



Chico Crop Science Co., Ltd.

Company Profile:

Chico Crop Science Co., Ltd. is a high agro-tech company specialized in providing comprehensive nutrition for crops, seed treatment and systematic prevention and control of crop diseases, pests and weeds.



CONQUER™

Q: Is there a product that is **safe, effective, no resistance to soil-borne diseases?**

A: There's no doubt that **CONQUER™** can do it.





CONQUER™

Biological control soil-borne diseases
BIOLOGICAL CONTROL SOIL-BORNE DISEASES 01269262

CATALOG

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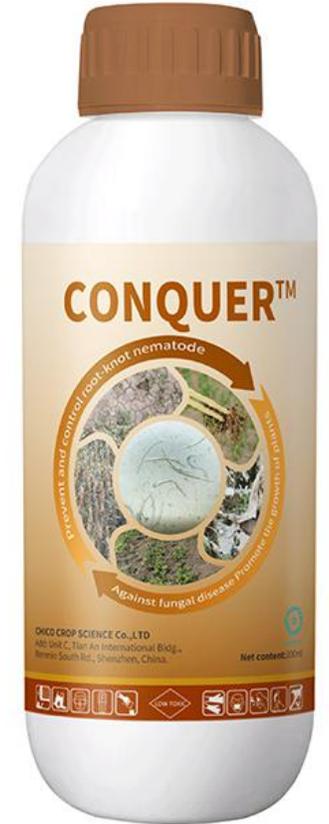




1.Introduction

Exclusively manufactured in China, **CONQUER™** has been rated as a National Invention Patent Silver Award by China Invention Association and Organic Agricultural Product by Organic Food Development And Certification Center Of China.

CONQUER™ is an innovative microbial bio fertilizer which is widely used to control soil-borne diseases as root-knot nematode on crops or fungal diseases caused by continuous cropping like root rot, damping off, blight, and stem rot. What's more, **CONQUER™** can not only balance soil structure but promote the root growth distinctly as well as increase new roots' quantity. With advantages such as high efficacy, safety and no resistance, **CONQUER™** conforms to the development trend of organic agriculture.



