



**PRODUCT INFO
& DATASHEET**

Sico Biostimulants
SICOBIO Line

SICOBIO Product Line

*Specialised products containing Amino Acids, Peptides and Proteins
from vegetal origin
Made in E.U.*

09/2019

Our production process is patented, using a modality of low temperature enzymatic hydrolysis, which allows us to develop different kinds of aminograms depending on the objectives pursued.

All our raw materials are plants (carob bean, peas, beans...) with traceability and a GMO free guarantee. In this sense, our **SICOBIO product line** has a similar fabrication process as our food division, which eases registration and certification. We could supply you aminoacids as ingredients for your formulations or our final products, ready to be sold to farmers. We can also develop exclusive formulations according to the needs of your markets.

A. BIOSTIMULANTS, composed of low molecular weight amino acids and peptides, obtained by enzymatic hydrolysis of vegetable proteins (non-GMO) at low temperature, preserving the natural precursors of the plants metabolic pathways of the initial vegetable material in plants

SICOBIO ROOT

Natural Rhizogenic Biostimulant (liquid)

* A completely natural product which contains biological complexes and natural peptides, obtained by enzymatic hydrolysis of purified vegetable proteins. It is an ideal nutrient for plant roots providing them with macro and micronutrients and oligopeptides to promote root development, plant growth and accelerate cellular multiplication, as well as enhancing hormonal functions.
Recommended for all types of crops, especially vegetables, citrus, fruit, olive etc.

* Foliar application: **200-250 ml/HI**
Fertigation: **6-8 lt/ha**

* Packing: 1 lt / 5 lt / 10 lt / 20 lt / 1000 lt IBC

Composition	w/w
Total Nitrogen	5.2%
Organic Nitrogen	5.2%
Phosphorus (P2O5)	1%
Potassium (K2O)	0.6%
Total Oligopeptides	34%
Free Amino Acids	15%
Organic matter	40%
Density	1.14 g/ml
pH	4-5

SICOBIO PLUS

Physio Activator - fruit set and growth promoter (liquid)

* 100% natural product, mainly composed of oligopeptides that stimulates fruit set and growth.

It can be applied to fruits, citrus, olives, vegetables, vines and berries both by fertigation and by foliar spray.

* Foliar application: **300-350 ml/HI**
Fertigation: **10-12 lt/ha**

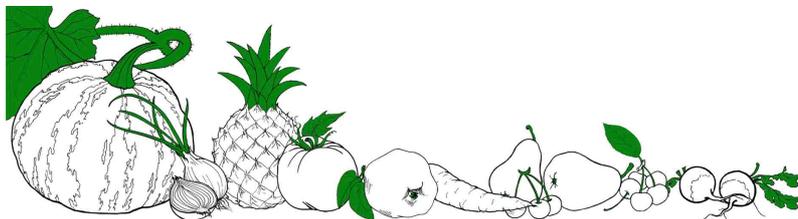
* Packing: 1 lt / 5 lt / 10 lt / 20 lt / 1000 lt IBC

Composition	w/w
Phosphorus (P2O5)	5.2%
Potassium (K2O)	3.5%
Zinc (Zn)	0.9%
Total Oligopeptides	12%
Free Amino Acids	7%
Density	1.1 g/ml
pH	4-5

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SICO FERTILISERS
EVERY TIME THE *right* SOLUTION



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SICOBIO COMPLEX *Enriched Biostimulant (liquid)*

* Amino acids obtained by enzymatic hydrolysis of vegetable protein, enriched with bioencapsulated micronutrients and NPK. Induces photosynthetic activity in crops and plant regeneration against any abiotic stress factor.

Recommended for all types of crops.

