

# Regenerated Phyto Biotechnology Co. [Biotech]

Regenerated Phyto Biotechnology Co. has succeeded in becoming a trusted market leader by offering disruptive products that help farmers and individuals improve the quality of their produce, while maintaining a green and safe environment. Our products carry the slogan: “For Safe Food & Healthy Environment “.

Regenerated Phyto Biotechnology stands at the forefront of hydroponic agriculture, specializing in innovative and sustainable solutions for soil-free crop cultivation. Utilizing advanced technologies and bio-products such as beneficial bacteria and fungi, we ensure optimal plant health and productivity. Our commitment to excellence has enabled us to consistently provide state-of-the-art solutions to farmers, agribusinesses.

2024



[www.smefund.com.jo](http://www.smefund.com.jo)



# Biotech

- **Natural and Organic Solutions in Hydroponic Farming:**

Our company relies on natural and organic products to combat agricultural diseases, ensuring hydroponic crops are free from toxic residues while maintaining the highest quality standards.

- **Enhanced Quality in Hydroponic Produce:**

By utilizing carefully selected biofertilizers and organic materials, our hydroponic vegetables and fruits achieve exceptional quality, with higher nutrient content, organic compounds, and dry matter compared to traditional farming.

- **Addressing Weaknesses in Hydroponic Crops:**

The lack of biofertilizers and organic matter in hydroponic farming can lead to reduced flavor and shorter shelf life. However, with our innovative solutions, we deliver produce that rival certified organic products in both taste and durability.



[www.smefund.com.jo](http://www.smefund.com.jo)



# Bio products: The sustainable approach

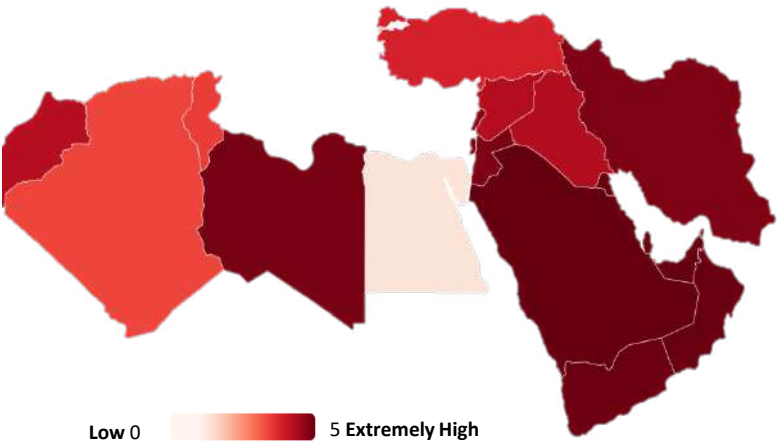


**1.6%**  
estimated annual  
population growth

**We have a social responsibility and moral obligation to develop and promote sustainable agriculture. This is imperative particularly amid a rapidly burgeoning global population**

Sustainable agriculture not only guarantees food security and environmental preservation, but also maximizes natural resource efficiency and promotes resilience to climate change. Our products foster economic stability for farming communities, and yield safe and nutritious produce

Water Stress in the MENA Region



**40%**

of global production is lost to pests



**50%**

loss in crop yields is caused by soil degradation



**3%**

is the average annual growth rate of aquatic food consumption



**95%**

of the food humans consume come from the soil



**8%**

of the population is estimated to face hunger by 2030





## Verified Excellence

**Endorsing Biotech's Mission Statement, several successful field studies have been conducted using Biotech's products, with a view to tackle food security and water scarcity issues at large**



الجمعية العلمية الملكية  
Royal Scientific Society

**The Royal Scientific Society (RSS) of Jordan** conducted a study in 2022 to measure the impact of Biotech's products on soil, crop yield and water usage over a 12 week harvest period. A hybrid approach was undertaken, integrating bio and chemical fertilizers to achieve optimum plant & soil productivity, and water usage efficiency. This study is in the final stages of publication in an international research journal

