

**MicrobeBio®**

**AVOCADO TREE  
CARE GUIDE:  
FERTILIZER,  
PESTS, AND  
DISEASES**





## FERTILIZER APPLICATION FOR AVOCADO TREES

Fertilization varies by growth stage. The schedule specifies application days, assuming a weekly routine (Mondays). Adjust based on local growing seasons or weather. Avocado trees are sensitive to over-fertilization and salt buildup, so follow amounts carefully.

# STARTER PLANT

(FIRST YEAR)



**OBJECTIVE:** Promote root establishment and vegetative growth.

**FERTILIZER TYPE:** Microbebio Rhizo Activator (balance granular) for leaf/stem growth.

**APPLICATION:**

- At Planting (Day 1): Mix 5–10 kg well-rotted compost or aged manure into the planting hole and spray Formula AA (300 g Microbebio X1, 500 g X5, 500 g X3, 500 g Acqua Activator, 8 L Hydro Activator, 5 kg Nature Vigor, diluted in a 50 L tote, then diluted into 500 L non-chlorinated water to treat 1 hectare).
- First Application (Week 5, Monday): Apply 50–100 g Microbebio Rhizo Activator granular fertilizer in a ring 15–20 cm from the trunk. Water thoroughly.
- Subsequent Applications: Every 6 weeks (Mondays: Week 11, Week 17, Week 23, Week 29) during spring/summer. Stop in late fall/winter to avoid frost-sensitive growth.

**FOLIAR SPRAYS:** Apply Formula AA (diluted as above) on Mondays of Weeks 10, 16, and 22 to address micronutrient deficiencies (especially zinc).

**ORGANIC OPTIONS:** Use Formula AA (diluted per instructions) on the same schedule as granular fertilizer.



# JUVENILE STAGE

(YEARS 2–4)



**OBJECTIVE:** Support steady growth and canopy development.

**FERTILIZER TYPE:** Microbebio Rhizo Activator (balanced) and Formula AA.

## **APPLICATION:**

- Amount: 200–400 g Rhizo Activator per tree per application, spread in a ring 30–50 cm from the trunk to the drip line.
- Schedule (3–4 times/year):
  - **Year 2:** Mondays of Week 10 (early spring), Week 24 (mid-summer), Week 38 (early fall).
  - **Years 3–4:** Add a fourth application on Week 1 (late winter, Monday) if growth is vigorous.
  - Apply 10 kg/hectare of Microbebio Nature Vigor or 5 to 10 kg of compost per tree annually on Week 12 (Monday).

**FOLIAR SPRAYS:** Apply Formula AA (diluted per instructions) on Mondays of Weeks 15 and 30 to support micronutrient uptake.

**NOTE:** Adjust amounts based on tree size; larger trees require higher doses. Avoid high nitrogen in late summer to prevent weak growth.

# MATURE/ FRUITING STAGE

(YEAR 5 AND  
BEYOND)



**OBJECTIVE:** Support flowering, fruit set, and fruit quality.

**FERTILIZER TYPE:** Microbebio Rhizo Activator (balance formula ) to promote flowering/fruiting, with reduced nitrogen to limit excessive vegetative growth.

## APPLICATION:

- **Total Amount:** 1–2 kg Rhizo Activator granular fertilizer per tree annually, split into 3 applications:
  - Pre-Flowering (Week 8, Monday, late winter/early spring): 50% (0.5–1 kg) to support bud formation.
  - Post-Fruit Set (Week 20, Monday, early summer): 25% (0.25–0.5 kg) for fruit development.
  - Post-Harvest (Week 35, Monday, late summer/early fall): 25% (0.25–0.5 kg) to replenish nutrients.

- Spread from 50 cm beyond the trunk to the drip line; water deeply.
- **Organic:** Apply 10–20 kg compost/manure on Week 10 (Monday), supplemented with rock phosphate for phosphorus.

**FOLIAR SPRAYS:** Apply Formula AA (diluted per instructions) on Week 6 (Monday, pre-flowering) and Week 25 (Monday) for nutrient support.

## NOTES:

- Avoid over-fertilization to prevent root burn or salt accumulation.
- In sandy soils, split into smaller doses (biweekly Mondays, e.g., Weeks 8, 10, 12) to reduce leaching.
- Monitor soil pH on Week 40 (Monday); apply additional AA to improve drainage and balance PH if needed.



