

# ProGibb® SG

PLANT GROWTH REGULATOR SOLUBLE GRANULE

**ACTIVE CONSTITUENT: 400 g/kg GIBBERELIC ACID**

**For foliar spray application to certain varieties of grapes, citrus and prunes to promote desirable harvest effects, for stretching bunches and reducing bunch density in wine grapes and to stimulate production of winter dormant grass-dominant pastures for high intensity grazing such as dairy pasture or sheep lambing paddocks.**

## GENERAL INSTRUCTIONS:

### FRUIT QUALITY (GRAPES)

**Bunch Elongation (Stretch):** This product sprayed onto bunch stems when bunches are half to two-thirds of their final length (usually 10 to 15cm), causes them to grow longer than normal and may prevent over-tightness of bunches. This application is usually applied 10 to 14 days before the first sign of bloom.

**Thinning:** If sprayed on flowers as they are beginning to open, this product reduces the number of berries on the bunch, ie it has a thinning effect.

**Berry size:** This product increases berry size when applied after the commencement of flowering. The effect is greatest when applied at shatter.

**WINE GRAPES:** This product sprayed onto bunch stems at EL17 to EL25 causes them to grow longer than normal and may prevent over-tightness of bunches, enabling better air circulation within bunches and better fungicide penetration into the bunches.

### MIXING

Prepare a concentrate solution in 1 to 5 L of water with sufficient product for the required vat volume and strength of spray, add solution to water in the spray vat and agitate.

**Citrus only:** Ensure the spray mix is in the pH range of 4.0 to 6.0, however optimum results occur when the spray mix is in the pH range of 4.0 to 4.5. Use a portable pH meter or calibrated pH strips to determine the spray mix pH. Sample 2 or 3 times and average the reading. Adjust high pH's with a suitable acidifying solution and recheck the pH after 5 minutes agitation.

**Wetting agent:** Add a maximum of 100 ppm of a non-ionic spreader.

**Citrus only:** If using an adjuvant which includes a spreader, do not add additional spreader.

### Precautions

Use all solutions on the day of preparation.

### CROP MANAGEMENT

**Fresh Sultanas:** Prune according to the vigour of the vine. Avoid exceeding 8 canes except in special circumstances. Commence thinning in late October. Thin bunches to leave one bunch per shoot (the

largest). Do NOT exceed 30 bunches per vine. Bunch trimming should be carried out after fruit set to reduce the incidence of tight bunches.

**Citrus:** To maximize product effectiveness and fruit quality, ensure good penetration of spray by skirting and pruning the inside of trees. Hand thinning of fruit may also be of benefit. Even trees with a history of little creasing may require treatment in "heavy crop" years or with age.

ProGibb SG, particularly at higher rates (20 ppm) can delay colouring by 1 to 2 weeks, early in the season.

### GRAZING MANAGEMENT

Application of ProGibb SG should be made when pastures are ready to be rested following removal of animals. Rank pasture should be grazed prior to application of ProGibb.

Growth stimulation is usually seen within 7 days of application and ceases around 3 to 4 weeks after application. Stock should be kept off that treated pasture for 3 to 4 weeks in order to maximize the pasture production/growth.

ProGibb SG will have little effect on the growth of broad leaf pasture components such as white or subterranean clover or on broad-leaf weed species.

**Note:** ProGibb stimulated pastures grow rapidly and the colour of the pasture typically changes from dark green to greeny-yellow. Colour and nutrient levels are typically restored after 3 to 4 weeks growth. The use of excessive rates of ProGibb can make the new growth of some grass species initially appear yellowish-white and are not recommended.

### APPLICATION

**Citrus:** Spray in the cool of the morning or after an irrigation in the afternoon. Avoid product application within 4 weeks of any oil spray as the oil restricts GA uptake. Typical water volumes are 5,000 L for small trees, 7,500 L for medium trees and 10,000 L for large trees.

For creasing-reduction sprays to be effective, trees must be sprayed to runoff.

**Cherries:** Apply a single spray when fruit is early to mid straw coloured in a volume between 750 and 2000 L/ha ensuring that thorough coverage of the fruit is achieved. Good results depend upon thorough wetting of the fruit and application at the correct timing.

**Fresh Sultanas:** Make sure vines are watered prior to application of this product. Apply in cool conditions or at night. Where this product is used for dried fruit production, drive-past overall spraying is adequate. For fresh fruit production good results depend on the thorough wetting of bunches and spraying at the correct stage.