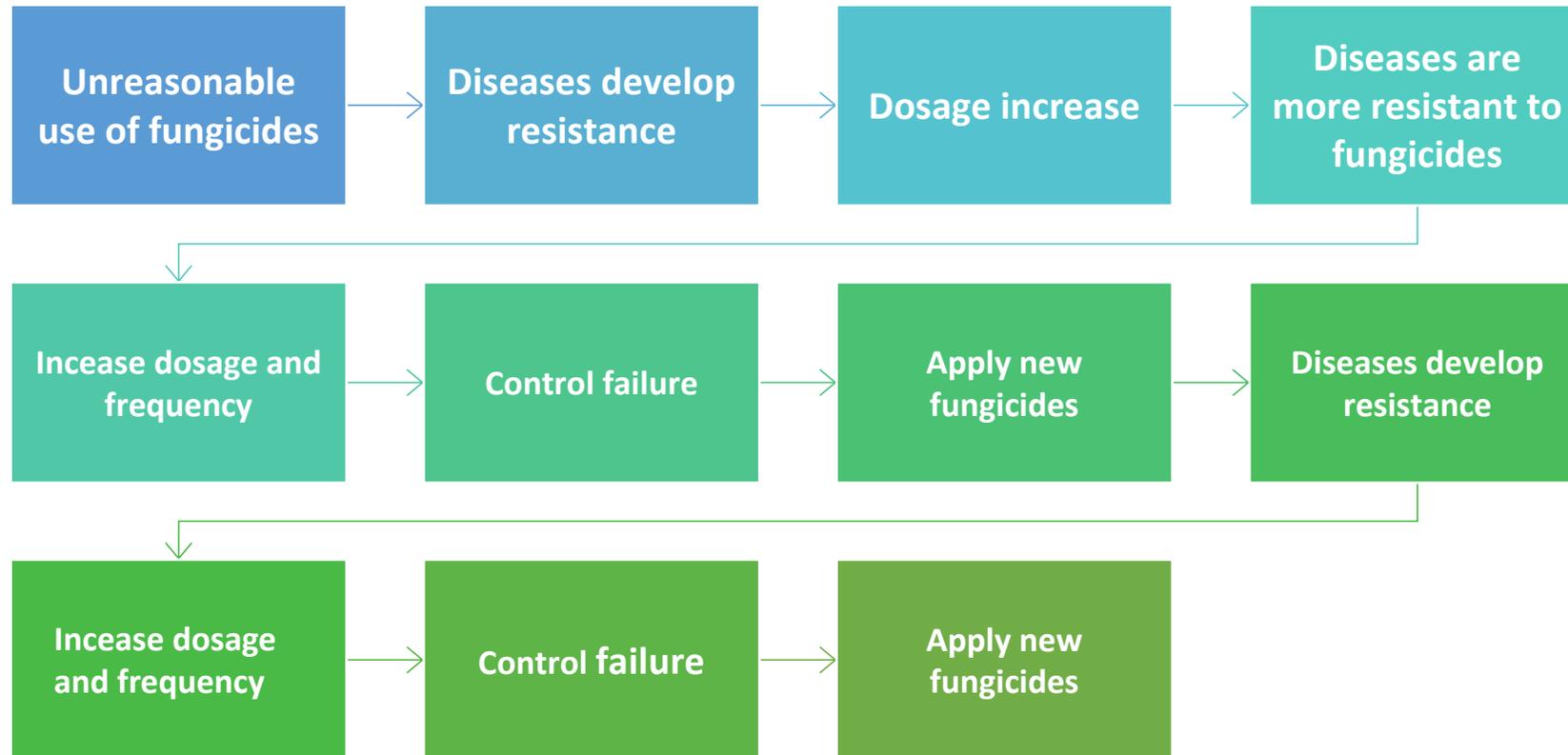


2. Current situation of soil-borne diseases

- In recent years, with the development of agriculture, people find that it's much more difficult to manage soil-borne diseases than ever.
- Soil-borne diseases used to occur with single pathogen in commercial crops only but now they are commonly observed in both **commercial crops and field crops with compound pathogens**.
- What's worse, as the **resistance of pesticides arising**, people have to increase dosage to achieve effective prevention and control of soil-borne diseases. The risk of soil-borne diseases is increasing yearly with this circular contradiction of agrochemicals application.
- At present, farmers worldwide are worrying a lot about soil-borne diseases which probably will lead to drastically lower quality and yield of crops as well as longing for effective solution.

3. Current prevention methods

Prevent and control by **Chemical Fungicide**



Symptom picture

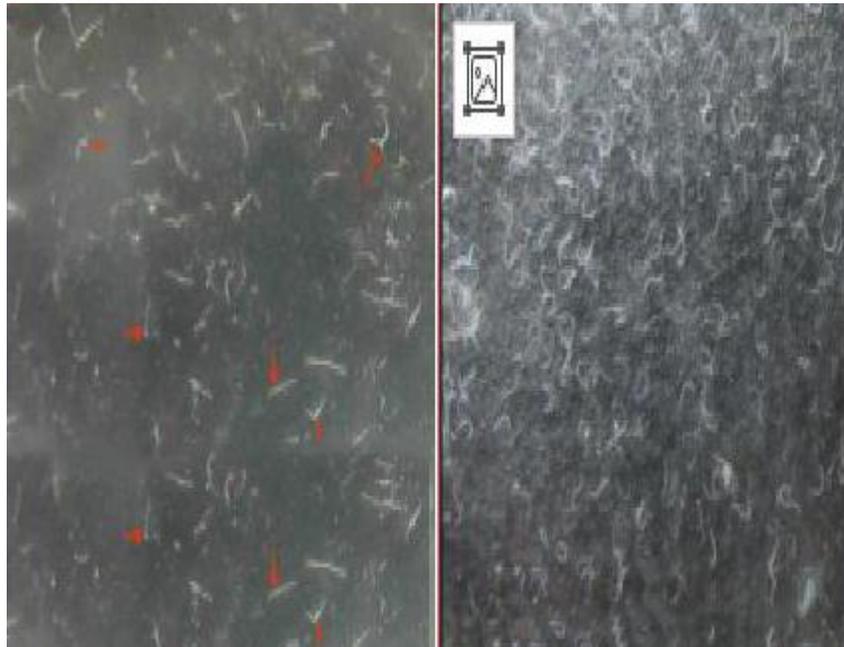
How can we save them?



4. Mode of action

Patented bacterial strain of **CONQUER™** can produce *unique secretion* which has strong dissolution on the cells wall of pathogenic fungi and nematodes.

