

MicrobeBio®

MICROBEBIO X3™ & X3-SB™

ADVANCED BIOLOGICAL INSECT CONTROL SYSTEMS

NATURAL POWER.
MAXIMUM PROTECTION.



BIOLOGICAL
TECHNOLOGY



BROAD SPECTRUM
PROTECTION



SUSTAINABLE
AGRICULTURE



REDUCED CHEMICAL
DEPENDENCY



Engineered by Nature.
Proven in the Field.



MICROBEBIO X3™ PRODUCT DESCRIPTION

Microbebio X3™ is a proprietary multi-strain biological insecticide formulated to provide broad-spectrum control of chewing, sucking, piercing, and boring agricultural pests.

The product combines beneficial entomopathogenic fungi, insect-control bacteria, and advanced mineral carrier technology to create a powerful biological pest management system engineered for real agricultural field conditions.

X3™ is designed to:

- Reduce pest populations naturally
- Protect crop yield and quality
- Reduce feeding damage
- Improve field protection under difficult environmental conditions
- Support sustainable and regenerative agriculture systems

The formulation provides residual biological activity and multiple modes of action, helping reduce the risk of pest resistance development often associated with repeated chemical pesticide use.

KEY BENEFITS OF MICROBEBIO X3™



Broad Spectrum Pest Control

Controls chewing, sucking, piercing, and boring pests.



Multi-Mode Biological Action

Works through infection, ingestion, feeding suppression, and pest lifecycle disruption.



Residual Protection

Microbial activity remains active after application.



Strong Field Stability

Performs under heat, UV exposure, and humidity.



Strong Leaf Adhesion

Improves persistence and spray performance.



Eco-Friendly Technology

Supports sustainable agriculture systems.



Safer for Beneficial Organisms

Lower environmental impact compared to many conventional pesticides.



Protects Yield & Crop Quality

Reduces feeding damage and crop stress.



**Natural Power.
Maximum Protection.**



ADVANCED
BIOLOGICAL FORMULATION



MAXIMUM
PROTECTION



SUSTAINABLE
FUTURE



PROVEN IN
REAL FIELDS



**EFFECTIVE
AGAINST**

CHEWING PESTS



✓ DESTROY LEAVES • REDUCE YIELD • CAUSE SERIOUS LOSSES

1 Armyworms



2 Caterpillars



3 Loopers



4 Cutworms



5 Corn earworms



6 Tobacco worms



Armyworms



Caterpillars



Loopers



Cutworms



Corn earworms



Tobacco worms



Broad Spectrum Control



Fast Acting Knockdown



Long Lasting Protection



Safer for Crops & the Environment



Supports Sustainable Farming



BORERS & STEM PESTS



• Rice stem borers



• Corn borers



• Stem-feeding larvae



Rice stem borers

Corn borers

Stem-feeding larvae



HARD-SHELL PESTS



• Beetles



• Flea beetles



• Leaf beetles



• Weevils



Beetles



Flea beetles



Leaf beetles



Weevils

SUCKING & PIERCING PESTS



• Aphids



• Whiteflies



• Thrips



• Leafhoppers



• Planthoppers



• Psyllids



• Mealybugs



Aphids



Whiteflies



Thrips



Leafhoppers



Planthoppers



Psyllids



Mealybugs

MicrobeBio®

X3-SB™

ADVANCED MULTI-STRAIN
BIOLOGICAL INSECTICIDE



POWERFUL
PROTECTION



NATURAL
POWER



BROAD
SPECTRUM



LASTING
RESULTS

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MicrobeBio®

X3 SB™

MULTI-STRAIN BIOLOGICAL INSECTICIDE

WETTABLE POWDER (WP)

ADVANCED CONTROL FOR
STINK BUGS & STEM BORERS
+ BROAD SPECTRUM PROTECTION

POWERED BY
7 POWERFUL MICROBES

- HIGH EFFECTIVENESS
- LONGER RESIDUAL ACTIVITY
- STRONG ADHESION & COVERAGE
- PERFORMS IN HEAT, UV & HUMIDITY
- SAFE FOR PLANTS, PEOPLE & THE ENVIRONMENT

NATURAL ORIGIN | SAFE & ECO-FRIENDLY | LONG-LASTING PROTECTION | EXCELLENT DISPERSIBILITY

NET CONTENT
1 kg

BE NATURAL
BE THE SOLUTION

MADE FOR BETTER HARVESTS

MicrobeBio® X3 SB™

MULTI-STRAIN BIOLOGICAL INSECTICIDE

A powerful blend of beneficial microbes formulated to control a wide range of chewing and sucking pests, with enhanced performance against stink bugs and stem borers.

