人元生物
RENYUAN BIOTECH

绿色人元　生态未来

Green Renyuan · An Ecological Future

农业微生物篇

AGRICULTURAL MICROBIOLOGY

鹤壁市人元生物技术发展有限公司

Hebi Renyuan Biotechnology Development Co., Ltd.

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鹤壁市人元生物技术发展有限公司

Hebi Renyuan Biotechnology Development Co., Ltd.

中国·鹤壁

Hebi, China

专　业　求　精　确　　品　质　赢　天　下

Precision in Our Profession · Quality for the World

人元生物

RENYUAN BIOTECHNOLOGY

国　家　高　新　技　术　企　业

NATIONAL HIGH-TECH ENTERPRISE

绿　色　人　元　生　态　未　来

Green Renyuan · An Ecological Future

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企业简介
COMPANY PROFILE

成立于2005年

专业致力于农用微生物菌剂、有机肥、生物有机肥、有机肥配套设备、植保器械、农林机械研发、生产、销售、技术推广与应用服务的农业产业化科技型企业。有机肥发酵菌种自主研发较早的企业；有机肥生产技术较成熟的企业；有机肥行业产业链较完整的企业。

Founded in 2005, Renyuan is an agricultural technology company engaged in the R&D, production, sales, technical promotion and application services of agricultural microbial preparations, organic and bio-organic fertilizers, organic fertilizer equipment, plant protection machinery, and agricultural and forestry machinery.

As an early developer of proprietary organic fertilizer fermentation strains, the company has established mature production technology and a complete organic fertilizer industry chain.

国家高新技术企业 National High-Tech Enterprise

工业企业知识产权运用试点企业
Industrial Intellectual Property Application Pilot Enterprise
国家科技型中小企业
National Science and Technology-based SME
河南省创新型试点企业
Henan Innovative Pilot Enterprise
河南省科技小巨人企业
Henan Science and Technology "Little Giant" Enterprise
河南省农业产业化重点龙头企业
Henan Leading Agricultural Industrialization Enterprise
河南省农业产业化联合体
Henan Agricultural Industrialization Consortium
河南省技术创新示范企业
Henan Technology Innovation Demonstration Enterprise
河南省专精特新中小企业
Henan Specialized, Refined, Distinctive and Innovative SME
河南省绿色技术创新示范企业
Henan Green Technology Innovation Demonstration Enterprise
河南省服务型制造示范企业
Henan Service-Oriented Manufacturing Demonstration Enterprise
河南省知识产权优势企业
Henan Intellectual Property Advantage Enterprise

国家博士后科研工作站
National Postdoctoral Research Station
河南省微生物菌剂工程技术研究中心
Henan Microbial Preparation Engineering Technology Research Center
河南省农业废弃物资源化综合利用工程研究中心
Henan Agricultural Waste Resource Utilization Engineering Research Center
河南省企业技术中心
Henan Enterprise Technology Center
河南省污水污泥处理与资源化利用产业技术创新战略联盟
Henan Wastewater and Sludge Treatment and Resource Utilization Industry Technology Innovation Alliance

鹤壁市农业微生物菌剂重点实验室
Hebi Key Laboratory of Agricultural Microbial Preparations

企业文化

Corporate Culture

奉献社会
惠泽三农

企业宗旨 **Purpose**	奉献社会　惠泽三农 Serve society and benefit agriculture.
企业精神 **Spirit**	诚信：百德诚为先，百事信为本，诚信是企业立命之根、兴业之本。 务实：以农业为主导，以质量求生存，以科技促发展，一切从实际出发， 实事求是，不唯书、不唯上、只为实。 创新：解放思想、勇于突破、与时俱进，不断提高企业自身的核心竞争力。 高效：快速反应、立即行动、注重细节、赢在执行。 Integrity: Honesty leads every virtue and trust underpins every undertaking. They are the foundation of an enterprise's survival and prosperity. Pragmatism: Focus on agriculture, pursue quality and develop through science and technology. Start from reality, seek truth from facts and deliver practical results. Innovation: Emancipate the mind, seek breakthroughs, keep pace with the times and strengthen competitiveness. Efficiency: Respond quickly, act promptly, attend to detail and execute effectively.
企业方针 **Policy**	品牌　企业形象的灵魂　Brand: the soul of our corporate image. 品质　企业生存的根本　Quality: the foundation of our survival. 科技　企业腾飞的翅膀　Technology: the wings of our growth. 服务　企业发展的保障　Service: the guarantee of our development.
经营理念 **Philosophy**	以先进技术为基础　以优良品质为保证　Advanced technology and excellent quality; 以周到服务为宗旨　以造福人类为目标　Service as our purpose; human well-being as our goal.
企业使命 **Mission**	绿色人元　生态未来　Green Renyuan, an ecological future.
企业作风 **Work Style**	自强不息　求真务实　Strive continuously; seek truth and practical results.
发展理念 **Development**	团结　优质　高效　共赢　Unity, quality, efficiency and shared success.
员工精神 **Team Spirit**	做正直员工　创诚信公司 不畏艰辛　坚毅忠诚　团结协作　敢于创新 Be upright employees and build a trustworthy company. Work hard, remain loyal, collaborate and innovate.

公司成立志愿者工作站揭牌仪式照片

Inauguration of the company volunteer station

公司与慈善总会
去特殊教育（聋哑）学校中秋慰问

Mid-Autumn charity visit to children at a school for special education

公司为马村小学捐赠图书

Book donation to a rural primary school

公司为困难职工捐款现场

Financial assistance for employees facing hardship

荣誉

是耕耘的收获，是智慧的结晶，

是理想的追求，是拼搏的足迹……

荣誉代表着过去，

在这个市场竞争激烈的时代，

无数的品牌沉沉浮浮，无数的企业去去来来，

有远见才有未来，有责任才有价值。

人元生物始终以“远离污染，走进绿色”

为时代使命，

锐意进取，奋斗不息！

Honors

Our honors reflect hard work, ingenuity and the determined pursuit of our ideals. They mark the progress we have made in a competitive market where brands and enterprises continually rise and fall.

Vision shapes the future; responsibility creates value. Renyuan continues its mission of transforming pollution and advancing towards a greener future, with perseverance and sustained effort.

鹤壁市人元生物技术发展有限公司
博士后科研工作站
POSTDOCTORAL PROGRAMME
人力资源和社会保障部
全国博士后管委会 制发
二〇二一年二月

河南省
微生物菌剂工程技术研究中心
河南省科学技术厅

河南省
农业废弃物资源化综合利用
工程研究中心
河南省发展和改革委员会

省级
企业技术中心
河南省发展和改革委员会
河南省科学技术厅
河南省财政厅
国家税务总局河南省税务局
中华人民共和国郑州海关

HSRITSA
河南省污水污泥处理与资源化利用
产业技术创新战略联盟

高新技术企业
河南省科学技术厅 河南省财政厅
国家税务总局河南省税务局
二〇二一年九月

国家科技型中小企业
科学技术部

工业企业知识产权
运用试点企业
中华人民共和国工业和信息化部
二〇二〇年十二月

河南省
创新型试点企业
河南省科学技术厅 河南省财政厅
河南省人民政府国有资产监督管理委员会 河南省国家税务局
河南省总工会 河南省地方税务局
河南省发展和改革委员会 河南省知识产权局

河南省
节能减排科技创新示范企业
河南省科学技术厅
河南省发展和改革委员会
河南省工业和信息化委员会
河南省环境保护厅
河南省住房和城乡建设厅

授予：鹤壁市人元生物技术发展有限公司
农业产业化省重点龙头企业
(2022-2024)
河南省人民政府
二〇二二年十二月

河南省
科技小巨人企业
河南省科学技术厅

河南省
服务型制造示范企业
河南省工业和信息化厅
二〇二二年五月

河南省知识产权优势企业
河南省知识产权局
二〇二二年十二月三十一日

鹤壁市人元生物技术发展有限公司
河南省绿色技术创新示范企业
(2022-2025)
河南省科学技术厅 河南省发展和改革委员会
河南省工业和信息化厅 河南省生态环境厅
2022年8月

河南省
技术创新示范企业
河南省工业和信息化厅
河南省财政厅

授予：鹤壁市人元生物技术发展有限公司
河南省农业产业化联合体
河南省农业农村厅
2022年1月28日

企业规范化管理

Standardized Enterprise Management

肥料登记证书

Fertilizer Registration Certificates

科研力量

Research & Development

河南省微生物菌剂工程技术研究中心一瞥
Henan Microbial Preparation Engineering Technology Research Center

Rw促腐剂 Rw Composting Accelerator

Rw促腐剂是河南省微生物菌剂工程技术研究中心、河南省农业废弃物资源化综合利用工程研究中心和河南省企业技术中心共同研制的高新技术产品。本品根据好氧发酵各阶段特点，科学调配超低温、低温、中温、高温、超高温菌株比例，且富含能够强烈分解畜禽类粪便的细菌、丝状菌、酵母菌及高温除臭菌等多种菌株及相关酶类。好氧发酵、分解粗纤维、木质素能力极强，同时能够达到升温、除臭、消除病虫害、杂草种子和富集养分的效果。

Jointly developed by the Henan Microbial Preparation Engineering Research Center, Henan Agricultural Waste Resource Utilization Engineering Research Center and Henan Enterprise Technology Center, this product combines strains suited to the very low-, low-, medium-, high- and very high-temperature stages of aerobic fermentation. It contains bacteria, filamentous fungi, yeasts, thermophilic deodorizing strains and associated enzymes that efficiently break down livestock and poultry manure. Its strong aerobic fermentation and coarse-fibre and lignin decomposition activity promotes heating, removes odours, suppresses pathogens and pests, destroys weed seeds and concentrates nutrients.

功能特点 Functional Features

1、适用对象：牛、羊等畜禽类粪便、果渣、醋渣、酿造废渣、糠醛渣、菌渣、各种农作物秸秆、油枯下脚料等（包括厩肥）。

2、适用范围：大型畜牧场、大型有机肥厂及大型种植基地。

3、起温快，物料温度0℃以上时，发酵条件合适的情况下，夏季24h后发酵温度可达60℃以上，冬季48h后发酵温度可达60℃以上，有效缩短升温阶段周期。可充分分解畜禽类粪便中产生臭味的有机硫化物、有机氮化物、粗纤维等。升温后，2-3天即可消除臭味。

4、堆肥周期短，温度达到55℃以上后，7-10天达到无害化标准，10-15天即可成肥。

5、堆肥高温持久，能杀灭发酵物中的病菌、虫卵、杂草种子。

6、堆肥总养分损失少，提高黄腐酸、腐殖酸、速效N、P、K等营养元素含量。

1. Materials: cattle and sheep manure, other livestock manure, fruit and vegetable residues, food-processing wastes, spent mushroom substrate, agricultural straw and oilseed meals.
2. Applications: large livestock farms, organic fertilizer plants and crop-growing bases.
3. Fast heating: at an initial material temperature of 0°C or above, suitable piles reach 60°C within 24 hours in summer or 48 hours in winter. Organic sulfur, organic nitrogen and coarse fiber are decomposed; odors can be removed in 2-3 days.
4. Short cycle: after reaching 55°C or above, material meets sanitation requirements in 7-10 days and is ready as fertilizer in 10-15 days.
5. High pile temperature kills pathogens, insect eggs and weed seeds.
6. Reduces nutrient losses during composting and increases fulvic acids, humic acids and available N, P and K.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T003-2021
有效活菌数（cfu）/($\times 10^8$/g)	Viable count (10^8 CFU/g)	≥200.0
纤维素酶活(U/g)	Cellulase activity (U/g)	≥50.0
蛋白酶活(U/g)	Protease activity (U/g)	≥30.0
水分（%）	Moisture (%)	≤20.0
pH值	pH	6.0-8.0
有效期/月	Shelf life (months)	24

使用方法 Directions for Use

每1kgRw促腐剂可处理畜禽类粪便10-15吨，使用时将Rw促腐剂扩大体积后（1kgRw促腐剂与10kg干燥有机物料，如稻糠、秸秆粉、玉米面等混合均匀），均匀掺入发酵物中。

Use 1 kg to treat 10-15 tonnes of livestock manure. Before application, mix 1 kg of product evenly with 10 kg of dry organic carrier such as rice bran, straw powder or cornmeal, then distribute evenly throughout the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀。 2、禁止与杀菌剂混用。 3、本品必须存放于通风、阴凉、干燥处。

1. Mix thoroughly into the material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

Rw酵素剂 Rw Enzyme Agent

Rw酵素剂是河南省微生物菌剂工程技术研究中心、河南省农业废弃物资源化综合利用工程研究中心和河南省企业技术中心共同研制的高新技术产品。本品根据好氧发酵各阶段特点，科学调配超低温、低温、中温、高温、超高温菌株比例，且富含能够强烈分解畜禽类粪便的细菌、丝状菌、酵母菌、高温除臭菌等多种菌株及相关酶类。好氧发酵、分解蛋白质能力极强，同时能够达到升温、除臭、消除病虫害、杂草种子和富集养分的效果。

Jointly developed by the Henan Microbial Preparation Engineering Research Center, Henan Agricultural Waste Resource Utilization Engineering Research Center and Henan Enterprise Technology Center, this product combines strains suited to the very low-, low-, medium-, high- and very high-temperature stages of aerobic fermentation. It contains bacteria, filamentous fungi, yeasts, thermophilic deodorizing strains and associated enzymes that efficiently break down livestock and poultry manure. Its strong aerobic fermentation and protein decomposition activity promotes heating, removes odours, suppresses pathogens and pests, destroys weed seeds and concentrates nutrients.

功能特点 Functional Features

适用对象：猪、鸡、鸭等畜禽类粪便（包括厩肥），其它有机物料等。

适用范围：大型畜牧场、大型有机肥厂及农场。

起温快，物料温度0℃以上时，发酵条件合适的情况下，夏季24h后发酵温度可达60℃以上，冬季48h后发酵温度可达60℃以上，有效缩短升温阶段周期。可充分分解畜禽类粪便中产生臭味的有机硫化物、有机氮化物、粗纤维等。升温后，2-3天即可消除臭味。

堆肥周期短，温度达到55℃以上后，7-10天达到无害化标准，10-15天即可成肥。

堆肥高温持久，能杀灭发酵物中的病菌、虫卵、杂草种子。

堆肥总养分损失少，提高黄腐酸、腐殖酸、速效N、P、K等营养元素含量。

1. Materials: pig, poultry and other livestock manure (including bedding), and other organic materials.
2. Applications: large livestock farms, organic fertilizer plants and crop-growing bases.
3. Fast heating: at an initial material temperature of 0°C or above, suitable piles reach 60°C within 24 hours in summer or 48 hours in winter. Organic sulfur, organic nitrogen and coarse fiber are decomposed; odors can be removed in 2-3 days.
4. Short cycle: after reaching 55°C or above, material meets sanitation requirements in 7-10 days and is ready as fertilizer in 10-15 days.
5. High pile temperature kills pathogens, insect eggs and weed seeds.
6. Reduces nutrient losses during composting and increases fulvic acids, humic acids and available N, P and K.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T002-2021
有效活菌数（cfu）/($\times 10^8$/g)	Viable count (10^8 CFU/g)	≥200.0
纤维素酶活(U/g)	Cellulase activity (U/g)	≥30.0
蛋白酶活(U/g)	Protease activity (U/g)	≥50.0
水分（%）	Moisture (%)	≤20.0
pH值	pH	6.0-8.0
有效期/月	Shelf life (months)	24

使用方法 Directions for Use

每1kgRw酵素剂可处理畜禽类粪便10-15吨，使用时将Rw酵素剂扩大体积后（1kgRw酵素剂与10kg干燥有机物料，如稻糠、秸秆粉、玉米面等混合均匀），均匀掺入发酵物中。

Use 1 kg to treat 10-15 tonnes of livestock manure. Before application, mix 1 kg of product evenly with 10 kg of dry organic carrier such as rice bran, straw powder or cornmeal, then distribute evenly throughout the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀。 2、禁止与杀菌剂混用。 3、本品必须存放于通风、阴凉、干燥处。

1. Mix thoroughly into the material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

Rw高效促腐剂 High-Efficiency Rw Composting Accelerator

Rw高效促腐剂是河南省微生物菌剂工程技术研究中心、河南省农业废弃物资源化综合利用工程研究中心和河南省企业技术中心共同研制的高新技术产品，具有充分分解富含纤维素的农业有机废弃物的功能，是由低、中、高温芽孢杆菌、高温固氮菌、高温纤维素分解菌、放线菌、真菌、酵母、乳酸菌等十多种菌株及相关酶类复配而成，好氧发酵、充分分解粗纤维，同时能够达到升温、除臭、消除病虫害、杂草种子和富集养分的效果。

Jointly developed by the Henan Microbial Preparation Engineering Research Center, Henan Agricultural Waste Resource Utilization Engineering Research Center and Henan Enterprise Technology Center, RW High-Efficiency Composting Agent decomposes cellulose-rich agricultural organic waste. It combines more than ten microbial strains, including low-, medium- and high-temperature Bacillus strains, thermophilic nitrogen-fixing and cellulose-degrading bacteria, actinomycetes, fungi, yeasts and lactic acid bacteria, with associated enzymes. It promotes aerobic fermentation and coarse-fibre decomposition, raises pile temperature, removes odours, suppresses pathogens and pests, destroys weed seeds and concentrates nutrients.

功能特点 Functional Features

1、适用对象：牛、羊等畜禽类粪便、果渣、醋渣、酿造废渣、糠醛渣、菌渣及各种农作物秸秆、油枯下脚料等（包括厩肥）。
2、适用范围：大型畜牧场、大型有机肥厂及农场。
3、起温快，环境温度0℃以上，48小时升温至60℃左右，发酵条件合适的情况高温可达到70℃以上。
4、高温持久，升温后即可消除臭味，能杀灭发酵物中的病毒、病菌、虫卵、杂草种子。
5、堆肥周期短，高温达到60℃以上，3-5天达到无害化标准，10-12天成肥。
6、堆肥总养分损失少，有机质较传统产品提高5-10%左右，腐殖酸含量高。

1. Materials: cattle and sheep manure, other livestock manure, fruit and vegetable residues, food-processing wastes, spent mushroom substrate, agricultural straw and oilseed meals.
2. Applications: large livestock farms, organic fertilizer plants and crop-growing bases.
3. At ambient temperatures above 0°C, piles reach about 60°C within 48 hours and may exceed 70°C under suitable conditions.
4. Sustained high pile temperature removes odors, kills pathogens, insect eggs and weed seeds.
5. After reaching 60°C or above, sanitation requirements are met in 3-5 days; fertilizer is ready in 10-12 days.
6. Reduces nutrient losses during composting, raises organic matter content by about 5-10% compared with conventional products, and provides abundant humic acids.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T 006-2020	GB 20287-2006
有效活菌数（cfu）/(×10⁸/g)	Viable count (10⁸ CFU/g)	≥500.0	≥0.5
纤维素酶活(U/g)	Cellulase activity (U/g)	≥90.0	≥30.0
蛋白酶活(U/g)	Protease activity (U/g)	≥50.0	≥15.0
水分（%）	Moisture (%)	≤20.0	≤35.0
pH值	pH	6.0-8.0	5.5-8.5
有效期/月	Shelf life (months)	24	6

使用方法 Directions for Use

每1kgRW高效促腐剂可发酵物料15-18吨，使用时将本品扩大体积后（1kgRW高效促腐剂与10kg干燥的细物料混合均匀），均匀掺入发酵物料中。

Use 1 kg to treat 15-18 tonnes of material. Mix 1 kg of product evenly with 10 kg of fine dry material, then distribute uniformly through the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀后使用。
2、禁止与杀菌剂混用。
3、本品必须存放于通风、阴凉、干燥处。

1. Mix thoroughly with the fermentation material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

High-Efficiency Rw Enzyme Agent Rw高效酵素剂

Rw高效酵素剂是河南省微生物菌剂工程技术研究中心、河南省农业废弃物资源化综合利用工程研究中心和河南省企业技术中心共同研制的高新技术产品，具有充分分解富含蛋白质的畜禽粪便等有机废弃物的功能，是由低、中、高温芽孢杆菌、高温固氮菌、高温氨基酸转化菌、放线菌、真菌、酵母、乳酸菌等十多种菌株及相关酶类复配而成，好氧发酵、充分分解蛋白质，同时能够达到升温、除臭、消除病虫害、杂草种子和富集养分的效果。

Jointly developed by the Henan Microbial Preparation Engineering Research Center, Henan Agricultural Waste Resource Utilization Engineering Research Center and Henan Enterprise Technology Center, RW High-Efficiency Enzyme Agent decomposes protein-rich organic waste such as livestock and poultry manure. It combines more than ten microbial strains, including low-, medium- and high-temperature Bacillus strains, thermophilic nitrogen-fixing and amino-acid-transforming bacteria, actinomycetes, fungi, yeasts and lactic acid bacteria, with associated enzymes. It promotes aerobic fermentation and protein decomposition, raises pile temperature, removes odours, suppresses pathogens and pests, destroys weed seeds and concentrates nutrients.