* Foliar application: **205-400 ml/HI**
Fertigation: **6-7 lt/ha**

* Packing: 1 lt / 5 lt / 10 lt / 20 lt / 1000 lt IBC

Composition	w/w
Total Nitrogen	4.6%
Organic Nitrogen	4.6%
Phosphorus (P2O5)	0.4%
Potassium (K2O)	0.4%
Magnesium (MgO)	0.1%
Boron (B)	1%
Iron (Fe)	0.4%
Manganese (Mn)	0.1%
Molybdenum (Mo)	0.001%
Zinc (Zn)	0.1%
Free Amino Acids	20%
Total oligopeptides	31%
Organic matter	35%
Density	1.2 g/ml
pH	4-5

SICOBIO GEL *Leaf & Root Bioactivator & Gel (liquid)*

* Bio-activator that induces Chlorophyll biosynthesis in cells. Very rich in free amino acids with high levels of oligopeptides obtained by enzymatic hydrolysis of purified vegetable proteins.

Recommended to help plants recover from any stress factor.

For this reason, it can be applied to any type of crop.

* Foliar application: **300-400 ml/HI**
Fertigation: **8-10 lt/ha**

* Packing: 1 lt / 5 lt / 10 lt / 20 lt / 1000 lt IBC

Composition	w/w
Total Nitrogen	7.2%
Organic Nitrogen	7.2%
Free Amino Acids	12%
Total Oligopeptides	40%
Organic matter	45%
Total carbon	26%
Density	1.15 g/ml
pH	5-6

B. BIO-ENCAPSULATED

Bio-encapsulation is a process in which, using biologically active substances, peptides, mostly tetra and tripeptides, we coat cations, this specialised coating aims to achieve greater and more effective penetration of the nutrients provided

SICOBIO-K *Bio-encapsulated Acidified Potassium (liquid)*

* Food-grade Potassium corrector, 100% assimilable and neutral. Bio-encapsulated Potassium forming an organometallic molecule with peptide transporters allowing its instant absorption and translocation to the inside of the plant which is critical during ripening and growth stages.

Recommended for all types of crops: berries, vegetables, fruit, olives and vines. It has an outstanding performance.

* Foliar application: **300-400 ml/HI**
Fertigation: **5-10 lt/ha**

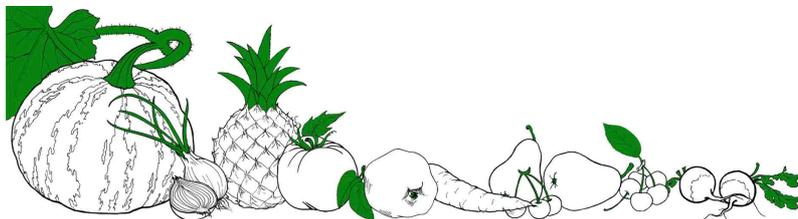
* Packing: 1 lt / 5 lt / 10 lt / 20 lt / 1000 lt IBC

Composition	w/w	w/v
Total Nitrogen	0.8%	1.1%
Organic Nitrogen	0.8%	1.1%
Potassium (K2O)	22%	30.8%
Free Amino Acids	6%	8.4%
Total Oligopeptides	6%	8.4%
Organic matter	27%	37.8%
Density	1.4 g/ml	
pH	6-7	

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C. AMINO ACID BIOSTIMULANT

SICOBIO-AMINO 24
Wholly natural biostimulant with rich aminogram + peptides(liquid)
Topseller

1. INTRODUCTION

Biostimulant obtained through enzymatic hydrolysis of Non-GMO vegetable proteins at controlled temperatures and pH, thus preserving all of the ingredients and obtaining a thorough aminogram of α L amino acids, including tryptophan.

Rich in glutamine and glutamic acid, which are plant's amino acid reservoirs, taking from this the basis, upon which the rest of the essential amino acids are synthesised.

SICOBIO-AMINO 24 is a wholly natural product that contains naturel CBP's (Complex Biological Peptides). This is an ideal nutrient for plants that provides them with amino acids and oligopeptides to enhance radicular development, vegetable growth and accelerate cell multiplication, as well as boosting hormonal functions.

Furthermore, thanks to our patented technology, this product contains low molecular weight **peptides** (dipeptides and tripeptides mostly). These peptides are **assimilated** with greater efficiency than free amino acids owing to their molecular structure and the fact that they are always composed of L amino acids, meaning that they ensure **fully** their utilisation by plants.

