

**MicrobeBio®**

**MICROBEBIO  
APPLICATION FOR  
OPTIMAL OKRA  
YIELD**





Okra (*Abelmoschus esculentus*) is a nutrient-demanding crop that thrives in well-drained, fertile soils with a pH of 5.8–7.0. Proper organic nutrient management using Microbebio products, combined with effective pest and disease control, ensures optimal vegetative growth, flowering, and pod production. This guide provides a detailed schedule for applying Microbebio organic fertilizers and pest/disease control measures across all growth stages to maximize okra yield (60–70 quintals/acre with proper care). Fertilizer applications should be guided by soil tests to avoid nutrient imbalances, as excessive nitrogen can lead to excessive foliage at the expense of pods, while insufficient phosphorus or potassium can stunt root development and disease resistance.





**MICROBEBIO  
FERTILIZER  
SCHEDULE BY  
GROWTH STAGE**

# PRE-PLANTING (SOIL PREPARATION, BEFORE SOWING)



## **OBJECTIVE:**

Build soil fertility and provide a nutrient base for seedling establishment.

## **ORGANIC FERTILIZERS:**

- **Microbebio Nature Vigor:** Apply 5 kg/ha to enhance soil microbial activity and nutrient availability.
- **Microbebio Rhizo Activator:** Apply 75 kg/ha to promote root development and nutrient uptake.
- **Farmyard Manure (FYM) or Compost:** Apply 8–10 tons/acre, well-rotted, 3– 4 weeks before planting to improve soil structure and provide slow-release nutrients.

## **APPLICATION METHOD**

Broadcast and incorporate into the soil 6–8 inches deep or apply in a band 2–3 inches below and to the side of the seed row to avoid root burn.



# SEEDLING STAGE (0–3 WEEKS AFTER PLANTING)



## **OBJECTIVE:**

Support early growth and root establishment.

## **ORGANIC FERTILIZERS:**

- Formula AA: Mix 500 g Microbebio X1, X3, X5 + 8 L Hydro Activator + 5 kg Nature Vigor, diluted in 500 L non-chlorinated water/ha. Apply as a foliar spray every 8 weeks to boost nitrogen, micronutrients, and pest/disease resistance.

## **APPLICATION METHOD:**

Use foliar sprays for Formula AA to ensure rapid nutrient delivery.

# VEGETATIVE GROWTH (3–6 WEEKS AFTER PLANTING)



## **OBJECTIVE:**

Promote strong vegetative growth and root development.

## **ORGANIC FERTILIZERS:**

- Formula AA: Continue 500 g Microbebio X1, X3, X5 + 8 L Hydro Activator + 5 kg Nature Vigor, diluted in 500 L non-chlorinated water/ha, every 8 weeks as a foliar spray.

## **APPLICATION METHOD:**

Foliar sprays for Formula AA ensure quick nutrient uptake.



# FLOWERING AND FRUIT SET (6–8 WEEKS AFTER PLANTING)



## **OBJECTIVE:**

Enhance flower formation and pod development.

## **ORGANIC FERTILIZERS:**

- Formula AA: Continue 500 g Microbebio X1, X3, X5 + 8 L Hydro Activator + 5 kg Nature Vigor, diluted in 500 L non-chlorinated water/ha, every 8 weeks as a foliar spray.

## **APPLICATION METHOD:**

Foliar sprays for Formula AA ensure rapid nutrient delivery.

# FRUIT DEVELOPMENT AND HARVEST (8–12 WEEKS AND BEYOND)



## **OBJECTIVE:**

Maximize pod size, quality, and yield while prolonging harvest.

## **ORGANIC FERTILIZERS:**

- Formula AA: Continue 500 g Microbebio X1, X3, X5 + 8 L Hydro Activator + 5 kg Nature Vigor, diluted in 500 L non-chlorinated water/ha, every 8 weeks.

## **APPLICATION METHOD:**

Foliar sprays for Formula AA ensure sustained nutrient delivery.



# **RATOONING** (MID-SEASON FOR EXTENDED HARVEST, OPTIONAL)



## **OBJECTIVE:**

Stimulate new growth and a second crop by cutting back plants.

## **ORGANIC FERTILIZERS:**

- **Microbebio Rhizo Activator:** Apply 75 kg/ha after cutting to replenish soil nutrients.
- **Compost or FYM:** Apply 1–2 tons/ha post-cutting to support new growth.

Application Method: Side-dress Rhizo Activator and compost/FYM after cutting plants to 6–12 inches, followed by irrigation.



## GENERAL NOTES ON FERTILIZER APPLICATION

- **Soil Testing:** Conduct soil tests every 2–3 years to determine nutrient deficiencies and adjust application rates.
- **Irrigation:** Water after fertilizing to ensure nutrient uptake, especially for granular applications. Use drip irrigation for precise delivery and to reduce foliar diseases.
- **Organic Matter:** Regular additions of compost or FYM, alongside Microbebio products, improve soil structure and long-term fertility, reducing nutrient deficiencies.
- **Micronutrients:** Ensure adequate calcium, magnesium, iron, manganese, and zinc to prevent deficiencies (e.g., yellowing leaves for nitrogen, purplish leaves for phosphorus, scorched leaf edges for potassium).





# Diseases & Pests

# PESTS, FUNGI, VIRUSES, AND DISEASES BY GROWTH STAGE

Okra is susceptible to various pests, fungal, viral, and bacterial diseases that can reduce yield if not managed properly. Below are the major threats by growth stage, with symptoms and Microbebio-based control measures, supplemented by organic practices.

## SEEDLING STAGE (0–3 WEEKS AFTER PLANTING)

1	Pests	<ul style="list-style-type: none"><li>• <b>Aphids (<i>Aphis gossypii</i>):</b> Small sap-sucking insects causing curled leaves and stunted growth. Transmit Yellow Vein Mosaic Virus (YVMV).</li><li>• <b>Cutworms:</b> <i>Larvae cut seedlings at the base, causing wilting and death.</i></li></ul>	Apply Formula AA (with X3) every 8 weeks for prevention; Green Furry (500 ml/300 L water/ha) for outbreaks. Introduce ladybugs for aphids. Use collars around seedlings for cutworms.
2	Fungal Diseases	<ul style="list-style-type: none"><li>• <b>Damping-Off (<i>Rhizoctonia spp.</i>, <i>Pythium spp.</i>):</b> Seedlings collapse due to root/stem rot in cold, wet soils.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom (500 ml/300 L water/ha) for outbreaks. Use resistant varieties (e.g., Arka Anamika) and yellow sticky traps for whiteflies.
3	Viral Diseases	<ul style="list-style-type: none"><li>• <b>Yellow Vein Mosaic Virus (YVMV):</b> Transmitted by whiteflies, causing yellowing veins and reduced growth.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom (500 ml/300 L water/ha) for outbreaks. Use resistant varieties (e.g., Arka Anamika) and yellow sticky traps for whiteflies.
<b>Cultural:</b> Plant in warm (above 60°F), well-drained soil. Ensure spacing (12– 18 inches between plants, 3 ft between rows) to improve air circulation. Avoid overwatering.			



**VEGETATIVE GROWTH (3–6 WEEKS AFTER PLANTING)**

1	<b>Pests</b>	<ul style="list-style-type: none"><li>• <b>Whiteflies (<i>Bemisia tabaci</i>):</b> Sap-sucking pests causing leaf yellowing and transmitting YVMV.</li><li>• <b>Leafhoppers:</b> Cause leaf stippling and reduced photosynthesis.</li><li>• <b>Japanese Beetles:</b> Skeletonize leaves, reducing photosynthesis.</li></ul>	Apply Formula AA (with X3) every 8 weeks; Green Furry (500 ml/300 L water/ha) for outbreaks. Hand-pick beetles.
2	<b>Fungal Diseases</b>	<ul style="list-style-type: none"><li>• <b>Southern Blight (<i>Sclerotium rolfsii</i>):</b> White mycelium at plant base, causing stem rot and wilting.</li><li>• <b>Verticillium Wilt (<i>Verticillium dahliae</i>):</b> Vascular wilting with yellowing leaves and stunted growth.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Rotate with non-hosts (e.g., grasses/cereals). Remove infected plants for YVMV.
3	<b>Viral Diseases</b>	<ul style="list-style-type: none"><li>• <b>YVMV:</b> Continues to spread via whiteflies, reducing leaf size and vigor.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Rotate with non-hosts (e.g., grasses/cereals). Remove infected plants for YVMV.
<b>Cultural:</b> Regular scouting and early intervention. Avoid high nitrogen to reduce sap-sucking pests.			



