

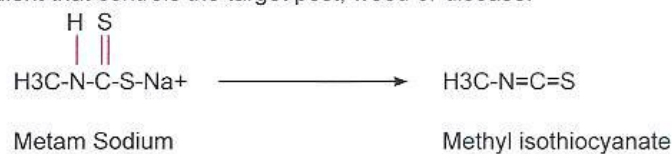
## Metam 510

Metam 510 contains 510g/l metam-sodium, a broad spectrum soil sterilant with herbicidal, fungicidal and nematicidal activity. It is applied to bare soil, usually during September and October, with the main aim of reducing/suppressing PCN populations.

Metam 510 has been extensively used across the UK during past 3 years to reduce PCN populations by reducing the number of viable eggs within the treated profile of the soil.

### Mode of action

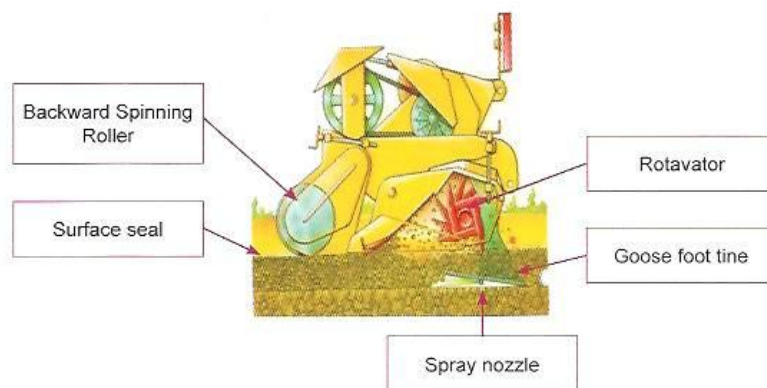
Metam –sodium is converted in soil to methyl isothiocyanate (MITC). MITC is a gas which is the active ingredient that controls the target pest, weed or disease.



Soil may be viewed as a three-phase system comprising solids, liquids, and gases. MITC will be present in both the liquid and gas phase of soil thereby exposing PCN to MITC gas as they move within the soil.

### Application

Application is made by shank injection. The soil profile is lifted by 'Goose foot' tines and the metam-sodium is applied at depth in the void that is created behind the tine. A rotavator creates a fine tilth on the soil surface and a smear seal is formed by a backward spinning roller.



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

Metam 510 contains metam sodium.  
Marketed by: Certis 1b Mills Way, Boscombe Down Business Park, Amesbury, Wiltshire, SP4 7RX  
Tel : 01980 676500 • Fax: 01980 626555

