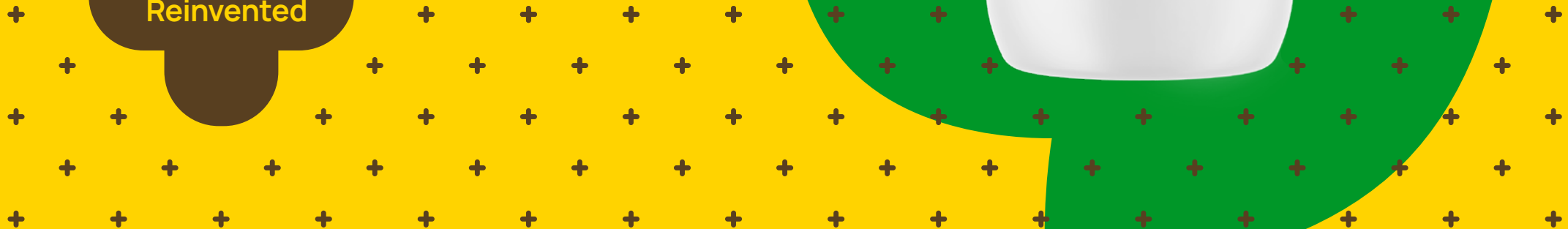


Hortimed HUMUS

Amino Biostimulant

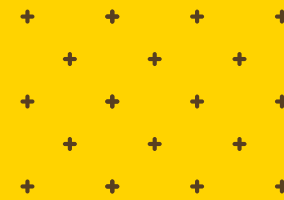
With 9.5% Amino Acids

For development, flowering and fruit growth.
Enhances abiotic stress tolerance.



Amino Biostimulant

For development, flowering and fruit growth. Enhances abiotic stress tolerance.



Description

Hortimed HUMUS Amino Biostimulant is a biostimulant based on rich lake sediments, enriched with a wide range of free amino acids. Contains biologically active substances - as humic acids, amino acids, proteins and vitamins necessary at plant active development stages, and supply strong support for plants during environmental stress periods, especially during flowering and fruit set. **Provides excellent sources for building higher quality and yield of different crops.**

Compatible with different fertilizers, plant protection products and plant growth regulators.

What is lakeweed? It is sediment, formed at the bottom of freshwater lakes, mainly from lake weed. Lakeweed extract is biologically active, improves development of plants, and beneficial microorganisms in soil, and its beneficial properties are used not only in plant growing - but also in cosmetics and animal feed.

Application

Foliar application use 2 L per/ha, per one application, 3-4 times in season. Use at least 200 L/ha water. Recommended spray nozzle size 0.03-0.09 mm, sprayer pressure 1.5 – 6 Bar.

In furrow application - use 2 L per/ha, recommended spray nozzle size 0.03-0.09 mm.

Fertigation: use 10 L of extract per application, 3-4 applications, depending on crop cycle.

Drip irrigation: use 10 L of extract per application, 3-4 applications, depending on crop cycle.

Key benefits

- During bud set, flowering - to improve micronutrient uptake (phosphorus, boron), and enhance yield potential, also for crops like strawberry, fruit trees, blueberry to improve also next year's yield potential.
- Pod, tuber, fruit formation and ripening - to improve calcium, potassium uptake, for higher quality yield, larger seeds, fruits, greater amount of marketable yield %;
- During periods of cold, drought, high salinity, low-high temperature changes, and other environmental stress factors at key development stages of plants
- As additive to nutrient, plant protection product application, especially after herbicide use, or weeding, mechanical weed management;

Contents

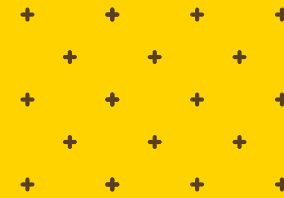
Organic Matter:	16.2%
Dry Matter:	25.4%
Total Nitrogen (N):	2%
Total Phosphorus (P ₂ O ₅):	2%
Total Potassium (K ₂ O):	3%
Moisture:	74.6%
Humic Acids:	11%
Reaction pH:	5.9
Amino Acids:	9.5%
Density:	1.135 g/cm ³

Aminogram

Amino acid	Amino Biostimulant Free amino acids (%)	Amino Biostimulant Total amino acids	Other producer product Free amino Acids (NUENUTRI)
Total	1.86	12.83	0.44
Cystine	-	0.09	0.00
Serine	0.10	0.41	0.00
Aspartic acid	0.09	0.99	0.00
Glycine	0.15	2.66	0.05
Threonine	0.06	0.29	0.00
Glutamic acid	0.12	1.95	0.14
Histidine	0.02	0.14	0.00
Alanine	0.30	1.29	0.06
Proline	0.22	1.51	0.03
Arginine	0.08	0.76	0.03
Lysine	0.10	0.37	0.01
Valine	0.11	0.51	0.03
Methionine	0.05	0.19	0.00
Tyrosine	0.03	0.18	0.05
Leucine	0.24	0.76	0.02
Isoleucine	0.06	0.31	0.02
Phenylalanine	0.11	0.41	0.00
Tryptophan	0.00	0.00	0.00