**FLOWERING AND FRUIT SET (6–8 WEEKS AFTER PLANTING)**

1	<b>Pests</b>	<ul style="list-style-type: none"><li>• Stink Bugs and Leaf-Footed Bugs: Cause bumpy, misshapen pods, reducing marketability.</li><li>• Corn Earworms: Invade pods, affecting seed quality.</li><li>• Fruit Borers (Earias vittella): Bore into pods, causing internal damage.</li></ul>	Apply Formula AA (with X3) every 8 weeks; Green Furry for outbreaks. Remove weeds for stink bugs. Harvest pods every 1–2 days for earworms.
2	<b>Fungal Diseases</b>	<ul style="list-style-type: none"><li>• Fusarium Wilt (<i>Fusarium oxysporum</i>): Vascular wilting, exacerbated by root-knot nematodes.</li><li>• Powdery Mildew (<i>Erysiphe cichoracearum</i>): White powdery spots on leaves, reducing photosynthesis.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Rotate with cereals, intercrop with marigolds for Fusarium. Use neem oil for powdery mildew. Control whiteflies and use resistant varieties for OELCV.
3	<b>Viral Diseases</b>	<ul style="list-style-type: none"><li>• Okra Enation Leaf Curl Virus (OELCV): Causes leaf curling and stunted pods, spread by whiteflies.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Rotate with cereals, intercrop with marigolds for Fusarium. Use neem oil for powdery mildew. Control whiteflies and use resistant varieties for OELCV.

**Cultural:** Avoid overhead irrigation to reduce fungal risk. Ensure proper spacing.



FRUIT DEVELOPMENT AND HARVEST (8–12 WEEKS AND BEYOND)

1	Pests	<ul style="list-style-type: none"><li>• <b>Fire Ants:</b> Attack young pods, causing damage at the base.</li><li>• <b>Aphids and Whiteflies:</b> Affect pod quality and transmit viruses.</li></ul>	Apply Formula AA (with X3) every 8 weeks; Green Furry for outbreaks. Use spinosad for fire ants.
2	Fungal Diseases	<ul style="list-style-type: none"><li>• <b>Fusarium Wilt:</b> Continues to impact yield if not managed earlier.</li><li>• <b>Cercospora Leaf Spot (<i>Cercospora abelmoschi</i>):</b> Causes dark spots on leaves, reducing photosynthesis.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Continue crop rotation and whitefly control. Remove infected plants.
3	Viral Diseases	<ul style="list-style-type: none"><li>• <b>YVMV and OELCV:</b> Persistent infections reduce pod size and yield.</li></ul>	Apply Formula AA (with X5) every 8 weeks; Nature Vernom for outbreaks. Continue crop rotation and whitefly control. Remove infected plants.
Cultural: Harvest pods every 1–2 days at 3–4 inches to maintain tenderness and encourage production.			







## GENERAL PEST AND DISEASE MANAGEMENT TIPS

- **Integrated Pest Management (IPM):** Combine cultural practices (crop rotation, resistant varieties, weed control) with Microbebio applications (Formula AA with X3/X5 every 8 weeks; Green Furry or Nature Vernom for outbreaks).
- **Sanitation:** Remove plant debris and old pods to reduce pathogen/pest reservoirs.
- **Crop Rotation:** Rotate with non-host crops (e.g., cereals, grasses) to reduce nematode and fungal populations.
- **Resistant Varieties:** Use cultivars like Arka Anamika (YVMV-tolerant) or Clemson Spineless.
- **Monitoring:** Inspect plants weekly, especially during flowering and fruiting.





## ADDITIONAL TIPS FOR OPTIMAL YIELD

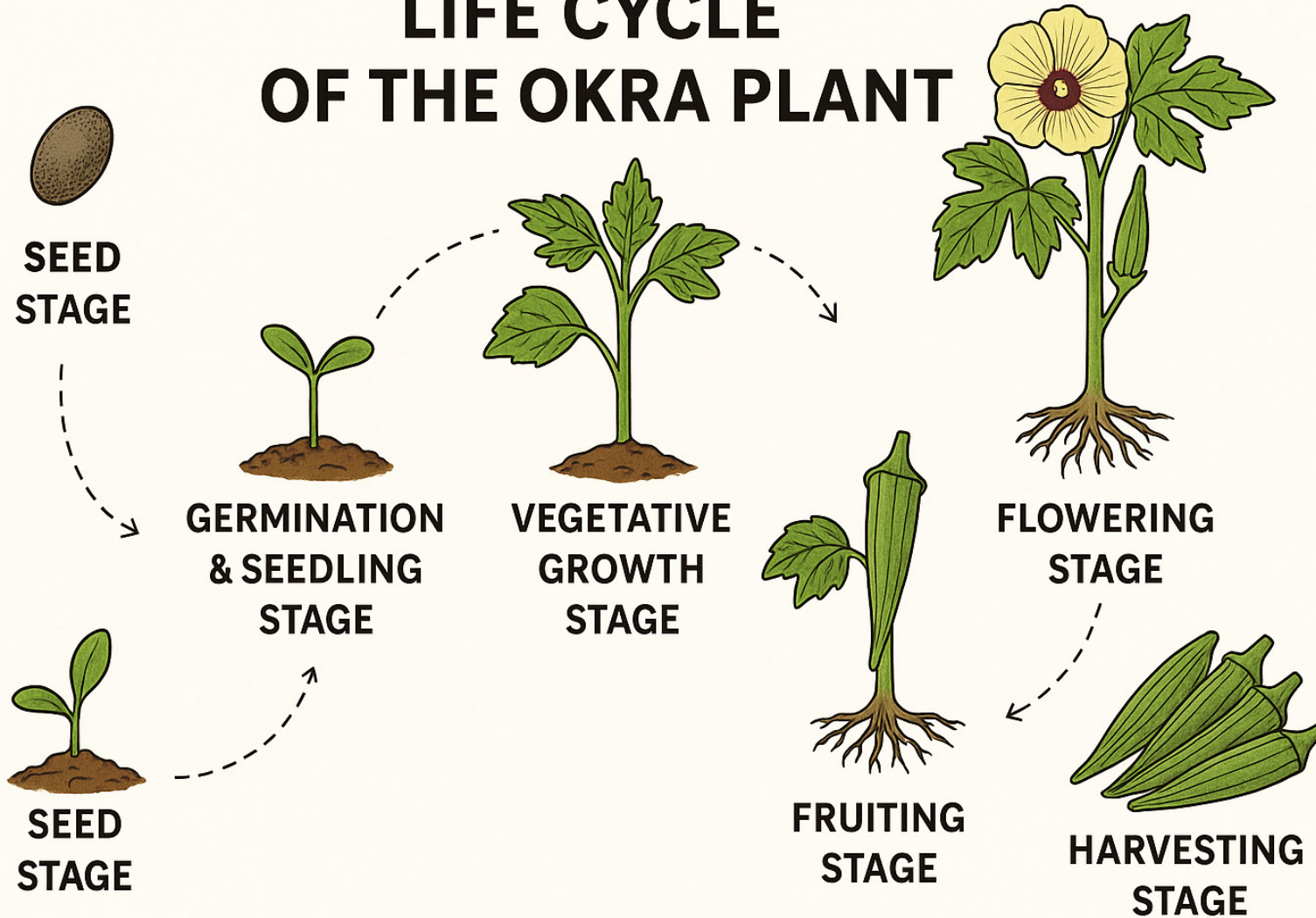
- **Soil pH:** Maintain 5.8–7.0 using dolomitic lime if below 5.8.
- **Irrigation:** Provide consistent moisture (every 7–10 days, more in sandy soils) without waterlogging. Use drip irrigation to prevent foliar diseases.
- **Spacing:** Plant seeds 1 inch deep, 12–18 inches apart, in rows 3–6 feet apart to reduce disease spread.
- **Harvesting:** Pick pods every 1–2 days at 3–4 inches to maintain tenderness and encourage continuous production.
- **Mulching:** Use organic mulch (e.g., straw) to suppress weeds and retain moisture, avoiding high-carbon materials like wood chips.

