RHIZO SHIELD™

Innovative Tool
for the Control of
Plant Parasitic Nematodes

Sineria

RHIZO SHIELD™

Biological Nematicide

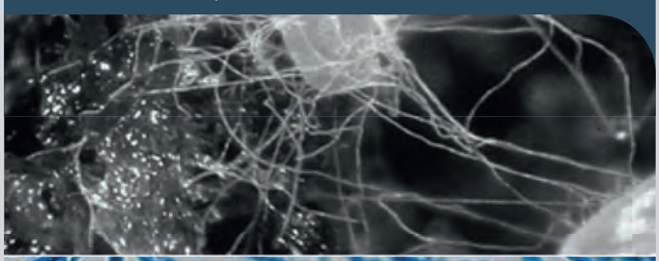
Nematode infestation is one of the major agricultural problems worldwide. It leaves plants susceptible to other diseases causing additional yield losses.

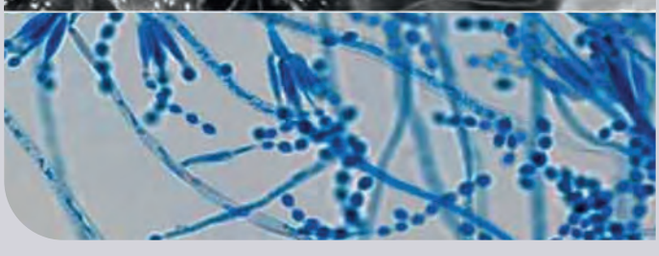
Extensive chemical control has led to resistance development. Common synthetic nematicides are not selective and destroy beneficial soil fauna.

Rhizo Shield™ is a biological nematicide against plant parasitic nematodes, including Root knot nematodes, on a wide range of crops.

It is a unique combination of:
- *Purpureocillium lilacinus* (former *Paecilomyces lilacinus*), min. $1*10^8$ CFU per gram.
- *Mycorrhizhae,* min. $1*10^9$ CFU per gram.

Pictures: Below: *Purpureocillium lilacinus* ; Above: *Micorrhizae*.





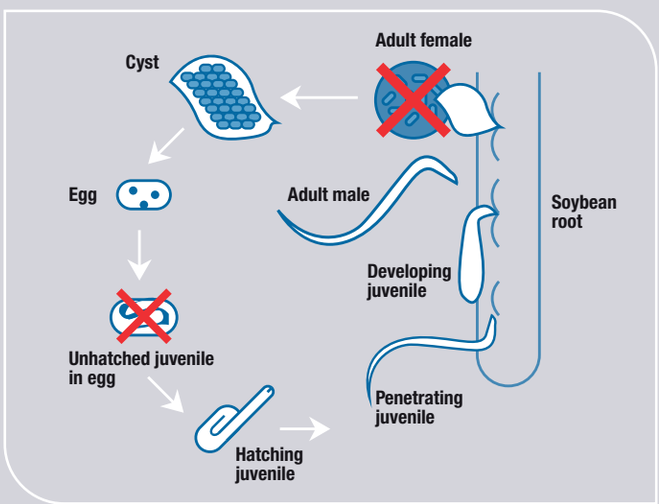
Rhizo Shield™ Mode of Action:

Rhizo Shield™ breaks the biological cycle of the plant pathogenic nematodes! It allows the roots to grow freely and promotes the development of a healthy root system.

It effectively controls nematodes by causing deformations, destructing fertility of ovaries and reducing eggs:

- Reduces nematode populations significanlty thus protecting the root system
- Contains antagonistic micro-organisms which have direct action on the plant-pathogenic nematodes
- Colonizes the egg sacs of the plant parasitic nematodes
- Produce toxins that adversely affect the immature and adult stages

Rhizo Shield™ is effective on the Nematode life cycle as follows:



Rhizo Shield™ advantages:

