents stress from high and low temperatures and drought.
- It promotes vegetative growth after critical environmental periods.
- It improves cell content concentrations.

Characterising substances

- **PROLINE**
- **GLYCINES**
- **SERINE**
- **CYSTEINE**
- **HYDROXYPROLINE**
- **GLUTAMIC ACID**

	COMPONENTS	HIGH CONTENT OF FREE L-PROLINE	ANTI-STRESS L-AMINO ACIDS
ACTIONS	REDUCTION OF HEAT AND WATER STRESS	✓	✓
	POST-STRESS GROWTH RESTART		✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH	5.5 ± 0.5
DENSITY	1.22 ± 0.02 kg/dm³
CONDUCTIVITY E.C.	1.00 ± 0.20 dS/m

Composition

ORGANIC NITROGEN (N) (% p/p)	8.7%
of which: SOLUBLE ORGANIC NITROGEN (N) (% p/p)	8.7%
ORGANIC CARBON (C) (% p/p)	24.5%
FREE AMINO ACIDS	>11%

Contains in particular

- **FLUID HYDROLYSATE ANIMAL EPITHELIUM**

TOLERANCE TO HEAT AND WATER STRESS

What is it?

ILSATERMIKO *is a biostimulant that acts as an effective anti-stress agent, thanks to the high content of free laevorotatory amino acids (from enzymatic hydrolysis), in particular proline, hydroxyproline, glycine, serine, glutamic acid, cysteine and other essential amino acids.*

What does it do?

ILSATERMIKO *improves plant tolerance to environmental stresses, thanks to the action of free laevorotatory amino acids (the ones actually used by plants), which increase the concentration of cellular solutes to protect against osmotic stress, dehydration and temperature changes.*
Each plant species has a certain tolerance to each environmental factor within which it can perform its vital functions. Below 0°C photosynthesis is almost non-existent, while above 50°C the protoplasm begins to coagulate. In order to be able to withstand extreme conditions, plants must implement natural mechanisms, at the cellular level, varying the concentration of solutes and osmotic pressure.
ILSATERMIKO *supports plants during times of high thermal and water stress by triggering these natural mechanisms in advance, thus preventing negative consequences. It also acts during the ripening stages thanks to the free amino acids which regulate the transpiration of plant tissues.*

How is it used?

ILSATERMIKO *is designed to prevent thermal and water stress in tree, horticultural, nursery and ornamental crops, thanks to its effective action both during the vegetative stage and during the ripening stage. It must be applied by foliar application before a high-risk climatic event or at times of strong stress.*

Directions for use*

CROP	DOSE	NOTES
APRICOT, CHERRY TREE, PEACH, NECTARINE, PLUM TREE	2-2.5 kg/ha	2-3 applications, every 7-10 days, in case of stress situation and in the ripening stage
APPLE TREE, PEAR TREE, ACTINIDIA	2-2.5 kg/ha	2-3 applications, every 7-10 days, in case of stress situation and in the ripening stage
CITRUS, OLIVE TREE, BLUEBERRY AND OTHER SMALL FRUITS	1.5-2 kg/ha	2-3 applications, every 7-10 days, in case of stress situation and in the ripening stage
TABLE AND WINE GRAPE	2-2.5 kg/ha	2-3 applications, every 7-10 days, in case of stress situation and in the ripening stage
TOMATO, PEPPER, AUBERGINE	2-3 kg/ha	2-4 applications, every 8-10 days, at times of stress or greater risk during vegetative development
MELON, WATERMELON, STRAWBERRY	2.5-3 kg/ha	2-4 applications, every 8-10 days, in case of stress event or higher risk during vegetative development
GARLIC, ONION	2-3 kg/ha	2-4 applications, every 8-10 days, in case of stress event or higher risk during vegetative development
LETTUCE AND OTHER LEAFY VEGETABLES	2.5-3 kg/ha	2-4 applications, every 8-10 days, at times of stress or greater risk during vegetative development
ORNAMENTAL AND FOREST NURSERIES	50-100 g/100 l water	2-4 applications 8-10 days, in full vegetative development

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ILSA C-on

POWERED BY VIRIDEM

BIOSTIMULANT

1 kg

5 kg

Benefits

- It has a rooting effect and it helps overcome stress due to transplantation
- It increases the yield and quality of vegetable crops.
- It reduces the accumulation of nitrates in leaves and fruits.

Characterising substances

TRIACONTANOL FROM VEGETAL SOURCE

AMINO ACIDS FROM VEGETAL SOURCE

PLANT EXTRACTS WITH A HORMONE-LIKE ACTION

	COMPONENTS	TRIACONTANOL FROM VEGETAL SOURCE	AMINO ACIDS FROM VEGETAL SOURCE	PLANT EXTRACTS WITH A HORMONE-LIKE ACTION
ACTIONS	STIMULATION OF PRIMARY AND SECONDARY METABOLISM	✓	✓	✓
	INCRASED YIELD AND FINAL QUALITY	✓	✓	✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH	5.0 ± 0.5
DENSITY	1.15 ± 0.02 kg/dm³
CONDUCTIVITY E.C.	1.50 ± 0.20 dS/m

Composition

TOTAL AMINO ACIDS (% p/p)	5%
FREE AMINO ACIDS (% p/p)	1.5%
ORGANIC CARBON (C) (% p/p)	10%
NATURAL TRIACONTANOL (mg/kg)	10.0

FOLIAR FERTILIZATION

ORGANIC VEGETAL MATRIX

Contains in particular

ENZYMATIC HYDROLYSATE OF FABACEAE

What is it?

ILSAC-ON *is an innovative natural biostimulant, based on enzymatic hydrolysate of Fabaceae and containing natural triacontanol and other plant compounds with a biostimulating effect. It acts as a natural "hormone-like" product and it is characterised by its intense biological activity.*

What does it do?

ILSAC-ON *affects numerous metabolic processes and provides several benefits to plants and to the farmer. It stimulates the increase of biomass and photosynthetic activity in crops, which results in increased transfer of metabolites into the fruits. As a result, it helps increase the sugar content of wine grapes, the oil yield of olives and other oilseeds and, in general, it increases the final quality of production. Thanks to the perfect balance between vegetative and reproductive stages,* **ILSAC-ON** *allows a higher final yield by regulating the distribution of nutrients and promoting their uptake by the plant. The benefits of* **ILSAC-ON** *are due to the action of free laevorotatory amino acids, triacontanol and other plant extracts with a biostimulating effect that affect the activity of numerous enzymes involved in carbon metabolism and nitrogen uptake and assimilation. It therefore increases the efficiency of use of water and absorbed nutrients and this promotes a nutritional balance that improves the well-being of the plants, limiting the negative effects of environmental, thermal, and water stresses, and in particular those caused by excess salinity. In this way, the plants can always express their genetic potential to the fullest.*

How is it used?

ILSAC-ON *must be applied by foliar application during periods of increased vegetative activity. Its broad spectrum of action and its perfect miscibility with other commercial formulations allow* **ILSAC-ON** *to be applied also during pesticide treatments, during the main phenological phases.*

Directions for use*

CROP	DOSE	NOTES
MAIZE AND OTHER CEREALS	1.5-2 kg/ha	Tillering - start of stem elongation
OLIVE TREE, HAZELNUT	1.5-2 kg/ha	5 applications, every 15 days, starting at flowering
TOMATO, PEPPER, AUBERGINE, MELON	1.5-2.5 kg/ha	3-4 applications, every 10-12 days, starting from 15 days after transplantation
POME FRUITS, STONE FRUITS, ACTINIDIA, CITRUS	2-2.5 kg/ha	2-4 applications, every 10-15 days, starting when the length of the shoots are 10-15 cm
TABLE AND WINE GRAPES	1.5-2.5 kg/ha	3-4 applications, every 10-15 days, starting from pre-flowering
TURF-PLANTS, FLOWERS, POT-PLANTS, GARDEN NURSERIES	1 kg/1.000-1.500 m²	2-4 applications, every 8-10 giorni, during full vegetative development

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ILSA STIM+

POWERED BY VIRIDEM

BIOSTIMULANT

1 kg

5 kg

Benefits

- It promotes the uptake of nutrients.
- It increases resistance to environmental stress.
- It anticipates production and increases the yield and final quality.