The background of the slide is a collage of three images. The top-left image shows a worker in a green uniform, blue gloves, and a face mask, holding a box of green okra in a greenhouse. The bottom-left image shows a hand holding a small green seedling with a water droplet on its leaf, with a label that says 'Seedling'. The right side of the slide features a large, detailed image of a mature okra plant with green leaves and okra fruits. A large, dark green, abstract shape is overlaid in the center, containing the word 'APPLICATION' in white capital letters.

# APPLICATION



# LIFE CYCLE OF THE OKRA PLANT





## Application rate - per hectare

# OKRA

ORGANIC SOIL ENHANCEMENT	PRODUCT	BEFORE SOWING DAY (-30)	WEEK 1	WEEK 3	WEEK 6	WEEK 8	WEEK 12
	* NATURE VIGOR	5 kg	5 kg	5 kg	5 kg	5 kg	-
	* HYDRO ACTIVATOR	-	8 l	8 l	8 l	8 l	-
	*AQUA ACTIVATOR GRW	-	500 g	500 g	500 g	500 g	-
	**RHIZO ACTIVATOR	75 KG	-	-	-	-	75 KG
BIORATIONAL	*AQUA ACTIVATOR X1™ (NEMATO)	-	500 g	500 g	500 g	500 g	-
	*AQUA ACTIVATOR X3™ (PEST)	-	500 g	500 g	500 g	500 g	-
	*AQUA ACTIVATOR X5™ (FUNGUS)	-	500 g	500 g	500 g	500 g	-
	*AQUA ACTIVATOR X9™ (VIRUS - BACTERIA)	-	-	-	-	-	-
	*AQUA ACTIVATOR X11™ (COMPOSE)	-	-	-	-	-	-
	*GREEN FURY (PEST)	Plant disease outbreak (pest): agitate 500 ml Green Fury™ into at least 400 liters of non-chlorine water to treat 1 hectare.					
	*NATURE VENOM (FUNGUS)	Plant disease outbreak (fungus and virus): agitate 500 ml Nature Venom™ into at least 400 liters of non-chlorine water to treat 1 hectare.					

**100%**  
**ORGANIC SOIL**  
**ENHANCEMENT**

## INTRODUCTION

Elevate Plant Growth, Flavor, Aroma, and Nutrients While Boosting Yield and Shelf Life

Unlock Nature's Potential for Remarkable Plant Growth and Sustainable Soil Health

MicrobeBio® Aqua Activator GRW™ is your key to exceptional plant growth, heightened flavor and aroma, increased nutrient content, and extended shelf life. Our innovative product harnesses the power of beneficial bacteria and microorganisms to not only enhance plant development but also promote carbon sequestration and eco-friendly soil remediation.



## KEY ADVANTAGES

**Increased Yield:** MicrobeBio® Aqua Activator GRW™ not only stimulates biological activity but also maximizes nutrient uptake. This results in significantly higher crop yields, ensuring a more abundant harvest.

**Enhanced Flavor and Aroma:** Our advanced formula promotes the production of natural compounds that enhance the flavor and aroma of your plants. Experience tastier and more aromatic crops that stand out in the market.

**Nutrient Enrichment:** Unlock bound-up nutrients in the soil, making them readily available to your plants. The result? Crops that are not only bountiful but also more nutrient-rich, providing healthier choices for consumers.



**Extended Shelf Life:** By bolstering plant health and resilience, Aqua Activator GRW™ helps increase the shelf life of your produce. Reduce waste and extend your products' availability to consumers.

**Stabilizes Atmospheric Nitrogen:** Our product stabilizes atmospheric nitrogen in the soil, reducing the need for chemical fertilizers. This sustainable approach ensures healthy nitrogen levels while minimizing environmental impact.

**Solubilizes Minerals Compounds:** Through phosphate solubilization and mobilization of essential soil nutrients, our product promotes soil fertility, benefiting both your plants and the environment.

**Carbon Sequestration:** Aqua Activator GRW™ utilizes carbon sequestration to enhance plant hormones and store carbon in the soil. This not only benefits plant growth but also contributes to mitigating climate change.



**Soil Structure Improvement:** Our product enhances soil structure, reducing water retention and eliminating issues like surface runoff, volatilization, and salinity. It rebuilds soluble organic matter in the topsoil, promoting a sustainable and resilient soil ecosystem.

**Natural Disease Resistance:** By boosting microbial activity and saprophytic competence, Aqua Activator GRW™ enhances plants' resistance to diseases and pathogens, reducing the need for harmful pesticides.

**Environment-Friendly Soil Remediation:** Regenerate your soil's tilth and reduce dependence on toxic and caustic compounds commonly found in today's market. Aqua Activator GRW™ is a safe and eco-friendly alternative that promotes long-term soil health.



Join the forefront of sustainable agriculture with Aqua Activator GRW™. Unlock the full potential of your crops while promoting carbon sequestration and environment-friendly soil remediation. Choose the eco-conscious way to grow and nurture your plants, ensuring increased yield, enhanced flavor, aroma, nutrient enrichment, and extended shelf life.



Microbebio Aqua Activator: Balancing Soil pH with Beneficial Microbes\*\*

Microbebio Aqua Activator helps balance soil pH through the following mechanisms:

## KEY MECHANISMS

### 1. Organic Matter Decomposition

Microbes decompose organic matter, producing humic and fulvic acids, which lower soil pH in alkaline conditions.

### 2. Nitrogen Fixation

Nitrogen-fixing bacteria produce nitric acid as a by-product, reducing soil alkalinity.

### 3. Mineral Weathering

Microbes secrete organic acids that dissolve minerals, releasing nutrients and acidifying the soil.

### 4. Sulfur Oxidation

Sulfur-oxidizing bacteria convert sulfur to sulfuric acid, significantly lowering pH in alkaline soils.

### 5. Phosphate Solubilization

Bacteria release organic acids that dissolve insoluble phosphates, reducing soil pH and enhancing nutrient availability.

### 6. Enhanced Microbial Interactions

Promotes beneficial microbial relationships, producing compounds that help balance soil pH.

## BENEFITS

- Improved Nutrient Availability: Balanced pH ensures nutrients are accessible to plants.
- Enhanced Microbial Activity: Healthy microbial populations support optimal pH.
- Reduced Chemical Dependency: Lowers the need for chemical pH adjusters and fertilizers.

## Application

Apply Microbebio Aqua Activator as recommended for consistent microbial activity and optimal soil pH.



Aqua Activator effectively balances soil pH, creating a healthier, more productive soil environment through the power of beneficial microbes.



## INTRODUCTION

In the dynamic realm of agriculture, achieving optimal crop yields while preserving soil health remains a perpetual challenge. Meet Microbebio Nature Vigor™, an innovative biofertilizer derived from natural organic carbon, meticulously designed to redefine agricultural productivity. Let's explore how Nature Vigor can elevate your crops and revolutionize your farming practices.

Microbebio Nature Vigor™ harnesses the power of organic carbon to enhance soil fertility and stimulate vigorous plant growth. This advanced biofertilizer is crafted to optimize nutrient uptake, improve soil structure, and fortify crops against environmental stresses.

Microbebio Nature Vigor™ isn't just a biofertilizer; it's a cornerstone of sustainable agriculture, meticulously formulated to maximize crop yields while nurturing soil health. Whether you seek to enhance soil fertility, improve nutrient efficiency, or fortify crop resilience, Nature Vigor offers an advanced solution rooted in scientific innovation. Embrace the power of organic carbon and unlock the full potential of your crops and farming practices today.