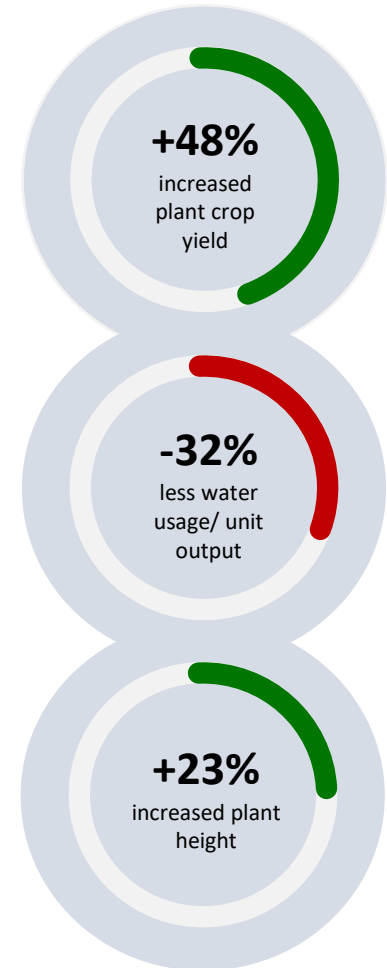


جامعة السلطان قابوس  
Sultan Qaboos University

**The College of Agricultural & Marine Sciences, Sultan Qaboos University (SQU), Oman** conducted an open field study in 2021 on cucumbers. Following harvesting, results showed a **35%** increased crop yield compared to the sole use of chemical fertilizer

### Ongoing National Studies in Collaboration with the RSS and Ministry of Health:

- 1 Study to Assess Antiviral Efficacy of Bacterial bio-fertilizers against Tomato Brown Rugose Fruit Virus
- 2 Study to Improve Sustainable Urban Fish Farming using Regenerated Phyto Biotechnology Co. NO AMMONIA product and Biofloc System
- 3 Study to Assess the Efficacy of BTI Agents on Cow Farm Infestations and the Impact on Non-Target Organisms



# Product Portfolio



## **Aquaculture**

- No Ammonia



## **Crop Growth**

- Stimulant A

- Stimulant B

- Phyto – EM



## **Insecticides**

- Bacillus Thuringiensis Kurstaki (Btk)

- Bacillus Thuringiensis Israelensis (Bti)



## **Disease Prevention**

- Trichoderma



## Aquaculture Solutions



## Crop Growth Solutions

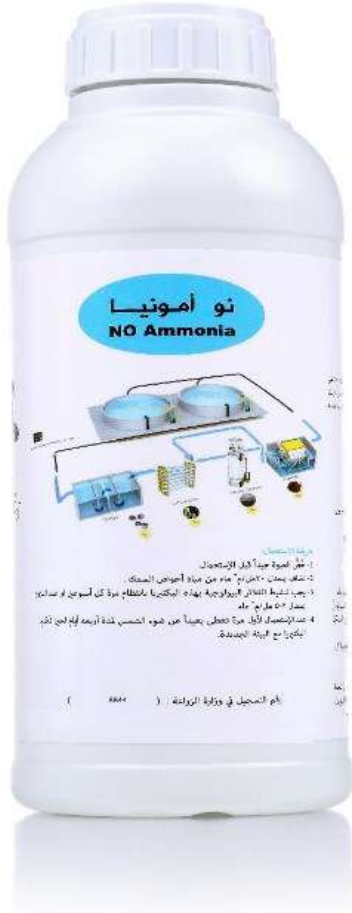


## Insecticides



## Disease Prevention

### Aquatic Farming Products



#### 1 NO AMMONIA

Reg. # 8844 – Ministry of Agriculture – Jordan

A liquid mixture of Nitrosomonas sp. & Nitrobacter sp. Bacteria. These work together to eradicate Ammonia (NH<sub>3</sub>) and Nitrates in Aquaponics RAS and biofloc fish biological filters, sewage systems, etc.

