SEIPASA PRODUCT CATALOGUE

THE POWER OF NATURE





Seipa	asa	3
Prod	ucts	11
\rightarrow	FEATURED PRODUCTS	13
\rightarrow	UPCOMING RELEASES	18
\rightarrow	BIOCONTROL	22
	BIOINSECTICIDES	24
	BIOFUNGICIDES	36
\rightarrow	BIOSTIMULANTS	54
\rightarrow	BIOACTIVE LINE	76
\rightarrow	CROP NUTRITION	82
\rightarrow	NATURAL ORIGIN	116
\rightarrow	ORGANIC REFERENCES	120
Crop	programmes	123
Othe	er information of interest	139
\rightarrow	TYPE OF PACKAGING AND PALLETISING	140
\rightarrow	TANK FILLING ORDER	142
\rightarrow	LOW RISK OR ZERO RISK PHYTOSANITARY PRODUCTS	143
\rightarrow	MAP OF AREAS AND COMMERCIAL MANAGERS	144



The vision of anticipating change



Pedro Peleato, CEO of Seipasa.

Seipasa is the result of a vision that anticipated the changes transforming agriculture. Although the company was founded in 1998 amid the opportunities arising from Spain's integration into the European Economic Community in the late 1980s –a development that shaped the current European Union's economic, social, and political framework– the real turning point came in 2001.

That year, the University of Alicante organised a business visit to Cuba, which was subject to the US embargo through the Helms-Burton Act at that time. This made it very difficult for Cuban farmers to import phytosanitary products to control pests and diseases on their farms, among other consequences.

In response, **producers developed alternatives for biological control and pest control**, a development that quickly caught the attention of Seipasa's founding partners, Pedro Peleato and Pepe Morales, during their first visit to a farm in Havana.

They witnessed first-hand the transformation currently taking place in the agricultural sector through bio-based agriculture, sustainability, and the production of food free of chemical residues.

At that time, bio-based agriculture was still in its infancy in Europe. It was a market that was absolutely dominated by chemical synthesis solutions in phytosanitary treatments.

Nevertheless, **Pedro Peleato and Pepe Morales began to turn the entrepreneurial dream that began in Havana into reality**. They chose l'Alcúdia, a small town just 30 km from Valencia that met the necessary conditions for setting up and growing the business.

The rest is history, and Seipasa has grown to become a global company with a presence in more than 30 countries and has been recognised with the most prestigious National Innovation Award by the Spanish Ministry of Science, Innovation and Universities.

We are natural technology®

Natural Technology combines science, technology and innovation to serve knowledge agriculture. Our production model is based on botanical and microbiological active ingredients that have existed in nature for millions of years. However, we at Seipasa have learned to work with these ingredients in a unique way using our own internationally recognised Natural Technology model.

Natural Technology enables us to identify and select the most efficient and effective active ingredients. We then apply the most advanced technology to maximise their effectiveness under any application conditions anywhere in the world.

In other words, our *Natural Technology* model originates from the raw materials provided by nature, but uses the most innovative and cutting-edge technology of the 21st century. This is why we are **standard-bearers in knowledge farming, where the way in which tools are used and combined is as important as the tools themselves.**



Industrial complex in l'Alcúdia

Our industrial complex in l'Alcúdia, Valencia, comprises three nerve centres spanning over 21,000 m².

The **Seipasa Plaza** building **is where science**, **innovation and people converge**. Representing our destiny, it is a metaphor for the road that has brought us here. Every encounter here is an opportunity to shape the ideas that are transforming agriculture.

The Seipasa Core building represents the beginning of our journey, as it is the site where Seipasa was founded in 1998. We are at the heart of what drives our Natural Technology and the R&D that we bring to agriculture. Our mission is to seek out the most effective active ingredients in nature and apply the most advanced technology to convert them into efficient, sustainable and humane solutions.

The **Seipasa Cultiva Center connects our R&D with real-life applications**. The experimental centre completes the product development that begins in the laboratory, enabling us to apply and evolve our *Natural Technology* model to the same challenges, pests and diseases that farmers face daily.



Seipasa in figures

Facilities

21,700 m² Industrial complex

700 m² Laboratory

3,000 m² Experimental center

1,500 m² Headquarters

Global market

+30 countries

8 business units

SPAIN · EUROPE · MEXICO · LATAM AFRICA · USA · APAC · GARDEN



5 product lines



BIOINSECTICIDES



BIOFUNGICIDES



BIOHERBICIDES



BIOSTIMULATION



NUTRITION

Research

30% of staff dedicated to R&D

5 patents:







PATENT ES2444991A1

PATENT ES2520615B2 **PATENT** EP3167717

PATENT ES3018295T3 **PATENT** EP3610727B1

Sustainability



100% green energy



40% of electricity consumed generated by solar panels



95% of residues generated has a second life

Certifications



















A real commitment to phytosanitary registrations

If there is one defining feature of Seipasa's product catalogue, it is the company's commitment to the phytosanitary registration of biocontrol products. This commitment has enabled Seipasa to build a **global portfolio of over 70 registrations in more than 30 countries worldwide**.

Our business model is based on providing farmers with new, biologically based, registered tools capable of replacing chemically synthesised active ingredients, which are gradually being phased out by increasingly strict international regulations.

Alongside technology, sustainability and innovation, Seipasa's business model relies on **phytosanitary registrations as a strategy for international expansion and growth**.

This means that, before entering a new market, the company carries out important prospecting work, analysing the needs of farmers and gaining knowledge of the country's agronomic reality.

Therefore, **phytosanitary registration provides Seipasa with in-depth knowledge of the product being developed**, guaranteeing quality, confidence and safety for the end farmer.

Seipasa's R&D department and laboratory.











INNOVATION in capital letters

Seipasa has been recognised with the National Innovation Award. This prestigious award, granted by the Spanish Government's Ministry of Science, Innovation and Universities, recognises the company's efforts to develop a Natural Technology model that is successfully applied to high-value crops and the most demanding agricultural systems on the planet.

This recognition also underscores Seipasa's ability to design and develop innovative solutions based on natural resources and make them available to producers in a highly regulated sectors such as farming.



Pedro Peleato, CEO of Seipasa, receives the National Innovation Award from King Felipe VI and Queen Letizia.



An ESG company

Seipasa is at the heart of a large community of people, businesses and organisations that work together in perfect harmony to provide solutions to thousands of farmers around the world every day. We are responsible for caring for and protecting this community, and for improving its quality of life and well-being, by promoting the production and consumption of healthy, residue-free food. This is all within the framework of a healthy lifestyle and respect for the environment, based on solid principles of ethics, transparency and corporate responsibility.

Our commitment to people, the environment and governance is also reflected in our support for the **United Nations Global Compact**. By doing so, Seipasa reaffirms its commitment to aligning all its strategies and operations with the 10 universal principles concerning human rights, labour standards, the environment, and anti-corruption.







Seipasa's ESG projects in the framework of organic farming, social inclusion and the promotion of healthy eating and lifestyle.





Close to the sector

Seipasa carries out a wide range of technical, training and commercial activities, enabling us to maintain close ties with the sector by participating in congresses, international fairs and specialised conferences.

The Seipasa brand and its Natural Technology model participate in the most important events of the fruit and vegetable sector every year. In addition, our headquarters in l'Alcúdia, Valencia, Spain, hosts numerous technical training sessions for our customers and distributors, aiming to share experiences and advance knowledge of and handling of our product portfolio.

Seipasa's presence at trade fairs, congresses and training days.















Partnership synergies

Seipasa actively promotes strategic synergies with the main agricultural associations. By constantly sharing knowledge and experiences, we work together to identify and **address common challenges**, **drive innovation and build a stronger**, **more collaborative future for the entire sector**.

































PRODUCTS

Seipasa's products combine all the innovation of the *Natural Technology* model with the tools made available by knowledge-based agriculture. They are designed to provide farmers with effective, sustainable and safe solutions to **ensure the production of chemical-free**, **high value-added**, **residue-free fruit**, **vegetables and cereals** in the world's most demanding farming systems.



FEATURED PRODUCTS



The featured products highlight new applications for the bioinsecticide **Pirecris**, which has expanded its phytosanitary registration to include pest control in crops such as red fruits, stone and pome fruit trees, nuts and citrus fruits. Seipasa's commitment to providing farmers with new biological biocontrol alternatives has also materialised in the extension of the Fungisei biofungicide label for the control of diseases in berries, tropical fruit and stone fruit trees. **Meanwhile Septum has established itself as a high-value reference in disease control**, further strengthening the portfolio of biofungicidal solutions. In the field of biostimulants, **SeiZen has obtained European registration under the PFC 6 (B) category (non-microbial plant biostimulant)** in accordance with the new EU Regulation 2019/1009. This certification enhances the product line's added value, placing it at the centre of Seipasa's market strategy.

Pirecris

THE MASTER SHOT AGAINST PESTS





Maximum efficacy:

Optimised formulation with a perfect balance of active molecules.



Plant innovation:

Direct action that removes insect protective barriers and improves control.



Patented formulation,

unique in its class. Patent number **ES2444991A1**.



Prolonged protection:

Natural antioxidants that increase stability and longevity.



No resistance problems.



With **Sun protect** technology.









THE BIOLOGICAL FUNGICIDE FOR THE NEW GENERATION





Stability and ease of use: Liquid formulation, stable for more than two years without phase separation.



Environmental tolerance: Effective in extreme conditions.



Quick and preventive effectiveness: Effective in early stages and as a preventive treatment.



Low risk: Classified as Low Risk by the European Commission; suitable for organic farming and



Compatibility: Compatible with formulations based on copper



Safety: It does not stain the fruit, prevents resistance and uses Furity technology.













BASIC PROTECTION FOR CROPS





100% of the characterised extract (organic and inorganic fractions).



The active ingredients have been identified and quantified.



Formulation: Stable and homogeneous batches with durability over time.



There is no fermentation or clogging of nozzles.



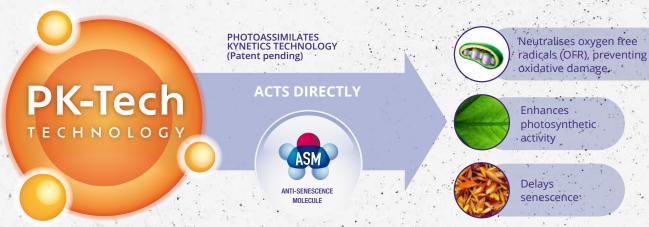






YOUR CROPS, AT PEAK PERFORMANCE





UPCOMING RELEASES

Seipasa completes its biocontrol portfolio with a new line of **bioher-bicide** products to position itself as a real alternative to chemical synthesis solutions for weed control. Seipasa has designed a broad-spectrum contact bioherbicide that acts precisely, forcefully and lethally against the targets.



THE FINAL BLOW AGAINST WEEDS

Seithor is a naturally occurring herbicide for early post-emergence control of broadleaf and narrowleaf weeds. It has broad-spectrum contact herbicidal activity and acts by physically stripping the waxy cuticle of the leaf and lowering the internal pH to cause cell rupture, leaf loss and death by desiccation. Seithor causes a rapid and non-selective desiccation of the green plant tissues: damage becomes evident in about 60 minutes and plant collapse occurs within 1-3 hours.

Why Seithor?

- Comprehensive effectiveness. Monocotyledonous and dicotyledonous species.
- **Control** from the earliest stages.
- Compatibility with BCOs.
- Excellent cuticular penetration properties.
- Suitable for resistance management programmes. Ideal in **IPM**, **sustainable** and **ZR** programmes.
- Minimal risk. Active ingredient Food Grade Quality.
- Biodegradable. Preserves soil fertility.





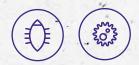
INFORMATIVE NOTE

This catalogue provides general information about Seipasa products. The products listed have been or are in the process of being registered in various markets worldwide. Please note that some of the products shown in the catalogue may not be registered in a particular country and may not be available for sale. Therefore, the information contained in this document is for informational purposes only.

After registration has been obtained, the sale of any product must be based solely on the approved product labels, and any claims regarding the product's safety and efficacy will be resolved solely by the label. Users must always read and follow the instructions on the product label.

The uses described on the product pages of this catalogue are recommendations based on the experience of Seipasa technicians working in specific environmental and growing conditions, which may affect how the product is applied. Changes to these conditions could produce unforeseen or different effects. It is therefore advisable to use the product under the supervision of a knowledgeable technician, and to carry out a test application on a small area immediately before treating any new surface.

The information contained in this catalogue is non-binding and changes may occur without prior notice.



BIOCONTROL

The biocontrol line offers innovative phytosanitary solutions based on natural active ingredients of botanical and microbiological origin. Seipasa develops, formulates and markets highly effective bioinsecticides and biofungicides for comprehensive crop protection against the most limiting pests and diseases. Our products contribute to sustainable agriculture, free of chemical residues and compatible with beneficial fauna, in line with integrated management strategies.



• BIOINSECTICIDES 24 • BIOFUNGICIDES 36





BIOINSECTICIDES

Seipasa's bioinsecticides represent an advanced phytosanitary solution developed from substances of natural origin. Faced with the evolution of pests and the limitations of chemically-synthesised phytosanitary tools, our *Natural Technology* offers an alternative of **high efficacy**, **safety and performance backed by phytosanitary registration** and experience in the world's most demanding agricultural systems.



• PIRECRIS	26
• NAKAR	30
• BT32	32
- DACMORD	24





Properties

Pirecris is a contact bioinsecticide that blocks sodium and potassium channels in insects, disrupting nerve impulse transmission. This causes hyperactivity and abnormal movements, resulting in rapid pest elimination after application.

EMULSIFIABLE CONCENTRATE (EC) INSECTICIDE

Composition

Pyrethrins 2% [EC] w/w

Exact balance of PI/PII molecules

Mode of action: IRAC 3A

Benefits

- Broad-spectrum natural insecticide.
- Shock effect: neurotoxic and physical.
- Facilitates the introduction of auxiliary fauna.
- Does not increase spider populations.
- Can be used at any time of the day: Sun-Protect technology.
- Maximum stability in different conditions of use.
- Low safety period.

Seals and certifications:







Registration No.

Registered in the R.O.P.M.F. (Register of Phytosanitary Products and Materials) under number: ES-00225

Available in:

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Uses

USE	AGENT	DOSE (L/ha)	SOLUTION VOLUME (L/ha)	SPECIFIC CONDITIONING	
Stone fruit trees	Aphids, Aphididae			Outdoor use. Except cherry and plum.	
Apricot trees	Spotted vinegar fly, Drosophila suzukii	0,75-1,5		Outdoor use.	
Pome fruit trees					
Ornamental apple trees			300-1000		
Nuts (including almond, hazelnut, walnut, pistachio and chestnut)				Outdoor use.	
Cherry and plum tree	Aphids, Aphididae	1-1,5		Outdoor use. Cherry tree: Including the sour cherry (<i>Prunus cerasus</i>).	
Citrus fruit		1 1,3		Outdoor use. Lemon tree: Includes cedrate (Citrus medica). Orange tree: Includes bitter orange (Citrus myrtifolia) and bergamot (Citrus bergamia). Mandarin tree: Include clementine and hybrids.	
Strawberry patch	Spotted vinegar fly,	0,75-1,2		Greenhouse use.	
Fruit bushes	Drosophila suzukii	0,75-1,5		Greenhouse use on blackberry, arctic blackberry, raspberry and blueberry.	
Persimmon	Spotted vinegar fly, Drosophila suzukii	0,75-1,5		Outdoor use.	
	Thrips, <i>Scirtothrips</i> spp.		-		
Pepper	Aphids, Aphididae	0,7-1,2		Outdoor and greenhouse use. Includes Myzus persicae and Aphis gossypii.	
Tomato	Whiteflies, Aleyrodidae	0,9-1,5		Outdoor and greenhouse use. Including B	
Aubergine				misia tabaci and Trialeurodes vaporarorium.	
Spinach and similar	Aphids, Aphididae	0,7-1,5	300-750	Outdoor use.	
Lettuce and similar				Including Nasonovia ribisnigri, Myzus pers cae and Hyperomyzus lactucae.	
Vine	Leafhoppers, Cicadellidae		200-800	Suitable for table grapes and outdoor vinification.	
Chrysanthemum Hibiscus	Aphids, Aphididae	1-1,5	300-1000	Outdoor use.	
Tilbiscus		AINOR LISES			
Chard* chicory (leaves)*		INOR USES			
Chard*, chicory (leaves)*, celery*, barberries*, watercress*, cress*, pepperwort*, sprouts, including brassica species*, lamb's lettuce*, cardoon*, endive*, aromatic herbs and edible flowers*, fennel*, Chinese mustard*, parsley*, chervil*, rocket*, rhubarb*, purslane*	Aphids, Aphididae	0,7-1,5	300-750	Outdoor use only. Celery: For the production of celery leaves and stalks only. Chicory: For chicory leaves and bitter or red chicory leaves. Tender shoots: Includes Brassica species (tender leaves and petioles of Brassica, harvested up to the stage of the eighth true leaf).	
Okra, lady's finger*	Whiteflies, Aleyrodidae	0,9-1,5	300-1000	Greenhouse only.	

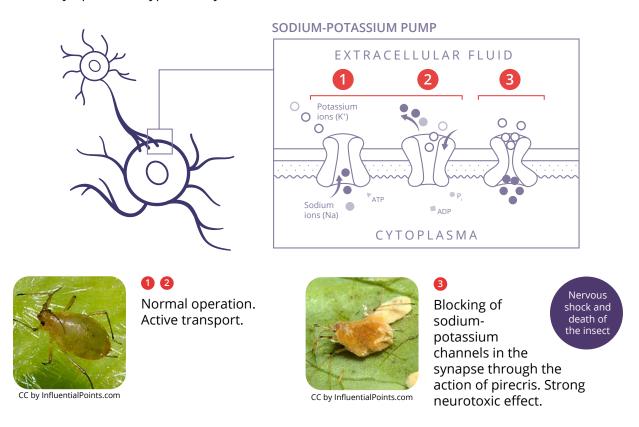
 $[\]hbox{*Minor use authorised under national procedure, see section on "other regulatory information".}$

Safety period: Grapevine: 3 days Other crops: 1 day For ornamental apple trees, chrysanthemums and hibiscus: not applicable. **Maximum 3 applications per season with a 7-day interval between applications.**

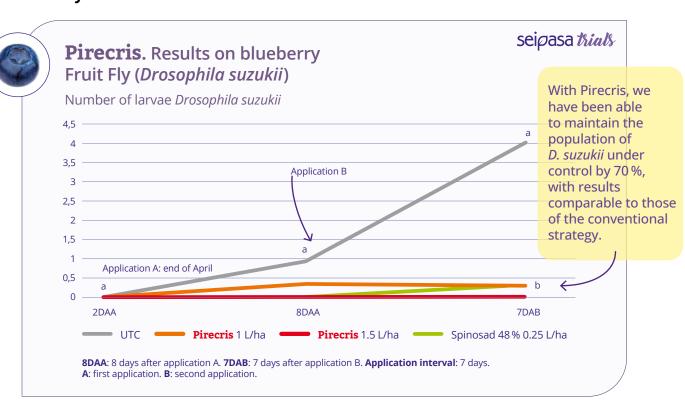


Mode of action

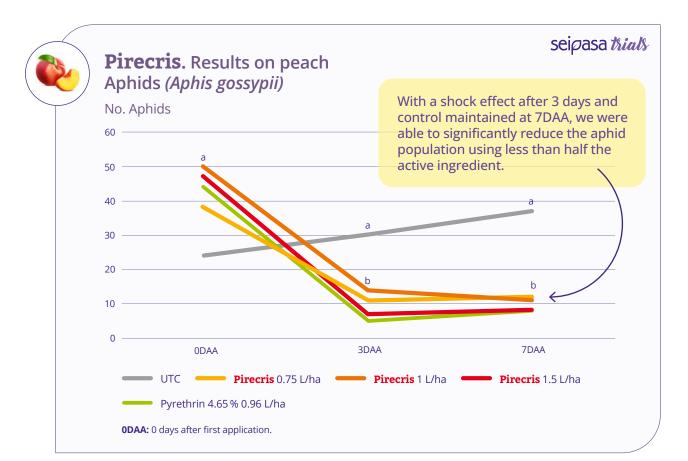
The IRAC 3A mode of action is by contact. Touching the insects blocks their sodium and potassium channels. In this way, the insect's nerve impulse transmission is disturbed and it then shows symptoms of hyperactivity and abnormal movements until it dies.

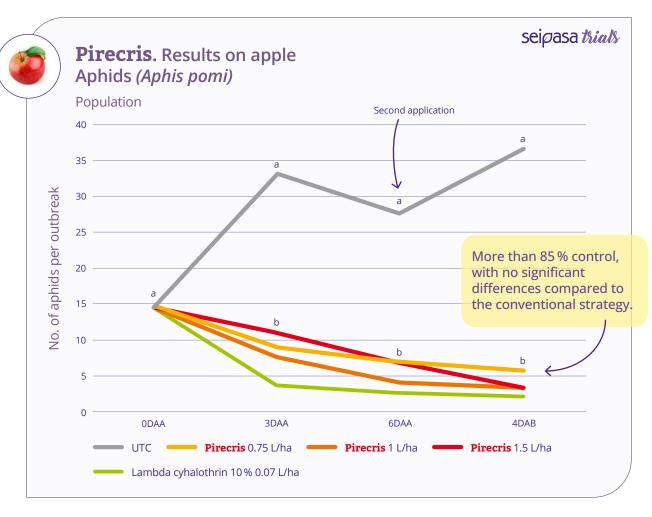


Efficacy trials













Properties

Nakar is a contact bioinsecticide for whitefly control. Its potassium soap-based formulation in soluble liquid form contains potassium salts 416 g/L (40.8 % w/w) of vegetable fatty acids. It is particularly recommended for use as an insecticidal soap against soft-shelled insects (*Bemisia tabaci, Trialeurodes vaporiarorum*) in solanaceous crops (greenhouse tomato).

Nakar can be applied at any stage of the crop cycle. It does not affect the waxy coating of the leaves even after repeated applications and does not burn the leaves or cause foaming.

SOLUBLE LIQUID (SL) INSECTICIDE

Composition

Potassium salts of vegetable fatty acids 41.6 % w/v (40.8 % w/w)



Registration No.

Registered in the R.O.P.M.F. (Register of Phytosanitary Products and Materials) under number ES-00123

Available in:

1 L	5 L	20 L

Benefits

- There are no safety periods.
- (1) It can be applied the day before harvest.
- Compatible with BCOs.
- ② Valid tool for IPM systems and organic production.
- Valid for resistance management programmes.

Seals and certifications:





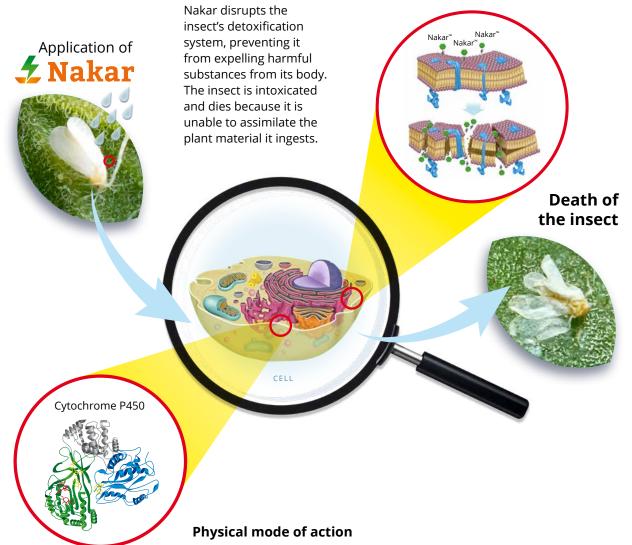
Uses



CROP	PEST	FOLIAR DOSE	NO. OF APPLICATIONS	INTERVAL
Tomato	Whitefly (Bemisia tabaci, Trialeurodes vaporariorum)	7 L/ha Solution volume 1000 L/ha	3	5-7 days

Mode of action

Mode of action biochemical



The length of the carbon chains selected from vegetable oleins guarantees Nakar's maximum effectiveness. The product penetrates the insect cell membrane and denatures the lipoprotein matrix. The loss of cell contents

leads to dehydration and death of the insect.





Properties

Seipasa's biological insecticide BT 32 guarantees excellent dissolution, adherence and efficacy. The subspecies strain present in its formulation (*Kurstaki* strain PB-54) has a high potency and allows for selective activity against a broad spectrum of Lepidoptera.

BIOLOGICAL INSECTICIDE WETTABLE POWDER (WP)

Composition

Bacillus thuringiensis var. kurstaki (strain PB-54) 32 % (32x10 6 I.U./g) (w/w)

Benefits

- ULV protectors.
- Optimal solubility and suspensibility.
- Supports combinations with other PPPs.
- No impact on auxiliaries.
- Accepted in IPM programmes.
- Broad spectrum.
- Certified for use in organic farming.
- IRAC Group: Microbial disruptor of insect digestive membranes.
- No MRL problems.