What is it?

ILSASTIM+ *is a plant biostimulant based on Fabaceae enzymatic hydrolysate. It contains natural Triacontanol, sulphur compounds and free amino acids from vegetal sources, which have multiple positive effects on plants.*

What does it do?

The presence of organic compounds extracted through the enzymatic hydrolysis process (FCEH®) allows **ILSASTIM+** *to stimulate young seedlings' root and vegetative development.*
Furthermore, **ILSASTIM+** *stimulates the increase of plant biomass and activates the enzymes that regulate the nitrogen absorbed (Nitrate reductase, Nitrite reductase, NADH), reducing the excess of nitrates in plant tissues - a fundamental aspect of leafy and fresh-cut vegetables.*
The positive action on photosynthesis, combined with the supply of amino acids and active organic molecules, allows **ILSASTIM+** *to improve the final yield and quality as well.*

How is it used?

ILSASTIM+ *is suitable for vegetable crops. Applied in fertigation, at low doses and starting from 8-10 days after sowing/transplanting,* **ILSASTIM+** *acts as a real "rooting".*
Applied by foliar application, both during the first vegetative growth and during the development of fruits or vegetal biomass, **ILSASTIM+** *improves the yield and the quality of the final production, particularly for fruit and leafy vegetables and increases plants' resistance to climatic stress.*

Characterising substances

- TRIACONTANOL FROM VEGETAL SOURCE
- AMINO ACIDS FROM VEGETAL SOURCE
- SULPHURATED COMPOUNDS
- PLANT EXTRACTS

ACTIONS	COMPONENTS	TRIACONTANOL FROM VEGETAL SOURCE	AMINO ACIDS FROM VEGETAL SOURCE	SULPHURATED COMPOUNDS AND OTHER PLANT EXTRACTS
	PHOTOSYNTHESIS EFFICIENCY	✓	✓	✓
	STIMULATION OF CELL ENLARGEMENT	✓		✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH	5.0 ± 0.5
DENSITY	1,15 ± 0,02 kg/dm³
CONDUCTIVITY E.C.	1.60 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	1%
of which: ORGANIC NITROGEN (N) (% p/p)	1%
TOTAL AMINO ACIDS (% p/p)	6%
FREE AMINO ACIDS (%p/p)	1.5%
ORGANIC CARBON (C) (% p/p)	10%
TOTAL SULPHUR TRIOXIDE (SO_3) (mg/kg)	6,000
NATURAL TRIACONTANOL (mg/kg)	8

Contains in particular

- ENZYMATIC HYDROLYSATE OF FABACEAE

Directions for use*

CROP	DOSE	NOTES
CAULIFLOWER	1.5-2 kg/ha	3-4 applications, every 10-12 days, starting 15 days after the transplantation
OTHER CABBAGES	1.5-2 kg/ha	4-5 applications every 8-12 days, starting one week after the transplantation
ARTICHOKE, LETTUCE, ROCKET, SPINACH AND OTHER LEAF VEGETABLES	2.5-3 kg/ha	4-5 applications every 8-12 days, starting one week after the transplantation
FLORAL CROPS, FOREST NURSERIES AND ORNAMENTALS	1 kg/ 1.500 m²	2-4 applications, every 8-10 days, during the whole vegetative growth
BEAN, GREEN BEAN AND OTHER LEGUMINOUS	1.5-2 kg/ha	3-4 applications, every 10-12 days, starting 15 days after the transplantation
MELON, WATERMELON, CUCUMBER, ZUCCHINO, STRAWBERRY	2-2.5 kg/ha	3-4 applications, every 10-12 days, starting 15 days after the transplantation
POTATO	1.5-2 kg/ha	3-4 applications, every 10-12 days, starting 15 days after the transplantation
TOMATO, PEPPER, EGGPLANT	2-2.5 kg/ha	3-4 applications, every 10-12 days, starting 15 days after the transplantation
TOMATO, PEPPER, MELON, ZUCCHINOAND OTHER FRUIT VEGETABLES IN THE GREENHOUSE	0.3-0.4 kg/ 1.000 m²	3-4 applications, every 10-12 days, starting 15 days after the transplantation
PROFESSIONAL TURF	1 kg/1.500 m²	2-4 applications, every 8-10 days, during the whole vegetative growth

In fertigation: 3-4 kg / ha, for 2-3 applications every 5-7 days, starting from transplanting, to increase root development.

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA POLICOS

POWERED BY VIRIDEM

RADICAL BIOSTIMULANT

5 kg

20 kg

250 kg

1200 kg

Benefits

- It promotes the uptake of nutrients.
- It increases resistance to environmental stress.
- It anticipates production and increases the yield and final quality.

Characterising substances

TRIACONTANOL FROM VEGETAL SOURCE
BETAINES
POLYSACCHARIDES
POTASSIUM

	COMPONENTS	TRIACONTANOL FROM VEGETAL SOURCE	POTASSIUM AND POLYSACCHARIDES	BETAINES
ACTIONS	STIMULATION OF PHYSIOLOGICAL PROCESSES	✓	✓	
	TOLERANCE TO STRESS	✓	✓	✓

Chemical and physical features

LIQUID BROWN COLOUR
pH 7.0 ± 1.0
DENSITY 1,28 ± 0,02 kg/dm³
CONDUCTIVITY E.C. 3.70 ± 0.20 dS/m

Composition

ORGANIC NITROGEN (N) (% p/p)	2,5%
ORGANIC CARBON (C) (% p/p)	17,5%
POTASSIUM OXIDE (K_2O) (% p/p)	6%
BETAINES	1%
NATURAL TRIACONTANOL (mg/kg)	10,0

Contains in particular

ALFALFA FLUID EXTRACT, SEAWEED AND MOLASSES

FERTIGATION

ORGANIC VEGETAL MATRIX

What is it?

ILSAPOLICOS *is a root biostimulant of plant origin based on liquid alfalfa extract, algae and molasses and with natural triacontanol extracted using SFE® technology (Supercritical Fluids Extraction).*

What does it do?

The action of **ILSAPOLICOS** *is clearly expressed in conditions of abiotic stress, excess saline, temperature changes and other environmental causes that can cause limitations in root, vegetative and production development. The presence of natural triacontanol, polysaccharides, betaines and potassium, all strictly of plant origin, positively stimulates the essential physiological processes of the plants, both by increasing tolerance to abiotic stresses and by activating enzymes that regulate the rooting, cell multiplication, flowering, fruit setting and fruit development stages.* **ILSAPOLICOS** *promotes the early entry into production of crops and, thanks to its physiological rebalancing action, it promotes the uptake of nutrients, thus improving nutritional efficiency.*
In greenhouses and at high temperatures, **ILSAPOLICOS** *plays an essential role in keeping plants more compact, shortening internodes and increasing their production potential.*

How is it used?