#### Product Benefits

- ✓ **Protect Aquatic Physiology**  
Elevated NH<sub>3</sub> levels lead to aquatic life tissue damage, impaired gill function, increased aggression, altered swimming patterns and disrupt other physiological functions
- ✓ **Increase Reproduction**  
Prolonged exposure to elevated NH<sub>3</sub> concentrations hinder the growth and development of aquatic organisms, compromising reproductive capabilities
- ✓ **Reduce Susceptibility to Disease**  
Ammonia toxicity compromises aquatic life immune systems, making them more susceptible to disease, compromising the health of the overall population
- ✓ **Reduce Water Renewal Frequency**  
Shortfalls in water renewal leads to the build up of harmful toxins, pollutants, harmful algae blooms, and eutrophication

#### Biofloc System

We have extensive experience in designing, installing and operating Biofloc & RAS systems, enabling a capacity of 100kg fish per cubic meter of water

#### Our Systems:

- Adopt water recycling mechanisms and reduce water usage
- Improve feed utilization and waste management practices
- Increase water quality and nutrients, integrating our NO AMMONIA product
- Are cost effective, using simple methods and do not require the need for sophisticated equipment





Aquaculture Solutions



Crop Growth Solutions



Insecticides



Disease Prevention

## Bio Stimulant Products

### 1 Phyto - EM

Reg. # 6012 – Ministry of Agriculture – Jordan



A concentrated mother culture mix that contains a compatible group of beneficial micro-organisms, namely:

- lactic acid bacteria
- photosynthetic bacteria
- molds & yeast

Phyto - EM works to improve soil fertility, secrete growth hormones, vitamins, antibiotics, mineralize and chelate mineral elements, and reduce soil salinity

#### Product Benefits

#### ✓ Enhance Soil & Elements

Balance phosphate and potassium compounds in the soil and their absorbability, as well as produce amino acids that increase growth and immunity

#### ✓ Increases Crop Quality

Increases flowering and crop yield quality in terms of storage period

#### ✓ Protects Plant Ecosystem

Promotes soil fertility, healthy decomposition and atmospheric nitrogen fixation

### 2 Stimulant A

Reg. # 8431 – Ministry of Agriculture – Jordan



A is concentrated mother cultures mix of Bacillus Spp., a beneficial bacterial with a wide range and long-term action that promotes plant growth

Stimulant A improves the quality and quantity of the production of plants, fruits and vegetables and simultaneously reduce the risk of recurrent diseases

#### Product Benefits

#### ✓ Enhances Soil & Plant Elements

Facilitates the absorption potassium compounds in the soil, as well as produce amino acids that increase growth and immunity

#### ✓ Enhances Crop Quality

Increases agricultural output size and crop yield quality in terms of taste, brightness and flavor

#### ✓ Protects Plant Ecosystem

Promotes soil fertility, healthy decomposition, and atmospheric nitrogen fixation

### 3 Stimulant B

Reg. # 8430 – Ministry of Agriculture - Jordan



A rhizo bacterium that increases the growth and liberation of potassium even in the absence of iron, the secretion of natural disinfectants, and enhance ISR in plants

Stimulant B acts as an insect inhibitor as it greatly reduces the hatching of insect eggs in the soil in addition to secreting natural growth hormones

#### Product Benefits

#### ✓ Fast Acting and Durable

Works efficiently in cold weather conditions and breaks down toxic organic compounds in soil within hours as opposed to naturally, within years

#### ✓ Strengthens Plant Immunity

Increases natural resistance to diseases with a particular immunity to fungal diseases

#### ✓ Natural Pesticide

Tackles insect eggs and larvae, reducing hatching and preventing infestation





Aquaculture Solutions



Crop Growth Solutions



Insecticides



Disease Prevention

## Bio Pesticide Products



### 1 Bacillus Thuringiensis Kurstaki (Btk)

Under Registration

A bacterium found naturally in soils, used as a biological pest control agent to combat a variety of forestry and agricultural insect pests