## BENEFITS

- Enhanced Nutrient Utilization:** Acting as a potent chelating agent, Nature Vigor™ facilitates the absorption of essential nutrients such as nitrogen, phosphorus, potassium, and trace minerals, promoting robust plant growth and development.
- Improved Soil Structure:** By promoting soil particle aggregation, Nature Vigor™ enhances soil structure, improving water infiltration and retention. This reduces erosion and enhances overall soil stability.
- Stress Resilience:** Plants treated with Nature Vigor™ exhibit enhanced tolerance to environmental stresses like drought, salinity, and temperature fluctuations. This resilience ensures consistent yields even under challenging conditions.
- Optimized pH Levels:** Nature Vigor™ helps maintain balanced soil pH levels, creating an optimal environment for root growth and nutrient uptake. It mitigates soil acidity, ensuring optimal nutrient availability for plants.
- Stimulated Microbial Activity:** While Nature Vigor™ itself does not contain beneficial microbial strains, it fosters a robust microbial community in the soil by creating a favorable environment for microbial activity. This enhances nutrient cycling, disease suppression, and overall soil health.
- Reduced Nutrient Leaching:** By improving nutrient retention in the soil, Nature Vigor™ minimizes nutrient leaching, maximizing the efficiency of applied fertilizers and reducing environmental impact.
- Enhanced Seed Germination and Root Development:** Nature Vigor™ accelerates seed germination and stimulates robust root development, enabling plants to efficiently access nutrients and water.





## INTRODUCTION

MicrobeBio® Rhizo Activator™ is an all-natural and organic granular slow-release fertilizer enhanced with mycorrhizae and beneficial microbes that was designed to primarily stimulate plant root growth. Rhizo Activator Super is packed full of essential beneficial microbes, Macro and Micro nutrients that are crucial to superior plant growth, and delivers these nutrients in a form that is consistently available for the plant's immediate use. Rhizo Activator Super contains primary and secondary nutrients, along with organic matter with available nitrogen sources, as well as bio-stimulants and advanced biological humic and fulvic acids. This combination of organic and mineral elements establishes the fundamental food sources needed in order to stimulate the colonization of beneficial soil microbes, regardless of the crop or condition of the soil. Once MicrobeBio® Rhizo Activator™ is applied to the soil, millions upon millions of these beneficial bacteria and microbes begin to make their way to the plant root zone to develop and form a fully functional extended network of fine filaments that covers over seven hundred times more soil area. This establishes and forms a symbiotic relationship, colonizing the plant's root zone and providing it with a greater increase in water and nutrient absorption efficiency. With the increase in the plant's root mass, this allows for the plant to reach more of the beneficial nutrients and water that would have otherwise been unavailable for use without having used Rhizo Activator. The plant will also show improved drought tolerance and have much lower irrigation requirements. Rhizo Activator Super will strengthen the entire plant's root system, allowing the plant to grow stronger, bigger and more vigorous. This leads to generating a higher yield and better protects against pests, disease and unfavorable environmental conditions. Rhizo Activator greatly enhances bio-geochemical processes such as the Carbon Cycle, Nitrogen Cycle, Mineralization, as well as Decomposition. It gives the soil the ability to better hold, convert, stabilize and increase the nitrogen. Rhizo Activator ensures the absorption of the available bio-stimulants and helps to fight the nutrient deterioration in nearby sources of water. This is because our product was designed to break down slowly in conjunction of response produced by the plant, rather than merely dissolving in water. This results in a major reduction of groundwater leeching and excess runoff of nutrients. MicrobeBio® Rhizo Activator™ is an all-around environmentally friendly agricultural product that majorly minimizes nutrient pollution.



The image shows the product packaging for MicrobeBio Rhizo Activator, which is a granular slow-release bio-fertilizer. The packaging features a green and white design with the product name prominently displayed. Below the packaging, there is a photograph of a lush green field with rows of crops, illustrating the product's application in agriculture. A small American flag icon with the text 'MADE IN USA' is visible in the bottom right corner of the field image.

**MicrobeBio® Rhizo Activator™**

**INTRODUCTION**  
MicrobeBio Rhizo Activator is an all-organic granular slow release bio fertilizer that contains primary, secondary, micro-nutrients, designed to regenerate soil structure/fertility while maintaining crop growth and developing strong and healthy roots. Rhizo Activator contains organic matter with available organic carbon/nitrogen sources, mined minerals from the Earth and beneficial microorganisms to improve the efficient of plant metabolism and increase plant tolerance to physical and biological stresses while promoting quick recovery. It is also a food source for the microbes to perform more effectively.

This product improves the bio-geochemical process such as carbon cycle, nitrogen cycle, mineralization, and decomposition. It has the ability to hold, convert, stabilize and increase nitrogen in the soil and enhance plant resistance to harmful pathogens and bacteria that evade the rhizospheres to improve soil health and plant growth. This product is easy to use for broadcasting as a direct nutrient contact to seeds and roots across the entire field.

**Benefits**

- Promotes growth
- Stimulates microbial activity
- Improves root depth and density
- Enhances water holding capacity
- Increases nutrient efficiency
- Improves water retention

**GENERAL APPLICATION**  
(For best result, use in combination with other MicrobeBio products.)

- Broadcasting 25 kg Rhizo Activator evenly over the entire crop soil
- Method: manual or using rotary/drop spreaders. Do not put the product into any water sprayers.

**ANALYSIS**

Organic matter	42%	Ratio C:N	12
N	3	pH	5
P	2	Molure	30%
K	2		

**STORAGE**  
Store indoors in a cool, dry place. Do not store in sunlight or warm conditions. Close packets if not fully used. Shake well. Wash exposed areas thoroughly with soap and water after handling. Avoid eye contact.

**WARRANTY LIMITATIONS**  
Any liability, expressed or implied, is limited to the purchase price of this product.

**Net Wt. 25 kg**

BATCH No.:  
EXP. DATE :

Manufactured By:  
**MicrobeBio Inc.**  
28925 Nichols Sawmill Rd  
Magnolia, TX 77355

[www.microbebio.com](http://www.microbebio.com)  
[info@microbebio.com](mailto:info@microbebio.com)



## BENEFITS

- ◆ Improved root depth and density.
- ◆ Stimulate biological activity by increasing microbial colony.
- ◆ Stimulate plant growth and increased yield
- ◆ Deliver primary nutrient source of food for plants
- ◆ Remediate salinity and heavy metal contamination in soils
- ◆ Regulate pH in acid or alkaline conditions
- ◆ Increases BRIX levels
- ◆ Increase organic matter and Carbon source
- ◆ Increase Chlorophyll Content
- ◆ Enhance natural defenses
- ◆ Improve water retention
- ◆ Improve soil structure



## INTRODUCTION

MicrobeBio® Hydro Activator™ helps growers achieve earlier flowering, larger blooms, and fruit. It also slows the aging process of crops. Hydro Activator is an organic liquid fertilizer that is safe for use on all crops, including fruits and vegetables. Using Hydro Activator will dramatically increase the Brix levels of productivity.

MicrobeBio® Hydro Activator™ is packed full of the nutrients that plants need, including more than 40 mineral elements, organic proteins, essential vitamins, and amino acids. This makes it an ideal product to use during different stages of plant growth, as it provides everything that plants need to thrive.

If you're looking for a way to make your produce look fresher, taste better, and last longer, then you need MicrobeBio® Hydro Activator™. Plants treated with MicrobeBio® Hydro Activator™ will have healthier, greener leaves and better flavor. Hydro Activator increases the Brix levels responsible for the sweet flavor, making fruits and vegetables tastier. MicrobeBio® Hydro Activator™ helps growers achieve earlier flowering, larger blooms, and fruit. It also slows the aging process of crops. Hydro Activator is an organic liquid fertilizer that is safe for use on all crops, including fruits and vegetables. MicrobeBio® Hydro Activator™ is packed full of the nutrients that plants need, including more than 40 mineral elements, organic proteins, essential vitamins, and amino acids. This makes it an ideal product to use for all stages of plant growth, as it provides everything that plants need to thrive.

## BENEFITS

- ◆ Immediately delivers primary nutrients (NPK) and renders them readily accessible for plant roots
- ◆ Furnishes a premium-selected sequential chain of sustainable, life-giving microbes for continuing soil and plant health
- ◆ Stimulates significant bio-mass (root) growth which is essential for plant health and growth
- ◆ Enhances plant BRIX levels (sugars) to enrich the bio-available food source for soil microbes
- ◆ Remediate salinity and heavy metal contamination in soils
- ◆ Improves water retention (by expanding the root system) and increases drought tolerance
- ◆ Balances pH in acid or alkaline conditions for optimal nutrient uptake
- ◆ Maintains a C:N Ratio (Carbon & Nitrogen) by activating microbes to release nutrients such as nitrogen, phosphorus, and zinc to crops
- ◆ Boosts chlorophyll content in leaves to invigorate the photosynthesis process
- ◆ Acts as a powerful prophylactic by preventing harmful Rhizoctonia and fusarium spores from germinating.
- ◆ Is comprised of 100% eco-friendly elements, which are non-toxic and are safe to use around children, adults, pets, and livestock





**BIORATIONAL**

MicrobeBio® Aqua Activator X1™ reduces the pathogenic nematode population protecting the root system and promoting the growth, yields, and quality of all types of plants.