**Wine Grapes:** Make sure vines are watered/irrigated prior to application of this product. Apply when temperatures are between 15 to 30°C.

**If the bunches are missed they will not react to gibberellic acid.**

FOR RECOMMENDATIONS FOR OTHER GRAPE VARIETIES CONSULT YOUR LOCAL DEPARTMENT OF AGRICULTURE.

**Pastures:** Apply a single application using ground-rig sprayer. The application can be made at any time from the beginning of June to the middle of August.

Multiple applications of ProGibb can be applied as an adjunct to rotational grazing strategy with applications every 3 to 4 weeks with the final application no later than the middle of August.

Lower rates of 2.5 to 10g/100L may be used on pastures dominant in phalaris as this grass is very responsive to gibberellic acid.

Higher rate of 10 to 20g/100L may be required on pastures dominant in perennial ryegrass, annual ryegrass or cocksfoot.

**COMPATIBILITY:** ProGibb SG can be combined in the spray vat with 2,4-D as a cling spray, as well as with products containing Cycocel, certain insecticide, fungicide or nutritional sprays. Always carry out a small test mix to check compatibility before spraying larger areas. Always check the label instructions for all products used.

## 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 susceptible plants/crops.

## PROTECTION OF LIVESTOCK, WILDLIFE, FISH, CRUSTACEA AND ENVIRONMENT:

Do NOT contaminate streams, rivers or waterways with the chemical or used containers.

## STORAGE AND DISPOSAL:

KEEP OUT OF REACH OF CHILDREN

Store in the closed, original container in a well-ventilated area, as cool as possible. 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, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

## SAFETY DIRECTIONS:

Avoid contact with eyes and skin. Wash hands after use.

## FIRST AID:

If poisoning occurs, contact a doctor or Poisons Information Centre (Ph. 13 11 26).

## MATERIAL SAFETY DATA SHEET:

Additional information is listed in the Material Safety Data Sheet.

## EMERGENCY INFORMATION:

Contact Valent BioSciences, 242 Beecroft Road, Epping NSW 2121. Telephone Number 1 800 060 671

## EXCLUSION OF LIABILITY

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<b>THIS PRODUCT IS NOT CONSIDERED TO BE A DANGEROUS GOOD UNDER THE AUSTRALIAN CODE FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD OR RAIL</b>	
<b>In a Transport Emergency Dial 000 Police or Fire Brigade</b>	<b>SPECIALIST ADVICE IN EMERGENCY ONLY ALL HOURS - AUSTRALIA WIDE 1800 024 973</b>

## DIRECTIONS FOR USE

**Restraint:** Apply in water. Note: 2.5g product per 100L = 10ppm.

Use with a non-ionic wetter.

Do NOT apply to plants under pest, nutritional or water stress

Do NOT apply when there is insufficient soil moisture to support rapid plant growth.