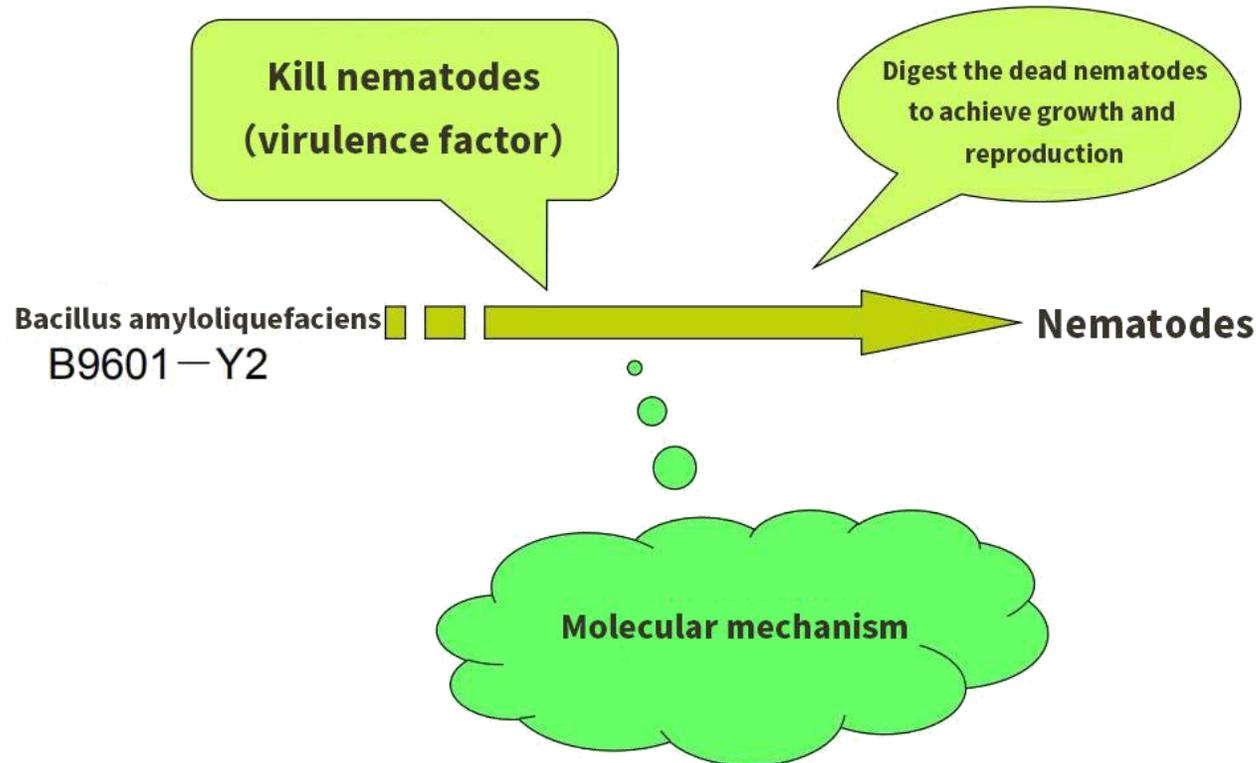
It will cause the death of pathogenic fungi and nematodes by outflowing their cell sap to achieve great control effect on soil-borne diseases and root-knot nematodes.



Indicated by the marks, bodies of root-knot nematodes are breaking and cell sap are outflowing.

How CONQUER™ works?

Bacillus amyloliquefaciens in CONQUER™ can kill nematodes by its virulence factor (5 active components against nematodes as 2,5-dimethylpyrazine, Benzaldehyde, Nonanal, Dodecanal and 2,4-di-tert-butylphenol). The multiple experiments has performed that *2,4-di-tert-butylphenol has strong fumigation and killing effect on many kinds of pathogenic fungi and nematodes*. Besides, it can digest the dead nematodes to achieve growth and reproduction.



