



**THEOFRASTOS**  
LIQUID ORGANIC FERTILIZERS

# **PRODUCTS AND APPLICATIONS CATALOGUE**





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THEOFRASTOS Liquid Fertilizersa

# **PRODUCTS CATALOGUE**



### ORGANIC LIQUID FERTILIZER THEOFRASTOS **THEOMIN**

COMPOSITION: NITROGEN 3% w/w, PHOSPHORUS 0% w/w, POTASSIUM 0% w/w, COPPER (Cu) 2.5% w/w, Na 0.05% w/w, ORGANIC MATTER 1.5% w/w, DIUREA 0.04% w/w C/N 0.26 pH 3.7

**THEOMIN** is an organic liquid fertilizer for plants, where in combination with pesticides results in an enhanced activity against soil-borne fungi and bacteria which infect the upper and root system of plants. It provides nitrogen to the plants, as well as copper, acting systemically into the xylem and phloem showing enhanced absorbance to this particular copper-complex molecule of **THEOMIN**. Within the cell, copper is mostly part of enzyme complexes and important in redox reactions executed by these enzymes, resulting in the enhanced production of lignin. Deficiency of copper results immediately in **decrease of** the activity of many copper biochemical reactions in cell walls, synthesis of proteins, photosynthesis, cell elongation, respiration, decrease of root and leaf growth and changes the structure of chloroplasts.

• **Foliar application** to seedlings, when they have real leaves, which are frequently infected from root rots.

**It should not be combined with calcium-based compounds.** Foliar application at 100-200cc/100L water/0.1ha. Application via irrigation systems at 1-1.5 L /0.1ha.



Supplied in **0.2L, 0.5L, 1L** and **5L**.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS **THEOSOFT**

COMPOSITION: NITROGEN 3% w/w, PHOSPHORUS 0% w/w, POTASSIUM 0% w/w, COPPER (Cu) 2.5% w/w, ORGANIC MATTER 2.5% w/w, DIUREA 0.04% w/w C/N 0.46 pH 4.5

**THEOSOFT** is an organic liquid fertilizer for plants, where in combination with pesticides results in an enhanced activity against fungi (Powdery mildew, Fusarium sp., root rots, seedling blight, etc) and bacteria. It provides nitrogen to the plants, as well as copper, acting systemically into the xylem and phloem showing enhanced absorbance to this particular copper-complex molecule of **THEOSOFT**. Within the cell, copper is mostly part of enzyme complexes and important in redox reactions executed by these enzymes, resulting in the enhanced production of lignin. Deficiency of copper results immediately in **decrease of** the activity of many copper biochemical reactions in cell walls, synthesis of proteins, photosynthesis, cell elongation, respiration, decrease of root and leaf growth and changes the structure of chloroplasts.

• **Foliar application** to seedlings, when they have real leaves. **It should not be combined with calcium-based compounds.** Foliar application at 100-200cc/100L water/0.1ha. Application via irrigation systems at 1.5-2 L/0.1 ha.



Supplied in **1L**.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS **THEOSKIN**

COMPOSITION: NITROGEN 3% w/w, PHOSPHORUS 0% w/w, POTASSIUM 0% w/w, COPPER (Cu) 5% w/w, ORGANIC MATTER 2.5% w/w, DIUREA 0.04% w/w C/N 0.44 pH 4.3

**THEOSKIN** is an organic liquid fertilizer for plants, where in combination with pesticides results in an enhanced activity against fungi (Powdery mildew, Fusarium sp., root rots, seedling blight, etc) and bacteria. It provides nitrogen to the plants, as well as copper, acting systemically into the xylem and phloem showing enhanced absorbance to this particular copper-complex molecule of **THEOSKIN**. Within the cell, copper is mostly part of enzyme complexes and important in redox reactions executed by these enzymes, resulting in the enhanced production of lignin. Deficiency of copper results immediately in **decrease of** the activity of many copper biochemical reactions in cell walls, synthesis of proteins, photosynthesis, cell elongation, respiration, decrease of root and leaf growth and changes the structure of chloroplasts.

• **Foliar application** to seedlings, when they have real leaves. **It should not be combined with calcium-based compounds.** Foliar application at 100-200cc/100L water/0.1ha. Application via irrigation systems at 1-1.5 L/0.1 ha.



Supplied in **1L**.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS **NPK + Cu THEOCOPPER**

COMPOSITION: NITROGEN 12% w/w, PHOSPHORUS 0% w/w, POTASSIUM 2.5% w/w, COPPER (Cu) 1.4% w/w, ORGANIC MATTER 3.5% w/w, DIUREA 0.18% w/w, C/N 0.28 pH 7.7 ELECTRICAL CONDUCTIVITY 115 mS/cm [Liquid extract (1‰)]

**THEOCOPPER** is an organic liquid fertilizer for plants, where in combination with pesticides results in an enhanced activity against fungi (Powdery mildew, Exoascus sp., Fusarium sp., root rots, seedling blight, etc) and bacteria. It provides nitrogen and potassium to the plants, as well as copper, acting systemically into the xylem and phloem showing enhanced absorbance to this particular copper-complex molecule of **THEOCOPPER**. Within the cell, copper is mostly part of enzyme complexes and important in redox reactions executed by these enzymes, resulting in the enhanced production of lignin. Deficiency of copper results immediately in **decrease of** the activity of many copper biochemical reactions in cell walls, synthesis of proteins, photosynthesis, cell elongation, respiration, decrease of root and leaf growth and changes the structure of chloroplasts. **THEOCOPPER** promotes uniformity in bud-breaking, when applied 15-25 days before the regular time of bud-breaking and also strengthens plants against low temperatures (at least 3°C compared to control). **It can be combined with calcium-based compounds.**

• **Foliar application** at 300-500cc/100L water/0.1ha. Application via irrigation systems at 1-2 L /0.1ha.



Supplied in **0.2L, 0.5L, 1L, 3L** and **5L**.



## ORGANIC FERTILIZER THEOFRASTOS OF Calcium **THEOCAL**

COMPOSITION: Ca 30% w/w, ORGANIC MATTER 35% w/w pH 7.1

**THEOCAL** is an organic Calcium form of fertilizer that is essential element for plants. In comparison with other macronutrients, calcium is largely bound to the cell walls and cell membranes. This unique distribution is caused by the large number of Ca<sup>++</sup> binding sites on the cell wall and the limited mobility of Calcium through the membrane into the cytoplasm. Calcium also activates some enzymes like amylase, ATPases and calmodulin, which assumed to play an important role in the transport of Ca<sup>++</sup> to vacuoles. Calcium is necessary for the cation-anion balance by counteracting organic and inorganic anions. Calcium is important in cell and root multiplication and in the development of pollen tube. A severe Calcium deficiency causes total disintegration of the cell wall membranes. Calcium stabilizes the membranes by interactions with phosphates, carboxylate groups of phospholipids and proteins present in the membranes. Therefore, the presence and supply of calcium in crops is undoubtedly very important for the resistance of plants against fungal and bacterial infections.

• **Foliar application:** **Lettuce/Salads** at 20-30gr/100L water/0.1ha, **Apple, Pear, Mandarin, Cucurbits** at 50gr/100L water/0.1ha, **Olive, Grapes, Tomato, Pepper, Eggplant** at 100gr/100L water/0.1ha. Application via irrigation systems at 0.5-1 kg /0.1ha.



Supplied in **500gr** and **5 kg**.

## PLANT GROWTH ENHANCER THEOFRASTOS LIQUID ORGANIC II **THEOFAST**

COMPOSITION: ORGANIC MATTER 4,4 w/w (Plant extracts), ELECTRICAL CONDUCTIVITY 78 mS/cm [Liquid extract (1‰)], pH 9,5 [Liquid extract (1‰)]

The liquid Organic II **THEOFAST** is an exceptional supplement for plants by enhancing and strengthening Plant Growth. The Organic II **THEOFAST** supplies the soil and the plants (recommended by foliar spray) with Potassium and organic matter instantaneously, via a slow release procedure. It has been shown that the organic complex of **THEOFAST** increases the absorption of nutrient elements from soil, which are necessary for the plants. **THEOFAST** strengthens the root system and the ability of ion-exchange. It is observed that THEOFAST provides resistance as to sunburns and UV-radiation as in shade, making the epidermis of leaves and fruits more resistant. It increases fruit-sizing (in olives, grapes etc), when it is applied after fruit setting, at the “shining” stage.

• **Foliar application** at 200cc/100L water/0.1ha. Application via irrigation systems at 1 L/0.1 ha.



Supplied in **1L** and **2L**.

