

Apollo[®] SC

OVICIDE/MITICIDE

GROUP 10A INSECTICIDE

Active Constituent: 500g/L CLOFENTEZINE

Poison Schedule: S5 (CAUTION)

APVMA Approval No: 54059



Eligible containers
5 L

For the residual control of European Red Mite and Bryobia Mite in Pome and Stone fruit, Twospotted mite in pome fruit, bananas, stone fruit, hops tomaotoes, Almonds, Citrus trees and ornamentals, strawberry spider mite in bananas and couch mite in turf as per directions for use.

Pack Size:

1L (6 x 1L per carton)

5L (4 x 5L per carton)

Dangerous Goods Class:

Not classified as a dangerous good under the Australian Code for Transport and Storage of Dangerous Goods in Australia.

DIRECTIONS FOR USE

DO NOT apply by aircraft.

DO NOT use in orchards where products likely to cause mite flaring have been used or planned to be used

DO NOT apply more than 1 spray per season to any crop other than turf.

DO NOT apply more than 2 sprays per season in turf.

DO NOT apply if rainfall imminent. The effect of this product could be diminished if rain falls within 6 hours of application.

DO NOT apply through any type of irrigation system or ultra-low volume spray system.

DO NOT graze treated turf or lawn; or feed turf or lawn clippings from any treated area to poultry or livestock.

SPRAY DRIFT RESTRAINTS

DO NOT apply when wind speed is less than 3 or more than 20 kilometres per hour, as measured at the application site. DO NOT apply during surface temperature inversion conditions at the application site.

DO NOT direct the spray above trees or vines during airblast applications. TURN OFF outward pointing nozzles at row ends and outer rows during airblast applications. Users of this product MUST make an accurate written record of the details of each spray application within 24 hours following application, and must KEEP this record for at least 2 years. The spray application details that must be recorded are:

1. date with start and finish times of application
2. location address and paddock(s) sprayed
3. full name of this product
4. amount of product used per hectare and number of hectares applied to
5. crop or situation and weed or pest
6. wind speed and direction during application
7. air temperature and relative humidity during application
8. nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application
9. name and address of person applying this product. (Additional record details may be required by the state or territory where this product is used.)

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Rate			Critical Comments		
In the following table, all rates are given for dilute spraying. For concentrate spraying, refer to the Mixing/ Application section.			For all uses in this table: Apply by dilute or the same total amount of product to the concentrate spraying equipment. Apply the same amount of product to the target crop whether applying this product by dilute or concentrate spraying methods		
Crop	Pest	State	Rate	WHP	Critical Comments
Pome Fruit, Stone Fruit	Twospotted mite (<i>Tetranychus urticae</i>), European red mite (<i>Panonychus ulmi</i>) Bryobia mite (<i>Bryobia rubriocuhus</i>)	All States	30mL/100L	21 days	IPM Orchards Use where integrated pest management (IPM) is well established. Apply as required when twospotted mites are evident but before the infestation reaches a level where economic damage is imminent, taking into account the effectiveness of the biological control agent determined from frequent field checks, conducted by appropriately trained personnel. For European red mite or bryobia mites, apply when the first summer eggs have been laid, usually about eight weeks after the recommended green tip dormant oil spray. Apply the IPM rate of a registered knockdown miticide for subsequent applications.
			EITHER 30mL/100L OR 30mL/ 100L in a tank mix with the registered rate of a knockdown miticide.		Non-IPM orchards EITHER Apply Apollo alone at first sign of twospotted mite movement or when the first European red mite or bryobia mite summer eggs have been laid, usually about eight weeks after the recommended green tip dormant oil spray. OR Apply this tank mix when there are significant numbers of motile mites present but before infestation reaches an economically damaging level. Apply a registered knockdown miticide for subsequent applications.
Bananas	Twospotted mite (<i>Tetranychus urticae</i>) Strawberry spider mite (<i>Tetranychus lambi</i>)	QLD, NSW, WA only	250mL/ha in a tank mix with the registered rate of knockdown miticide	-	Spray when mites first appear. Apply registered knockdown miticide for subsequent applications.

