

READ THE LABEL BEFORE USE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

**RESTRICTED USE AGRICULTURAL REMEDY**

THIS REMEDY IS RESTRICTED DUE TO ACUTE TOXICITY. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY A REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.

**Insecticide**



# ACATHRIN 200 EC

Reg. No. L 7629 Act No. 36 of 1947

5:14/11/2024 – Nov2024

An emulsifiable concentrate insecticide with contact and stomach action, for the control of the agricultural pests on the crops as listed.

## ACTIVE INGREDIENT

fenpropathrin (pyrethroid) 200 g/l

**GROUP**

**3A**

**INSECTICIDE**



**DANGER**



### Hazard Statements:

Toxic if swallowed .  
Causes skin irritation.  
Causes serious eye irritation.  
Fatal if inhaled.

### Precautionary Statements:

Wear impervious rubber gloves and boots, protective clothing, and chemical safety goggles.  
In case of inadequate ventilation wear respiratory protection.

DIRECTIONS FOR USE ENCLOSED  
Batch Number:      Expiry Date:  
Date of Manufacture:



**villa**

UN Number: 3018

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.  
Co. Reg. No.: 1983/008184/07  
65 Botes Road, Glen Marais, Kempton Park, 1619  
Tel. (011) 396 2233  
Website: www.villacrop.co.za

IN CASE OF POISONING / 24 HR EMERGENCY NUMBERS:  
Griffon Poison Information Centre (National) : +27 82 446 8946  
Poison Information Helpline (National): +27 861 555 777  
24 Hr Transport / Spill emergency no: (Hazcall24) +27 86 044 4411  
(Client: Villa Crop Protection)

**ACATHRIN 200 EC**

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IRAC INSECTICIDE GROUP CODE : 3A

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**WARNINGS****Withholding periods:**

Allow the following number of days between last treatment and grazing:	
Cotton	28 days
Citrus	28 days

**IMPORTANT: THE RECOMMENDED WITHHOLDING PERIOD BETWEEN LAST APPLICATION AND HARVEST MEETS LOCAL RESIDUE REQUIREMENTS, BUT MAY NOT MEET EXPORT REQUIREMENTS. IF THE TREATED CROP IS INTENDED FOR EXPORT, CONSULT THE RELEVANT IMPORTER OR EXPORTING BODY REGARDING THE MAXIMUM RESIDUE LIMITS AND RECOMMENDED WITHHOLDING PERIODS FOR THE USE OF THIS PRODUCT.**

**Hazard Statements:**

Toxic if swallowed .
Causes skin irritation.
Causes serious eye irritation.
Fatal if inhaled.

- Handle with extreme care.
- Extremely toxic to fish, bees and wildlife.
- Store under lock and key in a cool place.
- Store away from food, feed, fertilizer and other agricultural products.
- Keep out of reach of children, uninformed persons and animals.
- Do not use this product in any way contrary to the directions on this label.
- **Re-entry** – Do not enter a treated area within 2 days of application unless wearing protective clothing.
- **ACATHRIN 200 EC** has been tested on the most important commercial cultivars without any phytotoxic effects. More susceptible cultivars may be released in future which need to be tested; for this apply **ACATHRIN 200 EC** to a limited test area before commercial applications are made.
- In case of poisoning, call a doctor and show this label to him.
- **Aerial application:** notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas or water.

**Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be effective under all conditions. The activity and effect thereof may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest 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, the environment or harm to man or animal, or for lack of performance of the remedy concerned due to failure by the user to follow the label instructions, or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.**

## **PRECAUTIONS**

### **Precautionary statements:**

Do not breathe mist/spray.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear impervious rubber gloves and boots, protective clothing, and chemical safety goggles.
In case of inadequate ventilation wear respiratory protection.
IF SWALLOWED: Immediately call a POISON CENTER.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER.
Rinse mouth.
Do NOT induce vomiting.
If skin irritation occurs: get medical advice.
If eye irritation persists: Get medical advice.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content/container to suitable landfill in accordance with local regulations.

- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean applicator after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Prevent contamination of food, feeds, drinking water and eating utensils.
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three (3) times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler ([www.croplife.co.za](http://www.croplife.co.za)). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

## **SYMPTOMS OF HUMAN POISONING**

Hypersensitivity, tremors, muscular fibrillation, salivation, incoordination, incontinence of urine, and lacrimation, rapid and/or irregular respiration.