ILSAPOLICOS *must be applied by fertigation and guarantees yield and final quality. It is a root biostimulant which, when added regularly to other fertilisers in the fertigation solution, stimulates the natural metabolism of the plants from the early stages right through to fruit formation, so it can be applied during all stages of the phenological cycle.*
ILSAPOLICOS *acts on plant physiology and can be applied universally to all crops.*

Directions for use*

CROP	DOSE	NOTES
TOMATO, PEPPER, AUBERGINE	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
STRAWBERRY, MELON, COURGETTE, CUCUMBER	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
LATTUCE, SPINACH AND LEAFY VEGETABLES	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
CHERRY TREE, OLIVE TREE AND STONE FRUIT	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
APPLE TREE, PEAR TREE, ACTINIDIA	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
BLUEBERRY, RASPBERRY, SMALL FRUITS	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
TABLE AND WINE GRAPES	5-10 kg/ha	Starting from the first fertigation treatments , 2-4 applications
NURSERY FLOWER AND ORNAMENTAL CROPS	250-300 g/ 100 l water	Starting from the first fertigation treatments, 2-4 applications

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ILSAMIN N90

BIOSTIMULANT

1 kg
5 kg
20 kg
250 kg
1200 kg

Benefits

- It helps overcome moments of stress and balances nutritional activity.
- It increases yield and final quality.
- It helps recover damaged plant tissue.

Chemical and physical features

LIQUID COLOUR AMBER YELLOW	
pH 5.5 ± 0.5	
DENSITY 1.22 ± 0.02 kg/dm³	
CONDUCTIVITY E.C. 1.00 ± 0.20 dS/m	

Composition

TOTAL NITROGEN (N) (% p/p)	8.9%
SOLUBLE ORGANIC NITROGEN (N) (% p/p)	8.9%
ORGANIC CARBON (C) (% p/p)	25%
FREE AMINO ACIDS > 10% FOR THE MOST PART OF THE L-TYPE	

GELAMIN®
fluid gelatine for agricultural use

What is it?

ILSAMIN N90 *is a foliar biostimulant based on amino acids and peptides with a strong balancing effect on plant activity.*

What does it do?

Thanks to the high percentage of free amino acids and low molecular weight oligo-peptides (< 600 Da), **ILSAMIN N90** *stimulates plant metabolism providing a preventive action and rapid vegetative recovery in situations of abiotic stress.*
ILSAMIN N90 *promotes rapid vegetative development in the early stages and the uptake of macro-, meso- and micro-nutrients.*
In addition to this, the high content of organic nitrogen, together with free amino acids and peptides, promotes better fruit development and increases the final quality characteristics of the fruit in terms of size and dry matter.
The regular use of **ILSAMIN N90** *helps plants to keep all biochemical pathways fully active at all times, both in normal conditions and at critical times caused by external stresses.*

How is it used?

ILSAMIN N90 *must be used by foliar application on cereal, vegetable and fruit crops , where it improves both the quantity and quality of production. It can be mixed with other foliar products and it improves the overall result of the applications.*

Directions for use*

CROP	DOSE	NOTES
STONE FRUITS	2-4 kg/ha	Every 10-15 days from pre-flowering to veraison
STRAWBERRY	0.5-1 kg/ha	2-4 applications, every 8-10 days, during full vegetative development
DURUM AND SOFT WHEAT, RICE	3-5 kg/ha	Tillering - start of stem extension
NEW TREES PLANTATIONS, LAWNS, FLORAL AND ORNAMENTAL CROPS, ORNAMENTAL AND FOREST NURSERIES	1 kg/1.000-1.500 m²	2-3 applications, every 8-10 days, during the early stages
OLIVE TREE, HAZELNUT	2-3 kg/ha	2-4 applications, every 8-10 days, during full vegetative development
VEGETABLES	1-2 kg/ha	2-3 applications, every 7-10 days, during the most critical stages
POTATO	1-2 kg/ha	Every 10-15 days from pre-flowering to veraison
POME FRUITS	2-4 kg/ha	Every 12-15 days from the full vegetative growth to fruit setting
TABLE AND WINE GRAPES	2-3 kg/ha	2-3 applications, every 7-10 days, during the most critical stages
LAWNS, FLORAL AND ORNAMENTAL CROPS, NURSERIES	1 kg/1.000-1.500 m²	1-2 applications to stimulate tillering

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MACRILS@

POWERED BY VIRIDEM

MACROCYSTIS INTEGRIFOLIA SEAWEED-BASED NITROGEN FLUID EXTRACT BIOSTIMULANT

1 kg

5 kg

20 kg

Benefits

- Stimulates cellular distension process and vegetative tissue development (leaves and fruits).
- Promotes the plant's growth and vegetative-productive development.
- Activates the plant's response mechanisms to abiotic stress.

Characterising substances

MANNITOL AND ALGINATES

GIBBERELLINS AND AUXINS ARE 100% FROM THE VEGETAL SOURCE

VITAMINS, BETAINES AND POLYAMINES

	COMPONENTS	MANNITOL AND ALGINATES	GIBBERELLINS AND AUXINS ARE 100% FROM THE VEGETAL SOURCE	VITAMINS, BETAINES AND POLYAMINES
ACTIONS	HORMONE-LIKE WITH POSITIVE ACTION ON VEGETATIVE DEVELOPMENT	✓	✓	
	ANTI-STRESS AND ANTIOXIDANT	✓		✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH 4,5 ± 0,5	
DENSITY 1,11 ± 0,10 kg/dm^3	
CONDUCTIVITY E.C. 1,50 ± 0,30 dS/m	

Contains in particular

MACROCYSTIS SEAWEED EXTRACT

Composition

ORGANIC NITROGEN (N) WATER SOLUBLE	1,6%
ORGANIC (C) CARBON	10,4%
POTASSIUM (K_2O) WATER SOLUBLE	2,0%
GIBBERELLINS	>6 ppm
AUXINS	0,3 ppm

FOLIAR FERTILIZER

ORGANIC VEGETAL MATRIX

What is it?

MACRILS@ *is a liquid biostimulant from the vegetal matrix and is allowed in organic farming. The product is obtained through an innovative technological extraction process characterised by high environmental sustainability named Cold State Cell Disruption (CSCD®). Through the physical process, the Chilean seaweed of the genus Macrocystis (which spreads on the southern coast) is extracted.* **MACRILS@** *is rich 100% in natural growth regulators, mannitol, alginates, vitamins, polyamines, bioactive molecules and nutrients.*

What does it do?

The strong bio-stimulating action of each of the natural molecules contained in **MACRILS@** *makes it unique in the reference segment in comparison to other similar products.*
On one side, the natural growth regulators (gibberellins and auxins) have a "hormone-like" action with a positive and direct effect on the plant's growth and vegetative-productive development (leaf and root systems and productive organs).
On the other side, the vegetal biostimulant is rich in alginates and mannitol which have an ion-capturing action (e.g., Ca+) and consequent active transport within the various plant's organs, currently underway formation and development (roots, meristematic apexes, flowers and fruits).
The presence of vitamins (E and D), polyamines and natural amino acids have an antioxidant action to contrast free radicals and regulate plant transpiration by increasing resistance to osmotic, water and thermal stress.
Finally, **MACRILS@** *has a positive effect on the new shoots, flowers, and fruits underway formation and development.*

How is it used?