Seals and certifications:





Registration No.

Registered in the R.O.P.M.F. (Register of Phytosanitary Products and Materials) under number ES-22423

Available in:







Uses

CROPS	AGENT	DOSE (kg/ha)	NO. OF APPLICATIONS	SOLUTION VOLUME (L/ha)
Citrus (outdoor use)	Cacoecia (<i>Cacoecia rosana</i>), carnation caterpillar (<i>Cacoecimorpha pronubana</i>). Prays, citrus moth (<i>Prays citri</i>)	0.5-1	Max. 2	800-150
Artichoke, cucurbits with edible peel, spinach and similar, lettuce and similar (use in lettuce and other salads including Brassicacea) (outdoor use)	Heliothis (<i>Helicoverpa spp.</i>) Plusia (<i>Autographa gamma</i>). Plusia (<i>Chrysodeixis chalcites</i>). Green Cutworm (<i>Spodoptera exigua</i>). Black Cutworm (<i>Spodoptera littoralis</i>)	0.5-1	Max. 3	500-100
Strawberry patch (outdoor and greenhouse use)	Heliothis (<i>Helicoverpa</i> spp.). Plusia (<i>Autographa</i> gamma). Plusia (<i>Chrysodeixis chalcites</i>). Green Cutworm (<i>Spodoptera exigua</i>). Black Cutworm (<i>Spodoptera littoralis</i>)	0.5-1	Max. 2	500-100
Nut trees (outdoor use)	Shoot and fruit leaf miner (<i>Anarsia lineatella</i>). Leafroller, tobacco beetle (<i>Archips</i> spp.) Caterpillar (<i>Aglaope infausta</i>)	0.5-1	Max. 2	800-150
Almond and stone fruit trees (outdoor use)	Spider mite, spinner caterpillar (Yponomeuta spp.). Oriental Moth (Grapholita molesta). Shoot and fruit leaf miner (Anarsia lineatella). Lackey caterpillar (Malacosoma neustria). Leafroller, tobacco beetle (Archips spp.). Tussock moth (Orgyia antiqua)	0.5-1	Max. 2	800-150
Pome fruit trees (outdoor use)	Apples and pears moths (<i>Cydia pomonella</i>). Spider mite, spinner caterpillar (<i>Yponomeuta</i> spp.). Lackey caterpillar (<i>Malacosoma neustria</i>). Leafroller, tobacco beetle (<i>Archips</i> spp.). Tussock moth (<i>Orgyia antiqua</i>)	0.5-1	Max. 2	800-150
Brassica vegetables (use in inflorescence and outdoors)	Heliothis (<i>Helicoverpa</i> spp.). Plusia (<i>Autographa</i> gamma). Plusia (<i>Chrysodeixis chalcites</i>). Green cutworm (<i>Spodoptera exigua</i>). Black cutworm (<i>Spodoptera littoralis</i>). Diamondback moth (<i>Plutella xylostella</i>). Cabbage butterflies (<i>Pieris</i> spp.)	0.5-1	Max. 3	500-100
Olive tree (outdoor use)	Prays, olive moth (<i>Prays oleae</i>)	0.5-1	Max. 2	800-150
Pepper (outdoor and greenhouse use)	Heliothis (<i>Helicoverpa</i> spp.). Plusia (<i>Autographa</i> gamma). Plusia (<i>Chrysodeixis chalcites</i>). Green cutworm (<i>Spodoptera exigua</i>). Black cutworm (<i>Spodoptera littoralis</i>)	0.5-1	Max. 3	500-100
Tomate (outdoor and greenhouse use)	Heliothis (<i>Helicoverpa</i> spp.). Plusia (<i>Autographa</i> gamma). Plusia (<i>Chrysodeixis chalcites</i>). Green cutworm (<i>Spodoptera exigua</i>). Black cutworm (<i>Spodoptera littoralis</i>). Tomato moth (<i>Tuta absoluta</i>)	0.5-1	Max. 3	500-100
Vine (outdoor use)	Grapevine moth (<i>Eupoecilia ambiguella</i>). Grape moth (<i>Lobesia botrana</i>)	0.5-1	Max. 3	500-100
Cottonwood, blueberry, bilberry, bilberry, raspberry, blackberry (outdoor use)	Heliothis (<i>Helicoverpa</i> spp.). Plusia (<i>Autographa</i> gamma). Plusia (<i>Chrysodeixis chalcites</i>). Green cutworm (<i>Spodoptera exigua</i>). Black cutworm (<i>Spodoptera littoralis</i>)	0.5-1	Max. 2	500-100
Kiwi (outdoor use)	Leafroller moth (Argyrotaenia ljungiana)	0.5-1	Max. 2	500-100
Banana tree (outdoor use)	Lepidoptera	0.5-1	Max. 2	800-150
	MINOR USES*			
Celery, parsley, cabbage, borage and cardoon (outdoor use), cucumber (greenhouse use), aubergine (outdoor and greenhouse use)	Heliothis (<i>Helicoverpa spp.</i>). Plusia (<i>Autographa gamma</i>). Plusia (<i>Chrysodeixis chalcites</i>). Green cutworm (<i>Spodoptera exigua</i>). Black cutworm (<i>Spodoptera littoralis</i>)	0.5-1	Max. 3	500-100

^{*}For the minor uses of this authorisation; thistle, borage, cucumber, cabbage, celery, parsley and aubergine, as referred to in the third paragraph of Article 51(5) of Regulation (EC) 1107/2009, the responsibility for failures of efficacy or phytotoxicity of the product, in these crops, lies with the person using the plant protection product.

Intervals between applications: 7-14 days all crops.

Form and time of application: Citrus: Use against *Cacoecia rosana*. Nut trees: Use agains *Archips rosanus* and *Archips podanus*. Minor uses: In celery, production may be for consumption of stalks and/or leaves. In all crops: It can be applied at all stages of crop development.





Properties

Dasword stands out as a revolutionary formulation offering exceptional efficacy against pests. Acting as a potent combined insecticide and acaricide, it presents a unique duality of action that combines biological science with practical efficiency to protect your crops in a natural and sustainable way.

This innovative green formulation from Dasword contains a high concentration of four molecules from the organosulfur family that directly interfere with the pest's sensory faculties, giving it a unique pest-fighting complexity.



MICROEMULSION (ME)

Composition

Garlic extract 6 %

Available in:

\bigcup		
1 I	51	20 I

Benefits

- Highly repellent.
- Ideal for IPM, organic farming, sustainable and zero residues programmes.
- Compatible with most BCO (Biological Control Organisms).
- Suitable for resistance management due to different insecticide class and biological mode of action.
- Does not affect the sensory quality of the crop.
- Low risk tool. No residues.



Uses

	FIRST INDIVIDUALS	AVERAGE DOSE	HIGH PRESSURE	
Dose per area	1.5 L/ha	2 L/ha	3 L/ha	3,5 L/ha
Dose between 100-1000 L/ha	150-200 ml/hl	200-300 ml/hl	300-40	00 ml/hl
Interval	5-7 days	5-10 days	5-7	days

Mode of action

- 1 Neurotoxic action:
 - It causes neuromotor damage in pests by inhibiting the enzyme acetylcholinesterase, affecting their nervous system and ability to move.
- **2** Disruption of development and reproduction: It interferes with mating, egg-laying and larval development, causing stunted growth and premature death through physiological disturbances.
- **3** Structural damage to the cuticle: It generates physical alterations in the epidermal tissue of insects, affecting the integrity of their exoskeleton and causing dehydration or death.
- 4 Repellent and anti-feeding effect: It acts as a natural repellent and blocks feeding by interfering with the insect's sensory systems, reducing crop damage.







BIOFUNGICIDES

Seipasa's bioguncides are born from the heart of the *Natural Technology* model to halt and control the spread of fungal and bacterial diseases. Developed from proprietary formulations, and backed by patented technologies, our biofungicides are **ideal tools for inclusion in integrated management strategies aimed at reducing the chemical load of treatments** and achieving chemical residue-free harvests.



• FUNGISEI	38
• SEPTUM	42
• SEITYLIS	46
• BASEI 2C	48
• BASEI LEC	50
SEICAN	ΕЭ





Fungisei is a broad-spectrum, preventative, liquid biological fungicide developed from a proprietary strain of *Bacillus subtilis*. Its advanced technological formulation, exclusive to Seipasa, offers high efficacy, safety and flexibility in its use, without residues in the harvest.

CONCENTRATED SUSPENSION (CS)

Composition

Bacillus subtilis (STRAIN IAB/BS03) 1x108 CFU/mL

Benefits

- * Stability and ease of use: Liquid formulation, stable for more than two years without phase separation.
- * Environmental tolerance: Effective in extreme conditions.
- * Rapid and preventive effectiveness: Effective in early stages and as a preventive treatment.
- * Low risk: Classified as *Low Risk* by the European Commission; suitable for organic farming.
- * Compatibility: Compatible with copper-based formulations.
- * Safety: It does not stain the fruit, prevents resistance and uses Furity technology.
- * Maintains its effectiveness by reducing the chemical load on the crop.
- * Easy integration into Integrated Pest Management (IPM) programmes.

Seals and certifications:





Registration No.

Registered in the R.O.P.M.F. (Register of Phytosanitary Products and Materials) under number ES-01404

Available in:

\Box	6
\cup	
1 L	5 L

THE POWER OF FORMULATION



- High stability: Stable over a wide range of storage conditions (2-3 years).
- Optimum dissolution:
 Compatible with different types of water and excellent wettability.
- Rapid establishment: The strain establishes quickly in the crop, irrespective of the mode of application.
- Perfect mix: It mixes well in tanks and integrates perfectly into agronomic management.



GENERIC GROUP	CROP	USE
	Cucumber, gherkin	Downy mildew of cucurbits
Cucurbits (OG)	Watermelon, melon, courgette	Oidium
, ,	Pumpkin	Cucurbit downy mildew and powdery mildew
	Tomato, pepper and aubergine (OG)	Botrytis cinerea (grey rot)
Solanaceae	Tobacco (O)	Botrytis cinerea (grey rot) and oidium
Proceimano (OC)	Sprouts, including brassica species	Botrytis cinerea (grey rot)
Brassicaceae (OG)	Brassica vegetables	Botrytis spp. and Botrytis cinerea (grey rot)
_egumes	Grain legumes, green legumes (OG)	Botrytis
	Green pea (O)	Botrytis and downy mildew
Horticultural bulbs	Garlic, spring onions (OG)	Botrytis and downy mildew
torticultural buibs	Shallot (O)	Mildew
		Botrytis and downy mildew on lettuce (O)
eafy vegetables	Lettuce and similar	Botrytis on watercress, lamb's lettuce, endive, rocket and Chinese mustard (OG)
	Spinach and similar (OG)	Botrytis and downy mildew
Artichoke (O)	-	Mildew
	Almond, walnut, pistachio, hazel and chestnut trees	Botrytis
Nut trees (O)	Almond tree	Botrytis and apple scab (Venturia inaequalis)
	Hazel, chestnut	Oidium
ropical and sub-tropical plantations (OG)	-	Botrytis and powdery mildew
Stone fruit trees (O) except peach)	-	Botrytis, powdery mildew and powdery mildew of apricot (<i>Podosphaera tridactyla</i>)
Pome fruit trees (O)	-	Mottling and apple scab (Venturia inaequalis)
/ine (O)	-	Botrytis cinerea (grey rot)
Spices and infusions (OG)	-	Botrytis and powdery mildew
ruit bushes (OG)	-	Botrytis and powdery mildew
Aromatic herbs and edible lowers	-	Botrytis (AI) and downy mildew (A)
Herbaceous ornamentals (OG)	-	Botrytis and powdery mildew
ndustrial (O)	Chicory roots (industrial), stevia, textiles, poppy, sugarcane, lavender	Botrytis
Roots and tubers (O) Except sugar beet and potato)	-	Botrytis
oung stems (OG)	-	Botrytis cinerea (grey rot)
Hops (OG)	-	Botrytis
Dilseeds (OG)		Botrytis

Application: Foliar. **Interval:** 5-7 days. **Safety period:** N.P. **Maximum number of applications:** 5 for all crops except almond, apple, pear, quince, loquat and Japanese loquat which are 7.

(O) Outdoors. **(OG)** Outdoors and Greenhouse.



Mode of action (FRAC: BM02)

Fungisei has a triple mode of action:

- 1 Direct antagonism due to nutrient and space competition: rapid colonisation of the strain hinders the development of the pathogen.
- 2 Production of lipopeptides (natural antibiotics), the most important families of which are:
 - Iturins: strong antifungal action against a broad spectrum of fungi and yeasts. They work by weakening their structure until they are eliminated.
 - Surfactins are powerful natural compounds that damage cell membranes, breaking down their structure.
 - Fengicins are very effective against filamentous fungi, acting by damaging their cell membrane.
- 3 Induction of systemic resistance (ISR) of the host plant against subsequent pathogen challenge.

CONTROL

The construction of a viable biofilm allows:

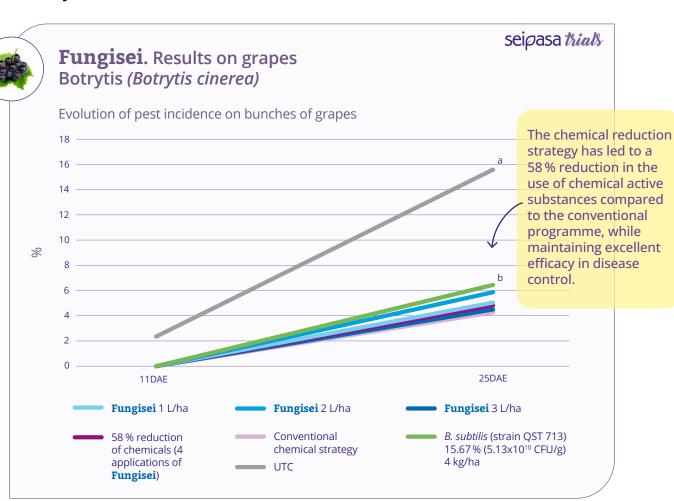
- >> Culture/bacteria dialogue > Colonisation
- » Microbiological establishment
- >> Defensive induction
- >> Growth promotion



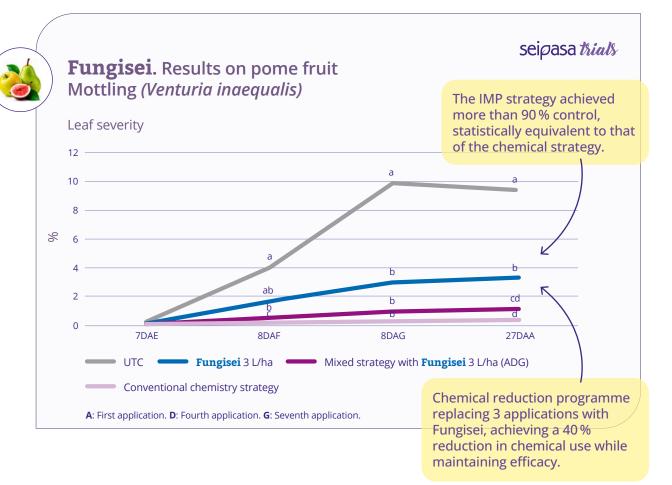
«Fungisei® inhibits the growth of the fungus, creating a biological barrier that prevents it from developing, thus protecting the plant from the disease»

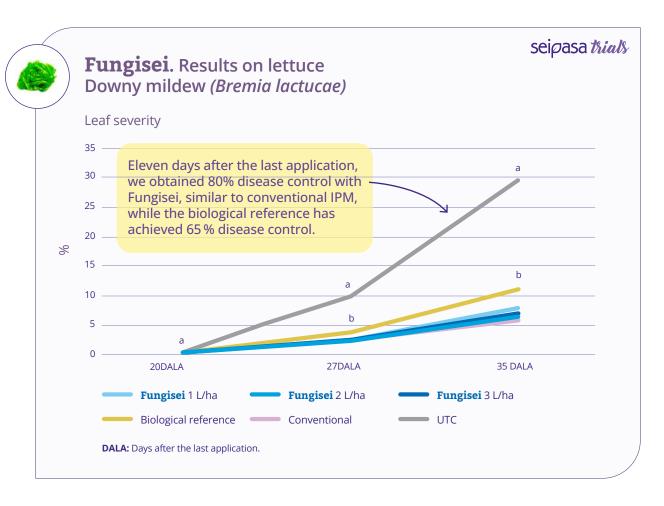
> (Seipasa Microbiology Department))

Efficacy trials













Septum is a liquid biological formulation that has a broad fungicidal effect, with a double preventive and curative action, designed from the base substance *Equisetum arvense* and characterised 100 % by Seipasa. Its knowledge and formulation ensure batch homogeneity, safety, efficacy and stability over time.

BASIC SUBSTANCE

Composition

Equisetum Arvense L.

Concentration of active matter 2 g/L. pH 6.5

Benefits

- Curative and preventive action in a single product.
- Immediate action.
- Excellent results in Integrated Management strategies.
- There is no fermentation or clogging of nozzles.
- No residues, no MRLs.
- Open Does not retard crop development thanks to its bioactive compounds.
- Broad spectrum.
- Prevents resistance.
- Suitable for organic farming.

Seals and certifications:







Registration No.

Classified as Basic Substance in the EU SANCO/12386/2013

Available in:

11 51



CROP	PATHOGENS	DOSE	RECOMMENDATIONS
Fruit trees (apple and peach)	Rust or scab (Venturia inaequalis), powdery mildew (Podosphaera leucotricha), peach leaf curl (Taphrina deformans)	200-400 ml/hl (1-3 L/ha)	Start foliar applications at the beginning of sprouting with favourable environmental conditions for disease
Vines	Downy mildew (<i>Plasmopara viticola</i>), powdery mildew (<i>Erysiphe necator</i>)	200-500 ml/hl (1-4 L/ha)	development. 2-6 applications every 7 days during cultivation.
Cucurbits (cucumber)	Powdery mildew (<i>Podosphaera</i> xanthii), root fungus (<i>Pythium</i> sp.)	200-400 ml/hl	Foliar application for powdery mildew: 2-3 applications every 3-4 days. Root application for root and seedling diseases: 2-3 applications every 3-4 days.
Tomato	Early blight (<i>Alternaria solani</i>), septoria leaf spot (<i>Septoria lycopersici</i>)	(1-3 L/ha)	Apply from the first visible inflorescences when environmental conditions are favourable for disease development. 2 applications every 14 days.
Strawberry and raspberry	Botrytis cinerea, powdery mildew (Podosphaera aphanis), Phytophthora fragariae and other fungi such as Colletotrichum acutatum		Applications can be made throughout the crop cycle. Apply 4-8 times every 5-14 days.
Potato	Phytophthora infestans, Alternaria solani, powdery mildew (Erysiphe cichoracearum)	200-500 ml/hl (2-4 L/ha)	Apply when environmental conditions favourable for disease development appear. 2-4 applications with an application interval of 5-15 days are recommended.
Ornamentals	Marsonia spp., Phragmidium mucronatum, powdery mildew and downy mildew		1 foliar application when the first symptoms of the disease appear.

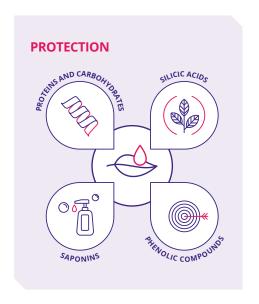
Mode of action

pounds)

 $100\,\%$ of the characterised extract. Organic fraction and inorganic fraction.

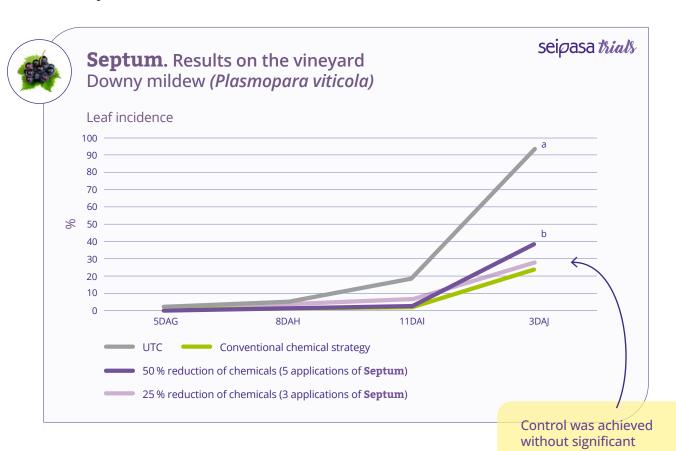
- MoA: Preventive effect(Silicic Acids + Proteins + Carbohydrates)
 - Physical effect: protective layer under the cuticle. ISR activation against pathogens, favouring the priming state.
- 2 MoA: Curative effect (Saponins - Silicic Acids + Proteins + Phenolic Com-

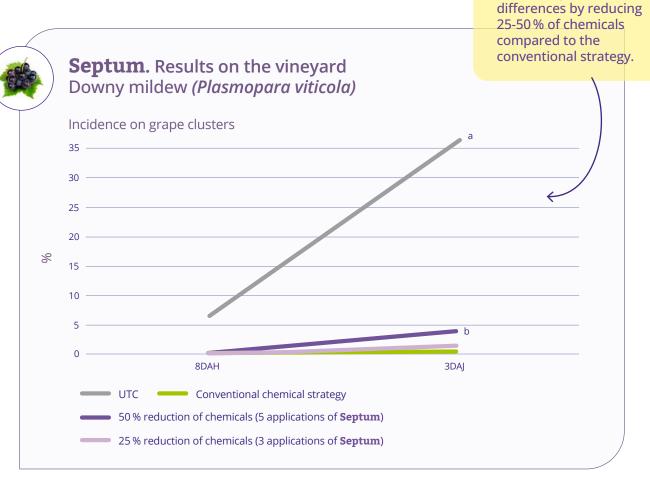
Acts through contact by disrupting the plasma membrane. Interrupts the reproductive phase of pathogens. Reduces the mitochondrial activity of pathogens. Antioxidant activity (REDOX).



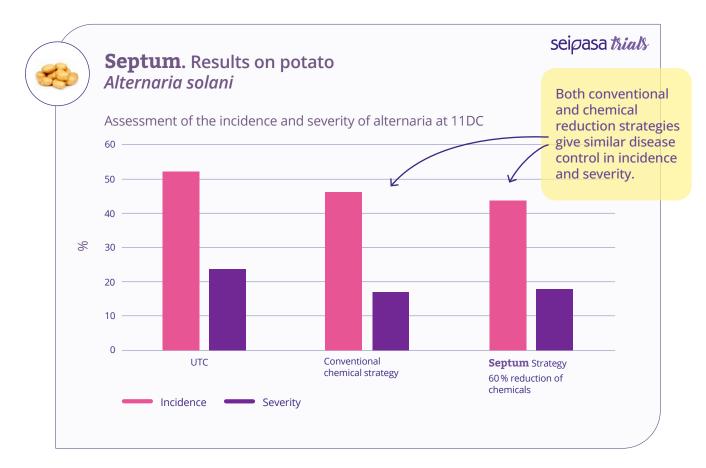


Efficacy trials













Seitylis is a naturally occurring, biological fungicide formulated with a strain of *Bacillus subtilis* that controls a broad spectrum of diseases in a preventive and healing way.

Seitylis Selpasa Selpasa rutural technology

WETTABLE POWDER (WP) FUNGICIDE

Composition

Bacillus subtilis strain IAB/BS03 (1 % w/w - min. 1x108 CFU/g)

Registration No.

Registered in the R.O.P.M.F. (Register of Phytosanitary Products and Materials) under number ES-01308

Available in:

	1	
	1	l .
- 1		
- 1		1

1 Kg 5 Kg

Benefits

- Broad spectrum of antifungal action.
- No residue.
- 🍠 Suitable for organic farming.
- Prevents the development of resistance.
- Effective as preventive treatment and first symptoms of the disease.
- Optimum results in Integrated Pest Management strategies.
- Formation of a biological protective barrier that is installed on the leaves.
- Very short safety period between 0 and 1 day.
- Environmentally friendly.