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DIRECTIONS CONTINUED					
Crop	Pest	State	Rate	WHP	Critical Comments
Hops	Twospotted mite (<i>Tetranychus urticae</i>)	Vic, Tas only	30mL/100L in a tankmix with the registered rate of a knockdown miticide	21 days	Apply this tank mix when there are significant numbers of motile mites present but before infestation reaches an economically damaging level. If miticide applications are required after December, apply a registered knockdown miticide.
Tomatoes (protected)	Twospotted mite (<i>Tetranychus urticae</i>)	All States	30mL/100L plus 25mL/100L non-ionic surfactant	1 day	Apply as a foliar spray using a boomspray or similar equipment. Apply in spray volume of 400 – 500 L/ha after transplanting increasing up to 1600L/ha for full canopy crops. DO NOT apply to any crop treated earlier in the season with hexythiazox. DO NOT use in situation where products likely to cause mite flaring have been used or are planned to be used.
Almonds	Twospotted mite (<i>Tetranychus urticae</i>) Brown Almond Mite (<i>Bryobia rubriocuhus</i>)		30mL / 100L	5 weeks	May be applied in dilute or concentrate sprays. Spray by orchard airblast/mister in sufficient water to obtain uniform coverage. Monitor crops for overwintering eggs and target application to recently hatched overwintering eggs. DO NOT apply after hull split.
Citrus trees (bare rooted and potted nursery plants only)	Citrus red mites		30mL / 100 L in a tankmix with the registered rate of an abamectin miticide.	-	Apply as a 2 minute dip for budwood and thoroughly treat with a drenching spray or dip to all the above ground parts of bare-rooted or potted plants. Apply treatments as required.
Ornamentals	Twospotted mite (<i>Tetranychus urticae</i>)		30mL/100L in a tank mix with the registered rated of knockdown miticide	-	Apply this tank mix when there are significant numbers of motile mites present but before infestation reaches an economically damaging level. DO NOT use this product until careful checking of mite/predators indicates that control measures are necessary. Do NOT apply this product, or the ovicide hexythiazox (eg.Calibre), more than once per year as over-use will lead to mite resistance.

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Crop	Pest	State	Rate	WHP	Critical Comments
Couch Turf including but not limited to golf greens, tees and fairways, bowling greens, sports fields and racetracks.	Couch Mite (<i>Aceria cynodoniensis</i>)	All states	500 mL/ha.	-	Apply Campbell Apollo in an early curative situation (after first symptoms are apparent). Best results are achieved if applied as populations begin to build rather than at the peak of population growth. OR Apply in a tank mix with the registered rate of a knockdown miticide when there are significant number of mites present, but before the infestation reaches an economically damaging level. Apply a maximum of 2 sprays, 10-14 days apart. Do not apply two consecutive sprays of Apollo unless mixed with a knockdown miticide e.g. abamectin.

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GENERAL INSTRUCTIONS

GENERAL INSTRUCTIONS: Apollo has contact action and long residual activity. It acts primarily by interfering with mite growth during the final stages of embryonic, and early stages of larval development. No more than one spray of either this product, or the ovicide hexythiazox (eg. Calibre), should be applied per season (per year, in the case of ornamentals), as over-use will lead to the development of mite resistance. In orchards where European red mite is the main problem, it is recommended that a green tip spray of dormant oil be applied for control of winter eggs, to be followed by Apollo as per the DIRECTIONS FOR USE. Apollo has no deleterious effect on predatory mites and may be used in an Integrated Pest Management programme. As a resistance management strategy, Apollo must always be applied in bananas, hops and ornamentals in a tank- mix with a registered knockdown miticide.

Resistance Warning

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APOLLO is a compound of unknown or non-specific mode of action (mite growth inhibitor). For mite resistance management Apollo is a Group 10A Insecticide. Some naturally occurring individual mites resistant to Apollo and other Group 10A miticides may exist through normal genetic variability in any mite population. The resistant individuals can eventually dominate the mite population if these miticides are used repeatedly. These mites will not be controlled by Apollo and other Group 10A miticides, thus resulting in a reduction in efficacy and possible yield loss.

Since the occurrence of resistant mites is difficult to detect prior to use, Colin Campbell (Chemicals) Pty Ltd accepts no liability for any losses that may result from the failure of Apollo to control resistant mites.

It has been confirmed by sampling and bio-assay that strains of Twospotted Mite resistant to clofentezine, the active constituent of Apollo, and hexythiazox, have developed and established in certain rose plantations in Australia.

It is thus probable that strains of Twospotted Mite resistant to clofentezine and hexythiazox have developed and are established in other ornamental plantations in Australia.

SINCE STRAINS OF MITE RESISTANT TO CLOFENTEZINE AND HEXYTHIAZOX CANNOT BE ADEQUATELY CONTROLLED WITH APOLLO, the buyer of this product or agents or advisers of the buyer should not use or direct that this product be used for the control of mites known or suspected to be resistant to either clofentezine or hexythiazox.

In the event that Apollo or mixtures containing Apollo are found by the buyer or agents or advisers of the buyer to be ineffective in controlling mites, the buyer or agents or advisers of the buyer should immediately advise Colin Campbell (Chemicals) Pty Ltd. and should seek advice concerning effective miticides.

RESISTANCE MANAGEMENT

To delay the development of mites resistant to clofentezine and hexythiazox users of this product are requested to limit the total number of applications to ONE per season in ornamentals and TWO per season in turf. Do not apply two consecutive applications of Apollo, unless tank mixed with a knockdown miticide. It is recommended that Apollo be applied in a tank-mix with a registered knockdown miticide as a resistance management strategy.

Mixing

Use only clean spraying equipment in good condition. Half fill the spray tank with clean water and commence agitation. Add the required quantity of product directly to the water, and then add mixing partner and complete filling to the final volume. Spray immediately and maintain agitation throughout. DO NOT allow spray mixture to remain in the tank overnight or for long periods without agitation.

