

Innovation. Quality. Solutions.

Premio®



Superior finish starts with Premio

Premio® is a nutritional specialty product that optimises cell membrane elasticity and permeability, while maximising fruit size and quality. Premio is a unique product that supplies key nutrients as well as supplying the required fatty alcohols to assist the plant during fruit development. Extensive research on trees treated with Premio showed improved fruit set percentages, higher fruit quality parameters and reduced incidence of cracked fruit compared to untreated trees.

Fruit Quality

In any one season, fruit quality is influenced by a number of factors including, but not limited to, cultivar, tree health, crop load, season and nutritional program. Cherry fruit quality, and subsequent value, is typically focused on size, colour and the absence of blemishes to the fruit surface (cracks, bruising, etc.). Producing high quality fruit consistently may be the difference between fruit being accepted and sold for a premium in lucrative export markets or sold on the domestic market.

Fruit Growth

Sweet cherry presents a double-sigmoid pattern of fruit growth, which divides into three distinctive growth phases:

- Phase I, which goes from full bloom to about 20–25 days after full bloom (DAFB), is characterised by the rapid division of mesocarp cells;
- Phase II, characterised by embryo development and endocarp hardening; and
- Phase III, characterised by cell enlargement resulting in the final fruit size.

Phase III is a critical time for overall fruit quality and cracking. Studies have reported the close link between fruit cracking and the rapid expansion of the fruit mesocarp. As cell enlargement progresses in the mesocarp, the elastic capacity of the cuticle is exceeded as a consequence of the high fruit internal pressure

during Phase III, which increases the incidence of cuticular fractures resulting in higher water flux into the fruit.

In cherries, waxes of the cuticle play an important role in water permeability. Fatty acids, derived from fatty alcohols which are present in Premio, are key components of the cuticular wax.

Supplying fatty alcohols at key critical times may optimise the water permeability of the fruit and therefore improve fruit quality. Premio assists in the maintenance of turgor pressure, while allowing excessive water to permeate from the fruit. Applying Premio early in the crop, around early fruit cell division, optimises the number of cells per fruit, therefore later in the crop, water can be distributed between a greater number of cells, thereby reducing fruit susceptibility to cracking.

Plant Uptake

Premio provides nitrogen, phosphorus, potassium and fatty alcohols to the growing crop. Foliar uptake and systemic translocation through the tree may assist with increased fruit cell numbers by providing nutrients critical for cell division.

ANALYSIS	W/W
Nitrogen (N):	9.0%
Phosphorus (P):	3.5%
Potassium (K):	6.6%
Fatty Alcohols	5.0%

In a premium formulation that has enhanced uptake and use efficiency, Premio has a pH of approximately 7 and specific gravity of 1.2 kg/L.



Features and Benefits of Premio

- Optimises fruit set and size when applied in a program beginning at BBCH 72
- Assists with fruit uniformity
- Optimises fruit firmness
- Strengthens fruit skin & stem pull
- Contains fatty alcohols which assist in cell membrane elasticity



Directions for Use

Application timing

Use Premio in a program. Begin applications from fruit set onwards, i.e. crop stage BBCH 72: green ovary surrounded by dying sepal crown, sepals beginning to fall. Continue applications at an interval no greater than 10–15 days. Ensure an application is made 14 days prior to harvest. Can be used up to the time of harvest.



BBCH 72: green ovary surrounded by dying sepal crown, sepals beginning to fall

Use a spray volume of 1000 to 2000 L/ha and apply using a medium droplet size. The spray volume should match the canopy size, increasing as the crop grows. Ensure thorough, even coverage of all plant parts. Only apply to healthy trees. For further information on application, contact your local AgNova representative or visit our website at agnova.com.au

Compatibility

Premio has been tested in the field in a range of two-way mixtures that include products commonly used in cherries. Field trials have been conducted under Australian conditions to evaluate the crop safety of mixtures on either cultivar Simone or Ulster. Results are summarised in the table below, and must be read in conjunction with the notes below.

TANK MIX PRODUCT	CULTIVAR	PHYSICAL COMPATIBILITY	CROP SAFETY
Fungicides			
Bumper* 625 EC	Simone	✓	Not tested
Bravo* Weather Stik*	Simone	✓	Not tested
Captan 800 WG	Ulster	✓	✓
Delan* 700 WG	Simone	✓	Not tested
Fontelis*	Ulster	✓	✓
Kocide* Blue Xtra*	Simone	✓	Not tested
Luna* Sensation	Ulster	✓	✓
Merivon*	Simone	✓	Not tested
Movento* 240 SC	Simone	✓	Not tested
Rovral* Aquaflo	Simone	✓	Not tested
Switch*	Simone	✓	Not tested
Tilt* 250 EC	Ulster	✓	✓
Unizeb* Disperss 750 DF	Simone	✓	Not tested
Wrath* 700 WG	Simone	✓	Not tested
Insecticides			
Delegate* Jemvelva active	Simone	✓	Not tested
Growth Regulators			
Progibb* SG	Simone	✓	Not tested
Adjuvants & Wetters			
Agral*	Simone	✓	Not tested
Du-Wett*	Ulster	✓	✓
Hasten*	Simone	✓	Not tested