## **FIRST AID TREATMENT**

**Skin contact:** Remove patient from source of poisoning and keep him quiet and reassured.

Remove contaminated clothing as well as shoes and leather goods. Wash body with non-abrasive soap and lots of water. Persons providing first aid must wear gloves to avoid self-contamination. Seek medical advice if necessary.

**Eye contact:** Flush eyes immediately with large amounts of clean water for approximately 15 minutes.

Occasionally lift the upper and lower lids. If eye irritation persists, get medical attention.

**Inhalation:** Remove patient to a well-ventilated area and loosen clothing around the neck. Perform artificial respiration and administer oxygen if necessary. Keep patient warm and calm. **Seek medical advice immediately.**

**Ingestion:** If spray mixture (diluted) has been swallowed, induce vomiting by tickling the back of the throat. Repeat this until vomit fluid is clear and free from smell of poison. Gastric lavage can also be applied. If product concentrate has been swallowed, **immediately take patient to the nearest doctor.** Do not induce vomiting. Get medical attention immediately. Administration of gastric lavage or oxygen should be performed by qualified medical personnel.

**NOTE TO PHYSICIAN**

Treat symptomatically and supportively. Keep patient under observation. Product contains a light aromatic solvent.

<b>Relevant hazardous components</b>	
Fenpropathrin	22.4%
Nonylphenol ethoxylate	<10%
Dodecylbenzene sulphonate salt	<5%
Light aromatic solvent	<70%

**NOTE:** The ingredients listed above contribute to the overall GHS classification, the remaining ingredients do not have to be listed according to the South African Regulations for Hazardous Chemical Agents 2021, Regulation 14(b).

**In case of poisoning, call the following number:** +27 82 446 8946 (Griffon Poison Information Centre) or +27 861 555 777 (Poison Information Helpline).

**In case of a chemical spill call the following 24 Hr Transport / Spill emergency number:** +27 86 044 4411 (Hazcall24 / Client: Villa Crop Protection).

**RESISTANCE WARNING**

For resistance management, **ACATHRIN 200 EC** is a group code 3A insecticide. Any insect population may contain individuals naturally resistant to **ACATHRIN 200 EC** and other group code 3A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **ACATHRIN 200 EC** or any other group code 3A insecticide.

**To delay insecticide resistance:**

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank mix with registered products from different insecticide group codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management, contact the registration holder of this product or consult the website of the Insecticide Resistance Action Committee (<https://irac-online.org/>). If resistance is suspected, please consult your local company representative or agricultural advisor.

**Mode Of Action:**

**ACATHRIN 200 EC** contains **fenpropathrin**, a pyrethroid compound which belongs to the IRAC group code 3A Non-systemic insecticide and acaricide active by both contact and ingestion. fenpropathrin Modulation of voltage-gated sodium channels, preventing the channels from closing and resulting in hyperexcitation.

**RESTRICTED USE: Use only as directed.**

**THIS REMEDY IS RESTRICTED DUE TO ACUTE TOXICITY. THIS REMEDY MAY ONLY BE SOLD TO AND USED BY A REGISTERED PEST CONTROL OPERATOR, OR BY SOMEONE UNDER THE SUPERVISION OF A REGISTERED PEST CONTROL OPERATOR, AND ONLY FOR THOSE USES COVERED BY THE PEST CONTROL OPERATOR'S SCOPE OF REGISTRATION, AND ONLY AS DIRECTED ON THIS LABEL.**

**NOTICE TO USER:**

Read the entire label before application. This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under the Act to use this agricultural remedy for any purpose in a manner contrary with the directions on the label.

**Compatibility:**

- The compatibility of **ACATHRIN 200 EC** with other products depends on the formulations of the respective products as well as the quality of the spray water to be used.
- As formulations change from time to time it is recommended that a physical compatibility test be done prior to the tank mixture being made.
- Do not make tank mixtures with other agricultural remedies or foliar feed products without first ensuring that no reduction in efficacy or crop damage will result. When mixing **ACATHRIN 200 EC** with other products, follow all label instructions carefully.

**Mixing Instructions:**

- The efficacy of **ACATHRIN 200 EC** can be reduced by very hard water (> 1 000 ppm solutes) as well as by water with a high pH.
- To ensure optimum efficacy, **ACATHRIN 200 EC** should be applied in water of pH 4.5 – 5.5.
- Where spray water is outside of this pH range, the water should be buffered to within the recommended pH range by use of a registered pH buffer.
- Where a pH buffering agent is used, this must be thoroughly mixed into the total spray water volume before the **ACATHRIN 200 EC** is added.

