PBL®

PEPTECH BIOSCIENCES LTD.

Your Efficient Agro Partner

Your Global Growth Partner



Bio-Stimulants

Powered by

MOVAQ™

Molecular Optimization & Value Activation Quotient by PBL

Quality Products
Sustainable Future

Trusted by Farmers
Chosen by Partners Worldwide
www.peptechbio.com

PEPTECH BIOSCIENCES LTD.

Peptech Biosciences Limited is where agricultural science is transformed into reliable, field-ready performance. Built on the legacy of Titan Biotech and decades of expertise in Amino acid–based biotechnology, the company began with pioneering Bio-Stimulants and has since grown into a comprehensive portfolio of Bio-Stimulants, Bio-Fertilizers, Bio-Pesticides, Plant Growth Regulators, and Chemical Agri-Input Solutions for modern agriculture.

What sets Peptech apart is its science-to-field approach. Every formulation begins with focused research and is developed through structured R&D, rigorous laboratory validation, and extensive multi-location field trials. This ensures that each product performs consistently across diverse crops, soils, and climatic conditions.

Backed by advanced automated manufacturing systems, strong quality assurance protocols, and robust regulatory expertise, Peptech enables global agri-brands to scale seamlessly through white-label, OEM, contract manufacturing, and P2P supply models.

With a presence in over 25 countries, Peptech Biosciences is trusted for its consistency, compliance, and commitment to performance-driven agriculture. At its core, the company believes innovation is only meaningful when it delivers measurable impact in the field—season after season.



Why Choose Peptech Biosciences

Science-Driven Innovation

Every product is developed through structured R&D, validated through lab analysis and multi-location field trials for assured performance.

Integrated Manufacturing Strength

Fully automated, scalable production systems ensuring precision, efficiency, and consistent batch quality.

Global Regulatory Expertise

Compliance-ready documentation and certifications supporting smooth market entry across international regions.

Proven Field Performance

Extensive testing across diverse agro-climatic zones ensures real-world reliability beyond laboratory conditions.

Our Business Models

White Label Manufacturing

Ready-to-market formulations tailored for fast brand expansion with consistent quality and regulatory support.

Contract Manufacturing (End-to-End)

From formulation to packaging, we manage full-cycle production through advanced automated facilities.

P2P Supply

Reliable supply of formulated agri-inputs for distributors and institutional buyers.

Custom R&D & Formulation Development

“One Product – One Partner" supports the development of region-specific, differentiated products.

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Amino Acid-Based Bio-Stimulants

Advanced Plant-Derived Amino Acid Mixtures for Sustainable Crop Performance

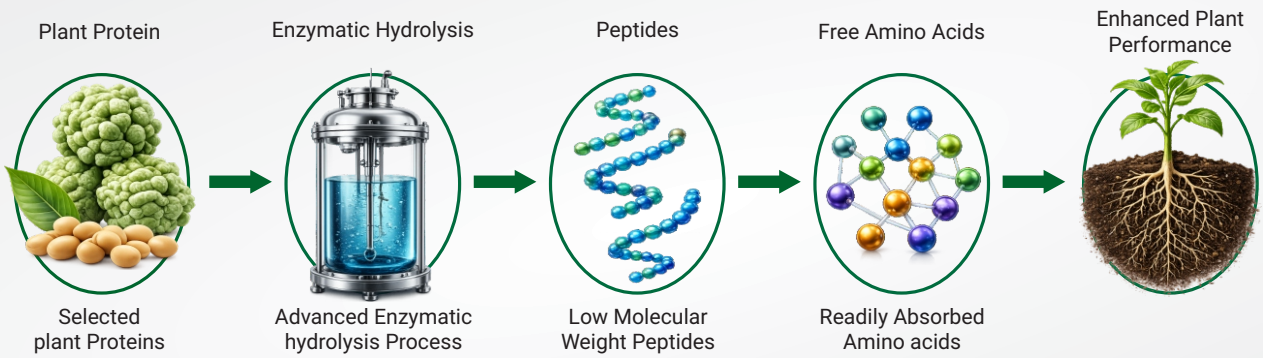
At **Peptech Biosciences Limited** (PBL), we combine decades of biotechnology expertise with advanced hydrolysis technology to manufacture premium-quality Amino acid-based bio-stimulants for agri-input companies across global markets.

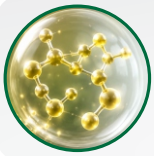
As one of India's largest and most experienced manufacturers in this segment, PBL delivers high-performance Amino Acid Mixtures that enhance crop productivity, nutrient efficiency, stress tolerance, and overall plant vigor.

Derived from carefully selected plant proteins and processed through controlled enzymatic hydrolysis, our bio-stimulants provide an optimized balance of free amino acids, bioactive peptides, and low molecular weight protein fractions that are readily absorbed and utilized by plants.

