

BRASSICA CROPS (CABBAGE, CAULIFLOWER, BROCCOLI/ CALABRESE AND BRUSSELS SPROUT).

PLENUM WG is recommended for use in a range of vegetable brassica crops as detailed above.

Timing

PLENUM WG works best to prevent the build up of aphids and should be applied as soon as aphids are seen in the crop.

PLENUM WG needs to be taken up from the plant by the pest, contact activity is limited. To maximise efficacy PLENUM WG should be used with suitable seed oil or methylated seed oil derivative adjuvant. The use of PLENUM WG alone may result in lower and variable levels of control. A minimum interval of 10 days must be observed between applications.

Rates of Use

Maximum individual dose:
0.4 kg PLENUM WG per hectare
Maximum number of treatments:
3 per crop

Harvest Interval

Do not harvest brassica crops for at least 14 days after application of PLENUM WG.

CONSULT PROCESSOR BEFORE USING ON BRASSICA CROPS FOR PROCESSING.

WINTER AND SPRING OILSEED RAPE: For the control of pollen beetle

PLENUM WG is recommended for all varieties of winter and spring oilseed rape.

Timing

Apply PLENUM WG at green bud stage (GS 51) when pollen beetle numbers reach threshold levels for the crop. Inspect crops in the headland and midfield thoroughly prior to making an application.

Rates of Use

Maximum individual dose:
0.15 kg PLENUM WG per hectare
Maximum number of treatments:
1 per crop

Latest time of application:
GS 59 (yellow bud)

WINTER OILSEED RAPE: Turnip Yellows Virus (*Myzus persicae*)

Timing

Apply as soon as aphids can be found in the crop. Application made in late autumn, i.e. from November onwards, may be less effective in controlling the virus if aphid migration and virus transmission has begun several weeks earlier. PLENUM WG applied to control *Myzus persicae* will also provide useful control of other aphid vectors, and will reduce the level of Turnip Yellows Virus in the crop.

Rates of Use

Maximum individual dose:
0.30 kg PLENUM WG per hectare
Maximum number of treatments:
1 per crop

Latest time of application:
GS 30

MIXING AND SPRAYING

Apply in 200-600 litres water per hectare as a medium to fine spray. Obtain good coverage of the crop to optimise pest control. This is particularly important in winter and spring oilseed rape where good contact activity is essential.

For use on vegetable brassica crops always use PLENUM WG in combination with a seed oil or methylated seed oil derivative adjuvant (minimum content 90% w/w) that has/have an Official List Entry/ries which permit(s) use with this pesticide product and via a suitable hydraulic sprayer. The adjuvant should be added at a concentration

between 0.5 and 0.625% (500 to 625 ml/100 L spray mixture). Please refer to Adama literature or technical services for a list of recommended adjuvant partners.

Make sure the sprayer is set to give an even application at the correct volume. In all cases, add PLENUM WG to the spray tank first, followed by any additional products.

Dry Mixing - Sprayers with Induction Hoppers

Fill sprayer to 15% of tank capacity with water and start agitation. Pour PLENUM WG into the induction hopper and open valve in bottom of hopper to suck the granules into the circulating spray mix. Continue adding PLENUM WG until loading is complete. Wash down any granules on the hopper wall and close valve.

Note for old sprayers with indirect venturi induction hoppers

In the unlikely event of problems occurring during dry induction of the granules (blocked venturi), open the rinse ring and add water to the hopper. As soon as product induction continues, carry on adding product until the required amount is reached.

Sprayers Without Induction Hoppers

Fill sprayer with a minimum of 15 cm of water in the bottom and agitate vigorously. Pour PLENUM WG through the sprayer lid and then add the remainder of water.

Agitate the mixture thoroughly before use and continue agitation until spraying is complete. Thoroughly wash all spray equipment with water after use.

Crops should not be re-entered until spray residues are dry.

DISCLAIMER/CONDITIONS OF SUPPLY

The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label.

Marketed by

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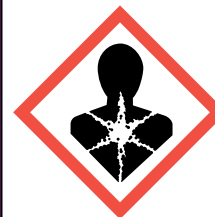
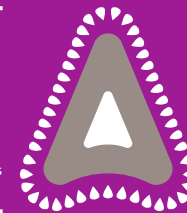
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PLENUM® WG

MAPP 18543 PCS 02238

A water dispersible granule containing 50% w/w pymetrozine.

An insecticide that controls aphids on potatoes, winter oilseed rape, Brussels sprouts, cabbage, cauliflower, broccoli and calabrese and pollen beetles on winter and spring oilseed rape.



Warning

Suspected of causing cancer.

Keep out of reach of children. Do not eat, drink or smoke when using this product.

If exposed or concerned; get medical advice/attention. Dispose of contents/ container to a licensed hazardous waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste. To avoid risks to human health and the environment, comply with the instructions for use.

**MAPP 18543
PCS 02238**

To access the Safety Data Sheet for this product scan the QR code or use the weblink: <https://bit.ly/2N7qwnU> - Alternatively, contact your supplier.

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Scan for Safety Data Sheet

ADAMA

This leaflet is part of the approved label.