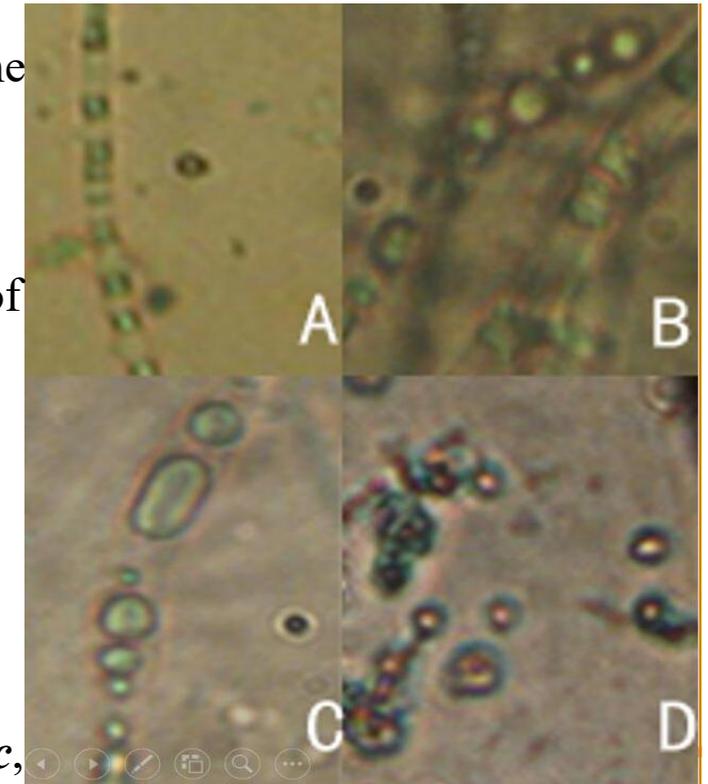
CONQUER™ works in microscopic

A: After 12h of using **CONQUER™**, *mycelium of pathogenic has fractured in sections*, the cell wall became thinner, and the protobiotic material of cells has concentrate action in microscopic observation.

B: After 24h of using **CONQUER™**, *mycelium of pathogenic has further dissolved*. Part of protoplasts have been bared as different sizes of balls and gradually shaped in beads form in microscopic observation.

C: After 48h of using **CONQUER™**, *some sell walls have been completely digested*, mycelium of pathogenic has fractured, and protobiotic material of cells has outflowed in microscopic observation

D: After 96h of using **CONQUER™**, *it's difficult to find complete mycelium of pathogenic*, the cells has splited and protoplasts almost disappeared in microscopic observation.



5. Benefits of CONQUER™

- Efficient decomposition on fungi and spores of soil-borne diseases.
- Highly efficient on resolving adults and eggs of root-knot nematodes.
- Promote the growth of roots of plant as well as improve the immunity of crops to achieve over 15% yield increased.



