

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Applaud[®]

INSECTICIDE

ACTIVE CONSTITUENT: 440 g/L BUPROFEZIN

GROUP	16	INSECTICIDE
-------	-----------	-------------

For the control of red scale and white louse scale, jassids (leafhoppers) and longtail, citrus and citrophilous mealybugs in citrus crops; cotton mealybug and silverleaf whitefly in cotton; mealybugs in grapes and pears; mealybugs and scales in persimmons, custard apples and passion fruit; mango scale in mangoes and whitefly in tomatoes (protected cropping) as specified in the Directions For Use.

IMPORTANT: READ THE ATTACHED BOOKLET BEFORE USE

Contents: 1, 5, 10, 20 Litres

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre.
Phone: *Australia* 13 11 26. *New Zealand* 0800 764 766.

SAFETY DIRECTIONS

- Will irritate the eyes.
- Avoid contact with eyes.
- When opening the container, preparing spray and using the prepared spray, wear cotton overalls, over normal clothing, buttoned to the neck and wrist, a washable hat and elbow-length chemical resistant gloves.
- If applying by boom spray equipment (closed cab), wear cotton overalls buttoned to the neck and wrist (or equivalent clothing).
- Wash hands after use.
- After each day's use, wash gloves, and contaminated clothing.

EMERGENCY RESPONSE
(ALL HOURS)
RING FROM ANYWHERE IN
AUSTRALIA
1800 370 754
(LOCAL CALL FEE ONLY)

IN A TRANSPORT
EMERGENCY ONLY
DIAL 000
FOR POLICE OR
FIRE BRIGADE

SAFETY DATA SHEET

Additional information is listed on the Safety Data Sheet for **APPLAUD[®] INSECTICIDE** which is available from Corteva Agriscience on request. Call Customer Service Toll Free on 1-800 700 096 or visit www.corteva.com.au



™ © Trademarks of Corteva Agriscience and its affiliated companies.

Visit us at Corteva.com.au

DIRECTIONS FOR USE

RESTRAINTS:

DO NOT apply more than twice per year in any crop.

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of runoff for at least 3 days after application.

Wine grapes: DO NOT apply later than 80% capfall.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between three and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a MEDIUM spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas are observed (see 'Mandatory downwind buffer zones' of the following table titled 'Buffer zones for boom sprayers').

Buffer zones for boom sprayers

Application rate	Boom height above the target canopy	Mandatory downwind buffer zones
		Natural aquatic areas
Up to 1000 mL/ha	0.5 m or lower	Not required
	1.0 m or lower	10 metres
Up to 600 mL/ha	0.5 m or lower	Not required
	1.0 m or lower	5 metres

DO NOT apply by a vertical sprayer unless the following requirements are met:

- Spray is not directed above the target canopy.
- The outside of the sprayer is turned off when turning at the end of rows and when spraying the outer row on each side of the application site.
- For dilute water rates up to the maximum listed for each type of canopy specified, minimum distances between the application site and downwind sensitive areas are observed (see 'Mandatory downwind buffer zones' of the following table titled 'Buffer zones for vertical sprayers').

Buffer zones for vertical sprayers

Type of target canopy and dilute water rate	Mandatory downwind buffer zones
	Natural aquatic areas
2 metres tall and shorter, maximum dilute water rate of 1000 L/ha	Not required
Taller than 2 metres (not fully-foliated), maximum dilute water rate of 2000 L/ha	10 metres
Taller than 2 metres (fully-foliated), maximum dilute water rate of 2000 L/ha	Not required
Taller than 2 metres (not fully-foliated), maximum dilute water rate of 12000 L/ha	20 metres
Taller than 2 metres (fully-foliated), maximum dilute water rate of 12000 L/ha	15 metres

DO NOT apply by aircraft unless the following requirements are met:

- Spray droplets are not smaller than a MEDIUM spray droplet size category.
- For maximum release height above the target canopy of 3 metres or 25 per cent of wingspan or 25 per cent of rotor diameter, whichever is the greatest
- Minimum distances between the application site and downwind sensitive areas are observed (see 'Mandatory downwind buffer zones' of the following table titled 'Buffer zones for aircraft')

Buffer zones for aircraft

Type of aircraft	Mandatory downwind buffer zones	
	Natural aquatic areas	Livestock areas
Fixed-wing	35 metres	10 metres
Helicopter	35 metres	15 metres

Table 1: Tree and Vine crops and Tomatoes (protected cropping only)

In the following table, all rates are given for dilute spraying. For concentrate spraying refer to the "Concentrate Spraying" Section.			
TREE AND VINE CROPS	INSECT PEST	RATE/ 100 L water	CRITICAL COMMENTS
Citrus including: Oranges Lemons Mandarins Grapefruit Limes	Red scale, White louse scale, Longtail mealybug, Citrus mealybug, Citrophilous mealybug	30-60 mL	Scales: Apply when there is heavy crawler emergence, particularly in late summer. Where the infestation is severe, a second application may be required 14-28 days later. Applaud® Insecticide works best in an integrated pest management (IPM) programme where parasites such as <i>Aphytis</i> spp. are active. Mealybugs: Apply if thresholds are exceeded in spring-summer. Repeat after 21-28 days if necessary. Rate: Use the high rate when heavy infestations of the pests occur and/or where IPM systems have not effectively managed pest populations.
	Jassids (leafhoppers)	30 mL	Apply when thresholds are exceeded in January and again in February if required. Apply when juvenile stages predominate.
Custard apples	Mealybugs, Scale insects	30 – 60 mL	Apply a maximum of two (2) sprays per season, 21 days apart, as a high volume cover spray to run-off using air blast or high volume hydraulic nozzles.
Grapes	Longtail mealybug and Tuber mealybug	30 – 60 mL	Apply twice, 14-21 days apart, starting when the first emergence of crawlers is observed. Use the high rate when heavy infestations occur and/or where IPM systems have not effectively managed pest populations.
Mangoes	Mango scale	60 mL	Monitor scales and apply when the majority of crawlers have emerged. This usually coincides with tree flushing after harvest and in spring when fruit are 1.5 to 2.0 cm across. A repeat application within 14- 28 days may be necessary. DO NOT use mineral oils as fruit blotching may occur.
Passion fruit	Mealybugs, Scale insects	30 – 60 mL	Apply a maximum of two (2) sprays per season, 21 days apart when significant pest infestations develop. Apply as a high volume cover spray to run-off using air blast or high volume hydraulic nozzles.
Pears	Longtail mealybug	30 – 60 mL	Apply twice, 10-14 days apart between swollen bud and the end of flowering in sufficient volume to ensure the bark is soaked, with thorough coverage to the point of run-off. Use the high rate when heavy infestations occur and/or where IPM systems have not effectively managed pest populations, particularly under harsh environmental conditions.
Persimmons	Mealybugs, Scale insects	60 mL	Apply a maximum of two (2) sprays per season, 14 days apart. Apply when the first batch of scale or mealybug crawlers occur after winter.
Tomatoes (protected cropping)	Greenhouse whitefly (<i>Trialeurodes vaporariorum</i>) and Silverleaf whitefly (<i>Bemisia tabaci</i>)	30 mL	Apply using boomspray equipment when pest first appears and make a second application 14 days later. Application should be aimed at the early nymph stages of whitefly. Spray in sufficient volume to provide adequate penetration and coverage.
<p>NOTE: To optimise control of mealybugs in most crops it is critical to time treatment to coincide with the first emergence of crawlers. If it is intended to release <i>Cryptolaemus</i> ladybeetles as part of an IPM system, the last application of Applaud® should be made no later than 60 days before the anticipated release date.</p>			