CROP	AGENT	APPLICATION DOSE	NO. OF APPLICA- TIONS	INTERVAL BETWEEN APPLICA- TIONS	SOLUTION VOLUME	METHOD AND TIME OF APPLICATION	
Cucurbits with edible peel (greenhouses)	Powdery mildew (Golovinomyces cichoracearum and Podosphaera fuliginea)	0.5-1.5 kg/ha	5	5-7 days	500-1500 L/ha	First application before the first attack (preventive application). Applications should be made at night to try to ensure a longer period of high humidity. After planting (BBCH 17-89).	
Pome fruit trees	Mottled (Venturia inaequalis)	0.5-1.5 kg/ha	8	7-14 days	500-1500 L/ha	Start spraying in pre- flowering at 14 day intervals and then 6 sprays post-flowering at 7-14 day intervals. Apply on BBCH 10-72.	
Lettuce and similar	Mildew (<i>Bremia lactucae</i>)	0.4-1.2 kg/ha	5	7-14 days	400-1200 L/ha	Effective against <i>Bremia lactucae</i> . After planting (BBCH 14-46).	
		MIN	IOR USES*				
Apricot, cherry and plum trees	Apricot powdery mildew (Podosphaera tridactyla)						
Fruit bushes	Blackcurrant powdery mildew (<i>Microsphaera</i> <i>grossulariae</i> and <i>Podosphaera mors-uvae</i>)	1.5 kg/ha					
Hazelnut	Hazelnut powdery mildew (<i>Phyllactinia</i> guttata)			1-8	7-14 days	500-1500 L/ha	Apply during BBCH 10-72.
Chestnut	Powdery mildew (<i>Microsphaera</i> <i>penicillata</i>)						
Mango	Mango powdery mildew (<i>Oidium</i> <i>mangiferae</i>)						
Aromatic herbs and edible flowers (outdoors)	Powdery mildew	1.2 kg/ha	3-5	7-14 days	400-1200 L/ha	Apply during BBCH 14-46.	

^{*}Minor uses authorised by national procedure. See section on "other regulatory information" for minor uses.

Mode of action

Antagonistic effect

It competes for space and nutrients with pathogenic organisms by displacing them from their ecological niche and preventing them from developing.

Direct effect (antibiosis)

Produces specific lipopeptides that act as natural antibiotics with the ability to perforate the cell walls of the fungus causing its death.

Defence activator

Setting up the plant's integral defence system, improving and preventing attacks by pathogenic agents.











Basei 2C is a biofungicide with preventive and healing action. Its formulation incorporates different compounds and natural surfactants that provide excellent dissolution, ease of application and strong adherence to the plant, achieving maximum effectiveness.



BASIC SUBSTANCE

Composition

Sodium bicarbonate

Active substance concentration 99 % w/w

Registration No.

SANTE/10667/2015

Available in:



Benefits

- Healing effect against different types of powdery mildew.
- Alternative and complement to sulphur.
- It does not generate hydrogen sulphide compounds in the grape must and does not interfere with winemaking.
- Effective at high temperatures, no risk of phytotoxicity.
- No safety period. It leaves no residue.
- Included in the Organic Farming Regulation 889/2008. Does not affect the environment or auxiliary fauna.





	CROP	PATHOGENS	DOSE	NO. OF APPLICATIONS	INTERVAL
	Horticulture Red berries	Powdery mildew (Sphaerotheca spp.,	333-1000 g/hl Adjust the dose according to		
	Ornamentals	Oidium spp.)	the volume of water. Maximum concentration 1%.		
	Grapes	Powdery mildew (<i>Uncinula necator</i>)	420-2000 g/hl Concentrations higher than 1-2 % may cause phytotoxicity in some cases.	1-8	10 days
	Apple tree	Apple scab (Venturia inaequalis)	500-1000 g/hl Concentrations higher than 1-2 % may lead to phytotoxicity in some cases.		
	Fruit trees	Storage diseases such as green mould (<i>Pen-icillium digitatum</i>) and blue mould (<i>Penicillium italicum</i>)	1.000-4000 g/hl	1-2 (on harvested fruit)	
(*)	Potted plants	Bryophytes, Lunularia cruciata	122 kg/ha The product is used for post-emergency application. This use has not been tested for phytotoxicity; test on a small number of plants before widespread use.	-	

Safety period: NP.

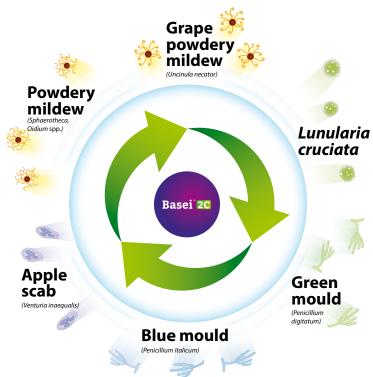
Mode of action

Curative action

Carbonate and bicarbonate ions dissociate in the leaf zone and exert a direct osmotic pressure which damages the cell walls of the conidia and hyphae, causing them to collapse and die.

Preventive action

Mycelial development is inhibited by pH variation in the leaf zone. Thanks to the different surfactants and coadjuvants contained in Basei 2C, a mechanical barrier is created in the leaf area that prevents the penetration of the hyphae of ascomycetous fungi.







Basei Lec is a product based on lecithin activity for use as a fungicide in vineyards, fruit, horticultural and ornamental crops. Basei Lec offers the powerful effect of phospholipids for the control of powdery mildew and certain types of downy mildew. The product has an excellent drying capacity which inactivates the germ tube and prevents propagation on crops.



BASIC SUBSTANCE

Composition

Lecithin

Active substance concentration 99-103 % w/w

Registration No.

SANCO/12798/2014

Available in:

		(
\cap		
1 L	5 L	20 L

Benefits

- Preventive action: provides strength and protection, activates defences and increases vigour.
- Curative action: degradation of pathogen membrane, healing.
- Broad spectrum: on different types of powdery mildew and downy mildew in different crops.
- Valid in IPM strategies and resistance management programmes.
- Coadjuvant effect: reduces surface tension and increases the contact area between droplet and leaf.
- Post-harvest: improves quality, gloss, firmness and reduces dehydration.





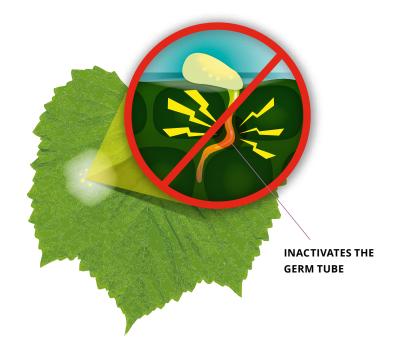
CROP	PATHOGENS	DOSE	NO. OF APPLICATIONS	INTERVAL
Apple and peach trees	Powdery mildew (<i>Podosphaera leucotricha</i>) Leaf curl (<i>Taphrina deformans</i>)	75 ml/hl	3-12	5 days
Blackberry	Powdery mildew (Microsphaera grossulariae)	200 ml/hl	2-4	
Vegetables such as cucumber	Powdery mildew (Podosphaera xantii)		2-6	
Lettuce	Powdery mildew (<i>Erysiphe</i> cichoracearum)		2	7 days
Lamb's lettuce	Powdery mildew (Erysiphe polyphaga)	150 ml/hl	1	-
Tomato	Downy mildew (<i>Phytophthora</i> infestans)		2-6	7 days
Endive	Fungi (Alternaria cichorii)			
Ornamentals	Powdery mildew and other fungal diseases	75 ml/hl		
Grape	Powdery mildew (<i>Erisyphe necator</i>) Downy mildew (<i>Plasmopara vitícola</i>)	/5 MI/NI	3-12	
Strawberry and raspberry	Powdery mildew and other fungal diseases (<i>Podosphaera aphanis</i> and <i>Phytophthtora fragariae</i>)			5 days
Potato	Downy mildew (<i>Phytophthora</i> infestans)	200 ml/hl		
Carrot	Powdery mildew (<i>Leveillula táurica</i>)		1-4	2 weeks

Safety period: 5 days for apple and peach trees, blackberry, horticultural vegetables such as cucumber, lettuce, lamb's lettuce, tomato, endive and ornamentals. For strawberry, raspberry, potato and carrot there is no safety period.

Mode of action

It works by preventing the elongation of the fungal hyphae and reducing the ability of the fungus to penetrate the plant. This fact provides a differential advantage to combat and prevent the development of infections.

Basei Lec has been developed to provide a natural, residue-free solution to complement fungicide treatment programmes, reducing the use of chemically synthesised products through Integrated Pest Management strategies.







3-in-1 biosolution, liquid acaricide, insecticide and fungicide, with curative and contact action. Designed for fast action in the control of various pests and pathogens. Its unique formulation provides precision, speed, reliability and flexibility of use with no residue on the crop.



EMULSIFIABLE CONCENTRATE (EC)

Composition

Cinnamic aldehyde 238.78 g/L (22.96 % w/w)

Additives: q.s.p. 1 L

Available in:

\cap		
1 L	5 L	20 L

Benefits

- † Highly effective as a curative and eradicant treatment.
- ★ Knock-down effect against mites.
- Compatible with biological control.
- Seican is a tool to be included in IPM (Integrated Pest Management) strategies, organic farming, sustainable programmes and zero residue.
- ★ No safety period.
- Useful for resistance management.
- Fast acting.



	CROP	PESTS	DOSE	RECOMMENDATIONS
	Tomato (Lycopersicum esculentum)	Mites (Tetranychus sp.)	2-4 ml/L (2.5-3.2 L/ha)	It is important to ensure good application coverage. Indicative application volumes of 400-600 L/ha.
	Rose (Rosa sp.)	Red mite (Tetranychus urticae)	2-4 ml/L (2.5-3.5 L/ha)	It is important to ensure good application coverage. Indicative volume of application of 1000 L/ha.
<u>></u>	Banana (<i>Musa</i> spp.)	Black Sigatoka (Pseudocercospora fijensis Morelet)	0.5-1 L/ha	It is important to ensure good application coverage. Indicative application volume of 150 L/ha.
	Avocado (Persea americana)	Mites (Oligonychus yothersi)	2.0-2.5 cc/L	It is important to ensure good application coverage. Indicative application volumes of 600-800 L/ha.

Mode of action (FRAC: BM03)

Acaricide / insecticide

- Nervous system disruption: inhibition of acetylcholinesterase, inhibition of neuronal ion transport and neuromotor incoordination, resulting in death.
- · Anti-feedant and repellent effect.
- Physical effects: asphyxia due to sealing of the spiracles, dehydration, softening and disintegration of the exoskeleton.

Fungicide

- Eradicant: interrupts sporulation and dries the spots, thus cutting off the spread of the disease.
- Curative: promotes changes in the enzymatic activity of the pathogen's cell wall. Inhibits fungal growth. Prevents penetration and colonisation of mycelia and spores.





BIOSTIMULANTS

The biostimulant line is designed to **unlock the potential of crops and take them to a higher quality level**. Formulated from natural active ingredients, our solutions act by supporting key physiological processes in the plant and contribute decisively to improving soil health. Seipasa's biostimulants provide increased vigour, improve yield and crop quality, unlock essential micro and macronutrients and help crops to perform at their best in challenging and energy-hungry situations.



• SEIZEN	56
• RADISEI	60
• KYNETIC4	62
• BRYOSEI	64
• SWEETSEI	66
• ACTYSEI	68
• FOLIPLANT	69
• DINÁMICO 150	
• SEINEMA	71
• SEILAND	72
• RASMIA	73
• TILL UP	74





SeiZen is a liquid biostimulant designed to increase crop productivity. It helps prepare plants for challenging situations and increased energy demands by acting as a physiological enhancer: stimulating cell division, growth and differentiation, enabling improved crop yields.





Available in:

\cap	
1 L	5 L

BIOSTIMULANT DESIGNED TO INCREASE CROP YIELD

SL - SOLUBLE CONCENTRATE

Composition

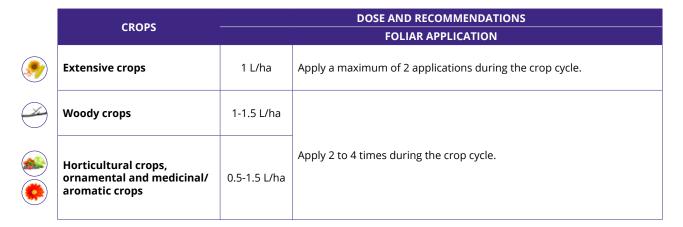
PFC 6(B): Non-microbial plant biostimulant

Liquid in solution formulated with PK-Tech Technology by Seipasa

Benefits

- Optimised photosynthesis: Improves photosynthetic efficiency, protects the photosystem, stabilises PSII-LHCII super-complexes and slows down chlorophyll degradation, ensuring greater uptake and use of light energy.
- Antioxidant protection: Neutralises reactive oxygen species (OFR), preventing oxidative damage at the cellular level.
- Increased vitality: Stimulates metabolic function, respiration and synthesis of RNA, protein and starch, promoting vigorous growth and increased productivity.
- Anti-ageing: Activates genes that delay leaf ageing, prolonging the youth and vitality of the plant.
- Resistance to adverse situations: Helps the plant overcome adverse conditions such as abiotic stress and increased ethylene production.
- Flexibility in harvesting: Reduces fruit response to increased ethylene synthesis, extending fruit life and providing greater flexibility at harvest.
- Increased yield and crop quality: By optimising photosynthesis and plant metabolism.

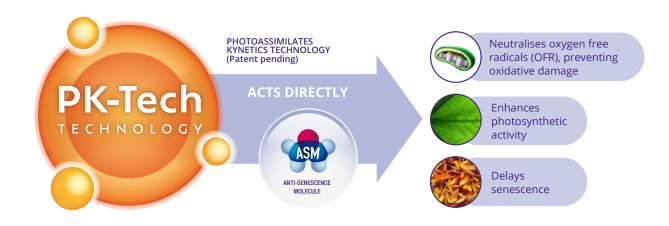




Mode of action

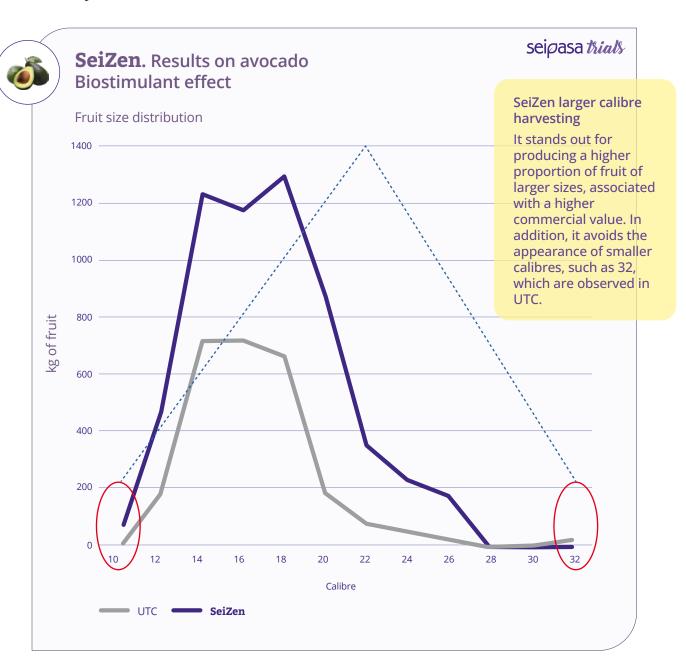
- Improves photosynthetic efficiency.
- Protects photosystem and essential biomolecules.
- Delays chlorophyll degradation.
- Maintains cell membrane integrity.
- Stabilises PSII-LHCII super complexes.
- Induces RNA, protein and starch synthesis.
- Antagonises ABA and ethylene, delaying senescence.
- Activates genes that delay the foliar ageing.



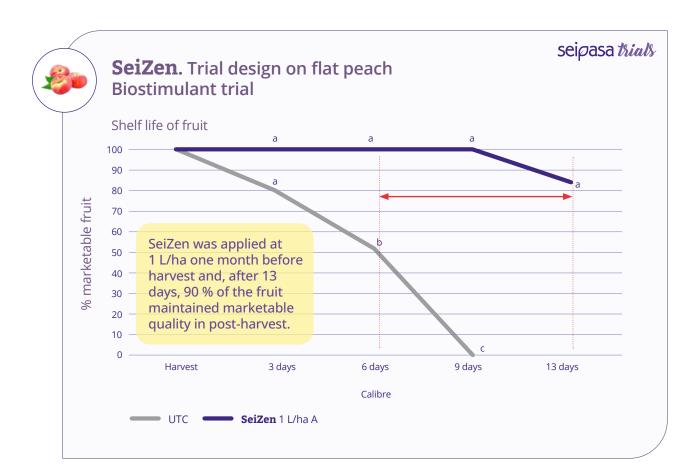


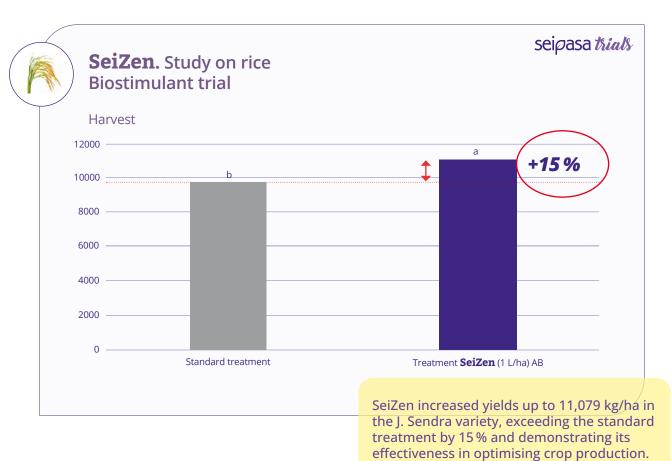


Efficacy trials













Radisei is a unique, balanced formulation of plant-derived amino acids and *Bacillus subtilis* (SEIPASA's proprietary strain SEIBS23) that performs specific functions in the root environment: fixing nitrogen, generating siderophores and solubilising potassium in the soil.

Radisei increases crop quality and quantity. It can be used in drip irrigation systems, sprinkling, spraying, injection and in mixtures with substrates, with good homogenisation of the mixture being essential.

WSP - WATER SOLUBLE POWDER

Composition

Bacillus subtilis SEIBS23 ≥10⁷ UFC/g Free amino acids 35 % w/w Total nitrogen 8.40 % w/w

Free amino acids obtained from the enzymatic hydrolysis of soya plant proteins

Lys: 0.43 %	Ala: 0.94 %	Pro: 1.86 %
Asp: 1.53 %	Glu: 5.00 %	Val: 0.93 %
Thr: 11.48 %	Ser: 2.58 %	Gly: 7.40 %



Registration No

F0004121/2029

Available in:

1 Kg	5 K

Benefits

- Finhances root architecture.
- Promotes nutrient assimilation.
- Resilience to adverse conditions.
- Provides an additional metabolic boost (bio-boost effect), optimising photosynthetic efficiency and reserve mobilisation.





CROPS	DOSE VIA SOIL	RECOMMENDATIONS FOR USE
All woody crops such as: Almond, walnut, pistachio, hazelnut Stone and pip fruit: peach, nectarine, apricot, cherry, plum, apple, pear, quince Citrus fruits: orange, mandarin, lemon, lime, grapefruit Olive tree Vines and table grapes Blueberry, raspberry, blackberry, gooseberry Mango, avocado Banana Pineapple, papaya, kiwi	2.5-5 kg/ha	Apply 2 to 4 applications, every 2-3 weeks starting at the beginning of the cycle (*) (**) and at times of maximum energy demand of the crop: sprouting, fruit set and fruit swelling. Apply during the last third of irrigation to localise the product in the wet bulb and avoid washout. Can be applied with a spike. Dose subject to fertilisation.
All soil-based horticulture (open air and greenhouse) such as: Tomato, pepper, courgette, cucumber Lettuce, pre-prepared convenience food and similar Strawberry Melon, watermelon Potato, onion, leek, carrot, garlic Broccoli, cauliflower, cabbage Bean, pea, broad bean Artichoke, celery, chard, spinach, asparagus, parsley, radish, fennel, mushroom and others	2.5 kg/ha	Apply four applications at one- to two-week intervals, starting two weeks after transplanting. Apply during the last third of the irrigation to localise the product in the wet bulb and avoid washout. Can be applied with a spike. Dose subject to fertilisation.

(*) We recommend a higher number of applications using lower doses. This ensures the soil and roots are reinoculated, extending the viability of the micro-organisms.

(**) In case of application by blanket irrigation or with a dribble, increase the dose by 30 to 50 % depending on the need of crops.

ADVANCED BIOLOGICAL TECHNOLOGY: EFFECTS AND BENEFITS OF RADISEI

- Applied microbiology: Radisei incorporates PGPR technology (Plant Growth Promoting Rhizobacteria) to improve plant-soil interaction by activating key biological processes.
- Optimisation of nutrient assimilation:
 Radisei improves the efficiency of nutrient uptake by promoting the fixation of atmospheric nitrogen, which reduces dependence on nitrogen fertilisers. It also solubilises phosphorus and potassium, improving their availability in the soil, and produces siderophores, increasing the uptake of iron, which is essential for plant growth.
- Root biostimulation: The product favours an increase in root biomass, promoting a greater proliferation of absorbent hairs. This creates a symbiotic relationship with the plant that stimulates more

- vigorous root growth and more efficient nutrient uptake.
- Resilience and adaptation to challenging conditions: Radisei enhances osmotic regulation and modulates plant epigenetics, which improves photosynthetic efficiency. This enables plants to adapt more effectively to adverse environmental conditions, ensuring optimal performance.
- Contribution of bioactive compounds: With an optimal C/N ratio, Radisei provides organic acids, amino acids and vitamins, stimulating the growth and development of the plant and strengthening its natural system.
- The biofilm generated throughout the root system establishes a powerful biological and physical barrier, as well as a unique symbiotic relationship.





Kynetic4 is a biostimulant of plant origin, specially designed to stimulate and optimise the natural flowering process: flower development, pollination, fertilisation and fruit set (whether these phases occur consecutively or separately). Its application promotes the synthesis of specific proteins at times of peak energy demand in crops.



SL - SOLUBLE CONCENTRATE

Composition

Free amino acids 24.0 % w/w Total nitrogen (N) 3.8 % w/w Organic nitrogen (N) 3.5 % w/w

Aminogram

Ala: 0.94 %	Arg: 0.25 %	Asp: 0.73 %	Glu: 7.00 %
Gly: 4.40 %	His: 0.48 %	Ile: 0.04 %	Leu: 0.57 %
Lys: 5.40 %	Met: 0.05 %	Phe: 0.41 %	Pro: 1.78 %
Ser: 0.25 %	Thr: 0.44 %	Tyr: 0.05 %	Val: 0.46 %

Available in:

\cap	
\bigcup	
1 L	5 L

Benefits

- Flowering
 - Improves the quality of flowering.
 - Secures against stressful situations.
 - Increases effective pollination time.
- **M** Nectar
 - Higher nutritional quality of nectar.
 - More attractive to pollinators.

- n Pollen
 - Promotes the formation of the pollen tube.
 - Increases pollen viability.
 - Improves the quality and secures the fruit set.
- Pollinator
 - Promotes pollination.
 - Provides energy and increases the activity of pollinators.





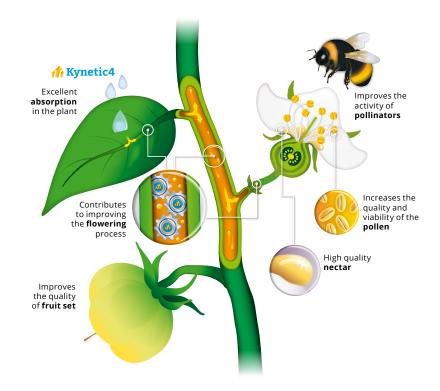
	cpops	D	OSE	PECOMMENDATIONS	
	CROPS	FOLIAR APPLICATION	ROOT APPLICATION	- RECOMMENDATIONS	
	Horticultural crops	200-400 ml/hl	5-15 L/ha*	Foliar: Apply 2-3 times from the onset of the flowering period.	
	Berries	per application	3 13 L/11d	Root: Apply 3-4 times starting in the pre- flowering stages.	
	Citrus fruit	100-300 ml/hl	15-25 L/ha*	1st application between 25-50% of open flower; 2nd application between 75-85% of open flower; 3rd application optional to ensure fruit set.	
	Nuts and seeds	2-3 L/ha		1st application 25% of open flower (pink button); 2nd application 75% open flower.	
	Fruit trees			Bud movement, pre-flowering and fruit set.	
	Vines and table grapes	100-200 ml/hl 1.5-2.5 L/ha	10-20 L/ha*	Foliar: 1st application in pre-flowering; 2nd application at the capping or fruit set. Root: Throughout the whole cycle. Performing 2-4 applications during periods of high energy demand.	
*	Olive tree	100-300 ml/hl 2-4 L/ha	15-25 L/ha*	1st application in pre-flowering; 2nd application at petal fall.	
	Extensive and industrial crops: cereals, rice, corn	1-3 L/ha	5-10 L/ha*	Implementing in the phases of growth.	
	Enhancer for conventional treatments	0.5-1.5 L/ha	-	Use in combination with traditional treatments in a single application.	

^{*}Spread across the various applications.

Mode of action

Kynetic4 has an extraordinary effect on plant metabolism, activates the plant's physiological processes, promotes flowering, improves the source-to-sink ratio of the plant, increases vegetative development and improves final production.

It also provides a greater adaptive capacity against adverse conditions of salinity, drought, temperature and transplanting. Stimulates the restoration of plant tissues after stress.







Bryosei is a sprouting and vegetative development booster as well as an effective regenerator and healer of plant tissues. It provides plants with energy, activates their defence system and corrects copper, manganese and zinc deficiencies, all thanks to its structure in the form of a complex organic polymer enriched with nutrients.



