

# MicrobeBio®

# MICRONIZED BIOCHAR™

ADVANCED CARBON TECHNOLOGY  
FOR SOIL REGENERATION



IMPROVES  
SOIL STRUCTURE



ENHANCES  
WATER RETENTION



BOOSTS  
MICROBIAL ACTIVITY



INCREASES  
NUTRIENT EFFICIENCY



ULTRA-FINE  
MICRONIZED  
PARTICLES



HIGH SURFACE AREA  
CARBON MATRIX



SUPPORTS STRONGER  
ROOTS & HEALTHIER  
CROPS



FOR HEALTHY SOIL  
FOR HIGHER YIELD



SUSTAINABLE SOLUTION  
FOR A BETTER FUTURE



FOR AGRICULTURAL USE  
EXPORT ONLY

Available Packaging:

1 kg | 5 kg | 25 kg | Bulk Super Sacks



RICE

CORN

BANANA

VEGETABLES

FRUIT TREES

**MicrobeBio®**

# MICRONIZED BIOCHAR™

ADVANCED CARBON TECHNOLOGY FOR SOIL REGENERATION

- IMPROVES SOIL STRUCTURE
- ENHANCES WATER RETENTION
- BOOSTS MICROBIAL ACTIVITY
- INCREASES NUTRIENT EFFICIENCY
- 100% NATURAL
- HIGH CARBON CONTENT
- ULTRA-FINE PARTICLE SIZE

ULTRA-FINE MICRONIZED PARTICLES | HIGH SURFACE AREA CARBON MATRIX | SUPPORTS STRONGER ROOTS & HEALTHIER CROPS

APPLICATION RATES				IDEAL FOR
FIELD CROPS 50 - 200 kg/ha	FRUIT TREES 0.5 - 2 kg/tree	VEGETABLES 25 - 100 kg/ha	NURSERY / POTTING MIX 1 - 5% soil blend	<ul style="list-style-type: none"> <li>✓ IMPROVING SOIL HEALTH</li> <li>✓ ENHANCING NUTRIENT UPTAKE</li> <li>✓ INCREASING YIELD &amp; QUALITY</li> <li>✓ REDUCING FERTILIZER LOSS</li> <li>✓ CARBON SEQUESTRATION</li> </ul>

NET WEIGHT **25 kg**  
Also Available: 1 kg | 5 kg | Bulk

ECO FRIENDLY | SAFE & NON TOXIC | SUSTAINABLE SOLUTION

FOR AGRICULTURAL USE EXPORT ONLY

## WHAT IS MICRONIZED BIOCHAR?

MicrobeBio® Micronized Biochar™ is a premium ultra-fine carbon soil amendment designed to improve soil fertility, support beneficial microbial activity, increase nutrient efficiency, and enhance crop productivity.

Unlike conventional biochar, the micronized particle size provides significantly greater surface area, allowing faster interaction with soil, water, nutrients, and beneficial microorganisms.

MicrobeBio® Micronized Biochar™ acts as a long-term carbon reservoir that improves soil performance season after season while helping farmers reduce fertilizer losses and improve overall crop quality.



# WHY MICRONIZED BIOCHAR?

## **TRADITIONAL BIOCHAR CHALLENGES**

- Large particle size limits effectiveness
- Slow activation in soil
- Uneven distribution
- Limited contact with roots
- Slower microbial colonization

## **MICROBEBIO® ADVANTAGE**

- Ultra-fine micronized particles
- Rapid soil integration
- Greater nutrient retention
- Improved root-zone contact
- Enhanced microbial habitat
- Faster agronomic response

# HOW MICRONIZED BIOCHAR WORKS

## 1. CREATES A CARBON SPONGE

The highly porous carbon structure absorbs and stores:

