

Patron® 75WP

syngenta

Reg. No. L3035 Act No. 36 of 1947 N-AR 0886 (Namibia) W130594 (Botswana)

A wettable powder systemic contact and stomach insect growth inhibitor (IGI) for the control of leafminers in tomatoes, green beans, potatoes, bulb vegetables, cruciferae, cucurbits, leafy vegetables, legume vegetables and peppers, as well as control of fungus gnat and mushroom flies in cultivated mushrooms.



WARNING

Hazard statements:

Very toxic to aquatic life with long-lasting effects.

Precautionary statements:

Keep out of reach of children. Do not breathe spray. Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. **Prevention:** Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. **Response:** Collect spillage. **Storage:** Store locked-up. **Disposal:** Dispose of contents/container to an approved waste disposal plant.

EMERGENCY TEL NO.:

+27 82 446 8946 (Griffon)

UN 3077

Registration holder
Syngenta South Africa (Pty) Ltd
Co. Reg. No. 1998/013761/07
Private Bag X 60
HALFWAY HOUSE, 1685
Tel.: +27 11 541 4000

GROUP 17 INSECTICIDE

Active Ingredient:
cyromazine..... 750 g/kg

Product names marked ® or ™, the ALLIANCE FRAME, the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company

1. WARNINGS:

Hazard statements: Very toxic to aquatic life with long-lasting effects.

Allow the following number of days between last application and harvest or cutting:

BULB VEGETABLES	7 days
CRUCIFERAE	7 days
CUCURBIT GROUP	1 day
LEAFY VEGETABLES	7 days
LEGUME VEGETABLES (dried and succulent beans, except cowpeas, green beans and soybeans).....	7 days
GREEN BEANS	3 days
MUSHROOMS	14 days
PEPPERS (capsicum group).....	1 day
POTATOES	28 days
TOMATOES	3 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local maximum residue limits (MRL), but the import tolerances of other countries might possibly be exceeded. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, MRL's and recommended withholding periods.

- Store in a cool place.
- Store away from food and feed.
- Keep out of reach of children, uninformed persons and animals.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weed against the remedy concerned, as well as by the method, time and accuracy of application. The

registration holder furthermore does not accept responsibility for damage to crops, vegetation and the environment, or harm to people or animals or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions, that could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

2. PRECAUTIONS:

Precautionary statements: Keep out of reach of children. Do not breathe spray. Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. **Prevention:** Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. **Response:** Collect spillage. **Storage:** Store locked-up. **Disposal:** Dispose of contents/container to an approved waste disposal plant.

- Do not inhale the dust or spray mist.
- Wash with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink, or smoke while mixing or applying the product or before washing hands and face.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, boreholes and dams.
- Prevent contamination of food, feed, drinking water and eating utensils.
- Destroy empty container in the prescribed manner and do not use it for any other purpose.

3. RELEVANT SUBSTANCES:

Chemical name	Classification	Concentration (% w/w)
Not applicable	Not applicable	Not applicable

4. RESISTANCE MANAGEMENT:

PATRON 75 WP is a group code 17 insecticide. Any insect population may contain individuals naturally resistant to **PATRON 75 WP** and other group code 17 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and

exclusively in programs. These resistant insects may not be controlled by **PATRON 75 WP** or any other group code 17 insecticides.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.
- A potential exists for poor control of the American leafminer as a result of cyromazine resistant strains.
- Use AGRIMEC® GOLD (L9235) as an alternative compound in those areas where resistance occurs.

Syngenta cannot accept responsibility for any losses that may result from the failure to control pests resistant to **PATRON 75 WP**.

For specific information on resistance management contact the registration holder of this product.