Unlike conventional nutrient products, Amino Acid Mixtures molecules act directly on plant physiological and metabolic pathways, stimulating growth and improving nutrient efficiency.

The Power of Enzymatic Hydrolysis





- Low molecular weight peptides are recognized as the most biologically active fraction because they are rapidly absorbed and readily involved in plant metabolic processes.
- Protein hydrolysates with molecular weights below 10,000 Daltons demonstrate superior bioavailability and physiological activity.

Why to Choose?

- Plant Based Origin
- Enzymatic Hydrolysis Technology
- Rich in Bioactive Peptides
- Optimized Molecular Weight & Amino Acid Profiling

Our Manufacturing Strength

- Dedicated Enzymatic Hydrolysis Facility
- Automated Production Systems
- Advanced Quality Control Laboratories
- Batch-to-Batch Consistency
- Global Supply Capability
- Flexible Packaging Options
- 20,000+ MT Annual Production Capacity

Key Agricultural Challenges We Solve

- Nutrient Use Efficiency
- Water Use Efficiency
- Poor Root System Development
- Abiotic Stress
- Inconsistent Crop Performance

Available Formats


Liquid Protein Hydrolysates


Water Soluble Powder


Customized Solutions

With Peptech Biosciences Limited, Amino Acid-Based Bio-Stimulants become more than inputs—they become performance tools that unlock the full genetic potential of crops while ensuring sustainability and profitability.

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Bio-Stimulants

AMINOFERT HN 13%

Organic Nitrogen Fertilizer

NUTRIENT RICH IN AMINO ACID & PEPTIDES

Aminofert HN 13% is an OMRI-listed, water soluble powder which is produced enzymatically from Non-GMO natural sources of protein. This Bio-Stimulant contains a minimum of 13% nitrogen, 80% amino acids, and 20% organic carbon. This is an excellent soil conditioner that assimilates easily into plants and soil. Aminofert HN 13% is an ideal Bio-Stimulant for nitrogen-deficient crops. It is fast releasing and completely soluble in water.

Aminofert HN 13% is a non-toxic, non-polluting, and natural nutrient. It comes with high recommendation for organic agriculture use as it is a chemical-free fertilizer, which is unquestionably perfect for environmentally friendly practices. It is compatible with conventional nitrogen sources and most fertilizers.

It can also be used as a raw material for the manufacture of various amino acid mixture formulations.

Recommended Crops

Suitable for all crops including Field crops, Potting soil, Vegetable and Flower gardens, Orchards, and Turf grass.

BENEFITS:

- Provides 80 g of plant-available, protein-based nitrogen per standard dosage.
- When Aminofert HN 13% is used, there is no tip burning, as is common with synthetic nitrates or ammonia N sources.
- Organic plant nitrogen, peptides, and amino acids come as a complete package in the product.
- Highly improves the transportation of minerals in soil and plant.
- Natural product with a positive environmental impact.
- Handling does not require special equipment or gear.
- Since the product is made through enzymatic hydrolysis, the particle size of Aminofert HN 13% is very small, making it highly soluble nitrogen.
- No event of volatilization is possible in the case of Aminofert HN 13%.

Specifications	
Nitrogen (N)	NLT 13.00%
Phosphate (P_2O_5)	<0.1%
Potash (K_2O)	<0.1%
pH	5-7
Amino Acid	NLT 80%
Carbon	NMT 20%

Dosage	
Average Rate of Application	2-3 Kg/ha
Hydroponic Application	1 gm/L
Foliar Application	1 gm/L

Amino Acid Mixture 40%
Available in Liquid form

Amino Acid Mixture 50%
Available in Liquid & Powder form





*The application method is solely for guidance purposes. Application rates may vary due to climate, frequency, soil, etc.
We encourage users to conduct their own testing in order to determine what is best for their crop under their specific conditions and environments.

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AMINOFERT 77 CE

Bio-Stimulants

Aminofert 77 is a unique liquid Bio-Stimulant consisting of 18 essential amino acids. Derived from plant-based protein hydrolysates, it provides rapid nitrogen nourishment for optimal growth, enhanced stress resilience, and abundant harvests.

BENEFITS:

- Increases chlorophyll content and promotes efficient photosynthesis.
- Amino acids act as catalysts for pollination, leading to improved fruit setting, earlier maturity, and bountiful yields.
- Empowers crops to combat and recover from environmental challenges, fostering overall stress resilience.
- Optimizes chelation, which ensures efficient absorption and transport of essential micronutrients for exceptional growth.
- Acts as an enzyme activator and boosts the synthesis of ethylene.