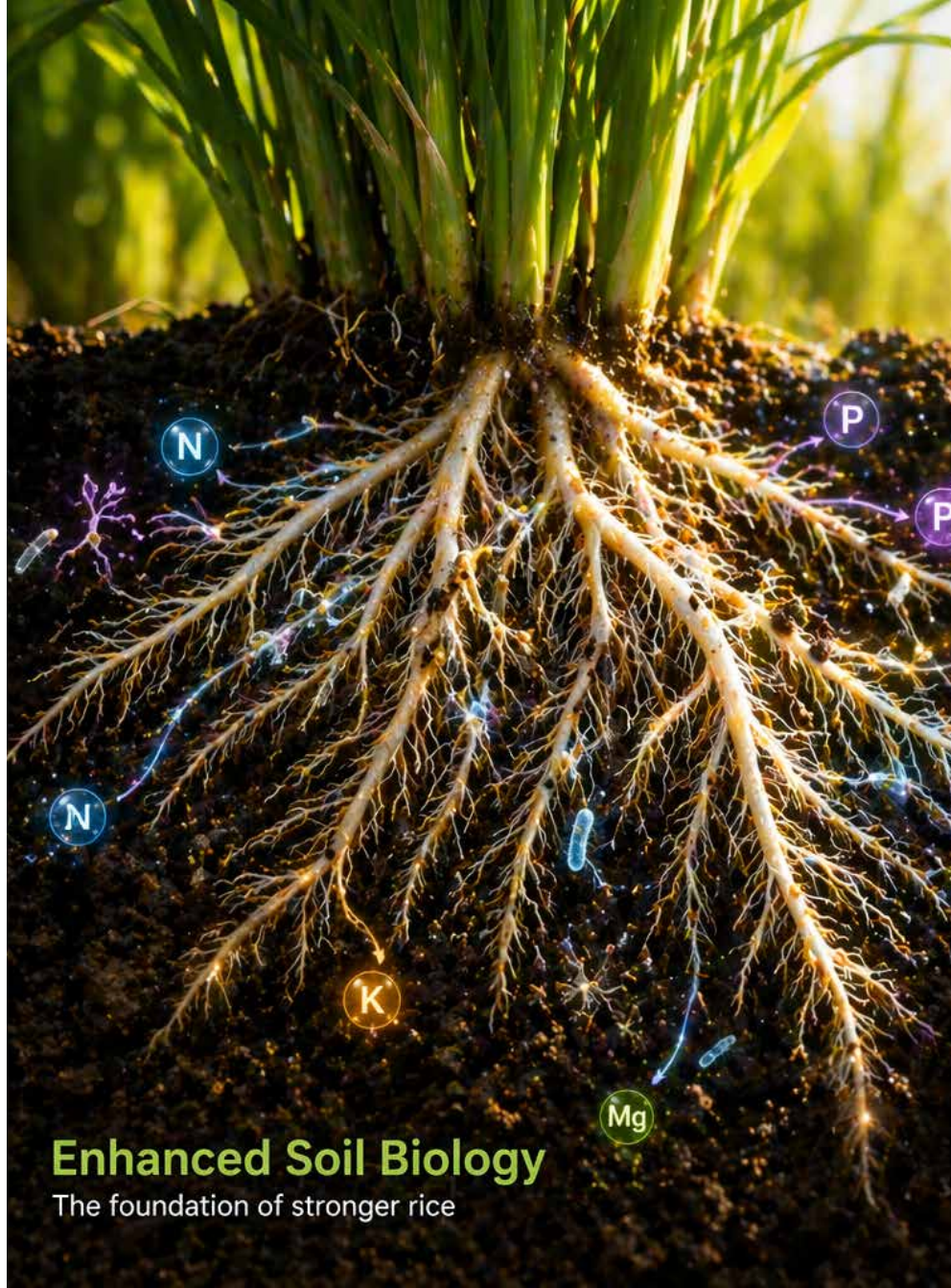
- Nitrogen (N)
- Phosphorus (P)
- Potassium (K)
- Calcium (Ca)
- Magnesium (Mg)
- Trace minerals

These nutrients remain available for plant uptake instead of being lost through leaching.

