

Revolutionising apple and pear thinning

Fact Sheet

BREVIS[®]

Growth Regulator For Thinning Apples And Pears

A Water Soluble Granule (WG) containing 150 g/kg metamitron

Chemical thinning is complicated. Traditional chemical thinners provide inconsistent and variable results. Due to the high weather dependency of these thinners, thinning is often hit and miss.

BREVIS is a new and innovative secondary fruit thinner especially formulated for apples and pears. Its unique mode of action revolutionises the way apples and pears are thinned. **BREVIS** gives growers the means to thin apples and pears more reliably and consistently, year after year.

With much less temperature dependency and a wide window of application, **BREVIS** solves the problems growers face with traditional chemical thinners.

With **BREVIS** you can finally add science to the art of thinning!

BREVIS's advantages at a glance

- **Less** weather and temperature dependent
- **Wide** window of application (8-14 mm size fruitlets)
- Rapid foliar absorption, rainfast within **2 hours** of application
- Quick access to orchards - re-entry after **3 days**
- **Non-toxic** to beneficial insects
- **No negative effect** on shoot growth or return bloom
- Beginning of **fruit drop 7-10 days** after application
- Suitable for use on **all varieties** including those that are difficult to thin
- **User-friendly formulation**, additional surfactants not required

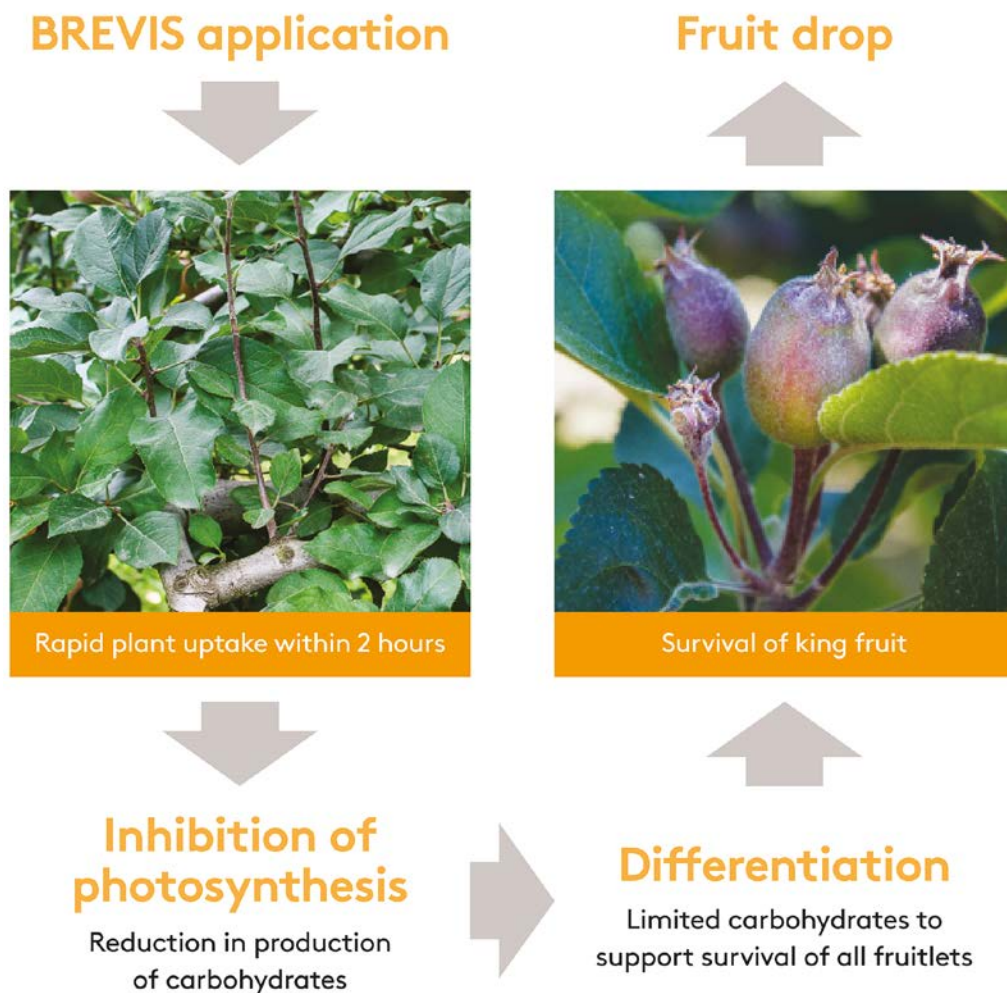
ADAMA

HOW DOES BREVIS WORK?