Crops	Frequency
Wheat & other cereals peas, chickpea & other pulses	1st application: Before 1st irrigation (20-28 DAS) 2nd application: 40-50 DAS 3rd application: 65 DAS flag leaf stage
Rice	1st application: Nursery before transplantation 2nd application: 20-30 DAS (tillering stage) 3rd application: 40-50 DAS flag leaf stage
Tomato, Chilli and Brinjal	1st application: Nursery just before transplanting 2nd application: 20-25 DAS 3rd application: Pre-flowering 4th application: Fruit setting 5th application: Colour change
Potato	1st application: Plant 15 cm tall, when tuber begin to swell, 15 days after the previous application
Cabbages (all varieties)	1st application: Just before transplanting, then 2 application at 20 days interval
Onion & Garlic	1st application: Bulb swelling, then after 20 days interval
Melons & Guards	1st application: 4-5 leaves phase 2nd application: Pre-flowering 3rd application: Fruit set & fruit swelling
Citrus trees (Orange, Lemon, Mandarin & Grapefruit)	1st application: Vegetative phase 2nd application: Pre-flowering 3rd application: Petal fall 4th application: Pea size fruit, & Fruit size 6-7 cm diameter
Tropical & subtropical crops (Banana, Mango, Sugarcane, Tea, Coffee, etc.)	2-4 application at regular intervals (12-14 days) along the critical moments, e.g. flowering, fruit falling, fruit swelling, colour change or after stressful weather condition such as hail, frost, etc.
Lettuce, Spinach, Fennel and Leafy vegetables	1st application: 15-20 DAS 2nd application: 35-40 DAS

Dose: 200 ml-400 ml/ 100-200 L of water





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Bio-Stimulants

CROP TIGER

Crop Tiger is an advanced bio-stimulant designed to enhance plant vigour, improve nutrient utilization, and support healthy crop growth throughout the growing season. Its unique formulation helps plants withstand both biotic and abiotic stresses, enabling them to perform better under challenging environmental conditions. With inherent anti-fungal properties, Crop Tiger contributes to healthier crops by supporting natural plant defense mechanisms while providing essential nutrition for sustained growth, improved resilience, and enhanced productivity.

BENEFITS:

- Enhances the quality of vegetables and fruits by strengthening stems and stalks.
- Improves drought and temperature stress tolerance.
- Increases resistance to pests and diseases.
- Increases the water holding capacity with the changes in soil microflora.
- Improves photosynthetic activity.
- Strengthens plant cell walls.

Potassium and Amino acids in Crop Tiger are derived from natural sources, making it suitable for organic farming. Its balanced formulation promotes stronger, healthier crops and can significantly improve yield and profitability for growers.

TARGET CROPS:

Rice, Sugarcane, Maize, Wheat, Vegetables, and other crops

DOSAGE AND APPLICATION METHODS:

Foliar spray: 1.5–2.5 kg/ha during flowering, fruiting, or grain formation stage.
Soil drenching: 2.5–5 kg/ha depending on soil and crop conditions.
Dosage may vary based on crop size and growth stage.

PRODUCT COMPOSITION:

Ingredients	Specifications
Multi Vitamins	Min 1%
Plant Extract (Kelp Extract)	Min 30%
Amino Acids	Min 14%
Potash	Min 15%
Organic Matter	Min 30%

FIELD TRIALS:

The field trials of the Crop Tiger were conducted at a reputed Agricultural University in India. They were carried out on Bananas, Sugarcane and Rice. In the trials, significant results were observed between the treated and non-treated crops.





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AMINO ACID MINERAL CHELATES

Bio-Stimulants

Amino Acid Mineral Chelates are a specific form of nutritive minerals. An amino acid chelated mineral is simply a mineral (like Magnesium, Iron, Boron, etc.) that's been molecularly attached to an amino acid. Attaching amino acids to the mineral molecules creates a more stable structure that's better able to survive the acidic environment in the soil bio flora. These Amino Acid Chelated Minerals are thought to be more easily absorbable by plants than non-chelated forms.

Calcium Amino Acid Chelate (Ca)

- Required for root development during the plant's early growth stage.
- Calcium is a part of the cell wall and hence related to cell division and the cell elongation process.

Calcium Boron Amino Acid Chelate (CB)

- Helps in pollination, fertilization, and the formation of seeds and grains.
- Helps to maintain the balance of sugar and starch in the plant and aids in their translocation in the plant, as well as plant growth and development.

Boron Amino Acid Chelate (B)

- Enhances regulation of plants' hormone levels and promotes proper growth.
- Increases flower production and retention, pollen tube elongation and germination, and seed and fruit development.

Copper Amino Acid Chelate (Cu)

- Promotes chlorophyll and protein synthesis while slowing plant aging, resulting in increased fruit and grain production.
- Assists in process of photosynthesis and helps plant in carbohydrates and proteins metabolism.

Ferrous Amino Acid Chelates (Fe)

- Plays a critical role in metabolic processes such as DNA synthesis, respiration, and photosynthesis.
- Involved in the synthesis of chlorophyll and essential for the maintenance of chloroplast structure and function.