SL - SOLUBLE CONCENTRATE

Composition

Water-soluble copper (Cu) 1.8 % w/w
Copper (Cu) complexed by LSA 1.8 % w/w
Water-soluble manganese (Mn) 0.8 % w/w
Manganese (Mn) complexed by LSA 0.8 % w/w
Water-soluble zinc (Zn) 0.6 % w/w
Zinc (Zn) complexed by LSA 0.6 % w/w
Complexing agent LSA: lignosulphonic acid

Available in:

\cup		
1 L	5 L	20 L

Benefits

- Improves plant architecture.
- Rapid absorption by leaves, stems and roots.
- Easy to use, complete and stable.
- Healthy and protected crops.
- Corrects nutritional deficiencies.
- Increases photosynthetic leaf area.





	DOSE				
CROPS	FOLIAR APPLICATION	ROOT APPLICATION	RECOMMENDATIONS		
Horticultural crops	200 400 ml/hl		Foliar: Make a first application at the beginning of the cycle and repeat in periods of high activity 1 or 2 more times (before entering full production and during full production).		
Berries	(2-3.5 L/ha)	1.5 4 1.7110	Root: Make 3-5 applications during periods of high activity to ensure crop vigour and potency.		
Stone and pome fruit trees			Foliar: 3 applications, the first at the onset of sprouting to stimulate development and promote balance, the second after fruit set and the last at the beginning of fruit colour change to ensure		
Nuts and 200-400 ml/hl seeds (2-4 L/ha)		3-5 L/ha	quality harvests. In nuts and seeds, apply after petal fall, when the endocarp begins to form and harden, and when the fruit begins to change colour.		
Citrus fruit			Root: Make 2-4 applications during periods of high activity to stimulate the crop.		
Tropical crops			Summittee the crop.		
Vines and table grapes	400 000 141	nl 4-5 L/ha	Foliar: 2-3 applications, the first at sprouting and/or pre-flowering, the second coinciding with spring treatments and the third 30 days before harvesting. For ornamentals, apply during the budding		
Ornamentals	100-300 ml/hl (1-3 L/ha)		phase. Root: Make 2-4 applications during periods of high activity to stimulate the crop. After harvest apply at maximum dose, wetting trunk and branches, as a system strengthener against stress.		
Olive trees	300-400 ml/hl (2-4 L/ha)	3-6 L/ha	Foliar: 3 applications, the first at sprouting and/or pre-flowering, the second coinciding with spring treatments and the third 30 days before harvesting. Root: apply 2-4 times during periods of high activity to stimulate the crop. After harvest apply at maximum dose, wetting trunk and branches, as a system strengthener against stress.		
Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	200-300 ml/hl (1-2 L/ha)	1-3 L/ha	Foliar: Apply during the growth phase of the crop. Root: Apply according to crop needs.		

Mode of action

Sprouting booster

Bryosei provides high penetration, both via the foliar and root system. Applied at the time of sprouting, the sap flows faster within the vascular bundles, achieving a balanced vegetative development between the aerial and root parts.

Activation of the defensive system

Bryosei induces the plant's immune system, promoting a state of priming. The product activates the plant's natural defences, inducing the activation of different genes. These genes promote the synthesis of endogenous plant proteins and secondary metabolites involved in the immune system.

Regeneration and healing of plant tissues

Bryosei improves and accelerates wound healing after harvesting.







Sweetsei is a product specially designed to induce and promote the increase of sugars, ripening and swelling of the fruit. Its balanced formulation makes it a product of the highest quality and efficacy thanks to a selection of different components prepared for an optimal balance.



SL - SOLUBLE CONCENTRATE

Composition

Free amino acids 5.2 % w/w Total nitrogen (N) 0.6 % w/w Organic nitrogen 0.6 % w/w Water-soluble phosphorus pentoxide (P2O5) 4.7 % w/w water-soluble potassium oxide (K2O) 6.8 % w/w

Aminogram

Asp: 0.15 %	His: 0.01 %	Ser: 0.23 %
Glu: 0.37 %	Lys: 0.04 %	Try: 0.01 %
Ala: 0.09 %	Met: 2.21 %	Thr: 0.95 %
Gly: 0.87 %	Pro: 0.17 %	Val: 0.07 %

Available in:

\Box	
\cup	
1 L	5 L

Benefits

- Activator of cellular respiration processes.
- Rapid assimilation.
- Improves fruit size and turgidity.
- Promotes colour and crop uniformity.
- Improves post-harvest handling and transport.
- Promotes the formation of sugars and increases the Brix index.
- Homogenises fruit ripening.
- DExtends the shelf life of the fruit.



	cnonc	D	DECOMMEND ATIONS		
	CROPS	FOLIAR APPLICATION ROOT APPLICATION		- RECOMMENDATIONS	
	Horticultural crops	200-300 ml/hl	2-4 L/ha	Foliar: 2 to 4 applications, one every 7-10 days. Root: 1 to 3 applications every 7-15 days.	
	Berries	(1-3 L/ha)			
	Citrus fruit	300-400 ml/hl	3-5 L/ha	Foliar: In times of sensitivity. 2 to 4 applications every 10-15 days. Root: 2 to 4 applications, one every 10-15 days.	
	Tropical crops	(2-6 L/ha)	3-3 L/11a		
	Stone and pome fruit trees		3-4 L/ha		
	Nuts and seeds	200-400 ml/hl (2-4 L/ha)			
	Vines and table grapes		2 . D.II.a		
5	Olive trees				

Mode of action

Sweetsei is a biostimulant necessary during the fruiting phase, which reduces competition between fruits for available carbohydrates, improving their organoleptic quality.

Sweetsei's formulation is designed based on an organic matrix that integrates the main biochemical intermediates of the metabolic pathways responsible for ripening and colour:

- Potassium: mobilises sugars and promotes fruit swelling.
- Methionine: intermediary of the Yang cycle and the ethylene cycle, which favours, in climacteric fruits, a greater synthesis of ethylene for ripening.
- Phenyl-alanine: metabolic intermediate of the shikimic acid pathway, responsible for the generation of flavonoids, anthocyanins and tannins, compounds responsible for colour.
- Polysaccharides: the contribution of this type of sugars favours an increase in the degrees Brix in the fruits.

All this makes Sweetsei an effective promoter of perfect ripening.







Actysei is a natural biostimulant formulated from extracts of the algae *Ascophyllum nodosum*. Actysei acts as a natural activator of the biological and physiological processes of plants, balancing their hormone levels and improving their metabolic action and enhancing their tolerance to abiotic stress.



SL - SOLUBLE CONCENTRATE

Composition

Free amino acids 2.00 % w/w, Total nitrogen (N) 1.00 % w/w, Organic nitrogen (N) 1.00 % w/w, Water-soluble phosphorus pentoxide (P_2O_5) 1.00 % w/w, Water-soluble potassium oxide (P_2O_5) 8.00 % w/w, Mannitol 0.77 % w/w

Available in:

5 L	20 L

Uses

		DOSE			
	CROPS	FOLIAR	ROOT	RECOMMENDATIONS	
		APPLICATION	APPLICATION		
	Fruit trees	200-300 ml/hl	3-7 L/ha	Perform 3-4 treatments: 1st bud break; 2nd pre-flowering, 3rd fruit set and 4th early stages of fruit development.	
	Citrus fruit	200-300 ml/hl	2-5 L/ha	Carry out 3 treatments: 1st at the onset of flowering, 2nd at petal fall and 3rd at fruit set. Repeat application at the beginning of ripening on varieties that need an increase in size.	
	Olive tree	150-300 ml/hl	-	Carry out 2-3 treatments, in pre-flowering and post setting. Promotes the correct development of sprouting. Depending on summer conditions and the crop, another one can be carried out in early autumn.	
	Vines and table grapes	150-300 ml/hl	2-4 L/ha	Apply every 3-4 weeks after sprouting: 1st application after sprouting on bunches of 6-9 cm in length. 2nd in 3 mm diameter berry size and 3rd in pea-size berry size. Depending on variety, use and characteristics, a 4th can be carried out at the beginning of veraison.	
	Horticultural crops	200-300 ml/hl	2,5-5 L/ha	First application from 5-7 true leaves, at fruit set and fruit development stages. Repeat applications according to the needs of the crop, every 15-20 days.	
	Berries	150-300 ml/hl	2-6 L/ha	First application from the moment of pre-flowering and then repeat applications every 10-15 days depending on fruit set and development.	
	Extensive crops: cereals and industrial	1-3 L/ha	2-4 L/ha	Cereals: Application under stress conditions and according to critical periods in the different crops: tillering, grain filling, stalk development Industrial: First application after the appearance of the 6th fully expanded leaf, application under stress conditions and according to critical periods in the different crops. Apply after each cut.	
*	Seedbeds	100 ml/hl	2 L/ha	Apply after the plants have taken root.	





Foliplant is a specific and balanced formula of microelements and amino acids, which acts on plant growth, providing the necessary energy to obtain a higher quantity and quality of production, both in organic and conventional agriculture.

Foliplant

SL - SOLUBLE CONCENTRATE

Composition

Total nitrogen (N) 2.70 %, Organic nitrogen (N_{org}) of vegetable origin 2.70 %, Boron (B), as acid, water soluble 0.18 %, Iron (Fe), as sulphate, water soluble 1.00 %, Manganese (Mn), as sulphate, water soluble 0.75 %, Molybdenum (Mo), as sodium salt, water soluble 0.02 %, Zinc (Zn), as sulphate, Water soluble 0.90 %, Organic carbon (C_{org}) 15.00%, Dry matter 37 %

Available in:

∪ 1 L	 5 L	20 L

Seals and certifications:



Uses

		DOSE FOLIAR ROOT APPLICATION APPLICATION		RECOMMENDATIONS	
	CROPS				
	Extensive cereals and industrial crops: wheat, rice, maize, barley, oats, triticale, rye, sorghum, sugar beet, cotton, etc.	2-5 L/ha	3-6 L/ha	Perform a minimum of 1 application per cycle. In winter cereals apply mixed with conventional treatments. In summer cereals apply approximately 30-35 days after sowing. One-off applications can be made to combat stress at a dose of 5-15 l/ha.	
	Outdoor Horticultural crops	100-300 ml/hl (1-3 L/ha)	5-10 L/ha	In leaf crops apply mainly at the vegetative growth stage. In fruit crops, apply continuously throughout the cycle: depending on the state of the soil, degree of stress, environmental conditions, etc.	
	Legumes: alfalfa, vetch, peas, chickpeas, soya, lentils, broad beans, etc.	2-5 L/ha	3-6 L/ha	Apply 1-3 applications per cycle to stimulate the	
	Oilseeds and protein crops: sunflower, rapeseed, dry peas, etc.	3-5 L/ha	4-6 L/ha	vegetative activity of the plants at times of maximum energy demand.	
4	Traditional olive grove	150-250 ml/hl (2-3 L/ha)		Apply at sprouting, at the beginning of winter,	
	Fruit trees	150-300 ml/hl	2-3 L/ha	pre-flowering and after fruit set.	
	Citrus fruit	100-300 ml/hl			
	Vine	200-300 ml/h	2-3 L/ha	Apply at the beginning of vegetative development and make 2-3 applications from after fruit set until veraison.	
L	Seedbed	100-300 ml/hl (1-3 L/ha)	1-3 L/ha	Apply after plant emergence when the plant has 2-4 true leaves to stimulate growth and development before transplanting.	
	Enhancer for conventional treatments	1-3 L/ha	-	Due to its rapid absorption and its high ability to sup- plement, Foliplant has many advantages when mixed with conventional treatments, as it enhances their effect and absorption and helps to reduce the stress caused by them.	





Dinámico 150 is a product that stimulates the physiological functions of sprouting, flowering, pollination, fruit set and fruit development. Helps the fruit recover from stressful conditions (regenerator in adverse conditions) and nourishes the crops with the micronutrients (Fe, Mn and Zn) provided by the formulation. This product is especially recommended for all types of crops, both foliar and root application.



SL - SOLUBLE CONCENTRATE

Composition

Total nitrogen (N) 4.23 % w/v, Iron (Fe) 2.54 % w/v, Manganese (Mn) 0.73 % w/v, Zinc (Zn) 0.48 % w/v, Amino acids 15.13 % w/v

Available in:

11	51	20 L

Uses

	CROPS	DOSE ml/200 L	TIME OF APPLICATION	METHOD AND FREQUENCY OF APPLICATION	
	Corn		When the plant has 5 to 8 leaves or presents phytotoxicity effects.		
	Tomato		Vegetative growth Pre-flowering. Phytotoxicity.		
	Potato		Vegetative development of 4 to 6 leaves. Phytotoxicity or adverse frost conditions.		
	Mandarin		Before flowering. Fruit set. Phytotoxicity.		
	Rice		Floral primordium. Onset of flowering Filling of grain. Phytotoxicity.		
3	Onion		Vegetative development 8 cm. Phytotoxicity.	Foliar and edaphic (drench	
	Garlic	500	Vegetative development 8 cm. Phytotoxicity.	and fertigation). The day following an adverse condition adverse condition	
	Pepper		Post transplant. Pre-flowering. Fruit setting.	or stage of high energy	
	Asparagus		Vegetative development 15 to 30 cm. Pre-cut or pruning 10 days before.	demand, and then repeat after 5 days.	
	Blueberry		Vegetative growth Pre-flowering. Phytotoxicity.		
	Grape		Before flowering. Fruit set. Phytotoxicity.		
	Broccoli		Post transplant. Vegetative growth. Phytotoxicity.		
	Avocado		Before flowering. Fruit set. Phytotoxicity.		
	Cocoa		Before flowering. Fruit set. Phytotoxicity.		









Seinema is a formulation that activates biological processes in soil and roots. Its application promotes soil microbial activity and achieves a better development and protection of the root system against abiotic factors, as well as improved nutrient uptake. Seinema allows quick vegetative development, early establishment and rapid entry into production.

SL - SOLUBLE CONCENTRATE

Composition

Total nitrogen 0.6 % w/w, Organic nitrogen 0.6 % w/w, Free amino acids 6.0 % w/w (Glutamine 4.5 % and Glycine 1.5 %)

Available in:

\bigcap		
1 L	5 L	20 L

Uses

	DOSE		
CROPS	FOR MAINTENANCE	FOR ATTACK	RECOMMENDATIONS
Solanaceae (tomato, husk tomato, aubergine, chilli, pepper, potato) Cucurbits (courgette, melon, cucumber, watermelon)	3-6 L/ha 5-10 L/ha		Carry out 3 to 5 treatments during the season. Start applications at transplanting and repeat every 15-21 days to stimulate increased root uptake.
Treatment of bulbs for planting	1-3 L/ha		Wet the bulb-seed with the amount of water appropriate to the preparation technique. Treat just before sowing.





Seiland is a biostimulant formulated to activate the biological processes in the soil and promote root development from the earliest stages of the crop Its application stimulates the microbiota of the rhizospheric environment, improves soil structure and optimises the uptake of essential nutrients.

The use of Seiland results in faster crop establishment, balanced vegetative growth and earlier entry into production. Its formulation is especially indicated to favour recovery after stress or transplanting situations, as well as to boost development in key phases of the crop cycle.



Available in:

1 Kg	5 Kg

WSP - WATER SOLUBLE POWDER

Composition

Free amino acids 6.0 % w/w, Total nitrogen (N) 11.6 % w/w, Organic nitrogen (N) 0.5 % w/w, Ammoniacal nitrogen (N) 11.0 % w/w

Uses

		CROPS	ROOT DOSE	RECOMMENDATIONS	
	Horticultural crops outdoors and in greenhouses			2-5 applications: one every 2-4 weeks starting at transplanting. Apply at the end of each irrigation to avoid washout.	
\$	Olive tree Citrus fruit Stone and pip fruit trees Tropical fruits		2.5-5 kg/ha(*)		
				Perform 2 to 4 applications: every 2-3 weeks starting at the	
3				beginning of the cycle. Can be applied with a spike.(**)	
	Seedbeds Mixtures with substrates		500-800 g/m ²	Carry out dry mixing. Use within 1 month after mixing.	
	and nurseries	Application to trays and pots	0.03-0.05 g/pl	Apply at the end of irrigation on wet substrat.	
	Seed treatments Hydroponic crops		20 g/kg seed	Wrap with seed prior to sowing.	
			0.5-1 kg/ha	Make a greater number of applications at 7 to 12 days intervals at lower doses. Fundamentally, in those moments of greatest energy demand such as crop implantation, fruit filling or overcoming stresses.	

(*) In case of maximum crop need, up to 10 kg/ha per application can be applied.

^(**) In case of application by blanket or drip irrigation, increase the dose by 50 % and by 30 % respectively.





Rasmia is a liquid fertiliser designed for correct root development. The product provides macro and micronutrients to the plant which, together with the amino acids, produce a high development of both the root system and the aerial part of the plants, resulting in an increase in production.



SL - SOLUBLE CONCENTRATE

Composition

Free amino acids 8.0 % w/w, Total nitrogen (N) 4.8 % w/w, Organic nitrogen (N) 1.1 % w/w, Urea nitrogen (N) 3.4 % w/w, Water-soluble phosphorus pentoxide (P_2O_5) 4.8 % w/w, Water-soluble potassium oxide (K_2O) 4.0 % w/w, Water-soluble iron (Fe) 0.4 % w/w, Iron (Fe) chelated EDTA 0.4 % w/w

Available in:

\bigcap		
1 L	5 L	20 L

		SE	INTERVALS AND CONDITIONS	
CROPS	ROOT	FOLIAR	INTERVALS AND CONDITIONS	
Horticultural crops	2-3 L/ha	150-300 ml/hl	Root: Apply 2 to 4 applications every 6 to 8 days after transplanting. In established crops, apply every 15	
Ornamentals			days. Foliar: Apply 3 to 4 times every 15 to 20 days.	
Woody crops	2-5 L/ha	100-250 ml/hl	Root: Apply 2 to 3 times every 10 to 15 days after transplanting. In established crops, apply every 20 days. Foliar: Apply 4 to 5 times every 15 to 20 days. Avoid applications during flowering.	
Seedbeds and nurseries	0.5-1 L/ha	-	Apply weekly to trays and pots at the end of watering, on already wet substrate. Avoid foliar applications in sensitive crops and situations.	





Till-up is a biostimulant specifically designed to meet the demands of grass crops. The combined action of its components enhances grain formation and promotes protein synthesis. Treatment with Till-up allows for optimal plant growth and development, resulting in high yields. Moreover, with the application of Till-up the crop develops a larger tillering and a higher number of ears. It also increases the amount of protein in the grain, increasing its weight. It also provides the crop with an optimal nutritional balance that allows it to better cope with abiotic stresses such as heat stress.



Available in:

\bigcap		
1 L	5 L	20 L

SL - CONCENTRADO SOLUBLE

Composition

Mannitol 0.6 % w/w, Water-soluble boron (B) 0.3 % w/w, Water-soluble manganese (Mn) 1.0 % w/w, Manganese (Mn) complexed by GA 1.0 % w/w, Water-soluble molybdenum (Mo) 3.0 % w/w, Water-soluble zinc (Zn) 3.0 % w/w, Zinc (Zn) complexed by GA 3.0 % w/w
Complexing agent: GA gluconic acid

TYPE OF APPLICATION	DOSE	RECOMMENDATIONS
Foliar spraying	0.5-2 L/ha	Two applications per cycle are recommended. Apply the 1st application before tillering, during phenological stage 13-15 of the ZADOKS scale (between 3 and 5 leaves). Make the 2nd application at phenological stage 37-39 of the ZADOKS scale (flag leaf).





BI ACTIVE LINE

The BioActive line is presented as a **complete nutrient solution for the different phenological stages of the crop**. It acts both on the rhizospheric environment of the soil and on the metabolic processes of the plant and allows a higher **quality and quantity of harvest to be obtained, ensuring maximum profitability for the farmer**.

The BioActive line comprises a set of technologically advanced formulations that optimise the dissolution and absorption of nutrients by reducing their effective particle size to drive crops towards comprehensive nutrition.

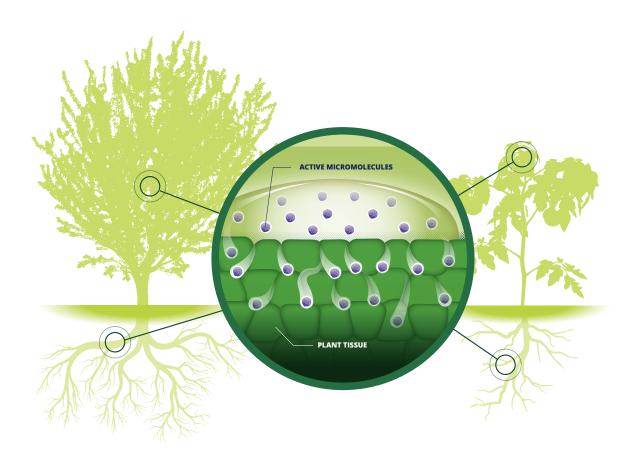


• RIGUER FLOW	/9
• ROKER FLOW	80
• EILED ELOW	21



Exclusive formulation developed by Seipasa based on the

BIDACTIVE-NATURAL TECHNOLOGY





Active micromolecules designed to get to the heart of the crop.



Optimum dissolution and maximum nutrient absorption.



Liquid formulation: easy handling and application.





Riguer flow improves soil structure, increases the assimilation of essential nutrients and reduces water, salt and heat stress, thus activating the processes involved in plant development.

RIGUER flow

Benefits

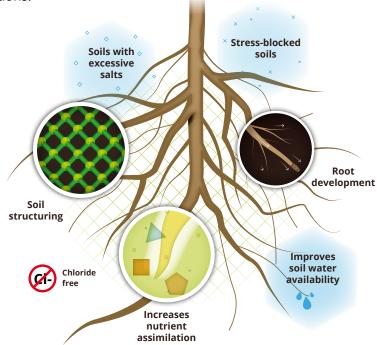
- Promotes the availability of nutrients in the soil.
- Combats water and salt stress in sensitive soils.
- Improves crop quality.
- Enhances the processes involved in root development.
- Improves water efficiency in the soil.
- Favours evapotranspiration mechanisms.
- Prevents stress suffered by fruits due to high temperatures and radiation.

Available in:



Seals and certifications:





CROPS	METHOD OF APPLICATION	DOSE	RECOMMENDATIONS
For all crops	Root	2-8 L/ha	Number of applications 2-5. Interval 10-15 days
	Foliar	7-15 L/ha	1st application after fruit formation before the onset of high temperatures. Perform the necessary applications.





Roker flow is designed for immediate absorption and action favouring the orderly formation of plant tissue, activating growth, optimising photosynthesis in the aerial part of the plant and helping to combat different types of stress.

ROKER flow

Benefits

- Constant and sustained stimulation of energy for cultivation.
- Prevention and recovery from stressful situations.
- Favours the proper assimilation of nutrients by the plant.
- Improves overall crop yield.
- Orderly and balanced plant growth.
- Root growth promoter.

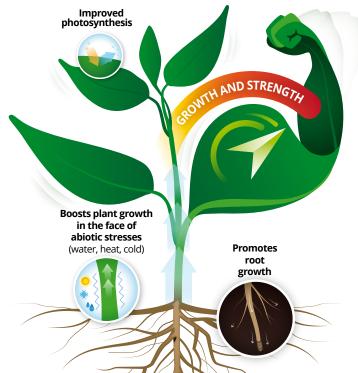
Available in:





Seals and certifications:





CROPS	D	NO. OF APPLICATIONS	
CROPS	FOLIAR APPLICATION ROOT APPLICATION		
Woody crops	200-500 ml/hl 2-5 L/ha	5-10 L/ha	2-5
Arable crops	200-400 ml/hl 2-4 L/ha	3-8 L/ha	2-3





Filer flow promotes the fruit filling process, ensuring maximum final harvest quality. It reduces the impact of environmental imbalances, nutritional balance or water deficiencies.

Benefits

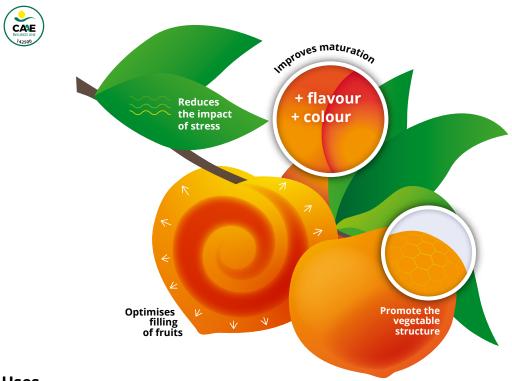
- Promotes fruit swelling and filling.
- Improves plant structure and stiffness.
- Limits the effect produced by abiotic stresses such as water deficit.
- Improves the quality of the final harvest.
- Does not basify the application solution.



Available in:



Seals and certifications:



CROPS	DOSE	METHOD OF APPLICATION	NO. OF APPLICATIONS
For all crops	200-400 ml/hl	Foliar	2-4
	5-10 L/ha	Root	2-4





CROP NUTRITION

The nutritional line provides crops with the essential elements for a balanced and healthy development. These products are designed to **optimise plant nutrition by improving the absorption and utilisation of essential elements**. Thus, they contribute significantly to increasing yields and improving the final quality of the crop.