## ORGANIC LIQUID FERTILIZER THEOFRASTOS OF Boron **THEOBORO**

COMPOSITION: BORON 8% w/w, Na 0.2% w/w, ORGANIC MATTER 2.9% w/w, C/N 11.2 pH 1.2

ELECTRICAL CONDUCTIVITY 82 mS/cm [Liquid extract (1‰)]

The Liquid Fertilizer **THEOBORO** supplies the plants with boron through foliar application or via root irrigation. Boron is another microelement necessary for the growth of plants and its need is the least understood. On the cell membranes, it is mainly present as a borate ester, possibly indicating the cis-diol borate complexes. The formation of these complexes might influence the activity of membrane-bound enzymes involved in the lignification of the cell wall and differentiation of the xylem. It is assumed that boron has a regulating role in the synthesis of the cell wall, as well as in the stabilization of constituents of the cell wall and cell membranes. Deficiency of boron results immediately in inhibition of the length growth of primary and secondary roots. Furthermore, boron participates in the regulation of the phenol metabolism and the synthesis of lignins by forming a stable borate ester between boric acids and phenolic acids. It is also observed to enhance fruit setting and increases the uniformity of size of the fruits.

• **Foliar application:** **Lettuce/Salads** at 20-30cc /100L water/0.1ha, **Apple, Pear, Mandarin, Cucurbits** at 50cc /100L water/0.1ha, **Olive, Grapes, Tomato, Pepper, Eggplant** at 100cc /100L water/0.1ha. Application via irrigation systems at 150-500ml /0.1ha.



Supplied in **0.25L** and **0,5L**.

## ORGANIC LIQUID FERTILIZER THEOFRASTOS **THEORUN**

COMPOSITION: NITROGEN 17% w/w, PHOSPHORUS 0% w/w, POTASSIUM 1.5% w/w, ORGANIC MATTER 3.2%

w/w, DIUREA 0.26% w/w, C/N 0.09 pH 9.1 ELECTRICAL CONDUCTIVITY 86 mS/cm [Liquid extract (1‰)]

The Liquid Fertilizer **THEORUN** supplies the plants with nitrogen, amino acids and organic matter through foliar application or/and in soil via the irrigation system. Nitrogen is the main macro-element supplied in most crops, due to its multi functional role and constituent of the proteins, chlorophyll, growth regulators (hormones), enzymes, vitamins, which are all necessary for plant growth and development. Nitrogen metabolism in plants is the main factor of foliage growth and new shoot proliferation. It has been also observed to enhance fruit setting during blooming, fruit size, reduces the electrical conductivity in soil (application via the irrigation system), increases the amounts of oils in olives when applied four weeks before harvest. Improves fruit setting, increases the size of flowers and therefore attracts honeybees. In comparison with other nitrogen fertilizers, **THEORUN does not induce apical stem elongation.**

• **Foliar application** 300-500cc/100L water/0.1ha. Application via irrigation systems at 1-2 L /0.1ha



Supplied in **0.2L, 0.5L, 1L, 3L** and **5L**.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS THEOHEALTH

COMPOSITION: NITROGEN 10% w/w, PHOSPHORUS 0% w/w, POTASSIUM 0.5% w/w, ORGANIC MATTER 2.5% w/w, DIUREA 0.13% w/w, C/N 0.13 pH 7.7

The Liquid Fertilizer **THEOHEALTH** supplies the plants with nitrogen (mainly with amino acid forms) and organic matter through foliar application. Nitrogen is the main macro-element supplied in most crops, due to its multi functional role and constituent of the proteins, chlorophyll, growth regulators (hormones), enzymes, vitamins, which are all necessary for plant growth and development. Nitrogen metabolism in plants is the main factor of foliage growth and new shoot proliferation. It is observed that **THEOHEALTH** in combination with pesticides results in an increased activity against, *Thrips sp.*, *Tetranychus sp.*, mites in grapes, *Lyriomyza sp.*, *Philocnistes citrella*, *Planococcus sp.* and *Phloeotribus sp.*

• **Foliar application** is recommended in the morning at 500-1000cc/100L water/0.1ha.



Supplied in 0.2L, 0.5L, 1L, 3L and 5L.

### PLANT GROWTH ENHANCER THEOFRASTOS LIQUID ORGANIC THEOVITA

COMPOSITION: ORGANIC MATTER 17,4 w/w (Plant extracts), ELECTRICAL CONDUCTIVITY 92 mS/cm [Liquid extract (1%)], pH 3,7 [Liquid extract (1%)]

The Liquid fertilizer **THEOVITA** supplies the soil and plants with nitrogen, Vitamins of B-Complex and organic matter through irrigation instantaneously, via a slow release procedure. Due to the B-Complex content of **THEOVITA** is used to recover plants under stress, especially during transplanting; moreover, **THEOVITA** provides a very good and healthy root system for plants. The organic complex of **THEOVITA** increases the absorption of nutrient elements and the ability of ion-exchange, which are necessary for the plants. It is also observed that **THEOVITA** provides an early 7-10 days maturation of fruits and plants produce more ethylene, when is applied through irrigation systems at 1-2 L /0.1ha. In general, small plants are developing vigorously and mature plants produce more sugars, resulting in a better appearance and colour of fruits (small fruits enlarge their size first, increase sugar content second and finally they get better colour and appearance).



Supplied in 5L.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS OF Zinc THEOZINC

COMPOSITION: ZINC (Zn) 10.5% w/w, ORGANIC MATTER 0.16% w/w, C/N 0.31 pH 3.6

ELECTRICAL CONDUCTIVITY 345 mS/cm [Liquid extract (1%)]

The Liquid Fertilizer **THEOZINC** supplies the plants with Zinc through foliar application or irrigation. The element forms easily a tetrahedral complex and zinc is in this way the metal component of a number of enzymes. The plant obtains a number of zinc containing enzymes, including alcohol dehydrogenase in the meristem zone of the plant. In Super Oxide Dismutase, Zn is complexed with Cu by means of a nitrogen atom from histidine. Zinc is very important for protein synthesis in the chloroplast and cytoplasm. Deficiency of zinc results in considerable reduction of protein synthesis, IAA synthesis, activity of RNA polymerase, disintegration of ribosomes and accumulation of protein precursors, like amino acids and amides. **It should not be combined with calcium-based compounds.**

• **Foliar application** at 100-150cc/100L water/0.1ha. Application via irrigation systems at 0.5-1 L /0.1ha.



Supplied in 0.5L and 1L.

### ORGANIC LIQUID FERTILIZER THEOFRASTOS OF Iron THEOFERO

COMPOSITION: IRON (Fe) 5% w/w, Na 0.02% w/w, ORGANIC MATTER 0.7% w/w, C/N 17.5 pH 1.4

ELECTRICAL CONDUCTIVITY 300 mS/cm [Liquid extract (1%)]

The Liquid Fertilizer **THEOFERO** supplies the soil and the plants with Iron and organic matter through foliar application or root irrigation instantaneously. In plants iron is mainly bound to chelators and complex compounds. Iron participates in many biochemical reactions of the cells, like the reversible oxidation system, iron-porphyrin complex of cytochromes, the electron transporting chain in chloroplasts and mitochondria, in the nitrogen assimilation, photorespiration, glycolysis, the dismutation of hydrogen peroxide, polymerization of phenols to lignins. Iron deficiency in the roots is manifested by morphological changes. The elongation of the roots decreases, while the diameter and amount of root hairs increase. In green leaves 80% of the iron is located in the chloroplasts. **No application during blooming period. It should not be combined with calcium-based compounds.**

• **Foliar application** at 300-500cc/100L water/0.1ha. Application via irrigation systems at 0.5-1 L /0.1ha.



Supplied in 0.2L, 0.5L, 1L and 5L.

### PLANT GROWTH ENHANCER THEOFRASTOS LIQUID ORGANIC **THEOFEND**

COMPOSITION: ORGANIC MATTER 3,6 w/w (Plant extracts), ELECTRICAL CONDUCTIVITY 27 mS/cm [Liquid extract (1%)], pH 6,6 [Liquid extract (1%)]

The liquid Organic **THEOFEND** is an organic liquid Growth Enhancer for plants. It is composed with plant organic extracts, which supplies the soil and the plants with organic matter instantaneously, via a slow release procedure. The organic-complex composition of **THEOFEND** provides an excellent absorption of macro/micro nutrients, which are essential for plants. It strengthens the root system and ion-exchange in the rhizosphere of plants. Application with **THEOFEND** induces a very rich root system, increased absorption and transfer of nutrient-ions systemically and homogenously from rhizosphere to the upper parts of the plant. Application via irrigation systems at 1.5-2L /0.1ha.



Supplied in 5L.