Our Btk solution produces proteins that are intercept insect larvae. Microscopic proteins are also ingested by insects if they feed on tree leaves

#### Product Benefits

- ✓ **Targets Several Insect Species**  
Target a diversity of insects from borers to lepidoptera including tonsil stalk borer (Synods), vegetable stalk diggers, moths and deworms, flower worms, manure worms, and tunnel makers
- ✓ **Safe & Durable**  
Environmentally friendly liquid organic insecticide with great efficacy that lasts for weeks and is non-toxic to bees.
- ✓ **Fast Acting**  
Deters pests within hours with full eradication within two to five days



### 2 Bacillus Thuringiensis Israelensis (Bti)

Under Registration

A concentrated liquid organic bacterial insecticide, used to target Order Diptera with a particular focus on black flies and mosquitos

Our Bti solution works towards intercepting certain Dipteran larvae, ensuring minimal direct effects on non-target organisms

#### Product Benefits

- ✓ **Prevents Black Flies & Mosquitos**  
Targets insect larvae that transmit diseases and viruses such as dengue fever, malaria, and others
- ✓ **Environment Friendly**  
Has no adverse effects on humans, animals, livestock, pets, birds, or wildlife.
- ✓ **Larvae Control**  
It is only effective against larvae and does not affect the virginity of flies, mosquitos, or adults, acting as a preventative of infestations





Aquaculture Solutions



Crop Growth Solutions



Insecticides



Disease Prevention

## Disease Control Solutions



### 1 Trichoderma

Reg. # 8844 – Ministry of Agriculture – Jordan

A genus of fungi that acts towards the promotion of plant growth, improvement to root structure and condition, and the enhancement of seed germination and viability

These biological agents act as bio pesticides by antagonizing harmful organisms through mechanisms such as intraspecific competition, mycoparasitism, and the production of enzymes that degrade pathogen cell walls

#### Product Benefits

- ✔ **Prevents Soil Borne Diseases**  
Effectively controls diseases caused by soil-borne pathogens such as Phytophthora, Pythium, Fusarium, Rhizoctonia, Cylindrocladium, and Thielaviopsis species
- ✔ **Increases Crop Productivity**  
Promotes the development of healthy root systems and enhances the quality and quantity of crops
- ✔ **Environment Friendly**  
Allows farmers to effectively manage plant diseases while deducing reliance on chemical pesticides

### Research & Development

The company is currently undertaking research and development initiatives in collaboration with Jordan's Ministry of Health, the Higher Health Council (HHC) and the Royal Scientific Society (RSS) (under the patronage of HRH princess Sumaya Bint El Hassan), with an aim to further develop its disease prevention range

#### Study Focus Areas:

#### 1 Tomato Brown Rugose Fruit Virus (ToBRFV)

**20%**  
loss of crop is due to ToBRFV

#### 2 Fosalium Wilt of Bananas

**100%**  
loss of crop is due to Fusalium

#### Study Objectives:

- Develop an in-vitro assay to evaluate the antiviral efficacy against plant viruses
- Study the effect of the bacterial bio fertilizers on the health and immune status of plants
- Control and prevent spreading of ToBRFV within tomato crops and Fosalium in Banana trees







**ALMASSAD**  
INVESTMENT L.L.C

**Meet the faces fueling our growth.** We're pleased to introduce our investment team, each member carefully selected to maximize our collective potential.

With a focus on specialized allocation based on individual experience and expertise, we ensure that each team member operates within their areas of strength, thereby optimizing the added-value we provide for our Stakeholders.

We are poised to drive innovation, harness synergies, and uphold the highest standards of excellence in the private equity field.

**For more info Contact our Representative :**

**ALMASSAD INVESTMENT**

**Email : [info@massad.ae](mailto:info@massad.ae)**

**Mobile : +971 50 309 9733**

**+971 56 230 0200**