MACRILS@ *could be applied by the foliar application during the main crop's phenological stage – vegetative and swelling fruits of vegetables, grapevine, fruits and ornamentals.* **MACRILS@** *is characterised by perfect miscibility with other commercial products (fertilisers and chemical products) and therefore, can be used during foliar and pesticide treatments as well.*

Directions for use*

CROP	DOSE	NOTES
VEGETABLES (TOMATO, PEPPER, MELON, COURGETTE, ETC.)	1.5-2.5 kg/ha	2-3 applications, every 7-10 days, in the vegetative stage and during fruit swelling
SMALL FRUITS (BLUEBERRY, RASPBERRY, STRAWBERRY, RED/BLACK CURRANT, BLACKBERRY, ETC.)	1.5-2 kg/ha	2-3 applications, every 7-10 days, in the vegetative stage and during fruit swelling
POME FRUITS (APPLE, PEAR, QUINCE, MEDLAR, ETC.)	2-3 kg/ha	2-3 applications, every 10-15 days, in the vegetative stage and during fruit swelling
STONE FRUITS (PEACH, NECTARINE, APRICOT, CHERRY, ETC.)	2-3 kg/ha	2-3 applications, every 10-15 days, in the vegetative stage and during fruit swelling
OLIVE	2-3 kg/ha	2-3 applications, every 15-20 days, from pre-flowering to fruit swelling
HAZELNUT	2-3 kg/ha	3-5 applications every 15 days starting 30 days before fruit set
WINE AND TABLE GRAPE	2-3 kg/ha	2-3 applications, every 15-20 days, from pre-flowering to fruit swelling
FLORAL AND ORNAMENTAL PLANTS	150-250 ml/hl	2-4 applications, every 7-10 days, during the crop cycle
TROPICAL CROPS (MANGO, AVOCADO, BANANA, ETC.)	2-3 kg/ha	2-3 applications, every 15-20 days, from pre-flowering to fruit swelling

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SPLINTER NEW

CO-FORMULANT

1 kg
5 kg
20 kg
250 kg
1200 kg

Benefits

- It increases the efficacy of the product it is mixed with.
- It has a wetting and adhesive effect.
- It has a nutritional and anti-stress effect.

What is it?

SPLINTER NEW *is a product with a specific co-formulant action. It is a high molecular weight protein hydrolysate, with a high content of organic nitrogen and amino acids and peptides from enzymatic hydrolysis.*

What does it do?

SPLINTER NEW *is a "product with a specific action on fertilisers", in other words, when mixed with other fertilisers, it increases their efficacy. The oligo-peptides of which it is composed have a complexing action with other mixed substances, promoting their foliar uptake by the plants.*

SPLINTER NEW *also has a wetting and adhesive effect, so it increases the wetted surface of the treated leaves, prevents the solution from slipping and prevents it from evaporating.*

In addition to this, the high content of totally organic nitrogen and amino acids (in the form of oligo-peptides), also provides a nutritional and anti-stress effect on plants, which is essential for prompt vegetative growth after any plant protection treatment.

Finally, **SPLINTER NEW** *has a disintegrating effect on the honeydew substances produced by psyllids and aphids and an effective cleansing effect.*

How is it used?

SPLINTER NEW *must be applied by foliar application on cereals and other extensive, vegetable and tree crops, during any foliar treatment, mixed with other fertilisers and with plant protection products.*

It improves the efficacy of the applications and it positively stimulates plant metabolism.

Chemical and physical features

LIQUID GREEN COLOUR	
pH 5,5 ± 0,5	
DENSITY 1,16 ± 0,02 kg/dm³	
CONDUCTIVITY E.C. 0,70 ± 0,20 dS/m	

GELAMIN®
fluid gelatine for agricultural use

Composition

TOTAL NITROGEN (N) (% p/p)	7%
of which: SOLUBLE NITROGEN (N) (% p/p)	7%
ORGANIC CARBON (C) (% p/p)	20%
HYDROXYPROLINE	0.75%
TOTAL AMINO ACIDS	>45%

Directions for use*

CROP	DOSE	NOTES
STONE FRUITS, POME FRUITS, ACTINIDIA	2-4 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
WHEAT, RICE AND OTHER CEREALES	2-2.5 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
HAZELNUT, WALNUT, BLUEBERR AND SMALL FRUITS	3-5 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
NEW TREES PLANTATION, LAWNS, ORNAMENTAL AND FLORAL CROPS, ORNAMENTAL AND FOREST NURSERIES	1 kg/5.000 m²	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
FRUITS, LEAFY VEGETABLES AND OTHER VEGETABLES	2-3 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
FORAGE CROPS	1.5-3 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)
TABLE AND WINE GRAPE, OLIVE TREE	2-3 kg/ha	Mixed with common foliar products (PPPs, PGRs, Fertilisers)

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PRODUCTS FOR SUSTAINABLE AND CONVENTIONAL FARMING

ILSA FORMA

PROMOTES FRUIT DEVELOPMENT

1 kg

5 kg

20 kg

Benefits

- It stimulates cell division and elongation.
- It increases the size of fruits and/or vegetables.
- Increases and uniform fruits size.

Characterising substances

- GLYCINE
- ALANINE
- ASPARTIC ACID
- VALINE
- LEUCINE
- MANNITOL
- ALGINATES

	COMPONENTS	AMINO ACIDS FROM ENZYMATIC HYDROLYSIS	MANNITOL AND ALGINATES	POLYSACCHARIDES AND POLYPHENOLS
ACTIONS	INCREASE IN CELL DIVISION AND ELONGATION	✓	✓	
	NUTRITIONAL BALANCE UP TO RIPENING	✓		✓

Chemical and physical features

- LIQUID BROWN COLOUR
- pH 5.0± 0.5
- DENSITY 1,17 ± 0,02 kg/dm³
- CONDUCTIVITY E.C. 1.25 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	5%
of which: ORGANIC NITROGEN (N) (% p/p)	5%
ORGANIC CARBON (C) (% p/p)	18%

Contains in particular

- FLUID YEAST EXTRACT CONTAINING BROWN ALGAE
- CONTAINS CO-FORMULANT FROM ENZYMATIC HYDROLYSIS AND POLYSACCHARIDES

FOLIAR FERTILIZER

ORGANIC VEGETAL MATRIX

SIZE

What is it?

ILSAFORMA *is a biopromoter of fruit growth based on amino acids obtained from enzymatic hydrolysis, a fluid yeast extract containing brown algae and polysaccharides.*

What does it do?

ILSAFORMA *contains amino acids including glycine, aspartic acid, valine, alanine, leucine, isoleucine, lysine, etc. which are essential for the formation and growth of new plant tissues, during the cell division and elongation phases. The presence of polysaccharides (Mannitol and alginates) has a strong anti-stress action in conditions of high summer temperatures, drought and salinity. These nutrients contained in the formulation, associated with proper water and nutritional management, promote the formation and growth of fruits.*

ILSAFORMA *has a hormone-like effect that activates the formation and growth process of fruits and/or vegetables.*

ILSAFORMA *ensures that fruits reach commercially superior size classes, by limiting stress induced by physiological imbalances or adverse environmental conditions.*

How is it used?

