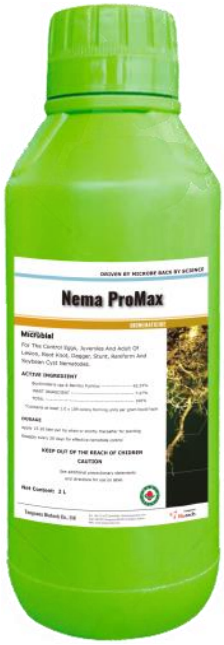
Tangsons Biotech Co., Ltd

Add: office 38/1502, Hanguang Rt 660, Changsha, Hunan, China Mail: info@tangsonsbio.com

Nema ProMax

BIONEMATICIDE

Introduction



Nema ProMax is a breakthrough liquid nematicide, active ingredient burkholderia spp.& bacillus pumilus, offers growers an effective choice in a dwindling selection of nematode managementtools. It is a broad spectrum, exempt from residue tolerances,for conventional & organic production with activity againsteggs, juveniles and adult lesion, root knot, dagger, stunt, reniform and soybean cyst nematodes. It can be applied pre-plant, at planting and in-season for season-long reduction of nematode populations and promoting stronger, healthier roots and more robust yield .

Composition

ACTIVE INGREDIENT: Burkholderia & bacillus pumilus

Bacteria count 1* 10^9 CFU/g , liquid type, 2 liter per bottle

Common Crops

- Corn
- Tobacco
- Potatoes
- Blueberry
- Strawberries
- Leafy beans
- Cucumbers
- Cotton
- Fruiting vegetables

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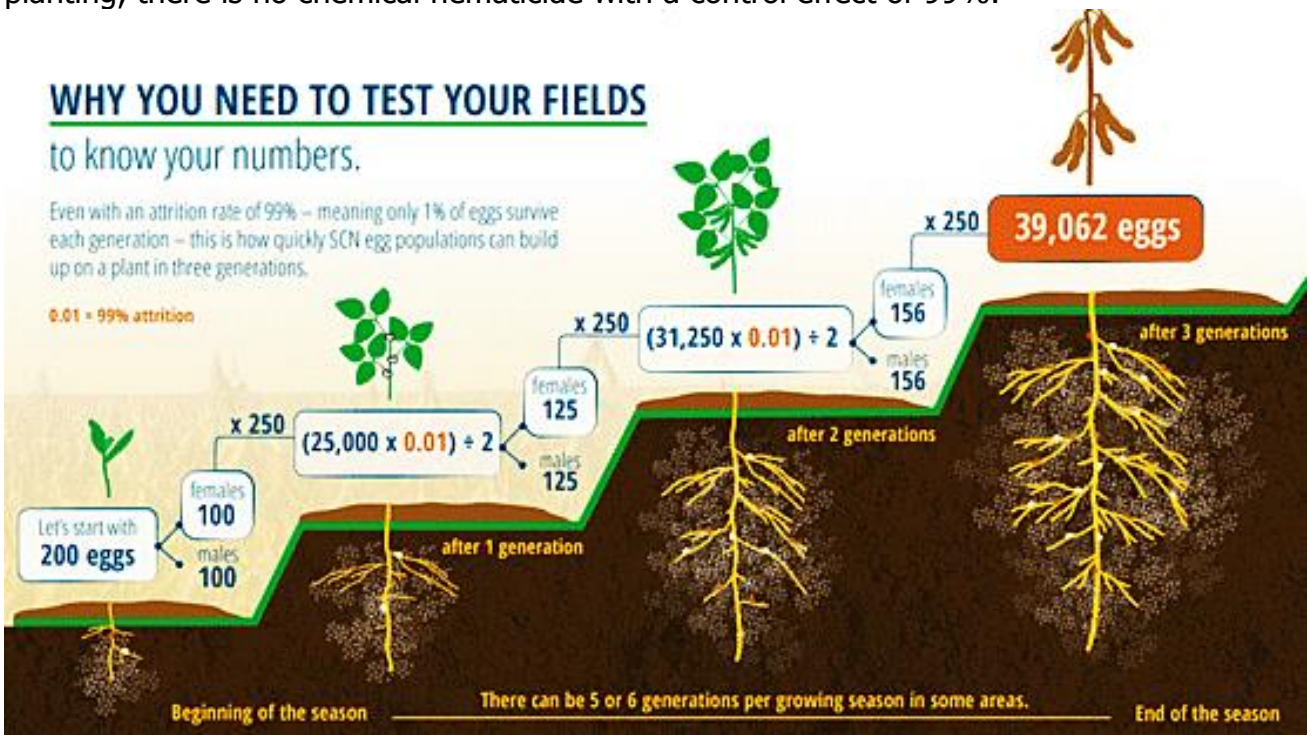
Nematode and wireworm control