### PLANT GROWTH ENHANCER THEOFRASTOS **THEOMASS**

COMPOSITION: Plant extracts 5.4% w/w, ELECTRICAL CONDUCTIVITY 85 mS/cm [Liquid extract (1%)], pH 9.4 [Liquid extract (1%)]

The organic liquid fertilizer **THEOMASS** is an exceptional supplement for plants by enhancing and strengthening Plant Growth. **THEOMASS** supplies the plants and the soil with organic matter instantaneously, via a slow release procedure. It has been shown that the organic complex of **THEOMASS** increases the absorption of nutrient macro-microelements from soil, which are necessary for the plants. Increases the root surface and activates the cells of root hairs for the absorbance of nutrients. **THEOMASS** strengthens the root system of plants and the ability of ion-exchange. Application in soil induces the development of a new root system, high absorbance of macro-microelements and rapid translocation of nutrients upward to the sides of plants without apical shoot meristem elongation. It has been constantly observed during the stage of maximum yield, THEOMASS helps the plants to overcome the stress caused by the high force for maximum production. At the same time, **THEOMASS** speeds up the next activities of the plant, like the development of new inflorescences, fruit setting and growth, for the next stage of crop production. Application via irrigation systems at 1 L/0.1 ha.



Supplied in 2L.

**Follows a list of product combinations.**



## PRODUCT COMBINATIONS

COMBINATIONS	THEOCOPPER	THEOVITA (Via irrigation)	THEOFAST	THEORUN	THEOHEALTH	THEOZINC	THEOBORO	THEOFERO	THEOCAL	THEOMIN	THEOSOFT	THEOSKIN	THEOFEND (Via irrigation)	THEOMASS (Via irrigation)	Mg	P	K	Fungicides	Insecticides/ Acaricides
THEOCOPPER																		*1	*2
THEOVITA (Via irrigation)																		*4	*4
THEOFAST																		*3	*3
THEORUN																		*3	*3
THEOHEALTH																		*3	*3
THEOZINC																		*3	*3
THEOBORO																		*5	*3
THEOFERO																		*4	*4
THEOCAL																		*3	*3
THEOMIN																		*1	*3
THEOSOFT																		*1	*3
THEOSKIN																		*1	*3
THEOFEND (Via irrigation)																		*4	*4
THEOMASS (Via irrigation)																		*3	*3
Mg																		*3	*3
P																		*3	*3
K																		*3	*3
Fungicides	*1	*4	*3	*3	*3	*3	*5	*4	*3	*1	*1	*1	*4	*3	*3	*3	*3		
Insecticides/ Acaricides	*2	*4	*3	*3	*3	*3	*3	*4	*3	*3	*3	*3	*4	*3	*3	*3	*3		

\* When **THEOCOPPER** is combined with **THEORUN**, doses are reduced (from 250cc-500cc per 100 L water from each one, depending on cultivation).

\*Combinations of **THEOVITA**, **THEOMASS**, **THEOFEND** refer only application via irrigation systems.

\***1.** It is combined with the most of pesticides **EXCEPT** from Thiram, Dinocap and Fosethyl AL.

\***2.** It is combined with the most of pesticides **EXCEPT** from endosulfan.

\***3.** It is combined with the most of pesticides.

\***4. NO COMBINATION**

\***5.** It is combined with the most of pesticides **EXCEPT** from MANCOZEB.

The sign:  Indicates positive combination

# PROPERTIES OF THEOCOPPER (NPK+Cu)

Most of the amounts of copper in soil are found in forms which are not available to plants. A total of 70% of foliage copper is located into the chloroplasts. The copper is the main constituent of many enzymes such as plastocyanins, superoxide dismutase enzymes (SODs), cytochrome oxidases, ascorbic acid oxidases and phenolases. Copper deficiency results in the reduction of lignin production of plants. Enhanced deposits of lignin in plant tissues develop resistance to plant pathogens and diseases such as common blights, wilts, cankers and rots.

## APPLICATIONS OF THEOCOPPER ( NPK+Cu )

- 1) Foliar application with 300-1000cc/100L water/0.1ha, depending on cultivation (they should be diluted very well first, especially when the water is cold).
- 2) Application via irrigation systems at 1.5-2 L /0.1ha. It should be applied after irrigation for best diffusion in the soil.
- 3) APPLICATION: A) **FOR DISEASE CONTROL** together with the appropriate pesticides against *Alternaria sp.*, *powdery mildew*, *Cercospora sp.*, *Exoascus sp.*, *Spillocaea oleagina*, *Pseudomonas syringae*, *bacteria*, *Stigmina carpophila*, potato wilt, *Fusarium sp.*, *Didimela sp.* etc.  
B) **FOR DISEASE PREVENTION** and control, together with the appropriate pesticides against *Botrytis cinerea*, rusts (*Puccinia sp.*), water moulds (*Peronospora sp.*) and bacteria.
- 4) It has been observed to provide resistance to low temperatures (at least 3°C lower than the control) because it supplies the plants with the appropriate macro/micro elements, sugars and amino acids (amino acids are the structural units that make up proteins). Copper acts in the plant enzymatically and the plant build up more lignin on the cell walls. Therefore, the plants practically withstand better in lower temperatures than normal.
- 5) It has not been observed rapid growth of apical stems and it is not act antagonistically with calcium.
- 6) It has been observed to increase the weight of fruits because amino acids, nitrogen and nutrient-ions are transported systemically and homogenously from the rhizosphere to the upper parts of the plant and forming the necessary proteins required from the plant (proteins is the result of synthesis of multiple amino acids).
- 7) It has been observed increased and successful fruit-set because the amino acids move to the side-parts of the plant to the fruits by thickening the petioles of the fruits.
- 8) It has sticky properties due to the high liquid density of the product, high molecular weight and increased amounts of sugars.
- 9) **Ability to be applied in combination with calcium-based products**
  - A) For breaking the dormancy of buds, resulting in the homogenous sprout and development of buds in trees and vines (especially in Thomson grapes). **THEOCOPPER** is applied before during bud swelling.
  - B) Prevent and stop crown gall infections in grapes.
  - C) Prevent and stop the "dry apical shoot" symptoms in tomatoes (Calcium deficiency).
  - D) Prolonged stay of fruits on the trees (oranges, mandarins, apricots, peaches, olives, grapes etc.)
- 10) Application of **THEOCOPPER** provides elasticity of epidermis and increases the size of grapes (Thomson).
- 11) Application of **THEOCOPPER** via the irrigation system reduces the electrical conductivity of the soil resulting in better absorption of nutrient-ions from the root system of plants.
- 12) Application of **THEOCOPPER** increases photosynthesis.
- 13) **NO COMBINATION with:** Thiram, Aliette, Karathane, Endosulfan powder, mixtures of trace elements, sulfur sulfuric complexes and wettable sulfur.
- 14) **NO APPLICATION** by spraying in pears (variety of kontula) and hybrids of peaches during fruit period, lettuce, seedlings and roses in the greenhouse.
- 15) It has been observed that when **THEOCOPPER** is combined with other pesticides for powdery mildew, *Exoascus sp.*, *Fusarium sp.*, bacteria and shoot moulds, the pesticides perform better action and results.

## PROPERTIES OF THEOMIN

**THEOMIN** is a systemic copper supplement, completely different from **THEOCOPPER**, having a very good translocation from the upper part of the plant downward to the root system, for spraying application and upward translocation when it is applied via irrigation systems.

**Induce root hairs** for most of the plants when **THEOMIN** is applied through the irrigation system at 0.5-2 L /0.1ha for crops cultivated in soil and 250-500cc /0.1ha when it is applied in open hydroponic system.

**It is applied in all seedlings having real leaves** by foliar spraying at 200cc/100L water, every 7-10 days, for the control of bacteria and shoot moulds (together with the appropriate pesticides). It is recommended application of **THEOMIN** before transplanting with 200cc/100L water by spraying or through the irrigation system.

**It is applied routinely to the foliage plants** (lettuce, salads, etc) and it is combined effectively with: Signum, Systhane, Topas, Polyram, Antracol, Mancozeb, Switch, Rovral, Neotopsin, pyrethrins, nicotines, Abamectin, Calypso, Profil, Runner, Vendex, etc.

**Avoid triple and multiple combinations with pesticides for seedlings.**

No combination with: Stroby, Thiram, Dinocap, phosphonics, sulfur sulfuric complexes, Calcium and copper-based products.

**THEOMIN** can also help infections caused by nematodes (especially in cucumber) with application at 200cc/100L water /0.1ha through the irrigation system, every 15 days, preventing losses until 1/5 of the total production. In combination with the appropriate pesticides **THEOMIN** controls the root lesions caused by nematodes, which make the roots susceptible to secondary infections. In addition, **THEOMIN** promotes the development of new roots.

For control of **adromycosis and bacteria** 1cc/plant **THEOMIN** is combined with 200-300gr Aliette/0.1ha, when plants are over 30 cm in height.

