

NEMGUARD[®] SC

MAPP 19755

A Bio-nematicide as suspension concentrate for the reduction of parasitic nematodes, specially *Globodera* spp in potatoes.

NEMguard SC

A suspension concentrate as nematicide containing a minimum of 1000 g/kg Garlic extract.



WARNING

H317 MAY CAUSE AN ALLERGIC SKIN REACTION

Contains Garlic - May produce an allergic reaction. Keep out of reach of children. Wash hands thoroughly after handling.

If on skin wash with plenty of soap and water. If irritation occurs, get medical advice. Do not contaminate water with the product or its container.

To avoid risks to human health and the environment, comply with the instructions for use.

INSECTICIDE

Net content

10L



PROTECT FROM FROST

Production date/Batch number: see packaging

For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone Carechem 24 EU: 01235 239670

For technical and non-emergency calls phone +44 (0)845 373 0305

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IMPORTANT INFORMATION

FOR USE ONLY AS A NEMATOCIDE

Crop	Applicator	Maximum individual dose	Maximum number of treatments	Interval between applications	Latest time of application	Maximum total dose
Potato	Side Ridge Injector	6 L/ha	2 per year	10-14 days	35 days after after plantation	12 L/ha

Other specific restrictions: None

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following equipment:
WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION when handling the product. However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
WHEN USING, DO NOT EAT, DRINK OR SMOKE. WASH HANDS AND EXPOSED SKIN BEFORE MEALS AND AFTER WORK.

Environmental Protection

Do not contaminate water with the product or its container. Do not clean application equipment near surface water/avoid contamination via drains from roads.

Storage and Disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.
KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place away from damp and excessive heat.
EMPTY CONTAINER COMPLETELY and dispose of safely.
PROTECT FROM FROST.
 Use within 2 years from date of manufacture, see date on label.



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DIRECTIONS FOR USE

This information is approved as part of the product label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

NEMguard SC is for use as a liquid nematocide applied via Side Ridge Injection (SRI) to reduce plant parasitic nematode (*Globodera* spp.) populations.

The first application via SRI (6L) is to be applied 7-10 days after planting followed by second application (6L) within a 10-14 days interval.

Although a reduction of nematode numbers may be achieved, this may not be sufficient to significantly improve yield and quality of the crop. Consult an expert for interpretation of nematode population data if soil samples reveal that potentially damaging populations of free-living or cyst nematodes have reached or exceeded known risk thresholds.

APPLICATION RATE AND FREQUENCY

MECHANISED SRI: Mix 6 litre of NEMguard SC in tank (1000 litres of water). First application 7-10 days after planting followed by second application with 10-14 days interval.

The use of soil sampling to determine nematode populations prior to commencing use of NEMguard SC is recommended and will help to ensure that applications are made to coincide with nematode activity.

Best conditions for Use

Application of NEMguard SC should be made to moist soil. Applications of the product to dry or drying soils may impact on distribution of the active to the root zone and reduce efficacy.

Mixing and spraying

MECHANISED SRI: Mix 6 litre of NEMguard SC in tank (1000 litres of water). WASH SPRAY EQUIPMENT THOROUGHLY AFTER USE.

Compatibility

Do not tank-mix.

Resistance Management

NEMguard SC should be used in alternation with products with different modes of action.

Company Advisory Information

Nematode Damage to potato crop

Symptoms of damage by PCN in the crop can be easily confused with other causative agents such as fungal disease, compaction, poor drainage, lack of irrigation and poor nutrition. Symptoms may be most obvious during periods of stress including high temperatures and drought. These symptoms may not appear until the crop is well established.

Nematicides are applied to reduce the numbers of migrating female PCN attacking the root system.

Even relatively low starting populations around 1 egg/gram of soil can lead to high residual populations, but the timing of attack may extend over several weeks and symptoms may not be obvious. When conditions favour an intense attack by PCN, symptoms can appear within a few weeks. Nematicides tend to produce the greatest evidence of efficacy when applied early and at the time of intense PC egg hatch.

The presence of PCN should be determined by soil samples to determine the loading of eggs in soil prior to cropping.

The Biology of potato cyst nematodes

All nematodes parasitic to potatoes feed by insertion of a needle like tube into root tissue. Potato cyst nematodes feed with the body outside the plant producing an expected egg mass and in soil samples will be present as cysts. All parasitic nematodes are generally vulnerable to a contact nematicide and high levels of population reduction of potato cyst nematode can be achieved by sequential treatments with NEMguard SC. The parasitic nematodes feed by progressive invasion of the plant tissue becoming embedded well into root cortex or specialised feeding sites formed by the nematode in the root mass. The invasive stage of the life cycle in Endo-parasitic nematodes is a second instar juvenile (J2) recently emerged from an egg. Time from emergence from the egg to invasion of the root is usually a matter of a few days (up to 2 weeks) for most of the parasitic nematodes.

Applications of NEMguard SC

Due primarily to irregularities in the uniformity of egg hatch and dynamics of infection, at least two sequential applications of NEMguard SC are required to reduce numbers of PCN relative to populations found in untreated crop. Pre-emergence applications produce better levels of efficacy. It is recommended that two sequential applications of NEMguard SC are made to reduce populations of parasitic cyst nematodes.

Conditions at Time of Application of NEMguard SC

It is essential that soil conditions will allow percolation of NEMguard SC through the root zone to a depth of at least 10 cm. Irrigate between 5-10 mm immediately after application depending on conditions at the time.

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:

WEBLINK to specific data sheet on manufacturer's website:



https://certisbelchim.co.uk/pdf/MSDS/NEMguard_SC_MSDS.pdf

Alternatively, contact your supplier.