CBP's are peptides that, owing to their molecular structure, are capable of conveying substances to the interior of the plant, thus fostering their absorption and rapid translocation.

2. SPECIFICATIONS

Composition	w/w
Total Nitrogen	4.6.2%
Organic Nitrogen	4.6%
Free Amino Acids	24%
Total Oligopeptides	29%
Organic matter	37%
pH	4.5-5.5
Density	1.14 g/ml

AMINOGRAM				
Aas ¹	%		Aas	%
Ala	0.5 - 0.9		His	0.3 - 0.4
Asp²	0.9 - 1.6		Ile	0.4 - 0.7
Cys	0.2 - 0.3		Leu	0.9 - 1.4
Glu³	24.1 - 40.1		Val	0.6 - 1
Gly	4.5 - 7.5		Lys	38.4 - 64
Pro	0.5 - 0.8		Met	0.4 - 0.6
Ser	0.6 - 0.9		Phe	0.6 - 1
Tyr	0.6 - 1		Thr	0.4 - 0.6
Arg	0.9 - 1.5		Trp	0.4 - 0.6

3. PRODUCT INFO & ANALYSIS & APPLICATION RECOMMENDATIONS & DOSAGE RATES

Plant Mode Action

* **PHYSIOLOGICAL**

- accelerates cell multiplication
- boosting hormonal functions, thanks to the provision of macronutrients, micronutrients and oligopeptides

* **MORPHOLOGICAL**

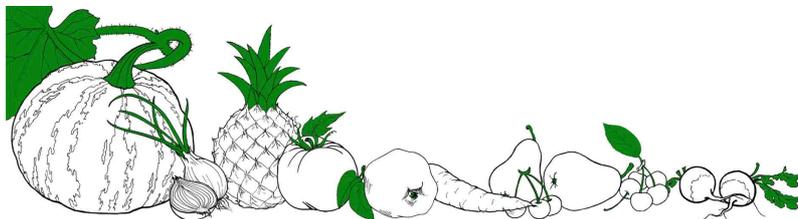
- increases cell growth
- balanced development of the plant's root and foliage systems
- balanced vegetative development

* **EFFECTS OF THE APPLICATION**

- enhances radicular development
- boosts vegetable growth
- greater caliber uniformity

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*** APPLICATION TIMING**

- Can be applied during all phenological stages of the plant cultivation from planting or sowing until fruit development.
- This can be applied to any crop. For plum trees, it is advisable to undertake a test run on each variety.

*** METHOD OF APPLICATION**

The product is formulated for foliage application through the roots, either through fertirrigation, aspersion or blanket flooding.

*** DOSAGE**

- foliage application: 300-500 cc/Hl
- fertirrigation: 6-8 lt/ha - weekly applications of 3 – 4 lt/ha
- carry out applications according to requirements

Notwithstanding the foregoing, the optimum application will vary depending on the crop practices in place for each specific case.

All root treatments may be applied.

4. COMPATIBILITY

This is a liquid formulation, meaning it is wholly compatible with fertilisers and phytosanitary elements. Should you have any doubt, it is advisable to undertake a test run to check compatibility.

Product certified for Ecological Agriculture by Sohiscert.

Kosher certified product.

The content of heavy metals (Category A) and pathogen agents is below the maximum limits set forth in EU regulations.

5. PACKING

5 lt / 20 lt / 1000 lt IBC

Warning notice: The recommendations and information provided herein are findings from studies and trials that have been deemed acceptable. However, during usage numerous factors may occur that are beyond our control (preparation of mixtures, application, climatology, formulation and content). The user will be liable for damages caused (shortfall in effectiveness, general toxicity, residues, etc..) resulting from the total or partial failure to comply with the label's instructions and the technical datasheet.

¹ Amino acids: amino acids found in the product counted both in their free and peptide form. Guidance values.

Expressed as a percentage of total amino acids.

² Asp: Asp + Asn

³ Glu: Glu + Gln