6. Field Application

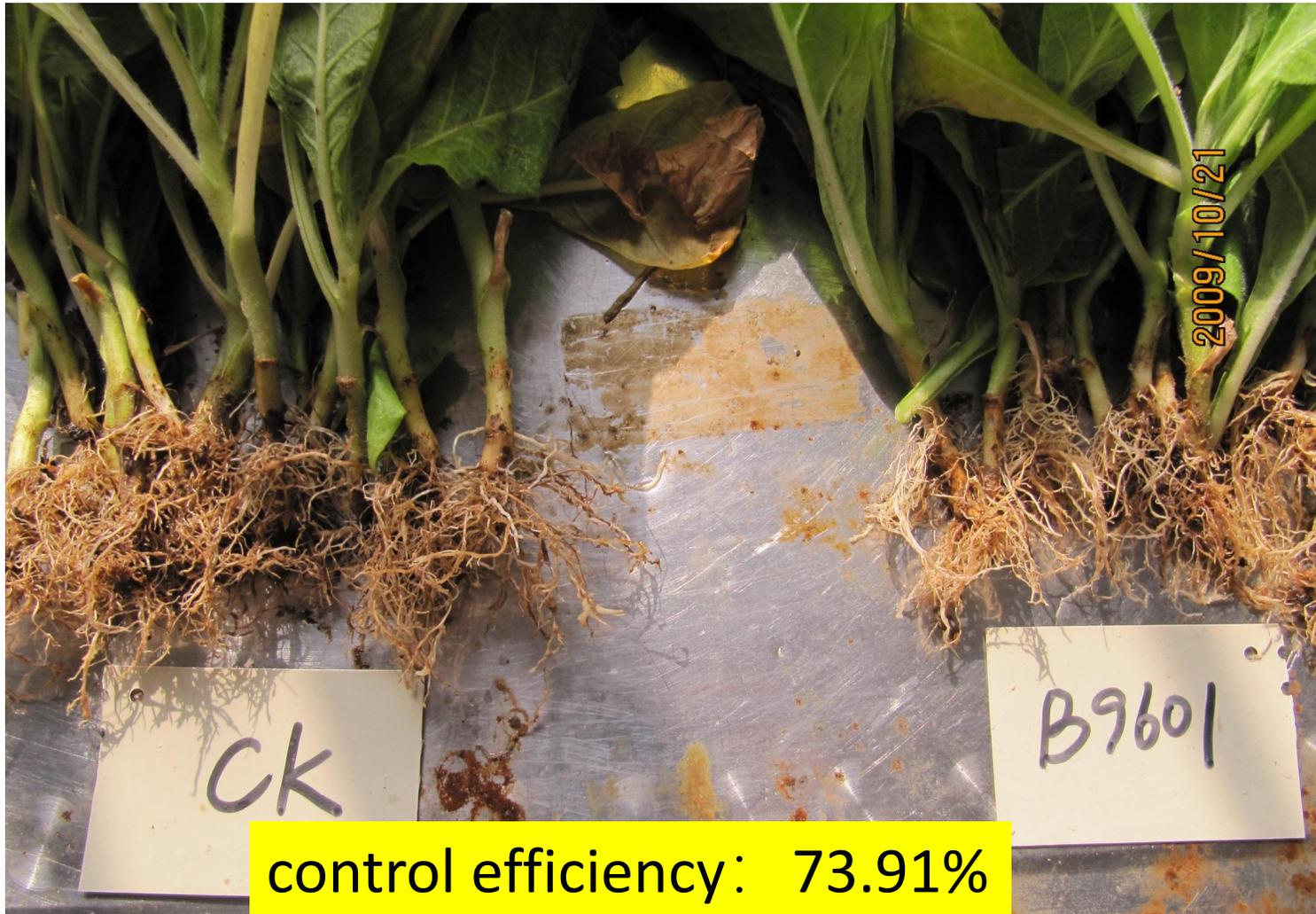




Field Application Of Tomatoes



Control of root-knot nematodes





Control of Celery blight



Promote the growth of crops



7. Usage and recommendation

Usage Target	Dosage(formulation)	Using method	Period of preserving effect
Prevention of soil-borne diseases	15 liters/Ha	Use 1 liter of CONQUER™ with 0.5-1.5 kg of brown sugar from seedling stage or first watering once the crops planted for flushing application, drip irrigation or root irrigation.	3-5 months
Prevention of root-knot nematodes	45 liters/Ha	Use 3 liters of CONQUER™ with 0.5-1.5 kg of brown sugar from seedling stage or first watering once the crops planted for flushing application, drip irrigation or root irrigation.	3-5 months
Treatment of root-knot nematodes	90-105 liters/Ha	Root irrigation: Add brown sugar, amino acid or water soluble organic matter with CONQUER™ for previously strain activation.	/
Restoration of soil function	15 liters/Ha	Use 1 liter of CONQUER™ with 0.5-1.5 kg of brown sugar from seedling stage or first watering once the crops planted for flushing application, drip irrigation or root irrigation.	/

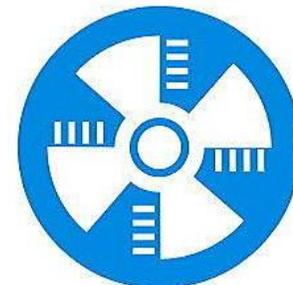


8. Cautions

- Pour 8-10 liters of clean water and add 0.15-0.25 kg brown sugar, amino acid or water soluble organic matter to 500ml **CONQUER™** one day early for strain activation and propagation.
- **CONQUER™** must be applied centrally for targeted crops. **CONQUER™** cannot be mixed with other fungicides.

Storage conditions

- It should be stored in dry, cool, low temperature, ventilated and rainproof place.
- Keep away from fire and heat source and avoid direct sunlight.





9.The analysis report of CONQUER™

CHICO CROP SCIENCE CO.,LTD



CONQUER™

Certificate of Analysis

Report No.:20200110-SN-20

Product name	Bio fertilizer		Test date
Dosage form	SC	Inspection basis	Aug 20 th ,2020
Test Item(s)	Unit	Specification	Test Result
Viable count (cfu)	a hundred million /g or a hundred million /ml	2.0min	125.36
Number of mycobacteria	pes/g or pes/ml	3×10 ⁶ max	0
Rate of mixed bacteria	%	10max	0
Rate of spore	%	90min	95
pH	—	5.0~8.0	7.67
expiration date	Month	3min	6
Conclusion	Qualified		

Chief Analyzer: Xia Lang

Examiner: Wang Jijia

Inspector: Xie Min

Chico Crop Science Co., Ltd.