功能特点 Functional Features

1、适用对象：猪、鸡、鸭等畜禽类粪便（包括厩肥），其它有机物料等。
2、适用范围：大型畜牧场、大型有机肥厂及农场。
3、起温快，环境温度0℃以上，48小时升温至60℃左右，发酵条件合适的情况高温可达到70℃以上。
4、高温持久，升温后即可消除臭味，能杀灭发酵物中的病毒、病菌、虫卵、杂草种子。
5、堆肥周期短，高温达到60℃以上，3-5天达到无害化标准，7-10天成肥。
6、堆肥总养分损失少，氮素含量较传统产品提高1%左右，氨基酸含量高。

1. Materials: pig and poultry manure (including bedding) and other organic materials.
2. Applications: large livestock farms, organic fertilizer plants and crop-growing bases.
3. At ambient temperatures above 0°C, piles reach about 60°C within 48 hours and may exceed 70°C under suitable conditions.
4. Sustained high pile temperature removes odors, kills pathogens, insect eggs and weed seeds.
5. After reaching 60°C or above, sanitation requirements are met in 3-5 days; fertilizer is ready in 7-10 days.
6. Reduces nutrient losses during composting, raises nitrogen content by about 1% compared with conventional products, and provides abundant amino acids.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T 005-2020	GB 20287-2006
有效活菌数（cfu）/(×10⁸/g)	Viable count (10⁸ CFU/g)	≥500.0	≥0.5
纤维素酶活(U/g)	Cellulase activity (U/g)	≥60.0	≥30.0
蛋白酶活(U/g)	Protease activity (U/g)	≥70.0	≥15.0
水分（%）	Moisture (%)	≤20.0	≤35.0
pH值	pH	6.0-8.0	5.5-8.5
有效期/月	Shelf life (months)	24	6

使用方法 Directions for Use

每1kgRW高效酵素剂可发酵物料15-18吨，使用时将本品扩大体积后（1kgRW高效酵素剂与10kg干燥的细物料混合均匀），均匀掺入发酵物料中。

Use 1 kg to treat 15-18 tonnes of material. Mix 1 kg of product evenly with 10 kg of fine dry material, then distribute uniformly through the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀后使用。
2、禁止与杀菌剂混用。
3、本品必须存放于通风、阴凉、干燥处。

1. Mix thoroughly with the fermentation material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

Rw有机物料腐熟剂 Rw Organic Material Composting Agent

Rw有机物料腐熟剂是河南省微生物菌剂工程技术研究中心、河南省农业废弃物资源化综合利用工程研究中心和河南省企业技术中心共同研制的高新技术产品，具有能够强烈分解农业有机废弃物的功能，是由低、中、高温芽孢杆菌、高温固氮菌、高温纤维素分解菌、放线菌、真菌、酵母、乳酸菌等多种菌株及相关酶类复配而成，好氧发酵、快速分解粗纤维、蛋白质，同时能够达到升温、除臭、消除病虫害、杂草种子和富集养分的效果。

Jointly developed by the Henan Microbial Preparation Engineering Research Center, Henan Agricultural Waste Resource Utilization Engineering Research Center and Henan Enterprise Technology Center, RW Organic Material Composting Agent decomposes agricultural organic waste. It combines low- and high-temperature Bacillus strains, thermophilic nitrogen-fixing and cellulose-degrading bacteria, actinomycetes, fungi, yeasts and lactic acid bacteria with associated enzymes. It promotes aerobic fermentation, rapidly breaks down coarse fibre and protein, raises pile temperature, removes odours, suppresses pathogens and pests, destroys weed seeds and concentrates nutrients.

功能特点 Functional Features

1、适用对象：猪、鸡、牛、羊等畜禽类粪便、果渣、醋渣、酿造废渣、糠醛渣、菌渣、各种农作物秸秆、油枯下脚料等（包括厩肥）。

2、适用范围：大型畜牧场、大型有机肥厂及农场。

3、起温快，物料温度0℃以上时，发酵条件合适的情况下，夏季24h后发酵温度可达60℃以上，冬季48h后发酵温度可达60℃以上。可充分分解畜禽类粪便中产生臭味的有机硫化物、有机氮化物、粗纤维等。升温后，2-3天即可消除臭味。

4、堆肥周期短，温度达到55℃以上后，7-10天达到无害化标准，10-15天即可成肥。

5、堆肥高温持久，能杀灭发酵物中的病菌、虫卵、杂草种子。

6、堆肥总养分损失少，腐殖质含量高，速效N、P、K等营养元素含量明显增高。

1. Materials: pig, poultry, cattle and sheep manure; fruit and vegetable residues; distillers' grains, vinegar residue and sugar residue; crop straw and oilseed meals, including cake fertilizers.
2. Applications: large livestock farms, organic fertilizer plants and crop-growing bases.
3. At 0°C or above, suitable piles reach 60°C within 24 hours in summer or 48 hours in winter. Decomposes odor-causing organic sulfur and nitrogen compounds and coarse fiber; removes odors in 2-3 days.
4. After reaching 55°C or above, sanitation requirements are met in 7-10 days and fertilizer is ready in 10-15 days.
5. Kills pathogens, insect eggs and weed seeds.
6. Reduces fertilizer losses and increases humus and available N, P and K.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T001-2021
有效活菌数（cfu）/(×10^8/g)	Viable count (10^8 CFU/g)	≥100.0
纤维素酶活(U/g)	Cellulase activity (U/g)	≥30.0
蛋白酶活(U/g)	Protease activity (U/g)	≥15.0
水分（%）	Moisture (%)	≤20.0
pH值	pH	6.0-8.0
有效期/月	Shelf life (months)	24

使用方法 Directions for Use

每1kgRW有机物料腐熟剂可处理畜禽类粪便10吨，使用时将RW有机物料腐熟剂扩大体积后（1kgRW有机物料腐熟剂与10kg干燥有机物料，如稻糠、秸秆粉、玉米面等混合均匀），均匀掺入发酵物中。

Use 1 kg to treat 10 tonnes of livestock manure. Before use, mix 1 kg of product with 10 kg of dry organic carrier such as rice bran, straw powder or cornmeal, then distribute evenly through the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀。 2、禁止与杀菌剂混用。 3、本品必须存放于通风、阴凉、干燥处。

1. Mix thoroughly with the fermentation material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

Rw动物残体发酵剂 Rw Animal Remains Fermentation Agent

功能特点 Functional Features

本品专门配合农场有机废弃物处理机使用，在水、氧气及热能的综合作用下，将绞碎的畜禽骨肉发酵分解为高品质的肉骨粉，可作为高档有机肥使用，提高畜禽残体的利用价值。

具有产生纤维素分解酵素、蛋白质分解酵素、脂肪分解酵素、淀粉分解酵素等多种分解酵素的能力，可快速有效地分解纤维素、蛋白质、脂肪及淀粉。本品配合动物有机废弃物处理机使用，经过本品高效的分解发酵作用，可减少动物残体的臭味、降低蚊蝇滋生，保持处理的环境清洁，无异味。

Designed for use with farm organic waste treatment equipment. Under the combined action of water, oxygen and heat, it ferments crushed livestock and poultry remains into high-quality meat-and-bone meal for organic fertilizer, improving their utilization value.

Cellulases, proteases, lipases and amylases rapidly break down cellulose, protein, fat and starch. Used with treatment machinery, its efficient decomposition reduces foul odors, improves treatment efficiency and helps maintain a clean, odor-free working environment.

主要成分 Main Ingredients

高含量益生菌（枯草芽孢杆菌、地衣芽孢杆菌）、纤维素分解酵素、蛋白质分解酵素、脂肪分解酵素、淀粉分解酵素、低聚糖。

Highly concentrated beneficial microorganisms (Bacillus subtilis and Bacillus licheniformis), cellulase, protease, lipase, amylase and oligosaccharides.

使用方法 Directions for Use

1、调节碳氮比：建议畜禽残体碎块与辅料（秸秆粉、蘑菇渣、麸皮、锯末）3：2比例混合，控制水分50-60%。

2、菌剂投放量：RW动物残体发酵剂1公斤处理2吨，投入菌剂后与畜禽残体一起粉碎兼混匀料。（RW动物残体发酵剂1公斤可处理小型动物残体2吨，大型动物残体1吨-1.5吨。未经撕碎、粉碎，或有成团、大块较多等特殊情况的应加大用量）。

3、发酵条件：通氧气，55℃-120℃发酵24-48小时，发酵结束后，可做高温烘干处理。

1. C:N adjustment: mix crushed livestock and poultry remains with carriers such as straw powder, spent mushroom substrate, bran or sawdust at a 3:2 ratio; adjust moisture to 50-60%.
2. Dosage: use 1 kg per 2 tonnes. Add the agent to the remains, then crush and mix them together. One kilogram treats 2 tonnes of small-animal remains or 1-1.5 tonnes of large-animal remains. Increase the dosage for material that has not been shredded or crushed, or that contains many clumps or large pieces.
3. Fermentation conditions: provide ventilation and ferment at 55-120°C for 24-48 hours. High-temperature drying may be carried out after fermentation.

注意事项 Precautions

1、禁止与杀菌、杀虫剂等化学农药混合使用，以免造成菌体死亡。
2、勿使菌剂直接放置于强阳光下。
3、通风干燥处保存。

1. Avoid mixing with pesticides, including fungicides and insecticides, to prevent loss of activity.
2. Avoid direct sunlight.
3. Store in a cool, dry place.

Rw污泥减量化专用菌 Rw Sludge Reduction Microbial Agent

污泥减量化专用菌是鹤壁市人元生物肥技术研发中心研制的高科技产品。污泥减量化专用菌，是根据发酵各阶段温度梯度科学复配，添加75℃以上超嗜热菌，对物料水分要求范围宽，55%-70%均可，升温快速48小时可达70℃以上，快速达到无害化处理，缩短发酵周期3-5天，是污泥处置量大客户的理想选择。

This advanced microbial product was developed by the Renyuan Biotechnology R&D Center. Formulated from microorganisms selected for different stages of fermentation, it contains thermophilic beneficial bacteria active above 75°C. At 55-70% moisture, it raises the pile above 70°C within 48 hours and rapidly renders sludge harmless. Its short 3-5 day fermentation cycle makes it suitable for sludge treatment plants and major sludge producers.

功能特点 Functional Features

1、适用对象：生活污泥、工业危废污泥、食品加工厂污泥等。
2、适用范围：污泥处理厂、污泥处置机构。
3、起温快，环境温度0℃以上时，48小时温度升至70℃以上。充分分解污泥中有机质、有机氮化物等。一般发酵10-15天可减量污泥30-50%左右。
4、堆体高温持久，快速挥发水分，分解其中有机物质，达到减量化目的。

1. Suitable for domestic sewage sludge, industrial hazardous-waste sludge and food-processing sludge.
2. Applications: sludge treatment plants and large sludge producers.
3. At an ambient temperature of 0°C or above, pile temperature exceeds 70°C within 48 hours. It decomposes organic matter and organic compounds; 10-15 days of fermentation typically reduces sludge volume by 30-50%.
4. Sustained high temperature rapidly evaporates water and decomposes organic matter to reduce sludge volume.

技术指标 Technical Specifications

主要技术指标	Main specifications	QB/T004-2016
有效活菌数（cfu）/(×10⁸/g)	Viable count (10^8 CFU/g)	≥100.0
纤维素酶活(U/g)	Cellulase activity (U/g)	≥50.0
蛋白酶活(U/g)	Protease activity (U/g)	≥50.0
水分（%）	Moisture (%)	≤20.0
pH值	pH	6.0-8.0
有效期/月	Shelf life (months)	24

使用方法 Directions for Use

1、污泥水分调节：采用含水量低的干物料（稻壳、刨花、锯末、秸秆等），根据污泥水分按照比例添加，如污泥水分在90%左右，按照重量比3（污泥）：1（干料）比例调节水分。
2、添加菌种：每1kg污泥减量化专用菌可处理污泥10吨，使用时将污泥减量化专用菌与10kg干燥的稻糠或玉米面混合均匀，均匀掺入发酵物中。
3、发酵处理：达到70℃以上高温后，每间隔48h翻堆一次。

1. Adjust sludge moisture with low-moisture dry materials such as rice husks, wood shavings, sawdust or straw powder. For sludge at about 90% moisture, use a 3:1 weight ratio of sludge to dry carrier.
2. Dosage: 1 kg treats 10 tonnes. Before use, mix 1 kg of product evenly with 10 kg of dry rice bran or cornmeal, then distribute uniformly through the fermentation pile.
3. Once the pile reaches 70°C or above, turn it every 48 hours.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀后使用。 2、本品必须存放于通风、阴凉、干燥处。 3、本品禁止与杀菌剂混用。

1. Mix thoroughly with the fermentation material. 2. Do not mix with fungicides.
3. Store in a ventilated, cool, shaded and dry place.

Rw免翻堆液体发酵菌 Rw Liquid Fermentation Agent - No Turning Required

功能特点 Functional Features

1、适用对象：鸡、猪、牛、羊等动物粪便（包括厩肥）、农作物秸秆等各种有机物料。
2、起温快：环境温度0℃以上时，48小时可升温至55℃以上，2-3天可以消除臭味，没有大批量苍蝇、小飞虫出现在发酵堆体。
3、堆肥周期短，10天完成腐熟过程。
4、高温持久，杀灭病菌、虫卵、杂草种子，分解农、兽药残留。
5、分解效果好，保肥性强，可以很好的降低氮元素的挥发，所含有益微生物有解磷、解钾、固氮功效。
6、发酵期间：无需翻堆。

1. Materials: chicken, pig, cattle and sheep manure (including bedding), crop straw and other organic materials.
2. At 0°C or above, pile temperature reaches 55°C or above within 48 hours; odors disappear in 2-3 days, without large numbers of flies or small flying insects.
3. Short composting cycle: rapid fermentation in 10 days.
4. Sustained high temperatures kill pathogens, insect eggs and weed seeds and break down pesticide and veterinary drug residues.
5. Preserves fertilizer value and nitrogen; beneficial microorganisms solubilize phosphorus and potassium and fix nitrogen.
6. No turning is needed during fermentation.

主要成分 Main Ingredients

富含芽孢杆菌、除臭等微生物菌群，有效活菌≥2亿/ml。

Rich in Bacillus strains, deodorizing microorganisms and other beneficial microbes; viable count ≥2×10^8 CFU/mL.

产品性状 Product Characteristics

棕黄色酸香味液体。

A brown-yellow, slightly sour liquid.

使用方法 Directions for Use

一吨物料中添加0.5-1公斤液体发酵菌。

Add 0.5-1 kg of liquid fermentation agent per tonne of material.

注意事项 Precautions

1、尽量一次使用完毕，如未使用完，请密封保存。
2、可与化学肥料和杀虫剂混合使用，禁止与杀菌剂混合使用。
3、贮存于通风阴凉处。

1. Use the contents in one application where possible; seal tightly if any remains.
2. May be used with chemical fertilizers and insecticides. Do not mix with fungicides.
3. Store in a ventilated, shaded and cool place.

有机物料腐熟剂（秸秆型腐熟剂）

Organic Material Composting Agent (Straw Type)

有机物料腐熟剂由能够强烈分解纤维素、半纤维素、木质素的嗜热、耐热细菌、真菌、放线菌和生物酶组成。在适宜的条件下，能迅速将秸秆堆料中的碳、氮、磷、钾、硫等分解矿化，形成简单有机物，从而进一步分解为作物可吸收的营养成分，同时，一定程度上消灭了秸秆堆料中的病虫害、杂草种子等有害物质。本品无污染，其中所含的一些功能微生物兼有生物菌肥的作用，对作物生长十分有利。

This composting agent contains thermophilic and heat-tolerant bacteria, fungi, actinomycetes and enzymes that break down cellulose, hemicellulose and lignin. Under suitable conditions, it rapidly decomposes and mineralizes carbon, nitrogen, phosphorus, potassium, sulfur and other elements in straw into simpler compounds and nutrients available to crops. It also reduces pathogens, pests and weed seeds in the straw. The product is non-polluting, and some of its functional microorganisms also act as microbial fertilizer to support crop growth.

功能特点 Functional Features

本品由嗜热、耐热的细菌、放线菌、真菌组成，能强烈分解纤维素、半纤维素、木质素等。适用于各类农作物秸秆，该产品可以加快秸秆的腐熟，增强作物抗病抗寒能力，抑制土壤中部分致病菌的生长，是一种优良的土壤改良剂。

Contains thermophilic and heat-tolerant bacteria, actinomycetes and fungi capable of secreting cellulase, hemicellulase, xylanase and other enzymes. Suitable for all crop straws, it increases beneficial microorganisms and suppresses some soil pathogens. It is an effective soil conditioner.

使用方法 Directions for Use

1、大田秸秆腐熟还田：整地时，将秸秆粉碎，每亩施用2公斤秸秆腐熟剂，与5公斤尿素混合均匀（用尿素调节碳氮比，加速秸秆分解腐烂），再均匀地撒在粉碎后的农作物秸秆上。撒施后立即翻耕，翻入地下15-20厘米左右，在使用本产品的同时，按照常规施用基肥。

2、堆捂秸秆腐熟：将粉碎后的农作物秸秆（长度小于5cm），加水浇透，同时加入8-10公斤的磷酸二铵，秸秆含水量达到60-70%。以秸秆干重的300：1比例将秸秆腐熟剂均匀撒到秸秆上，采用逐级混合法，将农作物秸秆起堆，用塑料薄膜密封，以防止水分蒸发、堆温扩散和养分损失。

3、地垄内使用：整地来不及时使用本品时，在小麦返青期（其他作物同类时期），每亩使用至少2公斤秸秆腐熟剂与肥料混合均匀，与追肥一起使用，培肥地力，提高肥料利用率，提高作物的抗病抗寒能力。

1. Field incorporation: chop straw during land preparation. Per mu (≈667 m²), mix 2 kg of agent with 5 kg of urea and spread evenly over the straw. Immediately plough it into the soil to a depth of about 15-20 cm. Apply basal fertilizer as usual.
2. Pile composting: chop straw to less than 5 cm, soak thoroughly and add 8-10 kg of diammonium phosphate. Adjust moisture to 60-70%. Mix dry straw and agent at 300:1 by weight, blending in stages, then pile and cover tightly with plastic film to retain moisture, heat and nutrients.
3. Later field application: if not applied during land preparation, apply at wheat green-up or the corresponding stage of other crops. Mix at least 2 kg per mu with fertilizer and top-dress to improve soil fertility, fertilizer use and crop resistance to disease and stress.

注意事项 Precautions

1、存放于阴凉干燥处，严禁阳光暴晒。
2、严禁与杀菌剂混拌使用。
3、不能与强碱、强酸类产品混合使用。

1. Store in a cool, dry place away from direct sunlight.
2. Do not mix with fungicides.
3. Do not mix with strongly acidic or strongly alkaline products.

Rw生物有机肥发酵菌剂

Rw Bio-Organic Fertilizer Fermentation Agent

Rw生物有机肥发酵菌剂是鹤壁市人元微生物菌剂工程技术研究中心新研制的一种液体高效微生物制剂。在公司原有产品的基础上改良优化，进一步降低用户成本，由枯草芽孢杆菌、地衣芽孢杆菌、巨大芽孢杆菌、光合细菌、乳酸菌、酵母菌、黑曲霉、米曲霉等多种好氧及兼性厌氧有益微生物进行复配而成，在发酵的同时利用各种微生物所产的蛋白酶、淀粉酶、纤维素酶等相关酶类进行分解有机物，使有机物所含营养可以被当季作物很好的吸收利用，有益微生物具有解磷、解钾、固氮、生防的作用，在发酵的同时也提高生物肥的肥效；有效活菌数≥50.0亿/mL。

This highly efficient liquid microbial agent was developed by the Renyuan Microbial Preparation Engineering Research Center from beneficial strains and repeatedly optimized to reduce user costs. It combines aerobic and facultative microorganisms including Bacillus subtilis, Bacillus licheniformis, Bacillus megaterium, photosynthetic bacteria, lactobacilli, yeasts, Aspergillus niger and Aspergillus oryzae. Proteases, cellulases and other enzymes produced during fermentation break down organic matter for rapid plant uptake. The beneficial strains solubilize phosphorus and potassium and fix nitrogen, while improving the fertilizer value of the finished bio-organic fertilizer. Viable count ≥5.0×10⁹ CFU/ml.