Please Note:

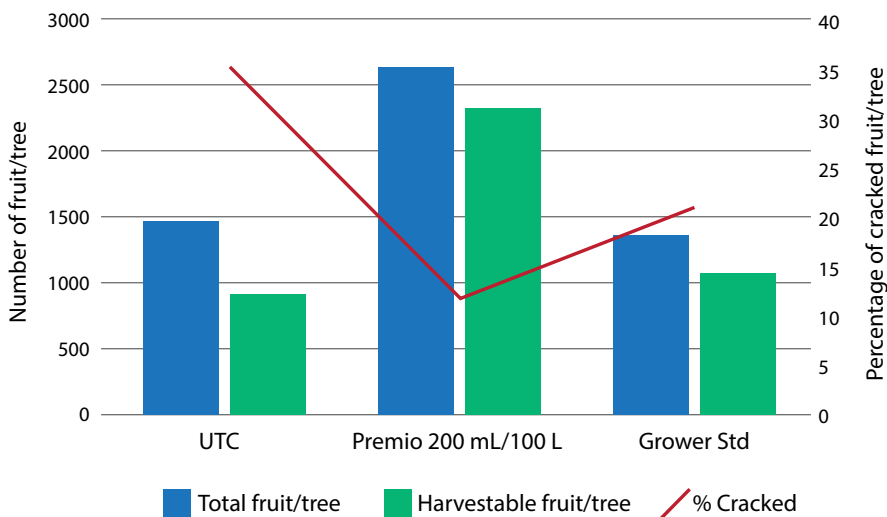
- Premio has been tested for physical and biological compatibility in Australia with only the brand names listed in the table, and with formulations of each product available at time of testing. Environmental conditions and product formulations can influence crop safety and may impact the result under local conditions, regardless of the findings presented herein. Hence, this information should be treated as a guide only.
- It is essential that growers read the labels of potential tank mix products thoroughly for any use restrictions that may apply, and conduct their own small scale trials prior to mixing and applying commercial quantities.
- It is strongly recommended that no more than one product is tank mixed with Premio.

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Crop Load and Cracking

Cherry cv. Ulster (Victoria)
(064-19-F2-20-440)



In trials, Premio:

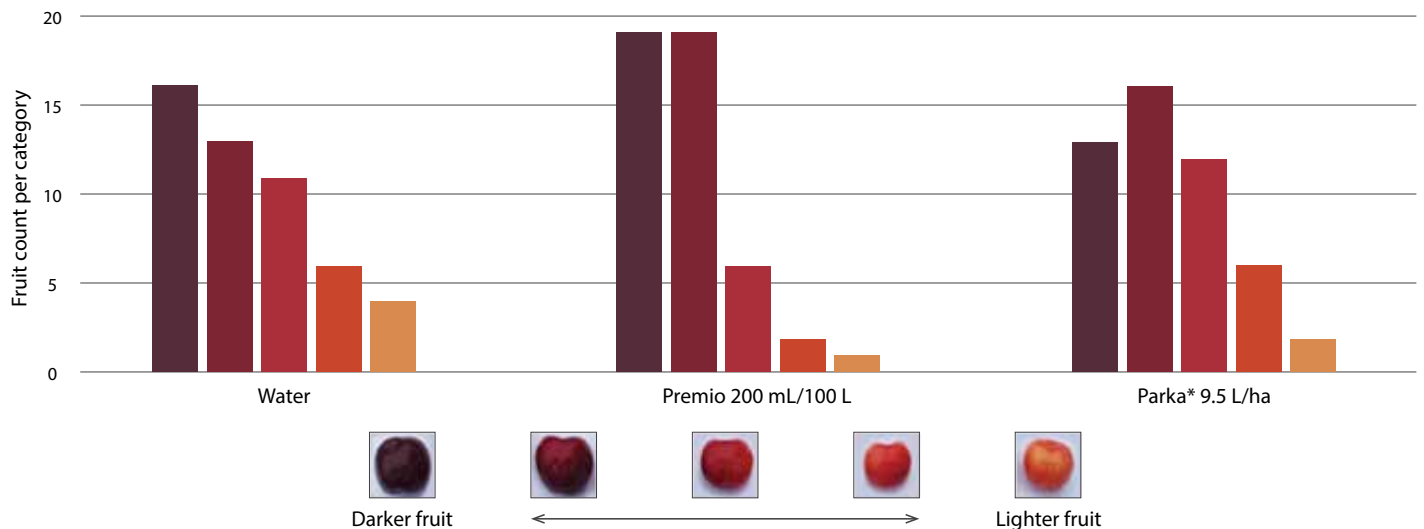
- improved fruit set
- reduced cracking
- increased the number of fruit in the darkest colour category

(Darker fruit is a premium in the market)



Fruit Colour by Category

Cherry cv. Van (Victoria)
(064-19-F1-19-417)



The information provided herein may include extracts from the product label and does not constitute the complete directions for use.
READ THE PRODUCT LABEL THOROUGHLY BEFORE OPENING OR USING PREMIO

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