The product controls and regulates many plant pathogenic nematodes, such as *Ditylenchus* sp.; *Helicotylenchus* sp.; *Meloidogyne* sp.; *Radopholus* sp.; *Pratylenchus* sp.; *Rotylenchulus* sp.; *Tylenchus* sp.

MicrobeBio® Aqua Activator X1™ parasitizes all of the reproductive stages of plant pathogenic nematodes, specifically focused on eggs and females. The acidic pH conditions produce a toxin that attacks the nervous system of the nematodes and causes deformations and destruction of the ovaries, which reduces egg fertility. MicrobeBio® Aqua Activator X1™ reduces the nematode population, significantly protecting the plant's root system. By adding this layer of protection, the roots can develop and grow freely into a healthy root system. While MicrobeBio® Aqua Activator X1™ rids the plant of pathogenic nematodes, it, in turn, promotes the reproduction and growth of beneficial nematodes, along with phosphorus and nitrogen-fixing microorganisms, allowing the plant to absorb more nutrients by the healthier grown root system.

MicrobeBio® Aqua Activator X1™ reduces the pathogenic nematode population in the soil and promotes the growth, yields, and quality of all plants.

## TREATMENT

**Nematode:** *Ditylenchus* sp.; *Helicotylenchus* sp.; *Meloidogyne* sp.; *Radopholus* sp.; *Pratylenchus* sp.; *Rotylenchulus* sp.; *Tylenchus* sp.

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X1™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X1™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*







MicrobeBio® Aqua Activator X2™ is a revolutionary biological probiotic formula designed to treat citrus canker symptoms. The product features natural ingredients that target soil-borne fungi, such as *Aspergillus* spp., *Pythium* spp., *Fusarium* spp., and *Phytophthora* spp. It also helps fight bacterial infection, bacterial wilt, blight, scab, and other issues commonly found in citrus plants. Upon application of the treatment, users will observe yellow to brown lesions on stems, fruits, and the upper and lower sides of leaves beginning to disappear over time. This powerful formula provides an effective solution for those looking to prevent or cure citrus canker disease caused by fungal or bacterial infections.

### **GENERAL APPLICATION AND DILUTION INSTRUCTION**

Once the infected branches and fruit have been pruned, spray all components of the tree with Consortia X2. Dispose of any pruned branches completely by burning them or burying them in an isolated location. To prevent infection, use 1 kg of MicrobeBio® Aqua Activator X2™ per hectare mixed into 400 liters of non-chlorinated water for treatment. Regularly inspect plants for signs of infection and treat them immediately if symptoms are observed. Also, ensure trees are receiving adequate nutrition to help boost their immunity against disease.

MicrobeBio® Aqua Activator X2™ is best used when the sun is not at its strongest. It should be applied in the morning or late afternoon, as direct sunlight can damage the active microorganisms and make them less effective.



## TREATMENT

**Fungal:** Soil-borne (*Aspergillus* spp., *Pythium* spp., *Fusarium* spp., and *Phytophthora* spp.), etc  
**Bacterial:** Bacterial Infection, Bacterial Wilt, Blight and scab, etc

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X2™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X2™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*

**MicrobeBio® Aqua Activator™**

Net Wt. 1 KG

**PRODUCT DESCRIPTION**

MicrobeBio® Aqua Activator™ is an organic nutrient solution designed to improve the overall health, yield, and quality of all crops while promoting biodiversity. MicrobeBio encourages the growth of beneficial microorganisms that can help to maintain soil fertility and improve plant resistance to pests and diseases.

**Fungal:** Soil-borne (*Aspergillus* spp., *Pythium* spp., *Fusarium* spp., and *Phytophthora* spp.), etc  
**Bacterial:** Bacterial Infection, Bacterial Wilt, Blight and scab, etc

**NON-PLANT FOOD INGREDIENTS**

Contains the following bacteria:

- *Bacillus subtilis* 2.0 x 10<sup>9</sup> CFU/g
- *Bacillus pumilus* 2.0 x 10<sup>9</sup> CFU/g
- *Bacillus thuringiensis* 2.0 x 10<sup>9</sup> CFU/g
- *Chaetomium* sp. 2.0 x 10<sup>9</sup> CFU/g

**GENERAL APPLICATION**

**Prevent:** agitate 100 g MicrobeBio® Aqua Activator™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 400 g MicrobeBio® Aqua Activator™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Technical Note:**

- All application should be considered as a general guideline. Application rates for specific products may differ depending to soil conditions, plant categories, nutrient needs, and application approach.
- To obtain desired result, MicrobeBio® Aqua Activator™ requires appropriate timing and rate which highly depend on stages of plant growth, soil fertility levels, and environment setting.
- If uncertain of application rates for your specific soil, please consult a professional agronomist to examine soil samples and create specific application plan. Consult product literature for specific crop recommendations.

**STORAGE**

Store indoors in a cool, dry place. Close container tightly after each use. Avoid repeated direct sunlight. Use only under the following conditions:

**WARRANTY LIMITATIONS**

The information contained on this label is believed to be accurate and reliable. However, the user assumes the responsibility for the results obtained. MicrobeBio® Aqua Activator™ is not a substitute for proper agricultural practices. MicrobeBio® Aqua Activator™ is not a substitute for proper agricultural practices. MicrobeBio® Aqua Activator™ is not a substitute for proper agricultural practices.

**SPRAY INSTRUCTION:**

- During each stage of growth, MicrobeBio® Aqua Activator™ Solution can be applied by using plastic, fixed, drip or sprinkler on soil or as foliar feeding.
- For an optimal yield, apply MicrobeBio® Aqua Activator™ Solution at late afternoon and avoid direct sunlight.

**ATTENTION**

Please read and follow GDO instructions for safety precautions, labeling, and maintenance of PPE (Personal Protective Equipment).

