VigoRoot

COMPOSITION

Component	Content
Free L-Amino Acids	10.00% w/w
Total Nitrogen (N)	7.40% w/w
Organic Nitrogen	1.10% w/w
Ureic Nitrogen	4.70% w/w
Ammoniacal Nitrogen	1.60% w/w
Boron (B)	0.20% w/w
Iron (Fe)	4.50% w/w
Iron (Fe) chelated with citric acid	4.37% w/w
Manganese (Mn)	1.00% w/w
Manganese (Mn) chelated with amino acids	0.97% w/w
Molybdenum (Mo)	0.05% w/w
Molybdenum (Mo) water-soluble	0.05% w/w
Zinc (Zn)	0.10% w/w
Zinc (Zn) chelated with amino acids	0.10% w/w
Density	1.30 g/cc
pH	6–7
Color	Brown
Form	Soluble Concentrate (SL)

KEY AMINO ACIDS

Amino Acid	Content
L-Glutamic Acid	7.0%
Glycine	2.5%
L-Methionine	<0.5%
L-Tryptophan	<0.5%

OTHER ACTIVE COMPOUNDS

Biopolysaccharides: 8.6% (Tricarboxylic Acids 8%, Polysaccharides 0.6%)

Vitamin Complex: 0.15% (B1, B2, B12, C, D, E, K)

DESCRIPTION

VigoRoot is a root biostimulant formulated with L-amino acids obtained via enzymatic hydrolysis, enriched with micronutrients, polysaccharides, and vitamins. It enhances root vigor, nutrient uptake, and resistance against abiotic and biotic stress. It is especially beneficial for early stages of crop development and for recovery under stress conditions (thermal, hydric, phytotoxic, etc.).

BENEFITS

- Stimulates root development and vigor (Methionine).
- Improves resistance to low temperatures (Glutamic acid).
- Neutralizes heavy metal phytotoxicity (Citric acid, Fe, Zn).
- Enhances root hair oxygenation and moisture retention (Polysaccharides).
- Activates nitrogen-fixing bacteria (Azotobacter, Clostridium).
- Prevents micronutrient deficiencies (B, Fe, Mn, Mo, Zn).
- Facilitates chlorophyll, sugar, and protein synthesis.

USE RECOMMENDATIONS

Apply in moments of nutritional stress (e.g., transplant, fruit set, ripening), hydric stress (drought, excess water), phytopathological stress (after pesticide or disease damage), or thermal stress (frost or high temperatures). Application improves root establishment and increases root biomass. Recommended with soil fungicide applications.

CROPS AND DOSES

Crop	Application Method	Dose
Various crops (horticultural, vine, fruit trees, citrus)	Foliar	0.3–0.5%
Horticultural (flood irrigation)	Soil	4–6 L/ha per application
Tree crops (flood irrigation)	Soil	8–12 L/ha per application
Drip irrigation	Soil	2–4 L/ha per application
Hydroponic systems	Soil	0.5–1 L/ha per application

APPLICATION TIMING

Apply in anticipation of climate stress (cold, heat, drought, frost), during transplanting and vegetative growth, and in recovery from diseases, pests, or root damage caused by nematodes, fungi, improper irrigation, or machinery.

PRESENTATION