# Diseases & Pests



NO.	DISEASES AND PESTS	Damage	Management	Treat
-----	--------------------	--------	------------	-------

### PESTS OF AVOCADO TREES

*Use Integrated Pest Management (IPM) with Green Furry (500 mL diluted in 300 L of water to treat outbreaks/hectare) for pest outbreaks and Formula AA for additional control and maintenance.*

1	<b>Avocado Thrips</b> ( <i>Scirtothrips perseae</i> )	<ul style="list-style-type: none"> <li>Scratches leaves and fruit, causing scarring and bronzing.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor in Week 9 (Monday) for early signs.</li> <li>Spray Formula AA(diluted per instructions) on Week 13 (Monday, during early fruit development).</li> <li>Encourage predatory mites through minimal pesticide use.</li> </ul>	<b>AQUA ACTIVATOR X3™</b>
2	<b>Persea Mite</b> ( <i>Oligonychus perseae</i> )	<ul style="list-style-type: none"> <li>Causes stippling on leaves, leading to defoliation.</li> </ul>	<ul style="list-style-type: none"> <li>Prune on Week 5 (Monday) to improve air circulation.</li> <li>Apply Formula AA (diluted per instructions) on Week 14 (Monday).</li> <li>Use sticky traps; check weekly on Mondays.</li> </ul>	<b>AQUA ACTIVATOR X3™</b>
3	<b>Fruitspotting Bug</b> ( <i>Amblypelta</i> spp.)	<ul style="list-style-type: none"> <li>Pierces young fruit, causing fruit drop or deformities.</li> </ul>	<ul style="list-style-type: none"> <li>Bag fruits on Week 18 (Monday, 60–90 days post-fruit set).</li> <li>Apply Formula AA (diluted per instructions) on Week 19 (Monday).</li> <li>Remove fallen fruit weekly on Mondays.</li> </ul>	<b>AQUA ACTIVATOR X3™</b>
4	<b>Avocado Lace Bug</b> ( <i>Pseudacysta perseae</i> )	<ul style="list-style-type: none"> <li>Sucks sap from leaves, causing yellowing and reduced photosynthesis.</li> </ul>	<ul style="list-style-type: none"> <li>Prune infested branches on Week 4 (Monday).</li> <li>Apply Formula AA (diluted per instructions) on Week 12 (Monday).</li> <li>Encourage natural predators like lacewings.</li> </ul>	<b>AQUA ACTIVATOR X3™</b>
5	<b>Scale Insects</b> (e.g., <i>Saissetia oleae</i> )	<ul style="list-style-type: none"> <li>Sucks sap, causing leaf yellowing and sooty mold.</li> </ul>	<ul style="list-style-type: none"> <li>Prune in Week 3 (Monday) to remove heavily infested areas.</li> <li>Apply Formula AA on Week 15 (Monday, crawler stage).</li> </ul>	<b>AQUA ACTIVATOR X3™</b>

NO.	DISEASES AND PESTS	Symptoms	Management	Treat
-----	--------------------	----------	------------	-------

**DISEASES OF AVOCADO TREES**

*Focus on prevention with Nature Vernom (500 mL in 300 L water per hectare) for fungal/bacterial disease outbreaks and Formula AA for additional support and suppression.*