Application

Good control requires good coverage. Application should be made using sufficient water to ensure thorough coverage.

1. Dilute spraying

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- The required water volume may be determined by applying different test volumes, using different settings on the

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sprayer, from industry guidelines or expert advice.

- Add the amount of product specified in the Directions for Use table for each 100L of water. Spray to the point of run-off.
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

2. Concentrate spraying

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- Determine an appropriate dilute spray volume (see Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- The mixing rate for concentrate spraying can then be calculated in the following way.

EXAMPLE ONLY

1. Dilute spray volume as determined above: for example 1500L/ha.
 2. Your chosen concentrate spray volume: for example 500L/ha.
 3. The concentration factor in this example is : 3 X (i.e. $1500L / 500L = 3$)
 4. If the dilute label rate is 40mL/100L, then the concentrate rate becomes 3 x 40, that is 120mL/100L of concentrate spray.
- The chosen spray volume, amount of product per 100L of water, and the sprayer set up and operation may need to be changed as the crop grows.
 - For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practice.

Pome fruit, stone fruit: Apply as a high volume spray. Most common volumes will be 1500 to 3000L spray/ha depending on tree density and size. Some orchards may require up to 5000L/ha. Ensure thorough coverage of the trees.

Hops, ornamentals: Use adequate water to ensure thorough coverage of plants depending on spray equipment used and growth stage.

Bananas: Apply in 250 to 500L water/ha, ensuring thorough coverage of foliage. Immediately after spraying, thoroughly clean all spraying and measuring equipment with clean water and detergent.

Turf: Apply by ground boom sprayer, low pressure hand wand or hand gun sprayer. To be effective Apollo requires thorough spray coverage. Ensure that equipment is properly calibrated to give an even distribution at the correct volume. Application volume should be adequate to ensure thorough and even coverage of turf leaves with penetration into the crowns. Total application volume should be 300 to 500 L/ha. Use coarse droplets (e.g. Air Induction flat fan 025 to 04 nozzles). In higher cut turf (>15 mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.

Compatibility: Apollo is compatible with most commonly used insecticides and fungicides including knockdown miticides, dormant oil sprays mancozeb plus D-C-Tron, propiconazole, and abamectin. Apollo is not compatible with lime sulphur or Bordeaux mixture.

Re-entry Period: Do NOT allow entry into treated areas until the spray deposits have dried. When entry is necessary, wear cotton overalls buttoned to the neck and wrist and elbow-length PVC gloves. Clothing must be laundered after each day's use. For glasshouses and other confined areas, do not re-enter until spray deposits have dried and areas have been thoroughly ventilated.

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Protection of crops: While the product is generally safe on ornamental species, always spray several plants initially to ensure that no damage or flower staining occurs.

Protection of Wildlife, Fish, Crustaceans, and Environment: DO NOT contaminate streams, rivers or waterways with this product or the used containers.

Drift Warning: DO NOT apply under meteorological conditions or from spraying equipment which could be expected to cause spray to drift onto adjacent crops, crop lands, pastures or livestock.

Storage and Disposal: Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. The container can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple-rinse container for disposal. Dispose of rinsate or any undiluted chemical according to state legislative requirements. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection or similar container management program site. The cap should not be replaced, but may be taken separately. If not recycling, break, crush, or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

Safety Directions: May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin. When opening the container and preparing spray wear elbow length chemical resistant gloves. If applying by spraying equipment carried on the back of the user wear elbow length chemical resistant gloves. Wash hands after use.

First Aid: If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 131126.

Additional hazard and precautionary statement required by WHS:

Avoid breathing fumes, mists, vapours or spray. Wash contacted areas thoroughly after handling. Take off contaminated clothing and wash before reuse.

IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

In case of fire, use carbon dioxide, dry chemical, foam, water fog, dry sand. Store in a dry place.

SAFETY DATA SHEET: For further information, refer to the Safety Data Sheet. A copy can be obtained from the website: www.campbellchemicals.com.au

CONDITIONS OF SALE: Agricultural, horticultural and pastoral preparations in their application involve varying factors such as differing conditions, soil, climate and methods of application over which Colin Campbell (Chemicals) Pty Ltd (Company) does not have control. Whilst the Company believes that all goods sold by it are true to label and are effective and safe for the purpose indicated, the Company expressly excludes all conditions, guarantees and warranties, whether express, implied, statutory or otherwise, relating in any way to the goods and accepts no responsibility for any loss, harm or damage whatsoever suffered from the use of the goods for any purpose or purposes. Notwithstanding the foregoing, where any legislation implies any condition, guarantee or warranty (each, a Statutory Guarantee) and that legislation prohibits provisions excluding, restricting or modifying the application of, the exercise of a right conferred by or liability under such Statutory Guarantee, such Statutory Guarantee shall not be excluded. However the Company's liability for any breach of such Statutory Guarantee shall, if permitted by that legislation, be limited at the Company's option to the replacement of the goods or the supply of equivalent goods, or the payment of the cost of replacing the goods or of acquiring equivalent goods.

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