• TERRASEI LINE	84
· Terrasei Crecimiento	85
· Terrasei Equilibrio	86
· Terrasei Engorde	87
· Terrasei Mg	88
• SEIPAFOL LINE	89
· Seipafol B	90
· Seipafol Calcio	90
· Seipafol Fe	91
· Seipafol K	91
· Seipafol B-Mo	92
· Seipafol Mg	93
· Seipafol Mo	93
· Seipafol Mix	94
· Seipafol Zn-Mn	95
• CALCISEI LINE	96
· Calcisei 10	97
· Miñosal	97
· Calimax	98
· Guadal Ca	98



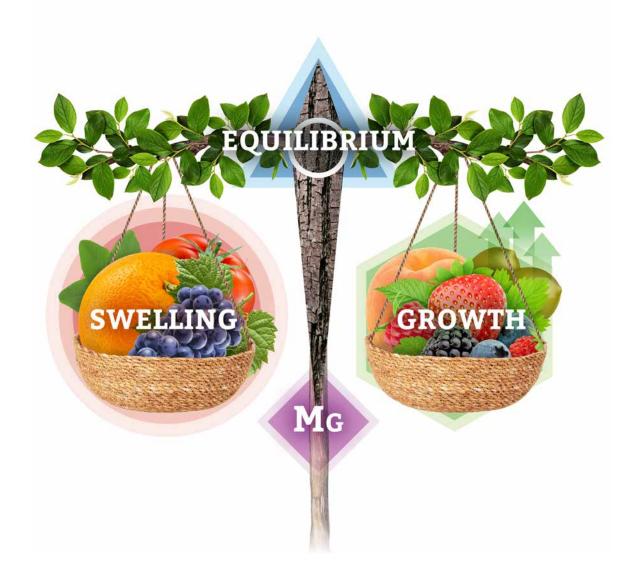
• MULTISEI LINE	99
· Multisei nt	100
· Multisei K	100
· Biosei	101
• DEFICIENCY CORRECTORS	102
· Glucosei	103
· Turisei K	104
· Seisil	105
· Oleomax	106
· Naphos	106
· Lecisei	107
· Fixar	108
· Organitro	108
· Q'Sei	109
· Seivital K	110
· Foliplant Calcio Flor	110
• CHELATES	111
· Ferrosei Plus 5.0	112
· Ferrosei 4.2	113
· Gresca ID	114
• pH REGULATOR	115
· Acid Plus	115



△ Terrasei line

Liquid organo-mineral fertilisers

The Terrasei line is the answer to the nutritional needs of crops at different phenological stages, combining mineral nutrition with the energetic and soil structuring contribution of organic fertilisation. In addition to the macronutrient-organic matter ratio, they incorporate in their composition a percentage of amino acids that translate into an energy surplus for the crops, allowing the plant to dedicate metabolic resources to primary physiological functions. The various formulations of the Terrasei line are one of the main allies in the basis of plant nutrition.







Bioactivator of sprouting and vegetative development

Specially designed to optimise the most demanding nutritional programmes, Terrasei Crecimiento can be used both by foliar and root application. The correct proportions of glycine and glutamic acid promote the formation of plant tissue by stimulating growth and physiological processes in young leaves, thereby promoting the formation of new shoots. Its N-P-K ratio, set at 18-5.1-2, complements the power of the organic complex and fulvic acids to create a crucial balance and boost in the early stages of growth. Adequate vigour and extra energy to maximise productivity. Can be mixed with other mineral fertilisers to improve nutrient absorption. Do not mix with alkaline or acid reaction products.

Available in:





Composition

Free amino acids 5.0% w/w, Total nitrogen (N) 18.0% w/w, Organic nitrogen (N) 1.0% w/w, Urea nitrogen (N) 17.0% w/w, Water-soluble phosphorus pentoxide (P_2O_5) 5.1% w/w, Water-soluble potassium oxide (K_3O) 2.0% w/w

		DOSE		
	CROPS	ROOT APPLICATION	FOLIAR APPLICATION	RECOMMENDATIONS
	Fruit trees		200-400 ml/hl (5-10 L/ha)	Apply at the beginning of sprouting and during vegetative
	Citrus fruit	5-15 L/ha		growth.
5	Olive trees		100-300 ml/hl (3-5 L/ha)	Apply in pre-flowering and during vegetative development for optimal nutritional absorption. Root application: At transplanting and during vegetative growth. After that, every 10-20 days for powerful vegetative development and plant formation.
	Vine			
	Horticultural crops	2-8 L/ha		
	Berries	2-8 L/na		Foliar application: From the 5-leaf stage and during the whole process of plant formation. At intervals of 7 to 15 days.
	Tropical crops	2-10 L/ha	200-300 ml/hl (3-8 L/ha)	Apply at the beginning of sprouting and during vegetative growth.
	Extensive and industrial crops	2-5 L/ha	200-400 ml/hl (3-8 L/ha)	Apply at times of maximum vegetative growth.





Bio-activator of nutritional balance

Terrasei Equilibrio is a liquid fertiliser for foliar and fertigation application, designed to provide a balanced supply of essential nutrients for crop development. Its 7-7-7 composition of nitrogen, phosphorus and potassium, together with amino acids, promotes harmonious plant growth. Its use contributes to optimal development at all stages of the crop, improving the quality and uniformity of production.

Composition

Free amino acids 6.0% w/w, Total nitrogen (N) 7.0% w/w, Organic nitrogen (N) 0.6% w/w, Ureic nitrogen (N) 6.4% w/w, Water-soluble phosphorus pentoxide (P_2O_5) 7.0% w/w, Water-soluble potassium oxide (K_2O) 7.0% w/w

Available in:





		DOSE			
	CROPS	ROOT APPLICATION	FOLIAR APPLICATION	RECOMMENDATIONS	
	Fruit trees	3-15 L/ha	200-400 ml/hl (5-10 L/ha)	Root application: Use in pre-flowering and during crop development to promote root-flourishing balance. Foliar application: Perform applications in pre-flowering and vegetative growth to maintain an adequate flow of sap and correct	
	Citrus fruit			energy supply for crop development and fruit set.	
**	Olive trees	5-15 L/ha	100-300 ml/hl (3-5 L/ha)	Root application: Use in pre-flowering and during vegetative development for optimal nutritional absorption. Foliar application: First application in pre-flowering. Continue applications when the fruit is already set for proper vegetative and fruit development.	
	Vines and table grapes	5-10 L/ha	100-200 ml/hl (3-5 L/ha)	Root application: Throughout the whole cycle, especially when the crop needs a balanced energy support to improve the fertilisation programme. Foliar application: Carry out the first treatment in pre-flowering and continue during development and growth.	
	Tropical crops	2-10 L/ha	200-300 ml/hl (3-8 L/ha)	Root application: Start the applications from the onset of flowering. Foliar application: Apply during vegetative development to ensure correct crop quality.	
	Horticultural crops	2-8 L/ha	100-300 ml/hl	Root application: Apply from the first settings to improve the homogeneity and quality of the crop.	
	Berries	(3-5 L/ha)		Foliar application: Throughout the entire crop cycle for a uniform and high quality harvest.	
	Extensive and industrial crops	2-5 L/ha	200-400 ml/hl (3-8 L/ha)	Root application: During the whole cycle from the onset of flowering Foliar application: As a support at times of peak nutritional needs.	





Fruit filler bioactivator

Terrasei Engorde is a fertiliser specially designed to optimise the development and quality of production. Its potassium-rich formulation favours the accumulation of sugars and enhances the process of ripening, contributing to larger and more uniform fruit. In addition, its glutamic acid content plays a key role in tissue formation and chlorophyll synthesis, which enhances photosynthesis and improves fruit quality. In addition, its phosphorus and nitrogen content contributes to a more balanced nutrition, favouring optimal development of the crop. Can be applied using both foliar and fertigation methods.

Available in:





Composition

Free amino acids 6.0 % w/w, Total nitrogen (N) 2.8 % w/w, Organic nitrogen (N) 0.8 % w/w, Ureic nitrogen (N) 2.0 % w/w, Water-soluble phosphorus pentoxide (P_2O_5) 1.0 % w/w, Water-soluble potassium oxide (K_2O) 15.0 % w/w

		DOSE				
	CROPS	ROOT APPLICATION	FOLIAR APPLICATION	RECOMMENDATIONS		
	Fruit trees		200-300 ml/hl			
	Citrus fruit	4-10 L/ha	(2-3 L/ha)	Root application: Apply from 15 days after the end of flowering until 1 month before harvest. Foliar application: Applications from fruit set to end of swelling.		
	Vines and table grapes		100-200 ml/hl (2-4 L/ha)	- Folial application. Applications from fruit set to end of swelling.		
*	Olive trees	5-10 L/ha	200-400 ml/hl (3-5 L/ha)	Root application: From bone hardening to maturation. Foliar application: Applications from fruit set onwards.		
	Tropical crops	2-10 L/ha	150-350 ml/hl (1-4 L/ha)	Root application: From swelling. Foliar application: Applications from fruit set to end of swelling.		
	Horticultural crops	5-12 L/ha	100-300 ml/hl	Root application: From the onset of fruit swelling until harvest.		
	Berries	(3-5)		Foliar application: Applications from fruit growth to the end of swelling.		
	Extensive and industrial crops	2-6 L/ha	200-400 ml/hl (2-5 L/ha)	Root application: During the whole cycle from the onset of flowering. Foliar application: Support at times of peak nutritional needs.		





Bioactivator of the photosynthetic process

Terrasei Mg integrates the perfect combination of amino acids of vegetable origin and magnesium in a formulation with a high organic matter content. Magnesium is involved in many critical physiological and biochemical processes, so that if magnesium deficiencies occur, crop growth and yield are affected. Moreover, Mg is a fundamental molecule in the synthesis of chlorophyll, which makes Terrasei Mg the necessary supplement for a good photosynthetic process, providing an intense green to the crops, mainly in leaves. Terrasei Mg applied in irrigation facilitates the assimilation of magnesium by the plants and its rapid distribution to the consumption points.

Available in:





Composition

Total nitrogen (N) 8.0 % (organic nitrogen ($N_{\rm org}$) from amino acid glycine 1.0 %, nitric nitrogen (N) 7.0 %), Water-soluble magnesium oxide (MgO) 9.5 %, Organic carbon ($C_{\rm org}$) 30.0 %, Dry matter 64.0 %

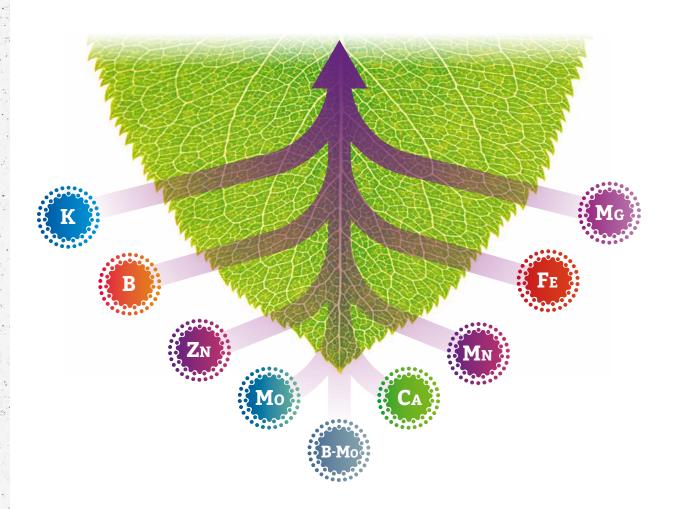
	DOSE				
CROPS	ROOT FOLIAR APPLICATION APPLICATION		RECOMMENDATIONS		
Horticultural crops	5-12 L/ha 100-300 ml/hl		Root application: 3-4 applications distributed during the cycle. Foliar application: Supported at times of peak nutritional		
Berries	per application	(3-5 L/ha)	requirements.		
Stone and pome fruit trees	4-10 L/ha	200-300 ml/hl	Root application: 3-4 applications distributed during the cycle. Foliar application: Applications from germination and at times		
Nuts and seeds	per application	(2-3 L/ha)	of peak demand.		
Citrus fruit	2-10 L/ha	150-350 ml/hl	Root application: 3-4 applications from sprouting. Foliar application: Applications from sprouting to the end of		
Tropical crops	per application	(1-4 L/ha)	swelling.		
Vines and table grapes	4-10 L/ha per application	100-200 ml/hl (2-4 L/ha)	Root application: 2-3 applications every 10-15 days starting 1 month before harvest. Foliar application: Applications from vegetative development until the end of fruit swelling.		
Ornamentals	5-12 L/ha per application	100-300 ml/hl (3-5 L/ha)	Root application: 3-4 applications distributed during the cycle. Foliar application: Supported at times of peak nutritional requirements.		
Olive tree	5-10 L/ha per application	200-400 ml/hl (3-5 L/ha)	Root application: 2-3 applications from the beginning of the cycle until hardening. Foliar application: Applications from the beginning of the cycle.		
Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	2-6 L/ha per application	200-400 ml/hl (2-5 L/ha)	Root application: 3-4 applications during the whole cycle f the beginning of vegetative development. Foliar application: Supported at times of peak nutritional requirements.		



ÖSeipafol line

Liquid foliar correctors

Seipafol line is the most complete range of liquid deficiency correctors, specially designed to be used by foliar application on all types of crops. The complexing and chelating agents used in this product line are incorporated into the micronutrients within their chemical structure, protecting them and preventing them from changing their oxidation state and precipitating in the form of oxides or hydroxides in the soil, thus keeping them in a state of availability for plant uptake.









Seipafol B, liquid fertiliser rich in boron (B). Boron is one of the essential micronutrients for plant production as it is involved in many vital processes in plants, such as pollen production and meristematic growth. The application of Seipafol B is ideal for use in the prevention and correction of deficiencies of this micronutrient.

Composition

Water-soluble boron (B) 10.0 % w/w

Uses

CROPS	DOSE FOLIAR APPLICATION	RECOMMENDATIONS
Outdoor crops: olive trees, vines, fruit trees, horticulture, cucurbits and extensive crops	100-400 ml/hl	Apply at times of increased boron demand or when the first symptoms of boron deficiency have been detected.

Available in:



Seals and certifications:





Properties

Seipafol Calcio, a deficiency corrector based on EDTA chelated calcium. Indicated both as a preventive measure and in deficiency states. It can be applied by foliar application or dissolved in irrigation water. Its application prevents calcium deficiencies, thus avoiding problems such as apical rot and internal necrosis, bitter pit fruit cracking, etc.

Composition

Water-soluble calcium oxide (CaO) 5.1 % w/w, EDTA chelated calcium oxide (CaO) 5.1 % w/w EDTA chelating agent: Ethylenediaminetetraacetic acid

Uses



CROPS	DOSE FOLIAR APPLICATION
Fruit and citrus trees	250-350 ml/hl
Horticultural and ornamentals crops	200-300 ml/hl

Available in:









Seipafol Fe, a formulation recommended for use in iron deficiency states. The iron present in Seipafol Fe is found in complexed form with gluconic acid, achieving greater absorption and persistence. The amino acid content gives it biostimulating properties of physiological processes.

Composition

Free amino acids 6.0 % w/w, Total nitrogen (N) 1.0 % w/w, Organic nitrogen (N) 1.0 % w/w, Watersoluble iron (Fe) 5.0 % w/w, Iron (Fe) complexed by GA 5.0 % w/w

Complexing agent GA: Gluconic acid

Uses

CROPS	DOSE FOLIAR APPLICATION		
Horticultural and ornamentals crops	200-400 ml/hl		
Grapevine and citrus fruit	400-600 ml/hl		

Available in:







Properties

Seipafol K, a special formulation in the form of an organic salt with a practically neutral pH that guarantees rapid absorption by the plant and high efficacy in a short time. Potassium plays a crucial role in carbohydrate and protein synthesis, enhancing fruit ripening, reserve organ formation and shoot lignification.

Composition

Water-soluble potassium oxide (K₂O) 25 % w/w

Uses

CROPS	DOS	Ε	RECOMMENDATIONS
CRUPS	FOLIAR	ROOT	RECOMMENDATIONS
Horticultural crops and berries	200-400 ml/hl (2-4 L/ha)	2-5 L/ha	
Stone and pome fruit trees and nuts	200-300 ml/hl (2-3 L/ha)		
Olive trees	250-400 ml/hl (2.5-4 L/ha)	5-10 L/ha	Foliar application: Apply at the first signs of deficiency and at times of high demand. Root application: Apply 3 to 4 times with emphasis on peak demand.
Citrus and tropical crops	200-400 ml/hl (2-4 L/ha)		
Vines and table grapes	150-350 ml/hl (1.5-3.5 L/ha)	4-8 L/ha	
Ornamentals	150-300 ml/hl (1.5-3 L/ha)	1-4 L/ha	
Extensive and industrial crops	3-4 L/ha	-	Foliar application: Apply 3-4 times at times of maximum need for this nutrient.

Available in:









Seipafol B-Mo, a product that stimulates and increases plant resistance to adverse conditions. The product contains amino acids and is highly enriched with B and Mo, which makes it especially suitable for crops with deficiencies in these trace elements. Recommended for all types of crops, both foliar and root applications.

Composition

Free amino acids 9.5 % w/w, Total nitrogen (N) 7.9 % w/w, Organic nitrogen (N) 0.9 % w/w, Urea nitrogen (N) 7.0 % w/w, Watersoluble boron (B) 5.0 % w/w, Water-soluble molybdenum (Mo) 0.17 % w/w

Available in:



CDODS	DOS	E	DECOMMENDATIONS
CROPS	FOLIAR	ROOT	RECOMMENDATIONS
Horticultural crops and berries Stone and pome fruit trees and nuts			
Citrus and tropical crops	200-250 ml/hl (2-2.5 L/ha)	3-5 L/ha	Foliar application: Perform 1 to 2 applications per crop cycle. Root application: Apply 2 to 3 times per crop cycle.
Vines and table grapes			
Ornamentals			
Olive trees			
Industrial and extensive crops (alfalfa, beet, sunflower, etc.)	100-200 ml/hl (1-2 L/ha)	-	Foliar application: Apply 1 to 3 times per crop cycle.







Seipafol Mg is a fertiliser rich in magnesium (Mg) complexed with heptagluconic acid. The application of complexed magnesium guarantees an optimal absorption of this element very quickly, especially via the stomata. In contrast to aminopolycarboxylates, heptagluconates are highly phytocompatible.

Composition

Water-soluble magnesium oxide (MgO) 4.5 % w/w, Magnesium oxide (MgO) complexed by HGA 4.5 % w/w. Complexing agent HGA: Heptagluconic acid

Uses Available in:

CROPS	FOLIAR DOSE	RECOMMENDATIONS
Stone and pome fruit		Apply 2 to 5 times during the crop cycle. Apply at times of peak demand or when the first
Nuts and seeds		
Tropical crops	200-400 ml/hl	
Citrus fruit		
Vines and table grapes		deficiency symptoms of the element in question appear
Horticultural crops		in the crop. Adjust the dose according to the crop and the level of deficiency.
Berries	200-300 ml/hl	
Ornamentals		
Industrial crops	1-2 L/ha	







Properties

Seipafol Mo is a water-soluble molybdenum-based fertiliser solution derived from sodium molybdate. Recommended for the prevention of deficiency states due to deficiencies in the assimilation of this nutrient. It also improves crop setting, increases chlorophyll concentration in plants, decreases nitrate accumulation and increases protein content, creating favourable conditions for nucleic acid biosynthesis.

Composition

Water-soluble molybdenum (Mo) 8.5 % w/w

Uses

0363				
MODE OF APPLICATION	DOSE			
Foliar	100-200 ml/hl			

Available in:









Seipafol Mix is an effective solution of rapidly absorbed micronutrients. Designed as a source of essential micro-elements for crop development, its formula prevents, controls and corrects deficiency states and improves plant physiology. Suitable for foliar and root use. Its richness in iron, manganese, molybdenum, zinc and boron make it particularly suitable for maintaining a balanced crop at optimum micronutrient levels.

Composition

Water-soluble boron (B) 0.6 % w/w, Water-soluble iron (Fe) 3.5 % w/w, Iron (Fe) complexed by GA 3.5 % w/w, Water-soluble manganese (Mn) 2.5 % w/w, Manganese (Mn) complexed by GA 2.5 % w/w, Water-soluble molybdenum (Mo) 0.05 % w/w, Water-soluble zinc (Zn) 3.0 % w/w, Zinc (Zn) complexed by GA 3.0 % w/w

Complexing agent GA: Gluconic acid

Available in:





5 L 20 L

Uses

	CROPS	DOSE		- RECOMMENDATIONS
	CROPS	FOLIAR	ROOT	- RECOMMENDATIONS
	Horticultural crops	150-250 ml/hl		Apply 2 to 5 times during the crop cycle. Apply at times of peak demand, such as at the beginning of early fruit set.
	Berries	(2-3 L/ha)	- 2-4 L/ha	
	Stone and pome fruit trees	200-300 ml/hl		
	Nuts and seeds	(2-3 L/ha)		Apply between 2 and 4 applications throughout the crop cycle where the demand
	Citrus fruit	200-400 ml/hl (3-5 L/ha)	3-5 L/ha	for these elements is greatest, such as from post-flowering onwards.
	Tropical crops			
4	Olive trees		2-4 L/ha	Apply 2 to 4 times during flowering, fruit formation and vegetative development, when the demand for these elements is highest.
	Vines and table grapes	150-300 ml/hl	2-5 L/ha	Perform 2 to 3 applications per cycle at times of high energy demand for these elements, such as pre-flowering.
	Ornamentals	(2-3 L/ha) 100-300 ml/hl (2-5 L/ha)	2-4 L/ha	Apply 2 to 4 times during vegetative growth.
	Industrial and extensive crops (cereals, rapeseed, cotton, etc.)			Apply 2 to 4 applications when there is a higher demand for these elements such as vegetative development, flowering and grain filling.

Seals and certifications:









Seipafol ZnMn is a product that provides the crop with the necessary amount of zinc, essential for the formation of important hormones such as auxins, growth hormones that promote cell elongation, ensuring a good development of the aerial part of the plant, as well as the roots. This extra supply of zinc also promotes the synthesis of various proteins and vitamin C. In addition, the influence of manganese associated with iron for the synthesis of chlorophyll is enhanced by the use of this product, which also provides manganese to the crop.

Available in:



Composition

Complexing agent GA: Gluconic acid

Water-soluble manganese (Mn) 3.5 % w/w, Manganese (Mn) complexed by GA 3.5 % w/w, Water-soluble zinc (Zn) 3.5 % w/w, Zinc (Zn) complexed by GA 3.5 % w/w

Uses

	CDODS	DOSE		DECOMMENDATIONS
	CROPS	FOLIAR	ROOT	- RECOMMENDATIONS
	Horticultural crops		2-5 L/ha	
	Berries	200-400 ml/hl (2-4 L/ha)		Apply 2 to 4 times during vegetative growth.
	Ornamentals			
	Stone and pome fruit trees		3-7 L/ha	
	Nuts and seeds	200-400 ml/hl		Apply during sprouting, before and after flowering and at the peak of crop development.
	Citrus fruit	(3-5 L/ha)		
	Tropical crops			
	Vines and table grapes	100-300 ml/hl (1-4 L/ha)	2-6 L/ha	Carry out 2 applications: at sprouting and during crop development.
*	Olive trees	200-400 ml/hl (3-5 L/ha)	2-0 L/11d	Apply 3 times after flowering at intervals of 2-3 weeks.
	Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	200-400 ml/hl (2-5 L/ha)	3-5 L/ha	Apply in the first third of the crop.

Seals and certifications:







Calcium-based compound fertilisers

The Calcisei line provides various calcium-based products formulated for plants. This diversity is intended to facilitate the customer's choice of one reference or another according to their specific needs.

All of them are a pillar for the good development of the crop due to the influence of calcium for the plants, both in the division and growth of the cells. In addition to being a structural element of cell walls and membranes, calcium in plants plays a fundamental role in the absorption of plant nutrients.

The Calcisei line presents four products so effective in the prevention and correction of deficiencies such as the washing of salts from agricultural soils: Calcisei 10, Miñosal, Calimax and Guadal Ca.

Their functions are:

- Prevention of common deficiencies such as BER, tip burn, bitter pit and fruit cracking in tomato and apple.
- Structural strengthening of cell walls and membranes.
- Management of soils with high salt content.







Calcisei 10 is an ideal product for preventing deficiencies and correcting calcium deficiencies. It is designed to combat physiopathologies related to this element (BER, tip burn, bitter pit fruit cracking, etc.), as well as to improve the quality of the harvest. Calcisei 10 provides high quality calcium of natural origin, mobile and easily assimilated by all crops. Especially recommended for times of maximum energy demand, especially in growing organs with low transpiration, such as fruits.