• **Foliar application in tomato, pepper and eggplant** with 200cc **THEOMIN**/100L water/0.1ha and 200gr Aliette/100L water/0.1ha. In hydroponic cultivation of **tomato, pepper and eggplant** it is applied 500cc/0.1ha **THEOMIN** with 200gr Aliette/0.1ha. In hydroponic cultivation of **cucumber** it is applied 250cc/0.1ha **THEOMIN** with 100gr Aliette/0.1ha.

## PROPERTIES OF THEOHEALTH

**THEOHEALTH** is a nitrogen-based liquid fertilizer composed **with amino acids and sugars. In combination with the appropriate insecticides and acaricides enhances their action** in infections caused by sucking/chewing insects, acari, Tetranychus sp., as well as insects like Thrips sp., Lyriomyza sp., Planococcus sp., etc. Foliar application with 0.5-1L/ 100L water/0.1ha depending on cultivation.

**THEOHEALTH promotes the formation of better epidermis** of leaves and fruits resulting in resistance from insect infections and fungal diseases (eg Fusicladium sp.). Foliar application of 0.5-1L/ 100L water/0.1ha **THEOHEALTH**, with 50gr/100 L water/0.1ha **THEOCAL** and 50cc/ 100L water/0.1ha **THEOBORO** is recommended for pear and apple trees, at the stage of flower-petals fall.

**THEOHEALTH promotes fruit-setting and increases the size of fruits** faster than **THEORUN**.

**THEOHEALTH is combined** with all insecticides and pesticides, which are combined with amino acid products. It can be also combined with very good results, with **THEOCOPPER, THEOCAL, THEOFAST, THEOBORO\***, Mancozeb\*, Rovral, Switch, Antracol, Signum, Systhane, Topas, Equation-pro, Neotopsin, etc.

**THEOHEALTH is NOT combined** with, phosphonics, sulfur sulfuric complexes, copper-based products (except **THEOCOPPER**), Stroby, Thiram, Dinocap, Aliette etc.

Examples:

A. 1) <b>THEOHEALTH</b> 500cc/100 L water/0.1ha 2) <b>THEOCAL</b> 50-100gr/100 L water/0.1ha 3) Antracol or Mancozeb etc 4) Abamectin	Γ. 1) <b>THEOHEALTH</b> 500cc/100 L water/0.1ha 2) <b>THEOCAL</b> 50-100gr/100 L water/0.1ha 3) Rovral or Switch etc 4) Vendex or Abamectin
B. 1) <b>THEOHEALTH</b> 500cc/100 L water/0.1ha 2) <b>THEOCAL</b> 50-100gr/100 L water/0.1ha 3) Profil	Δ. 1) <b>THEOHEALTH</b> 500cc/100 L water/0.1ha 2) <b>THEOCAL</b> 50-100gr/100 L water/0.1ha 3) Laser 4) <b>THEOBORO</b> 50cc/100 L water/0.1ha

**\*NO COMBINATION between Mancozeb and THEOBORO**

# APPLICATION OF LIQUID FERTILIZERS THEOFRASTOS ON SEEDLINGS - VEGETABLE CROPS - POTATO - VINE - CLOVER

## A) SEEDLINGS

- 1) At the stage, when seedlings developed the first well-formed real leaves. Foliar application with THEOMIN at 200cc / 100L water.
- 2) Next foliar application with THEOSOFT at 200cc / 100L water, 6-7 days later.
- 3) To control the growth of seedlings (in order to avoid the development of long and thin shoots), foliar application with THEORUN at 200cc / 100L water, with THEOCAL at 20gr / 100L water and 200gr / 100L water of a soluble crystal fertilizer [type (3-18-40) or (9-15-27)].

## B) VEGETABLE CROPS - SOIL CULTIVATION (Tomato, Pepper, Cucumber, Eggplant, Zucchini, Melon & Watermelon)

- 1) Application via irrigation with THEOCOPPER at 1cc / per plant every 20 days or earlier in case there is infection by powdery mildew, bacteria, Adromycosis sp., etc. It is recommended the addition of THEOCAL at 1gr / per plant.
- 2) Foliar application with THEOCOPPER at 500cc / 100L water / 0.1 ha, with THEOCAL at 50-100gr / 100L water / 0.1 ha, when there is infection from fungi or bacteria.
- 3) Foliar application every 7-10 days with THEOBORO at 50-100cc / 100L water / 0.1 ha, with THEOCAL at 50-100gr / 100L water / 0.1 ha

**\*The liquid fertilizers THEOCOPPER, THEOCAL and THEOBORO can be combined together**

**\*Doses should be reduced in case the volume of the application solutions is lower or more than 100L water per 0.1 ha.**

- 4) Application via irrigation with THEORUN at 200-300cc / 0.1 ha, together with the appropriate amounts of a soluble crystal fertilizer type (3-18-40) or (9-15-27), for the development of short internodes, increase flower setting and increase the size of fruits.
- 5) When there is need for early maturity of the fruits, application through irrigation with THEOVITA at 1-2L / 0.1ha, for improving the colour and taste of fruits and also increase the size and the amounts of sugars of fruits.

**\*No application of THEOVITA to crops with the variety of Pepper bells.**

- 6) When there are problems of electrical conductivity in soil, application through irrigation with THEORUN at 1-2L / 0.1ha, for developing short internodes, increase fruit setting and increase the size of fruits.

**\*No application of THEOCOPPER for foliar application in Lettuce.**

- 7) When there are infections by Botrytis cinerea, foliar application with THEOCOPPER at 500cc/100L water / 0.1ha, together with THEOCAL at 100gr/100L water / 0.1ha and the appropriate fungicide such as Rovral (BASF) or Switch (Bayer).
- 8) When there are infections by *Tetranychus sp.*, *acari*, *Thrips sp.* or *Lyriomyza sp.*, foliar application with THEOHEALTH at 1L / 100L water / 0.1ha, together with THEOCAL at 100gr/100L water / 0.1ha and the appropriate insecticide or acaricide

## C) VEGETABLE CROPS - CULTIVATION IN OPEN TYPE HYDROPONICS

Application during irrigation with **ONLY ONE** of the following 3 applications (without the addition of fertilizers used in hydroponics):

- 1) THEOCOPPER 500cc/ha & THEOCAL 200gr/ha
- or 2) THEOMIN 500cc/ 0.1 ha
- or 3) THEORUN 500cc/ 0.1 ha & THEOCAL 200gr/ha

## D) FOLIAR APPLICATION FOR TOMATO -PEPPER-EGGPLANT EVERY 7-10 DAYS

- 1) THEOCOPPER 600cc/100 L water/0.1ha
- 2) THEOHEALTH 500cc/100 L water/0.1ha
- 3) THEOFAST 200cc/100 L water/0.1ha
- 4) THEOBORO 100cc/100 L water/0.1ha
- 5) THEOCAL 100gr/100 L water/0.1ha

## E) FOLIAR APPLICATION FOR CUCUMBER-MELON-WATERMELON EVERY 7 -10 DAYS

- 1) THEOCOPPER 500cc/100 L water/0.1ha
  - 2) THEOFAST 200cc/100 L water/0.1ha
  - 3) THEOBORO 50cc/100 L water/0.1ha
  - 4) THEOCAL 50gr/100 L water/0.1ha
- or
- 1) THEOHEALTH 500cc/100 L water/0.1ha
  - 2) THEOFAST 200cc/100 L water/0.1ha
  - 3) THEOBORO 50cc/100 L water/0.1ha
  - 4) THEOCAL 50gr/100 L water/0.1ha

## F) POTATO

Foliar application once or twice, when plants reach 20-30 cm in height, with THEOCOPPER at 500cc/100L water / 0.1ha, together with THEOCAL at 50-100gr/ 100L water / 0.1ha. Potato plants become healthier and resistant to bacterial infections.

## H) CLOVER

A very good irrigation is applied after the harvesting of clover and 7-10 days later, foliar application with THEORUN 200cc/100L water (it has been observed that the growth of plants increased faster for 5 days).

## I) GRAPES, CRIMSON

- 1) At the stage before blooming, foliar application with THEORUN 800cc/100L water / 0.1ha, THEOFAST 500cc/100L water/0.1ha, THEOBORO 100cc/100L water / 0.1ha and THEOZINC 100cc/100L water / 0.1ha. It increases the size of berries and the vines prepared for homogenous blooming.
- 2) At the stage where the berries completed the setting, foliar application with THEORUN 800cc/100L water / 0.1ha, THEOFAST 500cc/100L water/0.1ha, THEOCAL 100gr/100L water / 0.1ha and 200gr/100L water / 0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27). It increases the size of berries and grapes.
- 3) At the stage of shining of berries foliar application with THEOFAST 200cc/100L water / 0.1ha and THEOCAL 100gr/100L water / 0.1ha (1-2 applications increase the size of berries, aroma and better colour).