- Root Knot
- Leison
- Dagger
- Stunt
- Cyst
- Ring
- Stubby root nematode
- Sting nematode
- Needle nematode

What is the challenge of control nematode

Even with an attrition rate of 99%-meaning only 1%of eggs survive each generation, after season planting, the population of eggs will grow from the original 200 to 39,062. The growth rate is close to 200 times, and the population is astonishing. Not to mention that in actual planting, there is no chemical nematicide with a control effect of 99%.



The features of Burkholderia

- ✓ The death rate of second instar larvae is close to 100% within 24 hours after treatment with Nema ProMax.
- ✓ Nematodes die 48-72 hours after treatment
- ✓ If some nematodes get into the roots, they can't complete their life cycle and they die. There are no new gals formed.
- ✓ Root knot reduction rate is as high as 80%
- ✓ Reduce the number of nematodes in the soil by 75%
- ✓ Significantly promote the growth of the above ground and underground parts

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Mode of Action

✓ **100% kills second instar larvae of nematode within 24 hours after treatment**

The in vitro control effect of Burkholderia is amazing. It can produce more than 80 highly active metabolites. Among them, cytotoxins, lipopeptide antibiotics and other metabolites act on the nematode ATPase and cell wall, making the second instar larvae quickly stiff and die. Therefore, in only 24 hours, the lethality of Burkholderia on the second instar larvae can be close to 100%, which is an effect that many chemical drugs cannot match.

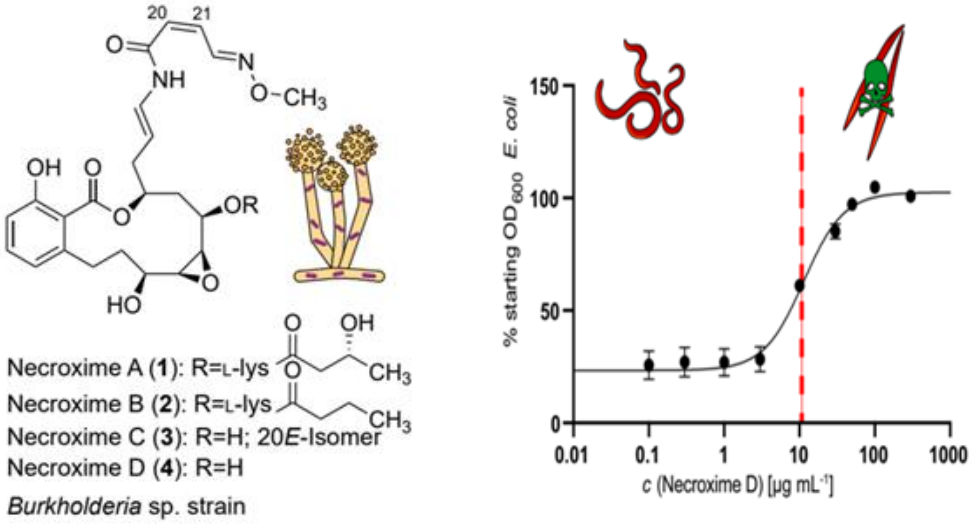
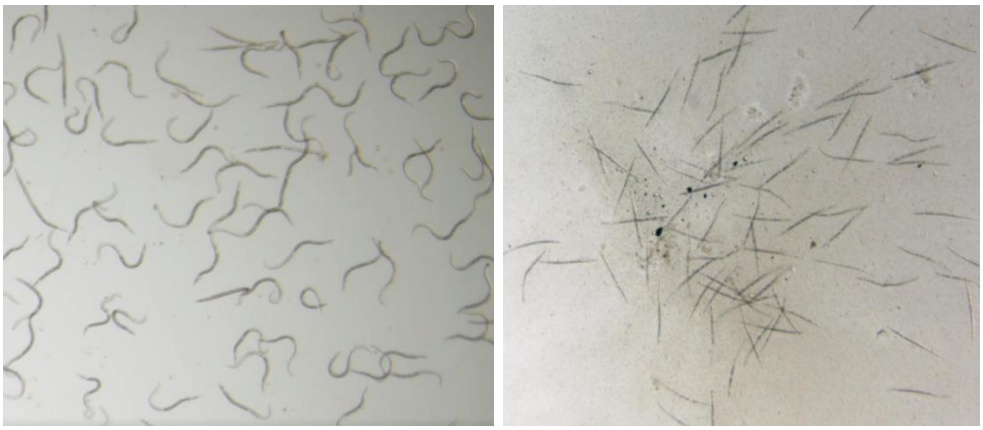


