



Apollo[®] SC

OVICIDE/MITICIDE

Product Guide

Now for use on ALMONDS!!



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APOLLO[®] SC MITICIDE

GROUP 10A INSECTICIDE

<i>Active Ingredient:</i>	500g/L CLOFENTEZINE
<i>Poison Schedule:</i>	S5
<i>Withholding Period:</i>	Bananas, ornamentals: not required when used as directed. Apples, hops, pears, stone fruit: do not harvest for 21 days after application.
<i>Dangerous Goods Class:</i>	Not classified as a dangerous good under the Australian Code for Transport and Storage of Dangerous Goods in Australia.
<i>Registered for use In:</i>	See below and APVMA Permit - Number PER6904.
<i>Available In:</i>	5L (4 x 5L per carton) 1L (10 x 1L per carton)



DIRECTIONS FOR USE

RESTRAINTS: DO NOT apply more than 1 spray per season (per year, in the case of ornamentals), of either this product, or the ovicide hexythiazox (eg. Calibre), as over-use will lead to the development of mite resistance.

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

Crop	Pest	State	Rate	WHP	Critical comments
Apples stone fruit	Twospotted mite (<i>Tetranychus urticae</i>), European red mite (<i>Panonychus ulmi</i>)	All States	30mL/100L	21 days	IPM Orchards Use where integrated pest management (IPM) is <u>well</u> established. Apply as required when <u>twospotted mites</u> 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.
Pears	Twospotted mite (<i>Tetranychus urticae</i>)				For <u>European red mite</u> , 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/100		Non-IPM orchards EITHER Apply Apollo alone at first sign of <u>twospotted mite</u> movement or when the first <u>European red mite</u> summer eggs have been laid, usually about eight weeks after the recommended green tip dormant oil spray.
			OR 30mL/100L in a tank mix with the registered rate of a knockdown miticide.		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.



Crop	Pest	State	Rate	WHP	Critical comments
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.
Hops	Twospotted mite (<i>Tetranychus urticae</i>)	Vic, Tas only	30mL/100L in a tank mix 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.
Ornamentals	Twospotted mite (<i>Tetranychus urticae</i>)	All States	30mL/100L in a tank mix with the registered rate 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. <u>Do NOT apply this product, or the ovicide hexythiazox (eg. Calibre), more than once per year as over- use will lead to mite resistance.</u>

NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.

General Instructions:

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.

**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:**Apples, pears, 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.

Compatibility:

Apollo is compatible with most commonly used insecticides and fungicides including knockdown miticides, dormant oil sprays mancozeb plus D-C-Tron, propiconazole. 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.

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. Triple or (preferably) pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling return clean containers to recycler or point of sale. If not recycling break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury empty containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots. Empty containers and product should not be burnt.

Safety Directions:

Will irritate the eyes and skin. Avoid contact with eyes and skin. Wash hands after use.

First Aid:

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

For further information refer to the Material Safety Data Sheet (MSDS 73).

APVMA Approval No: 54059



PERMIT TO ALLOW MINOR USE OF AN AGVET CHEMICAL PRODUCT

PERMIT NUMBER -PER6904

This permit is issued to the Permit Holder in response to an application granted by the APVMA under section 112 of the Agvet Codes of the jurisdictions set out below. This permit allows a person, as stipulated below, to use the product in the manner specified in this permit in the designated jurisdictions. This permit also allows any person to claim that the product can be used in the manner specified in this permit.

THIS PERMIT IS IN FORCE FROM 28 APRIL 2004 TO 31 MARCH 2007.

Permit Holder:
AUSTRALIAN ALMOND GROWERS ASSOCIATION
7 WILSON ST
BERRI SA 5343

Persons who can use the product under this permit:
Persons generally.

CONDITIONS OF USE

Product to be used:
APOLLO SC MITICIDE
Containing:500 g/L CLOFENTEZINE as its only active constituent.

Directions for Use:

Crop	Pest	Rate
ALMONDS (<i>Prunus amygdalus</i>)	TWO-SPOTTED MITE (<i>Tetranychus urticae</i>) BROWN ALMOND MITE (<i>Bryobia rubrioculus</i>)	Apply 30 mL product per 100L water.

Critical Use Comments:

- DO NOT apply more than one application per season to manage the development of resistance.
- DO NOT apply after hull split.
- Monitor crops for overwintering eggs and target application to recently hatched overwintering eggs.
- Spray by orchard airblast/mister in sufficient water to obtain uniform coverage.
- May be applied in dilute or concentrate sprays.

Withholding Period:

DO NOT HARVESTS FOR 35 DAYS AFTER APPLICATION.

Jurisdiction:

ALL STATES (except Victoria).

(Note: Victoria is not included in this permit because their ‘control-of-use’ legislation means that a permit is not required to legalise this off-label use in VIC).

Additional Conditions:

THIS PERMIT provides for the use of a product in a manner other than specified on the approved label of the product. Unless otherwise stated in this permit, the use of the product must be in accordance with instructions on its label.

PERSONS who wish to prepare for use and/or use products for the purposes specified in this permit must read, or have read to them, the details and conditions of this permit.

Issued by

Delegated Officer

COLIN CAMPBELL (CHEMICALS) PTY. LTD.

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No effect on IPM.....

- Apollo is an ovicide, a compound that prevents mite eggs from hatching and is also effective on newly hatched mites as well (but not on later stages and adults.)
- Apollo is non-toxic to beneficial mite predators, pollinators and other insects that work hard for you.

Tips on the use of Apollo.....

- Use Apollo with an adult knockdown miticide of different resistance grouping. This will minimise the risk of resistance developing.
- With an ovicide, spray coverage must be complete. Eggs do not walk around, so all plant parts must be thoroughly covered to be certain eggs will contact Apollo residue.
- Use one spray only per season with proper timing. Apply to recently hatched overwintering mite eggs.

Characteristics of *Tetranychus* spp.

Egg	Larvae	1st Nymph (Proto)	2nd Nymph (Deuto)	Adult	Over Wintering Female
Life Cycle		5 to 7 days @ 35°C	16 to 20 days @ 24°C		
DAMAGE STAGES					
WEBBING STAGES					
Clear	Clear 6 legs	2 "spots" 8 legs	2 "spots" 8 legs	2 "spots" 8 legs 120 eggs +/-	Diapause Mated in autumn Bronze or Reddish Colour 8 legs Reduced egg laying
Apollo Activity					

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Why spray water pH matters.....

New research shows that the pH level of your spray water can affect the efficacy of Apollo. A high pH of 7 or above in your spray tank can hinder the mite control performance of this valuable product.

In the pH stability chart to the right, the half-life of Apollo was demonstrated to be 58 times as long at a pH of 5 as it was at a pH of 9 (248.8 hours vs. 4.3 hours). Therefore, if Apollo was placed in a tank with a pH of 9 and allowed to sit, the product would start to degrade quickly and half of the product would be broken down after 4 hours. This could result in less consistent and less effective performance.

Based on these findings, Colin Campbell Chemicals recommends maintaining a pH level of 5.5 to 6.5 in your spray tank in order to protect the efficacy of Apollo. Various buffering agents and acidifiers, available at your local retailer, can be added to your spray tank to adjust the pH level. Determining the pH of your spray water and adding a pH adjuster is less expensive compared to the cost of losing your product's efficacy.

pH Stability of Apollo