Should the spray water pH be in the correct pH range, the following procedure may be followed:

- Half-fill the spray tank with suitable water.
- Shake the container thoroughly prior to use.
- Add the required quantity of **ACATHRIN 200 EC** to the water.
- Fill the spray tank to the desired volume.
- **Tank mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.** Spraying equipment must be thoroughly flushed out at the end of the spraying operation.

**Application Instructions:**

- Ensure that the equipment is correctly calibrated and is checked regularly during application to ensure even and accurate application.
- **Constant agitation throughout the spray operation is essential.**
- **Only clean water should be used.**

**Ground Application**

- **ACATHRIN 200 EC** can be applied with conventional high volume spraying equipment fitted with hollow cone nozzles to give medium to fine droplets. Calibrate the apparatus prior to application to ensure that the correct dosage is applied. Ensure that the distribution of the spray is uniform throughout the target area.
- Spray volumes must be adapted according to the size, growing pattern and leaf density of the crop.
- Use an appropriate spray volume to ensure thorough coverage and wetting of all the plant parts. Monitor efficacy within 3 days and reapply if necessary.

**Aerial Application**

Aerial application may only be done by a registered aerial application operator using a registered and correctly calibrated aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met;

**Equipment**

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage of the target area and will ensure the minimum loss of product through drift.
- The operator must use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers should be positioned within the inner 75% of the wingspan to prevent droplets from entering the wingtip vortices.

**Application Parameters**

- A minimum volume of 30 litre spray mixture per ha is recommended.
- A droplet coverage of 30 – 40 droplets per sq. cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 – 280 microns is recommended. Ensure that the production of fine droplets, with a VMD less than 150 microns, is restricted to a minimum.
- The height of the spray boom should be maintained at between 3 and 4 m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn or during a dive or when banking.
- Apply before the crop growth becomes too dense, which will interfere with overall plant coverage.

### Meteorological Conditions

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer, must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions nor during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer).
- Do not spray when the wind speed exceeds 15 km per hour.

### General

- Ensure that fields are accurately marked and that the aerial spray operator knows exactly which fields to spray.
- Obtain an assurance from the aerial spray operator that the above requirements will be met.

### USE RESTRICTIONS

- **ACATHRIN 200 EC** is only to be used during the period from first flowering to start of boll burst (weeks 12 – 20 following crop emergence).
- Do not apply **ACATHRIN 200 EC** to any crop or situation not mentioned in this instruction leaflet.
- Only apply **ACATHRIN 200 EC** using an accurate and safe application technique.
- If **ACATHRIN 200 EC** is used in a tank mix with other recommended products, consideration should be given to the restrictions of those respective products.
- Do not apply this product in combination or tank mixture with any other product or agricultural remedy which is not specifically listed on this label. UNIVERSAL CROP PROTECTION (Pty) Ltd accepts no responsibility for any negative effects experienced if the instructions on this label are not adhered to, unless a Villa Crop Protection (Pty)Ltd representative was consulted beforehand.

### Post Spray Equipment Cleaning

It is essential to rinse the spray tank and all hoses with a 0.1 % solution of either calcium chloride or ammonium hydroxide or the recommended rate of **Protank® liquid cleaner** according to the product label. Allow this solution to stand in the spray equipment for 15 minutes; empty the spray equipment; repeat the rinsing with a 0.1 % solution of calcium chloride or ammonium hydroxide for 15 minutes; rinse all equipment with water. Nozzles and fitters must be cleaned individually. Rinse water and solution should be drained in a cesspool or drain where it will not contaminate any water source.

### APPLICATION RATES

<b>Crop / Pest</b>	<b>Application rate</b>	<b>Remarks</b>
<b><u>Cotton</u></b>  Red spider mite ( <i>Tetranychus urticae</i> and <i>T. lombardinii</i> )	<b><u>Ground application:</u></b> 250 ml /100 l water  <b><u>Aerial application:</u></b> a) 250 ml/ha for plants smaller than 60 cm.  b) 500 ml/ha for plants taller than 60 cm.	<b>Applications should be based on scouting.</b> Dosage rate depends on physical plant size. Apply in 100 litres spray mixture/ha for plants smaller than 60 cm. Apply in 200 litres spray mixture/ha for plants taller than 60 cm.  Apply in 30 to 50 litres spray mixture per hectare. Repeat application when necessary.  Use the lower dosage rate for cotton smaller than 60 cm in height and the higher dosage rate for cotton taller than 60 cm in height. Higher rate will also suppress American bollworm.
<b><u>Roses</u></b>  Red spider mite ( <i>Tetranychus urticae</i> and <i>T. lombardinii</i> )	<b>High volume application:</b> Apply 100 ml /100 l water	<b>High volume application:</b> Apply as a high volume application as soon as infestation is noticed. Spray to the point of run-off in order to obtain adequate coverage. Repeat application as necessary.

