

to soil

TREATMENT	DOSE ACCORDING TO CULTIVATION TYPE (l / ha / week)			OBSERVATIONS
	VEGETABLES	ORNAMENTAL	FRUIT TREES	
Bionare Suelo	1.0 - 3.0	2.0 - 4.0	1.0 - 3.0	Complementary treatment to mineral nutrition. Break down suggested dose among the number of applications carried out during the week.
Huminare	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0	
Germi Calcio*	4.0 - 6.0	4.0 - 6.0	4.0 - 6.0	

* If salinity is high



complementary treatment

- adequate irrigation handling
- use of desalinisings and rootings
- avoid overfertilize
- avoid fertilizers with high saline rate
- avoid overdose of N
- monitor Ca, K and Cl supply

products line

PRODUCT	DESCRIPTION	BENEFITS
Bionare	Liquid foliar biostimulant based on L-amino acids, vitamins and microelements.	Activates the metabolism of cultivation.
Germi MAX	Liquid foliar biostimulant based on L-amino acids, organic extracts, silicon and microelements.	Activate the metabolism of crop to increase crops.
Germi SUPRA	Stress Reducer Based L-amino acids, minerals and organic extracts	Regulation of metabolic processes, increasing the formation of carbohydrates.
ViGonare	Liquid Root Vigorizer based on L-amino acids, minerals and extracts organics.	Strengthens root development by supporting the establishment of crops.
Bionare suelo	Liquid root biostimulant complex based on L-amino acids.	Increase the root development and the leveraging of nutrients in the soil.
Surfare	Surfactant, penetrating, moisturizer, acidifier and pH indicator.	Increase the efficiency on the application of agrochemicals.
Huminare	Liquid humic acids complex enriched with microelements.	Increase the leveraging of nutrients of the soil.
Germi PHOS	Balanced liquid foliar nutrient and L-amino acids.	Increase the energy level of the plant.
Germi PLEX	Balanced liquid foliar nutrient and L-amino acids.	Reinforce the metabolism of the cultivation thanks to the contribution of balanced nutrients.
GermiK	Liquid foliar nutrient rich in potassium and L-amino acids.	Activate the metabolism of cultivation.
Germi CALCIO	Saline soil enhancer.	Favours the release of sodium in the soil, as well as the sodium/calcium exchange.



antistress treatment



Germinare

leader in plants stress control

caused by heat



Germinare

leader in plants stress control

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stress^{caused} by heat

THE MAIN REASON AFFECTING THE CULTIVATIONS: HIGH TEMPERATURES

High temperatures have become the cause of **abiotic stress** affecting more and more the productivity of cultivations and according to predictions about **global increase of temperature** in the near future it will be even more than now.

WHAT ARE THE DAMAGES CAUSED BY HEAT STRESS ?

- **Metabolic imbalance caused by inhibition of photosynthesis**
- **Loss of permeability in cell membranes**
- **Senescence**
- **Cellular death**

These damages are caused by overproduction of free radicals such as H₂O₂ or O₂ and the incapacity of the plant to produce the antioxidants to neutralize them.

WHAT DEMANDS THE EXPOSITION OF CULTIVATION TO HIGH TEMPERATURES?

Demands a metabolic activity capable of producing the **enzymatic antioxidants** (SOD, CAT, GPX, etc.) **or non enzymatic** (ascorbate, tocopherol, phenolics, etc.) required to avoid the degradation of chlorophyll, lipids and inhibit the synthesis of ethylene.

The metabolic damage begins when environmental temperatures overcome the maximum optimal temperature of cultivation and it will be more severe while the difference and the time of exposure grows.



temperatures

optimal temperatures for different cultivations

CULTIVATION	OPTIMAL TEMPERATURE		MAXIMUM BIOLOGICAL TEMPERATURE	
	Minimal (°C)	Maximum (°C)	Minimal (°C)	Maximum (°C)
VEGETABLES				
Cucumber	18	28	28	32
Melon	18	30	30	34
Courgette	15	30	30	34
Pepper	16	28	28	32
Aubergine	15	26	30	32
Lettuce	10	20	25	30
Tomato	13	26	26	30
FLOWERS				
Clavel	10	21	26	32
Rose	14	25	20	32
Chrysanthemum	13	25	25	30
Hortensia	10	20	25	27

Germinare treatment

foliar

TREATMENT	DOSE ACCORDING TO CULTIVATION TYPE (l / ha / week)				OBSERVATIONS
	VEGETABLES	ORNAMENTALS	FRUIT TREES	EXTENSIVE	
Bionare Germi-Phos Surfare	0.25 - 0.75 1.0 - 4.0 1 ml / liter of water	1.0 - 2.0 1.0 - 4.0 0.25 - 0.5 ml / liter of water	0.5 - 0.75 2.0 - 5.0 0.5 - 1.0 ml / liter of water	0.25 - 0.5 1.0 - 3.0 1 ml / liter of water	Carry out applications
Bionare Bioplex Fe, Zn y/o Mn Surfare	0.25 - 0.75 1.0 - 4.0 choose option according to necessity	1.0 - 2.0 1.0 - 4.0 choose option according to necessity	0.5 - 0.75 2.0 - 5.0 choose option according to necessity	0.25 - 0.5 1.0 - 3.0 choose option according to necessity	every 5 - 7 days alternating the
Bionare Germi-K Surfare	0.25 - 0.75 1.0 - 4.0 1 ml / liter of water	1.0 - 2.0 1.0 - 4.0 1 ml / liter of water	0.5 - 0.75 1.0 - 4.0 1 ml / liter of water	0.25 - 0.5 1.0 - 4.0 1 ml / liter of water	proposed treatments.

