

POISON

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

Brevis®

Fruit thinner

ACTIVE CONSTITUENT: **150 g/kg METAMITRON**

Crop: Apples and pears

Uses: Fruit thinning



ADAMA

Formulation type
Water Soluble
Granule **SG**

adama.com

NET CONTENTS: 1 - 20 kg

RESTRAINTS

- DO NOT apply more than two applications of BREVIS® per season or more than 4.4 kg per hectare per growing season.
- DO NOT apply later than 16 mm stage of central fruitlet.
- DO NOT apply if heavy rains or storms are forecast within 3 days.
- DO NOT irrigate to the point of field runoff for at least 3 days after application.
- DO NOT use on trees to be used for propagation.
- DO NOT apply herbicides that have the potential to volatilise and be taken up by foliage in the 7 days before or after BREVIS® application.
- DO NOT apply to wet foliage e.g. early in the morning after a dew or shortly after rain.
- DO NOT apply within 5 days of a frost or when frost is expected.
- DO NOT allow drift onto non-target crops, especially stone fruit as drift may cause scorching of the foliage.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at www.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 3 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 aircraft. Apply only by ground based application methods.
- 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 (see 'Mandatory buffer zones' section of the following table titled 'Buffer zones for vertical sprayers') are observed.

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Buffer zones for Vertical Sprayers

Type of target canopy	Mandatory downwind buffer zones			
	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
2 metres tall and smaller, maximum dilute water rate of 1000 L/ha	0 metres	0 metres	5 metres	10 metres
taller than 2 metres (not fully-foliated), maximum dilute water rate of 1500 L/ha	0 metres	0 metres	20 metres	10 metres
taller than 2 metres (fully-foliated), maximum dilute water rate of 1500 L/ha	0 metres	0 metres	10 metres	10 metres

DIRECTIONS FOR USE

BREVIS® is a fruit thinner for use on apple and pear trees. BREVIS® is applied post-fruit set to thin excess fruitlets and assist with optimising fruit load and fruit size.

It is recommended to apply BREVIS® only to well-maintained orchards with adequate pest and disease control and good irrigation and nutrition.

BREVIS® is a photosynthesis inhibitor and factors influencing photosynthesis can impact the thinning effect. These factors need to be considered when deciding the appropriate application rate, number of applications and timing of the application.

Before applying BREVIS®, refer to **Table 1** for critical information about factors increasing the thinning effect of BREVIS®. Growers should consider all factors and orchard history before selecting the rate and the number of applications. If the block history is unknown or there is a history of variable responses to fruit thinners, evaluate BREVIS® by applying only to a small trial section within each block for 1-2 years before commercially treating whole blocks.

Table 1. Factors increasing the activity/thinning effect of BREVIS®

PARAMETER	COMMENTS
<p>Application of:</p> <ul style="list-style-type: none"> Oil based products such as summer oils, adjuvants and crop protection products that contain oils (e.g. Penthioopyrad) Other fruit thinners, applied either before/after or in a tank mix with BREVIS®. 	<p>For oil-based products, maintain an interval of at least 7 days before or after application of BREVIS®.</p> <p>Other fruit thinners: refer to the "Other Fruit Thinning Products" section in the General Instructions.</p>
<p>Climatic effects including:</p> <p>Warm night-time temperatures (>10° C) the week prior to and post application.</p> <p>High humidity at the time of application.</p> <p>Reduction in sunlight/light intensity (e.g. Cloud cover or overcast conditions, hail nets, etc.). The use of hail nets may increase the effectiveness of BREVIS® due to reductions in solar radiation and the existence of a microclimate.</p>	<p>Application should be postponed if trees are under stress e.g. after a period of cloudy weather, high day and/or unusually high night temperatures, drought, hail damage etc.; or when a stressful period is expected.</p> <p>If conditions favour over-thinning, postpone application or decrease the application rate and/or reconsider the need for a second application.</p>
<p>Orchard Management:</p> <p>Cultivars and clones respond differently to fruit thinning agents. Not all cultivars/clones have been tested for crop safety under all environmental conditions and growing circumstances. In addition to seasonal weather conditions occurring prior to and after flowering, other factors can play an important role in the response to chemical thinning agents including:</p> <ul style="list-style-type: none"> Tree age Training systems Rootstock Tree vigour Stress on trees Orchard cropping history/orchard management practices Other thinning sprays/plant growth regulators applied to the block <p>In orchards with vigorous growth, the activity of BREVIS® may be increased due to competition for photosynthates between the vegetation itself and the fruits. Strong and vigorous trees generally respond more to chemical fruit thinning.</p>	<p>DO NOT use on areas with a history of poor or variable fruit set or poor fruit retention or on trees with poor tree health/under stress e.g. frost damage, water stress, heat stress.</p> <p>DO NOT apply higher rates on varieties or trees with a history of issues with poor fruit retention or over-thinning responses to other thinning products.</p> <p>Use of BREVIS® on young apple/pear orchards under 4 years is not recommended.</p> <p>Caution must be exercised when using the product for the first time or on new areas or blocks, to avoid over-thinning the crop. If the block history is unknown or there is a history of variable responses to fruit thinners, evaluate BREVIS® before commercially treating whole blocks by applying only to a small trial section within each block for 1-2 years.</p>