Table 2. Cotton

Crop	INSECT PEST	RATE/ ha	CRITICAL COMMENTS
Cotton	Silverleaf whitefly (<i>Bemisia tabaci</i>) Cotton mealybug (<i>Solenopsis mealybug</i>) (<i>Phenacoccus solenopsis</i>)	1 L	Apply as part of a season long spray programme targeting pests early in the crop. The use of Applaud® will conserve beneficials when used as part of an IPM system. Spray in sufficient volume to provide adequate penetration and coverage. Thorough spray coverage is essential. Apply when pest first appears and make a second application 10-14 days later if required. Application should be aimed at the early nymph (crawlers and nymphs) stages of whiteflies and mealybugs. Conservation of beneficials is essential when controlling cotton mealybug.
NOTE: To optimise control of mealybugs in most crops it is critical to time treatment to coincide with the first emergence of crawlers.			

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

HARVEST WITHHOLDING PERIODS (WHP):

Passion fruit:	DO NOT HARVEST FOR 1 DAY AFTER APPLICATION
Custard apple:	DO NOT HARVEST FOR 2 WEEKS AFTER APPLICATION
Citrus, Mango & Persimmon:	DO NOT HARVEST FOR 4 WEEKS AFTER APPLICATION
Pears & Table grapes:	DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION
Tomatoes (protected cropping):	DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION
Wine grapes:	NOT REQUIRED when used as directed (i.e. DO NOT apply Applaud® after 80% capfall).
Cotton:	DO NOT HARVEST FOR 14 DAYS AFTER LAST APPLICATION

GRAZING AND STOCKFOOD WITHHOLDING PERIODS (WHP):

Cotton (Grazing): **DO NOT FEED COTTON FODDER, STUBBLE OR TRASH TO LIVESTOCK**

TRADE ADVICE INFORMATION:

Crops such as cotton or table grapes grown for export may require a longer interval before harvest to comply with residue standards of importing countries. Please check with your exporter before using Applaud® Insecticide.

GENERAL INSTRUCTIONS

Mixing/Application

Prior to pouring, shake container vigorously, then add the required quantity of Applaud® Insecticide to water in the spray vat while stirring or with agitators in motion.

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 sprayer, from industry guidelines or expert advice. Add the amount of product specified in the Directions for Use table for each 100 L 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.

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 1500 L/ha
2. Your chosen concentrate spray volume: For example 500 L/ha
3. The concentration factor in this example is: 3 X (i.e. $1500 \text{ L} \div 500 \text{ L} = 3$)
4. As the lower dilute label rate is 30 mL/100 L, then the corresponding concentrate rate becomes 3 x 30, that is 90 mL/100 L of concentrate spray.

The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows. Do not use a concentrate rate higher than that specified in the Critical Comments. For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

Application Instructions: Citrus Only

Apply Applaud® Insecticide in sufficient water to ensure complete wetting of all surfaces.

Oscillating booms

A spray volume of 7,000 to 12,000 L water/ha should be used for trees up to 5m high. To optimise control the following application procedures are recommended:

- | | |
|---------------------|--|
| a) ground speed | 2.3 to 2.75 km/h |
| b) pump pressure | 3000 to 5000 kPa |
| c) oscillation rate | 90-110 oscillations per minute |
| d) spray pattern | adjacent cones marrying at about 1.75 m (i.e. narrow cone angle, but the maximum angle consistent with good tree penetration). |
| e) agitation | 1 large paddle per 500 L; paddles should clear the bottom of the vat by about 10 mm and should have the same orientation. |
| f) boom set | set angle of top to match tree size. |

Airblast sprayers

Airblast sprayers may be used for control of jassids/leafhoppers, but are less suitable for control of scales and mealy bugs. For jassid control, use spray volumes of approximately 5,000 L/ha.

Cotton: Ensure thorough coverage. Apply in a minimum of 100 – 150 L water per ha by ground rig boom spray, or a minimum of 40 L water per ha for aerial application.

COMPATIBILITY

Applaud® Insecticide is compatible with Dithane® Rainshield® NeoTec® Fungicide and a number of other agricultural chemicals commonly used on the same crops. Please contact your supplier or Corteva Agriscience representative for further information on compatibility.