功能特点 Functional Features

1、生物有机肥的发酵生产，适用原料：猪、鸡、鸭等畜禽类粪便及蔗渣、食品下脚料等有机物料；使用于大型有机肥厂、大型养殖厂、大型绿色种植园及农场。
2、起温快：48小时温度升至60°C以上（根据环境温度不同温度会有差异）。可充分分解有机原料中产生臭味的有机硫化物、有机氮化物等；在充分搅拌均匀后，2-3天即可消除臭味。
3、堆肥周期短：10-12天完全腐熟，节省时间（发酵原料温度到60-70°C保持24小时建议均匀翻堆）。
4、分解效果好：可以很好的分解有机物料的淀粉、蛋白、粗纤维等，能使作物可以当季吸收利用。
5、有益微生物有解磷、解钾、固氮的作用，提高生物肥的肥效。

1. Ferments bio-organic fertilizer from pig and poultry manure, other livestock manure, crop straw, food-processing residues and other organic materials. Suitable for large fertilizer plants, farms and crop-growing bases.
2. Rapid heating: reaches 60°C or above within 48 hours, depending on ambient temperature. Decomposes odor-causing organic sulfur and nitrogen compounds. After thorough mixing, odors disappear within 2-3 days.
3. Fully composts in 10-12 days. Turn the pile every 24 hours when the material remains at 60-70°C to save time.
4. Efficiently breaks down starch, protein and coarse fiber into nutrients readily absorbed by plants.
5. Beneficial microorganisms solubilize phosphorus and potassium and fix nitrogen, improving fertilizer efficiency.

使用方法 Directions for Use

每1升Rw生物有机肥发酵菌剂可处理有机物料1-2吨，使用时将1升Rw生物有机肥发酵菌剂与10升水混合，均匀掺入发酵物中。

Use 1 litre to treat 1-2 tonnes of organic material. Dilute with 10 litres of water, mix thoroughly and distribute evenly into the fermentation pile.

注意事项 Precautions

1、本品必须与发酵物搅拌均匀后使用。　2、使用本品时摇匀，有沉淀物及白色菌团属于正常现象。
3、本品必须存放于通风、阴凉、干燥处。　4、禁止和杀菌剂一起使用。

1. Mix thoroughly with the fermentation material. 2. A little sediment and white microbial film are normal; shake well before use.
3. Store in a ventilated, shaded, cool place. 4. Do not use together with fungicides.

Rw粪水发酵剂 Rw Manure Slurry Fermentation Agent

“Rw粪水发酵剂”是由多种除臭分解微生物菌株组成，包括光合细菌、酵母、乳酸菌、枯草芽孢杆菌等经过特定工艺发酵复配而成的微生物制剂。本产品适用于各种酸碱度粪水资源化处理。所含多种微生物进行协同作用，有效去除臭味，释放营养成分，提高农作物发芽指数。有效解决粪污排放污染问题，降低粪污处理成本，促进回田，变废为宝，保护环境。

Rw Manure Slurry Fermentation Agent is a microbial product containing photosynthetic bacteria, Bacillus, yeasts, lactobacilli, Bacillus subtilis, biological enzymes and other microorganisms. It uses solid-state fermentation technology and selected, refined strains. Suitable for fermenting livestock manure slurry, it effectively removes odor, releases nutrients, improves seed germination and resolves pollution caused by manure sludge, reduces wastewater treatment costs, and returns nutrients to farmland for a healthy growing environment.

产品成分 Ingredients

光合细菌、芽孢杆菌、酵母、乳酸菌、生物酶等。

Photosynthetic bacteria, Bacillus, yeasts, lactobacilli, biological enzymes and others.

产品含量 Product Content

有效活菌数≥50亿/mL。

Viable count ≥5.0×10^8 CFU/ml.

产品形状 Product Form

黄褐色液体。

A brown-yellow liquid.

适用范围 Applications

适用于处理各类养殖粪水。

Suitable for fermenting all types of livestock and poultry manure slurry.

产品功效 Product Benefits

去除粪水臭味、提高农作物发芽指数，发芽指数≥150%。

Removes manure-slurry odor and raises crop germination index to ≥150%.

使用方法 Directions for Use

1、按照1‰的比例添加Rw粪水发酵剂，即1吨粪水添加1公斤，粪水浓度高或者较稠者，适当增加添加的比例，建议3-5公斤。

2、添加后厌氧发酵，夏季、秋季建议发酵7-10天，冬季、春季延长发酵时间，发酵周期10-15天。

3、发酵判断标准，粪水颜色变深，分层现象消失，如淡绿色变成红褐色等，即可兑水冲施，使用后有效提高农作物发芽指数，促进生长，粗根壮苗。

1. Add at 1‰: 1 kg of fermentation agent per tonne of manure slurry. If slurry concentration is high, increase the proportion to 3-5 kg per tonne.
2. Anaerobic fermentation: 7-10 days in summer and autumn; 10-15 days in winter and spring.
3. Completion: the slurry changes color in layers, for example from light green to red-brown, and can then be diluted for irrigation. After application it increases seed germination, promotes rooting and strengthens seedlings.

注意事项 Precautions

1、发酵过程中注意要采用厌氧方式。

2、根据粪水浓度适当增加使用量。

3、禁止与杀菌剂混合使用。

1. Maintain anaerobic conditions during fermentation.
2. Increase dosage for concentrated slurry.
3. Do not mix with fungicides.

Multifunctional Pioneer Microbial Agent 多元先锋号

本品是委托中国农业科学院土壤肥料研究所专家针对土壤病虫害及作物生长发育的特点研制的高新生物制品，具有“一喷三效”的特点，能同时增肥促长、预防病害、控制害虫，同时安全高效无残留。

This patented microbial product was developed by researchers at the Institute of Soil Science, Chinese Academy of Sciences, for crop growth and control of pests and diseases. It combines microbial fertilizer, biological regulation, disease prevention and pest control to achieve multiple effects with a single product.

功能特点 Functional Features

1、富含多种活性菌，生物活性因子，对各种植物的病害、虫害具有独特的防治、控制功效。

2、提升植物叶绿素含量，增强光合效率，快速激活植物基因表达，促进细胞分裂，促进生长点生长、提高坐果率、抗倒伏、提早成熟、改善品质等效果。

3、诱导植物抗病虫基因表达，激活植物的抗病防虫等防卫免疫机制和抗逆性，提高植物的抗寒、抗旱、抗涝、抗盐碱性能。

4、具有解除农药、化肥和除草剂等残留造成对作物及土壤的药害肥害，使植物迅速恢复正常生长的性能。

5、防治稻瘟病、纹枯病、立枯病、青枯病、烂秧病，根腐病、枯萎病、黄萎病、霜霉病、疫病、灰霉病、叶霉病、白腐病、黑腐病、软腐病、角斑病、病毒病等各类病害和生理性病害。

6、能有效防治及控制棉铃虫、吊丝虫、二化螟、三化螟、潜叶蝇、食心虫、青虫、玉米螟、小菜蛾、白粉虱、稻飞虱、蚜虫、红白蜘蛛、斑潜蝇、螨虫等各类害虫。

1. Rich in active microorganisms and bioactive factors, with distinctive control of crop diseases and pests.
2. Increases chlorophyll and photosynthesis, activates plant gene expression and cell division, promotes growth, improves fruit set and lodging resistance, advances maturity and improves quality.
3. Induces disease-resistance genes and activates crop immunity and acquired resistance, improving tolerance to cold, drought, waterlogging and salinity.
4. Breaks down pesticide, fertilizer and herbicide residues and restores damaged soil and normal plant growth.
5. Prevents and controls rice blast, sheath blight, damping-off, bacterial wilt, seedling rot, root rot, Fusarium wilt, Verticillium wilt, downy mildew, blight, grey mould, leaf mould, white rot, black rot, soft rot, angular leaf spot, viral diseases and other diseases and physiological disorders.
6. Controls cotton bollworms, diamondback moths, striped stem borers, yellow rice stem borers, leaf miners, fruit borers, caterpillars, corn borers, whiteflies, rice planthoppers, aphids, red spider mites, white mites, serpentine leaf miners and other mites.

适用范围 Applications

适用各类土壤农田的经济作物、水果、蔬菜、烟草、茶叶、经济果木林草等的种植生产。

Suitable for field and cash crops, fruit trees, vegetables, tobacco, tea and forestry on all soil types.

使用方法 Directions for Use

1、叶面喷施，冲施，灌根等。

2、苗期、生长期、幼果期、果实膨大期、孕穗期均可使用。

3、使用倍数1：450倍液，叶面喷施（亦可随水冲施、灌根等），不要随意加大浓度使用。隔7-10天喷雾1次。

1. Foliar spraying, root drenching or irrigation.
2. Apply during seedling, vigorous growth, flowering and fruit enlargement stages.
3. Dilute 1:450. Use the same dilution for spraying and root irrigation; avoid increasing the concentration. Repeat every 7-10 days.

注意事项 Precautions

1、本品如有沉淀，用前摇匀不影响使用效果。 2、可与杀菌剂、杀虫剂、化肥混用。 3、阴凉干燥处保存。

1. Sediment is normal; shake well before use.
2. May be mixed with fungicides, insecticides and chemical fertilizers.
3. Store in a cool, dry place.

Rw根结线虫防治菌剂 Rw Root-Knot Nematode Control Agent

Rw根结线虫防治菌剂是鹤壁市人元生物技术发展有限公司利用国际领先的防线虫科技成果，选用芽孢杆菌、淡紫拟青霉等多种高效菌株，再辅助特殊增效剂，采用现代微生物发酵技术加工制备而成的农用微生物制剂。本品对作物线虫病有着良好的防治作用，尤其对根结线虫、孢囊线虫、茎线虫等土传寄生线虫效果显著。本菌剂为活体杀线虫剂。其所含的有效菌的菌丝能侵入线虫体内及卵内进行繁殖，对线虫微管蛋白有很强的亲和力，用其独特的菌丝穿透虫体外壳，使类脂层和几丁质崩解，并形成侵入球及营养菌丝，吸收线虫体的内含物，虫体表皮及体细胞迅速萎缩脱水，进而死亡消解，对成虫及虫卵均有作用。本品不仅有效地预防和控制根结线虫病害，兼有预防根腐病、枯萎病、黄萎病、立枯病等多种土传病害功效，促长增产、改善品质等效果显著。适用于蔬菜、果树、瓜类、烟草、花生等根结线虫病害的防控。

Developed from advanced international research on nematode control, this agricultural microbial product uses modern fermentation technology with highly effective strains, including Bacillus and Paecilomyces lilacinus, and special synergistic additives. It controls root-knot, cyst and stem nematodes. After entering nematodes and eggs, the effective microorganisms multiply and secrete enzymes that destroy eggshells, larval cuticles and internal tissues. Rapid colonization causes paralysis, body and cell damage, dehydration and death. It acts against both adults and eggs, prevents root infection and promotes root growth and regeneration. It also helps prevent root rot, damping-off, yellowing, blight and other soil-borne diseases, promoting vigorous growth, yield and quality. Suitable for vegetables, fruit trees, field crops, tobacco and peanuts affected by root-knot nematodes.

功能特点 Functional Features

1、目前防治根结线虫的大多数是一些高毒、具有慢性毒性、污染地下水和空气的农药。本品是纯生物制剂，对环境友好，对人畜无害、无残留、害虫不会产生抗药性、同时防治广普，防效显著。
2、预防和控制线虫病害，防效可达70%以上，有效改良土壤，恢复土壤团粒结构，提高土壤有机质含量，缓解土壤板结。
3、有效地解决由土传病害引起的作物根部病害及蔬菜苗期病害，并且可以有效地预防后期的各种病害。
4、促进植物生长，在淡紫拟青霉的繁殖过程中，能产生丰富的衍生物，其一是类似吲哚乙酸的产物，它最显著的生理功效是低浓度时促进植物根系与植株的生长，因此在植物根系施菌不仅能明显抑制线虫侵染，而且能促进植株营养器官的生长，同时对种子的萌发与生长也有促进作用。

1. Root-knot nematodes are among the most difficult pests to control. This is a clean biological product with no residues, environmental pollution, harm to people, animals or beneficial organisms, or induced resistance.
2. Prevents and controls nematode disease by ≥70%, improves soil structure, increases soil organic matter and reduces salinization.
3. Controls root diseases caused by pathogens and Rhizoctonia, and helps prevent disease on infected fields.
4. Promotes growth: during reproduction Paecilomyces lilacinus produces metabolites, especially indoleacetic acid, that promote root growth and stronger plants. Root-zone application suppresses nematodes and supports vegetative growth, germination and seedling growth.

使用方法 Directions for Use

1、育苗时：将本品1公斤和育苗肥混匀后，施入500～1000公斤育苗土中（或15～20平米苗床），按常规方法育苗。
2、做种肥：每亩用本品2公斤做种肥与其他种肥均匀混合使用，随种肥播下即可。
3、移栽时：每亩用本品2公斤与适量细土混匀后穴施，再移栽，可预防根结线虫，严重地块需加倍（4～6）公斤使用。
4、生长期：若发现病苗后，按本品1公斤兑水3～5公斤，浸泡12小时制成母液后。再稀释至150～200公斤灌根。每病株可灌0.15～0.3公斤。
5、盛果发病期：每亩用本品2公斤用水浸泡12小时后随水浇施。

1. Seedling beds: mix 1 kg with nursery fertilizer and incorporate into 500-1,000 kg of seedling soil (or a 15-20 m² bed); raise seedlings normally.
2. Basal fertilizer: mix 2 kg per mu with other basal fertilizer and apply together.
3. Transplanting: mix 2 kg per mu with a little dry fine soil and apply in holes before transplanting. On heavily affected soil, double dosage to 4-6 kg per mu.
4. Growing period: soak 2 kg per mu in water for 3-5 days, dilute 1:150-200 and drench roots at 0.15-0.3 kg per plant.
5. Heavy fruiting period: soak 2 kg per mu in water for 12 hours and apply through irrigation.

注意事项 Precautions

1、菌剂保存在干燥通风的地方，不能露天堆放，避免阳光直晒，防止雨淋。　　2、避免与杀菌剂类农药同时使用。
3、上午10点前、下午4点后施用效果更佳。

1. Store dry and ventilated; avoid outdoor piling, direct sunlight and rain.
2. Avoid simultaneous use with fungicides.
3. Apply before 10:00 or after 16:00 for best results.

Rw Soil Pest Control Agent 地下害虫防治菌剂

Rw地下害虫防治菌剂是一种广普性的昆虫病原真菌，是经过多重筛选、诱变、复合优化而成的绿色杀虫剂。相对于高残留、高毒性、高抗性的传统化学农药，有着无可比拟的优势。

防治对象：蛴螬、金针虫、地老虎、蝼蛄等鞘翅目、鳞翅目、直翅目地下害虫。

This broad-spectrum entomopathogenic fungus is selected, purified, rejuvenated and optimized from numerous strains. It is a green complex microbial agent offering fast insecticidal action, high virulence, high resistance and high activity. Compared with traditional chemical pesticides it has high persistence and leaves no pesticide residue.

Targets: white grubs, wireworms, cutworms, mole crickets and other soil pests from Coleoptera, Orthoptera and Lepidoptera.

功能特点 Functional Features

本品为真菌生物杀虫剂，对人、畜无害，可杜绝使用传统农药导致的田间中毒现象；是害虫的寄生性天敌，接触害虫后，分泌多种昆虫表皮降解酶，穿透害虫体壁进入体腔，在虫体内迅速繁殖，分泌大量毒素，破坏害虫的机体组织；反复侵染，长期持效。菌种定植后，可利用害虫体内的营养物质大量繁殖，产生大量孢子继续侵染其它害虫，具有很强的传染性。高选择性：本产品对瓢虫、草蛉和食蚜蝇等益虫无害，有效保护了天敌，从而提高整体田间防治效果。

This live fungal insecticide is harmless to people and livestock and avoids the field poisoning associated with conventional pesticides. As a natural parasite of pests, it secretes enzymes that degrade their cuticle, penetrates the body wall and rapidly multiplies, releasing toxins that disrupt metabolism. It then grows through the body, produces conidia and continues infecting other insects, giving high infectivity. Slow recovery, long persistence and multiple infection routes provide lasting control. Highly selective, it is harmless to ladybirds, lacewings, hoverflies and other beneficial insects, protecting natural enemies and improving overall field control.

使用方法 Directions for Use

1、生物有机肥用量，1吨有机肥添加本品2-3公斤进行第二次发酵3-5天，即可使用。
2、播种使用：播种前亩用本品1000克与10公斤细土或5～10公斤潮麦麸、混匀后，随种子一起进行穴施或随耕地机沟施，盖土即可。
3、播种后，亩用本品1000克拌5～10公斤潮麦麸穴施，或挖测沟沟施。
4、每亩用该制剂1000克，用水稀释600-800倍，对危害田地作物进行灌根。将适量鲜草或包菜切碎，加入少量麦麸用本品1000克搅拌均匀，于傍晚分成小份放置在田间植株根部遮荫下，侵染地下害虫。

1. For bio-organic fertilizer production, add 2-3 kg per tonne of organic fertilizer and ferment for a further 3-5 days before use.
2. At sowing: per mu (≈667 m²), mix 1,000 g with 10 kg of fine soil or 5-10 kg of moist wheat bran. Apply in planting holes or seed-drill furrows with the seed, then cover with soil.
3. After sowing: mix 1,000 g per mu with 5-10 kg of moist wheat bran and apply in holes or furrows.
4. Root drench: dilute 1,000 g per mu with water at 1:600-800 and drench affected crops. For bait, crush fresh grass or leafy vegetables, add a little wheat bran and mix with 1,000 g of product. Place small piles in shaded spots near crop roots in the evening to attract soil pests.

注意事项 Precautions

1、该制剂适用于土壤含水量较高或有灌溉条件的地区，土壤过于干燥会影响防治效果。
2、该制剂在干燥阴凉处贮存。
3、避免高温和阳光直射，施菌后应及时覆土。不可将菌剂暴露于阳光下。
4、严禁与杀菌剂直接混合使用。

1. Best in sufficiently moist or irrigated soil; excessively dry soil reduces efficacy.
2. Store in a cool, shaded place.
3. Avoid high temperatures and direct sunlight; cover with soil immediately after application.
4. Do not mix directly with fungicides.

抗重茬菌剂 Continuous-Cropping Soil Treatment Agent

本品是针对造成重茬障碍的土壤中氮磷钾养分失调，土传病害严重，必需中微量元素缺乏等主要成因，采用经过强化的放线菌菌种及功能性原料通过专有技术加工而成，该产品中的微生物在土壤中可迅速定殖，转化土壤中作物不能直接利用的氮、磷、钾元素供作物吸收，并能有效抑制土壤中30余种常见土传病害，同时可分泌大量的植物生长调节物质。使用本品可增产增收，提高作物品质。在重茬作物上使用可有效降低作物的连作障碍。常年使用可有效改良土壤结构及微生态环境。

Designed to address nitrogen, phosphorus and potassium imbalance, prevalent soil-borne infections and micronutrient deficiency caused by repeated cropping, this product combines enhanced antagonistic strains with functional microorganisms and advanced processing technology. Its microorganisms rapidly colonize soil, convert unavailable N, P and K into forms readily absorbed by plants, and suppress more than 30 common soil-borne pathogens. It produces plant growth regulators, improves yield and quality, reduces the adverse effects of repeated cropping and restores soil structure and the ecological environment.