**Not for human consumption. Keep out of reach of children.**

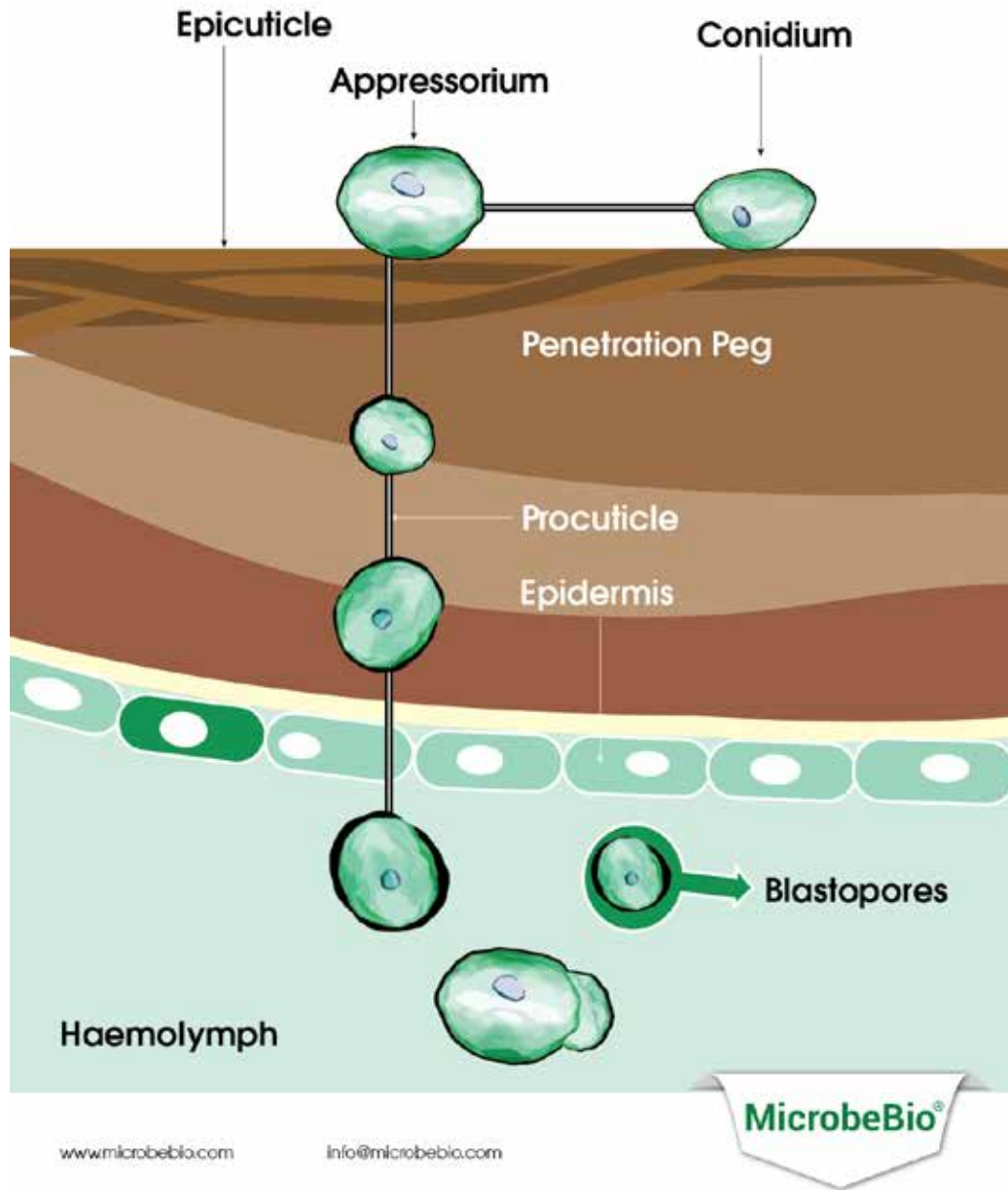
www.microbebio.com • info@microbebio.com



MicrobeBio® Aqua Activator X3™ is a powerful solution for addressing harmful pests and insects in your garden lawn or field. This unique combination of predatory bacteria and beneficial fungi works to attack a broad range of destructive bug species, using a combination of soil-borne bacteria and specialized toxin crystals. The bacteria, known as microbe spores, are toxic to certain insect species when consumed. These spores work by attaching to the digestive system of their prey and releasing poisonous crystals that disrupt their function. Thanks to its combination of multiple beneficial microbes and its broad spectrum of action, MicrobeBio® Aqua Activator X3™ is an effective way to keep your garden, lawn, or field healthy, thriving, and free from harmful pests. So if you're looking for safe and effective pest management, be sure to give MicrobeBio® Aqua Activator X3™ a try! One key player in this process is MicrobeBio® Aqua Activator X3™, a robust strain of fungi developed by scientists specifically for use in controlling disease-causing pests. By producing specially-engineered cyclic peptides, this potent organism is able to suppress the growth and reproduction cycles of even the hardest insects. Furthermore, MicrobeBio® Aqua Activator X3™ has proven quite effective at spreading across entire fields and landscapes, making it an ideal choice when it comes to protecting crops from damage due to infestations of harmful insects. So if you are looking for an efficient way to manage insect populations and protect your valuable crops from disease, look no further than MicrobeBio® Aqua Activator X3™

MicrobeBio® Aqua Activator X3™ is a highly effective and safe insecticide with a number of important benefits. Unlike many other toxic pesticides, it is harmless to birds, fish, and warm-blooded creatures, making it an ideal choice for people who care about the health of the environment. In addition, MicrobeBio® Aqua Activator X3™ is extremely effective at controlling pest populations, quickly destroying insects like roaches, ants, beetles, termites, and flies.

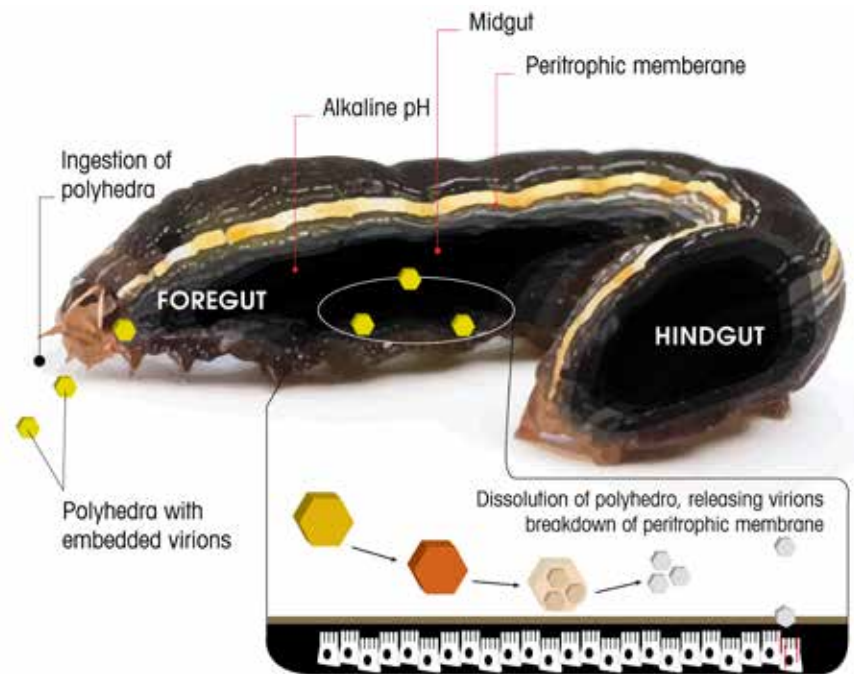




### Primary Mode of Action:

MicrobeBio® Aqua Activator X3™ is a powerful new biopesticide that harnesses the power of novel microbes to control and eliminate harmful insects. These special microbes target specific pests by harming their digestive system, preventing them from digesting food properly and eventually leading to their death. MicrobeBio® Aqua Activator X3™ is also very effective in targeting less common insect species due to its unique action mechanism. Additionally, this innovative biopesticide has been shown to improve water efficiency in the field by increasing the amount of organic matter it can break down. Unlike traditional pesticides, MicrobeBio® Aqua Activator X3™ is non-toxic, easy to use, and highly cost-effective—making it an excellent choice for farmers looking for a more environmentally-friendly and sustainable way to protect their crops.

MicrobeBio® Aqua Activator X3™ is a powerful and innovative tool for protecting crops from harmful insects. This unique bacterium manipulates the gut of certain bugs, preventing them from digesting food and ultimately killing them. Because birds, fish, and other animals with acidic guts are not impacted by MicrobeBio® Aqua Activator X3™, it is a highly effective and environmentally friendly alternative to chemical pesticides. Additionally, it helps to conserve water by increasing organic matter in the field. With no need for heavy application or special handling procedures, MicrobeBio® Aqua Activator X3™ is an incredibly valuable tool for modern farmers looking to protect their crops while minimizing environmental impact.



MicrobeBio® Aqua Activator X3™ is a type of entomopathogenic fungus known for its ability to rapidly kill insect pests. These spores, cysts, and mycelia must come into direct contact with the host in order to be effective. Once an insect has been infected by these microbes, they rapidly grow inside the host, feeding on its body and producing toxins that eventually cause its death. When the host insect dies, it is then covered in a layer of white mold that produces even more infectious spores. Thus, this biocontrol method can be incredibly effective in eradicating pest populations and protecting crops from damage. Overall, MicrobeBio® Aqua Activator X3™ represents an innovative and highly reliable strategy for managing harmful insects naturally.



## TREATMENT

**PEST:** Alfalfa Weevil, Aphids, Apple Cleaving Moth, Fall Army Worms, Bark Beetles, Bean Leaf Beetle, Best Leafhopper, Beetles, Black Vine Weevil, Boll Weevil, Cabbage Looper, Cabbage Worm, Cane Borer, Caterpillars, Cereal Leaf Beetle, Chinch Bugs, Coffee Borer Beetle, Codling Moth, Colorado Potato Beetle, Corn Borer, Cucumber Beetle, Douglas Fir Tussock Moth, Emerald Ash Borer, Fire Ants Flies, Fungal Gnats, Grasshoppers, Greenhouse Whitefly, Invasive Silkworms, Japanese Beetle, Lygus Bugs, Mealybugs, Mexican Bean Beetle, Mites, Psyllids, Red Palm Weevil, Shore Flies, Stem Borers, Stink Bugs, Strawberry Root Weevil, Termites, Thrips, Whiteflies, White Grubs, ...