J) It has been observed that when THEOCOPPER is combined with other pesticides for powdery mildew, *Exoascus sp.*, *Fusarium sp.*, bacteria and shoot moulds, the pesticides perform better action and results.



# LIQUID FERTILIZERS OF THEOFRASTOS

## COMBINATION OF PRODUCTS

### 1. In chlorotic or stressed plants, foliar application with:

- |  |           |   |
|--|-----------|---|
| I. 1. <b>THEOHEALTH</b> 500cc/100 L water / 0.1ha<br>2. <b>THEORUN</b> 200cc/100 L water / 0.1ha<br>3. <b>THEOFAST</b> 200cc/100 L water / 0.1ha | <b>or</b> | II. 1. <b>THEORUN</b> 400-500cc/100 L water / 0.1ha<br>2. <b>THEOFAST</b> 200cc/100 L water / 0.1ha |
|--|-----------|---|

### 2. For increasing the size of fruits (vegetable crops) or when the cultivations are delayed due to the low temperatures, application through the irrigation system with:

- |                                 |           |   |
|---------------------------------|-----------|---|
| I. <b>THEORUN</b> 2cc/per plant | <b>or</b> | II. 1. <b>THEORUN</b> 1cc/per plant<br>2. <b>THEOVITA</b> 1cc/per plant |
|---------------------------------|-----------|---|

### 3. When there is infection by crown gall in vines, fruit fall in citrus trees, the “dry apical shoot” symptoms in tomato and problems with calcium deficiency, then it is recommended foliar application with:

- |  |           |  |
|--|-----------|--|
| I. 1. <b>THEOCOPPER</b> 500cc/100 L water / 0.1ha<br>2. <b>THEOFAST</b> 200cc/100 L water / 0.1ha<br>3. <b>THEOCAL</b> 100cc/100 L water / 0.1ha | <b>or</b> | (when there are no infections and diseases from fungi and bacteria, which are causing calcium deficiency)<br>II. 1. <b>THEOFAST</b> 200cc/100 L water / 0.1ha<br>2. <b>THEOCAL</b> 100cc/100 L water / 0.1ha |
|--|-----------|--|

4. When there is infection inside the phloem of the stems in tomato, zucchini, etc, foliar application and application in soil through the irrigation system at the same day with **THEOCOPPER**. If there is intensive sunshine, the foliar application is made according to 3.i.

5. When there are virus infections and the cultivation is profitable at this stage (high prices of the yield), it is recommended the following applications every 5-6 days.

## FOLIAR APPLICATIONS

- |   |           |  |           |   |
|---|-----------|--|-----------|---|
| I.a. 1. <b>THEORUN</b> 500cc/100 L water / 0.1ha<br>2. <b>THEOFAST</b> 200cc/100 L water / 0.1ha<br>3. <b>THEOCAL</b> 50-100gr/100 L water / 0.1ha<br>4. <b>THEOBORO</b> 50-100cc/100 L water / 0.1ha | <b>or</b> | I.b. 1. <b>THEOHEALTH</b> 500cc/100 L water / 0.1ha<br>2. <b>THEOFAST</b> 200cc/100 L water / 0.1ha<br>3. <b>THEOCAL</b> 50-100gr/100 L water / 0.1ha<br>4. <b>THEOBORO</b> 50-100cc/100 L water / 0.1ha | <b>or</b> | II. 1. <b>THEOCOPPER</b> 500cc/100 L water / 0.1ha<br>2. <b>THEOFAST</b> 200cc/100 L water / 0.1ha<br>3. <b>THEOCAL</b> 50-100cc/100 L water / 0.1ha<br>4. <b>THEOBORO</b> 50-100cc/100 L water / 0.1ha |
|---|-----------|--|-----------|---|

## APPLICATIONS IN SOIL THROUGH THE IRRIGATION SYSTEM

- |                                       |           |   |           |   |           |                                  |
|---------------------------------------|-----------|---|-----------|---|-----------|----------------------------------|
| I. <b>THEORUN</b> 2cc/per plant plant | <b>or</b> | II. 1. <b>THEORUN</b> 1cc/per plant<br>2. <b>THEOVITA</b> 1cc/per plant | <b>or</b> | III. 1. <b>THEOCOPPER</b> 2cc/per plant<br>2. <b>THEOVITA</b> 1cc/per plant | <b>or</b> | IV. 1. <b>THEOCOPPER</b> 1cc/per |
|---------------------------------------|-----------|---|-----------|---|-----------|----------------------------------|

\*Depending on the extension of infection, it is possible to apply both: foliar application and application in soil through the irrigation system at the same time. Doses of **THEOCOPPER** and **THEORUN** for foliar applications could be higher, for crops like tomato, olives and grapes. In addition, doses of **THEOCOPPER** in soil and application through the irrigation system should not exceed 2-2.5L per 0.1 hectare, in cases crops include more than 2500 plants per 0.1 hectare. It has been observed that when **THEOCOPPER** is combined with other pesticides for powdery mildew, **Exoascus sp.**, **Fusarium sp.**, bacteria and shoot moulds, the pesticides perform better action and results.

THEOFRASTOS Liquid Fertilizersa

# **APPLICATIONS CATALOGUE**



# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN PISTACHIO



- 1) **At the stage after harvesting** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha, **THEOCAL** at 100gr/100 L water/0.1ha and **THEOBORO** at 50cc/100 L water/0.1ha.
  - 2) **At the stage of bud swelling**, (15 days before the green shoot tip), foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha.
  - 3) **2-3 days before the appearance of female inflorescences**, foliar application with **THEOCAL** at 100gr/100 L water/0.1ha and **THEOBORO** at 70cc/100 L water/0.1ha.
  - 4) **At the stage of full blooming**, foliar application with **THEOCAL** at 100gr/100 L water/0.1ha and **THEOBORO** at 70cc/100 L water/0.1ha.
  - 5) **At the stage, right after the fruit setting** and before the formation of the bigger fruit (before fall), foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha, **THEOCAL** at 100gr/100 L water/0.1ha and **THEOBORO** at 70cc/100 L water/0.1ha, together with the appropriate pesticides.
  - 6) **At the stage of 1/3 of the fruit growth**, foliar application (for the enlargement of fruits) with **THEORUN** at 500-700cc/100 L water/0.1ha, **THEOCAL** at 50gr/100 L water/0.1ha and **THEOBORO** at 50cc/100 L water/0.1ha.
  - 6a) **In case at this stage of 1/3 of the fruit growth** there is infection from *Psylla* sp., foliar application with **THEOHEALTH** at 1L/100 L water/0.1ha, **THEOCAL** at 50gr/100 L water/0.1ha, **THEOBORO** at 50cc/100 L water/0.1ha and the appropriate insecticide for *Psylla* sp.
    - \* *Spraying should be applied in the morning with the appearance of first insects and repetition after one week.*
    - \* *The application of (6a) is repeated in case there is infection by *Psylla* sp. during the maturation stage.*
  - 7) **At the stage before the hardness of pericarpium** (full size of fruits), foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha, **THEOCAL** at 100gr/100 L water/0.1ha and **THEOBORO** at 50cc/100 L water/0.1ha, together with the appropriate insecticide for *Eurytoma plotnikovi*.
  - 8) 20 days later (development of endocarpium) and until harvesting, foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100 L water/0.1ha.
- \*\* *The above applications are supplemented with THEOFAST με 200cc/100 L water/0.1ha during the heat periods.*

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN STRAWBERRY



- 1) The rooted cuttings of strawberry are soaked in a solution of **THEOMIN** at 300cc/100L water for 5-10 minutes. It acts as disinfectant and also promotes the induction of new root hairs.
- 2) 15 days later, a foliar application with **THEOMIN** at 200cc/100L water is resulting to prevent the development of shoot wilt of strawberry plants.
- 3) 15 days later, a foliar application with:
  - (a) **THEOCOPPER** 500cc/100 L water
  - (b) **THEOCAL** 50-100gr/100 L water
  - (c) **THEOBORO** 50cc/100 L water
  - (d) **THEOFAST** 200cc/100 L water

This application improves the epidermis of strawberries, enlarge the strawberries, which form a very good shape and it has been also observed resistance of plants against powdery mildew and bacteria.