1	<b>Phytophthora Root Rot</b> ( <i>Phytophthora cinnamomi</i> )	<ul style="list-style-type: none"> <li>Wilting, yellowing leaves, root decay, and dieback.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure well-drained soil; check on Week 1 (Monday).</li> <li>Apply Nature Vernom as a soil drench on Week 15 (Monday).</li> <li>Plant on raised beds or mounds in wet climates.</li> </ul>	AQUA ACTIVATOR X5™
2	<b>Anthracnose</b> ( <i>Colletotrichum gloeosporioides</i> )	<ul style="list-style-type: none"> <li>Black spots on fruit, leaves, and stems; fruit rot.</li> </ul>	<ul style="list-style-type: none"> <li>Prune on Week 3 (Monday) for ventilation.</li> <li>Apply formula AA on Weeks 6 and 21 (Mondays, pre- and post-flowering).</li> </ul>	AQUA ACTIVATOR X5™
3	<b>Avocado Scab</b> ( <i>Sphaceloma perseae</i> )	<ul style="list-style-type: none"> <li>Corky, raised spots on fruit and leaves.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid overhead irrigation; inspect in Week 2 (Monday).</li> <li>Apply formula AA on Week 7 (Monday, flowering).</li> </ul>	AQUA ACTIVATOR X5™
4	<b>Bacterial Canker</b> ( <i>Xanthomonas campestris</i> )	<ul style="list-style-type: none"> <li>Water-soaked lesions on stems and fruit, leading to cracking.</li> </ul>	<ul style="list-style-type: none"> <li>Use disease-free saplings; inspect on Week 1 (Monday).</li> <li>Apply formula AA on Week 22 (Monday).</li> </ul>	AQUA ACTIVATOR X5™
5	<b>Verticillium Wilt</b> ( <i>Verticillium dahliae</i> )	<ul style="list-style-type: none"> <li>Wilting, root decay.</li> </ul>	<ul style="list-style-type: none"> <li>Remove affected branches on Week 10 (Monday).</li> <li>Apply Formula AA (diluted per instructions) on Week 10 (Monday) to support tree vigor.</li> <li>Avoid planting in soils previously used for susceptible crops (e.g., tomatoes).</li> </ul>	AQUA ACTIVATOR X5™





## GENERAL MAINTENANCE TIPS

- **Irrigation:** Water young trees (10–20 liters) on Mondays during dry weeks, ensuring deep soaking. Mature trees need 50–100 liters every 2–3 weeks (Week 1, Week 3 Mondays) during dry spells. Avoid waterlogging.
- **Pruning:** Prune post-harvest (Week 36, Monday) to remove dead wood, improve light penetration, and shape the canopy. Avoid heavy pruning to maintain fruiting wood.
- **Mulching:** Apply 5–10 cm organic mulch (e.g., wood chips) on Week 11 (Monday), keeping 10 cm from the trunk to prevent rot.
- **Monitoring:** Inspect for pests/diseases every Monday, focusing on new growth and fruit.
- **Pollination:** Avocado trees benefit from cross-pollination (Type A and B varieties, e.g., Hass and Fuerte). Avoid sprays during flowering (Weeks 6–10) to protect bees.
- **Harvest:** Pick fruit at the mature stage (Week 30–34, Mondays) when firm and oil content is high (varies by cultivar, e.g., Hass turns dark green to black).



## NOTES

- **Regional Adjustments:** Adapt schedules for local climate (e.g., shift for rainy seasons). Consult extension services for cultivar-specific advice (e.g., Hass, Fuerte).
- **Organic Practices:** Use Microbebio Rhizo Activator, Formula AA, Nature Vernom, and compost for organic production.
- **Regulations:** Follow local pesticide/fertilizer guidelines, including pre-harvest intervals.
- **Climate:** In frost-prone areas, pause fertilization after Week 40 and protect young trees with frost cloth. In the tropics, ensure excellent drainage to prevent root rot.