功能特点 Functional Features

1、本品菌种的定殖能力强，平均固氮能力达9.3倍，平均转化有效磷30%，可有效改良重茬作物营养条件。
2、代谢产物中富含赤霉素、吲哚乙酸、细胞分裂素等植物生长刺激素，有效调节作物生长水平。
3、本品对真菌性、细菌性病害有防止作用，对病毒性病害有抑制作用。如常见的立枯病、黄萎病、黑斑病、霜霉病、根腐病、晚疫病和病毒性花叶病等三十余种。
4、本品可有效改善土壤微生态环境，增加土壤腐殖质含量，起到培肥地力的作用。
5、本品可显著提高作物品质，减少亚硝酸盐含量、促进作物早熟。
6、本品富含可溶性中微量元素，增加连作作物中微量元素的吸收。

1. Strong colonization: nitrogen fixation averages 9.3 times the original level and phosphate solubilization is 30% higher, improving the soil environment.
2. Metabolites contain growth regulators such as gibberellins, indoleacetic acid and cytokinins, regulating growth.
3. Living beneficial bacteria suppress pathogens, including over 30 soil diseases such as Rhizoctonia, Verticillium wilt, black shank, downy mildew, root rot and tobacco mosaic.
4. Improves the soil microenvironment, increases humus and strengthens soil fertility.
5. Improves crop quality, reduces nitrate content and promotes early maturity.
6. Supplies soluble trace elements and improves their uptake under continuous cropping.

使用方法 Directions for Use

1、配肥：施底肥或播种时与有机肥、化肥、复合肥混施每亩1～2公斤，追肥期也可同法使用；
2、果树：每棵用量250g菌剂与10公斤有机肥或锯末和秸秆粉搅拌均匀，施用；
3、苗床：每平方米苗床用本品250克，与苗床土混匀后播种。
4、如土壤病情严重加倍使用效果更佳。

1. With fertilizer: mix 1-2 kg per mu with organic fertilizer, mineral fertilizer or compound microbial fertilizer and apply as basal or top-dressing fertilizer.
2. Fruit trees: mix 250 g per tree with 10 kg of organic fertilizer or chopped straw and apply.
3. Seedlings: mix 250 g per square metre with seedling soil.
4. Double dosage where continuous-cropping soil problems are severe.

注意事项 Precautions

1、本品应置阴凉干燥处保存，防止雨淋及日晒。
2、本品不可与杀菌剂同时混用。
3、配肥及拌种使用时需现混使用。
4、以上方法可单一使用，也可配合使用。

1. Store in a cool, dry place away from rain and direct sun.
2. May be used together with fungicides.
3. For biocontrol seed treatment, mix immediately before use.
4. The methods above may be used separately or together.

Tobacco Root Shield 烟根盾

烟根盾是一种广谱性的昆虫病原真菌，是经过多重筛选、纯化、复合优化而成的绿色复合菌剂。相对于高残留、高毒性、高抗性的传统化学农药，有着无可比拟的优势。

This broad-spectrum entomopathogenic fungus is selected, purified, rejuvenated and optimized from numerous strains. It is a green complex microbial agent offering fast insecticidal action, high virulence, high resistance and high activity. Compared with traditional chemical pesticides it has high persistence and leaves no pesticide residue.

功能特点 Functional Features

本品为真菌生物杀虫剂，对人、畜无害，可杜绝使用传统农药导致的田间中毒现象；是害虫的寄生性天敌，接触害虫后，分泌多种昆虫表皮降解酶，穿透害虫体壁进入体腔，在虫体内迅速繁殖，分泌大量毒素，破坏害虫的机体组织；反复侵染，长期持效。高选择性：本产品对瓢虫、草蛉和食蚜蝇等益虫无害，有效保护了天敌，从而提高整体田间防治效果。

防治对象：蛴螬 金针虫 地老虎 蝼蛄等鞘翅目 鳞翅目 直翅目地下害虫

This live fungal insecticide is harmless to people and livestock and avoids the field poisoning associated with conventional pesticides. As a natural parasite of pests, it secretes enzymes that degrade their cuticle, penetrates the body wall and rapidly multiplies, releasing toxins that disrupt metabolism. It then grows through the body, produces conidia and continues infecting other insects, giving high infectivity. Slow recovery, long persistence and multiple infection routes provide lasting control. Highly selective, it is harmless to ladybirds, lacewings, hoverflies and other beneficial insects, protecting natural enemies and improving overall field control.

Targets: white grubs, wireworms, cutworms, mole crickets and other soil pests from Coleoptera, Orthoptera and Lepidoptera.

使用方法 Directions for Use

1、播种使用：播种前亩用本品1000克与10公斤细土或5～10公斤潮麦麸、混匀后，随种子一起进行穴施或随耕地机沟施，盖土即可。
2、播种后，亩用本品1000克拌5～10公斤潮麦麸穴施，或挖测沟沟施。
3、每亩用该制剂1000克，用水稀释600-800倍，对危害田地作物进行灌根。将适量鲜草或包菜切碎，加入少量麦麸，用本品1000克搅拌均匀，于傍晚分成小份放置在田间植株根部遮荫下，侵染地下害虫。

1. At sowing: per mu (≈667 m²), mix 1,000 g with 10 kg of fine soil or 5-10 kg of moist wheat bran, apply in seed holes or furrows with the seed and cover with soil.
2. After sowing: mix 1,000 g per mu with 5-10 kg of moist wheat bran, furrow-apply or broadcast, then irrigate.
3. Root drench: dilute 1,000 g per mu with water at 1:600-800 and irrigate the roots of affected crops. For bait, crush weeds or crop residues, add a little wheat bran and mix with 1,000 g; place small piles near crop roots in the evening to attract soil pests.

注意事项 Precautions

1、该制剂适用于土壤含水量较高或有灌溉条件的地区，土壤过于干燥会
2、影响防治效果。
3、该制剂在干燥阴凉处贮存。
4、避免高温和阳光直射，施菌后应及时覆土。不可将菌剂暴露于阳光下。
严禁与杀菌剂直接混合使用。

1. Best in sufficiently moist or irrigated soil; excessively dry soil reduces efficacy.
2. Store in a cool, shaded place.
3. Avoid high temperatures and direct sunlight; cover with soil immediately after application.
4. Do not mix directly with fungicides.

大豆根瘤菌 Soybean Rhizobium Agent

大豆根瘤菌剂有减肥增效、提质增产、改良土壤等作用。本品用于拌种使用，操作简单方便，在河南省、山东省等多地推广，作物增产明显，品质大大提升。

适用作物：豆科类。

Soybean rhizobium reduces mineral fertilizer use, improves fertilizer efficiency, yield, quality and resistance to soil-borne disease. It is easy to use for seed treatment, gives good results in Shandong and other regions, and is especially effective on plots that have never grown soybeans.

Suitable crops: legumes.

复合固氮菌 Compound Nitrogen-Fixing Microbial Agent

本品是具有生物固氮、联合固氮、溶磷解钾作用的复合型微生物菌剂。在全国多地推广使用，效果显著。是降低农业生产成本，实现农业可持续发展的重要产品之一。

This compound microbial agent combines biological nitrogen fixation, associative nitrogen fixation and phosphate and potassium solubilization. It has been used successfully in multiple regions, showing significant results. It is an important means of lowering agricultural production costs and supporting sustainable development.

功能特点 Functional Features

1 **减肥增效** Less fertilizer; higher efficiency

减施氮肥 提高肥效

Reduce nitrogen inputs and improve fertilizer efficiency

2 **提质增产** Better quality; higher yields

改善品质 提高产量

Better crop quality and higher yields

3 **改良土壤** Improve soil condition

增加菌群 提升肥力

Greater microbial diversity and soil fertility

蚜必净 Aphid Clean - Aphid Control Agent

【作　　用】杀虫真菌，在蚜虫身上定植后，菌丝萌发寄生蚜虫体内，杀死蚜虫。
【效　　果】3-5天蚜虫100%死亡。
【应用对象】农作物（蔬菜、水果、烟草、林业等）蚜虫
【使用方法】固体真菌1袋兑20公斤水，取本品内包装，在水中浸泡20-30min，期间用手揉搓3-5次，加速孢子释放速度，直至浸出液澄清为止，于傍晚喷雾，湿度75%以上效果更佳。
【包装规格】孢子≥8亿/克，30±1g/袋。
【注意事项】禁止与杀菌剂混合使用；通风阴凉处保存。

Mode of action: an entomopathogenic fungus that germinates on the aphid and penetrates its body, killing it.

Efficacy: up to 100% mortality within 3-5 days.

Targets: aphids on agricultural crops, including vegetables, fruit trees, tobacco, forestry and other crops.

Directions: dilute one sachet in 20 kg of water; knead the inner sachet in the water for 20-30 minutes, then spray around crop roots and foliage. Spray in the evening when aphids climb to feed; above 75% relative humidity gives better results.

Pack specification: spores ≥8×10^8/g; 30±1 g/bag.

Precautions: do not mix with fungicides. Store in a ventilated, cool place.

Trichoderma harzianum Rifai 哈茨木霉菌

哈茨木霉菌作为一种生防菌，可以用来预防由腐霉菌、立枯丝核菌、镰刀菌、黑根霉、柱孢霉、核盘菌、齐整小核菌等病原菌引起的植物病害。

A biological plant-protection agent that prevents and controls diseases caused by Pythium, Rhizoctonia solani, Fusarium, Rhizopus nigricans, Cylindrocarpon, Sclerotinia, Sclerotium rolfsii and other pathogens.

功能特点 Functional Features

1、重寄生作用，对寄主真菌识别后，菌丝沿寄主菌丝平行生长和螺旋状缠绕生长，并产生附着胞状分枝吸附于寄主菌丝上，通过分泌胞外酶溶解细胞壁，穿透寄主菌丝，吸取营养，进而将病原菌杀死。
2、抗生素作用，哈茨木霉菌可以分泌一部分抗生素，可以抑制病原菌的生长定植，减轻病原菌的危害。
3、植物生长调节作用，在植物根系定殖并且产生刺激植物生长和诱导植物防御反应的化合物，改善根系的微环境，增强植物的长势和抗病能力，提高作物的产量和收益。
4、可以启动植物的防御反应，诱导植物产生和积累与抗病性有关的酚类化合物和木质素等。

1. Hyperparasitism: after recognizing a host fungus, Trichoderma hyphae grow along and coil around it, forming appressorium-like branches that adhere to the host. Extracellular enzymes dissolve its wall, hyphae penetrate, absorb nutrients and kill the pathogen.
2. Antibiotic activity: secretes antibiotics that suppress pathogen growth and colonization, reducing disease.
3. Growth promotion: colonizes roots and produces substances that stimulate plant growth and metabolic responses, improving the root environment, vigor and disease resistance, and raising yield and returns.
4. Activates plant defense responses, inducing lignification and phenolic accumulation associated with resistance.

使用方法 Directions for Use

农作物生长过程中使用，苗床撒施：每平方米用2-4g，扩大体积后撒施苗床上即可。
蘸根：兑水稀释20-80倍，然后蘸根或者球茎即可。
盆栽及苗床混土：每立方米用菌剂110-220克，根据用水量先配置成母液，然后混匀即可。
灌根：兑水稀释1500-3000倍，每株浇灌200mL，根据植株的大小可以适当调节用量。
喷雾后漫灌：亩用量100-200克，兑水300倍喷雾后漫灌，水量宜浸到根部为止。
种子处理：每50kg种子用菌剂60-125g，先将半量的种子和菌剂混匀，然后再加入剩余的种子及菌剂搅拌混匀即可，拌种可以加入适量的水，以便于搅拌混匀。

Nursery beds: mix 2-4 g/m² with a little fine soil to increase its bulk, then spread evenly during crop growth.

Root dip: dilute 1:20-80 with water, then dip roots or tubers.

Potting and nursery soil: use 110-220 g/m³. First prepare a stock mixture with water, then mix evenly into the soil.

Root drench: dilute 1:1,500-3,000 with water; apply 200 mL per plant, adjusting to plant size.

Spray and irrigate: use 100-200 g per mu, diluted 1:300 with water. Spray, then irrigate to wet the root zone.

Seed treatment: use 60-125 g per 50 kg of seed. Mix with half the seeds first, add the rest and mix evenly. Add a little water if needed for coating.

注意事项 Precautions

1、避免与化学肥料一起使用，以免影响微生物在土壤中的繁殖速度。
2、禁止与杀菌、杀虫剂等化学农药混合使用，以免造成菌体死亡。
3、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Avoid applying together with chemical fertilizers, which may slow microbial reproduction in soil.
2. Do not mix with chemical pesticides such as fungicides or insecticides, to prevent microbial death.
3. Apply in the early morning or evening. Keep the microbial agent out of strong direct sunlight.

淡紫拟青霉菌 Paecilomyces lilacinus

是线虫内寄生性真菌，能够寄生于卵，也能侵染幼虫和雌虫，明显减轻多种作物根结线虫、孢囊线虫、基线虫等植物线虫病的危害，对人、畜无害，避免使用化学农药出现的田间中毒现象，对瓢虫、草蛉和食蚜蝇等益虫无害，有效保护了田间天敌，增强对害虫的整体防治效果。

An internally parasitic fungus of nematodes, able to parasitize eggs, larvae and females. It markedly reduces damage caused by root-knot, cyst and stem nematodes. It avoids the field poisoning associated with chemical pesticides and is harmless to ladybirds, lacewings and hoverflies, effectively protecting natural enemies and strengthening overall field control.

功能特点 Functional Features

1、防治植物病原线虫，是南方根结线虫与白色胞囊线虫卵的有效寄生菌，对南方根结线虫的卵寄生率高达60%～70%。
2、防治部分有害昆虫，可寄生半翅目的荔枝蝽蟓、稻黑蝽；同翅目的叶蝉、褐飞虱；等翅目的白蚁；鞘翅目的甘薯象鼻虫以及鳞翅目的茶蚕、灯蛾等。
3、抑制植物病原菌，在玉米小斑病、小麦赤霉病、黄瓜炭疽病菌、棉花枯萎病和水稻恶苗病上试验，对其菌丝生长抑制率分别为80.22%、80.50%、77.71%、75.30%和61.36%；处理柑桔果面，青、绿霉扩展抑制率为65.97%。
4、促进植物生长，该菌能产生丰富的衍生物，其一是类似吲哚乙酸产物，它最显著的生理功效是低浓度时促进植物根系与植株的生长，促进植株营养器官的生长，同时对种子的萌发与生长也有促进作用。
5、产生多种酶，几丁质酶能促进线虫卵的孵化，提高拟青霉菌对线虫的寄生率，同时还产生细胞裂解酶、葡聚糖酶与丝蛋白酶，促进作物细胞分裂。
6、降解效应，促进许多化学聚合物（如农药，制革废水等）的分解。

1. Controls plant-parasitic nematodes by parasitizing root-knot and white cyst nematode eggs; parasitism of southern root-knot nematode eggs reaches 60-70%.
2. Parasitizes pests including litchi stinkbugs, rice black bugs, leafhoppers, brown planthoppers, termites, sweet potato weevils, tea silkworms and tiger moths.
3. In tests, inhibits mycelial growth of the pathogens causing southern corn leaf blight, wheat Fusarium head blight, cucumber anthracnose, cotton Fusarium wilt and rice bakanae by 80.22%, 80.50%, 77.71%, 75.30% and 61.36%, respectively. Surface treatment of citrus fruit suppresses blue and green mould spread by 65.97%.
4. Produces growth-promoting metabolites, including auxin-like indoleacetic acid, that stimulate roots, vegetative growth, seed germination and seedlings.
5. Chitinase promotes nematode egg hatching and parasitism. Cell-lytic enzymes, glucanases and proteases promote plant cell division.
6. Promotes the breakdown of chemical compounds, including pesticides and substances in tannery wastewater.

使用方法 Directions for Use

农作物生产过程中使用，拌种：按种子量的1%进行拌种后，堆捂2-3小时、阴干即可播种；处理苗床：将淡紫拟青霉菌剂与适量基质混匀后撒入苗床，播种覆土，1公斤菌剂处理30-40平方苗床；处理育苗基质：将1公斤菌剂均匀拌入2-3方基质中，装入育苗容器中；穴施：施在种子或种苗根系附近，亩用量0.5-1公斤。

Seed treatment: apply at 1% of seed weight; mix evenly and leave for 2-3 hours, then sow. For nursery beds, mix with a little fine substrate and distribute evenly, sow and cover with soil; 1 kg treats 30-40 m². For seedling substrate, mix 1 kg evenly into 2-3 m³ of substrate and fill containers. For hole application near seed or roots, use 0.5-1 kg per mu.

注意事项 Precautions

1、 避免与化学肥料一起使用，以免影响微生物在土壤中的繁殖速度。
2、 禁止与杀菌、虫剂等化学农药混合使用，以免造成菌体死亡
3、 最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Avoid applying with chemical fertilizers, which slow reproduction in soil.
2. Do not mix with chemical pesticides such as fungicides or insecticides.
3. Apply early morning or evening and avoid strong direct sunlight.

First Soil Defense 地一防线

抑制线虫　多菌复合
生根护根　绿色环保

Suppress nematodes · Multi-strain complex
Root growth and protection · Green agriculture

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2018）准字（3950）号
【产品规格】 1公斤/袋　【保 质 期】 两年

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 3950
Pack size: 1 kg/bag　Shelf life: 2 years

产品特点 Product Features

本品应用国际领先的防线虫科技成果，选用芽孢杆菌、淡紫拟青霉等多种高效菌株，再辅助特殊增效剂，采用现代微生物发酵技术加工制备而成的农用微生物制剂。本品对作物线虫病有着良好的防治作用，尤其对根结线虫、孢囊线虫、茎线虫等土传寄生线虫效果显著，本菌剂为活体杀线虫剂，其所含的有效菌的菌丝能侵入线虫体内及卵内进行繁殖，对线虫微管蛋白有很强的亲和力，用其独特的菌丝穿透虫体外壳，使类脂层和几丁质崩解，并形成侵入球及营养菌丝，吸收线虫体的内含物，虫体表皮及体细胞迅速萎缩脱水，进而死亡消解，对成虫及虫卵均有作用，本品不仅有效地预防和控制根结线虫病害，兼有预防根腐病、枯萎病、黄萎病、立枯病等多种土传病害功效，促长增产、改善品质等效果显著、适用于蔬菜、果树、瓜类、烟草、花生等根结线虫病害的防控。

Developed from advanced international research on nematode control, this agricultural microbial product uses modern fermentation technology with highly effective strains, including Bacillus and Paecilomyces lilacinus, and special synergistic additives. It controls root-knot, cyst and stem nematodes. After entering nematodes and eggs, the effective microorganisms multiply and secrete enzymes that destroy eggshells, larval cuticles and internal tissues. Rapid colonization causes paralysis, body and cell damage, dehydration and death. It acts against both adults and eggs, prevents root infection and promotes root growth and regeneration. It also helps prevent root rot, damping-off, yellowing, blight and other soil-borne diseases, promoting vigorous growth, yield and quality. Suitable for vegetables, fruit trees, field crops, tobacco and peanuts affected by root-knot nematodes.

适用范围 Applications

适用于大豆、番茄、烟草、黄瓜、西瓜、茄子、姜等作物根结线虫、孢囊线虫。

For root-knot and cyst nematodes on soybean, tomato, tobacco, cucumber, watermelon, eggplant, ginger and other crops.

使用方法 Directions for Use

1、与基肥同施：起垄时，与有机肥、复合肥等搅拌均匀，一亩地2公斤，使菌剂在土壤中定殖，对根结线虫形成隔离区域。
2、拌种：按种子量的1%进行拌种后，堆捂2-3小时、阴干即可播种，预防种子发芽过程中根系被根结线虫侵染。
3、处理育苗基质：将1公斤菌剂均匀拌入1-1.5方基质中，装入育苗容器中，预防种子发芽过程中根系被根结线虫侵染。
4、穴施：施在种子或种苗根系附近，亩用量2-3公斤。

1. With basal fertilizer: when forming beds, mix 2 kg per mu with organic or compound fertilizer and apply. Establishes a protective zone against nematodes.
2. Seed treatment: apply at 1% of seed weight; mix and leave 2-3 hours before sowing to protect emerging roots.
3. Nursery substrate: mix 1 kg into 1-1.5 m³ of substrate and fill containers, protecting roots during germination.
4. Hole application: apply near seed or transplant roots at 2-3 kg per mu.