PARAMETER	COMMENTS
<p>Growing Region: Differences in thinning responses to BREVIS® have been observed between growing regions. In the Stanthorpe growing region of Southern Queensland, very strong thinning effects i.e. more fruitlets thinned than standard chemical fruit thinning/hand thinning practices; have occurred over multiple trials and seasons especially for the higher rate applied at 8-12 mm growth stage. In southern growing regions i.e. the Goulburn Valley and Yarra Valley regions of Victoria, Adelaide Hills, Southern New South Wales and Tasmania; very strong thinning responses from BREVIS® (as defined above) have been less frequent in field testing. This is most likely due to the interaction of factors impacting the thinning effect of BREVIS®.</p>	<p>DO NOT apply high rates and multiple applications of BREVIS® in regions or situations where poor or variable fruit set has occurred, and strong thinning responses are expected. The decision on rates and number of applications should be made at the start of the application window for BREVIS®, after the effect of any primary thinner applications.</p>

CROP	RATE	CRITICAL COMMENTS
Apples (except Sundowner) and Pears	1.1 to 2.2 kg/ha	<p>Timing of application: BREVIS® should be applied when the diameter of the central fruitlets is 8-16 mm. DO NOT apply later than the 16 mm stage. For best results, apply BREVIS® when daily temperatures range between 10°C and 25°C. If weather conditions prior to application are outside the recommended range and trees are under stress, postpone application until conditions are more suitable for applying BREVIS®. Refer to Table 1 for factors increasing the effect of BREVIS® or causing tree stress and to Table 2 for more information on tested cultivars.</p> <p>Application rate: Apply to BREVIS® at 1.1 to 2.2 kg/ha when conditions are suitable from the start of the use window. The rate used will depend on the amount of fruit thinning required. This will be influenced by fruit set and previous history of small fruit and biennial bearing. Use the lower rate to thin fewer fruitlets, particularly on easy to thin cultivars and where strong thinning responses to BREVIS® have been previously observed. Use the higher rate to increase thinning, where there is high fruit set, on harder to thin cultivars and/or when applying later in the BREVIS® application window. A second application of BREVIS® at 1.1 to 2.2 kg/ha may be required where there is high fruit set, particularly on harder to thin cultivars and where the photosynthesis rate is high and favouring greater fruitlet retention. There must be a minimum interval of 5 days between BREVIS® applications. DO NOT apply more than 4.4 kg/ha of BREVIS® per season.</p> <p>Spray application: Apply in a sufficient spray volume to give good coverage. DO NOT apply past the point of runoff. The rate applied must be based on the target rate per hectare as listed above.</p>

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

WITHHOLDING PERIODS

HARVEST: NOT REQUIRED WHEN USED AS DIRECTED.

GRAZING: DO NOT ALLOW LIVESTOCK TO GRAZE INTER-ROWS IN ORCHARDS TREATED WITH BREVIS®.

GENERAL INSTRUCTIONS

Mixing

Ensure the sprayer is clean and in good working order. Calibrate as per the sprayer manufacturer's recommendations.

Half fill the spray tank with clean water and begin agitation.

Continue to fill the spray tank and slowly add the required quantity of BREVIS®. Triple rinse empty container and add rinsate to the spray tank. Continue agitation until spraying is complete.