5. PRODUCT CHARACTERISTICS:

- **PATRON 75 WP** is an insect growth inhibitor (IGI), especially active on *Diptera* leafminer larvae.
- It impedes the moulting process of young larvae (*larvacidal effect*) and prevents normal pupation.
- It has no adulticidal effect.
- The product is translaminar as well as systemic.
- It is especially effective against *Liriomyza* leafminer species and mushroom flies such as *Sciaridae* fungus gnats (*Lycoriella* species).
- When used in mushroom cultivation **PATRON 75 WP** should be used in an integrated program together with products like ACTOGARD (L5054) or space treatments for the control of adult flies. **PATRON 75 WP** will not give complete control of fungus gnats in the absence of regular cultivation and sanitation practices. In the case of prolonged and continued infestation treatment of the compost followed by casing application is recommended.

6. SCOUTING:

Make use of a scouting system and economic threshold values to determine when to commence applications.

7. DIRECTIONS FOR USE: Use only as indicated.

7.1 Compatibility

The compatibility of **PATRON 75 WP** with other products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of Syngenta and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

Important:

PATRON 75 WP is not compatible with SORBA® (L5343) and endosulfan.

7.2 Mixing Instructions

- Pre-mix the required quantity of **PATRON 75 WP** with a small volume of clean water.
- Half-fill the spray tank with water and add the slurry while the water in the tank is being stirred.
- Add water to make up the desired spray volume.
- Keep the spray mixture agitated during mixing and spraying.

7.3 Application Techniques

PATRON 75 WP may be applied with a mistblower or any medium- or high-volume sprayer which is equipped with an efficient agitation mechanism, provided adequate coverage and even distribution can be obtained.

7.4 Application Rates

Crop	Dosage	Remarks
BULB VEGETABLES (Includes garlic, leeks, onions and shallots) CRUCIFERAE AND TURNIP GREENS (Includes turnip greens [tops/leaves only], broccoli, brussels sprouts, cabbage, Chinese cabbage and cauliflower) CUCURBIT GROUP (Includes bitter melon, cucumber, gherkin, melons, cantaloupe, muskmelon, pumpkin, squash and watermelon) LEAFY VEGETABLES (Includes <i>Amaranthus</i> spp., celery, cress, endive, Florence fennel, lettuce, parsley, rhubarb, spinach and Swiss chard) LEGUME VEGETABLES Dried beans, except cowpeas and soybeans (Includes black-eyed peas, broad beans, chick peas, field beans,	190 g/ha	Foliar spray <ul style="list-style-type: none"> • Apply PATRON 75 WP as a foliar spray when leafminers first appear. • Apply PATRON 75 WP in sufficient water to achieve adequate coverage. • Repeat application, as needed, at 7-day intervals to maintain control. • To avoid possible illegal residues, do not apply more than four (4) applications per crop cycle. Important Turnip greens (tops, leaves) only: For use on turnip varieties grown for leaves only. <ul style="list-style-type: none"> • Do not use on turnip varieties grown for roots or dual-purpose varieties grown for roots and leaves.