Signature:

For and on behalf of
CHICO CROP SCIENCE CO., LIMITED
Date: Aug 20th, 2020

Xie Min

Authorized Signature(s)



10.Certification

Patent certification

Local Taxation Bureau of Beijing Haidian District
Stamp Duty
Withholding Special Seal
State Intellectual Property Office

Certificate No. 244411

Certificate of Patent for Invention

Title of Invention: A kind of Bacillus subtilis strain
Inventor: He Qiuyue, Ma Ping
Patent Number: ZL 2003 1 0104195.6
Patent Application Date: 2003.12.28
Patentee: He Qiuyue
Date of Authorization Proclamation: 2006.1.11

This patent right is granted by State Intellectual Property Office of the People's Republic of China upon examination in accordance with the Patent Law of the People's Republic of China. This certificate of patent is issued to the patentee and the patent is registered on the patent register. The patent right shall come into force from the date of authorization proclamation.

The duration of this patent right shall be twenty years from the date of application. The patentee shall pay the annual fee in accordance with the Patent Law and the Detailed Rules for the Implementation. The patent fee shall be paid 1 month before Dec.28th annually. The patent right shall be terminated from the date of the expiration of the annual fee.

The patent certificate records the legal status of the patent at the time when the patent was registered. The transfer, pledge, invalidation, cessation, recovery of the patent right and the changes of name, nationality, address of the patentee are recorded in the patent register.

Commissioner
Tian Lipu

State Intellectual Property Office of the People's Republic of China

Jan 11, 2016

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Biological control soil-borne diseases

Organic certification

南京国环有机产品认证中心
ORGANIC FOOD DEVELOPMENT AND CERTIFICATION CENTER OF CHINA

证明号: IP-0109-953-3***

有机农业生产资料评估证明 兹证明

此评估证明用于确认下列有机农业生产资料符合 GB/T 19630-2019《有机产品 生产、加工、标识与管理体系要求》附录 A.1 中的要求, 可以用于按照上述标准认证的有机农业生产。

产品名称	产品形态	登记证号	类别
微生物菌剂	液体	微生物肥(2018)准字(3098)号	土壤培肥和改良物质

初次颁发日期: 2019年02月21日
此次颁发日期: 2020年02月21日 有效期: 2020年02月21日至2022年02月20日

有机农业生产资料评估证明不是有机产品认证证书, 本证明是根据现场评估和评估报告确认该产品可以用于符合上述标准认证的有机农业生产, 而不是对产品质量本身的保证, 产品的质量应由其生产单位自行负责。



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此证书复印件或传真件无效

ORGANIC FOOD DEVELOPMENT AND CERTIFICATION CENTER OF CHINA
Certification No:IP0109-953-3***

Certificate of Evaluation of Production Materials of Organic Agriculture
Certify that

This evaluation certificate is used to confirm that the following organic agricultural production materials meet the requirements in Appendix A.1 of GB/T 19630-2019《Requirements for the Production, Processing, Labeling and Management System of Organic Products》, and can be used for organic agricultural production certified in accordance with the above standards .

Product Name	Product Form	Registration No.	Classification
Microbial agent	Liquid	Microbial Fertilizer (2018) Approved No (3098)	Soil fertilizer and improvement materials

Date of initial issue: Feb 21, 2019

Date of issue: Feb 21, 2020 Period of validity: From Feb21, 2020 to Feb 20, 2022

The organic agricultural production material evaluation certificate is not an organic product certification certificate. This certificate confirms that the product can be used in organic agricultural production that meets the above-mentioned standard certification based on the on-site evaluation and evaluation report, and is not a guarantee of the product quality itself. The quality of the product should be the responsibility of the manufacturer.

(Seal)ORGANIC FOOD DEVELOPMENT AND CERTIFICATION CENTER OF CHINA

Special seal for certificate

8 Jiangwangmiao Street, Nanjing, 210042 China TEL: 025-85287246

The copy or fax of this certificate is invalid

Thank you!

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