BREVIS is a secondary thinner and is applied post-fruit set to thin excess fruitlets.

BREVIS mimics shading by interfering with the photosynthetic process, curbing the production of carbohydrates used for tree growth. The stressed tree then directs its carbohydrate supply to the shoots and leaves at the expense of the fruitlets. As a result, the smaller fruitlets are dropped.

MODE OF ACTION



ADAMA

GLOBAL AND NEW ZEALAND RESEARCH

Adama has undertaken extensive research globally and in New Zealand with over **600** trials with **BREVIS** to date. **BREVIS** is registered in over 20 countries and more registrations are being added each year.

TRIAL RESULTS (NEW ZEALAND)

Several trials with **BREVIS** have been conducted by independent contractors in New Zealand. Trial results show that **BREVIS** delivers consistent and reliable thinning results compared to traditional chemical thinners.

1. Pacific Queen trial, Hawke's Bay 2015-16

The trial evaluated the efficacy of different primary and secondary thinners compared to **BREVIS**. Thinners used were Ethrel, NAA, Bapsol™ and Sevin® Flo.



Untreated



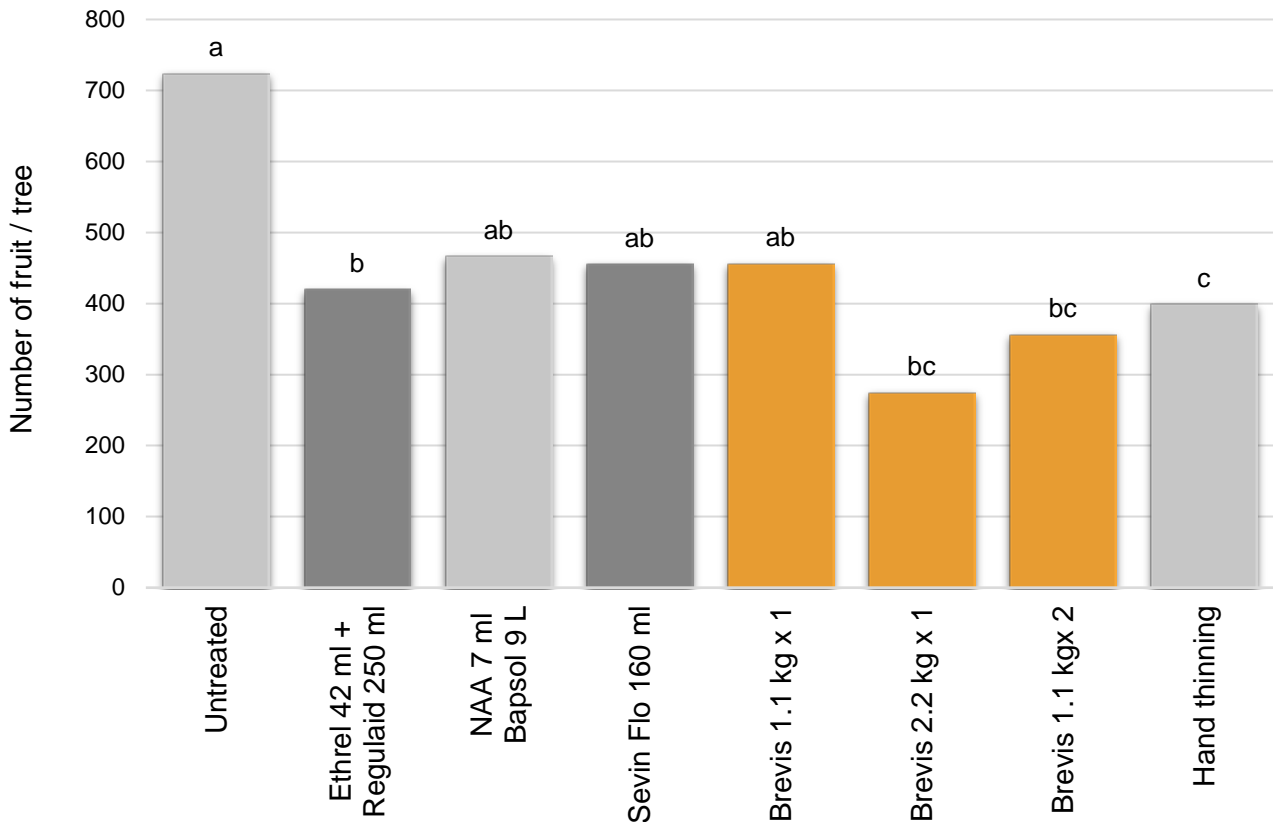
BREVIS
2 x 1.1 kg



BREVIS
1 x 2.2 kg

ADAMA

**Number of fruit / tree at harvest
Apple cv Pacific Queen, Hawke's Bay, 2015-16**



Application details

Ethrel and Regulaid® were applied at full bloom. NAA and Bapsol were applied at 80% petal fall. Sevin Flo and **BREVIS** x 1 were applied when fruitlets were at 5-10 mm. **BREVIS** x 2 was applied when fruitlets were at 5-10 mm and 11-15 mm.

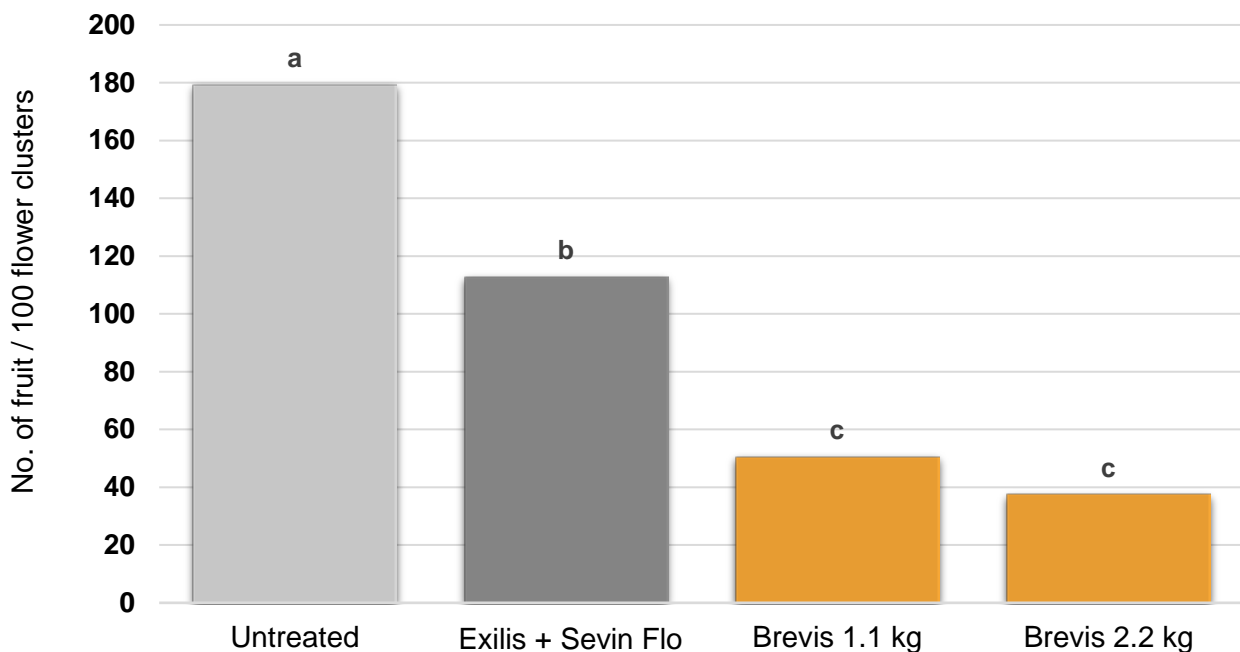
Bars with the same letter are not significantly different.

ADAMA

2. Envy trial, Nelson 2015-16

This trial compared secondary thinners Exilis® and Sevin Flo with **BREVIS**.

**Effect of secondary thinners on fruitlet numbers on 9 December
Apple cv Envy, Nelson 2015**



Application details

The trial block had 2 applications of ATS on 10th and 16th of October prior to trial commencing. **BREVIS** was applied when king fruitlets were 8 mm. Exilis and Sevin Flo were applied when king fruitlets were 12 mm.

Bars with the same letter are not significantly different.