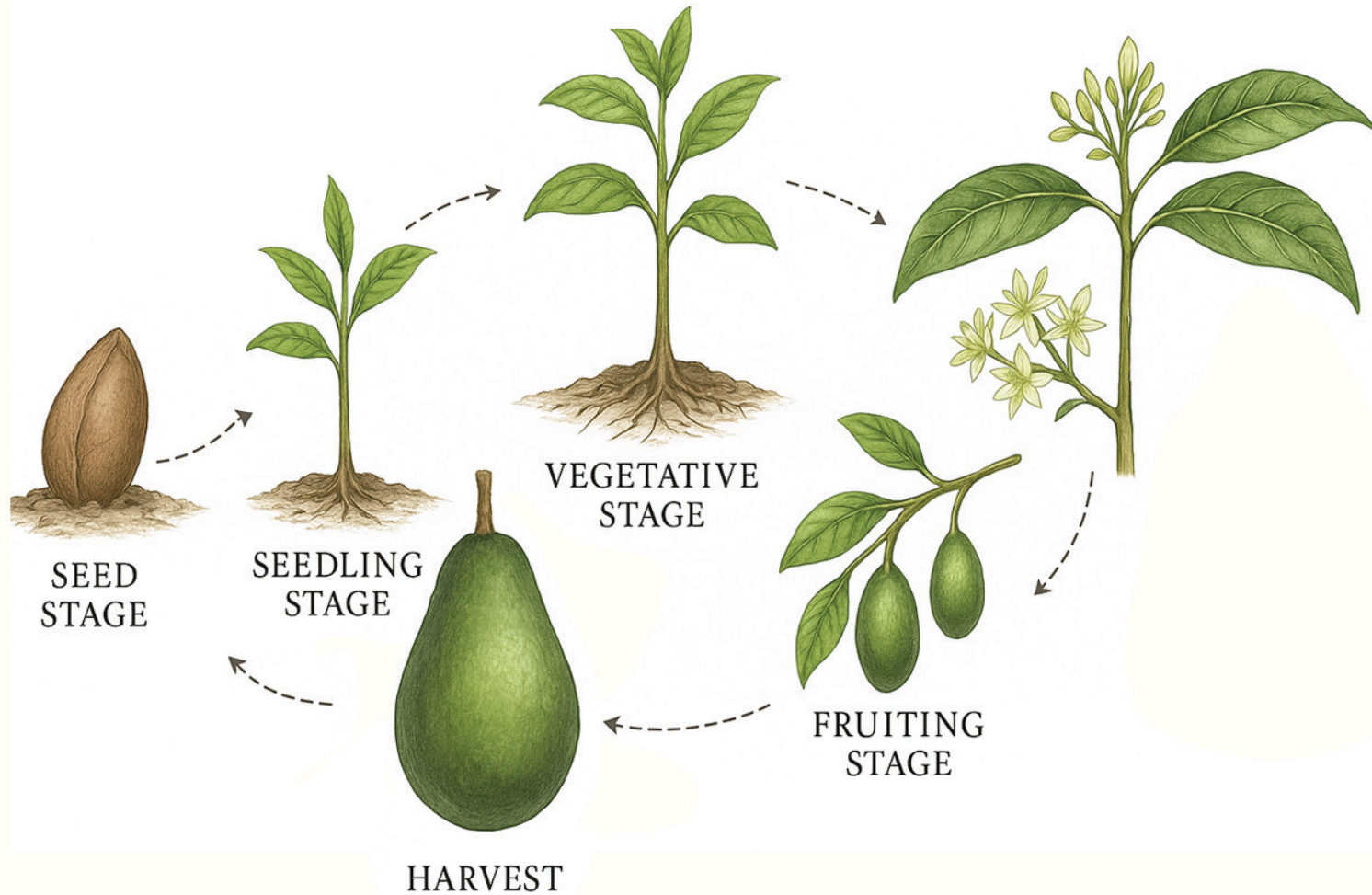
The background of the slide is a lush green field of avocado plants. In the upper left, there is a close-up of several avocados, some dark and ripe, others green and unripe. In the upper right, there are bright yellow avocado flowers with prominent stamens. A large, black, rounded diamond shape is centered on the slide, containing the word 'APPLICATION' in white capital letters.

# APPLICATION





# LIFE CYCLE OF THE AVOCADO PLANT



Application rate - per hectare

# AVOCADO

FIRST YEAR

ORGANIC SOIL  
ENHANCEMENT

PRODUCT	WEEK 1	WEEK 5	WEEK 10	WEEK 11	WEEK 16	WEEK 17	WEEK 22	WEEK 23	WEEK 29
* NATURE VIGOR	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	-	(200–400 g per tree)	-	(200–400 g per tree)	-	(200–400 g per tree)	-	(200–400 g per tree)	(200–400 g per tree)

BIORATIONAL

*AQUA ACTIVATOR X1™ (NEMATO)	300 g	-	300 g	-	300 g	-	300 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.								