Composition

Water-soluble calcium oxide (CaO) 10.0 % w/w

Uses Available in:

CROPS	METHOD OF APPLICATION	DOSE
All crops	Foliar	200-400 ml/hl



20 L





Properties

Miñosal is a fertiliser that combines calcium and organic matter with a high percentage of humic extract, designed to correct calcium deficiencies. When applied to the soil, it favours interaction with the clay-humic compound, displacing sodium (Na) ions that are lost through leaching, which helps to reduce excess salts in the root zone. Its formulation, enriched with organic matter, provides nitrogen, organic carbon and humic extracts, elements that are essential for vegetative growth and healthy plant development.

Composition

Total nitrogen (N) 4.7 % (nitrogen as nitrate nitrogen 4.4 %, nitrogen as ammoniacal nitrogen 0.3 %), Water-soluble calcium oxide (CaO) 8 %, Organic carbon 21.2 %, Dry matter 40 %

Uses Available in:

METHOD OF APPLICATION	DOSE	
Foliar application	300-400 ml/hl	
Root application	20-40 L/ha per application	









Calimax is a fertiliser with a high concentration of calcium, specially designed to prevent deficiencies of this nutrient and to combat various physiopathologies in crops. Its formulation displaces the sodium accumulated in the soil via direct exchange with calcium. The content of organic matter, nitrogen, organic carbon and humic extracts support vegetative growth and healthy plant development.

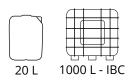
Composition

Total nitrogen (N) 6.6 % (nitrogen as nitrate nitrogen 6.2 %, nitrogen as ammoniacal nitrogen 0.4 %), Water-soluble calcium oxide (CaO) 12 %, Organic carbon 12.4 %, Dry matter 50 %

Uses

METHOD	DOSE			
OF APPLICATION	EXTENSIVE INTENSIVE			
Foliar application	300-400 ml/hl			
Root application	4-8 L/ha per application	10-30 L/ha per application		

Available in:







Properties

Guadal Ca is a foliar fertilizer highly concentrated in calcium, designed for its rapid assimilation through the stomata of the leaves, making it an ideal product for foliar application in the prevention and correction of calcium deficiencies and imbalances in the plant. Its formulation, enriched with organic matter, provides nitrogen, organic carbon and humic extracts, essential elements for vegetative growth and healthy plant development. The combination of these components in Guadal Ca ensures fast and efficient absorption, especially at times when the plant requires extra calcium.

Composition

Total nitrogen (N) 8.3 % (nitrogen as nitrate nitrogen 7.8 %, Nitrogen as ammoniacal nitrogen 0.5 %), Water-soluble calcium oxide (CaO) 14 %, Organic carbon 13.2 %, Dry matter 60 %

Uses Available in:

METHOD OF APPLICATION	DOSE		
Foliar application	200-400 ml/hl		
		5 L	20 L





Liquid organic fertilisers

The Multisei line includes Seipasa's liquid organic fertilisers for agriculture. This is a range of soil regenerating products that not only nourish but also improve the structure, composition and microbial activity of the soil. The supply of organic matter restores the soil by balancing its content.

- The liquid organic fertilisers of the Multisei line release macro and micronutrients and facilitate their absorption.
- They increase the cation-exchange capacity and nutrient storage in the soil.
- Activate nutrient mineralisation processes.
- They promote the formation of aggregates in the soil that improve the friability of the soil, facilitating agricultural work, avoiding waterlogging and root asphyxia.
- Multisei nt and Multisei K are an important source of macro and micronutrients, especially relevant in intensive crops, nurseries and seedbeds.
- They improve the efficiency of chemical fertilisers.
- The liquid formulation has an advantage over organic solids, as it manages to reach exactly the main root absorption zone.
- Multisei nt and Multisei K incorporate in their formulation raw materials of vegetable origin with a high degree of refinement, which avoid problems of precipitates and clogging in drip irrigation systems.

Synergies:

- The combined use with Biosei, Ferrosei or other microelements considerably improves the availability of these microelements by favouring their absorption by the roots.
- They enhance Seiland's root protection action by providing a dynamic substrate rich in organic matter.









Multiseint is a highly soluble and easy to handle liquid organic fertiliser, excellent for inclusion in plant nutrition programmes. It feeds and stimulates while improving the structure, composition and microbial activity of the soil and therefore of the crop.

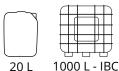
Composition

Total nitrogen (N) 2 % (organic nitrogen (N_{org}) from plant origin 2 %), Total potassium oxide (K_2° O) 3.5 %, Organic carbon (C_{org}) 18 %, Dry matter 35 %, C_{org}/N_{Total} 9

Uses

CROPS	ROOT APPLICATION DOSE	RECOMMENDATIONS
Horticultural crops and berries Ornamentals Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	20-40 L/ha	Particularly recommended in the implantation and development phases of crops. It is advisable to apply at least twice per cycle; the
Stone and pome fruit trees and nuts Vines and table grapes Olive trees	30-50 L/ha	optimum is between 3 and 6 applications, depending on the cycle and time of year. More frequent application will improve the physical and biological properties of the
Citrus and tropical crops	40-80 L/ha	soil.

Available in:



Truck:

10x1000 L - 20x1000 L

Seals and certifications:









Properties

Multisei K is a fertiliser rich in potassium and organic matter, designed for easy assimilation at root level. Thanks to its composition, it is a highly effective product for preventing and correcting nutritional deficiencies and improving soil structure, avoiding imbalances that may occur in plants throughout their growth cycle.

Composition

Total potassium oxide (K₂O) 16 %, Water-soluble potassium oxide (K₂O 16 %, Organic carbon (C_{org}) 16 %, Dry matter 45 %

Uses



CROPS	DOSE ROOT APPLICATION	RECOMMENDATIONS
Horticultural crops and berries, citrus and tropical crops, stone and pome fruit trees and nuts, vines and table grapes, ornamental olive groves, extensive crops	200-350 ml/hl (2-3.5 L/ha) 15-30 L/ha per application	Root application: Adjust the dose and the frequency of application according to the specific requirements of the crop.

Available in:











Biosei is a highly soluble liquid organic fertiliser especially suitable for improving the structure of intensively used soils. Its components represent a direct source of energy for the plants and bring a significant benefit to the yield and final quality of the crop.

Composition

Total potassium oxide (K_2O) 2.3 %, Water-soluble potassium oxide (K_2O) 2.0 %, Organic carbon (C_{org}) 7.0 %, Dry matter 16.3 %

Available in:







Truck:

10x1000 L - 20x1000 L

Uses

		DO	SE		
	CROPS	FOLIAR APPLICATION	ROOT APPLICATION	RECOMMENDATIONS	
	Horticultural crops	200-350 ml/hl	10-25 L/ha	Foliar application: As a foliar fertiliser booster and during periods of stress.	
	Berries	(2-3.5 L/ha)	10-25 L/11a	Root application: Apply at transplanting and during the crop cycle.	
	Stone and pome fruit trees	200-300 ml/hl		Foliar application: As a foliar fertiliser booster and during periods of stress.	
**************************************	Nuts and seeds	(2-3 L/ha)	10-20 L/ha	Root application: Applications in pre-flowering, fruit set	
1	Olive trees			and onset of swelling.	
	Citrus fruit	200-400 ml/hl	10-20 l /ha	Foliar application: As a foliar fertiliser booster and during periods of stress.	
	Tropical crops	(2-4 L/ha)	10-20 L/11a	Root application: Applications in spring and summer bud break, pre-flowering, fruit set and onset of swelling.	
	Vines and table grapes	150-300 ml/hl (1.5-3 L/ha)	6-15 L/ha	Foliar application: As a foliar fertiliser booster and during periods of stress. Root application: Pre-sprouting applications, before and after flowering and at veraison.	
	Ornamentals	100-150 ml/hl (1-2 L/ha)	10-25 L/ha	Foliar application: As a foliar fertiliser booster and during periods of stress. Root application: Apply at transplanting and throughout the crop cycle as crop development requires.	
	Extensive and industrial crops	10-15 L/ha	-	Foliar application: Apply 3-4 times by spray or pivot.	

Seals and certifications:

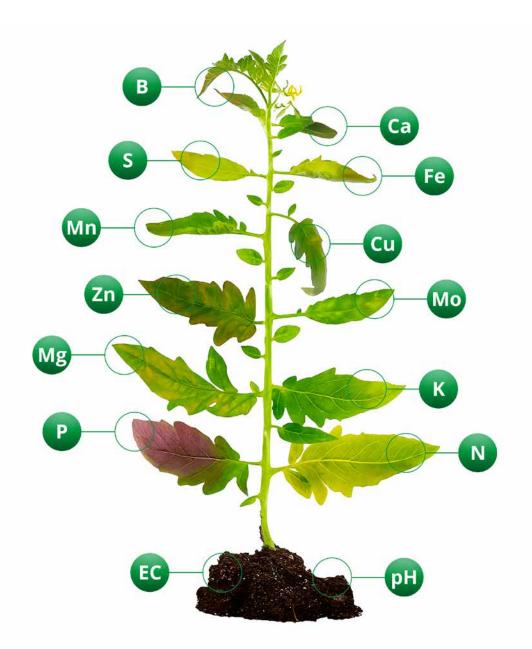




Deficiency correctors

Effective prevention and correction of nutritional deficiencies

This group comprises a range of products aimed at comprehensively combating nutrient deficiencies in crops. These are references created on the basis of different and studied combinations of what in fertilisation are called trace elements or micronutrients.







Glucosei is an innovative formulation based on organic copper salts. As a complexing agent for copper, gluconic acid has been used, which is part of many natural substances and ensures optimal assimilation by the plant.

Composition

Water-soluble copper (Cu) $8.00\,\%$ w/w, Total copper (Cu) complexed by GA $8.00\,\%$ w/w Complexing agent GA: Gluconic acid

Available in:





51

Uses

		DO	SE		
	CROPS	FOLIAR APPLICATION	ROOT APPLICATION	RECOMMENDATIONS	
	Horticultural crops	100-200 ml/hl	1-3 L/ha	Foliar application: Apply every 8-10 days depending on severity.	
	Berries	(1-2 L/ha)	1 3 1/110	Root application: Apply according to crop needs.	
	Stone and pome fruit trees			Foliar application: Apply every 8-12 days depending on severity in swollen bud and pre-flowering. At the end	
	Nuts and seeds	150-300 ml/hl (1-4 L/ha)	2-5 L/ha	of the growing season at maximum doses it causes defoliation in fruit trees.	
	Citrus, kiwi and tropical crops			Root application: Apply 2-3 times depending on the needs of the crop.	
	Vines and table grapes	300-500 ml/hl (1-3 L/ha)	2-4 L/ha	Foliar application: Apply every 6-8 days depending on severity.	
	Ornamentals	100-200 ml/hl (1-2 L/ha)	2 4 1/110	Root application: Apply according to crop needs.	
*	Olive trees	200-400 ml/hl (1-4 L/ha)	2-5 L/ha	Foliar application: 1-2 applications in spring and autumn. Root application: Apply according to crop needs.	
	Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	100-200 ml/hl (1-2 L/ha)	1-3 L/ha	Foliar application: Apply every 6-8 days depending on severity. Root application: Apply according to crop needs.	

Seals and certifications:











Turisei K is a fertiliser rich in potassium, rapidly absorbed and easily assimilated by the stomata and roots. Its special formula makes it essential for maturation and swelling processes. It is recommended to use Turisei K during the phases of highest demand of this element: fruit ripening, formation of reserve organs (bulbs, tubers, etc.), lignification of shoots, etc. It is also very suitable for the prevention and correction of potassium deficiencies and imbalances in the plant.

Composition

Water-soluble potassium oxide (K_2O) 32.0 % w/w, Chloride <0.004 % w/w

Available in:





			DOSE			
	CROPS	ROOT		FOLIAR	RECOMMENDATIONS	
		APPLICATION	CYCLE	APPLICATION		
	Fruit trees			150-250 ml/hl	Root application: 2-3 applications every 10-15 days from 1 month before harvest.	
	Citrus fruit			(1-3 L/ha)	Foliar application: Applications from fruit set until the end of swelling.	
*	Olive trees	4-10 L/ha	15-50 L/ha	15-50 L/ha	200-400 ml/hl (3-5 L/ha)	Root application: 2-3 applications from pit hardening to maturation. Foliar application: Applications from fruit set onwards.
	Vines and table grapes			100-200 ml/hl (2-4 L/ha)	Root application: 2-3 applications every 10-15 days from 1 month before harvest. Foliar application: Applications from growth of the fruit until the end of swelling.	
	Tropical crops	2-10 L/ha	15-50 L/ha	150-300 ml/hl (1-4 L/ha)	Root application: 3 and 4 applications per cycle from swelling onwards. Foliar application: Applications from fruit set until the end of swelling.	
	Horticultural crops	•	•	a 20-60 L/ha	100-200 ml/hl	Root application: Apply every 7-10 days from the onset of swelling until the end.
	Berries	5-12 L/ha	20-00 L/11d	(3-5 L/ha)	Foliar application: Applications from growth of the fruit until the end of swelling.	
	Extensive and industrial crops	2-8 L/ha	15-40 L/ha	200-400 ml/hl (3-6 L/ha)	Root application: 3-4 applications over the course of the cycle from the onset of flowering. Foliar application: Support at times of peak nutritional needs.	





Seisil is a specific and balanced formulation of silicon and potassium that helps to correct deficiencies caused by high crop demand. Seisil ensures correct grain filling, fruit ripening and post-harvest.

Composition

Water-soluble potassium oxide (K₂O) 9.5 %

Available in:



5 I

		DO	SE		
	CROPS	FOLIAR APPLICATION	ROOT APPLICATION	RECOMMENDATIONS	
	Horticultural crops	100-300 ml/hl	3-5 L/ha		
	Berries	(1-3 L/ha)			
	Stone and pome fruit trees	150-300 ml/hl (1.5-3 L/ha)			
	Nuts and seeds		5-10 L/ha	Foliar application: Apply at the first signs of deficiency and at times of high demand. Root application: Apply 2 to 3 times with emphasis	
**	Olive trees				
	Citrus fruit			on peak demand.	
	Tropical crops				
	Vines and table grapes				
	Ornamentals	100-300 ml/hl (1-3 L/ha)	1-4 L/ha		
	Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	150-300 ml/hl (1.5-3 L/ha)	-	Foliar application: Make 2-3 applications at times of maximum demand for this nutrient.	
	Enhancer	100-300 ml/hl (1-3 L/ha)	-	Use in mixture with phytosanitary treatments to complement its action.	





Oleomax is a liquid blend of micronutrients, manganese and zinc. Its use is recommended in deficiency states of these micronutrients. Manganese and zinc act as essential constituents of several enzymes and play an important catalytic role in the plant. They are key elements in the synthesis of nucleic acids and proteins such as auxin metabolism.

Composition

Water-soluble manganese (Mn) 1.4 % w/w, Watersoluble zinc (Zn) 1.1 % w/w

Uses

		DOSE		
CROPS	ONLY FOLIAR	AS SYNERGIST	RECOMMENDATIONS	
Greenhouse and outdoor horticultural crops	700-1000 ml/hl (7-10 L/ha)	1-2 L/ha (100-300 ml/hl)	Start applications when the first symptoms are observed. Every 7-10 days depending on severity.	
Citrus fruit			It is advisable to apply at the	
Stone and pome fruit trees and nuts and seeds	500-1000 ml/hl (7-10 L/ha)	1-3 L/ha beginning of the winter scoinciding with the winter scoinciding with the winter buring the vegetative gro	beginning of the winter shutdown, coinciding with the winter treatment. During the vegetative growth phase,	
Olive tree			apply according to needs.	
Table grapes and vines	800-1000 ml/hl	1-3 L/ha (200-400 ml/hl)	End of flowering, bunch closure, veraison and pre-harvest.	

Available in:





Properties

Naphos is a liquid inorganic fertiliser with a high content of fertiliser elements such as nitrogen (N) and phosphorus (P₂O₅). Naphos has a slightly acidic pH which reduces the risk of phytotoxicity and improves miscibility.

Composition

Total nitrogen (N) 2.0 % w/w, Ammoniacal nitrogen (N) 1.9 % w/w, Water-soluble phosphorus pentoxide (P_2O_5) 7.2 % w/w

Uses

USES .			
CROPS	DOSE FOLIAR APPLICATION	RECOMMENDATIONS	
Horticultural crops and berries Stone and pome fruit trees	800-1000 ml/hl	Apply 2 to 4 foliar applications every 7-15 days depending on needs.	
and nuts Citrus and tropical crops	400-600 ml/hl	Foliar application in mixture with other products.	
Vines and table grapes Ornamentals Olive trees Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	100-150 ml/hl	Application to improve wettability conditions during application.	

Available in:







Lecisei is a copper-based solution. The copper in Lecisei is formulated in such a way as to facilitate foliar absorption and penetration. Copper is an essential element in numerous biological processes such as lignin formation, carbohydrate and nitrogen metabolism.

Composition

Water-soluble copper (Cu) 3,0 % w/w Mineral anions: sulphates

Available in:



5 L

	CROPS	DOSE FOLIAR APPLICATION	RECOMMENDATIONS	
	Horticultural crops	200-350 ml/hl (2-3 L/ha)	Apply 3 to 4 times every 8-10 days depending on severity.	
	Berries			
	Stone and pome fruit trees	200-400 ml/hl		
	Nuts and seeds		Perform 2-3 applications every 8-12 days depending on the severity in swollen bud and pre-flowering.	
	Citrus fruit	(2-4 L/ha)		
	Tropical crops			
	Vines and table grapes	200-500 ml/hl (2-4 L/ha)	Apply 2-3 times every 6-8 days depending on severity.	
	Ornamentals	200-350 ml/hl (2-3 L/ha)		
*	Olive trees	300-500 ml/hl (2-4 L/ha)	Apply 1-2 times in spring and autumn and repeat depending on severity.	
	Industrial and extensive crops (cereals, rapeseed, cotton, etc.)	200-300 ml/hl (1-2 L/ha)	Apply 3 to 4 times every 8-10 days depending on severity.	





Fixar is a product formulated with zinc, which provides the necessary amount of this element for a balanced development of the crops, being essential in the formation of certain growth hormones such as auxins, and is responsible for the synthesis of several proteins and vitamin C. Fixar is a product compatible with most treatments and can be used with all types of spraying machinery, including those with reduced volumes.

Composition

Water-soluble zinc (Zn) 3.0 % w/w

Uses

CROPS	DOSE FOLIAR APPLICATION	RECOMMENDATIONS
Stone fruit, pome fruit, nuts, tropical crops and citrus fruits Vines and table grapes Horticultural crops and berries Ornamentals Industrial crops	0.5-1 L/ha	Apply as a foliar spray to improve application efficiency. Adjust the dose according to the solution volume, for 200-400 L/ha use a dose of 0.5 L/ha; for 800- 1000 L/ha use 1 L/ha.

Available in:







Properties

Organitro is a solid organic fertiliser in accordance with Regulation (EU) 2018/848 and therefore suitable for use in organic farming. Organitro has a NPK 9-6-1 balance and its application ensures correct fertilisation, as well as maintaining the levels of organic matter necessary for the creation of fertile soils. It provides a high content of organic nitrogen.

Composition

Total nitrogen (N) 9.0 % w/w, Organic nitrogen (N) 9.0 % w/w, Total phosphorus pentoxide (P_2O_5) 6.0 % w/w, Total potassium oxide (K_2O) 1.0 % w/w, Total calcium oxide (CaO) 10.0 % w/w, Organic matter 80.0 % w/w, Organic carbon (C) 46.4 % w/w, C/N ratio 5.2, Humic acids 16.0 % w/w, Minimum-maximum moisture content 2-14 %

Uses



CROPS	DOSE PER CROP CYCLE	RECOMMENDATIONS
Fruit and citrus trees	800-2000 kg/ha	Apply as a basal fertiliser. It is recommended to carry out a small amount of work after application.
Olive tree and vine	500-1500 kg/ha	Apply to the soil after harvest or at the onset of vegetative activity.
Horticultural crops	1500-3000 kg/ha	Apply as a basal fertiliser in pretransplanting.
Industrial crops	400-2000 kg/ha	Apply as a basal fertiliser in pre-sowing.

Available in:



25 kg

Seals and certifications:







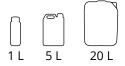


Q'sei is a fertiliser formulated with amino acids and boron, designed to quickly and effectively correct deficiencies of this micronutrient. It favours the assimilation and distribution of boron to the growing points, promoting the proper development of harvestable organs.

It is particularly suitable for extensive crops with high boron demands such as alfalfa, beet, sunflower and rape, especially on limy soils or soils poor in organic matter. In alfalfa, it improves protein quality; in sugar beet, it increases sugar levels; in sunflower, it corrects early symptoms of deficiency, and in oilseed rape it boosts yields and seed quality.

In addition, in olive groves it improves the transport of sugars and promotes fertilisation thanks to its effect on the formation of the pollen tube.

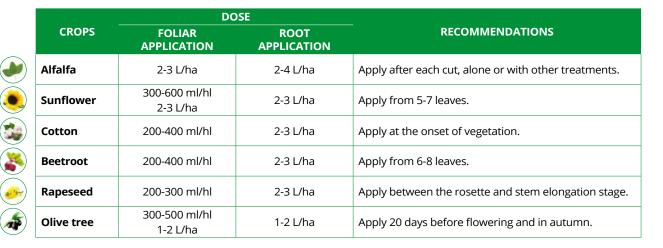
Available in:



Composition

Free amino acids 15.6 % w/w, Total nitrogen (N) 2.5 % w/w, Organic nitrogen (N) 2.5 % w/w, Water-soluble boron (B) 2.0 % w/w

Uses









Seivital K is a solid organo-mineral NPK fertiliser, with a NPK 3-3-10 balance, and its application ensures correct fertilisation, as well as maintaining the levels of organic matter necessary for the creation of fertile soils.

Composition

Total nitrogen (N) 3.0 % w/w, Organic nitrogen (N) 3.0 % w/w, Phosphorus pentoxide (P_2O_5) soluble in neutral ammonium citrate and in water 3.0 % w/w, Water-soluble potassium oxide (K_2O) 10.0 % w/w, Organic carbon (C) 13.0 % w/w, Humic acids 4.0 % w/w

Uses



CROPS	DOSE
Vineyard and olive grove	750-1500 kg/ha
Other crops	1000-2000 kg/ha

Seals and certifications:



Available in:







Properties

Foliplant Calcio Flor contains water-soluble calcium and zinc complexed with carboxylic acids, as well as soluble boron in a formula that guarantees the assimilation of calcium in the fruit. Prevents and corrects calcium and microelement deficiencies, producing a decisive effect on the quality, firmness and conservation of the fruit.

Composition

Water-soluble calcium oxide (CaO) 9.0 % w/w, Calcium oxide (CaO) complexed by GA 9.0 % w/w, Water-soluble zinc (Zn) 2.0 % w/w, Zinc (Zn) complexed by GA 2.0 % w/w, Water-soluble boron (B) 1.0 % w/w Complexing agent GA: Gluconic acid

Uses

CROPS	FOLIAR DOSE*	RECOMMENDATIONS
Pome fruit trees	0.3-0.4 % (3-4 L for 1000 L of water)	Apply 3 to 5 times every 15 days from petal fall to half fruit size.
Stone fruit trees		Apply as soon as petals fall, 2-3 applications every 15 days, also on certain varieties it is advisable to make 2 applications one month before harvesting.
Grape		From fruit set onwards 3 applications every 15-20 days.
Citrus fruit		Apply from petal fall onwards 3 to 5 applications every 15-20 days.
Horticultural crops		In fruit crops, start applications after the first fruits have set for 10-15 days. In other vegetables apply during critical periods.

^{*} Given the limited capacity of the fruit to take up calcium via the roots, we recommend foliar applications.

seipasa M

Available in:

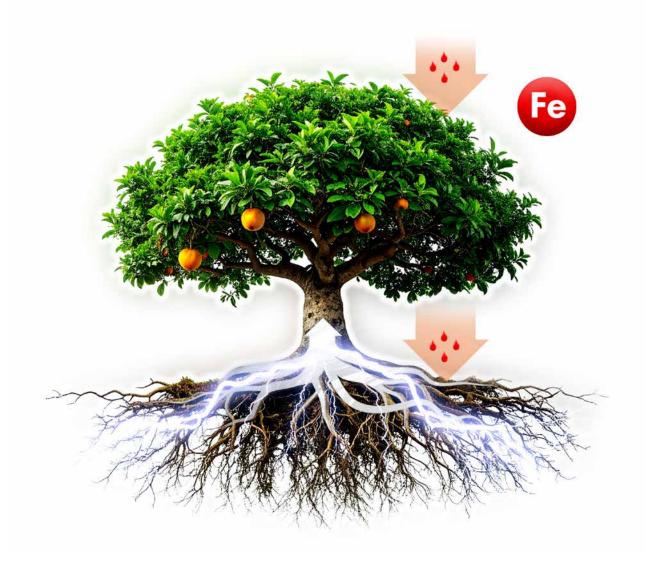


Chelates

Soluble products formulated with chelated Fe for rapid assimilation

Iron is a vital element for crops. Despite being the fourth most abundant element in the earth's crust, iron is not always found in a form that can be assimilated by plants. This is due to a multitude of factors including the effect of the soil pH, the mineral components of the soil or the limestone and bicarbonate content of the soil.

