



BIO ENERGY SOLUTIONS

**Table 1 – Amino Acid Analysis of REGENiSYS™**

<b>Amino Acid</b>	<b>Weight (%)</b>	<b>Main Use</b>
Alanine	1.04	Plant defense compound for stress - hypoxia, waterlogging, drought
Arginine	0.74	Promotes plant photosynthesis capacity
Aspartic acid	1.46	Stress tolerance for drought, salinity, heavy metal toxicity
Cysteine	0.44	Metabolic precursor for vitamins, cofactors, antioxidants, many defense compounds
Glutamic acid	1.56	Key role in nitrogen assimilation, detoxification of toxins, reshapes plant microbiota to protect against pathogens
Glycine	0.98	Chelate, smallest molecule so can transport nutrients to all parts of plant -ensures nothing is lost
Histidine	0.3	Aid in plant growth and development
Isoleucine	0.58	Source of nitrogen, Branched chain amino acid
Leucine	0.9	Source of nitrogen, Branched chain amino acid
Lysine (Total)	0.75	Essential AA for the synthesis of intracellular proteins
Methionine	0.51	Metabolic precursor of amino acids and production of ethylene (helps with ripening and flowering), regulates calcium on tissue pores,
Phenylalanine	0.78	Building block for plant structure, reproduction, defense, and communication
Proline	0.85	Protects against stress, increases recovery speed from stress
Serine	0.86	Plant metabolism, development, and cell signalling
Threonine	0.98	Essential amino acid for protein synthesis, plant immunity
Tyrosine	0.59	Precursor for specialised metabolites - electron carriers, antioxidants, attractants, defense compounds
Tryptophan	0.17	Precursor to plant growth hormones, phytohormone auxin, bioactive molecules, growth regulation, development, and stress response
Valine	0.55	Source of nitrogen, Branched chain amino acid