# Application rate - per hectare

# AVOCADO

ORGANIC SOIL  
ENHANCEMENT

BIORATIONAL

YEARS 2 - 4							
	YEAR 2			YEAR 3 - 4			
PRODUCT	WEEK 10 <i>(early spring)</i>	WEEK 24 <i>(mid-summer)</i>	WEEK 38 <i>(early fall)</i>	WEEK 1 <i>(late winter)</i>	WEEK 12	WEEK 15	WEEK 30
*NATURE VIGOR	5 kg	5 kg	5 kg	5 kg	10 kg	5 kg	5 kg
*HYDRO ACTIVATOR	8 l	8 l	8 l	8 l	8 l	8 l	8 l
*AQUA ACTIVATOR GRW	500 g	500 g	500 g	500 g	500 g	500 g	500 g
**RHIZO ACTIVATOR	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>	<i>(200–400 g per tree)</i>
*AQUA ACTIVATOR X1™ <i>(NEMATO)</i>	300 g	300 g	300 g	300 g	300 g	300 g	300 g
*AQUA ACTIVATOR X3™ <i>(PEST)</i>	500 g	500 g	500 g	500 g	500 g	500 g	500 g
*AQUA ACTIVATOR X5™ <i>(FUNGUS)</i>	500 g	500 g	500 g	500 g	500 g	500 g	500 g
*AQUA ACTIVATOR X9™ <i>(VIRUS - BACTERIA)</i>	-	-	-	-	-	-	-
*AQUA ACTIVATOR X11™ <i>(COMPOSE)</i>	-	-	-	-	-	-	-
*GREEN FURY <i>(PEST)</i>	Plant disease outbreak ( <i>pest</i> ): agitate 500 ml Green Fury™ into at least 400 liters of non-chlorine water to treat 1 hectare.						
*NATURE VENOM <i>(FUNGUS)</i>	Plant disease outbreak ( <i>fungus and virus</i> ): agitate 500 ml Nature Venom™ into at least 400 liters of non-chlorine water to treat 1 hectare.						



Application rate - per hectare

# AVOCADO

ORGANIC SOIL  
ENHANCEMENT

BIORATIONAL

YEAR 5							
PRODUCT	WEEK 6	WEEK 8	WEEK 10	WEEK 20	WEEK 25	WEEK 35	WEEK 40
* NATURE VIGOR	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	-	400–600 g per tree	-	400–600 g per tree	-	400–600 g per tree	-
*AQUA ACTIVATOR X1™ (NEMATO)	300 g	-	300 g	-	300 g	-	300 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.

## GENERAL APPLICATION

To activate the microbes in Aqua Activator GRW™, simply agitate 500g of the product into at least 5 liters of non-chlorine water for a minimum of 24 hours. Then, dilute the mixture into at least 500 liters of non-chlorine water to treat 1 hectare of land.

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™**  
Net Wt. 1KG

**PRODUCT DESCRIPTION**  
MicrobeBio® Aqua Activator™ is a biological soil amendment containing a select blend of microbes and supporting bacteria. Aqua Activator™ may be blended with organic and inorganic fertilizers, soil amendments, as well as soils and mulches, for improved microbial biodiversity and greater crop yields.

**The main benefits of MicrobeBio® Aqua Activator™**

- Boost crop yields
- Reduce adverse environmental impacts
- Boost drought resistance
- Heal and protect soil
- Boost soil fertility
- Boost seed germination

**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
- Clostridium sp.	2.0 x 10 <sup>9</sup> CFU/g

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

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

**GENERAL APPLICATION**  
**AQUA ACTIVATOR™ 1 KG PER HECTARE**  
(For uniform results, see recommendation to use Aqua Activator™ at combination with other MicrobeBio products.)

- Apply 1 kg MicrobeBio® Aqua Activator™ into at least 5 liters of non-chlorine water\*\* for at least 24 hours to activate the microbes. Continue to dilute the mixture into at least 400 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 regarding 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.

**Spray Instruction:**

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

**STORAGE**  
Store indoors in a cool, dry place. Do not store in hot/dry or wet/damp areas. Avoid exposure to direct sunlight and keep away from children. Avoid use after expiry.

**WARRANTY LIMITATIONS**  
The MicrobeBio contained in this label is believed to be accurate and reliable. However, there are no warranties that extend beyond the guarantee on the label. The MicrobeBio general guidelines are related to general use of product in order to provide a general idea of the intended use of the product. The MicrobeBio company is not responsible for any damage or loss of crops or other property that may result from the use of the product under any circumstances. MicrobeBio is not responsible for any damage or loss of crops or other property that may result from the use of the product under any circumstances.

**Batch No:**  
**EXP DATE:**

**Manufactured By:**  
**MicrobeBio Inc.**  
(2022) Harborside Science & Technology, Inc. (USA)

**QR Code**

**Barcode**

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

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.