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X3™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X3™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*



## Unleash the Potential of Biofungicide X5: Nurturing Stronger Crops, Naturally

In today's dynamic world of agriculture, the quest for sustainable and eco-conscious crop protection solutions has reached unprecedented heights. Enter Biofungicide X5, a pioneering product poised to redefine your approach to safeguarding crops.

Biofungicide X5 brings forth the power of nature, offering an array of advantages that not only protect your crops but also elevate their overall health. Let's delve into why Biofungicide X5 is your gateway to nurturing stronger, more resilient plants while effectively combating a multitude of plant diseases.

### 1. Comprehensive Disease Management

Bid farewell to the relentless battle against plant diseases. Biofungicide X5 provides robust protection against a broad spectrum of plant pathogens, ensuring your crops flourish throughout the growing season. These include:

Black Sigatoka ( <i>Mycosphaerella figiensis</i> )	Grey Mildew Disease ( <i>Ramularia areola</i> )
Sheath blight of Rice ( <i>Rhizoctonia solani</i> )	Powdery Mildew ( <i>Oidium spp.</i> )
Late Blight ( <i>Phytophthora infestans</i> )	Downy Mildew ( <i>Pernospora sparsa</i> )
Anthracnose ( <i>Colletotrichum gloesporioides</i> )	Coffee Rust ( <i>Hemileia vastatrix</i> )

And various other common pathogenic plant fungi (For a detailed list, please contact the company or refer to the product SDS)

## 2. Eco-Friendly Solution

Preserving our environment for future generations is paramount. Biofungicide X5 is a natural, environmentally friendly alternative to chemical pesticides, aligning perfectly with sustainable agriculture practices that prioritize both crop health and the well-being of our planet.

## 3. Enhanced Crop Quality

Healthy plants yield superior results. With Biofungicide X5, you'll witness a remarkable enhancement in crop quality, potentially leading to higher market value and increased profitability. Expect crops that not only look better but also taste better.

## 4. Reduced Chemical Dependency

Say farewell to the overuse of synthetic pesticides. Biofungicide X5 minimizes the need for chemical intervention, reducing the chemical load on your crops and the surrounding ecosystem. This results in a safer and more sustainable agricultural landscape.

## 5. Resilience in Challenging Conditions

Nature can be unpredictable, but Biofungicide X5 equips your crops with the resilience to withstand adverse conditions. Whether it's unexpected weather events or shifting environmental factors, this product provides an additional layer of protection.

## 6. Compatible with Integrated Pest Management (IPM)

Biofungicide X5 seamlessly integrates with your existing pest management strategies, making it an ideal choice for growers looking to adopt holistic and sustainable approaches to crop protection.

## 7. Effortless Application

Simplicity is key. Biofungicide X5 boasts an easy application process, saving you valuable time and effort. Its user-friendly nature ensures that you can protect your crops without unnecessary hassle, resulting in a smoother and more efficient farming experience.

## 8. Rice Blast Defense

Biofungicide X5 is especially effective against Rice blast (*Magnaporthe grisea*), further enhancing its utility in rice cultivation. This added capability ensures your rice crops receive targeted protection against this specific threat, giving you peace of mind during the growing season.

In conclusion, Biofungicide X5 represents more than just a product; it's a game-changer for modern agriculture. With its unparalleled benefits and the ability to combat a wide range of plant diseases, it empowers growers to protect their crops naturally, sustainably, and effectively. Make the switch to Biofungicide X5 today and witness the transformation in your crop protection efforts. Your plants will thank you, and so will the planet.

## TREATMENT

**Fungal:** *Phytophthora sp.*, *Rhizoctonia sp.*, *Fusarium sp.*, *Corticium salmonicolor*, *Colletrichum gloeosporioides*, *Cephaleuros virescens*, *Magnaporthe grisea*, *Fusarium moniliforme*, *Cochliobolus miyabeanus*, *Ustilaginoidea virens*, *Cercospora leaf spot*, *Cercospora oryzae*, *Magnaporthe grisea*, *Rhizoctonia solani*, *Magnaporthe salvinii*.

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X5™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X5™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*



**MicrobeBio® Aqua Activator™**

Net Wt. 1KG

**PRODUCT DESCRIPTION**

MicrobeBio® Aqua Activator™ is an organic nutrient solution designed to improve the overall health, yield, and quality of all crops while promoting biodiversity. MicrobeBio encourages the growth of beneficial microorganisms that can help to maintain soil fertility and improve plant resilience to Phytophthora sp., Rhizoctonia sp., Fusarium sp., Corticium salmonicolor, Colletrichum gloeosporioides, Cephaleuros virescens, Magnaporthe grisea, Fusarium moniliforme, Cochliobolus miyabeanus, Ustilaginoidea virens, Cercospora leaf spot, Cercospora oryzae, Magnaporthe grisea, Rhizoctonia solani, Magnaporthe salvinii.

**GENERAL APPLICATION**

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Technical Note:**

- All application should be considered as a general guideline. Application rates for specific products may differ depending on soil conditions, plant categories, treated media, and distribution approach.
- To obtain desired result, MicrobeBio® Aqua Activator™ requires appropriate timing and rate which highly depend on stages of plant growth, soil fertility levels, and environment setting.
- If uncertain of application rates for your specific soil, please consult a professional agronomist to determine soil samples and create specific application plan. Consult product literature for specific crop recommendations.

**Spray Instruction:**

- During each stage of growth, MicrobeBio® Aqua Activator™ Solution can be applied by using sprays, hand, dip or sprinklers on soil or on foliar feeding.
- For an optimal result, apply MicrobeBio® Aqua Activator™ Solution at the afternoon and avoid direct sunlight.

**ATTENTION**

Please read and follow SDS instructions for safety precautions, cleaning, and maintenance of PPE (Personal Protective Equipment).

**Non-Plant Food Ingredients**

Contains the following bacteria:

- Bacillus subtilis 2.0 x 10<sup>9</sup> CFU/g
- Bacillus pumilus 2.0 x 10<sup>9</sup> CFU/g
- Bacillus licheniformis 2.0 x 10<sup>9</sup> CFU/g
- Diaparmyces sp. 2.0 x 10<sup>9</sup> CFU/g

**WARRANTY LIMITATIONS**

The information contained on this label is believed to be accurate and reliable. There are no warranties that extend beyond the guarantee provided on the face hereof. No other express or implied warranties are made by MicrobeBio Inc. The information is provided as a general guideline only and does not constitute an offer of insurance or any other financial product. MicrobeBio Inc. is not responsible for any loss or damage resulting from the use of this product. MicrobeBio Inc. is not responsible for any loss or damage resulting from the use of this product. MicrobeBio Inc. is not responsible for any loss or damage resulting from the use of this product.

**MADE IN USA**

**OMRI**

**MicrobeBio Inc.**

2802542-Sub 1-2020-01-01

**QR Code**

**Barcode**

**Website**

[www.microbebio.com](http://www.microbebio.com) • [info@microbebio.com](mailto:info@microbebio.com)



**Effective Golden Apple Snail Control:** MicrobeBio® Aqua Activator X8™ is specifically designed to prevent and suppress outbreaks of the Golden Apple Snail family, safeguarding your ecosystem.

**Balanced Ecosystem:** Our solution promotes a balanced and healthy ecosystem by reducing the need for harmful chemical pesticides.

**Comprehensive Snail Control:** MicrobeBio® Aqua Activator X8™ takes a multi-faceted approach to Golden Apple Snail control, ensuring long-term protection.

**Benefit to All Microbes:** While targeting snail control, it also fosters the growth and vitality of beneficial microorganisms in your ecosystem.

**Environmental Protection:** MicrobeBio® Aqua Activator X8™ prioritizes environmental protection, allowing you to mitigate snail threats without harming the environment.

Choose MicrobeBio® Aqua Activator X8™ for a holistic and eco-friendly solution to Golden Apple Snail control, preserving your ecosystem's harmony and health.