ILSAFORMA *should be applied by foliar application on fruit trees and vegetables, starting after fruit until beginning of veraison.* **ILSAFORMA**, *by improving fruit size, helps to increase the final value of fruit and vegetables by reducing the amount of unmarketable fruit.*

Directions for use*

CROP	kg/ha	NOTES
APRICOT, CHERRY TREE, PEACH TREE, NECTARINE, PLUM TREE, OLIVE TREE	2,5-3,5	Every 10-15 days from fruit set to veraison
APPLE TREE, PEAR TREE, ACTINIDIA	2,5-3	3-4 applications every 7 days, after flowering
STRAWBERRY, BLACKBERRY, RASPBERRY AND OTHER SMALL FRUITS	2-2,5	3-4 applications every 7-10 days from the first fruit set
CITRUS	2,5-3	Every 10-15 days from fruit set to veraison
WINE TABLE	2,5-3,5	2-4 applications every 10-12 days from fruit set
WATERMELON, MELON, CUCUMBER, COURGETTE	2,5-3	2-4 applications every 10-15 days from fruit enlargement
TOMATE, PEPPER, EGGPLANT	2,5-3	3-4 applications every 7-10 days from the first fruit set

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ILSA KOLORADO

POWERED BY VIRIDEM

UNIFORM COLOURING

1 kg

5 kg

20 kg

Benefits

- It evens out the colouring of the fruits.
- It reduces stress phenomena during the ripening stage.
- It anticipates ripening and evens out the final quality of the fruits.

Characterising substances

- **BETAINES**
- **POLYSACCHARIDES**
- **POTASSIUM THIOSULPHATE**
- **BIOACTIVE PLANT EXTRACTS**

	COMPONENTS	BETAINES	POTASSIUM THIOSULPHATE	POLYSACCHARIDES
ACTIONS	STRESS REDUCTION IN THE RIPENING STAGE	✓	✓	
	DEVELOPMENT OF NATURAL FRUIT PIGMENTS		✓	✓

Chemical and physical features

LIQUID BROWN COLOUR	
pH	7.5 ± 0.5
DENSITY	1.33 ± 0.02 kg/dm³
CONDUCTIVITY E.C.	3.80 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	4%
of which: ORGANIC NITROGEN (N) (% p/p)	1%
UREA NITROGEN (N) (% p/p)	3%
WATER SOLUBLE POTASSIUM (K_2O) (% p/p)	12%
ORGANIC CARBON (C) (% p/p)	8%

FOLIAR FERTILIZER

VEGETAL ORGANIC MATRIX

Contains in particular

- **PLANT EXTRACTS WITH HIGH BETAINE CONTENT**
- **POTASSIUM THIOSULPHATE**

UNIFORMITY IN COLOUR AND RIPENING

What is it?

ILSAKOLORADO *is a bioactivator for fruit and vegetable colouring based on highly assimilable potassium, betaines, polysaccharides and plant extracts.*

What does it do?

ILSAKOLORADO *is a bioactivator designed to promote and even out the ripening and colouring of fruits and vegetables even in situations of abiotic stress. Potassium acts in synergy with betaines, positively affecting the biosynthesis of flavours, pigments and sugars considered essential for the final quality of the crops.*
The presence of organic molecules of plant origin also promotes the translocation of photosynthetics towards the fruits and/or vegetables during the ripening stage.
ILSAKOLORADO *allows for the biosynthesis of the natural pigments attributable to the final colour of the fruits: lycopene and beta-carotene in tomatoes, peppers, cherries, peaches, apricots, melons, citrus fruits, anthocyanins and polyphenols in grapes, blueberries, plums, aubergines.*
ILSAKOLORADO *is also suitable for wine and table grapes (red berry varieties), cherries and stone fruits in general, apples, pears, tomatoes and other solanaceous crops. It is also ideal for flower and ornamental crops to intensify the colour and brightness of the flowers.*

How is it used?

ILSAKOLORADO *is suitable for foliar applications on increase fruit size, fruit and tree crops from the beginning of the veraison stage until the fruits and/or vegetables are harvested . However, for flower and ornamental crops, it is advisable to use the formulation during the growing cycle.*

Directions for use*

CROP	DOSE	NOTES
APRICOT TREE, CHERRY TREE, PEACH TREE, NECTARINE, PLUM TREE	2.5-3 kg/ha	2-3 applications, every 7-8 days, starting from pre-veraison
APPLE TREE, PEAR TREE, KAKI TREE	2.5-3 kg/ha	2-3 applications, every 7-8 days, starting from pre-veraison
OLIVE TREE, HAZELNUT	2-2.5 kh/ha	2-3 applications, every 10-12 days, starting from pre-veraison
TOMATO, PEPPER, AUBERGINE, MELON, STRAWBERRY	2.5-3 kg/ha	2-3 applications, every 10-12 days, starting from pre-veraison
TABLE AND WINE GRAPES	2.5-3.5 kg/ha	2-3 applications, every 10-12 days, starting from pre-veraison
CRANBERRY, RASPBERRY	2.5-3 kg/ha	2-3 applications, every 10-12 days, starting from pre-veraison
FLOWER AND ORNAMENTAL CROPS	100 g/100 l water	Every 10-20 days as required

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ILSA VIVIDA

PROMOTES VEGETATIVE DEVELOPMENT

1 kg

Benefits

- It promotes vegetative development and the increase of plant biomass.
- It promotes photosynthetic activity and transpiration during stress conditions.
- It allows the thickening of plant tissues during formation.

Characterising substances

- ORGANIC NITROGEN
- HIGHLY ASSIMILABLE PHOSPHORUS
- BETAINES
- GLYCOSIDES

	COMPONENTS	ORGANIC NITROGEN	HIGHLY ASSIMILABLE PHOSPHORUS	BETAINES AND GLYCOSIDES
ACTIONS	PHOTOSYNTHESIS AND REDUCTION OF CHLOROSE		✓	✓
	VEGETATIVE DEVELOPMENT	✓	✓	

Chemical and physical features

LIQUID BROWN COLOUR	
pH	2.5 ± 0.5
DENSITY	1.21 ± 0.02 kg/dm³
CONDUCTIVITY E.C.	2.10 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	4%
of which: ORGANIC NITROGEN (N) (% p/p)	1%
UREA NITROGEN (N) (% p/p)	3%
TOTAL PHOSPHORUS PENTAOXIDE (P_2O_5) (% p/p)	8%
ORGANIC CARBON (C) (% p/p)	10%

Contains in particular

PLANT EXTRACTS WITH HIGH BETAINE CONTENT

What is it?

ILSAVIVIDA *is a biopromoter of vegetative growth based on Nitrogen, Phosphorus, Betaine and Glucosides, designed to stimulate sprouting and promote chlorophyll photosynthesis.*

What does it do?

ILSAVIVIDA *is rich in nitrogen which is essential for amino acid synthesis and vegetative growth. The presence of Phosphorus, together with Betaine and Glycosides, promotes the thickening of the tissues being formed, increases plant resistance to environmental adversities (wind, cold, etc.) and reduces the senescence of the cellular structures dedicated to chlorophyll photosynthesis, improving plant vigour.*

ILSAVIVIDA *is particularly effective in stimulating and evening out sprouting and in promoting vegetative growth.*

ILSAVIVIDA *promotes vegetative growth by stimulating meristem activity, resulting in longer shoots and more and greener leaf biomass.* **ILSAVIVIDA** *stimulates photosynthetic activity and regulates plant transpiration, limiting stunted growths due to environmental stress.*

ILSAVIVIDA *also promotes flower bud differentiation, limiting the phenomena of alternating production.*

How is it used?