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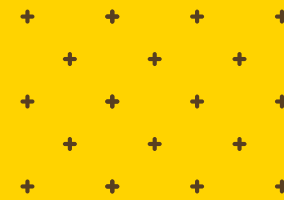
Recommended application time and rates*

Crop	Application timing	Rate	Efficacy
Cereals	At sowing, as additive to seed treatment, to improve seed germination rate and speed. Replace part of water used	1 L per 1 ton of seeds	Improves germination and root development
	After winter, or at tillering stage, BBCH 19-34, in tank mix with other products	2 L/ha	To improve tillering, reduce frost, and drought stress.
Oilseed canola	After emergence BBCH 11-14, also before winter, and after	2 L/ha	Reduces environmental stress, improves pod formation, seed weight
	Flowering, before or at pod formation BBCH 55-60, 60-70, 71-75		
Beans, peas	Additive to seed treatment	1 L per 1 ton of seeds	Reduces environmental stress, improves pod formation, seed weight
	After emergence, or before/ at beginning of pod formation	2 L/ha	
Potatoes	After emergence, and at tuber formation BBCH 39-42	2 L/ha	Reduces environmental stress, larger size and number of tubers
Leafy vegetables	After emergence or transplanting, repeat after 10-14 days, or after cutting (spinach, sorrel, rucola)	2 L/ha	Higher content of active substances, helps regrow, establish after transplanting
Root vegetables	After emergence or transplanting, repeat after 10-14 days		
Fruit trees (apple, pear, cherry, plums, apricots etc.)	Before flowering, in tank mix with boron fertilizers and fungicides (BBCH 59-65);	2 L/ha per 2 m of tree length, adapt spray volume to crop size	Improves new shoot growing, improves amount of marketable yield, fruit size
Soft fruits (strawberry, raspberry, blueberry, etc.)	Before flowering, in tank mix with boron fertilizers and fungicides (BBCH 59-65);	2 L/ha	Reduces heat, cold stress during flowering, improves pollination
	During fruit ripening, in tank mix with calcium or potassium fertilizers, both spray or drip irrigation (BBCH 71-73, 81-85)		For calcium uptake, improves taste and flavonoid content, firmness
	After harvest, in the tank mix with micronutrients.		To improve bud development
Nursery plants	After winter or drought period, renewal of vegetation After transplanting, and repeat after 10-14 days	2 L/ha or 10 L/ha drip irrigation, fertigation	To improve development, and root formation
Greenhouses	During heat periods, or low night - high day temperatures	2 L/ha or 10 L/ha drip irrigation, fertigation	Reduces heat, cold stress during flowering, improves pollination Helps survive longer growth cycles
	Flowering, fruit set of crops		
	Between harvest times, to improve survival trough season		
Annual flowers in private and public landscapes	After transplanting, and repeat after 10-14 days Midseason applications, when necessary	2 L/ha	To improve growth, establishment, and flowering in midseason

* Recommendations may vary, depending on soil properties, crop, local conditions at growing site

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Product use guide. Key development stages of plants

Product	Seeding	Transplanting	Early development	Leaf and shoot development	Flowering	Ripening	After harvest
Biostimulant from Lake Peloids	<ul style="list-style-type: none"> additive to seed treatment in furrow applications 	Directly after transplanting and repeat 7-14 days later	In addition to fertilizers	In addition to fertilizers	At high salinity, or to overcome drought stress	At high salinity, or to overcome drought stress	In addition to fertilizers
Amino Biostimulant with 12.8% Amino Acids	After emergence, and repeat 10-14 days later	Directly after transplanting and repeat 7-14 days later if environmental conditions not favourable	Heat, frost, high salinity caused stress	Could be used in tank mix with Organomineral fertilizer	In addition to boron, fungicide treatments	To reduce heat stress and promote calcium uptake	In addition to fertilizers

Short guide to product use at different conditions

Product	Seeding	Transplanting	Early development	Leaf and shoot development	Flowering	Ripening	After harvest	High salinity	Heat stress	Drought stress	Mechanical damage	Herbicide damage
Biostimulant from Lake Peloids	+++	+++	+++	++	+	++	+++	+++	++	+++	++	++
Amino Biostimulant with 12.8% Amino Acids	+++	++	++	++	+++	+++	++	++	+++	+++	+++	+++

* For organic use

** Don't use if high salinity stress caused by fertilizer overdose