Crop	Dosage	Remarks														
grain lupin, kidney beans, lablab beans, lentils, lima beans, white lupin and white sweet lupin) Succulent Beans (Includes <i>Phaseolus</i> spp. and <i>Vigna</i> spp.) PEPPERS (CAPSICUM GROUP) Leafminers (<i>Liriomyza</i> spp.)	190 g/ha															
MUSHROOMS Fungus gnat (<i>Lycoriella auripila</i>) Phorid fly (<i>Megaselia halterata</i>) Dung fly (<i>Pullimosina heteroneura</i>)	0.4 - 0.9 g/m ²	Compost application: Method 1 Incorporation <ul style="list-style-type: none"> Incorporate into the compost during filling as soon as possible after pasteurization according to the table below which refers to the wet weight of the compost. Use sufficient water and a fine spray. <table border="1"> <thead> <tr> <th>Fill mass</th> <th>Patron 75 WP rate</th> </tr> </thead> <tbody> <tr> <td>60 kg/m²</td> <td>0.4 g</td> </tr> <tr> <td>75 kg/m²</td> <td>0.5 g</td> </tr> <tr> <td>90 kg/m²</td> <td>0.6 g</td> </tr> <tr> <td>105 kg/m²</td> <td>0.7 g</td> </tr> <tr> <td>120 kg/m²</td> <td>0.8 g</td> </tr> <tr> <td>135 kg/m²</td> <td>0.9 g</td> </tr> </tbody> </table>	Fill mass	Patron 75 WP rate	60 kg/m ²	0.4 g	75 kg/m ²	0.5 g	90 kg/m ²	0.6 g	105 kg/m ²	0.7 g	120 kg/m ²	0.8 g	135 kg/m ²	0.9 g
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	0.7 g/m ²	Compost application: Method 2 Surface drench Apply the PATRON 75 WP in 1.5 - 2.0 l water/m ² surface area.														
	0.5 g/m ²	Casing application <ul style="list-style-type: none"> Apply the PATRON 75 WP as a surface drench to the casing layer in 1.0 - 1.5 l water/m². Application must occur within the first two days after casing. Important: <ul style="list-style-type: none"> Follow-up application later in the cropping cycle and in-between breaks is not recommended. Compost application (method 1) is essential to control Phorid 														

Crop	Dosage	Remarks
MUSHROOMS cont.		flies and dung flies, and also when the compost is the main source of infestation of Fungus gnats. <ul style="list-style-type: none"> Casing application is required to prevent damage to mushrooms in the casing layer.
POTATOES Leafminer (<i>Liriomyza</i> spp.)	200 g/ha	High-volume spraying <ul style="list-style-type: none"> Apply as a complete full-cover spray to point of run-off. Adjust water volume according to plant size. Spray a block of two (2) PATRON 75 WP applications 7 days apart in a 30 day window. Alternate with a product with a different mode of action for a 30 day window. Apply up to a maximum of four (4) PATRON 75 WP applications per crop cycle. No applications of PATRON 75 WP are allowed through the pivot. Apply in a spray program with other registered leafminer products, such as AGRIMEC® GOLD (L9235).
TOMATOES AND GREEN BEANS American leafminer (<i>Liriomyza trifolii</i>)		<ul style="list-style-type: none"> Apply in a program spray and repeat at 7-day intervals when the threshold level is again reached. Do not use in nurseries.
	20 g/100 l water Increase this dosage gradually to a maximum of 150 g/1 000 l water	FARM LANDS High-volume spraying <ul style="list-style-type: none"> Apply as a complete full-cover spray to point of run-off. Adjust water volume according to plant size.
	Use PATRON 75 WP at 40 g/200 l 60 g/300 l	Low-volume/Mist blower <ul style="list-style-type: none"> Uniform coverage of the plant mass is essential.

Crop	Dosage	Remarks
TOMATOES AND GREEN BEANS cont.	80 g/400 ℓ 100 g/500 ℓ 110 g/600 ℓ 120 g/700 ℓ 130 g/800 ℓ 140 g/900 ℓ and 150 g/1 000 ℓ water. Thereafter, maintain a dosage rate of 150 g/ha irrespective of the volume of water used per hectare.	<ul style="list-style-type: none"> Irrespective of the water volume used per hectare, it is essential to use the same amount of PATRON 75 WP as when using high-volume spray equipment.

Use the higher dosage rates indicated below in areas where inadequate control with **PATRON 75 WP** is experienced.

	30 g/100 ℓ water Increase this dosage gradually to a maximum of 200 g/1 000 ℓ water. Use PATRON 75 WP at 60 g/200 ℓ 90 g/300 ℓ 120 g/400 ℓ 150 g/500 ℓ 160 g/600 ℓ 170 g/700 ℓ 180 g/800 ℓ 190 g/900 ℓ and 200 g/1 000 ℓ water. Thereafter, maintain a dosage rate of 200 g/ha irrespective of the volume of water used per hectare.	
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