HOW AND WHEN TO APPLY BREVIS

Rates and timing

CROP	RATE	CRITICAL COMMENTS
Apples Pears	1.1-2.2 kg/ha	<p>Apply when king fruitlets are 8-14 mm in diameter.</p> <p>Where normal fruit set has occurred, apply a single application of BREVIS at 1.1-2.2 kg/ha when the diameter of the king fruitlets is 8-10 mm.</p> <p>If the low rate was applied at the 8-10 mm stage, a second BREVIS application of 1.1 kg/ha can be made (if required) at the 12-14 mm king fruitlet stage, providing a minimum interval of 5 days is observed between applications.</p> <p>Do not apply more than 2.2 kg/ha per season.</p>

Application rate guide

BREVIS RATE/HA (KG/HA)	WATER VOLUME (L/HA)	BREVIS RATE/100 L (GRAMS PER 100 L)
1.1 kg	1000 L	110 g
	1500 L	73 g
	2000 L	55 g
2.2 kg	1000 L	220 g
	1500 L	147 g
	2000 L	110 g
DO NOT apply using concentrate spray volumes exceeding 220 g of BREVIS per 100 L.		

Fruitlet drop

A week after applying **BREVIS** pedicels start to change colour. Fruitlets will begin to drop approximately 7-10 days after application.

ADAMA

Factors to consider when applying BREVIS

Weather conditions

Even though results from applying **BREVIS** are less dependent on weather than traditional thinners, weather conditions (temperature and light) before, during and after application will impact on how strongly **BREVIS** thins.

- Warm night time temperatures (above 10°C) in the week prior to and post application will lead to elevated tree respiration. This in turn draws on the tree's carbohydrate reserves, further stressing the tree. Therefore, the thinning effect of **BREVIS** will be greater.
- Extended periods of low light (overcast, cloudy conditions) also reduce carbohydrate production and increase tree stress. Again, the thinning effect of **BREVIS** will be greater.
- If both conditions occur, that is, days are cloudy and night time temperatures high (high respiration), then the thinning effect will be at its greatest.

In these instances, care should be taken to avoid over-thinning. **BREVIS** rates should be adjusted accordingly.

Additional factors to consider

To get the best out of **BREVIS** it is important to further consider other factors such as, but not limited to, size of previous year's crop, block history, strong or weak flowering, tree vigour and age, winter chilling, apple and pear variety, soil type, hail netting, type of rootstock, tree size and/or excessive shading in the lower part of the tree.

APPLICATION GUIDELINES

- Apply when temperatures are between 10°C - 25°C.
- Apply as a dilute spray to give good coverage.
- Addition of surfactants is not recommended.
- The recommended water rate is 1,500–2,000 L/ha depending on tree size. International trial work shows that higher water rates produce better thinning results.
- Do not apply to wet leaves as it can lead to higher uptake.
- Leaf phytotoxicity may occur, especially with the higher **BREVIS** rate. However, the tree will recover and there is no adverse effect on return bloom.

ADAMA



- If you need to apply other crop protection products within 5 days before or after applying **BREVIS**, please seek advice from your crop protection advisor.
- In general, the thinning effect of **BREVIS** will be greater on strong vigorous trees.
- Do not apply within 5 days of a frost or when frost is expected.
- Avoid using **BREVIS** on young apple and pear orchards under 3-4 years.
- Do not use on areas with a history of poor or variable fruit set or retention, nor on trees with poor tree health or trees under stress (e.g. frost damage, water stress) as over-thinning may occur.
- Do not use on trees to be used for propagation.
- A buffer zone of 5 m between the application area and any downwind area containing non-target plants is required.

Please refer to the label for more information on how to apply **BREVIS**.

WITHOLDING PERIOD

Do not apply later than 30 days after full bloom.

RE-ENTRY PERIOD

Do not re-enter the treated area for 3 days after the application of **BREVIS**.

IMPORTANT:

This is not the registered label. Always read the label before using this product and follow label instructions.

For specialist advice in an EMERGENCY call 0800 734 607 (all hours).

Registered pursuant to the ACVM Act 1997, No. P9397. See www.foodsafety.govt.nz for registration conditions.

Approved pursuant to the HSNO Act 1996, Approval No. HSR101178. See www.epa.govt.nz for registration conditions.

Brevis is a registered trademark of an ADAMA Group Company.

Bapsol is a trademark of Agrinova NZ Ltd.

Sevin is a registered trademark of Tessenderlo Kerley, Inc.

Regulaid is a registered trademark of KALO, Inc.

Exilis is a registered trademark of Fine Agrochemicals Limited.

Release date: 7.6.2018

ADAMA