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

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

**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.*

**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.*

**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.*

**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>10</sup> CFU/g
- *Bacillus pumilus* 2.0 x 10<sup>10</sup> CFU/g
- *Bacillus thuringiensis* 2.0 x 10<sup>10</sup> CFU/g
- *Chaetomium* sp. 2.0 x 10<sup>10</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 product in sealed container. Store product in a cool, dry place. Avoid exposure to direct sunlight. Do not use after the expiration date.

**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.**

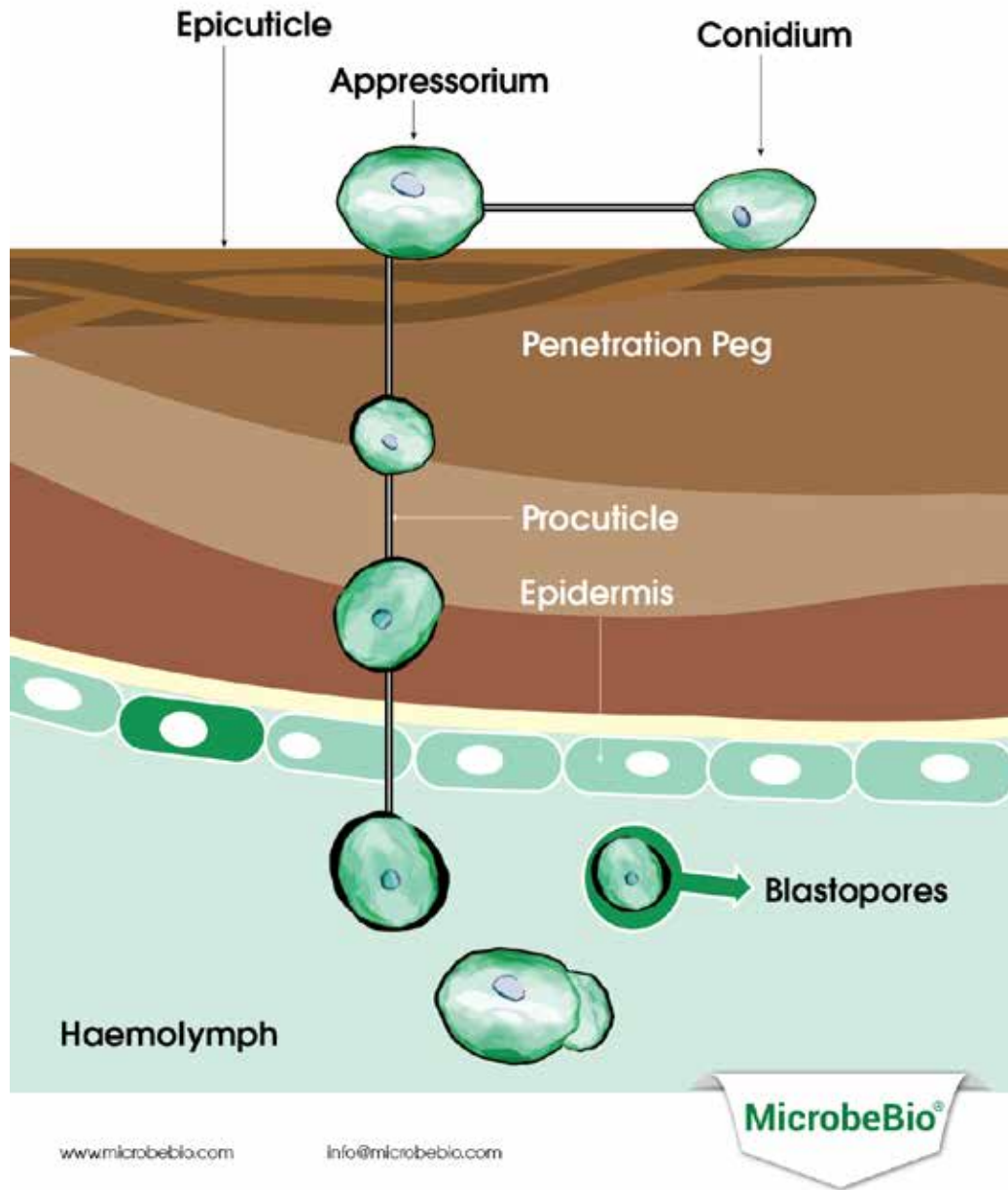
www.microbebio.com • info@microbebio.com