- Can be used at all plant growth stages
- No residue problems
- Zero (0) days Pre-Harvest Interval (PHI)
- Safe to natural fauna, predators and pollinators
- Selective: affects only plant pathogenic nematodes
- Not persistent in the environment
- Naturally amends the soil
- Not prone to resistance development
- No cross-resistance with other products
- Suitable for IPM programs and Organic farming

Rhizo Shield™ is effective against nematodes, among them:

- Root-knot nematodes: *Meloidogyne spp.*
- Golden cyst nematodes: *Globodera spp*.
- Cyst nematodes: *Heterodera spp*.*Heterodera spp*.
- Burrowing nematodes: *Radopholus similes*
- Reniform nematode: *Rontylenchulus reniformis*

Directions for Use:

- Mix with water to be ready for use.
- Apply by drenching or drip irrigation.
- For maximum efficacy, apply preventively.
- Following **Rhizo Shield™**

depth of 10-15 cm in already moist soil.

Crops	Targeted Pests	Application timing and remarks
Vegetables, Ornamentals, Broadacre crops, Peas, Soybeans,	Plant parasitic nematodes, including Root-knot nematodes (*Meloidogyne spp.*)	At transplant: 3-4 Kg/ Ha
		Seedlings: 10-15 g per 100 plants
		Established crops: 3-4 Kg / Ha
Blueberries Passion fruits	Plant parasitic nematodes, including Root-knot nematodes (*Meloidogyne spp.*)	Established crops: 3-4 Kg/ Ha

Rhizo Shield™ Vegetable Application Program:

1. Pre-(trans)planting treatment

- Apply

treatment

- Apply 14 days prior to transplanting by spraying or pouring just to the spots where the plants will be planted later on.
- If possible, following application, incorporate the product 10-15 cm into wet soil.

2. Transplant treatment

- The second treatment is recommended at planting time.
- Seedlings should be watered with watered with just before transplanting.

3. Post-transplanting treatment

- Apply **Rhizo Shield™**

6 weeks after transplanting, either through drip irrigation or around the base of each plant, or treat the soil surface with **Rhizo Shield™** repeatedly.

- Following application, **Rhizo Shield™** must be incorporated into the soil.
- **Rhizo Shield™** can also be used after the application of a chemical nematicide and/or in combination with conventional nematicides.

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Field Trials

Evaluation of the efficacy of **Rhizo Shield™** in controlling Root Knot nematodes in Sweet Peppers grown under greenhouse conditions (Belgium, 2015). The results are depicted in the following graph:

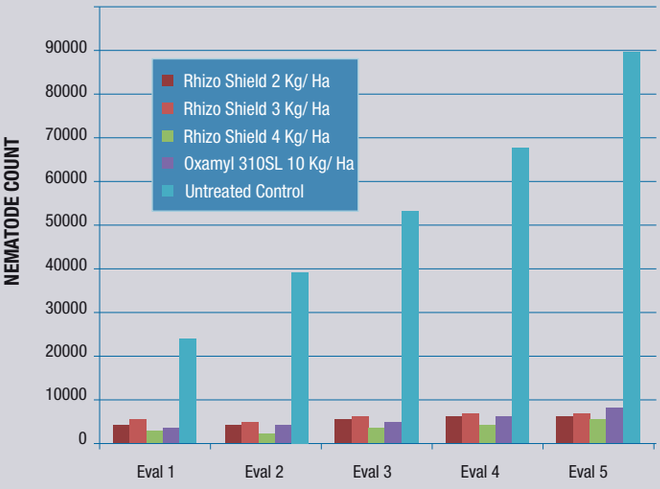

Table: Root nematode populations (Mean Nematode Density) in five (5) evaluations conducted at 14-day intervals. Note: No Symptoms of phytotoxicity were observed with the use of **Rhizo Shield™** at any rate in this trial.

Above: **Before treatment**: Withered plants due to high nematode pressure.

Above: **After treatment with Rhizo Shield™**: respectively 2 Kg/ Ha ; 3 Kg/ Ha and 4 Kg/ Ha.

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RHIZO PROTECT™