注意事项 Precautions

1、避免与化学肥料直接接触，以免影响微生物在土壤中的繁殖速度。
2、禁止与杀真菌剂化学农药混合使用，以免造成菌体死亡。
3、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。
4、请注意安全使用，勿使药剂进入眼睛。如不慎进入眼睛，请立即用大量清水冲洗。
5、贮存于阴凉干燥处，勿使菌剂受潮。

1. Avoid direct contact with chemical fertilizers.
2. Do not mix with chemical pesticides such as fungicides.
3. Apply morning or evening; avoid direct sun.
4. Use safely and avoid eye contact. If product enters the eyes, rinse immediately with plenty of clean water.
5. Store cool and dry, protected from moisture.

枯草芽孢杆菌 Bacillus subtilis

抑菌抗病　活化土壤
培根壮苗　提高品质

Suppress pathogens and disease · Activate soil
Strengthen roots and seedlings · Improve quality

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（3950）号
【产品规格】 1公斤/袋　　【含量剂型】 有效活菌数200亿/克
【保 质 期】 两年

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 3950
Pack size: 1 kg/bag　Shelf life: 2 years
Viable count: ≥20 billion CFU/g

功　　能 Functions

1、土壤保湿保肥：形成强度极为优良的天然材料聚麸胺酸，为土壤的保护膜，有效防止肥份、水分的流失。
2、分解有机质：增殖的同时，会释出高活性的分解酵素，将难分解的大分子物质分解成可利用的小分子物质。
3、丰富的代谢生成物：合成多种有机酸、酶、生理活性等物质，及其它多种容易被利用的养份。
4、抑菌、灭害：具有占据空间优势，抑制有害菌、病原菌等有害微生物的的生长繁殖。

1. Retains water and nutrients: produces a high-quality natural biopolymer, polyglutamic acid, forming a soil-protection film that reduces nutrient and moisture loss.
2. Decomposes organic matter: secretes highly active enzymes that break macromolecules into small, readily absorbed nutrients.
3. Produces abundant metabolites, including organic acids, enzymes, physiological regulators and other useful substances.
4. Suppresses pathogens and pests: strong colonization and spatial competition inhibit harmful organisms.

使用方法 Directions for Use

1、生产符合行业标准的生物有机肥、复合微生物肥料（有效菌数≥0.2亿/克）。以200亿/克为例，每吨有机肥添加1000克。
2、建议亩施用量1-2kg，播种前、收获后使用效果更佳。

1. For organic and compound microbial fertilizer meeting industry standards (viable count ≥0.2×10^8 CFU/g): for product at 20 billion CFU/g, add 1,000 g per tonne of organic fertilizer.
2. Recommended dosage is 1-2 kg per mu, preferably before sowing or after harvest.

注意事项 Precautions

1、禁止与杀菌剂混合使用，以免造成菌体死亡。
2、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Do not mix with fungicides, to prevent microbial death.
2. Apply early morning or evening and keep out of direct sun.

Soil Spring 地二春

抑制重茬病菌　提高作物抗性　补充有益菌群　养根护根壮苗

Suppress continuous-cropping pathogens · Improve resistance
Replenish beneficial microbes · Nourish roots and seedlings

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2020）准字（7703）号
【产品规格】 1公斤/袋　　【保 质 期】 两年

Standard: GB20287-2006　Registration: Microbial Fertilizer (2020), Registration No. 7703
Pack size: 1 kg/bag　Shelf life: 2 years

产品特点 Product Features

本品根据土壤生态环境及土传病害病理，以枯草、地衣芽孢杆菌、哈茨木霉菌、放线菌、白僵菌、绿僵菌及淡紫拟青霉等菌群为主，经特殊培养精心研制而成的新一代抗土传病害复合微生物菌剂。使用范围广谱，效果显著，能快速有效的抑制危害土壤中的真菌、细菌、病毒，对猝倒、立枯、枯萎、菌核等，其有效成分可在植物根围繁殖生长并形成“保护罩”，以防止根部病原真菌细菌病毒的侵染。通过营养竞争、重寄生、细胞壁分解酵素、以及诱导植物产生抗性等多重机制，通过分泌胞外酶溶解细胞壁，穿透寄主菌丝，吸取营养，进而将病原菌杀死，具有保护双重功效，有效防止土传性真菌细菌病毒等病害，具有广谱高效、安全长效，无残留等特点。特别加入中微量元素、核苷酸、螯合植物蛋白、生根因子、抗病抗逆因子可提高作物产量，增产15-20%，蔬菜瓜果增产30%。

Developed for soil ecology and soil-borne disease control, this compound microbial agent contains Bacillus subtilis, B. licheniformis, Trichoderma harzianum, actinomycetes, Beauveria bassiana, Metarhizium anisopliae and Paecilomyces lilacinus, prepared through specialized cultivation. It suppresses harmful soil fungi, bacteria and viruses and diseases such as damping-off, seedling blight, wilt and Sclerotinia rot. Colonization forms a protective barrier around roots. Nutrient competition, mycoparasitism, cell-wall-degrading enzymes and induced resistance suppress pathogens; extracellular enzymes break down pathogen cell walls, allowing penetration of hyphae and nutrient uptake. It combines protection and control with broad activity, lasting effects and no residues. Added secondary and trace elements, nucleic acids, plant proteins, rooting factors and disease- and stress-resistance factors improve crop yield by 15-20%, and vegetable and fruit yields by 30%.

适用范围 Applications

适用于常年重茬引起的：立枯、猝倒、枯萎、黄萎，根腐，纹枯病、叶枯，霜霉，姜瘟，软腐，茎基腐、菌核、烂秧、重茬等，适用于粮食作物、经济作物、烟草、瓜果蔬菜、林木草业等。

For crops affected by repeated-cropping diseases including blight, root rot, Fusarium, yellowing, Verticillium wilt, stem rot, Sclerotinia, downy mildew, damping-off, bacterial wilt and related conditions. Suitable for grain crops, cash crops, tobacco, fruit trees and forestry.

使用方法 Directions for Use

1、与基肥同施：起垄时，与有机肥、复合肥等搅拌均匀，一亩地2公斤，病害严重地块用量加倍，在作物定植前，在土壤中形成有益菌群，减少病原菌基数。
2、育苗苗期：每平方米苗床用本品250克，与苗床土混匀后播种，培育脱毒健康幼苗。
3、移栽期穴施：注意不要和作物根部直接接触，间隔3-5cm，一亩地1公斤，精准定殖于作物根际，促进作物根系生长，新根焕发。
4、病害高发期追施：一亩地1公斤，病害高发期，追施可提高有益菌含量，控制病原菌传播，提高作物抗性，促进作物增产增收。

1. Basal fertilizer: mix 2 kg per mu with organic or compound fertilizer when forming beds. Double dosage on heavily affected fields. Apply before planting to establish a beneficial microbial community.
2. Nursery beds: mix 250 g/m² with seedling soil before sowing for strong seedlings.
3. Hole application at transplanting: avoid direct contact with roots; place 3-5 cm away at 1 kg per mu to colonize the root zone and promote new roots.
4. At high disease incidence: apply 1 kg per mu by irrigation to increase beneficial microbes, suppress pathogen spread, strengthen resistance and improve yield.

注意事项 Precautions

1、本品应置阴凉干燥处保存，防止雨淋及日晒。
2、本品不可于杀菌剂同时混用。

1. Store in a cool, dry place away from rain and direct sunlight.
2. Do not mix with fungicides.

土醒松 Soil Loosener

疏松土壤　破除板结　Loosen soil · Remove compaction
抗旱保墒　提质增产　Resist drought and conserve water · Improve quality and yield

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2020）准字（7703）号
【产品规格】 1公斤/袋　【保 质 期】 两年

Standard: GB20287-2006　Registration: Microbial Fertilizer (2020), Registration No. 7703
Pack size: 1 kg/bag　Shelf life: 2 years

产品特点 Product Features

本品能增加土壤的团粒结构，疏松土壤，加深耕层，促进根系生长，增产等作用，同时结合施用有机肥、机械耕作等措施综合提升耕地地力，使其能够达到适宜农作物生长的土壤耕层要求，提高耕地质量。具有固氮、解磷、解钾功能，转化土壤中作物不能直接利用的氮、磷、钾元素供作物吸收，同时可分泌大量的植物生长调节物质。连续两年应用后，通过调查对比，产品在加深耕层、提高作物产量、缓解重茬障碍方面效果明显。

Improves soil aggregate structure, loosens soil and increases aeration, promotes roots and seedlings, fixes nitrogen, solubilizes phosphorus and potassium and releases nutrients. In combination with organic matter and machinery cultivation, it improves tilth to meet the needs of crops and raises quality. Supplies N, P and K unavailable to plants and produces growth regulators. Continuous use over two years, with matched comparative trials, showed improved compaction, higher crop yield and reduced continuous-cropping problems.

适用范围 Applications

种植环境存在土壤板结、连作障碍等情况，适用于粮食作物、经济作物、烟草、瓜果蔬菜、林木草业等。

For compaction and repeated-cropping problems in grain crops, cash crops, tobacco, melons and vegetables, forestry and lawns.

使用方法 Directions for Use

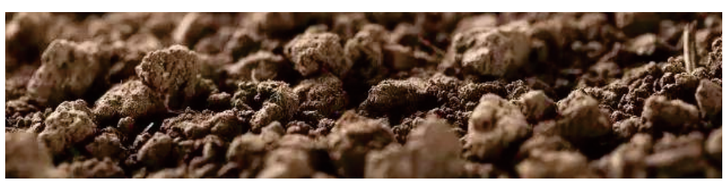
1、与基肥同施：起垄时，与有机肥、复合肥等搅拌均匀，一亩地2公斤，改良土壤结构，松土、醒土。
2、追施：一亩地1公斤，进一步促进根系发育，形成发达的根系网络，同时益生菌的固氮、解磷、解钾作用，可提高根系对养分的吸收利用，起到增收增产的作用。

1. Basal fertilizer: mix 2 kg per mu with organic or compound fertilizer when forming beds to improve structure and loosen soil.
2. Top-dressing: apply 1 kg per mu to stimulate roots and a developed root network. Nitrogen fixation, phosphorus and potassium release improve nutrient uptake, stress resistance, yield and economic returns.

注意事项 Precautions

1、本品应置阴凉干燥处保存，防止雨淋及日晒。
2、本品不可于杀菌剂同时混用。

1. Store in a cool, dry place away from rain and direct sun.
2. Do not mix with fungicides.



烟富钾 Tobacco Potassium Plus

功能特点 Functional Features

烟富钾是一种根据烟草生长环境，科学调配新型的硅酸盐钾细菌肥料，一方面硅酸盐菌在土壤中大量繁殖与活动，生长代谢产生的有机酸类物质，将土壤积存的不能被烟草吸收利用的钾转化成能够被烟草吸收利用的速效钾，快速补充土壤中速效钾的含量。烟草亩施0.5kg烟富钾相当于亩施30kg硫酸钾，且上等烟的产量明显增加，烟草增产10%左右。烟富钾次生代谢物如激素、氨基酸、多糖等物质促进烟草的生长。同时，钾细菌在土壤中繁殖，抑制其它病原菌的生长，有效减少烟草病虫害的发生。

A tobacco-specific fertilizer based on silicate bacteria and a formula developed for the long growing season of tobacco. Large populations multiply in soil and release organic acids, converting unavailable potassium into plant-available forms. Applying 0.5 kg per mu is equivalent in efficacy to 30 kg of potassium sulfate. It markedly increases high-grade tobacco yield, with overall tobacco yield rising by about 10%. Metabolites including hormones, amino acids and polysaccharides promote vigorous growth. Colonization and spatial competition suppress soil pathogens and reduce tobacco disease.

作用机理 Mechanism of Action

1、利用生长代谢产生的有机酸类物质，能够将土壤中矿物质的难溶性钾及磷溶解出来为烟草和菌体本身利用，菌体中富含的钾在菌体死亡后又被烟草吸收。
2、繁殖过程中产生的激素、氨基酸、多糖等物质促进烟草的生长。它在土壤中大量繁殖，形成占位效应，有效抑制烟草黑胫病、赤星病、猝倒病、青枯病的发生。
3、硅酸盐细菌具有固氮能力，减少氮肥使用量，避免出现土壤板结。
4、具有PGPR作用，在烟草根际形成有益微生物菌群，促进烟草生长，减少病虫害发生。

1. Organic acids dissolve unavailable potassium and phosphorus into forms usable by tobacco; after bacterial cells die, their potassium is released for uptake.
2. Hormones, amino acids and polysaccharides stimulate growth. Extensive bacterial multiplication forms a barrier suppressing black shank, brown spot, damping-off, bacterial wilt and other diseases.
3. Silicate bacteria fix nitrogen, reduce fertilizer use and prevent compaction.
4. PGPR activity forms a beneficial rhizosphere community, promoting growth and reducing disease and pests.

使用方法 Directions for Use

1、拌种法：拌种1亩地用烟富钾0.5kg。不烧种、不烧芽、越接触根，种芽效果越好。
2、蘸根法：烟草移栽时烟富钾2kg，兑水15kg左右，混合均匀，进行蘸根栽植。
3、穴施法：烟草栽种时，穴施烟富钾，亩用量3-5kg，可与有机肥混拌均匀施入穴中或种苗根部，施后及时封埯，效果更佳。
4、开沟施法：沟深10-15cm，宽10cm左右。施用量根据烟草种植密度和生长期而定。苗期0.5kg/亩，生长期1kg/亩，后熟期0.5kg/亩。施后及时覆土灌水效果更好。

1. Seed treatment: use 0.5 kg per mu; it does not burn seeds or shoots. Better contact with the roots improves results.
2. Root dipping: at transplanting, mix 2 kg of product with about 15 kg of water and dip the tobacco roots before planting.
3. Hole application: at transplanting, mix 3-5 kg of product with organic fertilizer and place in planting holes or the root zone; cover immediately.
4. Furrow application: make furrows 10-15 cm deep and about 10 cm wide, adjusted to planting density and growth. Use 0.5 kg per mu at the seedling stage, 1 kg during growth and 0.5 kg at maturity. Cover and irrigate promptly.

注意事项 Precautions

1、烟富钾用于追肥可与尿素、硫酸钾等化肥混合施，混合时先将烟富钾与少量细土混合后再与其他化肥混合，即混即用。
2、不可与杀菌剂农药混合施用；
3、避免阳光直射，避光阴凉处保存；
4、避免与强碱性物质混合使用，以免影响使用效果。

1. May be combined with urea, potassium sulfate and other fertilizers. First blend with a little dry fine soil, then mix with fertilizer immediately before use.
2. Do not mix with fungicides.
3. Store cool and away from direct sunlight.
4. Avoid strongly alkaline materials, which reduce efficacy.

土壤生命力 Soil Vitality

土壤生命力是根据作物土壤状况，如土壤板结、肥力下降及作物根际土壤中原有的微生态平衡被破坏，土传病害严重等情况，科学调配的一类激活土壤中的有益微生物菌群，结合土壤本地菌群形成有效的PGPR网络，具有促进植物生长、防治植物病害、改善土壤环境等功能，富含多种微生物菌群及生物酶的菌肥。

Designed for soil compaction, reduced fertility, disrupted microflora and widespread soil-borne disease, this microbial fertilizer combines selected soil strains with local microflora to form an effective PGPR network. It promotes growth, controls plant disease, improves soil and benefits the whole microbial population and plant community.

功能特点 Functional Features

1、激活土壤中有益微生物菌群，与土壤中本地种形成有效的PGPR作用，增强根系活力、促进生长、有效防治土传病害，减少植物病害发生。
2、改良土壤，提高肥力，解磷、解钾、固氮促进土壤养分均衡释放，增强平衡供肥能力，降解土壤中农残等有毒有害物质。
3、促进农作物对氮、磷、钾的吸收利用，提高农作物对养分的利用，作物增产5-10%。
4、提高农作物的防病抗逆能力，减少白粉病、根腐病、锈病、灰霉病、炭疽病、立枯病、猝倒病等多种病害发生。
5、减少蛴螬、金针虫、蝼蛄、地老虎、根结线虫对农作物的危害。

1. Activates beneficial microbial communities and effective PGPR interactions, strengthens root activity, promotes growth and prevents soil-borne infection.
2. Improves soil and fertility; solubilizes phosphorus and potassium, fixes nitrogen, balances nutrient release, strengthens nutrient supply and decomposes harmful substances and pesticide residues.
3. Promotes uptake of N, P and K, improves fertilizer use and raises yield by 5-10%.
4. Increases resistance to powdery mildew, root rot, rust, gray mold, anthracnose, Rhizoctonia blight and damping-off.
5. Reduces damage from white grubs, wireworms, cutworms, mole crickets and root-knot nematodes.

使用方法 Directions for Use

春整地前：亩施用1-2袋，与有机肥混合后作为基肥撒到耕层中。
苗期：每亩苗床用1袋，播种前与底肥混匀后铺施或假植前与营养土混匀后装入营养袋或塑料格盘。漂浮育苗用适量水混合后加入营养液中，有利于促进生长、成苗、壮苗、防病。
生长期：1、基肥：每亩苗床1袋与3-5千克细土混匀拌入有机肥中作基肥穴施。
2、追肥：早施、近根施为佳，有利早发稳长抗病。
3、发病区用量加倍，防效更佳。
晚秋收获后：亩施用1-2袋，适用于做秸秆还田处理。

Before spring land preparation: apply 1-2 bags per mu, mixed with organic fertilizer, as a basal application to the cultivated soil layer.

Nursery stage: use 1 bag per mu of nursery bed. Before sowing, mix with basal fertilizer and spread; or mix with nursery soil before pricking out and fill nursery bags or plastic cell trays. For floating nurseries, mix with an appropriate amount of water and add to the nutrient solution.

During growth:

1. Basal application: per mu of nursery bed, mix 1 bag with 3-5 kg of fine soil, then blend with organic fertilizer and apply in planting holes.
2. Top-dressing: apply early and close to the roots to promote rooting, growth and disease resistance.
3. Double the dosage in disease-affected areas.

After the late-autumn harvest: apply 1-2 bags per mu when incorporating crop straw into the soil.

注意事项 Precautions

1、勿与杀菌剂、杀虫剂混合施用，须相隔3-5天以上。
2、避免阳光直射暴晒，在避光阴凉处保存。

1. Do not mix with fungicides or insecticides; keep an interval of at least 3-5 days.
2. Store in a cool place out of direct sunlight.

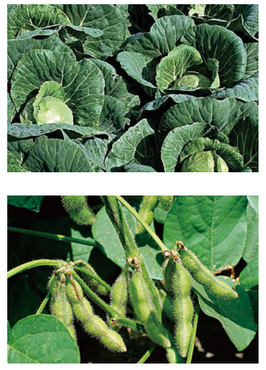
Functional Microbes for Bio-Organic Fertilizer 生物有机肥功能菌

本品是富含天然营养成分的功能性益生菌，配方科学，使用后，有益微生物能够迅速定殖，分解活化难溶矿物质元素，改善作物营养，促进作物生长，增强抗病能力。长期使用本品，可大幅度提高土壤保肥、保水性能，培肥地力，优化作物营养条件，提高肥料利用率，增产增收。

产品成份：固氮菌、解磷菌、解钾菌、抗生菌等功能菌有效活菌数≥200亿/克、1000亿/克。

This compound microbial fertilizer contains naturally selected antagonistic and functional strains in a scientifically balanced formula. Beneficial microorganisms rapidly colonize and reproduce, decompose organics and release nutrients, increase growth, resistance and fertility, retain moisture and nutrients, improve soil structure, and optimize the growing environment. Long-term application increases yield and returns.

Ingredients: nitrogen-fixing, phosphate-solubilizing, potassium-solubilizing and antagonistic strains. Viable counts: ≥20 billion CFU/g or ≥100 billion CFU/g.



功能特点 Functional Features

固氮菌在土壤中能够独立进行固氮，并且能够分泌生长素，促进植株的生长和果实的发育。解磷解钾菌可将土壤中不被农作物吸收的无效钾和无效磷，转化为可被农作物吸收利用的速效钾和速效磷，同时释放土壤中硒、锰、锌、钼等多种元素，提高营养水平，在生命活动中产生赤霉素、细胞分裂素、吲哚乙酸等生物活性物质，可有效地刺激农作物生长发育。

在土壤中迅速定殖后，其所产生的抗菌素能有效抑制土壤中30余种常见土传病害，对作物生长有独特的防病保苗作用，同时可分泌大量的植物生长调节物质，可增产增收，提高作物品质，在重茬作物上使用可有效降低作物的连作障碍。常年使用可有效改良土壤结构及微生态环境。

Nitrogen-fixing strains live independently in soil, reproduce and fix nitrogen, promoting growth and stronger crops. Phosphate and potassium solubilization release otherwise unavailable nutrients, while calcium, magnesium, iron, zinc and other elements improve balanced nutrition. During their life cycle the microbes produce hormones, acids and enzymes that stimulate roots and improve crop development.

