

## NEMguard DE is a proven, fully registered, granular nematicide containing active ingredients formulated from garlic (*Allium sativum*)

- Proven efficacy on free living and root knot nematodes associated with damage in carrots and parsnips
- Naturally derived product with patented production technology
- No MRL's set, 7 day harvest interval
- Good fit with new Sustainable Use Directive (SUD) legislation

### THE ACTIVE INGREDIENT



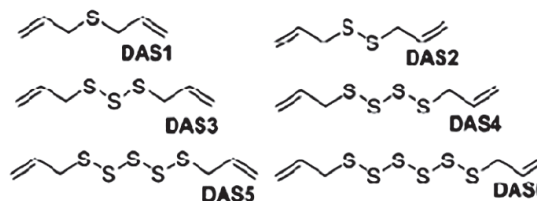
= ALLICIN



POLYSULFIDES

#### Garlic Extract: What's inside?

1. Crushing Garlic releases Allacin which is unstable
2. In production, Allacin is heated mildly to break down into different polysulfide chains
3. Polysulfides 3, 4 and 5 are the key activity molecules in NEMguard



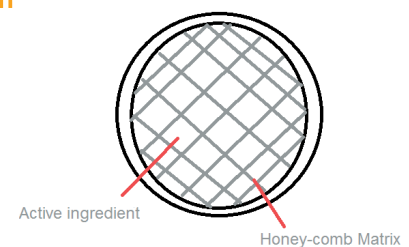
Patented production technology and quality control methods ensure the right balance of polysulfides are produced for maximum efficacy

### New Diatomaceous Earth (DE) formulation

#### Structure of a DE NEMguard granule

#### Benefits

- Offers the best carrier for the active ingredient
- A low dust grade of DE is used to minimise operator exposure risks
- Gives better rates of polysulfide release immediately following application



### THE PROBLEM

#### Free living and root knot nematode feeding damage

- Causes a reduction in quality and yield
  - Irregular growth
  - Side root and gall formation
- Can make plants more susceptible to infection
  - from diseases



**Left:** Carrots exhibiting symptoms of nematode damage

**Right:** Undamaged control carrots

#### Nematode key targets

The plant parasitic nematodes targeted by NEMguard granules are endoparasitic and ectoparasitic and include the following Genera:

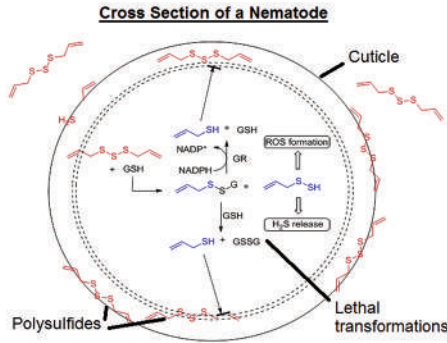
*Trichodorus* spp.; *Longidorus* spp.; *Pratylenchus* spp.; *Meloidogyne* spp.; *Tylenchus* spp. and *Xiphinema* spp.; *Heterodera* spp. and *Globodera* spp.



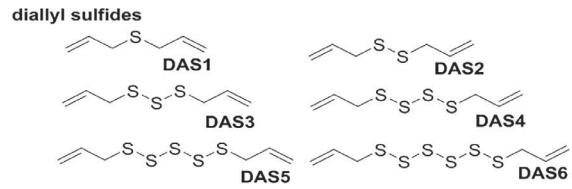
*Ectoparasites attacking a root*

## THE SOLUTION

NEMguard contains specially formulated Polysulfide technology.



### Mode of action



These sulfides pass easily through the cuticle of the nematode.

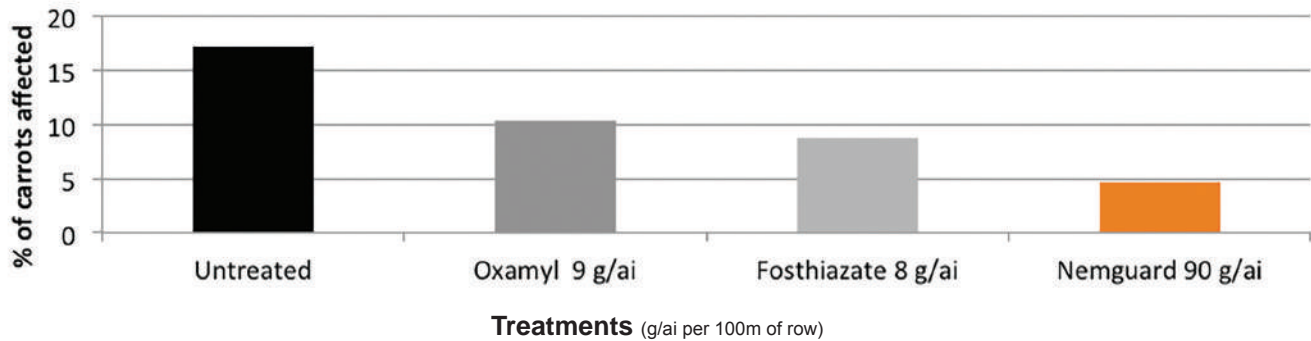
Once absorbed, they cause irreversible lethal biochemical transformations (creation of hydrogen sulphide and reactive oxygen species), that result in the death of the nematode within a few hours.

### Optimum application conditions

Sufficient moisture is required to release the polysulfides in an emulsified state within the granule

- It is recommended that 20 mm of irrigation be applied soon after use if no rain occurs
- There is a requirement for 80+ mm over the first 4-6 weeks in both carrot and parsnip crops

### Carrots (%) affected by free living nematodes



Source: Study commissioned by British Carrot Growers Association

#### Formulation

A granular formulation containing a minimum of 450 g/kg of garlic extract

#### Crops

Carrots and Parsnips

#### Application Equipment

Horstine 'Microband' applicator

#### Application Timing

At drilling, in furrow application

#### Harvest Interval

7 days

#### Application Rate

20 Kg/Ha

#### No of Applications

1

#### Pack

20 Kg

#### MAPP Number

16749

USE PLANT PROTECTION PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

For further information with regard to the warning phrases and symbols for this product please refer to the product label

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