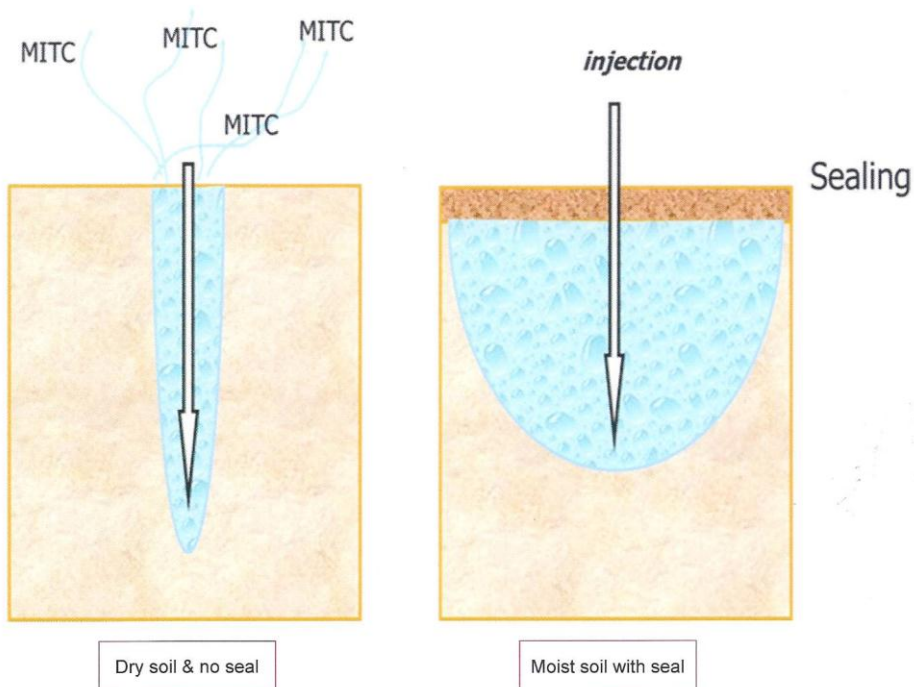


# Metam 510

Metam-sodium and MITC have limited mobility within the soil therefore even distribution at application is important to maximise efficacy.

The optimum soil conditions required for metam-sodium to be effective are:

- Soil temperature : > 10°C
- Soil moisture : 60% of field capacity
- Soil must be free of crop residues
- Seal the surface



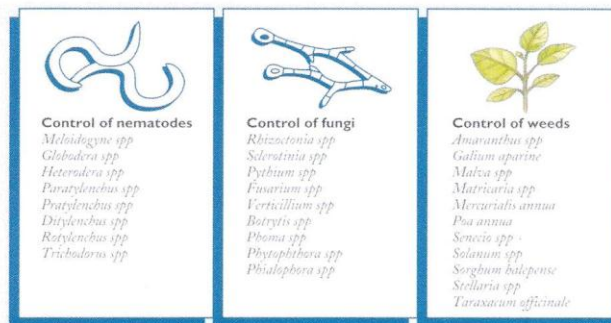
Inadequate soil moisture will result in a 'chimneying effect' where the MITC will escape up the channel formed by the goose foot shank. Correct soil moisture will help create the desired conditions to effectively seal the surface thus retaining the MITC. Adequate soil moisture will also allow greater movement of MITC within the soil profile.

## Efficacy

Data collected from replicated plot trials and field applications made in the UK over last 3 years has shown that Metam 510 provides a significant reduction in viable PCN population leading to:

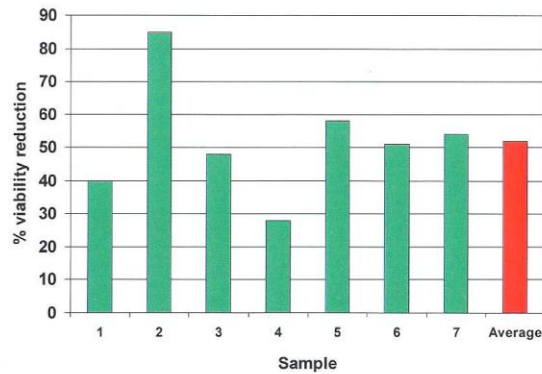
- Yield improvement over untreated
- Improves quality of tuber skin finish

There are also secondary benefits on seedling weeds and soil diseases, data is limited but depending on the rate applied some level of suppression is expected to the following;



## Shropshire 2009-2010 - Commercial field applications, non replicated point samples.

Reduction in viable PCN population following Metam 510 applied at 400lt/ha.



**Harper Adams 2008-2009 – Randomised plot trial**



Metam 700l/ha  
Yield = 74tn/ha



Metam 300l/ha  
Yield = 73tn/ha



Untreated  
Yield = 65tn/ha

Photos taken 29th May. All plots, including untreated, received a granular nematicide at planting (in order to reduce multiplication of the residual population).

A granular nematicide should be used at planting to reduce PCN multiplication during cropping.

Formulation	Metam - sodium 510g/l (42% w/w)		
Application	Contractor applied only		
Crop	Bare land pre-potato crop	Pack	800 litre
Max application rate	900l/ha	MAPP no.	09796

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