For advice on medical emergencies, fires or major spills telephone the UK National Chemical Emergency Centre on +44 (0)1865 407333

IMPORTANT INFORMATION FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL INSECTICIDE

Crop	Maximum individual dose (product/ha)	Maximum number of treatments	Latest time of application
Potato (ware)	0.3 kg	2 per crop	7 days before harvest
Potato (seed)	0.3 kg	3 per crop	7 days before harvest
Outdoor cabbage, cauliflower, broccoli/calabrese, Brussels sprout	0.4 kg	3 per crop	14 days before harvest
Spring oilseed rape	0.15 kg	1 per crop	GS 59 (yellow bud)
Winter oilseed rape	0.15 kg AND/OR 0.3 kg	1 per crop	Up to GS 59
		1 per crop	Up to GS 30

Other specific restrictions:

- * A minimum interval of 7 days must be observed between applications to potatoes.
- * A minimum interval of 10 days must be observed between applications to cabbage, cauliflower, broccoli/calabrese and Brussels sprout.

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.

SAFETY PRECAUTIONS

Operator Protection

(UK only): Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate and contaminated surfaces.
WEAR SUITABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.
 (UK only): However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.
WASH HANDS 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 farmyards and roads.

DANGEROUS TO BEES. To protect bees and pollinating insects, do not apply to crop plants when in flower. Do not use where bees are actively foraging. Do not apply when flowering weeds are present.

Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
EMPTY CONTAINER COMPLETELY and dispose of safely.
 On emptying the container, **RINSE CONTAINER THOROUGHLY** by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

DIRECTIONS FOR USE

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

GENERAL INFORMATION

PLENUM® WG contains 50% w/w pymetrozine as a water dispersible granule. It controls pyrethroid, organophosphorous and carbamate susceptible and resistant strains of aphids on potatoes, winter oilseed rape and in a range of vegetable brassica crops as detailed in the Important Information box. Controlling *Myzus persicae* in winter oilseed rape in turn reduces the levels of TuYV in the crop as the aphid acts as a vector for the virus. It also controls pollen beetles (*Meligethes aeneus*) in winter and spring oilseed rape crops.

Pymetrozine is an insecticide derived from a novel type of chemistry which is highly selective against plant sucking insects. It penetrates green leaves and is transported systemically within the plant. Pymetrozine quickly prevents aphid feeding and although there is no immediate knockdown effect, aphids do not feed again, and death occurs through starvation within one to four days. Activity against pollen beetle is primarily through direct contact. The mode of action of pymetrozine on pollen beetle is not fully known, but research suggests that it blocks the response of stretch receptors (chorodonal mechanoreceptors) in insects. Pymetrozine treatment can result in various observed symptoms including paralysis of the hind legs, uncoordinated movement, repellence, anti-feeding and insect mortality.

Evidence from trials on aphids and commercial practice has shown that two sequential applications of PLENUM WG provide optimum efficacy against aphids. Only make sequential applications where pest pressure justifies this approach. After two applications of PLENUM WG, growers must switch to a product with a different mode of action.

RESISTANCE MANAGEMENT

The control of aphids and pollen beetles may be reduced if strains resistant to PLENUM WG develop. To prevent the development of resistance in aphids, PLENUM WG (containing pymetrozine) should not be used continuously in sequence or as the sole method of control. A maximum of two treatments should be made in sequence. Alternate with products from different chemical groups with a different mode of action, and consider the use in IPM programmes. Always follow label recommendations on dose, water volumes and spray timing, in order to minimise the selection of resistant strains. If possible cultural methods of aphid control should be combined with selective use of insecticides.

Currently there is no known resistance to pymetrozine in the UK pollen beetle population. Growers should consult the IRAG website and HGCA advice for further information on the current resistance management and control of pollen beetle in OSR. In particular, refer to advice on the use of pymetrozine or another non-pyrethroid insecticide where beetles survive a pyrethroid treatment. Spray only where beetle numbers exceed the appropriate current threshold. Inspect crops in the headland and midfield. For aphid control use a suitable aphicide depending on other pests present; consult agronomist.

PESTS CONTROLLED

PLENUM WG controls peach-potato aphid (*Myzus persicae*), potato aphid (*Macrosiphum euphorbiae*), glasshouse and potato aphid (*Aulacorthum solani*) and buckthorn-potato aphid (*Aphis nasturtii*) on potatoes. In vegetable brassica crops, PLENUM WG controls peach-potato aphid and provides useful levels of control of mealy cabbage aphid (*Brevicoryne brassicae*). In winter and spring oilseed rape PLENUM WG controls pollen beetles (*Meligethes aeneus*) and peach-potato aphid (*Myzus persicae*) in winter oilseed rape.

CROP SPECIFIC INFORMATION

POTATOES

PLENUM WG is recommended for use in early, maincrop and seed potatoes.

Timing

Apply as soon as aphids are seen in the crop and repeat as necessary. A minimum interval of 7 days must be observed between applications.

To limit the spread of persistent viruses such as potato leaf roll virus, apply from 90% crop emergence.

Rates of Use

Maximum individual dose:
0.3 kg PLENUM WG per hectare
Maximum number of treatments:
 Ware crops 2 per crop
 Seed crops 3 per crop

Harvest Interval

Do not harvest potatoes for at least 7 days after application of PLENUM WG.