## Safeguarding Ecosystems, Combating Golden Apple Snail Infestations

MicrobeBio® Aqua Activator X8™ is an environmentally responsible solution fortified with a unique consortium of beneficial microorganisms, each with a specific focus on controlling and preventing outbreaks of the Golden Apple Snail family. This includes Channeled Apple Snails, Golden Apple Snails, Spike-Topped Apple Snails, Viviparidae, Pomacea paludosa, Pomacea lineata, Marisa cornuarietis, Pila, Asolene, Lanistes, and more.

Our formula features a diverse array of microbes, including *Bacillus subtilis*, *Trichoderma harzianum*, and *Azotobacter*, each with essential roles in maintaining ecological balance and combating the menace posed by Golden Apple Snails.

### The Microbial Defenders:

- These microorganisms are the cornerstone of our formula, playing a pivotal role in Golden Apple Snail control.
- These beneficial fungi bolster the ecosystem's resilience against snail infestations.
- These microorganisms contribute to a balanced environment while mitigating the threat of snail outbreaks.

**Comprehensive Snail Control:** MicrobeBio® Aqua Activator X8™ takes a multi-pronged approach to Golden Apple Snail control. It not only targets the snails directly but also creates an environment

conducive to their natural predators. This comprehensive strategy ensures the long-term protection of your ecosystem.

**Balanced Ecosystem:** By harnessing the power of beneficial microorganisms and fungi, MicrobeBio® Aqua Activator X8™ minimizes the need for harmful chemical pesticides, preserving the ecological harmony of your surroundings.

**Benefit to All Microbes:** While our formula is primed for Golden Apple Snail control, it fosters the growth and vitality of all beneficial microorganisms in your ecosystem. This includes organisms such as *Paecilomyces lilacinus*, entomopathogenic fungi, *Pseudomonas fluorescens*, *P. aeruginosa*, and more. By bolstering these microorganisms, MicrobeBio® Aqua Activator X8™ contributes to the health of your soil and the well-being of your entire ecosystem.

**Safeguarding the Environment:** MicrobeBio® Aqua Activator X8™ prioritizes environmental protection, ensuring that your ecosystem remains in balance while combatting Golden Apple Snail infestations. With our solution, you can mitigate the snail threat without harming the environment.

Choose MicrobeBio® Aqua Activator X8™ for an eco-friendly, balanced approach to Golden Apple Snail control. Protect your ecosystem, nurture beneficial microorganisms, and promote a healthier environment. With MicrobeBio® Aqua Activator X8™, you're not just preventing snail outbreaks; you're cultivating ecological harmony.



## TREATMENT

**SNAIL:** Channeled apple snails or Golden Apple snails, Spike-topped apple snail, Viviparidae, Pomacea paludosa, Pomacea lineata, Marisa cornuarietis, Pila, Asolene, Lanistes, ....

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X8™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X8™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*



## Shielding Your Crops, Preserving Your Investment

Aqua Activator X9™ is more than just a product; it's a biological shield that safeguards your crops, ensuring they reach their full potential. Here's how MicrobeBio® Aqua Activator X9™ benefits your agricultural pursuits:

**Comprehensive Protection:** Our formula targets a wide array of plant-harming bacteria and viruses, including RGSV, RTBV, Xanthomonas oryzae, and Xanthomonas oryzae pv. Oryzae. Say goodbye to the fear of crop devastation.

**Enhanced Crop Resilience:** Aqua Activator X9™ strengthens your crops' natural defenses, making them more resilient to bacterial and viral threats. Your plants will withstand challenges with grace.

**Sustainable Pest Control:** By leveraging beneficial microbes and bacteria, Aqua Activator X9™ reduces the need for chemical pesticides, promoting a sustainable and eco-friendly approach to agriculture.

**Improved Yield and Quality:** With your crops protected, you can expect enhanced yield and improved crop quality. Your investment is poised to yield abundant returns.

**Peace of Mind:** With Aqua Activator X9™ at your side, you can farm with confidence, knowing that your crops are shielded against the unpredictable forces of nature.

## How to Use MicrobeBio® X9™

Integrating Aqua Activator X9™ into your crop management strategy is a simple and effective process. Follow the provided instructions to ensure your crops receive the protection they deserve. With Aqua Activator X9™, you're not just growing crops; you're cultivating peace of mind.

Choose Aqua Activator X9™ and arm your crops with the advantages they need to thrive. Protect your investment, preserve the environment, and experience the future of sustainable agriculture today. With Aqua Activator X9™, your crops are in capable hands, ensuring a prosperous harvest season after season.



## TREATMENT

MicrobeBio® X9™ draws its strength from a carefully curated arsenal of microorganisms and beneficial elements:

### Beneficial Microbes:

**Beauveria bassiana:** This natural antagonist battles plant-harming microbes with remarkable efficacy.

**Combinations of Entomopathogenic Fungi:** A dynamic duo of fungi forms an effective defense against pests and pathogens.

**Combinations of Other Entomopathogenic Fungi:** These fungi bolster your crop's resistance to external threats.

### Bacteria:

**Bacillus subtilis and Pseudomonas sp:** These beneficial bacteria play a crucial role in promoting plant health and warding off harmful invaders.

**Bacillus thuringiensis israelensis (Bti) and B. sphaericus (Bs):** These bacterial allies serve as a formidable defense against troublesome bacteria and viruses.

## GENERAL APPLICATION

**Prevent:** agitate 200 g MicrobeBio® Aqua Activator X9™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

**Treat:** agitate 500 g MicrobeBio® Aqua Activator X9™ into at least 200 liters of non-chlorine water \*\* to treat 1 hectare.

*Note: Water and treat for pests and diseases every 3 weeks until the disease no longer appears.*



MicrobeBio® Aqua Activator X11™ is a unique propriety beneficial microbes formula that helps to reverse nutrient tie-up in crop residue. This provides more readily available nutrients for the next season's planting and allows you to create a healthy soil biome. A proprietary blend of anaerobic microbes has been carefully selected for their ability to oxidize sulfides into elemental sulfur and accelerate composting of crop residue. MicrobeBio® Aqua Activator X11™ offers farmers the perfect way to get ahead in their season-long fertilization plan by improving soil quality, delivering important benefits to their crops, and helping ensure rescue. Breaking down stubble helps to create better seed-to-soil contact and reduces the strain on tire and planter machinery caused by tough crop stalks.

The rigid and stable formulation is tailored for use in crops such as rice, corn, wheat, cotton, soybeans, alfalfa, and sunflower. MicrobeBio® Aqua Activator X11™ improves nutrient availability for healthy growth and efficient harvesting.

For farmers looking to get their fields ready for the next season quickly and with minimal effort, MicrobeBio X11 provides a reliable solution with guaranteed results.



MicrobeBio® Aqua Activator X11™ is a powerful activator that can kickstart the decomposition of animal manure and green waste into a stable and odor-free fertilizer. This unique mixture of selected bacteria and fungi offers the energy necessary to break down organic matter, producing a nutrient-rich soil amendment for crops. MicrobeBio® Aqua Activator X11™ works quickly and efficiently, providing an effective solution to get your garden, farm or other agricultural spaces up and running. It's easy to use – simply spread it evenly over the area in need of help and let nature take its course! With MicrobeBio®, you can be sure that your plants will receive all the benefits they require from microbial decomposition without any unpleasant odors.



## **BENEFITS**

- Reduces Composting Time
- Accelerates Crop Residue Decomposition
- Controls and Eliminates Fecal Coliforms and Salmonella
- Stabilizes Animal Manure and Produces Valuable Biofertilizers
- Lower COD
- Reduce Suspended Solids
- Lower FOG
- Reduce Wastewater Sludge Volume
- Control H<sub>2</sub>S
- Reduce surfactants/chemicals
- Control Odor
- Reduce landfill organic waste
- Accelerate the decomposition of animal manure



**MicrobeBio®**

**[www.microbebio.com](http://www.microbebio.com)**  
*[info@microbebio.com](mailto:info@microbebio.com)*

**#Microbebio #BeetYield #SustainableFarming #HealthySoilHealthyPlants #MicrobialFarming #SoilHealth #RegenerativeAgriculture  
#OrganicBeets #EcoFriendlyFarming #BetterFlavorBetterFarming**

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