Crop / Pest	Application rate / 100 ℓ water	Remarks
<u><b>Citrus</b></u>  Thrips ( <i>Scirtothrips aurantii</i> )	30 – 50 mℓ	<p>Apply at 90 to 100 % petal fall as a single, medium cover spray to wet the foliage canopy to the point of run-off. The dosage of <b>ACATHRIN 200 EC</b> is dependent upon the severity of the anticipated Thrip infestation. Use the higher dosage rate when a severe infestation is expected. The expected severity of an infestation can be assessed either by the use of fluorescent yellow traps or by the level of Thrip activity on out-of-season fruit and growth flush. Trees must be kept under observation. If a thrips re-infestation occurs, the application of a registered thripicide is recommended.</p> <p><b>This treatment should suppress Psylla and should control the following pests if present at the time of the application:</b>  <b>African (American) Bollworm, Red spider mite, Red mite, Lowveld mite as well as Bud mite.</b></p> <p>Subsequent build-up of numbers of the above-mentioned mite species should be suppressed.</p> <p><b>NOTE:</b> Apply <b>ACATHRIN 200 EC</b> only to orchards in which red scale is already under commercial control, and such control is being maintained with one or more preventative spray treatments i.e., treatments applied before the scale reach the new crop. Do not apply if the previous season's crop is still on the trees.</p>
False codling moth larvae	30 mℓ	<p>Apply as a medium cover spray 4 to 5 weeks prior to the intended date of harvest. If the application is done earlier, or the fruit are not thoroughly wetted, fruit drop and / or damage to the fruit may occur shortly before harvest.</p> <p><b>This application should also control citrus red mite, red spider mite, Lowveld mite and bud mite if present at the time of the application.</b></p> <p><b>NOTE:</b>            This application should only be done on orchards in which red scale is already under commercial control at the intended time of the application. In these orchards, it is recommended that a preventative spray programme for the control red scale (e.g. <b>PYRILATE EC L 7570</b>) and mealybug be implemented in the following season.</p> <p><b>Do not apply ACATHRIN 200 EC in orchards where red scale is not under commercial control at the intended time of the application.</b></p>

**Remarks:**

- **ACATHRIN 200 EC** is a contact miticide/insecticide and therefore direct contact with the pest/s is essential. To ensure acceptable control, adequate coverage of entire plants and especially under leaf surfaces is essential.

Optimum control will be achieved when **ACATHRIN 200 EC** is used in a preventative spraying programme starting at flowering peak, based on weekly scouting.

## **SCOUTING FOR RED SPIDER MITES IN COTTON**

Inspect 48 cotton plants randomly in fields of up to 15 ha in size every week from the third week after crop emergence until first boll split ( $\pm$  week 20). From each plant, sample 2 leaves from the top and 1 leaf from the middle and record the total number of female mites found on the sample leaves.

Determine the red spider mite population index per plant as follows:

<b>Total number of female mites/3 leaves/plant</b>	<b>Red spider mite population index</b>
<b>0</b>	<b>0</b>
<b>1 – 10</b>	<b>1</b>
<b>11 – 30</b>	<b>2</b>
<b>Over 30</b>	<b>3</b>

Calculate the average over the 48 samples to determine the infestation level across the field.

### **Economic Threshold Levels**

<b>Weeks after crop emergence</b>	<b>3 – 10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>
<b>Red Spider Mite population index</b>	0,5	0,8	1,1	1,4	1,7	2,0

**WEEKS 8 – 12** following crop emergence (first buds to flowering):

Use any other selective or non-organophosphorous/non-pyrethroid miticide remedy.

Apply 'spot' applications where necessary, but do not apply a full cover spray until the population index reaches 0.5 according to the above scale.

**WEEKS 12 – 20** following crop emergence (first flowering to start of boll burst):

Apply when a population increase is noticed from one week to the next, but when the population is still below the economic threshold level for a particular crop growth stage as determined by weekly scouting.

Spray with the aim of keeping the population index below 2, up to and including the boll burst stage (or  $\pm$  20 weeks after crop emergence if boll burst occurs earlier).

**PYRILATE EC** is a registered product of  
**MERIDIAN AGROCHEMICAL COMPANY (PTY) LTD.**

**PROTANK® LIQUID CLEANER** is a registered trademark of  
**WINFIELD SOLUTIONS REGISTRATION HOLDINGS (PTY) LTD.**