After rapid colonization, newly produced antibiotics suppress more than 30 common soil-borne pathogens. Growth-regulating compounds improve quality and yield. It is especially effective in heavily and repeatedly cropped areas, reducing continuous-cropping soil problems.

使用方法 Directions for Use

将1公斤200亿/克功能菌直接添加到1吨腐熟有机肥（含水量≤30%），搅拌均匀后制成符合NY884-2012标准的生物有机肥。

Mix 1 kg of the 20-billion-CFU/g functional agent directly with 1 tonne of mature organic fertilizer (moisture ≤30%) to obtain bio-organic fertilizer meeting NY 884-2012.

注意事项 Precautions

1、勿与杀菌剂、杀虫剂混合施用，须相隔3-5天以上。
2、避免阳光直射暴晒，在避光阴凉处保存。

1. Keep at least 3-5 days between application and fungicides or insecticides.
2. Store cool and away from direct sun.

解淀粉芽孢杆菌 Bacillus amyloliquefaciens

功能特点 Functional Features

1、具有抑制植物病害的能力，对人畜无害，不污染环境。
2、促进植物生长，抑制线虫。
3、能迅速在植物体表、体内定殖和传导，粗根壮苗。
4、能产生低分子量的抗生素及抗菌蛋白质多肽等活性物质抑制病原菌及线虫。
5、能产生植酸酶、几丁质酶、葡聚糖酶、蛋白酶、淀粉酶促进农作物对养分的吸收。
6、生产植物生长激素吲哚-3-乙酸，能够促进农作物生长。

1. Suppresses plant diseases; harmless to people and livestock and does not pollute the environment.
2. Promotes growth and suppresses nematodes.
3. Rapidly colonizes plants internally and externally, strengthening roots and seedlings.
4. Produces antibiotics and antimicrobial peptides that suppress pathogens and nematodes.
5. Produces phytase, chitinase, glucanase, protease and amylase, improving nutrient uptake.
6. Produces indole-3-acetic acid to stimulate growth.

使用方法 Directions for Use

1、生产符合行业标准的生物有机肥、复合微生物肥料（有效菌数≥0.2亿/克）。以200亿/克为例，每吨有机肥添加1000克。
2、建议亩施用量1-2kg，播种前、收获后使用效果更佳。

1. For industry-standard organic and compound microbial fertilizers (viable count ≥0.2×10⁸ CFU/g), a 20-billion-CFU/g product is added at 1,000 g per tonne of organic fertilizer.
2. Apply 1-2 kg per mu, preferably before sowing or after harvest.

Bacillus subtilis 枯草芽孢杆菌

枯草芽孢杆菌产生的天然材料聚麸胺酸，为土壤的保护膜，有效防止肥分、水分的流失；释出的高活性分解酵素，将难分解的大分子物质分解成可利用的小分子物质；合成多种有机酸、酶、生理活性等物质，及其它多种容易被利用的养分；占据空间优势，抑制有害菌、病原菌等有害微生物的生长繁殖。

Produces the natural biopolymer polyglutamic acid, forming a protective soil film that prevents moisture and nutrient loss. It rapidly secretes active enzymes to break macromolecular organic matter into readily absorbed nutrients. Metabolites include organic acids, enzymes and physiological regulators. Strong colonization and spatial competition inhibit pathogens and harmful microorganisms.

功能特点 Functional Features

1、繁殖快速：代谢快、繁殖快，四小时增殖10万倍，标准菌四小时仅可繁殖6倍。
2、生命力强：干燥状态可耐低温-60°C、耐高温100°C，耐强酸、耐强碱、抗菌消毒、耐高氧（嗜氧繁殖）、耐低氧（厌氧繁殖）。
3、体积大：体积比一般病原菌分子大四倍，占据空间优势，抑制有害菌的生长繁殖。

1. Rapid multiplication: high metabolic activity; population increases 100,000-fold in four hours, versus sixfold for reference bacteria in the same period.
2. Strong viability: dry cells tolerate −60°C to 100°C, strong acid and alkali, disinfectants and antimicrobial drugs, with aerobic or anaerobic growth.
3. Large cells: four times larger than common pathogens, giving a spatial competitive advantage that suppresses harmful microorganisms.

使用方法 Directions for Use

1、生产符合行业标准的生物有机肥、复合微生物肥料（有效菌数≥0.2亿/克）。以200亿/克为例，每吨有机肥添加1000克。
2、建议亩施用量1-2kg，播种前、收获后使用效果更佳。

1. For industry-standard organic and compound microbial fertilizers (viable count ≥0.2×10⁸ CFU/g), add 1,000 g of the 20-billion-CFU/g product per tonne of organic fertilizer.
2. Apply 1-2 kg per mu, preferably before sowing or after harvest.

注意事项 Precautions

1、避免与化学肥料一起使用，以免影响微生物在土壤中的繁殖速度。
2、禁止与杀菌、杀虫剂等化学农药混合使用，以免造成菌体死亡。
3、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Avoid applying together with chemical fertilizers, which may slow microbial reproduction in soil.
2. Do not mix with chemical pesticides such as fungicides or insecticides, to prevent microbial death.
3. Apply in the early morning or evening. Keep the microbial agent out of strong direct sunlight.

地衣芽孢杆菌 Bacillus licheniformis

地衣芽孢杆菌施入土壤后，迅速打破休眠状态，快速繁殖扩张，占领空间优势，且繁殖过程中产生玉米素和抗菌杀虫物质，并且有独特的生物夺氧作用机制，能抑制致病菌的生长繁殖。

After entering soil, it rapidly breaks dormancy, multiplies and colonizes available space. During growth it produces zeatin and antimicrobial substances; competition for oxygen also inhibits pathogen growth and reproduction.

功能特点 Functional Features

1、抑制土壤中病原菌的繁殖和对植物根部的侵袭，减少植物土传病害，预防多种害虫爆发。
2、提高种子的出芽率和保苗率，预防种子自身的遗传病害，提高作物成活率，促进根系生长。
3、改善土壤团粒结构，改良土壤，提高土壤蓄水、蓄能能力，有效增高地温，缓解重茬障碍。
4、促使土壤中的有机质分解成腐殖质，极大的提高土壤肥效。
5、促进作物生长，成熟，降低成本、增加产量，提高收入。
6、施入土壤后，菌群迅速打破休眠状态，快速繁殖扩张，占领空间优势，抑制有害菌的生长。
7、繁殖过程中产生玉米素和抗菌杀虫物质，有效抑制并杀灭部分土传病害病原菌。如根腐病、枯黄萎病、疫病等。
8、对根结线虫有很好的防治作用。

1. Inhibits soil pathogens and their invasion of crop roots, reducing soil-borne disease and outbreaks of various pests.
2. Improves seed germination and seedling retention, helps prevent seed-borne hereditary disease, increases survival and promotes roots.
3. Improves soil aggregates and water and nutrient retention, raises soil temperature and reduces continuous-cropping problems.
4. Converts organic matter into humus and substantially improves fertilizer efficiency.
5. Promotes growth and maturity, reduces costs and raises yield and returns.
6. Rapidly breaks dormancy after entering soil, multiplies and colonizes available space, suppressing harmful microorganisms.
7. Produces zeatin and antimicrobial substances that suppress root rot, wilt, blight and other soil-borne diseases.
8. Provides good control of root-knot nematodes.

使用方法 Directions for Use

1、国家微生物终端标准：0.2亿/克，以200亿/克为例，每吨有机肥添加1000克。
2、建议亩施用量1-2kg，播种前、收获后使用效果更佳。

1. National microbial fertilizer standard: viable count ≥0.2×10⁸ CFU/g. For the 20-billion-CFU/g product, add 1,000 g per tonne of organic fertilizer.
2. Apply 1-2 kg per mu, preferably before sowing or after harvest.

注意事项 Precautions

1、避免与化学肥料一起使用，以免影响微生物在土壤中的繁殖速度。
2、禁止与杀菌、杀虫剂等化学农药混合使用，以免造成菌体死亡。
3、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Avoid applying together with chemical fertilizers, which may slow microbial reproduction in soil.
2. Do not mix with chemical pesticides such as fungicides or insecticides, to prevent microbial death.
3. Apply in the early morning or evening. Keep the microbial agent out of strong direct sunlight.

Bacillus mucilaginosus 胶冻样芽孢杆菌

在土壤中繁殖生长，产生有机酸、荚膜多糖等代谢产物，破坏硅铝酸盐的晶格结构、难溶性磷化合物等，分解释放出可溶的磷钾元素及钙、硫、镁、铁、锌、钼、锰等中微量元素，既增进了土壤肥力，又为作物提供了可吸收利用的营养元素，同时产生赤霉素、细胞激动素、微生物酶、细菌多糖等生理活性物质，促进作物营养吸收和生长代谢，提高作为抗逆、抗病虫害能力。

During growth in soil it produces organic acids, capsular polysaccharides and other metabolites. It dissolves silicate and aluminosilicate minerals, releasing phosphorus, potassium, iron, zinc, molybdenum and other elements, improves soil fertility and supplies readily absorbed nutrients. Hormones, enzymes and other physiologically active substances stimulate nutrient uptake and metabolism, increasing resistance to cold, drought and disease.

功能特点 Functional Features

1、该菌具有解磷、解钾的功能，能增加土壤速效磷含量90.5-110.8%、增加速效钾的含量20-35%。
2、具有活化土壤中硅、钙、镁中量元素作用。
3、具有提高铁、锰、铜、锌、钼、硼等微量元素供应的功效。
4、有效提高或延长肥效，减少化肥用量，亩施用1公斤微生物菌剂增产效果与亩施15-20公斤过磷酸钙、亩施7.5-10公斤硫酸钾增产效果相当。
5、有效提高作物抗逆性，预防或减轻病害，如小麦的白粉病、棉花立枯病、黄枯萎病等。
6、增产效果明显，粮食作物如小麦、水稻等平均亩增产10%以上，花生、大豆、芝麻、薯类等作物增产15-30%，黄瓜、白菜、西红柿、花椰菜、菠菜、韭菜、包心菜、茄子、芹菜、辣椒、葡萄等增产率20-50%，此外对园林、花卉、中草药等植物应用效果良好。

1. Solubilizes phosphorus and potassium, increasing available soil phosphorus by 90.5-110.8% and available potassium by 20-35%.
2. Activates secondary elements such as silicon, calcium and magnesium.
3. Supplies iron, manganese, copper, zinc, molybdenum, boron and other trace elements.
4. Improves and prolongs fertilizer efficacy and reduces mineral fertilizer use: 1 kg per mu gives an effect comparable to 15-20 kg of superphosphate or 7.5-10 kg of potassium sulfate.
5. Improves stress resistance and helps prevent or reduce wheat powdery mildew, cotton damping-off and wilt diseases.
6. Increases yield: wheat, rice and other grain crops average over 10%; peanut, soybean, sesame and potato and tuber crops increase by 15-30%; cucumber, Chinese cabbage, tomato, cauliflower, spinach, Chinese chives, head cabbage, eggplant, celery, pepper, grape and other vegetables and fruit increase by 20-50%. Also effective for landscaping plants, flowers and medicinal crops.

使用方法 Directions for Use

1、生产符合行业标准的生物有机肥、复合微生物肥料（有效菌数≥0.2亿/克）。以100亿/克为例，每吨有机肥添加2000克。
2、建议亩施用量1-2公斤，播种前、收获后使用效果更佳，一次施用，全生育期有效。

1. For industry-standard organic and compound microbial fertilizer (viable count ≥0.2×10⁸ CFU/g), add 2,000 g of the 10-billion-CFU/g product per tonne of organic fertilizer.
2. Apply 1-2 kg per mu, preferably before sowing or after harvest. One application remains effective throughout the growing season.

注意事项 Precautions

1、避免与化学肥料一起使用，以免影响微生物在土壤中的繁殖速度。
2、禁止与杀菌、杀虫剂等化学农药混合使用，以免造成菌体死亡。
3、最佳施用时间为早上或傍晚。勿使菌剂直接放置于强阳光下。

1. Avoid applying together with chemical fertilizers.
2. Do not mix with chemical pesticides such as fungicides or insecticides.
3. Apply early morning or evening; avoid direct sunlight.

Rw生物除臭剂—豆制品废水

Rw Biological Deodorizer - Soybean-Processing Wastewater

主要成分 Main Ingredients

主要由乳酸杆菌、酵母菌等有益菌群及多种酶类复合而成，有效活菌数≥10亿/mL。

A beneficial microbial blend of lactobacilli, yeasts and other strains with synergistic enzymes. Viable count ≥1×10⁹ CFU/mL.

作用机理 Mechanism of Action

通过厌氧微生物和好氧微生物互相交换底物，分解氨气、硫化氢，降解率93%以上，去除空气中及物料中的有害细菌达92%以上。微生物来自自然界，有分解有机化合物的生物本能，经优选复合后制成的微生物制品功能强大，适应性强，本产品含有多种有机酸和生物活性酶，能快速、彻底分解产生臭味的含硫含氮有机物，起到除臭作用。微生物及其发酵衍生物分解有机污染物后，自身回归自然，完成一个循环。

Through an exchange of metabolites between aerobic and anaerobic microorganisms, this product decomposes ammonia, hydrogen sulfide and related odors by more than 93% and removes over 92% of harmful bacteria in the air and treated materials. Selected microorganisms originate in nature and naturally decompose organic compounds. After selection, rejuvenation and optimization, this microbial preparation has strong activity and broad adaptability. Organic acids and biologically active substances support rapid and complete decomposition of odor-causing sulfur- and nitrogen-containing compounds. Degraded organic contaminants become microbial biomass and fermentation products, returning naturally to the ecological cycle.

使用方法 Directions for Use

1、即时除臭：用干净水将本品50倍稀释喷雾。
2、预先防臭：将本品与可能发臭的废水提前混合，能预防1000-4000倍废水发臭。
3、使用浓度越大，除臭效果越好。

1. Immediate deodorization: dilute 1:50 with clean water and spray.
2. Odor prevention: mix with potentially odorous wastewater at 1:1,000-4,000.
3. A higher concentration gives stronger deodorization.

注意事项 Precautions

1、本品是微生态制剂，通过生物分解除臭，无毒、无副作用、无残留、无二次污染。
2、禁止对本品加热，禁止与化学消毒药物混用。
3、稀释后2个小时内用完。
4、本品久置后底部产生棕褐色沉淀、表层漂浮白沫，属正常现象，不影响除臭功能，使用时摇匀即可。

1. This microbial ecological preparation removes odors biologically. It is nontoxic, without side effects, residues or secondary pollution.
2. Do not heat or mix with other chemical disinfectants.
3. Use within 2 hours after dilution.
4. Brown sediment and a floating white microbial film after storage are normal and do not reduce efficacy. Shake evenly before use.

Rw生物除臭剂—有机肥厂

Rw Biological Deodorizer - Organic Fertilizer Plants

微生物来于自然界，有分解有机物的生物本能，经优选复合后制成的微生物制品功能强大，适应性强，本产品含有多种有机酸和生物活性酶，能快速、彻底分解产生臭味的含硫、含氮有机物，起到除臭作用。微生物及其发酵衍生物分解有机污染物后，自身回归自然，完成一个循环。

Selected microorganisms originate in nature and naturally decompose organic compounds. After selection, rejuvenation and optimization, this microbial preparation has strong activity and broad adaptability. Organic acids and biologically active substances support rapid and complete decomposition of odor-causing sulfur- and nitrogen-containing compounds. It provides effective deodorization. Degraded organic contaminants are converted to microbial biomass and fermentation products, returning naturally to the ecological cycle.

功能特点 Functional Features

快速清除有机肥厂各种原材料臭味，对气体、固体臭味源均有效。2-3分钟除臭，预防含硫、氮有机物的垃圾渗滤液发臭。

Rapidly removes odors from all types of organic fertilizer raw materials. Removes gaseous and solid odors effectively in 2-3 minutes and prevents recurrence from organic wastes containing sulfur and nitrogen.

主要成分 Main Ingredients

有机肥厂生物除臭剂是依据微生态循环原理，采用复合微生物技术，通过生物发酵制成的新型速效环保除臭剂。主要由乳酸杆菌、酵母菌等有益菌群及多种酶类复合而成，有效活菌数≥10亿/mL。

Based on microbial ecological principles and compound microbial technology, this fermentation-derived deodorizer is fast acting, ecological and environmentally friendly. Contains lactobacilli, yeasts, other beneficial microorganisms and synergistic enzymes. Viable count ≥1×10⁹ CFU/mL.

使用方法 Directions for Use

用干净水将本品10-50倍稀释，喷雾，即可快速除臭，每公斤稀释后可喷雾100-200立方米（可以根据原料的臭味大小进行增大或减少稀释浓度）。

For rapid deodorization, dilute 1:10-50 with clean water and spray evenly. One kg treats 100-200 m³; adjust concentration according to odor intensity.

注意事项 Precautions

1、本品是微生态制剂，通过生物分解除臭，无毒、无副作用、无残留、无二次污染。
2、禁止对本品加热，禁止与化学消毒药物混用。
3、稀释后2个小时内用完。
4、本品久置后底部产生棕褐色沉淀、表层漂浮白沫，属正常现象，不影响除臭功能，使用时摇匀即可。

1. This microbial ecological preparation removes odors biologically. It is nontoxic, without side effects, residues or secondary pollution.
2. Do not heat or mix with other chemical disinfectants.
3. Use within 2 hours after dilution.
4. Brown sediment and a floating white microbial film after storage are normal and do not reduce efficacy. Shake evenly before use.

Rw生物除臭剂—养殖场

Rw Biological Deodorizer - Livestock Farms

主要成分 Main Ingredients

养殖场生物除臭剂是依据微生态循环原理，采用复合微生物技术，通过生物发酵制成的新型速效环保除臭剂。属微生态制剂，无毒无害，安全环保，适用于各种畜禽养殖场所。成品是微酸活性液体。主要由乳酸杆菌、酵母菌等有益菌群及多种酶类复合而成，有效活菌数≥10亿/mL。

This fast-acting, environmentally friendly farm deodorizer uses compound microbial fermentation based on microbial ecological principles. It is nontoxic, has no side effects and is suitable for livestock farms. The finished product is a mildly acidic active liquid containing beneficial strains such as lactobacilli and yeasts, together with synergistic enzymes. Viable count ≥1×10⁹ CFU/mL.

功能特点 Functional Features

1、快速清除养殖场臭气，净化空气，驱除蚊蝇，全面改善养殖环境。
2、能同时处理气体、固体、液体多种污染物。
3、培育益生菌环境，抑制杀灭有害微生物，预防动物呼吸道、肠道疾病。
4、通过微生物及其发酵衍生物（多种有机酸和生物活性酶）分解产生臭味的有机物起到除臭作用，效果持久。
5、促进养殖过程良性循环，增强动物自身抗病力，减少用药，降低养殖成本。

1. Rapidly removes livestock-house odors, purifies the air, repels mosquitoes and flies and improves the farm environment.
2. Treats gaseous, solid and liquid pollutants at the same time.
3. Cultivates beneficial microflora, suppresses harmful microbes and helps prevent respiratory and intestinal disease.
4. Microorganisms, enzymes and their metabolites decompose odor-causing organic substances, providing a lasting effect.
5. Strengthens the animals' resistance to disease, reduces drug use and lowers production costs.

使用方法 Directions for Use

用干净水按50-200倍稀释，喷雾，对臭气源头区域全覆盖，每周2-3次。臭气较大时适当加大浓度，增加喷雾次数，臭气减轻后可减少用量。可用于室内室外各种复杂环境。

Dilute 1:50-200 with clean water and spray odor sources until just covered. Use 2-3 times per week. Increase concentration for strong odors. As odor is reduced, increase dilution and reduce frequency. Suitable for livestock houses and outdoor farm areas.

注意事项 Precautions

本品适宜环境温度为10℃-40℃，稀释后2个小时内用完，不可加热，禁止与化学消毒剂、抗生素药物等物品混用。

Best at 10-40°C. Use within 2 hours after dilution. Do not heat or mix with chemical disinfectants, antibiotics or other chemicals.