ACTIVE INGREDIENTS (Minimum Guaranteed)

<i>Beauveria bassiana</i>	≥ 1 x 10 ⁸ spores/g
<i>Metarhizium anisopliae</i>	≥ 1 x 10 ⁸ spores/g
<i>Bacillus thuringiensis</i> (Bt)	≥ 1 x 10 ⁸ CFU/g
<i>Chromobacterium subtsugae</i>	≥ 1 x 10 ⁸ CFU/g
<i>Lecanicillium lecanii</i>	≥ 1 x 10 ⁸ spores/g
<i>Isaria fumosorosea</i>	≥ 1 x 10 ⁸ spores/g
<i>Bacillus subtilis</i> (optional)	≥ 1 x 10 ⁸ CFU/g

HOW IT WORKS

Microbes contact pest → Insects and stings feeding → Pest dies naturally → Plants remain healthy

EFFECTIVE AGAINST

STINK BUGS	STEM BORERS	CATERPILLARS	ARMYWORMS
APHIDS	WHITEFLIES	THIRPS	LEAFHOPPERS
MEALYBUGS	BEETLES	PLANTHOPPERS	PSYLLIDS

ENHANCE PERFORMANCE (OPTIONAL)
Add at application for maximum results under high pest pressure.

BIOCHAR 0.5-1% + SOLUBLE SUGAR 0.5-1% + STICKY SPREADER As recommended + HOME SLURRY 0.2-0.5%

BENEFITS OF ADD-ON SYSTEM

- ✓ Increase of effectiveness by 10-20%
- ✓ Extends residual activity
- ✓ Improves adhesion & soil coverage
- ✓ Better performance in adverse conditions

SAFE FOR BENEFICIALS: BEES, EARTHWORMS & NATURAL ENEMIES

DIRECTIONS FOR USE
Mix recommended rate with clean water. Apply in the early morning or late afternoon. Ensure good coverage of plant surfaces.

STORAGE
Store in a cool, dry place. Keep away from direct sunlight and moisture.

FOR AGRICULTURAL USE ONLY
KEEP OUT OF REACH OF CHILDREN

AVAILABILITY SIZES
1 kg | 5 kg | 25 kg

MicrobeBio®
www.microbebio.com

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MICROBEBIO X3-SB™ PRODUCT DESCRIPTION

Microbebio X3-SB™ is an enhanced version of Microbebio X3™ specifically engineered for improved control of stink bugs, stem borers, and difficult grain-feeding pests while maintaining broad-spectrum biological insect control performance.

The formulation utilizes an upgraded microbial consortium and optimized carrier technology to improve:

- Adhesion
- Residual persistence
- Environmental stability
- Field performance under severe pest pressure

X3-SB™ is especially suited for:

- Rice systems
- Corn and maize production
- High-value vegetables
- Fruit trees
- Tropical agriculture environments

BENEFITS OF MICROBEBIO® X3-SB™



Broad Spectrum Pest Control

Controls chewing, sucking, piercing, and boring pests.



Strong Leaf Adhesion

Improves persistence and spray performance.



Enhanced Stink Bug & Stem Borer Control

Optimized for difficult field pests.



Eco-Friendly Technology

Supports sustainable agriculture systems.



Multi-Mode Biological Action

Reduces resistance development.



Safer for Beneficial Organisms

Lower environmental impact than many conventional pesticides.



Strong Field Stability

Performs under heat, UV, and humidity.



Protects Yield & Crop Quality

Reduces crop stress and feeding damage.



NATURAL POWER. MAXIMUM PROTECTION.