Iron deficiency in plants is called iron chlorosis, and the use of iron chelates is essential to filling this gap. Seipasa's iron chelates are developed using Akzo Nobel technology to convert iron into an element that can be assimilated by the plant. In addition to rapid assimilation, Seipasa's iron chelates are easy to handle and provide ample stability and a high degree of water solubility.









Ferrosei Plus 5.0 is a state-of-the-art iron chelate (FeEDDHA) developed to prevent and correct iron chlorosis in the plant. It is an easy to handle solution, very soluble in water and quickly assimilated by the plant.

Composition

Water-soluble iron (Fe) 6.0 % w/w, Total iron (Fe) chelated by EDDHA 5.0 % w/w, Iron (Fe) chelated by [o.o] EDDHA 5.0 % w/w

Chelating agent [o.o] EDDHA: Ethylenediamine acid- N,N'-di[(ortho-hydroxyphenyl)acetic]

Available in:





1 kg

5 kg

Uses

	DOSE (g/tree)	YOUNG PLANTING	PRODL	START OF JCTION DENSITY:	PLANTATIC PRODU PLANTING	ICTION
_		SEEDLINGS	HIGH	LOW	HIGH	LOW
	Citrus fruit	5-20	15-30	30-50	50-75	75-100
	Pear tree, apple tree	10-20	10-20	15-25	30-50	60-80
	Peach	5-15	15-25	25-50	50-75	75-100
	Plum	5-10	5-15	10-25	25-35	35-45
	Apricot	5-10	5-15	10-25	25-35	35-45
	Table grapes	5-10	5-10	10-15	10-15	15-20
	Vines	3-5	3-5	5-7	5-7	7-10
*	Olive tree	5-15	15-25	20-30	30-50	50-90
	Horticultural crops	0.5-2 g/plant				
	Strawberries and berries	3-6 kg/ha	6-8 kg/ha vegetables short 10-15 kg/ha vegetables long cycle			
1	Nurseries	1-3 g/plant				
	Floriculture	0.5-2 g/plant				

Seals and certifications:









Ferrosei 4.2 can be applied by any system: Injection, tillage, blanket irrigation, localised irrigation, etc., as its special formulation is based on totally soluble microgranules (solubility in water higher than 99 %), so that Ferrosei 4.2 is totally dissolved in a few seconds. It is also recommended to apply the mixture immediately. In cases where Ferrosei 4.2 is not applied with the irrigation water, it is advisable to irrigate after application.

Composition

Water-soluble iron (Fe) 6.0 % w/w, Total iron (Fe) chelated by EDDHA 6.0 % w/w, Iron (Fe) chelated by [o.o] EDDHA 4.2 % w/w

Chelating agent [o.o] EDDHA: ethylenediamine- N,N'-di[(orthohydroxyphenyl)acetic acid]

Available in:



Uses

	DOSE (g/tree)	YOUNG PLANTING	PRODU	ISTART OF ICTION I DENSITY:	PLANTATIC PRODU PLANTING	ICTION
_		SEEDLINGS	HIGH	LOW	HIGH	LOW
	Citrus fruit	10-30	20-40	40-60	50-75	75-100
	Pear tree, apple tree	15-25	10-20	20-40	40-60	60-80
	Peach	10-30	15-30	30-60	50-75	75-100
	Plum	5-15	5-15	15-30	30-40	40-50
	Apricot	5-15	5-15	15-30	30-40	40-50
	Table grapes	5-10	5-10	10-15	10-15	15-20
	Vines	3-5	3-5	5-7	5-7	7-10
**	Olive tree	5-15	15-25	20-30	30-50	50-90
	Horticultural crops	0,5-3 g/plant				
	Strawberries and berries	5-7 kg/ha	6-8 kg/ha vegetables short cycle 10-15 kg/ha vegetables long cycle			
	Nurseries	1-3 g/plant				
	Floriculture	0,5-3 g/plant				

Seals and certifications:







POLYMICRO

Gresca ID Polymicro is a multi-corrector with chelated elements in the form of highly soluble micro-granules, specially prepared to prevent and correct chlorosis caused by iron, zinc and manganese deficiencies.

HIERRO

Correctors for iron deficiencies (iron chlorosis), caused either by a lack of this element in the soil or because it is in a form that cannot be assimilated by plants.



Available in:

1 kg 5 kg

Seals and certifications:



Gresca Polymicro Gresca Hierro 5.0 Gresca Hierro 5.3

Composition

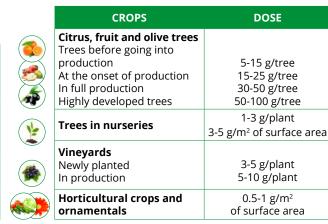
	POLYMICRO	HIERRO 5.5	HIERRO 5.3	HIERRO 5.0	HIERRO 4.2
Iron (Fe) chelated by [o,o] EDDHA	4.5 w/w	5.5 w/w	5.3 w/w	5.0 w/w	4.2 w/w
Zinc (Zn)	0.70 w/w	-	-	-	-
Manganese (Mn)	1.25 w/w	-	-	-	-

Uses

POLYMICRO

CDODS	DOSE g/plant or g/m²			
CROPS	PREVENTION	CORRECTION		
Fruit trees New plantation Full production	5 - 15 40 - 60	5 - 15 60 - 80		
Citrus fruit Saplings Trees in full production	5 - 15 60 - 80	30 - 50 40 - 100		
Strawberry	0.5 g/m ²	4-5 g/m ²		
Horticultural crops	2 g/m²	5 g/m²		

HIERRO



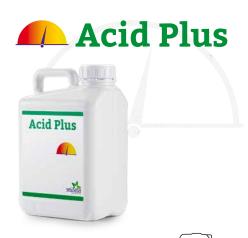


pH regulator

Treatment efficacy enhancers

20 L

Agricultural water is characterised by highly variable hardness and pH values. In many cases, the efficacy of plant protection and nutritional formulations can be conditioned by these characteristics of the water used. In its pH regulator line, Seipasa offers the product Acid Plus to solve this type of difficulties.



Properties

Acid Plus is a solution regulator suitable for hard water conditioning (> 300 ppm). Acid Plus blocks the metal cations present in the water, favouring the formation of a homogeneous solution. It avoids the problems caused by this type of hard water such as: filter clogging and floc formation. In addition, Acid Plus is a natural pH regulator for waters with basic final pH values. It is formulated with a component that changes colour with pH variation, which makes it easier to identify the correct pH and makes the use of a pH meter unnecessary. This colour change allows a fast and effective pH control to be maintained.

Composition Degree of acetic acid 18,0 % w/w

Uses

Available in:

TYPE OF WATER	INITIAL pH OF WATER	FINAL pH REQUIRED	ml NECESSARY/1000 L	EQUIVALENCE IN %
Type A		5.0	50 ml/1000 L	0.005 %
Hardness 20 ppm; Ca ratio: Mg=50:50	6.0	4.3	100 ml/1000 L	0.01 %
		8.0	50 ml/1000 L	0.005 %
		7.5	100 ml/1000 L	0.01 %
Type B		7.0	150 ml/1000 L	0.015 %
Hardness 20 ppm;	8.5	6.5	250 ml/1000 L	0.025 %
Ca ratio: Mg=80:20		6.0	400 ml/1000 L	0.04 %
		5.5	600 ml/1000 L	0.06 %
		5.0	850 ml/1000 L	0.085 %
		6.0	50 ml/1000 L	0.005 %
Type C	7.5	5.6	100 ml/1000 L	0.01 %
Hardness 500 ppm; Ca ratio: Mg=80:20	7.5	5.2	150 ml/1000 L	0.015 %
		4.5	250 ml/1000 L	0.025 %
Type D		5.5	50 ml/1000 L	0.005 %
Hardness 342 ppm; Ca ratio: Mg=80:20	6.5	5.0	100 ml/1000 L	0.01 %





NATURAL ORIGIN

The Natural Origin line combines the full potential of the *Natural Technology* focused on knowledge-based agriculture. Here we find solutions that, based on the essence of nature, allow you to enhance the balance and vitality of your crops. These products are **formulated to strengthen the general condition of the plant, favouring its internal processes**: they help optimise the state of the crop, allowing it to develop its maximum potential in a natural way.



• CARMINE	118
• MITSEI	118
• ABENTA NT	118
• ASTRAL	119
• AMICOS COMPI	110







Unlock the full potential of your crops with Carmine, a special solution designed to increase crop yields. Its unique formulation enriched with *Bacillus subtilis* boosts crop production. Start your way to agricultural success with Carmine and enjoy bountiful harvests.

Composition

Bacillus subtilis SEIBS23 ≥ 108 CFU/ml

Available in:

\cap	
П	5 1







Properties

Mitsei is a liquid solution recommended for zinc (Zn) deficiencies in crops. Zinc contributes to enzymatic processes in plants, is involved in chlorophyll synthesis and carbohydrate formation, and promotes the formation and development of new tissues.

Composition

Water-soluble zinc (Zn) 3.0 % w/w. Mineral anion: nitrate

Available in:

\bigcap	
1 L	5 l





Properties

Abenta nt is a product that provides zinc to crops. It is recommended for deficiency states of this essential micronutrient for crops. It is designed to achieve proper plant growth and development.

Composition

Water-soluble zinc (Zn) 3 % w/w. Mineral anion: sulphates

Available in:







Astral is a liquid blend of calcium (Ca) and magnesium (Mg) nutrients for foliar application. Its use is recommended for deficiency states of these nutrients. Calcium and magnesium play an important role in the proper development and growth of the plant by providing consistency and improving the photosynthetic activity of crops.

Composition

Water-soluble calcium oxide (CaO) 0.5 % w/w, Water-soluble magnesium oxide (MgO) 1.5 % w/w

Available in:

\Box	
\cup	
1 1	5 1





Properties

Amicos Combi is a liquid blend of micronutrients, recommended for manganese (Mn) and zinc (Zn) deficiency states in crops. These micronutrients act as essential components of several enzymes and play an important catalytic role in the plant. They are key elements in the synthesis of nucleic acids and proteins as well as in auxin metabolism.

Composition

Water-soluble manganese (Mn) 1.0 % w/w, Water-soluble zinc (Zn) 1.0 % w/w

Available in:

\cap	
1 L	5 L



Organic references

ORGANIC REGULATION	BR						JA	\S			NOP					UE								
	C			CERT	IN TAB	LE	C		ANCE	CERT I	N TAB	LE	C	OMPLI		CERTI	N TAB	LE	C				IN TAB	LE
Product	CAAE	CAAE-UNE 142500	CAAE-UNE 315500	ECOCERT	FIBL	OMRI	CAAE	CAAE-UNE 142500	CAAE-UNE 315500	ECOCERT	FIBL	OMRI	CAAE	CAAE-UNE 142500	CAAE-UNE 315500	ECOCERT	FIBL	OMRI	CAAE	CAAE-UNE 142500	CAAE-UNE 315500	ECOCERT	FIBL	OMRI
Abenta nt																						•		
Amicos COMBI																				•				
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BR: Brazilian organic standard (IN 46), regulated by the Brazilian Ministry of Agriculture.

JAS: Japanese Agricultural Standard. Organic production regulations in Japan.

NOP: National Organic Program. US organic farming regulations, administered by the USDA (US Department of Agriculture).

UE: This refers to the European Union's organic legislation, which regulates how organic products must be produced, labelled and controlled within the member countries.

UNE:

142500: Fertiliser usable in organic farming (could also be: usable in organic plant production) according to Regulation (EU) 2018/848 in accordance with UNE 142500.

315500: Phytosanitary/Basic substance usable in organic farming (could also be: usable in organic plant production) according to Regulation (EU) 2018/848 in accordance with UNE 315500.

ECOCERT: Product suitable for use in organic farming according to [as appropriate, Regulations (EU) No 2018/848 and 2021/1165 and/or the NOP Regulation and/or the JAS Regulation].

Certifications



















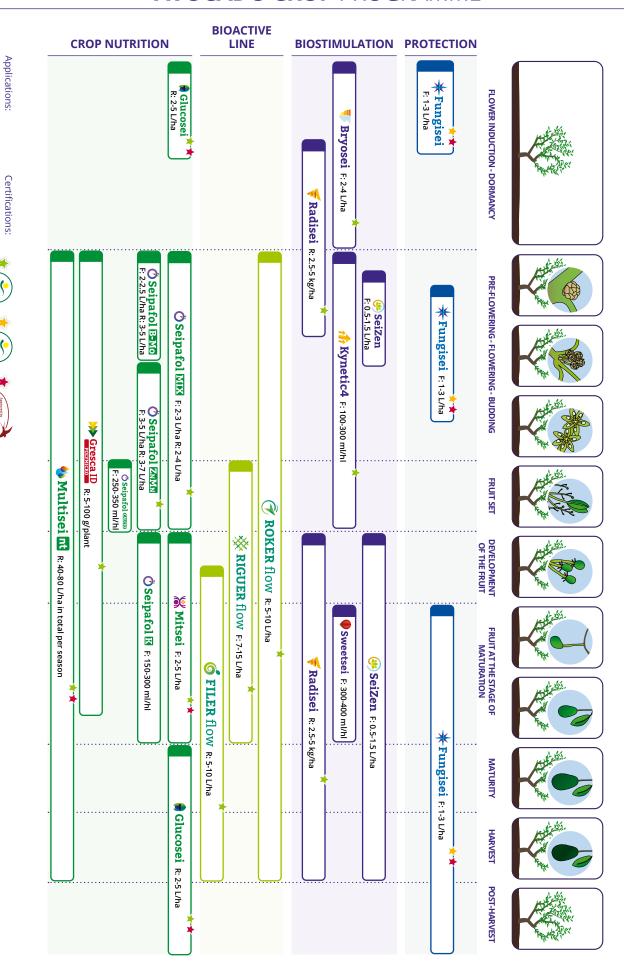


PROGRAMMES*

AVOCADO				• • •	• • •		124
• RICE							125
• BERRIES							126
• STONE AND POME FRUIT							127
• PERSIMMON							128
• CITRUS FRUITS							129
• KIWI							130
• POTATO							131
• VINE							132
• TOMATO							133
• INDUSTRIAL TOMATO							134
• CEREAL							135
• PEPPER							136
• MELON AND WATERMELON	 	 					137

^{*} These charts are provided for information purposes only. Any use of the above products should be based only on the approved labels and any claims regarding the safety and efficacy of the product should be resolved only by the label. Seipasa is not responsible for mixtures of products not expressly approved. Always read and follow the instructions on the label. The information is based on SEIPASA's technical experience under certain environmental conditions and therefore represents typical approximations. The information in these data sheets is not binding.