- 4) Application of **THEORUN** 200-300cc/0.1ha together with soluble crystal fertilizers through the irrigation system. This application promotes the fast absorbance of nutrients from the rhizosphere and translocation of them homogenously towards to the side-parts of the plants, resulting to the enlargement of fruits.
- 5) For increasing the size of fruits with very good colour, foliar application with:
  - (a) **THEORUN** 500cc/100 L water
  - (b) **THEOCAL** 50-100gr/100 L water
  - (c) **THEOBORO** 50cc/100 L water
  - (d) **THEOFAST** 200cc/100 L water
- 6) When there is infection from *Tetranychus* sp., foliar application with **THEOHEALTH** 1000cc/100L water and **THEOCAL** 100gr/100L water, together with the appropriate acaricide.
- 7) When there is infection from *Botrytis cinerea*, foliar application with **THEOCOPPER** 500cc/100L water and **THEOCAL** 100gr/100 L water, together with the appropriate fungicide.

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN APRICOTS



1) **At the stage after harvesting** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds in Spring.

1a) Foliar application with **THEOBORO** 100cc/100 L water/0.1ha and **THEOZINC** 100cc/100 L water/0.1ha, for increasing the amounts of boron and zinc in the tissues of trees, because it is important for the homogenous induction of buds in Spring.

2) **When birds appear on the trees** (October-November), which destroy the buds, foliar application with the appropriate pesticide against *Anthonomus sp.* Application every month from November until February.

3) **At the stage before bud breaking**, foliar application with zinc sulfate ( $ZnSO_4$ ) at 3-4Kg/100 L water/0.1ha, (if there is not frost in the area) because acts as disinfectant and additionally increases the amounts of zinc in the tissues of trees.

4) **At the stage of bud swelling**, foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds.

5) **At the stage of red shoot tip until the petals fall** foliar applications against *Monilinia sp.* every 7-10 days (total 3 applications).

6) **At the stage of 30% blooming**, foliar application with **THEORUN** 300cc/100L water/0.1ha, **THEOBORO** 50cc/100 L water/0.1ha and **THEOZINC** 50cc/100 L water/0.1ha, (Resistance to frost at 2oC lower than the control, better fertilization, increase the size of flowers and therefore more honeybee attraction).

7) **At the stage of petals fall** foliar applications with **THEOHEALTH** at 500-1000cc/100L water/0.1ha, **THEOBORO** 50cc/100 L water/0.1ha and **THEOCAL** 50gr/100 L water/0.1ha, (Resistance to frost at 2oC lower than the control, better fertilization, increase the size of flowers and therefore more honeybee attraction).

8) **7-10 days later, application of treatment 7.**

9) **Foliar application for the enlargement of fruits** with **THEOFAST** 200cc/100 L water/0.1ha, **THEORUN** at 500-1000cc/100L water/0.1ha, **THEOBORO** 100cc/100 L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha.

\*When it is observed infection from acari or insects (*Tetranychus sp.* – *Thrips sp.*), it is recommended to replace **THEORUN** with the **THEOHEALTH** at 1000cc/100 L water/0.1ha together with the appropriate pesticides.

10) **At the stage before the apricot fruits start colouring**, foliar application with **THEOCOPPER** 300cc/100 L water/0.1ha, **THEOCAL** 100gr/100 L water/0.1ha, **THEOFAST** 200cc/100 L water/0.1ha and **THEOBORO** 100cc/100 L water/0.1ha.

11) **At the beginning of the colour appearance of fruits**, foliar application with **THEORUN** 500cc/100 L water/0.1ha, **THEOCAL** 100gr/100 L water/0.1ha, **THEOFAST** 200cc/100 L water/0.1ha, **THEOBORO** 100cc/100 L water/0.1ha and 300gr/0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27).

12) **For early maturity of the yield**, application in soil through the irrigation system with **THEOVITA** 2L/0.1ha, 20 days before the expected harvesting.



# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN SEEDLESS THOMPSON GRAPES



- 1) **At the stage after harvesting** and before the leaves from the vines fall, foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha.
  - a) Control of fungi and bacteria which stay during the winter on stems with the addition of the appropriate fungicides & insecticides.
  - b) This application sets up the plants for the next cultivation period.
- 2) **At the stage of 20 days before bud breaking**, foliar application with **THEOCOPPER** 1L / 100L water/0.1ha and **THEOCAL** 100gr/100L water/0.1ha.
  - a) This application terminates the dormancy of the buds and provides uniformity of bud-breaking.
  - b) This application is also very critical in order to succeed uniformity in grape proliferation at the same time. Afterwards, all of the following applications, especially with auxins (GA3) will be applied at the same time in order to give the appropriate results.

3) **At the stage when shoots become 5cm long**, foliar application with FOSETYL-AL against *Phomopsis sp.*

4) **At the stage when shoots become 20cm long**, foliar application with 100gr/100L water/0.1ha **THEOCAL** and 300gr/100L water / 0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27), supplemented with the appropriate fungicides against Powdery mildew and *Peronospora sp.*

**\*In case there is Iron Deficiency, foliar application or via irrigation with ONLY THEOFERO.**

5) **At the stage when the grapes are 15-18cm long** (3 days before blooming) for the elongation of berries, foliar application with **THEORUN** 800cc/100 L water/0.1ha, **THEOBORO** 100cc/100 L water/0.1ha and **THEOZINC** 100cc/100 L water/0.1ha.

- a) When the weather is cold, spraying with the above application supplemented with 3% GA3 (gibberellic acid-3).
- b) When the weather is hot **none** application with GA3 is necessary.
- c) When there is an infection with Powdery mildew, replacement of THEORUN of the above application with **THEOCOPPER** at 1L/100 L water/0.1ha.

6) **At the stage of blooming at 80-100%:**

- a) For berry thinning, foliar application with **THEORUN** 800cc/100 L water/0.1ha, **THEOBORO** 100cc/100 L water/0.1ha, **THEOZINC** 100cc/100 L water/0.1ha and 4% GA3. In case there is infection with Powdery mildew, *Botrytis cinerea* or *Peronospora sp.*, the appropriate fungicides should be added.
- b) **In case blooming is not homogeneous, 2 foliar applications with 3% GA3 should be applied, the first at 25-30% of blooming and the second at 80% of blooming.**

7) **Berry thinning** is applied within 5-8 days. Then, foliar applications will start in order to increase the size of berries.

**1<sup>st</sup> Sizing:**

Foliar application with **THEORUN** 1L/100 L water/0.1ha, **THEOCAL** 100gr/100 L water /0.1ha and 5% GA3

- a) Additional supplement with a pesticide against *Lobesia botrana* or Powdery mildew.
- b) 2-3 days after the 1st Sizing, an additional foliar application with **THEOHEALTH** 500cc/100 L water/0.1ha and the appropriate pesticides against *Thrips sp.*, *Planococcus sp.*, *Tetranychus sp.* or acari should be applied **in the morning**.

**2<sup>nd</sup> Sizing:**

Foliar application 5-7 days later with **THEORUN** 800cc/100 L water/0.1ha, **THEOFAST** 500cc/100L water/0.1ha, **THEOCAL** 100gr/100 L water/0.1ha, 5-6% GA3 and 500gr/0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27).

- a) Additional supplement with a pesticide against *Lobesia botrana* or Powdery mildew.
- b) 2-3 days after the 2nd Sizing, an additional foliar application with THEOHEALTH 500cc/100 L water/0.1ha and the appropriate pesticides against *Thrips sp.*, *Planococcus sp.*, *Tetranychus sp.* or acari should be applied **in the morning**.

**3<sup>rd</sup> Sizing:**

Foliar application 5-7 days later with **THEORUN** 800cc/100 L water/0.1ha, THEOCAL 100gr/100 L water/0.1ha, 5-6% GA3 and 500gr/100 L water /0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27).

- a) Additional supplement with a pesticide against *Lobesia botrana* or Powdery mildew.

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN SEEDLESS THOMPSON GRAPES

b) 4-5 days after the 3rd Sizing, an additional foliar application with **THEOHEALTH** 500cc/100 L water/0.1ha supplemented with specific pesticides against *Thrips sp.*, *Planococcus sp.*, *Tetranychus sp.* or acari should be applied **in the morning**.

**THEORUN and THEOCOPPER provide elasticity to the epidermis of berries of the grapes, resulting in better absorption of GA3 and fertilizers with considerable increase of the size of berries.**

8) When stem necrosis occurs, foliar application with THEOFAST 200cc/100 L water/0.1ha, **THEOCOPPER** 800cc/100 L water/0.1ha and THEOCAL 100gr/100 L water/0.1ha.

9) **When there is berry splitting or cracking**, foliar application with **THEOFAST** 200cc/100 L water/0.1ha, **at the stage of shining**, for improving the skin of the berries and also increase the size of berries.

10) When there is a problem of dropping the leaves, especially in rootstocks P110 and 1103, foliar application with **THEOCOPPER** 800cc/100 L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha.

11) When there is need for early maturity, application through irrigation with **THEOVITA** at 2L/ 100L water/0.1ha, 15-20 days before the expected maturity of the grapes.