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™

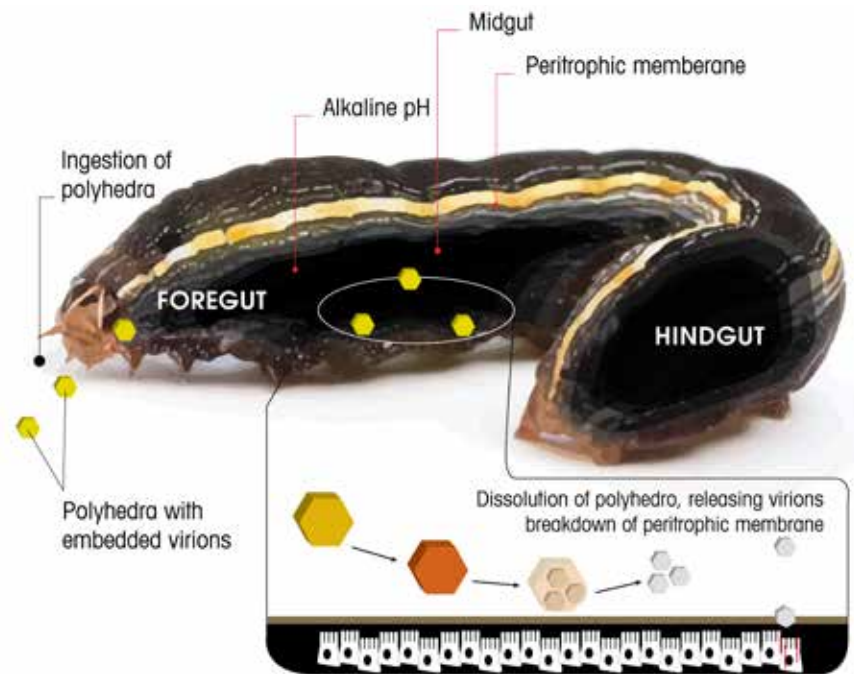
MicrobeBio® Aqua Activator X3™ is a highly effective and safe insecticide with a number of important benefits. Unlike many other toxic pesticides, it is harmless to birds, fish, and warm-blooded creatures, making it an ideal choice for people who care about the health of the environment. In addition, 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.*



**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.*

**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 resistance to 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 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.  
For optimal results, we recommend using MicrobeBio® Aqua Activator™ in combination with other MicrobeBio® products.

**Technical Note:**  
• All application should be considered as a general guideline. Application rates for specific products may differ regarding 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 in a cool, dry place. Do not expose to direct sunlight. Keep away from children and pets. Do not use after the expiry date on the label.

**WARRANTY LIMITATIONS**  
The information contained on this label is believed to be accurate and reliable. However, we do not warrant that we will be held responsible for any loss or damage resulting from the use of this product. Storage, method of application, weather, crop condition, soil and factors are beyond the control of the user. MicrobeBio® (MicrobeBio®) does not warrant the effectiveness of the product or the accuracy of the information on the label. MicrobeBio® is not responsible for any loss or damage resulting from the use of this product under any circumstances, or for any damage to crops or property.

**NON-PLANT FOOD INGREDIENTS**  
Contains the following bacteria:  
• Bacillus subtilis 2.0 x 10<sup>10</sup> CFU/g  
• Bacillus pumilus 2.0 x 10<sup>10</sup> CFU/g  
• Bacillus thuringiensis 2.0 x 10<sup>10</sup> CFU/g  
• Streptomyces sp. 2.0 x 10<sup>10</sup> CFU/g

**ATTENTION**  
Please read and follow CDC instructions for safety precautions, cleaning and maintenance of PPE (Personal Protective Equipment).  
**Not for human consumption. Keep out of reach of children.**

**Spray Instruction:**  
• During each stage of growth, MicrobeBio® Aqua Activator™ solution can be applied by using plastic, food, drip or sprinklers on soil or as foliar feeding.  
• For an optimal yield, apply MicrobeBio® Aqua Activator™ solution at late afternoon and avoid direct sunlight.

www.microbebio.com • info@microbebio.com



## 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<sup>®</sup>**

**MICROBEBIO MICROBIAL TECHNOLOGY**

*Beneficial. Microbial. Soil. Enhancements*