Do not leave the sprayer standing with the spray mixture in it for prolonged periods.

Application

Apply in a sufficient spray volume to give good coverage. DO NOT apply past the point of runoff.

BREVIS® has a thinning effect only on the treated parts of the trees and should only be applied to the parts of the crop canopy that require thinning. Application should be made using appropriate spray equipment and sufficient water to provide adequate penetration and coverage. Equipment setting and water volume may need to vary, depending on the tree height and canopy. Take care not to overlap sprays during application.

BREVIS® is rainfast in 2 hours for up to 10 mm of rainfall. Heavier rainfall after application may reduce the foliar uptake of BREVIS®. If >10 mm rainfall is forecast but will only marginally exceed 10 mm i.e. by ≤10 mm; use an 8 hour rainfastness interval. If heavier rainfall or prolonged cloudy/rainy conditions are forecast, it may be necessary to postpone application. Before application, review the recommendations in Table 1 regarding weather conditions, light intensity and over-thinning risk.

Cultivar

The thinning effect of BREVIS® can vary by cultivar. From extensive testing of BREVIS® over multiple growing regions and cultivars, the only cultivar tested that didn't respond to BREVIS® was apple cv. Sundowner. **Table 2** below provides a list of cultivars with a confirmed thinning response to BREVIS® in local and overseas field testing and/or commercial use.

Table 2. Cultivars with confirmed responses to BREVIS® in local or overseas trials

Crop type	Australian trials	Overseas trials
Apples	<ul style="list-style-type: none">• Fuji• Granny Smith• Pink Lady• Red Delicious• Royal Gala• Rubens	<ul style="list-style-type: none">• Braeburn• Bramley• Belgica• Cox• Elstar• Envy• Idared• Jonagold• Junami• Kanzi• Pacific Queen
Pears	<ul style="list-style-type: none">• Packham	<ul style="list-style-type: none">• Bartlett (Williams Bon Chretien)• Belle de jumet• Concord• Conference• Williams

For advice on the efficacy of BREVIS® by cultivar, contact your local Adama representative.

Crop Safety

BREVIS® can cause minor chlorotic/necrotic areas on leaves and some minor leaf drop. The leaf effects from BREVIS® applications had no impact on crop development or fruit yield/quality on any of the apple cultivars tested. However, BREVIS® has not been tested on all cultivars. For advice on the crop safety of BREVIS® by cultivar, contact your local Adama representative.

Hand thinning:

In certain situations such as heavy fruit set, hard to thin varieties and/or growing conditions not conducive to chemical thinning; hand-thinning may be required after the maximum seasonal rate of BREVIS® has been applied to the crop, to achieve the desired fruit size range/yield.

Other Fruit Thinning Products

Where required, BREVIS® can be applied as part of program in a sequence with other thinners. If applying primary thinners, assess the effectiveness of these applications and additional fruit thinning requirements before deciding on the application rate/number of BREVIS® applications.

Cleaning Spray Equipment

After using BREVIS®, empty the tank completely and drain the entire system clear of waterways and susceptible vegetation. Thoroughly wash out the spray tank using a minimum of 3 rinse cycles. Drain the tank and clean any tank, pump, line and nozzle filters.

Wetting Agents/Surfactants

The addition of a wetting agent/surfactant is not recommended as it may increase phytotoxicity and the risk of overthinning.

Compatibility

BREVIS® should NOT be applied in a tank mix with other products.

PRECAUTIONS

RE-ENTRY

DO NOT allow entry into treated areas until the spray has dried.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

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

Harmful if swallowed. Will damage the eyes. Avoid contact with eyes. If product in eyes, wash it out immediately with water. When opening the container and preparing the spray, wear face shield or goggles. Wash hands after use. After each day's use, wash face shield or goggles.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.

SDS

A Safety Data Sheet (SDS) for this product is available at adama.com or from Adama Australia on request. Call Customer Service on 1800 423 262.

CONDITIONS OF SALE

The use of BREVIS® Fruit Thinner being beyond the control of the manufacturer, no warranty expressed or implied is given by Adama Australia regarding its suitability, fitness or efficiency for any purposes for which it is used by the buyer, whether in accordance with the Directions for Use or not. Adama Australia accepts no responsibility for any consequence whatsoever resulting from the use of this product.

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