**All foliar applications (especially after the shining stage) must be applied in the morning with low spraying pressure. Foliar applications should be not double-pass through vines.**

**When the temperatures are very high, the application dosages should be reduced.**

**When it is not possible to apply the foliar spraying with THEOHEALTH between 1st, 2nd and 3rd Sizing stages, due to bad weather conditions or shortage of time, the foliar applications 6) and 7) should be replaced with 6A) and 7A):**

6A) **At the stage of blooming at 80-100%:**

a) For berry thinning, foliar application with **THEORUN** 550cc/100 L water/0.1ha, **THEOBORO** 100cc/100 L water/0.1ha, **THEOZINC** 100cc/100 L water/0.1ha, **THEOHEALTH** 500cc/100 L water/0.1ha and 4% GA3. In case there is infection with Powdery mildew, Botrytis cinerea or Peronospora sp., the appropriate fungicides should be added.

b) **In case blooming is not homogeneous, 2 foliar applications with 3% GA3 should be applied, the first at 25-30% of blooming and the second at 80% of blooming**

7A) **Berry thinning** is applied within 5-8 days. Then, foliar applications will start in order to increase the size of berries.

**1<sup>st</sup> Sizing:**

Foliar application with **THEORUN** 750cc/100 L water/0.1ha, **THEOCAL** 100gr/100 L water /0.1ha, **THEOHEALTH** 500cc/100 L water/0.1ha and 5% GA3. Additional supplement with a pesticide against *Lobesia botrana* or Powdery mildew.

**2<sup>nd</sup> Sizing:**

Foliar application 5-7 days later with **THEORUN** 550cc/100 L water/0.1ha, **THEOFAST** 500cc/100L water/0.1ha, **THEOCAL** 100gr/100 L water/0.1ha, **THEOHEALTH** 500cc/100 L water/0.1ha, 5-6% GA3 and 500gr/0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27). Additional supplement with a pesticide against *Lobesia botrana* or/and Powdery mildew.

**3<sup>rd</sup> Sizing:**

Foliar application 5-7 days later with **THEORUN** 550cc/100 L water/0.1ha, **THEOCAL** 100gr/100 L water/0.1ha, **THEOHEALTH** 500cc/100 L water/0.1ha, 5-6% GA3 and 500gr/100 L water /0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27). Additional supplement with a pesticide against *Lobesia botrana* or/and Powdery mildew.

12) When during the sizing stage the vines are severely infected by Powdery mildew the foliar applications of (7) should be replaced to:

**1<sup>st</sup> Sizing:**

Foliar application with **THEOCOPPER** 1L /100 L water/0.1ha, **THEOCAL** 100gr/100 L water /0.1ha, urea (46-0-0) at 100 gr/0.1ha and 5-6% GA3. Additional supplement with pesticides against *Lobesia botrana* & Powdery mildew should be added.

**2<sup>nd</sup> Sizing:**

Foliar application with **THEOCOPPER** 800cc/100 L water/0.1ha, **THEOCAL** 100gr/100 L water /0.1ha, **THEOFAST** 500cc/100L water/0.1ha, 5-6% GA3 and 500gr/100 L water/0.1ha of soluble crystal fertilizer type (3-18-40) or (9-15-27). Additional supplement with pesticides against *Lobesia botrana* and Powdery mildew should be added.

**3<sup>rd</sup> Sizing:**

The same with the 2nd sizing, without the addition of **THEOFAST**.

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS OLIVE TREES FOR EDIBLE OLIVES



1) **At the stage after harvesting and pruning the trees** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha, **THEOZINC** at 100cc/100L water/0.1ha and **THEOBORO** at 100cc/100L water/0.1ha

- a) After harvesting and pruning, this foliar spraying strengthens the trees and become vigorous.
- b) This application sets up the buds to become productive for the next cultivation period.

\* *In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with THEOCOPPER at 1L/100L water/0.1ha together with the appropriate pesticides (copper oxychloride, Bordeaux mixture, etc).*

2) **When there is an infection from *Phloeotribus scarabaeoides* or *coccoids*** foliar application with **THEOHEALTH** at 500-1000cc/100L water/0.1ha, twice every 7 days, with the addition of the appropriate insecticides.

3) **At the stage just before blooming** it is applied:

- A) Foliar application with **THEORUN** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha.
- B) In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with **THEOCOPPER** at 1L/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, supplemented with the appropriate pesticides.
- C) In case the trees are infected from *Phloeotribus scarabaeoides* or *coccoids*, foliar application with **THEOHEALTH** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, together with the appropriate insecticide and the application should be repeated 7 days later.
- D) When at the same time there is infection by canker (*Pseudomonas syringae*), *Spilocaea oleagina* and *Phloeotribus scarabaeoides* or *coccoids*, foliar application with **THEOCOPPER** at 750cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha, **THEOHEALTH** at 500cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, supplemented with the appropriate pesticides.
- E) Together with all of the above products, it could be added the appropriate insecticide for *Euphyllura olivine* and the generation of *Prays oleae* during blooming.

4) **At the stage where the petals of the blooms fall:**

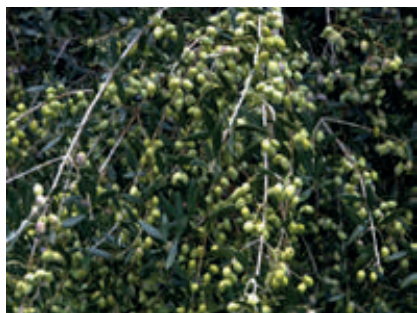
- A) Foliar application with **THEORUN** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and with **THEOCAL** at 100gr/100L water/0.1ha.
- B) In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with **THEOCOPPER** at 1L/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate pesticides.
- C) In case the trees are infected from *Phloeotribus scarabaeoides* or *coccoids*, foliar application with **THEOHEALTH** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate insecticide.
- D) When at the same time there is infection by canker (*Pseudomonas syringae*), *Spilocaea oleagina* and *Phloeotribus scarabaeoides* or *coccoids*, foliar application with **THEOCOPPER** at 750cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha, **THEOHEALTH** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate pesticides.

5) **One month later application of treatment 4.**

6) **One month before harvesting** foliar application with **THEORUN** 500-1000cc/100L water/0.1ha, **THEOFAST** 200-500cc/100L water/0.1ha, **THEOBORO** 100cc/100L water/0.1ha, **THEOCAL** 100gr/100L water/0.1ha and 500gr/100 L water/0.1ha of soluble crystal fertilizer type (3-18-40) or (9-15-27).

7) **15 days later application of treatment 6.**

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS OLIVE TREES FOR THE PRODUCTION OF OLIVE OIL



- 1) **At the stage after harvesting and pruning the trees** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha, **THEOZINC** at 100cc/100L water/0.1ha and **THEOBORO** at 100cc/100L water/0.1ha
- a) After harvesting and pruning, this foliar spraying strengthens the trees and become vigorous.
  - b) This application sets up the buds to become productive for the next cultivation period.
- \* In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with **THEOCOPPER** at 1L/100L water/0.1ha together with the appropriate pesticides (copper oxychloride, Bordeaux mixture, etc).

- 2) **When there is an infection from *Phloeotribus scarabaeoides* or coccoids** foliar application with **THEOHEALTH** at 500-1000cc/100L water/0.1ha, twice every 7 days, with the addition of the appropriate insecticides.
- 3) **At the stage just before blooming it is applied:**
- A) Foliar application with **THEORUN** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha.
  - B) In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with **THEOCOPPER** at 1L/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, supplemented with the appropriate pesticides.
  - C) In case the trees are infected from *Phloeotribus scarabaeoides* or coccoids, foliar application with **THEOHEALTH** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, supplemented with the appropriate insecticide and the application should be repeated 7 days later.
  - D) When at the same time there is infection by canker (*Pseudomonas syringae*), *Spilocaea oleagina* and *Phloeotribus scarabaeoides* or coccoids, foliar application with **THEOCOPPER** at 750cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha, **THEOHEALTH** at 500cc/100L water/0.1ha and **THEOZINC** at 100cc/100L water/0.1ha, supplemented with the appropriate pesticides.
  - E) Together with all of the above products, it could be added the appropriate insecticide for *Euphyllura olivine* and the generation of *Prays oleae* during blooming.
- 4) **At the stage where the petals of the blooms fall:**
- A) Foliar application with **THEORUN** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and with **THEOCAL** at 100gr/100L water/0.1ha.
  - B) In case the trees are infected from canker (*Pseudomonas syringae*) or *Spilocaea oleagina* or both of them, foliar application with **THEOCOPPER** at 1L/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate pesticides.
  - C) In case the trees are infected from *Phloeotribus scarabaeoides* or coccoids, foliar application with **THEOHEALTH** at 500cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate insecticide.
  - D) When at the same time there is infection by canker (*Pseudomonas syringae*), *Spilocaea oleagina* and *Phloeotribus scarabaeoides* or coccoids, foliar application with **THEOCOPPER** at 750cc/100L water/0.1ha, **THEOBORO** at 100cc/100L water/0.1ha, **THEOHEALTH** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100L water/0.1ha, supplemented with the appropriate pesticides.
- 5) **Two months before harvesting, 1-2 foliar applications** with **THEORUN** 500-1000cc/100L water/0.1ha, **THEOFAST** 200-500cc/100L water/0.1ha, **THEOBORO** 100cc/100L water/0.1ha, **THEOCAL** 100gr/100L water/0.1ha and 500gr/100 L water/0.1ha of soluble crystal fertilizer type (3-18-40) or (9-15-27).



# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN APPLES, PEARS AND PEACHES



- 1) **At the stage after harvesting** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds in Spring.
  - 1a) At the stage after harvesting foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds in Spring.
- 2) **When they appear birds on the trees** (October-November), which destroy the buds, foliar application with the appropriate pesticide against *Anthonomus sp.* Application every month from November until February.
- 3) **At the stage before bud breaking**, foliar application with zinc sulfate ( $ZnSO_4$ ) at 3-4Kg/100 L water/0.1ha, (if there is not frost in the area) because acts as disinfectant and additionally increases the amounts of zinc in the tissues of trees.
- 4) **At the stage of bud swelling**, foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds.
- 5) **At the stage of red shoot tip until the petals fall**, foliar applications against *Monilinia sp.* every 7-10 days (total 3 applications).
- 6) **At the stage of petals fall**, foliar applications with 200cc/100L water/0.1ha **THEOFAST**, 300gr/100L water/0.1ha of a soluble crystal fertilizer type (0-1-2), **THEOHEALTH** at 500-1000cc/100L water/0.1ha, **THEOBORO** 50cc/100 L water/0.1ha and **THEOCAL** 50gr/100 L water/0.1ha. This application results for better setting of fruits, avoidance of fruit fall and enlargement of fruits. The above application with the addition of the appropriate pesticides, control *Fusicladium sp.*, acari and *Psylla sp.*
  - 6a) Application in soil through irrigation system with **THEOCOPPER** at 1-2L /0.1ha and **THEOCAL** 1Kg/0.1ha
- 7) **7-10 days later application of treatment 6.**
- 8) **Foliar application for the enlargement of fruits** with **THEOFAST** 200cc/100 L water/0.1ha, **THEORUN** at 500-1000cc/100L water/0.1ha, **THEOBORO** 50cc/100 L water/0.1ha and **THEOCAL** 50gr/100 L water/0.1ha. For increasing the size of fruits in apple trees, foliar application with **THEOHEALTH** instead of **THEORUN**.

*\*When it is observed infection from acari or insects (Tetranychus sp. – Thrips sp.), it is recommended to replace THEORUN with the THEOHEALTH at 1000cc/100 L water/0.1ha together with the appropriate pesticides.*
- 9) **At the beginning of the colour appearance of fruits**, foliar application with **THEORUN** 500cc/100 L water/0.1ha, **THEOCAL** 50gr/100 L water/0.1ha, **THEOFAST** 200cc/100 L water/0.1ha, **THEOBORO** 50cc/100 L water/0.1ha and 300gr/0.1ha of a soluble crystal fertilizer type (3-18-40) or (9-15-27). For increasing the size of fruits in apple trees, foliar application with **THEOHEALTH** instead of **THEORUN**.
- 10) **For early maturity of the yield**, application in soil through the irrigation system with **THEOVITA** 2L/0.1ha, 20 days before the expected harvesting.

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN POMEGRANATE



- 1) **At the stage after harvesting** foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds in Spring.
    - 1a) Foliar application with **THEOBORO** at 100cc/100 L water/0.1ha and **THEOZINC** at 100cc/100 L water/0.1ha, for increasing the amounts of boron and zinc in the tissues of trees, because it is important for the homogenous induction of buds in Spring.
  - 2) **At the stage before bud breaking**, foliar application with zinc sulfate ( $ZnSO_4$ ) at 3-4Kg/100 L water/0.1ha, (if there is not frost in the area) because acts as disinfectant and additionally increases the amounts of zinc in the tissues of trees.
  - 3) At the stage of bud swelling, foliar application with **THEOCOPPER** at 500cc/100L water/0.1ha and **THEOCAL** at 100gr/100 L water/0.1ha. It is observed reduction of abscisic acid (ABA) resulting in the homogenous induction of buds.
- 4) **During blooming period 2-3 foliar applications, every 7-10 days with:**
- (a) **THEOHEALTH** 500cc/100 L water/0.1ha
  - (b) **THEOCAL** 50gr/100 L water/0.1ha
  - (c) **THEOBORO** 50cc/100 L water/0.1ha
  - (d) **THEOFAST** 200cc/100 L water/0.1ha
- These applications are resulting to the reduction of fruit cracking, the formation of better epidermis (more elastic), acari control, better fruit setting and the enlargement of fruits.
- 5) **For the enlargement of fruits** and the development of an **intense red colour** for the seeds inside the pomegranate, it is recommended the following foliar application every month with:
- (a) **THEORUN** 500cc/100 L water/0.1ha
  - (b) **THEOCAL** 50-100gr/100 L water/0.1ha
  - (c) **THEOBORO** 50-100cc/100 L water/0.1ha
  - (d) **THEOFAST** 200cc/100 L water/0.1ha
- 6) When there is infection from bacteria (**shoot necrosis**), foliar application with:
- (a) **THEOCOPPER** 500cc/100 κιλά νερό/στρέμμα
  - (b) **THEOCAL** 50-100gr/100 κιλά νερό/στρέμμα
  - (c) **THEOBORO** 50-100cc/100 κιλά νερό/στρέμμα
  - (d) **THEOFAST** 200cc/100 κιλά νερό/στρέμμα
- 7) When the crop follows a periodic fertilization programme in soil via the irrigation system, in order to **enlarge the final size of pomegranates**, it is recommended the addition of **THEORUN** at 500cc/0.1ha, supplemented with the crystal soluble fertilizers.
- 8) When there is infection from white fly (*Trialeurodes vaporariorum*) and *Planococcus sp.*, foliar application with **THEOHEALTH** at 1L/100 L water, supplemented with the appropriate insecticides and repetition in 7-10 days.

# APPLICATION PROTOCOL OF LIQUID FERTILIZERS OF THEOFRASTOS IN LETTUCE

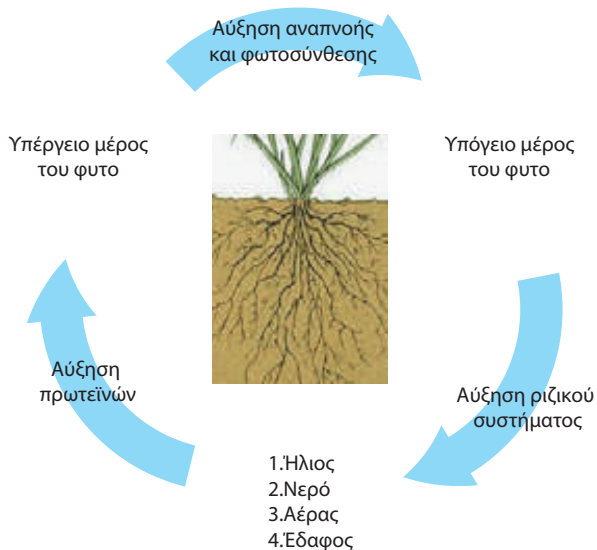


- 1) **At the stage of seedlings**, foliar application with **THEOMIN** at 200cc/100L water and then (in turn) with foliar application of **THEOSOFT** at 200cc/100L water, every week.
  - \* *The above applications could be performed preventative during the whole period of cultivation.*
  - \* *THEOMIN can be combined with Signum (BASF) for fungal control.*
- 2) Application with FOSETHYL-AL for the control of the water mould *Peronospora sp.*
- 3) **At the 1/3 of plant growth**, foliar application with **THEOHEALTH** 500cc/100L water, **THEOBORO** 20-30cc/100 L water, **THEOCAL** 20-30gr/100 L water and 200gr/100L water of a soluble crystal fertilizer type [(9-15-27) + 2Mg].
  - \* *The application above can be applied until 5 days before harvesting.*
  - \* *The application above increases the weight, volume and postharvest resistance of*

**lettuce and it also results in the creation of an intensive dark green colour of leaves.**

\* *In case it is observed infection caused by caterpillars (larva), it is recommended the addition of an appropriate insecticide.*

## Αντιμετώπιση των προβλημάτων των καλλιεργειών με σεβασμό στο περιβάλλον και στο χρήστη



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