Rw生物除臭剂—垃圾场

Rw Biological Deodorizer - Landfills

主要成分 Main Ingredients

垃圾场生物除臭剂是依据微生态循环原理，采用复合微生物技术，通过生物发酵制成的新型速效环保除臭剂。主要由乳酸杆菌、酵母菌等有益菌群及多种酶类复合而成，有效活菌数≥10亿/mL。

A fast-acting ecological deodorizer made by compound microbial fermentation according to microbial ecological principles. Contains lactobacilli, yeasts and other beneficial strains with synergistic enzymes. Viable count ≥1×10⁹ CFU/mL.

功能特点 Functional Features

快速清除垃圾臭味，对气体、固体臭味源均有效。2-3分钟彻底除臭，完全分解，持久有效。预防含硫、氮有机物的垃圾渗滤液发臭。

Rapidly eliminates waste odors. Effective on gaseous and solid sources, with full decomposition in 2-3 minutes and a lasting effect; prevents recurrence in sulfur- and nitrogen-containing organic waste.

适用范围 Applications

垃圾场（站）、垃圾电厂、垃圾桶（池）、农贸市场地面、饭店后厨等有机物产生臭味的场所。

Landfill sites and transfer stations, waste-to-energy plants, waste bins and collection pits, market floors, restaurant kitchens and other sites where organic matter produces odors.

除臭机理 Deodorization Mechanism

微生物来自自然界，有分解有机化合物的生物本能，经优选复合后制成的微生物制品功能强大，适应性强，本产品含有多种有机酸和生物活性酶，能快速、彻底分解产生臭味的含硫含氮有机物，起到除臭作用。微生物及其发酵衍生物分解有机污染物后，自身回归自然，完成一个循环。

Selected microorganisms originate in nature and naturally decompose organic compounds. After selection, rejuvenation and optimization, this microbial preparation has strong activity and broad adaptability. Organic acids and biologically active substances support rapid and complete decomposition of odor-causing sulfur- and nitrogen-containing compounds. It provides effective deodorization. Degraded organic contaminants are converted to microbial biomass and fermentation products, returning naturally to the ecological cycle.

注意事项 Precautions

1、本品是微生态制剂，通过生物分解除臭，无毒、无副作用、无残留、无二次污染。
2、禁止对本品加热，禁止与化学消毒药物混用。
3、稀释后2个小时内用完。
4、本品久置后底部产生棕褐色沉淀、表层漂浮白沫，属正常现象，不影响除臭功能，使用时摇匀即可。

1. This microbial ecological preparation removes odors biologically. It is nontoxic, without side effects, residues or secondary pollution.
2. Do not heat or mix with other chemical disinfectants.
3. Use within 2 hours after dilution.
4. Brown sediment and a floating white microbial film after storage are normal and do not reduce efficacy. Shake evenly before use.

花卉液体专用肥

Special Liquid Fertilizer for Flowers

有效成分 Active Ingredients

有机质≥10%，氨基酸≥100g/L，钙、镁≥30g/L，中微量元素≥1%。

Organic matter ≥10%; amino acids ≥100 g/L; calcium and magnesium ≥30 g/L; medium and trace elements ≥1%.

功能特点 Functional Features

1、有机质+养分+中微元素全元肥、养分配方科学。
2、富含有机质、氨基酸以及镁、铁、硼、锰、锌、铜、钼等多种植物所必需的中微量元素，可增强植物抗病、抗旱、抗寒、抗倒伏、抗虫害等能力。富含18种
3、必需氨基酸可大幅提高促进花卉的光合作用率，促进养分吸收利用。
4、绿色无公害无污染，保护绿叶类花卉叶面健康，有效延长花期10-15天。

1. Organic nutrition, all major, secondary and trace elements, scientifically balanced for ornamental plants.
2. Rich in organic matter, amino acids and essential magnesium, iron, boron, manganese, copper, molybdenum, zinc and other elements. Improves resistance to disease, drought, cold, lodging and insects. Contains 18 essential amino acids.
3. Amino acids substantially improve photosynthesis, promoting nutrient absorption and use.
4. An ecological product that preserves leaves, flowers and color, supports healthy growth and extends flowering by 10-15 days.

使用方法 Directions for Use

使用时按照1：600-750倍比例兑水稀释后，直接浇灌，观叶型花卉建议12-15天浇施一次，观花型花卉15-20天浇施一次。

Dilute 1:600-750 with water and irrigate directly. For foliage and ornamental-leaf flowering plants apply every 12-15 days; for flowering ornamentals apply every 15-20 days.

注意事项 Precautions

兑水稀释时宁稀勿浓。

Use a weaker rather than a stronger dilution.

西红柿专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Tomatoes

预防病害　保花保果
着色增甜　提质增产

Prevent disease · Retain flowers and fruit
Enhance color and sweetness · Improve quality and yield

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加番茄产量，产量可增加20%以上，有助于提高番茄的坐果率，促进番茄果实膨大，显着提高番茄产量，改善番茄口感、果型、果色、色泽、品质等，增加种植经济效益，同时兼具预防土传病害，减少病害发生的功能。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In tomatoes, it increases fruit set, promotes fruit enlargement and raises yield by over 20%. It improves flavor, shape, color, gloss and quality, increases economic returns and helps prevent and reduce soil-borne disease.

适用作物 Suitable Crops

适用于大番茄全生长期。

For large-fruited tomatoes throughout the growth cycle.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

1、密封储存于阴凉、干燥、通风处。
2、本品禁止与杀菌剂混合使用。
3、喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

黄瓜专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Cucumbers

生根壮株　保花保果
预防病害　提质增产

Strengthen roots and seedlings · Retain flowers and fruit
Prevent disease · Improve quality and yield

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加黄瓜产量，有助于提高黄瓜坐果率，促进黄瓜果实膨大，显著提高黄瓜产量，改善黄瓜口感、瓜型、瓜色、色泽、品质等，快速补充黄瓜膨果期所需要的营养，在黄瓜膨大期使用，膨大快，色泽好，大小均匀，又嫩又直。有效改善黄瓜口感和品质，使黄瓜提早上市并延长采收期，并能提高黄瓜采收后的耐储存能力，预防土传病害，减少病害发生。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In cucumbers, it increases fruit set, enlargement and yield, and improves flavor, shape, color, gloss and quality. It rapidly supplies nutrients for enlargement, producing fast-growing, evenly sized, tender, straight cucumbers with good color. Early application brings an earlier harvest, extends the picking period and improves postharvest storage life. It helps prevent and reduce soil-borne disease.

适用作物 Suitable Crops

适用于黄瓜全生长期。

For the entire growth cycle of cucumbers.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

辣椒专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Peppers

抑菌防病　促花促果
自然着色　提质增产

Suppress pathogens and disease · Retain flowers and fruit
Natural coloring · Improve quality and yield

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加辣椒产量，提升辣椒中辣椒素、VC、可溶性糖、蛋白质、胡萝卜素以及游离氨基酸等多种营养成分的含量，改善辣椒口感、椒型、椒色、色泽、品质等，可有效预防土传病害，减少病害发生。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In peppers, it increases yield and the contents of capsaicin, vitamin C, soluble sugars, protein, carotene and free amino acids. It improves flavor, fruit shape, color, gloss and quality, and helps prevent and reduce soil-borne disease.

适用作物 Suitable Crops

适用于樱桃椒、朝天椒、灯笼椒、羊角椒、线椒、彩椒、甜柿椒、牛角椒等辣椒类品种。

For cherry peppers, upward-growing chili peppers, lantern peppers, goat-horn peppers, long peppers, bell peppers, sweet peppers, ox-horn peppers and other varieties.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

瓜类专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Melons

保花保果　自然增红
抗病抗逆　提质增产

Retain flowers and fruit · Enhance natural color
Resist disease and stress · Improve quality and yield

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加瓜类产量，提高授粉率和坐瓜率，减少生理性落花落果，使幼瓜迅速增大；成熟果实个大均匀、果肉密实、色泽鲜艳、娇嫩多汁、口感好、甜度高、提高品质，增加产量，减少西瓜土传病害发生蔓延。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In melons, it improves pollination and fruit set, reduces physiological flower and fruit drop and accelerates young fruit enlargement. It produces large, evenly sized fruit with dense flesh, bright color, a tender, juicy texture, good flavor and high sweetness. It helps reduce the occurrence and spread of soil-borne disease in watermelon.

适用范围 Applications

适用于西瓜，甜瓜，哈密瓜等瓜类作物。

For watermelon, muskmelon, Hami melon and other melons.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

大姜专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Ginger

促根生根　预防姜瘟
防治病害　提质增产

Promote roots and rhizomes · Prevent bacterial wilt
Prevent disease · Improve quality and yield

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加大姜产量。

增强大姜营养免疫杀菌力，根系发达、植株粗壮，控制疯长，防止冻害，增加块根块茎数，提高叶绿素含量，增强光合作用，腋芽不断分生可发生多次，次生根茎，丛生密集成块状，提高大姜膨产活力，姜多、姜大，姜面光滑，姜型健壮，提高品质，对姜腐败（姜瘟）有极好的防治作用。并能提高改善大姜口感，使大姜辛辣清香味道纯。使果面洁净、色泽诱人、口感上佳，并能提早果实上市时间，增加高额产量15%以上。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency.

In ginger, it strengthens disease resistance, roots and stems, controls excessive vegetative growth and helps prevent frost injury. It increases chlorophyll and photosynthesis, promotes axillary bud formation and dense secondary rhizomes, and increases rhizome number and size. Ginger develops a smooth surface and strong shape. It helps prevent ginger rot and bacterial wilt, improves clean appearance, color, pungent aroma and flavor, supports earlier marketing and raises yield by more than 15%.

适用作物 Suitable Crops

适用于大姜全生长期。

For the entire growth cycle of ginger.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

草莓专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Strawberries

养根护根　抑菌抗病
口感更佳　提质增产

Nourish and protect roots · Suppress disease
Improve taste · Improve quality and yield

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加草莓产量，有助于增强草莓抗逆抗病能力，提高的座果率，改善草莓口感、果型、果色、色泽、品质等，同时，兼具预防土传病害，减少病害发生的作用。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In strawberries, it increases yield, strengthens resistance to disease and environmental stress, raises fruit set and improves flavor, shape, color, gloss and overall quality. It helps prevent and reduce soil-borne disease.

适用作物 Suitable Crops

适用于草莓全生长期。

For the entire growth cycle of strawberries.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩5-10kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 5-10 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

葡萄专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Grapes

植株健壮　保花保果
自然着色　靓果高产

Vigorous vines · Retain flowers and fruit
Natural coloring · Attractive, high-yield berries

【执行标准】 GB20287-2006　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加葡萄产量，提高葡萄抗逆能力，减少霜霉病、白粉病、炭疽病的发生。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency. In grapes, it increases yield and stress resistance and reduces downy mildew, powdery mildew and anthracnose.

适用作物 Suitable Crops

适用于葡萄全生长期。

For the entire growth cycle of grapes.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩10-15kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩10-15kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 10-15 kg per mu per application, every 10-12 days.
Application with irrigation water: dilute 1:50-100; use 10-15 kg per mu per application, every 10-12 days.
Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

叶菜类专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Leafy Vegetables

生根壮苗　绿叶靓叶
抑菌防病　提质增产

Strengthen roots and seedlings · Dark green, healthy leaves
Suppress pathogens · Improve quality and yield

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加叶菜类产量。

施用后各种营养物质能够被叶菜迅速吸收并在体内自由传导，能够刺激叶菜生长细胞组织的快速分裂与增长，使叶菜快速生长，强化叶菜体内新陈代谢，加速蛋白质合成，促进叶绿素的形成，增强光合作用，刺激叶菜茎杆和叶片生长细胞组织的分裂与增长，促使叶菜快速生长、叶片增大，叶肉肥厚，叶色深绿油亮。有效缓解叶菜生长缓慢，叶片黄化、失绿、干枯及卷曲等生理症状，预防土传病害，减少病害发生。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency.

In leafy vegetables, nutrients are rapidly absorbed and transported through the plant, stimulating rapid plant cell division and growth, accelerating development and strengthening disease resistance. It promotes protein and chlorophyll synthesis and photosynthesis, thickens leaves and strengthens petioles and stems, producing deep green, glossy foliage. It helps prevent slow growth, leaf yellowing, chlorosis, drying and curling, and reduces soil-borne disease.

适用作物 Suitable Crops

适用于生菜、雍菜、油菜、茼蒿、芹菜、菠菜、木耳菜、油麦菜、韭菜、娃娃菜、芫荽、空心菜、菜心、苋菜等叶菜类作物。

For lettuce, water spinach, leafy rape, garland chrysanthemum, celery, spinach, Malabar spinach, Chinese leaf lettuce, Chinese chives, baby Chinese cabbage, coriander, choy sum, amaranth and other leafy vegetables.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩3-5kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩3-5kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 3-5 kg per mu per application, every 10-12 days.

Application with irrigation water: dilute 1:50-100; use 3-5 kg per mu per application, every 10-12 days.

Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

茶叶专用豆粕菌肥

Soybean-Meal Microbial Fertilizer for Tea

植株健壮　芽齐芽嫩
芽叶增多　口感纯正

Vigorous tea plants · Tender, even buds
More shoots and leaves · Pure, rich flavor

【执行标准】 GB20287-2006　　【登记证号】 微生物肥（2018）准字（4034）号
【产品规格】 5kg/桶　　【保 质 期】 6个月

Standard: GB20287-2006　Registration: Microbial Fertilizer (2018), Registration No. 4034
Pack size: 5 kg/pail　Shelf life: 6 months

产品特点 Product Features

本品是以固态发酵豆粕为主要原料，豆粕经过有益微生物菌种进行固体发酵，将游离氨基酸充分释放，同时辅以枯草、地衣、胶冻样芽孢杆菌等有益菌群。有效增加根部须根数量，提高作物的附着能力；主根粗壮、须根浓密加速作物对养分的吸收；富含的有益菌具有固氮、解磷、解钾功能，有效释放土壤中的速效养分，提高肥料利用率，增加茶叶产量。

施用后迅速打破茶叶休眠，诱发茶树酶系活力，从而提高树自身生理、生化能力，促进茶树在早春低温情况下新芽快速萌发，新梢发芽密度高，促进茶树根系发达和植株健壮，能提高茶树光合速率和抗逆性；有效地抵御低温和菌害的侵袭；同时，使用本品能在一定程度上降解或减少茶叶中的农残及重金属含量，并能改善茶叶的内外在品质。使用本品种植的茶叶在氨基酸、茶多酚和咖啡因的含量上都有显著的提高；使茶桑作物增产在20%以上。

Made mainly from soybean meal through solid-state fermentation with beneficial microorganisms to release free amino acids. It also contains Bacillus subtilis, Bacillus licheniformis and Bacillus mucilaginosus. It increases fibrous roots and improves anchorage; stronger main roots and dense fibrous roots accelerate nutrient uptake. Beneficial microbes fix nitrogen and solubilize phosphorus and potassium, releasing available soil nutrients and improving fertilizer-use efficiency.

In tea, it rapidly breaks dormancy and activates enzyme systems, improving physiological and biochemical activity. It promotes rapid bud emergence in cool early-spring conditions, increases shoot density, strengthens roots and plants and improves photosynthesis and stress resistance. It helps protect against low temperatures and fungal infection, reduces pesticide residues and heavy-metal content in tea to some extent, and improves appearance and internal quality. Amino acids, tea polyphenols and caffeine increase markedly, and tea yield rises by more than 20%.

适用作物 Suitable Crops

适用于铁观音、毛峰、龙井茶、普洱茶、红茶、绿茶、乌龙茶、碧螺春、茉莉花茶等茶树。

For Tieguanyin, Maofeng, Longjing, Pu'er, black tea, green tea, oolong, Biluochun, jasmine tea and other tea varieties.

使用方法 Directions for Use

滴灌：稀释50-100倍，每亩10-15kg/次，间隔期10-12天。
冲施：稀释50-100倍，每亩10-15kg/次，间隔期10-12天。
喷施：稀释100-150倍，均匀喷于叶片表面即可，正反面均喷湿，喷至叶片刚刚滴水为好，间隔期7-10天。

Drip irrigation: dilute 1:50-100; use 10-15 kg per mu per application, every 10-12 days.

Application with irrigation water: dilute 1:50-100; use 10-15 kg per mu per application, every 10-12 days.

Foliar spray: dilute 1:100-150 and wet both leaf surfaces evenly. Spray until the leaves just begin to drip; repeat every 7-10 days.

注意事项 Precautions

本品禁止与杀菌剂混合使用。
储存在干燥阴凉通风防雨处远离火源或热源。
喷施本品应选择上午10点以前，下午4点后为宜。

1. Do not mix with fungicides.
2. Store in a cool, dry, ventilated place protected from rain and away from fire or heat.
3. Apply before 10:00 or after 16:00.

有机肥料 Organic Fertilizer

本有机肥料与传统鸡粪使用相比，通过高温发酵的有机肥对粪便中的病毒、病菌、虫卵等有害物质无害化处理，达到了增加肥效，遏止作物病虫害，减少农药使用量目的，有机肥料适用于粮食、蔬菜、瓜果等。

本有机肥含有氮、磷、钾基本元素，又含有大量的农作物所必须的有机质、氨基酸和微量元素，是集化学肥料的速效，菌种和微量元素的增效，有机质的长效为一体的优质肥料。该有机肥选料精良、配方合理、养分均衡、肥效持久，是一种生态型肥料。

Compared with direct use of fresh chicken manure, high-temperature fermentation kills pathogens, viruses and insect eggs, improving fertilizer efficiency and reducing crop disease and pesticide use. Suitable for grain, vegetables, melons, fruit and other crops.

It supplies N, P and K together with abundant organic matter, amino acids and trace elements required by crops. It combines the rapid response of chemical fertilizer with the sustained effects of organic and microbial fertilizers. Balanced nutrients, an optimal mineral proportion and lasting action make it a new generation of ecological fertilizer.

功能特点 Functional Features

1、含有中微量元素，提高肥料的利用率，增强肥效，促进作物生长。
2、活化土壤，提高土壤有机质含量，改良土壤状况。
3、改善作物品质，提高作物产量。
4、绿色环保，无化学污染。

1. Rich in secondary and trace elements; improves fertilizer use, efficacy and growth.
2. Activates soil, increases organic matter and improves soil condition.
3. Improves crop quality and yield.
4. Environmentally friendly, with no chemical pollution.

生物有机肥 Bio-Organic Fertilizer

生物有机肥是一种微生物肥料，本品不仅含有固氮、解磷、解钾活性菌和丰富的有机质，还含有多种微量元素及多种促进植物生长的物质。

A microbial fertilizer containing abundant organic matter and beneficial nitrogen-fixing, phosphate-solubilizing and potassium-solubilizing strains, plus multiple trace elements and substances that promote plant growth.

功能特点 Functional Features

1、配方科学，含有益微生物菌，能够改善土壤有益微生物环境，抑制病虫害。
2、活化土壤、培肥地力、改善土壤环境，提高土壤微量元素含量。
3、绿色环保，无化学污染。
4、促进植物根系生长，预防病虫害。
提高作物品质，促进作物早熟，提高肥料利用率。

1. Scientifically balanced, with beneficial microorganisms that improve soil microflora and suppress pathogens and pests.
2. Activates soil, improves fertility and the soil environment, and supplies secondary and trace elements.
3. Ecological and environmentally friendly, with no chemical pollution.
4. Promotes root growth and prevents disease and pests.
5. Improves crop quality, promotes early maturity and raises fertilizer-use efficiency.

微生物菌剂（菌肥） Microbial Agent (Biofertilizer)

本品是一种微生物制剂，由多种有益菌复合而成，有益微生物菌群相互作用，有效抑制土壤中30余种常见土传病害，降低作物的连作障碍，促进作物生长。

A compound microbial product containing multiple beneficial strains. Their synergistic action suppresses over 30 common soil-borne diseases, reduces continuous-cropping problems and promotes plant growth.