ILSAVIVIDA *can be applied by foliar application on vegetables and fruit trees, vines, olive trees, flower and ornamental crops. It should be applied in the early stages of budding/vegetative development and during all stages when new tissue formation is taking place.*

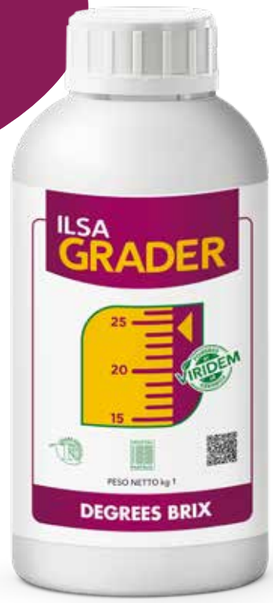
Directions for use*

CROP	DOSE	NOTES
APRICOT TREE, CHERRY TREE, PEACH TREE AND NECTARINE, PLUM TREE	2-2,5 kg/ha	2-4 applications every 10-15 days from 10-15 cm sprouts
TABLE AND WINE GRAPES, APPLE TREE, PEAR TREE, KIWI	2-2,5 kg/ha	2-4 applications every 10-15 days from 10-15 cm sprouts
OLIVE TREE, CITRUS	1,5-2 kg/ha	2-4 applications every 10-15 days from early vegetative development
FLORAL AND ORNAMENTAL CROPS, PROFESSIONAL TURFS	100 g/100 l water	Every 10 to 20 days as needed
ASPARAGUS	2-3 kg/ha	2-3 applications, every 4-7 days, from early shoot emergence
FENNEL, CAULIFLOWER AND OTHER CABBAGES, INDUSTRIAL CROPS	2-2,5 kg/ha	3-4 applications, every 8-10 days, from post-transplanting
ARTICHOKE	2-2,5 kg/ha	2-4 applications every 10-15 days from early vegetative development
LETTUCE AND OTHER READY PREPARED VEGETABLES	2-2,5 kg/ha	2-3 applications, every 4-7 days, in the early stages
TOMATO, PEPPER, MELON, POTATO, EGGPLANT, COURGETTE, CUCUMBER, STRAWBERRY	2,5-4 kg/ha	2-3 applications, every 8-10 days, during the early stages

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA GRADER

INCREASES SUGAR CONTENT



1 kg

5 kg

Benefits

- It increases the sugar content and the quality of the fruits.
- It allows to obtain the right degree of ripening of the fruits.
- It increases the value of the final production.

Characterising substances

POTASSIUM THIOSULPHATE

BETAINES

POLYSACCHARIDES

ALGINATES

	COMPONENTS	POTASSIUM THIOSULPHATE	BETAINES AND ALGINATES	POLYSACCHARIDES
ACTIONS	INCREASE SUGAR CONTENT	✓	✓	✓
	EARLIER AND UNIFORM RIPENING	✓	✓	✓

Chemical and physical features

LIQUID BROWN COLOUR

pH 7.5 ± 0.5

DENSITY 1.31 ± 0.02 kg/dm³

CONDUCTIVITY E.C. 3.90 ± 0.20 dS/m

Composition

TOTAL NITROGEN (N) (% p/p)	4%
of which: ORGANIC NITROGEN (N) (% p/p)	1%
UREA NITROGEN (N) (% p/p)	3%
WATER SOLUBLE POTASSIUM (K_2O) (% p/p)	12%
ORGANIC CARBON (C) (% p/p)	8%

FOLIAR FERTILIZATION

VEGETAL ORGANIC MATRIX

Contains in particular

PLANT EXTRACTS WITH HIGH BETAINE CONTENT

FLUID YEAST EXTRACT CONTAINING BROWN ALGAE

What is it?

ILSAGRADER *is a biopromoter of sugar synthesis, based on potassium, betaine, polysaccharides and alginates. The formulation has been designed by ILSA's Research and Development department to increase the quality characteristics of agri-food products.*

What does it do?

ILSAGRADER *is rich in potassium, an essential element for the primary metabolism of plants, as it activates the enzymes involved in photosynthetic processing and sugar biosynthesis.* **ILSAGRADER** *contains betaines and polysaccharides that, together with potassium, contribute to: increasing cellular osmotic potential by increasing the salt concentration of the sap, regulating the opening of the stomata even in conditions of abiotic stress (high transpiration, summer temperatures, salinity, etc.), improving the quality characteristics of agri-food products (sugar content, colour, aroma, flavour, etc.) increasing their commercial value and reducing waste.*

ILSAGRADER *is the ideal solution to meet both distribution and final consumer needs with regard to the physical and chemical parameters related to the state of ripeness of the fruits (hardness, soluble solids, acidity, etc.) and the qualitative parameters of the fruits (sugar content, colour, flavour, etc.).*

How is it used?

ILSAGRADER *is suitable for foliar applications on high-profit crops (fruit, vines and trees) from the start of veraison until the fruit ripening stage.*

Directions for use*

CROP	kg/ha	NOTES
APRICOT TREE, CHERRY TREE, PEACH TREE, NECTARINE, PLUM TREE	2.5-3	2-3 applications, every 10-12 days, from the veraison stage
APPLE TREE, PEAR TREE	2-2.5	2-3 applications, every 10-12 days, from the veraison stage
BLUEBERRY AND OTHER SMALL FRUITS	1.5-2	2-3 applications, every 10-12 days, from the veraison stage
MELON, STRAWBERRY, TOMATO	2-2.5	2-3 applications, every 10-12 days, from the the end of swelling stage
WINE AND TABLE GRAPES	2.5-3	2-3 applications, every 10-12 days, from the veraison stage

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

ILSA DEEPDOWN

STIMULATES ROOTING AND THE EARLY VEGETATIVE STAGES

20 kg

Benefits

- Starter effect on root growth and development.
- It stimulates plants to better production patterns.
- It improves the uptake of nutrients and water.

What is it?

ILSADEEPDOWN *is a rooting bioactivator based on Amino acids, Phosphorus and Nitrogen, realised to stimulate the plant rooting in the early vegetative growth.*

What does it do?

ILSADEEPDOWN *is rich in Amino acids and Phosphorus which improve the development of new adventitious roots in the early stages of vegetative growth. Furthermore, in the post-transplantation* **ILSADEEPDOWN** *enhances the plants' rooting, especially in new growth substrates by reducing transplant shock and plant collapse.*

In addition, the presence of amino acids in the product makes plants more vigorous and supports the plants' acclimation to adverse environmental conditions (jump in temperature, drought, water imbalances, etc.).

ILSADEEPDOWN *contains Nitrogen, which is an essential nutrient for the emissions of new vegetative shoots. It is a suitable solution to promote the development of root systems for vegetable crops (tomatoes, peppers, melons, courgettes, strawberries and other crops) and nursery plants.*

Moreover, the product supports vegetative growth even in conditions of abiotic and physiological stress occur.

How is it used?

ILSADEEPDOWN *is indicated for treatments in fertigation in the early vegetative development of vegetable crops and nursery plants.*

Characterising substances

- **AMINO ACIDS**
- **HIGHLY SOLUBLE PHOSPHORUS**
- **ORGANIC NITROGEN**

	COMPONENTS	ESSENTIAL AMINO ACIDS	HIGHLY ASSIMILABLE PHOSPHORUS	PROTEIN NITROGEN
ACTIONS	ROOTING STIMULATION	✓	✓	✓
	REDUCTION OF POST-TRANSPLATING SHOCKS	✓		✓

Composition

TOTAL NITROGEN (N) (% p/p)	5%
of which: ORGANIC NITROGEN (N) (% p/p)	1%
AMMONIA NITROGEN (N) (% p/p)	4%
TOTAL PHOSPHORUS PENTAOXIDE (P_2O_5) (% p/p)	15%
ORGANIC CARBON (C) (% p/p)	3%

Chemical and physical features

- **LIQUID COLOUR LIGHT YELLOW**
- **pH 6.0 ± 0.5**
- **DENSITY 1.19 ± 0.02 kg/dm³**
- **CONDUCTIVITY E.C. 3.00 ± 0.20 dS/m**