Applaud® Insecticide is **not compatible** with Sacoa BioPest Oil or with products that are highly alkaline or highly acidic.

CLEANING SPRAY EQUIPMENT

After using Applaud[®] Insecticide, empty the tank completely and drain the whole system. Thoroughly wash inside the tank using a pressure hose, drain the tank and clean all filters in the tank, pump, lines and nozzles.

After cleaning the tank and filters as above, quarter fill the tank with clean water and circulate through the pumps, lines, hoses and nozzles. Drain and repeat the rinsing procedure twice.

Rinse water should be discharged onto a designated disposal area, or if this is unavailable, onto unused land away from plants and water courses.

INSECTICIDE RESISTANCE WARNING

GROUP	16	INSECTICIDE
--------------	-----------	--------------------

For insecticide resistance management Applaud[®] is a Group 16 insecticide.

To minimise the risk of resistance developing, a total of no more than two applications of Applaud[®] Insecticide should be made on a crop per season. Some naturally occurring insect biotypes resistant to Applaud[®] and other Group 16 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Applaud[®] or other Group 16 insecticides are used repeatedly. The effectiveness of Applaud[®] on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Dow AgroSciences Australia Limited* accepts no liability for any losses that may result from the failure of Applaud[®] to control resistant insects.

Applaud[®] may be subject to specific resistance management strategies. For further information contact your local supplier, Corteva Agriscience representative or call Customer Service Toll Free on 1-800 700 096.

* Dow AgroSciences Australia Limited is a member of the Corteva Agriscience group of companies

PRECAUTIONS

Re-entry Period:

DO NOT allow entry into treated areas until spray has dried. If prior entry is necessary, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby plants/crops, cropping lands or pastures.

PROTECTION OF LIVESTOCK

DO NOT allow stock to graze grasses or weeds under treated trees.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. **DO NOT** contaminate wetlands or watercourses with this product or used containers.

INTEGRATED PEST MANAGEMENT

Applaud[®] Insecticide at label rates of 30 to 60 mL/100 L water has been demonstrated to be safe to a range of predatory and beneficial insects including bumblebees and honeybees, parasitoid wasps such as *Aphytis lignanensis*, *Leptomastix dactylopii* and *Encarsia* spp., predatory mites such as *Phytoseiulus persimilis* and *Typhlodromus occidentalis* and the green lacewing (*Mallada signatus*). Applaud[®] Insecticide has no significant effect on adult ladybeetles but is known to be toxic to early instars of *Cryptolaemus montrouzieri*, *Chilocorus circumdatus* and *Harmonia conformis*. Applaud[®] Insecticide may also affect egg hatch of these species for 2 to 3 weeks after application.

STORAGE AND DISPOSAL

- Keep out of reach of children.
- Store in the closed, original container in a cool well-ventilated area. DO NOT store for prolonged periods in direct sunlight.
- DO NOT store near foodstuffs, fertilisers or seed.

Recycled containers:

This 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 by adding to the spray tank. Do not dispose of undiluted chemicals on site. 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 site. The cap should not be replaced but may be taken separately.

Non-recycled containers:

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. 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.

SMALL SPILL MANAGEMENT

Wear protective equipment (see Safety Directions). Apply absorbent material such as earth, sand, clay granules or cat litter to the spill. When absorption is completed, sweep up material and contain in a refuse vessel for disposal (see Storage and Disposal Section). If necessary wash the spill area with an alkali detergent and water and absorb the wash liquid for disposal as described above.

APVMA Approval Number: 51547/120432

Dow AgroSciences Australia Limited A.B.N. 24 003 771 659

67 Albert Avenue, Chatswood, NSW 2067

www.corteva.com.au

CUSTOMER SERVICE TOLL FREE

1-800 700 096



Made in Japan

GMID

DOM/Batch No.:

® , TM Trademarks of Corteva Agriscience and its affiliated companies.

© Applaud is the Registered Trademark of Nihon Nohyaku Co. Ltd