COMPARISON —X3™ VS X3-SB™

Feature	X3™	X3-SB™
Broad-spectrum insect control	✓	✓
Stink bug control	Moderate–High	Enhanced / Very High
Stem borer control	Moderate–High	Enhanced / Very High
General caterpillar control	✓ Excellent	✓ Excellent
Sucking pest control	✓ Excellent	✓ Excellent
Residual field performance	Strong	Enhanced
Leaf adhesion	Strong	Enhanced
Tropical field stability	Good	Excellent
Grain pest specialization	Standard	Advanced
Recommended crops	General agriculture	Rice, maize, vegetables, fruit trees

BENEFITS ON RICE

X3™

-  Controls rice pests naturally
-  Reduces feeding damage
-  Protects grain quality
-  Helps reduce pest pressure during vegetative and reproductive stages

X3-SB™

-  Enhanced rice stink bug control
-  Enhanced stem borer suppression
-  Helps protect grain filling and yield quality
-  Improved protection under humid tropical rice conditions

Rice Pests Controlled



Rice stink bugs



Brown planthoppers



Stem borers



Leafhoppers



Armyworms



Caterpillars




Thrips

BENEFITS ON CORN / MAIZE

X3TM


 Protects leaf area and photosynthesis

 Reduces caterpillar and armyworm pressure

 Supports healthier crop development

X3-SBTM

 Enhanced corn borer suppression

 Improved protection during tasseling and ear development

 Stronger residual protection under high pest pressure



Corn Pests Controlled



Fall armyworms



Corn borers



Caterpillars



Cutworms



Earworms



Aphids



Leafhoppers

BENEFITS ON VEGETABLES

X3™



Controls soft-bodied pests effectively



Reduces feeding injury



Improves vegetable quality and appearance

X3-SB™



Improved persistence on leaf surfaces



Enhanced control under greenhouse and humid conditions



Better protection for export-quality vegetables



Vegetable Pests Controlled



Aphids



Whiteflies



Thrips



Caterpillars



Loopers



Flea beetles



Leaf beetles

BENEFITS ON FRUIT TREES

X3™



Reduces pest feeding damage



Protects foliage and fruit surfaces



Supports healthier canopy development

X3-SB™



Enhanced persistence in orchard systems



Improved protection against difficult piercing pests



Better field performance under heat and UV exposure



Fruit Tree Pests Controlled



Stink bugs



Psyllids



Aphids



Whiteflies



Thrips



Caterpillars



Beetles



PROPRIETARY MICROBIAL SYSTEM & FUNCTIONS

BEAVERIA BASSIANA

FUNCTION:

- Infects and kills insects through direct fungal infection
 - Effective against soft-bodied and chewing pests
-

METARHIZIUM ANISOPLIAE

FUNCTION:

- Strong insect pathogenic fungus
 - Effective against borers, beetles, and soil-emerging pests
-

BACILLUS THURINGIENSIS (BT)

FUNCTION:

- Produces proteins toxic to caterpillars and larvae
- Highly effective against chewing pests



LECANICILLIUM LECANII

FUNCTION:

- Specialized control of aphids, whiteflies, and soft-bodied insects
-

ISARIA FUMOSOROSEA

FUNCTION:

- Controls sucking and piercing pests
 - Strong whitefly and psyllid suppression
-

CHROMOBACTERIUM SUBTSUGAE

FUNCTION:

- Produces biological metabolites that suppress insect feeding
 - Repellent and anti-feeding activity
-

BACILLUS SUBTILIS

FUNCTION:

- Supports microbial stability
- Helps improve leaf surface biological balance

A close-up photograph of several green leaves with prominent veins. Numerous clear water droplets of varying sizes are scattered across the leaf surfaces, reflecting light. The background is a soft, out-of-focus green.

MICROBEBIO X3™

BROAD-SPECTRUM BIOLOGICAL
INSECT CONTROL SYSTEM FOR
MODERN AGRICULTURE.

MICROBEBIO X3-SB™

ADVANCED ENHANCED BIOLOGICAL
PROTECTION ENGINEERED FOR
DIFFICULT STINK BUG, GRAIN PEST,
AND STEM BORER PRESSURE.

The logo for MicrobeBio is displayed on a white, ribbon-like banner that appears to be peeling up from the top of the page. The banner is set against a background of a lush green rice field under a bright, golden sunset sky. The sun is low on the horizon, casting a warm glow over the scene. The rice stalks in the foreground are in sharp focus, showing their characteristic drooping panicles.

MicrobeBio[®]

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