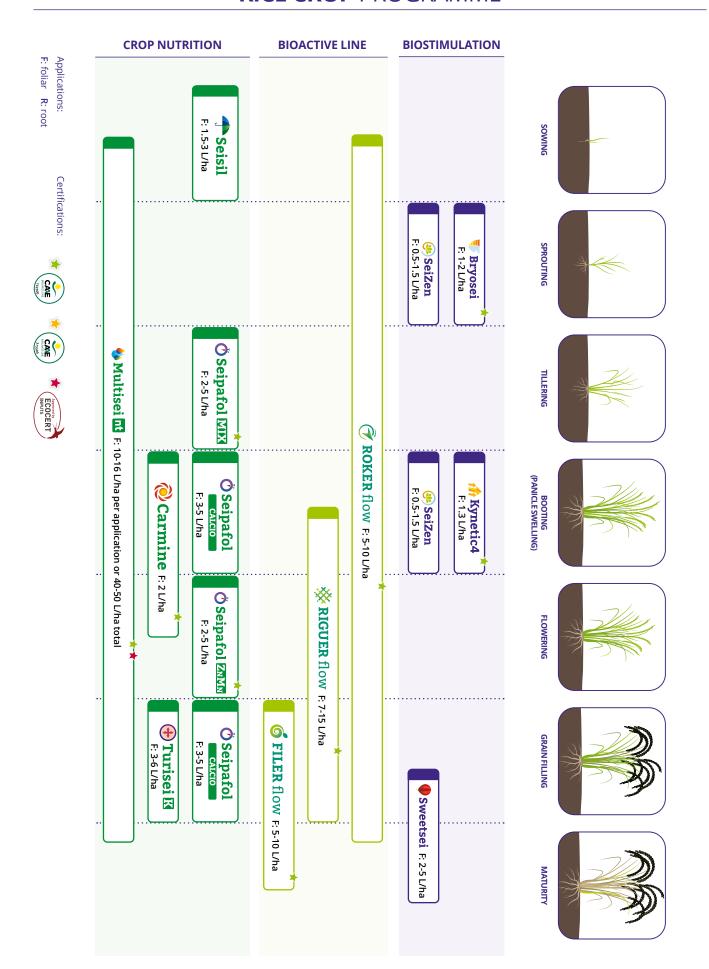
AVOCADO CROP PROGRAMME



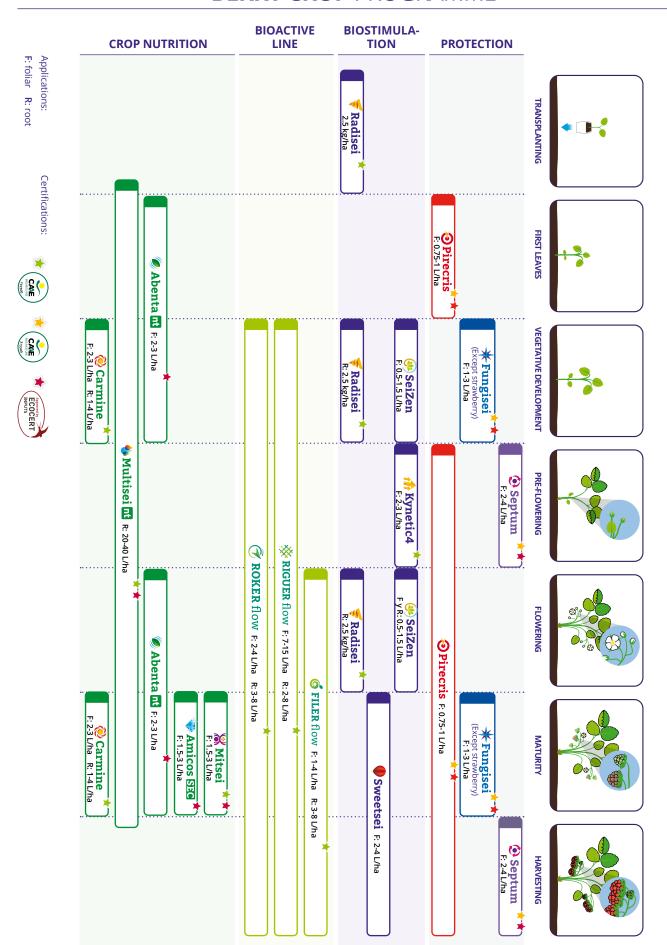


F: foliar R: root

RICE CROP PROGRAMME

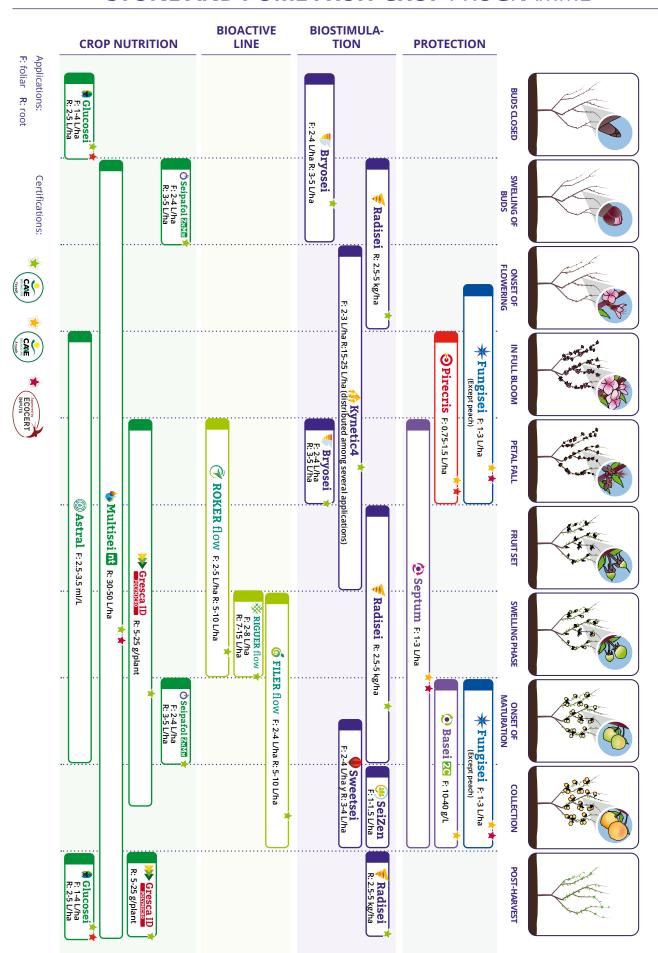


BERRY CROP PROGRAMME

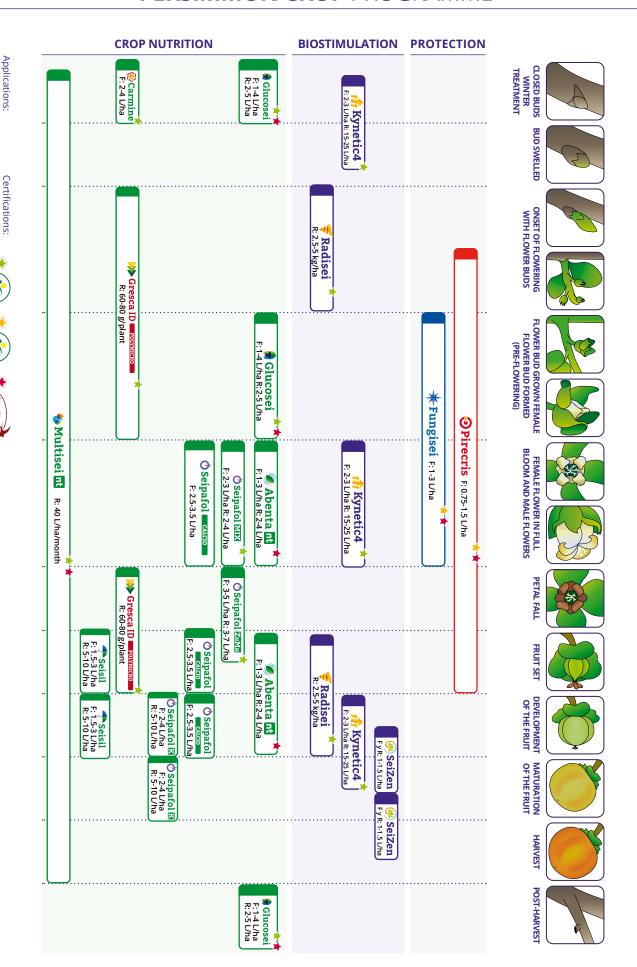




STONE AND POME FRUIT CROP PROGRAMME



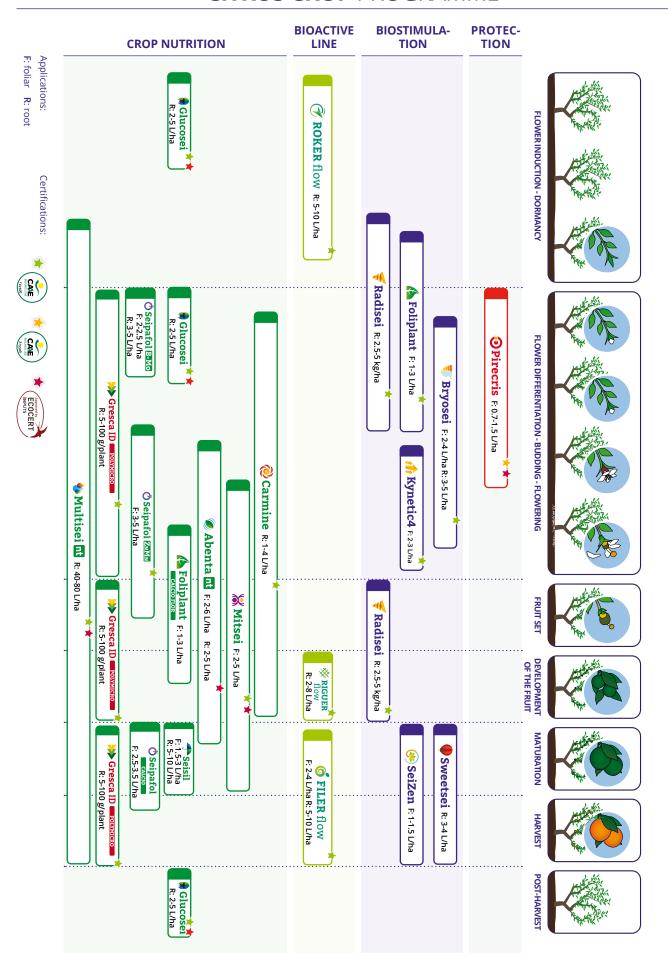
PERSIMMON CROP PROGRAMME



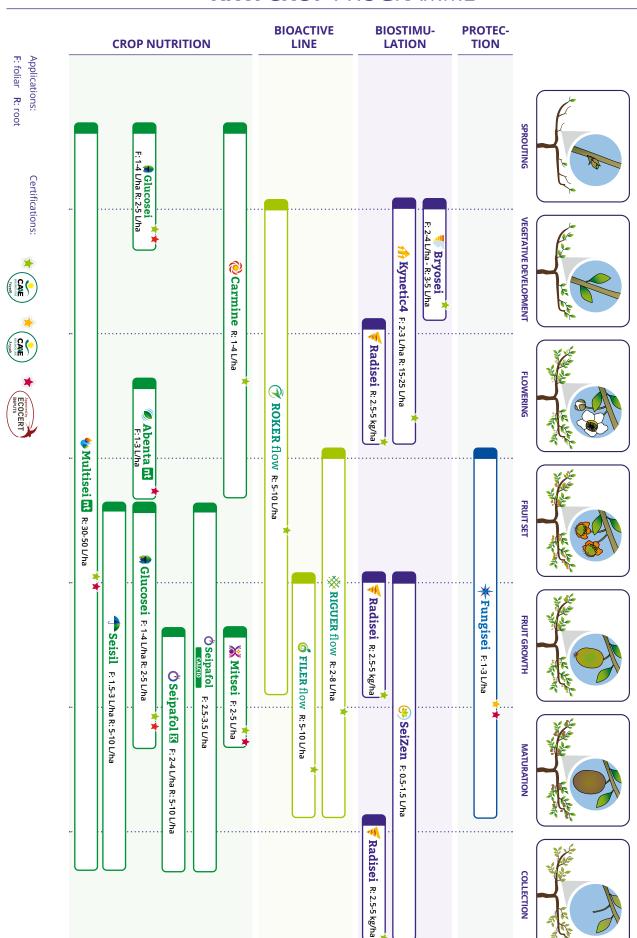


F: foliar R: root

CITRUS CROP PROGRAMME

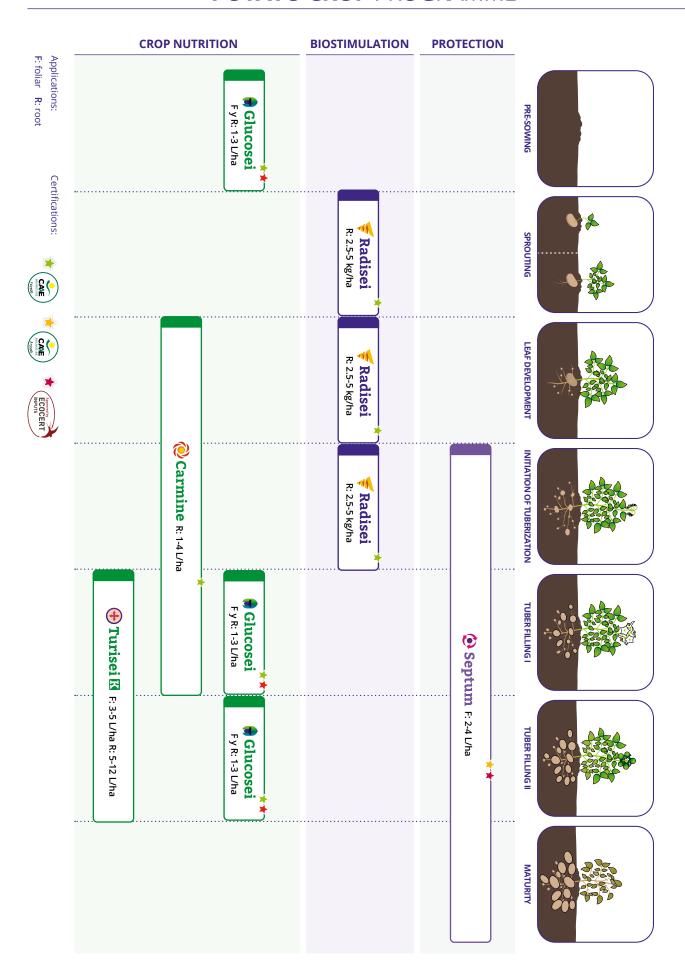


KIWI CROP PROGRAMME

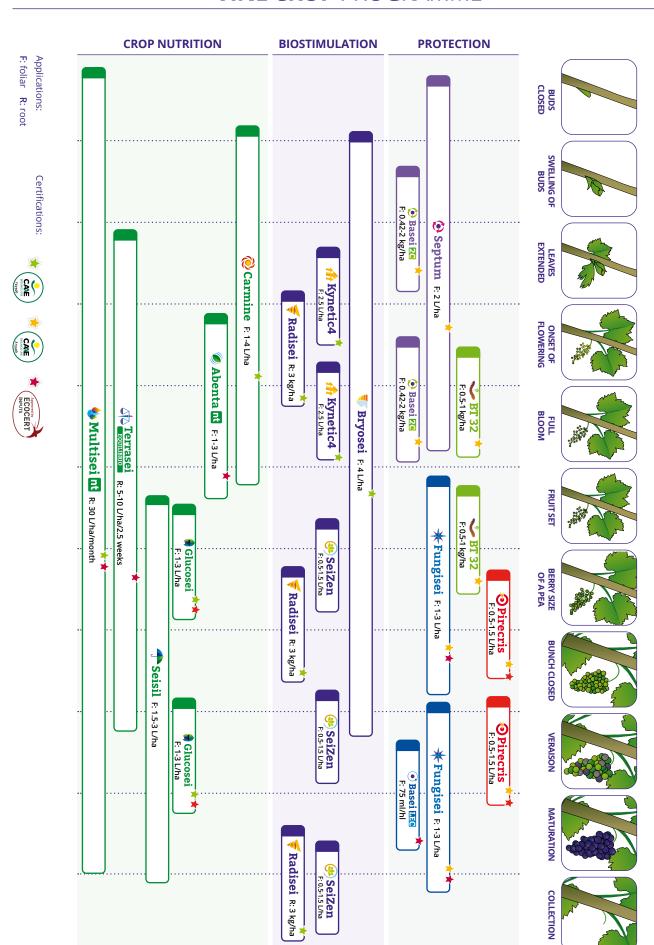




POTATO CROP PROGRAMME

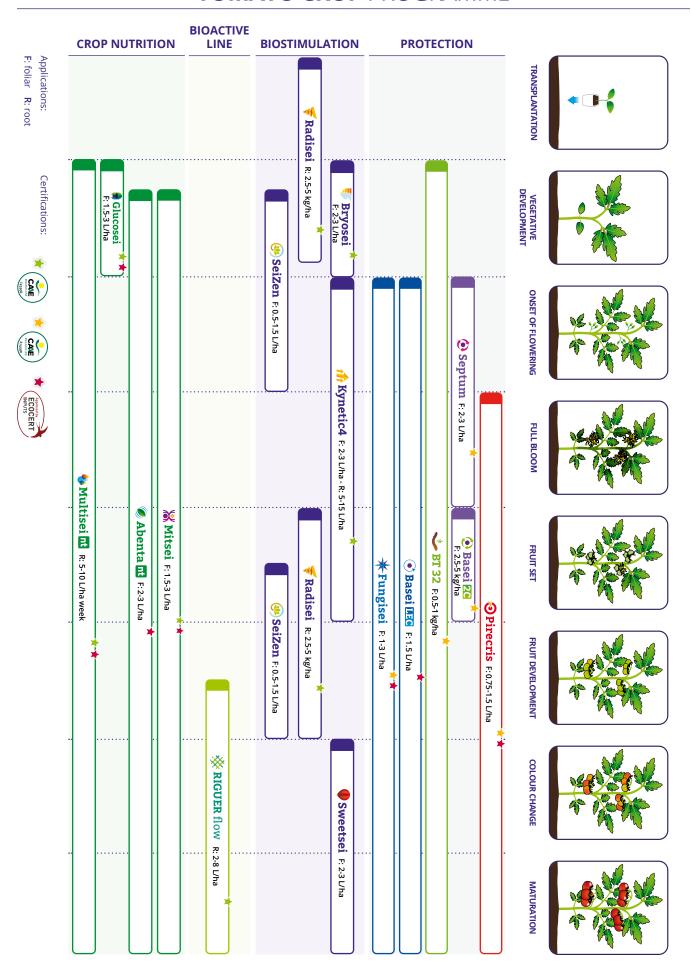


VINE CROP PROGRAMME

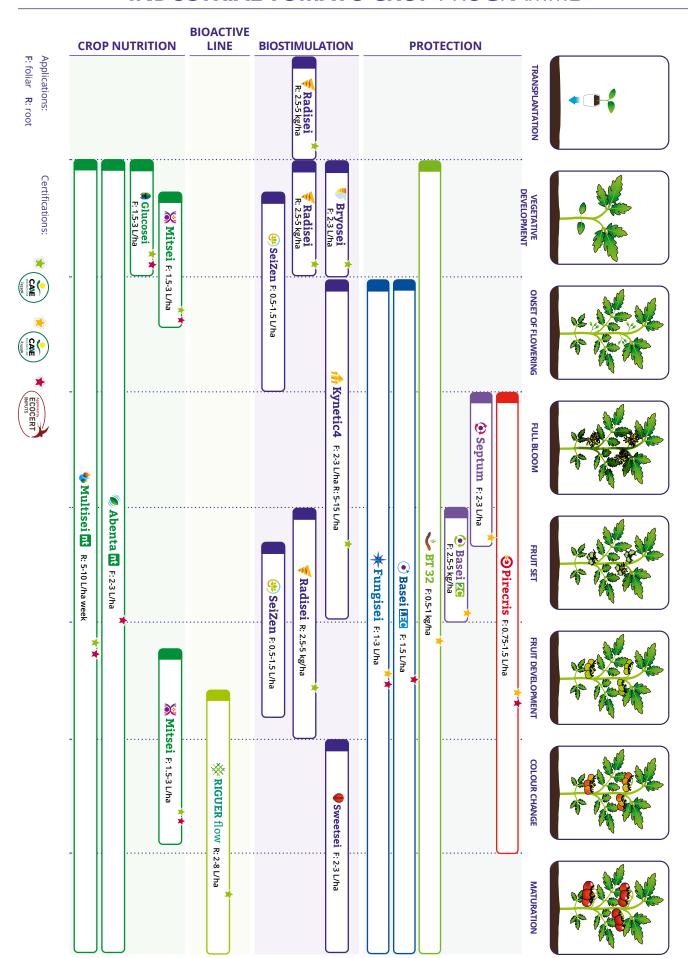




TOMATO CROP PROGRAMME

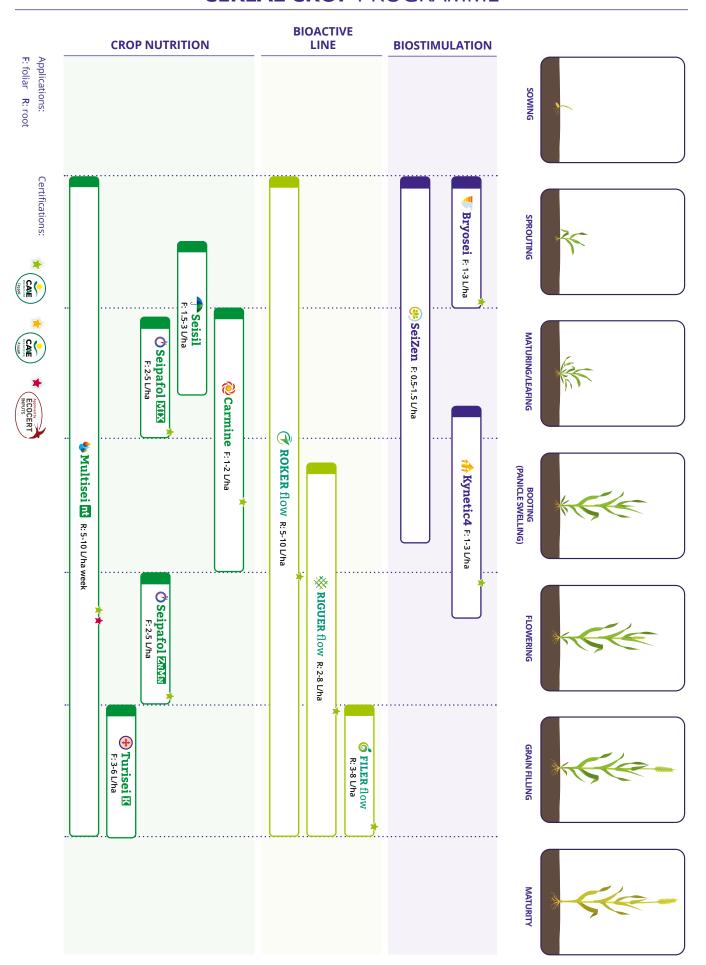


INDUSTRIAL TOMATO CROP PROGRAMME

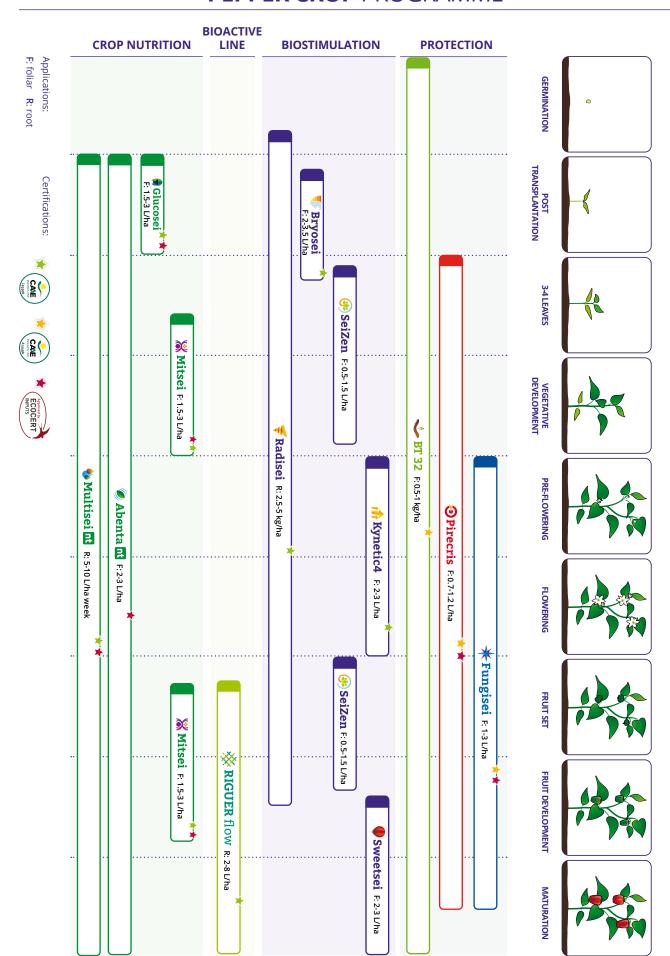




CEREAL CROP PROGRAMME

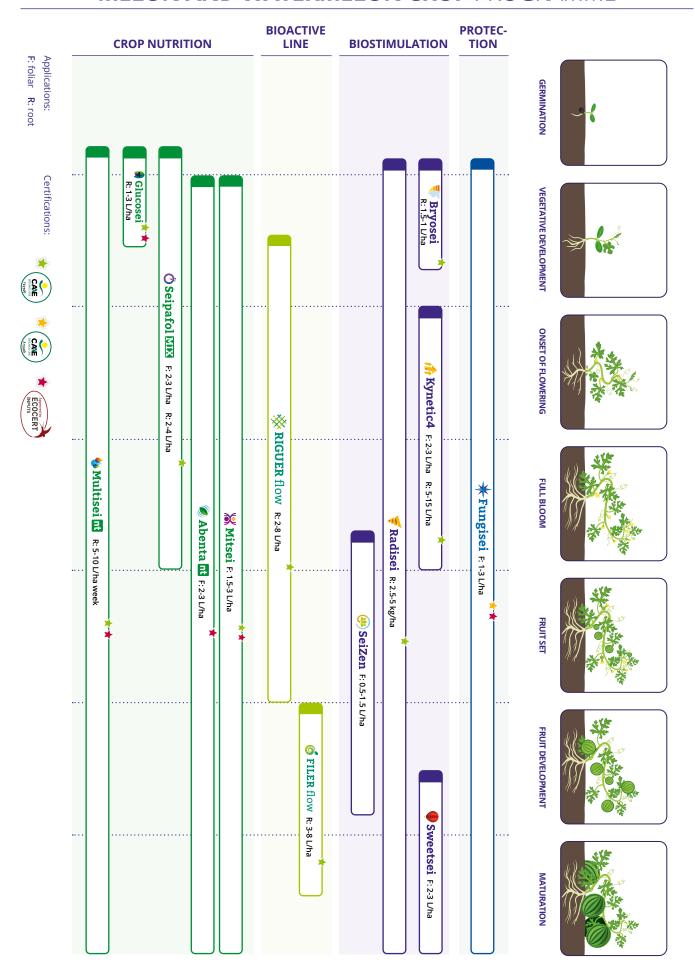


PEPPER CROP PROGRAMME





MELON AND WATERMELON CROP PROGRAMME





OTHER INFORMATION OF INTEREST

Types of packaging and palletising

Packaging for liquid products



Packaging for solid products



Packs

Outer size in cm	12 X 1 L	4 X 5 L	2 X 10 L	1 X 20 L	20 X 1 KG	4 X 5 KG
Length	376	376	334	285	360	360
Width	276	276	240	240	265	265
High	270	306	400	380	490	490



Palletisation for the Spanish market

Packaging	No. packs per box	No. of stacks	No. of cartons/ jerrycans pallet	Volume/pallet
1 L	12	5	40	480 L
5 L	4	4	32	640 L
10 L	2	3	36	720 L
20 L		3	48	960 L
1 kg	20	3	36	720 kg
5 kg	4	3	36	720 kg



Palletisation for International markets

Packaging	No. packs per box	No. of stacks	No. of cartons/ jerrycans pallet	Volume/pallet
0.5 L	20	6	48	960 units
1 L	12	6	60	720 L
5 L	4	5	50	1000 L
10 L	2	3	36	720 L
20 L		3	48	960 L
1 kg	20	3	36	720 kg
5 kg	4	3	36	720 kg



Palletised in boxes

Packaging	Box dimensions	Net weight of the box	No. of bags per box
5 kg bags	80 x 120 x 152 (height)	250 kg per box (total 500 kg)	50





Tank filling order

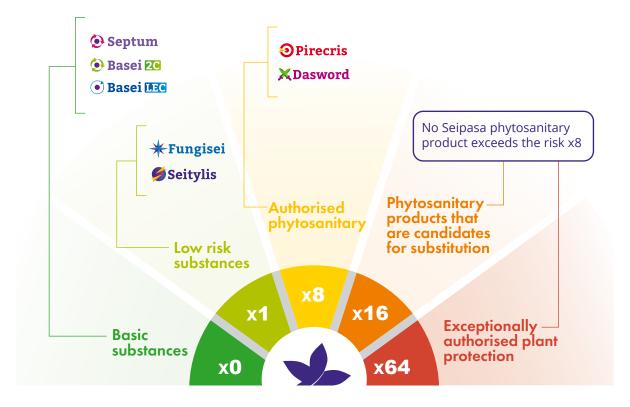
Practical tips for a correct application to avoid possible problems of incompatibilities and to achieve maximum efficacy of the preparation

Order of addition:



Low risk or zero risk phytosanitary products

Our biocontrol products present no or very low risk in their interaction with humans, the environment and water.*



^{*}The risk rating of products is calculated by multiplying volumes sold by the risk of each product from the following formula: volume x Tox index ($HRI 1 = \Sigma Vi ri$).

Royal Decree 555/2019 of 27 September, amending Royal Decree 1311/2012 of 14 September, establishing the framework for action to achieve the sustainable use of phytosanitary products.

Map of areas and commercial managers



Spain

- Zone 0
 - Francisco Romero
 Sales Manager Seipasa Spain
 fromero@seipasa.com
 - Francisco Ignacio Sánchez fsanchez@seipasa.com
- Zone 1

Carles Casals

ccasals@seipasa.com

- Zone 2
 - Miguel Ángel Romera mromera@seipasa.com
 - Cristina Sánchez casanchez@seipasa.com
 - M.ª Eugenia Oliver eoliver@seipasa.com
- Zone 3

Leo Rodríguez

lrodriguez@seipasa.com

- Zone 4
 - José María Domínguez jmdominguez@seipasa.com
 - Ángel Ortega aortega@seipasa.com
- Zone 5

Roberto Ruíz

rruiz@seipasa.com

Zone 6

Andrés Sánchez

asanchez@seipasa.com

Zone 7

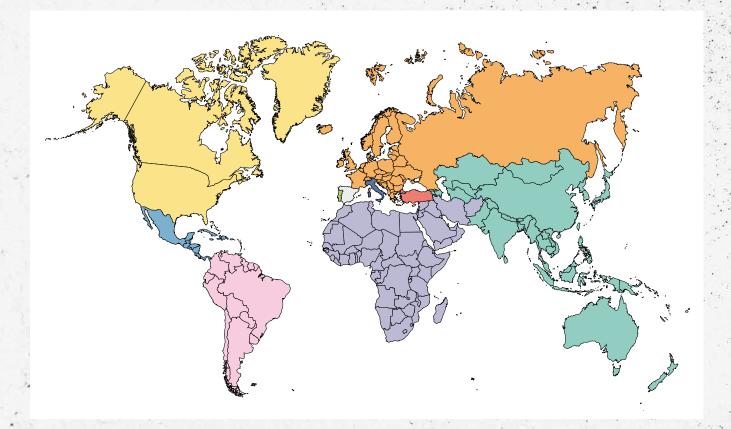
Javier Sánchez

jsanchez@seipasa.com

Zone 8

Jorge Montón

jmonton@seipasa.com



International

Mexico and Central America

Carlos Castro

Commercial Director Seipasa Mexico ccastro@seipasa.com

LATAM

José Luis Egas

Head of Business Unit Seipasa LATAM jlegas@seipasa.com

Europe

Ricardo Nuno Ferreira

Business Development Manager Seipasa Europe rferreira@seipasa.com

Portugal

Pedro Mota

Area Manager Seipasa Portugal pmota@seipasa.com

Italy

Diego Gornati

Country Manager Seipasa Italy dgornati@seipasa.com

Turkey

Huseyin Gunerergin

Business Development Manager Seipasa Turkey hgunerergin@seipasa.com

Africa-MEA

Abdellatif Oussalah

Business Development Manager Seipasa Africa aoussalah@seipasa.com

USA / Canada

Mike Green

Business Development Manager Seipasa USA & Canada mgreen@seipasa.com

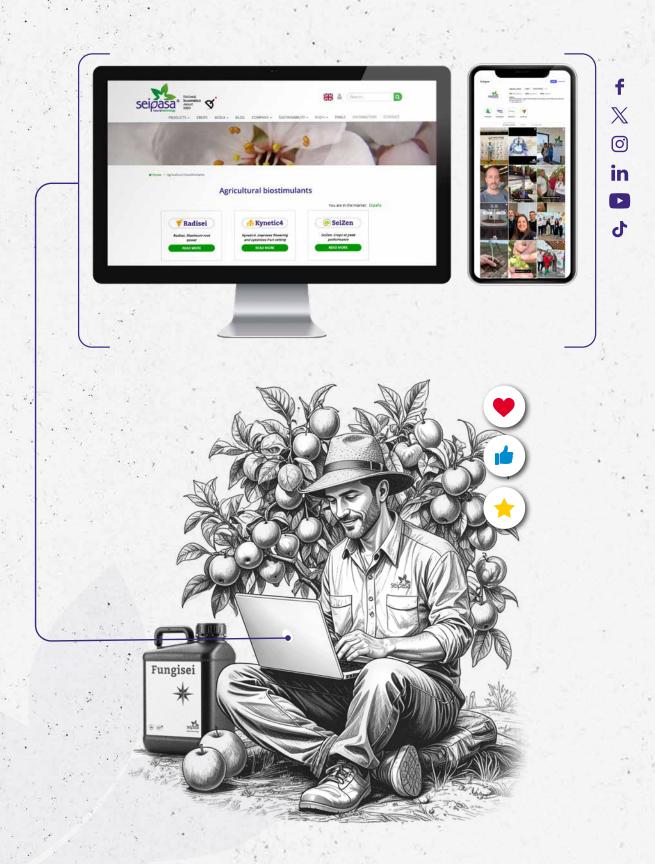
Asia-Pacific

Luciano Fioramonti

Business Development Manager Seipasa APAC lfioramonti@seipasa.com



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