Magnesium Amino Acid Chelate (Mg)

- Assists the plant at various stages of development and severity of deficiency.
- Captures the sun's energy for growth and production through photosynthesis.

Manganese Amino Acid Chelate (Mn)

- Plays a role in pollen germination, pollen tube growth, root cell elongation and resistance against root pathogens.
- It also helps in maintaining the subcellular homeostasis.

Molybdenum Amino Acid Chelate (Mo)

- Molybdenum is a key component of enzymes that convert nitrate into ammonia for amino acid synthesis in plants.It is also essential for symbiotic nitrogen-fixing bacteria in legumes to fix atmospheric nitrogen.

Zinc Amino Acid Chelate (Zn)

- Zinc is part of an enzyme that regulates the equilibrium among carbon dioxide, water, and carbonic acid.
- Zinc is found to be associated with water relations in plants and improves water uptake.





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Bio-Stimulants

CELL-FREE MICROBIAL EXTRACT

(*Saccharomyces cerevisiae*)(Liquid)

It is a premium yeast-derived bio-stimulant developed to enhance plant growth, improve crop vigour, and maximize productivity. Rich in naturally occurring amino acids, proteins, and organic compounds, it provides readily available bioactive nutrients that stimulate plant metabolism without introducing live microbial cells.

The formulation supports robust vegetative growth, strengthens plant architecture, and helps crops tolerate both environmental and physiological stress. Its rapid foliar absorption ensures efficient nutrient utilization, resulting in healthier plants, improved flowering, enhanced fruit set, and superior crop performance.

COMPOSITION:

Component(s)	Specification
Cell-Free Extract of Saccharomyces cerevisiae	Min 75%
Total Amino Acids	12.0–15.0%
Organic Carbon	5.0-6.0%



BENEFITS:

- Cell-free extract of *Saccharomyces cerevisiae* enriched with naturally occurring bioactive compounds.
- Provides readily available amino acids and organic carbon to support healthy plant growth.
- Supplies instant energy for enhanced metabolic activity and improved crop vigour.
- Promotes vigorous vegetative growth and stronger plant architecture.
- Enhances nutrient absorption and utilization for improved crop performance.
- Supports protein synthesis and essential physiological processes.
- Increases tolerance to biotic and abiotic stresses, helping plants perform under adverse conditions.
- Stimulates uniform flowering, better fruit set, and improved fruit retention.
- Contributes to higher yield potential and superior crop quality.
- Rapidly absorbed through foliar application for quick and effective plant response.

RECOMMENDED CROP STAGE:

Apply during the vegetative stage, followed by additional applications at 15–20 day intervals as required.

APPLICATION DETAILS:

- Mode of Application: Foliar Spray
- Recommended Dosage: 74 mL/ha
- General Dilution: Dilute 0.1–0.2 mL per litre of water before spraying.

RECOMMENDED CROPS & APPLICATION SCHEDULE :

Crop(s)	Recommended Applications
Soybean	2 Foliar Applications
Chilli	3 Foliar Applications



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Cereal Protein Hydrolysate (Liquid)

Bio-Stimulants

Cereal Protein Hydrolysate (Liquid) is a premium plant-derived bio-stimulant formulated from hydrolysed cereal proteins. Rich in naturally occurring amino acids and bioactive compounds, it provides readily available nutrition that supports healthy plant metabolism and vigorous growth. The formulation enhances nutrient utilization, promotes balanced crop development, and helps plants withstand biotic and abiotic stresses. Its rapid foliar absorption makes it an effective solution for improving crop performance, quality, and productivity across a wide range of agricultural and horticultural crops.

BENEFITS:

- Provides a rich source of naturally derived amino acids for healthy crop growth.
- Stimulates seedling establishment and promotes strong root development.
- Encourages vigorous vegetative growth and improved plant vigour.
- Enhances nutrient absorption and utilization for balanced crop nutrition.
- Improves flowering, fruit setting, and crop development.
- Increases tolerance to biotic and abiotic stress conditions.
- Supports improved crop quality, uniformity, and marketable yield.
- Compatible with most fertilizers and crop protection products when used as recommended.
- Eco-friendly and biodegradable formulation suitable for sustainable agriculture.

TARGET CROPS:

Suitable for a wide range of crops, including:

- Cereals (Wheat, Paddy, Maize, Millets)
- Pulses
- Oilseed Crops
- Cotton
- Vegetable Crops
- Fruit Crops
- Plantation Crops
- Spices and Commercial Crops

DOSAGE:

Mode of Application	Recommended Dose
Foliar Spray	250–300 mL/acre (approximately 620–740 mL/ha)
Number of Applications	2–3 sprays during active crop growth, preferably from pre-flowering to fruit development stages.





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