## 2. IMPROVES WATER RETENTION

Micronized Biochar acts like a microscopic reservoir by:

- Holding moisture in the root zone
- Improving drought tolerance
- Reducing irrigation requirements
- Improving water use efficiency



**Enhanced Soil Biology**

The foundation of stronger rice



## **SUPPORTS BENEFICIAL MICROBIOLOGY**

The porous structure creates ideal habitat for:

- Beneficial bacteria
- Mycorrhizal fungi
- Rhizosphere microorganisms
- Nutrient-cycling microbes

This improves biological activity throughout the soil ecosystem.

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## **ENHANCES ROOT DEVELOPMENT**

Healthier soils produce:

- Stronger roots
- More root hairs
- Greater nutrient absorption
- Improved crop vigor
- Better stress tolerance

# BENEFITS FOR SOIL



## **SOIL STRUCTURE**

- Improves aggregation
- Reduces compaction
- Increases aeration
- Improves root penetration

## **SOIL FERTILITY**

- Increases Cation Exchange Capacity (CEC)
- Improves nutrient holding capacity
- Reduces fertilizer loss
- Improves nutrient availability

## **SOIL BIOLOGY**

- Supports beneficial microbes
- Encourages mycorrhizal colonization
- Enhances nutrient cycling
- Improves biological diversity

# BENEFITS FOR CROPS



## **RICE**

- Stronger root systems
- Improved tillering
- Better nutrient uptake
- Increased grain filling
- Improved grain quality
- Higher yield potential



## **CORN / MAIZE**

- Enhanced root mass
- Better drought tolerance
- Improved nutrient efficiency
- Stronger stalk development
- Improved kernel filling
- Increased yield potential

## **BANANA & PLANTAIN**

- Stronger root systems
- Improved nutrient uptake
- Enhanced bunch development
- Better fruit size and uniformity
- Improved shelf life



## **FRUIT TREES**

- Improved root-zone health
- Better flowering
- Enhanced fruit set
- Increased fruit quality
- Improved sugar accumulation
- Better storage life



## **VEGETABLES**

- Faster establishment
- Improved plant vigor
- Enhanced nutrient uptake
- Better color and appearance
- Increased marketable yield



# ENVIRONMENTAL BENEFITS

## **CARBON SEQUESTRATION**

- MicrobeBio® Micronized Biochar™ helps lock carbon into the soil for decades, reducing atmospheric carbon emissions and supporting climate-smart agriculture.

## **REDUCED NUTRIENT RUNOFF**

- Improved nutrient retention helps reduce:
  - Nitrogen losses
  - Phosphorus runoff
  - Groundwater contamination
  - Environmental pollution

## **REGENERATIVE AGRICULTURE**

### SUPPORTS:

- Soil regeneration
- Sustainable farming
- Organic production systems
- Long-term soil health



# SYNERGY WITH THE MICROBEBIO® SYSTEM

## **RHIZO ACTIVATOR™**

- Provides beneficial microbes and mycorrhizae that colonize the biochar surface and root zone.

## **HYDRO ACTIVATOR™**

- Provides organic nutrients and amino acids that are captured and stored by the biochar matrix.

## **NATURE VIGOR™**

- Supplies organic carbon and biological stimulants that work synergistically with biochar.

## **AQUA ACTIVATOR™**

- Improves nutrient availability while biochar helps retain nutrients in the soil profile.
- Together they create a highly active biological ecosystem that maximizes soil performance and crop productivity.



# RECOMMENDED APPLICATION RATES

<b>CROP TYPE</b>	<b>APPLICATION RATE</b>
Field Crops	50–200 kg/ha
Vegetables	25–100 kg/ha
Fruit Trees	0.5–2 kg/tree
Banana / Plantain	0.5–2 kg/plant
Nursery Mixes	1–5% soil blend
Compost Enhance-ment	2–10% by weight



**THE MICROBEBIO® DIFFERENCE**  
BETTER SOIL  
STRONGER ROOTS  
MORE EFFICIENT NUTRIENT USE  
HIGHER YIELD  
SUPERIOR CROP QUALITY  
LONG-TERM SOIL REGENERATION





**MICROBEBIO® MICRONIZED BIOCHAR™**  
BUILDING HEALTHY SOILS FOR SUSTAINABLE  
AGRICULTURE AND PROFITABLE FARMING.