Contains in particular

HYDROLYSATED ANIMAL EPITHELIUM, AMMONIUM POLYPHOSPHATE

Directions for use*

CROP	DOSE	NOTES
INDUSTRIAL TOMATO, PEPPER, POTATO, AUBERGINE	25-30 kg/ha	From the first fertigation treatments, 2-4 applications
MELON, WATERMELON, COURGETTE, CUCUMBER, STRAWBERRY	20-30 kg/ha	From the first fertigation treatments, 2-4 applications
TOMATO AND OTHER FRUIT VEGETABLE CROPS IN THE GREENHOUSE	2-3 kg/1.000 m²	From the first fertigation treatments, 2-4 applications
LETTUCE AND OTHER LEAF VEG. CROPS	20-25 kg/ha	From the first fertigation treatments, 2-4 applications
LETTUCE, FRENCH BEAN AND LEAFY VEGETABLES IN THE GREENHOUSE	2-3 kg/1.000 m²	From the first fertigation treatments, 2-4 applications
FORAGE CROPS	20-30 kg/ha	Each 10-20 days as needed
NURSERIES FOR VEGETABLE CROPS	500-800 g/100 l water	Each 10-20 days as needed

** The doses shown should be considered as merely indicative and may vary according to pedoclimatic conditions and average yields expected. For more product information (technical data sheet, safety data sheet, dossier, etc.) and further details on doses and how to use on crops, please refer to the website www.ilsagroup.com*

CONVERSION TABLE kg/l

Product	Density kg/l at 20°C	kg	liters	kg	liters	kg	liters	kg	liters	kg	liters	kg	liters	kg	liters	kg	liters
ILSAC-ON	1,15	1	0,870	1,5	1,304	2	1,739	2,5	2,174	3	2,609	5	4,348	10	8,696	20	17,391
ILSADEEPDOWN	1,19	1	0,840	1,5	1,261	2	1,681	2,5	2,101	3	2,521	5	4,202	10	8,403	20	16,807
ILSADURADA	1,15	1	0,870	1,5	1,304	2	1,739	2,5	2,174	3	2,609	5	4,348	10	8,696	20	17,391
ILSAFORMA	1,17	1	0,855	1,5	1,282	2	1,709	2,5	2,137	3	2,564	5	4,274	10	8,547	20	17,094
ILSAFITOCELL	1,21	1	0,826	1,5	1,240	2	1,653	2,5	2,066	3	2,479	5	4,132	10	8,264	20	16,529
ILSAGIRMA	1,17	1	0,855	1,5	1,282	2	1,709	2,5	2,137	3	2,564	5	4,274	10	8,547	20	17,094
ILSAGRADER	1,31	1	0,763	1,5	1,145	2	1,527	2,5	1,908	3	2,290	5	3,817	10	7,634	20	15,267
ILSAKOLORADO	1,33	1	0,752	1,5	1,128	2	1,504	2,5	1,880	3	2,256	5	3,759	10	7,519	20	15,038
ILSAMIN N90	1,22	1	0,820	1,5	1,230	2	1,639	2,5	2,049	3	2,459	5	4,098	10	8,197	20	16,393
ILSAPOLICOS	1,28	1	0,781	1,5	1,172	2	1,563	2,5	1,953	3	2,344	5	3,906	10	7,813	20	15,625
ILSASTIM +	1,15	1	0,870	1,5	1,304	2	1,739	2,5	2,174	3	2,609	5	4,348	10	8,696	20	17,391
ILSASTIMSET	1,22	1	0,820	1,5	1,230	2	1,639	2,5	2,049	3	2,459	5	4,098	10	8,197	20	16,393
ILSATERMIKO	1,22	1	0,820	1,5	1,230	2	1,639	2,5	2,049	3	2,459	5	4,098	10	8,197	20	16,393
ILSAVEGETUS	1,15	1	0,870	1,5	1,304	2	1,739	2,5	2,174	3	2,609	5	4,348	10	8,696	20	17,391
ILSAVIVIDA	1,21	1	0,826	1,5	1,240	2	1,653	2,5	2,066	3	2,479	5	4,132	10	8,264	20	16,529
ILSAORGAMIT-R	1,13	1	0,885	1,5	1,327	2	1,770	2,5	2,212	3	2,655	5	4,425	10	8,850	20	17,699
MACRILS@	1,11	1	0,901	1,5	1,351	2	1,802	2,5	2,252	3	2,703	5	4,505	10	9,009	20	18,018
SOYBILS@	1,20	1	0,833	1,5	1,250	2	1,667	2,5	2,083	3	2,500	5	4,167	10	8,333	20	16,667
SPLINTER NEW	1,16	1	0,862	1,5	1,293	2	1,724	2,5	2,155	3	2,586	5	4,310	10	8,621	20	17,241

From the Viridem® program, Ilsaforma.
Increase the size of your fruits.

VIRIDEM®

vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSAFORMA is designed to increase the size of fruits by limiting stresses during their ripening stage. Applied during the fruit setting phase, ILSAFORMA works effectively on pomaceous fruit, stone fruits (drupes), grapes and other fruit trees which, in harmony with a proper water management, produce larger fruits. ILSAFORMA also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Table Grape, Stone Fruits, Pome Fruits, Olive Tree.

www.ilsagroup.com

ILSA The green evolution

www.theintrepid.it

From the Viridem® program, IlsaC-on.
More yield in oil.

VIRIDEM®

vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSAC-ON is a natural biostimulator obtained by enzymatic hydrolysis of Fabaceae tissues which increases the absorption efficiency of water and nutrients. It promotes the nutritional balance which affects the plants' wellbeing by limiting the negative effects of environmental, thermal, water stress and in particular those caused by excess salinity. Plants can thus express all their potential: results can be seen, for example, in the olive oil yield and in the increase of sugar contents in vines for wine-making. ILSAC-ON also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Olive Tree, Table and Wine Grape, Stone Fruits, Pome Fruits, Actinidia, Solanacee, Corn and other Cereals.

www.ilsagroup.com

ILSA The green evolution

www.theintrepid.it

From the Viridem® program, Ilsakolorado.
Standardise the colour of the fruit.

VIRIDEM®

vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSAKOLORADO is designed to standardise fruit colouring, reducing stress phenomena during their ripening phase. The use of ILSAKOLORADO in fact allows increasing the development of those natural pigments which give the final colour to fruit, bringing forward its ripening and standardising quality. ILSAKOLORADO also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Stone Fruits, Pome Fruits, Loti, Solanaceae, Melon, Strawberry, Grapes and Wine, Blueberry, Raspberry, Flower and Ornamental Crops.

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ILSA
The green evolution

www.theintrepidi.it

From the Viridem® program, Ilsagirma.
Stimulate flowering and fruit setting, reduce immature fruit-falling.