Figure 1 : Metabolic profiles of extracts from Burkholderia (left) and Toxicity screening of 4 against nematode. (right)

✓ **80% reduction rate of root nod, Suppress and control the hatching of eggs**

As long as the root system is infested by nematodes, root knots will form. Therefore, if you want to reduce root knots, the most important thing is to "repulse most nematodes and prevent the eggs from hatching." Based on this principle, Burkholderia specifically reduces the occurrence of root nodules through direct and indirect methods. On the one hand, the metabolites secreted by Burkholderia can directly inhibit the hatching of eggs, making the eggs diapause or die; on the other hand, Burkholderia can also delay the hatching of eggs by secreting some endogenous hormones that regulate plants , In order to reduce the occurrence of nematode generations during a crop growth period, and indirectly reduce nematode germination.



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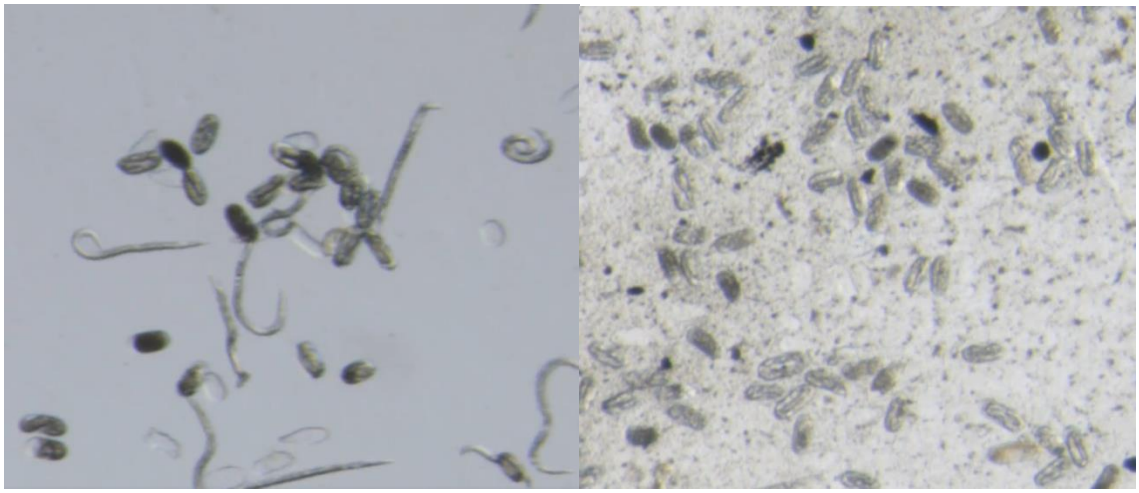

Figure 2 : Burkholderia continues to reduce the nematodes

✓ **Release siderophore, which significantly promotes the growth of the above-ground and underground parts**

In addition to its amazing ability to kill nematodes, Burkholderia secretes metabolites such as siderophore and regulates plant nitrogen absorption genes, which significantly promotes the growth of the aboveground and underground parts of crops!

Benefit

- Economically sustainable liquid bionematicide
- No plant-back restrictions
- Flexible application: soil drench, in-furrow, or chemigation like drip or sprinkler irrigation

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- The death rate of second instar larvae is close to 100% within 24 hours after treated
- Nematodes die 48-72 hours after treatment
- If some nematodes get into the roots, they can't complete their life cycle and they die. There are no new gals formed.
- Root knot reduction rate is as high as 80%
- Reduce the number of nematodes in the soil by 75%
- Significantly promote the growth of the above ground and underground parts

Dosage and method:

- Apply 15-20 liter per ha, dilute 200-300 times, can apply by soil drench, in-furrow, drip irrigation and at planting
- Reapply every 28 days for effective nematode control.
- Apply at seeding for direct-seeded crops
- Apply at transplanting or shortly thereafter for transplanted crops
- Reapply every 3-4 weeks for season-long control

Result

Control

Treated

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Packing and shelf life

2 year shelf life, 2 liter per bottle

Storage

Store in cool and dry, keep out of direct sunshine and moisture. Keep out of reach of children.