功能特点 Functional Features

1、促根壮苗：微生物通过刺激根系的生长，使作物更好的吸收养分，促进作物生长发育。
2、调节酸碱：微生物有丰富的代谢产物，可消除土壤板结，疏松土壤，中和酸碱度，降低土壤盐碱毒害。
3、以菌制菌：有益微生物菌群能够侵染致病菌，有效的抑制根结线虫、根腐病等，起到生物防治的作用。
4、抗病防病：补充土壤中有益微生物菌群，多种高浓度高活性的有益微生物能够抑制有害菌的生长，减少病虫害的发生。
5、提高品质：在有益微生物的作用下，有效恢复作物的原生态功能，大幅度提高成活率和产量，作物品质更高。

1. Roots and seedlings: microorganisms stimulate root development, improving nutrient uptake and plant growth.
2. Soil pH regulation: microbial metabolites relieve compaction, loosen soil, neutralize excess acidity and alkalinity and reduce toxic effects of soil salinity and alkalinity.
3. Biological suppression: beneficial microbial communities can infect pathogens, suppress root-knot nematodes, root rot and other diseases and provide biological protection.
4. Disease resistance: concentrated, highly active beneficial strains replenish soil microflora and suppress harmful organisms, reducing disease and pest incidence.
5. Better quality: beneficial microbial activity restores the crop's natural ecological functions, markedly increases survival and yield and improves quality.

复合微生物肥料 Compound Microbial Fertilizer

本产品是集有机肥料、化学肥料和微生物肥料的优点于一体的环保型肥料。复合微生物肥体现化学肥料、有机肥料以及微生物肥料的综合效果，对化解土壤板结现象，修复和调理土壤，改进农产品质量，强化土壤微生物区系具有显著效果，并能提高作物的抗性，提高化学肥料利用率，减少土壤污染，减少病虫害发生。

An ecological fertilizer combining the advantages of organic, chemical and microbial fertilizers. It uses their synergistic effects to improve compacted soil, restore and regulate soil, improve product quality, strengthen beneficial rhizosphere activity, increase stress resistance, improve fertilizer-use efficiency and reduce soil pollution and disease.

功能特点 Functional Features

1、活化土壤，提高土壤肥力：能改善土壤结构和理化性状，消除板结，保水保肥，抗旱抗寒，增加土壤的供肥能力。
2、抑制病害，增强抗性：本品接种有抗病微生物菌剂，能够抑制病虫繁殖，通过对成虫、幼虫侵染作用，达到抑病防虫的效果。
3、科学搭配，供肥平衡：养分科学搭配，见效快；有机养分全面，肥效持久。改良土壤，促进作物生长，增产增收。
4、提高品质，改善口感：改善作物的营养供应，养分科学供应，有利于作物营养的吸收，提高产品的品质。
5、节约能源，降低污染：肥效持续时间长，可以减少化肥的施用量，产品中复合微生物具有降解和转化土壤中易吸收的物质。

1. Activates soil and improves fertility: improves structure and physical and chemical properties, relieves compaction, holds water and nutrients, resists drought and cold and raises soil nutrient-supply capacity.
2. Suppresses disease and improves resistance: antagonistic microorganisms inhibit pests and pathogens, including by infecting adult and larval pests.
3. Scientifically balanced, complete nutrition: a full range of nutrients gives rapid and lasting action. Organic matter improves soil and promotes absorption, growth and yield.
4. Improves quality and flavor: balanced nutrient supply supports uptake and improves crop quality.
5. Saves resources and reduces pollution: lasting effects reduce chemical fertilizer use. Beneficial microbes decompose and transform soil substances into forms that are readily absorbed.

大豆专用生物有机肥 Bio-Organic Fertilizer for Soybeans

含有大豆根瘤菌、解磷、解钾活性菌和丰富的有机质，生物有机肥还含有多种微量元素及多种促进植物生长的物质，能够减少化肥用量并能有效抑制蝼蛄、金针虫、线虫等害虫的成虫及幼虫，从而能够减少多种土传病害发生。

Contains soybean rhizobium, phosphate- and potassium-solubilizing bacteria, abundant organic matter, trace elements and substances that promote growth. It reduces chemical fertilizer use and suppresses white grubs, wireworms, nematodes and other soil pests and their adult and larval stages, reducing soil-borne disease.

功能特点 Functional Features

1、配方科学：根据大豆的生长特性，科学调配各营养成分及益生菌比例，满足大豆生长期需求。
2、活化土壤：益生菌及富含的有机质有效改善土壤生理环境，释放土壤微量元素。
3、早熟增收：提高农产品品质，投入低、产量高、促进作物早熟，提高肥料利用率。

1. Balanced formulation: nutrient levels and beneficial microbes are scientifically selected for soybean growth and nutrient requirements throughout the season.
2. Soil activation: beneficial microbes and abundant organic matter improve soil condition and release secondary and trace elements.
3. Early maturity and higher returns: low input, high yield, earlier maturity and improved fertilizer efficiency increase returns.

花生专用生物有机肥 Bio-Organic Fertilizer for Peanuts

含有花生根瘤菌、解磷、解钾活性菌和丰富的有机质，花生专用生物有机肥还含有多种微量元素及多种促进植物生长的物质，能够减少化肥用量并能有效抑制蝼蛄、金针虫、线虫等害虫的成虫及幼虫，从而能够减少多种土传病害发生。

Contains peanut rhizobium, phosphate- and potassium-solubilizing bacteria, abundant organic matter, trace elements and substances that promote growth. It reduces chemical fertilizer use and suppresses white grubs, wireworms, nematodes and other soil pests and their adult and larval stages, reducing soil-borne disease.

功能特点 Functional Features

1、配方科学：根据花生的生长特性，科学调配各营养成分及益生菌比例，满足花生生长期需求。
2、活化土壤：益生菌及富含的有机质有效改善土壤生理环境，释放土壤微量元素。
3、早熟增收：提高农产品品质，投入低、产量高、促进作物早熟，提高肥料利用率。

1. Scientifically selected nutrients and beneficial microbes match the biological characteristics and nutritional needs of peanut throughout its growth cycle.
2. Activates soil: beneficial microbes and organic matter improve the soil environment and release secondary and trace elements.
3. Early maturity and higher returns: low input, high yield, earlier maturity and improved fertilizer efficiency increase returns.

生物有机肥（芦笋专用肥） Bio-Organic Fertilizer for Asparagus

岁丰宝芦笋专用生物有机肥是针对芦笋生长特点最新研制的一种新型微生物肥料。不仅富含固氮、解磷、解钾等有益微生物和营养型有机质，还含有Cu、Fe、Mn、Zn、B等多种微量元素，减少芦笋茎枯病、褐斑病、烂根病等多种土传病害的发生。

A new microbial fertilizer formulated for asparagus growth. Rich in organic matter, nitrogen-fixing, phosphate- and potassium-solubilizing microorganisms and Cu, Fe, Mn, Zn, B and other trace elements. It reduces asparagus stem blight, brown spot, root rot and other soil-borne diseases.

功能特点 Functional Features

1、能高效增加芦笋根系微生物数量和种类，促进根系对养分的吸收利用。
2、添加的活性微生物，具有解磷、解钾、固氮等功效，将土壤中积存的难以利用的养分活化，持续供应芦笋养分，满足各时期对营养的需求。
3、改良土壤环境，透气保水，增加地温。
4、促进根系发达，对作物因环境、气候、病害等因素造成的僵苗、弱苗及灾后补救有良好的恢复功效。
5、加强植物养分吸收能力，提高芦笋营养，增加芦笋口感。是发展绿色农业、无公害农业，增产增收的首选产品。

1. Increases the number and diversity of rhizosphere microbes, improving nutrient uptake.
2. Active microbes fix nitrogen and solubilize phosphorus and potassium, making unavailable nutrients accessible and supplying asparagus continuously.
3. Improves soil aeration, water retention and temperature.
4. Promotes vigorous root growth, supports recovery from stress, chilling injury, disease and pest damage and protects regrowth.
5. Improves nutrition, increases asparagus yield and quality and improves flavor. A preferred product for environmentally responsible asparagus production and higher returns.

生物有机肥（番茄专用肥） Bio-Organic Fertilizer for Tomatoes

岁丰宝番茄专用生物有机肥是针对番茄生长特点最新研制的一种新型微生物肥料。不仅富含固氮、解磷、解钾等有益微生物和营养型有机质，还含有Ca、Fe、Mn、Zn、B等多种微量元素促进番茄膨果着色。能有效抑制蝼蛄、金针虫、根结线虫等害虫的成虫及幼虫，减少多种土传病害发生。

内含Ca、Fe、Mn、Zn、B等中微量元素。

A new microbial fertilizer formulated for tomato growth. Rich in organic matter, nitrogen-fixing, phosphate- and potassium-solubilizing microbes and Ca, Fe, Mn, Zn, B and other trace elements, it promotes fruit enlargement and coloring. It suppresses white grubs, wireworms, root-knot nematodes and other soil pests and their adult and larval stages, reducing soil-borne disease.

Contains calcium, iron, manganese, zinc, boron and other trace elements.

功能特点 Functional Features

1、能高效增加番茄根系微生物数量和种类，促进根系对养分的吸收利用。
2、添加的活性微生物，具有解磷、解钾、固氮等功效，将土壤中积存的难以利用的养分活化，持续供应番茄养分，满足各时期对营养的需求。
3、改良土壤环境，透气保水，增加地温。
4、促进根系发达，对作物因环境、气候、病害等因素造成的僵苗、弱苗及灾后补救有良好的恢复功效。
5、提高产量，改善品质。增加农作物的光合作用，着色迅速，色泽鲜亮，肉厚汁浓，增加糖度。
6、加强植物养分吸收能力，提高番茄营养，增加番茄口感。是发展绿色农业、无公害农业，增产增收的首选产品。

1. Increases rhizosphere microbial number and diversity and promotes nutrient uptake.
2. Active microbes fix nitrogen and solubilize phosphorus and potassium, supplying tomato continuously.
3. Improves soil, aeration, moisture retention and temperature.
4. Promotes roots and restores weak or aging roots, reducing damage from environmental stress, chilling, disease and pests.
5. Improves yield and quality: stimulates photosynthesis, promotes fruit color, bright gloss, thick, juicy flesh and sugar accumulation.
6. Better nutrient uptake increases nutritional value and flavor. Preferred for environmentally responsible tomato production and greater returns.

烟草专用生物有机肥 Bio-Organic Fertilizer for Tobacco

本品是用植物类有机原料发酵而成，营养全面，缓释、长效。呈棕褐色、无毒无害、无残留，对土壤和作物不产生污染。由十余种有益微生物科学调配成的新型肥料。

Fermented from pure plant materials, this tobacco-specific fertilizer provides balanced nutrients and slow, long-lasting release. It is ecological and nontoxic, leaves no residues and does not contaminate soil or crops. It contains more than ten beneficial microbial strains in a scientific formula.

功能特点 Functional Features

1、添加富含氨基酸的物料，提高肥料的利用率。

2、速缓兼备、生物防治：添加具有生物防治的微生物菌剂，能够预防和治疗土传病害，游离氨基酸可直接被作物吸收和利用，所以表现为速效，增强了肥效的可控性。速效和长效相结合的氮、磷、钾养分在作物生长期均衡地供给作物的需要，可确保产出作物的质量和产量，提高其抗病能力、尤其对作物根部链球菌、镰刀菌所引起的根腐病、黑斑病、枯萎病和根结线虫病害有明显的抑制作用。

3、提高和改善作物品质，增加上等烟比例。

4、改良和熟化土壤：由于氨基酸和有机质及大量有益菌群的加入，提供了好氧菌的生长条件，使得土壤中气、固、液、微生物进入良性循环，从而起到培肥、改土、养土的作用。

1. Added amino-acid-rich materials improve fertilizer uptake and efficiency.
2. Rapid and lasting action with biological disease protection: added beneficial microbes help prevent soil-borne disease. Free amino acids are absorbed directly, while rapid and sustained supplies of N, P and K meet tobacco needs throughout growth. It increases stress resistance and suppresses root rot, black spot, wilt and root-knot nematodes.
3. Improves tobacco quality and increases the proportion of superior-grade tobacco.
4. Improves soil: amino acids, organic matter and beneficial microbes support aerobic organisms and balanced circulation of the soil's solid, liquid and gaseous components, improving fertility and soil condition.

茶叶专用生物有机肥 Bio-Organic Fertilizer for Tea

含有茶叶固氮菌、解磷、解钾活性菌和丰富的有机质，生物有机肥还含有多种微量元素及促进植物生长的物质，能够减少尿素用量并能有效抑制蝼蛄、金针虫、线虫等害虫的成虫及幼虫，从而能够减少多种土传病害发生。

Contains tea-rhizosphere nitrogen-fixing, phosphate- and potassium-solubilizing strains, abundant organic matter, trace elements and growth-promoting substances. It reduces urea use, suppresses white grubs, wireworms, nematodes and other soil pests and their adult and larval stages, and reduces soil-borne disease.

功能特点 Functional Features

1、配方科学：根据茶叶的生长特性，科学调配各营养成分及益生菌比例，满足茶叶生长期需求。

2、活化土壤：益生菌及富含的有机质有效改善土壤生理环境，释放土壤微量元素。

1. Nutrients and beneficial microbial proportions are scientifically balanced for tea growth and nutritional needs.
2. Soil activation: beneficial microbes and organic matter improve the soil environment and release secondary and trace elements.

果树专用生物有机肥 Bio-Organic Fertilizer for Fruit Trees

果树专用肥，是人元公司资深专家根据苹果、梨、桃、大枣、葡萄、柑桔、香蕉等果树的生理特征和需肥特点研制而成的，是生产绿色无公害果品的首选肥料。

果树专用肥，采用均衡全面的施用配方，集微生物肥、有机肥、化肥、中微量元素特点于一体，实现了氮磷钾养分平衡和有机无机平衡的双向平衡，兼顾果树剩余期对速效养分和长效营养的综合需求，可明显改善土壤微生物体系和物理结构，显著提高农作物品质和营养含量，能有效控制和减少果树病虫害，促进果品早熟，稳定增加产量，是高效高品质绿色生态型肥料。

Developed by Renyuan experts according to the physiology and nutritional needs of apple, pear, peach, jujube, grape, citrus, banana and other fruit trees. It is a preferred fertilizer for environmentally responsible fruit production.

A balanced universal formula combines microorganisms, organic matter, chemical fertilizer and secondary and trace elements. It balances N, P and K and organic and mineral nutrition, meeting fruit trees' needs for rapid and sustained nutrient supply. It improves soil microflora and structure, fruit quality and nutritional content, reduces disease and pests, advances maturity and steadily raises yield.

蔬菜专用生物有机肥 Bio-Organic Fertilizer for Vegetables

蔬菜专用生物有机肥是在人元公司研究的专用生物有机肥的基础上，根据蔬菜（花菜、叶菜、茎菜、果菜、根菜）的生长特性和对养分的需求特点，有针对性地调整肥料中的N、P、K、有机质及微量元素和多种微生物功能菌，使其肥效具有速效与长效兼备、微生物与有机营养、有机质与特效菌融为一体，共显肥效的特殊功能。

Developed from Renyuan research into vegetables and their nutritional needs, this special organic fertilizer combines N, P and K with organic matter, secondary and trace elements and beneficial microbes. It gives organic, mineral and microbial nutrition, rapid and lasting action, balanced nutrient release and long-term efficiency.

功能特点 Functional Features

1、该专用生物有机肥不仅可为蔬菜提供充足的有机养分，而且通过蔬菜根系对微生物分解物及其代谢产物的吸收与利用，刺激和促进蔬菜生长，使之抗旱涝、耐寒热。

2、添加抗病木霉菌，可使有益微生物大量繁殖抑制土壤中有害病菌的生长传播，提高蔬菜的抗病能力，使蔬菜根系发达、叶茎肥壮、果实硕美。

3、长期使用蔬菜专用生物有机肥，不仅起到疏松肥沃土壤、改良土壤结构的效果，而且提高蔬菜维生素含量和可溶性固形物含量，改善品质和口味，延长储藏保鲜时间，降低硝酸盐含量，口感佳，达到提高产量和品质的效果。

4、专用生物有机肥对土壤中化肥残留有降解及净化作用。

1. Supplies sufficient organic nutrients. Root uptake of microbial decomposition products and metabolites stimulates growth and strengthens resistance to drought, waterlogging, cold and heat.
2. Added antagonistic Trichoderma promotes beneficial microbes that suppress harmful soil organisms, improving disease resistance, root development and vigorous leaf and fruit growth.
3. Long-term use loosens and enriches soil, improves structure, raises vitamin and soluble-solids contents, improves flavor and quality, extends storage life, lowers nitrate content and increases yield.
4. Degrades and removes residual chemical fertilizer in soil.

含氨基酸水溶肥料 Amino-Acid Water-Soluble Fertilizer

营养均衡　容易吸收
促芽分化　改善品质

Balanced nutrition · Easy uptake
Promote flower-bud differentiation · Improve quality

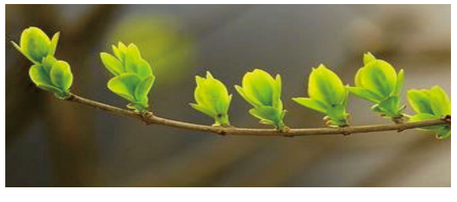
【执行标准】 NY1429-2010
【登记证号】 农肥（2018）准字8242号

Standard: NY1429-2010
Registration: Agricultural Fertilizer (2018), No. 8242

功能特点 Functional Features

本品营养均衡，易吸收，可满足作物在不同时期对营养的需求。本品有利于增强作物光合作用，促进花芽分化，促进作物根系生长，有效改善作物品质、提高作物产量。

Balanced nutrition and easy absorption meet crop needs at different stages. Enhances photosynthesis, promotes flower-bud differentiation and root growth, improves quality and increases yield.



含腐植酸水溶肥料 Humic-Acid Water-Soluble Fertilizer

促根生长　吸收养分
促花分化　提高品质

Promote roots · Improve nutrient uptake
Promote flower-bud differentiation · Improve quality

【执行标准】 NY1106-2010
【登记证号】 农肥（2018）准字8244号

Standard: NY1106-2010
Registration: Agricultural Fertilizer (2018), No. 8244

功能特点 Functional Features

本品养分全面，可促进作物根系生长，提高作物吸收养分的能力；可提高作物光合作用，促进花芽分化，提高农产品品质；活化土壤中可利用的养分粒子，破解土壤板结，改良土壤。

A complete nutrient supply promotes roots and nutrient uptake. It strengthens photosynthesis, flower differentiation and product quality; activates available nutrient ions in soil, relieves compaction and improves soil.

大量元素水溶肥料 （高钾型）
Macronutrient Water-Soluble Fertilizer - High Potassium

【执 行 标 准】 NY/T 1107-2020
【农业部备案号】 DLSRHEN2022-00722

Standard: NY/T 1107-2020
Ministry of Agriculture registration: DLSRHEN2022-00722

本配方为高钾配方，适合作物膨果、着色、增甜时使用，明显提高产量和经济效益。

A high-potassium formula for fruit enlargement, coloring and sweetening, markedly improving yield and economic returns.

大量元素水溶肥料 （平衡型）
Macronutrient Water-Soluble Fertilizer - Balanced

【执 行 标 准】 NY/T 1107-2020
【农业部备案号】 DLSRHEN2022-00722

Standard: NY/T 1107-2020
Ministry of Agriculture registration: DLSRHEN2022-00722

本配方是通用型配方，适合作物萌芽、展叶、促梢时使用，解决植株生长不良性状，为作物提供均衡营养。

A general-purpose formula for bud break, leaf expansion and shoot growth. Relieves weak plant growth and provides balanced crop nutrition.

人元生物
RENYUAN BIOTECHNOLOGY

中国农业的根本出路，要靠微生物工程来解决，要靠尖端技术。

China's agricultural development depends on microbial engineering solutions and advanced technology.

发展生物技术为标志的高新技术，是推进新的农业科技革命的关键。

The development of advanced technology, led by biotechnology, is key to the next revolution in agricultural science and technology.

将生物工程技术与培肥地力相结合，预示着当今生物肥料技术的新水平和新发展，也是农业生产技术发展的必然结果。

Combining bioengineering with soil fertility marks a new level and direction for modern biological fertilizer technology and is a natural result of the evolution of agricultural production.

人为本　　元为始
人元生物
为世界找回原生态的绿色农业

People at the heart · Renewal at the source
Renyuan Biotechnology
Restoring naturally green agriculture for the world.

质量管理体系认证 Quality Management System Certified
环境管理体系认证 Environmental Management Certified
职业健康安全管理体系认证 Occupational Health & Safety Certified
知识产权管理体系认证 Intellectual Property Management Certified
诚信管理体系认证 Integrity Management System Certified
售后服务评价体系认证 After-Sales Service Certified
能源管理体系认证 Energy Management System Certified