VIRIDEM®

vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSAGIRMA is designed to stimulate reproductive energy, regulating flowering and the biochemical reproductive equilibrium. ILSAGIRMA is used via the roots. It reduces sensitivity to those environmental stresses which are responsible for small fruits falling, whilst regulating the hormonal and enzymatic balance which affects these delicate phases, and helps plants overcome any environmental stress phases. ILSAGIRMA also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended: Stone Fruits, Pome Fruits, Actinidia, Citrus, Solanacee, Cucurbitacee, Strawberry, Grapes and Wine, Olive Tree.

www.ilsagroup.com

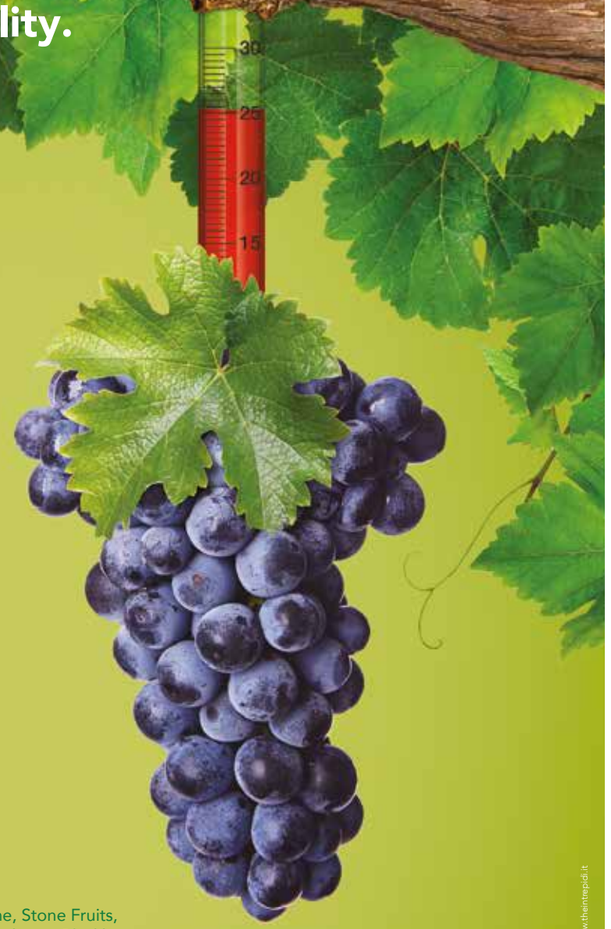
ILSA
The green evolution

www.theintrepidi.it

From the Viridem® program, Ilsagrader.
More sugars, more quality.

VIRIDEM®

vegetal extracts for agricultural use



Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSAGRADER is designed to obtain the right degree of ripeness in fruit production, as it increases fruit consistency, the accumulation of acids and their transformation into sugars, also improving the balance between aromas and flavours without affecting the final pH. ILSAGRADER increases the sugar content in fruits and the dry matter, reducing production waste, and increasing the quality and value of the end production. ILSAGRADER also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Grapes and Wine, Stone Fruits, Pome Fruits, Melon, Strawberry, Blueberry, Blackberry, Raspberry, Currant.

www.ilsagroup.com

ILSA
The green evolution

www.theintrepidi.it

From the Viridem® program, Ilsadurada.
Your fruit will last longer.

VIRIDEM®

vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA.
They help your plants do their job.

ILSADURADA is designed to extend the shelf life of post-harvest vegetables. The use of ILSADURADA enables maintaining the consistency of fruit and vegetables, allowing easier handling during harvesting operations, increasing shelf-life, keeping them just right for a longer period. ILSADURADA also is a bioactive product that is part of the Viridem® program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Lettuce and Cultures for Fresh Vegetables, Melon, Courgette, Cucumber, Tomato, Pepper and other Solanacee.

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ILSA
The green evolution

www.theintrepidi.it

From the Viridem® program, Ilsastimset.
Reduce all the negative effects of saline stress.

VIRIDEM®
vegetal extracts for agricultural use

Viridem® Biostimulant by ILSA. They help your plants do their job.

ILSASTIMSET restores vegetative responses under saline stress, helps the plant's vital processes and the structure of its root system, improving the absorption of nutrients and water.
Applied via the roots, ILSASTIMSET limits the adverse effects of excess salt in the soil and in the soil solution. Its formulation stimulates the development and production of plants, even in cases of high electrical conductivity. ILSASTIMSET also is a bioactive product that is part of the Viridem program, the innovative generation of products of plant origin, effective and sustainable, developed by ILSA.

May their work be productive.
And yours too.

Recommended for: Tomato, Pepper, Potato, Eggplant, Melon, Watermelon, Courgette, Cucumber, Strawberry, Tomato and other horticultural in greenhouse, Stone Fruits, Pome Fruits, Table and Wine Grape.

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ILSA The green evolution

From ILSA, Ilsatermiko.
Thermal and water stresses do not affect us.

ILSA products with a specific action.

ILSATERMIKO is designed to prevent and counter stress from high and low temperatures and from droughts. The use of ILSATERMIKO favours vegetative recovery after critical environmental periods, improving the concentration of cellular contents.

May their work be productive.
And yours too.

Recommended for: Tomato, Pepper, Aubergine, Melon, Watermelon, Strawberry, Vegetables. T V

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ILSA The green evolution

ILSA DISTINCTIVE FEATURES

THE HISTORY
More than sixty years of history for our customers means continuity, solidity, the ability to remain in the market and always meet requirements adequately with high quality products.

PRESENT IN 57 COUNTRIES
For our customers it means benefiting from extensive application experience in a wide range of crops and in the most diverse conditions.

WORLD LEADER IN THE FIELD OF ORGANIC PLANT NUTRITION
This leadership seems to indicate a precise direction of ILSA's commercial strategy, while 90% of its turnover is made in traditional agriculture with products allowed in ORGANIC farming. This proves, for our customers, the competitiveness of our products both from an agronomic point of view and in terms of price.

MAJOR INVESTMENTS IN RESEARCH
ILSA invests heavily in research, proving its awareness of how much more there is to know about plants and soil. For our customers it means entering into a partnership with a company aware of how important knowledge is in order to always be able to guarantee application quality, productivity and respect for the environment. Distributing ILSA products is good for the dealer's image.

AGROGEL® AND GELAMIN® TWO EXCLUSIVE MATRICES
AGROGEL®, the result of research, used for the production of ILSA fertilisers and included in legislation in March 2007, is the only fully standardised natural raw material. This means being able to guarantee our customers, with absolute precision, the titres relating to organic nitrogen, soluble organic nitrogen, organic carbon, soluble organic carbon, humidity, pH, etc. Basically, objective quality and awareness of using a product with low environmental impact.

GELAMIN® the matrix for the production of special liquid products offers all the advantages of enzymatic hydrolysis for both animal and plant-based raw materials.

QUALITY AND AGRONOMIC EFFICIENCY OF THE PRODUCTS
In order to bear the ILSA brand, each product must successfully pass some tests lasting no less than three years, starting from the growth room and ending in the open field.
ILSA is one of the few companies with an internal structure exclusively dedicated to the quality control of incoming raw materials and outgoing formulations, but above all dedicated to the evaluation of the efficiency of fertilisers and this means guaranteeing our customers the best agronomic results and ensuring that each product keeps its promises, putting our customer in a position to best qualify their presence on the market.

INNOVATIVE PRODUCTS
Solid organic fertilisers with modulated release or liquid fertilisers with a molecular weight predetermined during the production phase are just some of the examples of ILSA's innovative capacity. The way in which the nutrients are released is calculated right from the production phase so that the product is able to meet the needs of the crops as effectively as possible, according to the uptake curves of the nutrients. Feeding plants as needed means maximum efficiency with any soil, balance and maximum yield.

COMPLETENESS OF THE OFFER
Biostimulants and fertilisers that meet the requirements of all fertilisation techniques, whether by solidroot, by foliar application with a generic or specialised objective, or byfertigation, means that a customer can therefore rely completely on ILSA to meet all the nutritional needs of the crops.
The products of the VIRIDEM®program are the perfect synthesis of the completeness of the ILSA offer.

ILSA
The green evolution

HUBER

AgroSolutions

ILSA
The green evolution

ILSA S.p.A.

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