CROP	RATE/100L	CRITICAL COMMENTS
<b>CITRUS</b>		Apply in a minimum volume of 5,000 L/ha to ensure thorough coverage of fruit. Do NOT use where blemish is a problem. For optimum results adjust the spray tank solution to pH 4.0 to 4.5 (see mixing instructions).
Navel and Valencia Oranges	2.5 to 5 g	<b>For reduction in Creasing:</b> Prior to applying ProGibb, remove all previous season Valencia oranges. Apply ProGibb when Navel/Valencia oranges are between 30 to 50 mm fruit size or golf-ball stage (generally January to February). Rates lower than 5g: <ul style="list-style-type: none"> <li>should be used when it is anticipated that fruit will be harvested for early markets</li> <li>may be used on applications to late navel selections</li> </ul>
Navel Oranges	2.5 g	To delay rind ageing for late marketing (or those which will be stored for more than 2 weeks prior to sale) and reduce rind blemish and for longer storage life, apply when oranges turn from green to silver (colourbreak). If fruit drop is a problem then apply a stop-drop spray. ProGibb is compatible with stop-drop sprays containing 2,4-D sodium salt. Use the 2,4-D at 10 ppm.
Mandarins	2.5 g	To delay rind ageing for late marketing and reducing rind blemish apply at three-quarters to full colour. Spotting of fruit may occur when a ProGibb SG application is made to fruit during or followed by a period of cold weather (2-5°C), frosts or unusually wet weather. This period is likely to occur from late May to mid July. The spotting is transitory and usually disappears within 10 to 21 days, however may return if fruit is placed in cold storage.
Grapefruit		To delay rind ageing, apply the spray when grapefruit turn from green to silver (colour-break) for grapefruit to be harvested up to mid-November; or apply the spray in mid-June for grapefruit to be harvested in December or January.
Lemons		To delay rind ageing, apply 4 to 6 weeks ahead of maturity of fruit.
<b>CHERRIES</b>	2.5- 5 g	Apply a single spray when fruit is early to mid straw coloured to produce larger, brighter coloured and firmer fruit. The use of gibberellic acid may slightly delay colour development and harvest.
<b>GRAPES</b>		
Currants – dried fruit	0.25 g + 100ppm Cycocel	<b>To achieve berry thinning:</b> Apply single, combined application ( <b>commonly used in NSW and SA</b> ) at 100% capfall. Ensure thorough coverage of bunches.
	100ppm Cycocel followed by 0.25 g ProGibb SG	<b>To achieve berry thinning:</b> <b>Split Application (commonly used in Vic):</b> (a) Apply Cycocel 7 days after bunch droop. (b) Apply ProGibb SG at 80 to 100% capfall.
	200ppm Cycocel followed by 0.25 g ProGibb SG	Use the 200ppm rate of Cycocel on vigorous vines.
	300ppm Cycocel followed by 0.25 g ProGibb SG	Use the 300ppm rate of Cycocel on excessively vigorous Carina vines only. Ensure thorough coverage of bunches.
Sultanas – dried fruit	2.5 g	<b>To achieve berry thinning:</b> Apply when bloom or blossom is at 100% capfall stage (full flowering).

CROP	RATE/100L	CRITICAL COMMENTS
Sultanas – fresh fruit		Prune according to vigour of the vine - avoid exceeding 8 canes (except in special circumstances). Commence thinning late October. Thin bunches to leave one bunch per shoot (the largest). Do not exceed 30 bunches per vine. Bunch trimming should be carried out before fruit set to reduce the incidence of tight bunches. For adequate coverage of table grapes apply product in a minimum volume of 2250 L/ha directed at the bunch area.
	2.5 g	<b>To achieve bunch elongation (stretch):</b> Apply when bunches are half to two-thirds of their final length (when bunches are between 10 to 15cm in length). This application is usually applied 10 to 14 days before the first sign of bloom.
	2.5 g	<b>To achieve thinning, two separate applications of 2.5g within the same season are required:</b> <u>Apply first application of 2.5g at 40% cap fall.</u>
	2.5 g	<u>Apply second application of 2.5g at 80% cap fall (usually 2 to 3 days later).</u>
	7.5 g	<b>To achieve increase in berry size, two separate applications of 7.5g within the same season are required:</b> <u>Apply first application of 7.5g when smallest berry size is 4mm and larger berries up to 6mm (berry shatter may be incomplete at this size).</u>
	7.5 g	<u>Apply second application of 7.5g 5 to 7 days later.</u> Trim bunches within two weeks of shatter to leave 3 to 4 shoulder sprigs. All spray timing stages should be judged on the top part of the bunch, as the bottom is removed at trimming.
Early Madeleine	5 g	<b>To achieve increase in berry size:</b> Apply when berries reach 4mm in diameter. Excessively vigorous vines should be cinctured 3 to 5 days before treatment with this product.
Perlette	3 g	<b>To achieve thinning:</b> Apply at 70% capfall.
	5 g	<b>To achieve increase in berry size:</b> Following the 3 g application for thinning, apply the 5 g application, when berries reach 4 to 5mm in diameter. Trim bunches as required.
Flame Seedless	2.5 g	<b>To achieve thinning:</b> Apply at 70% capfall.
	7.5 g	<b>To achieve increase in berry size, two separate applications of 7.5g within the same season are required:</b> <u>Apply first application of 7.5g when berries have reached 7 to 9mm in diameter.</u>
	7.5 g	<u>Apply second application of 7.5g when berries have reached 9 to 10mm in diameter.</u>
<b>WINE GRAPES</b>	1.25 g (12.5 g/1000 L)	To obtain lower density bunches. Apply once per season only Apply from EL17 to EL25: <ul style="list-style-type: none"> <li>• EL17 is when 12 leaves are separated and the inflorescence is well developed.</li> <li>• EL25 is 80% cap fall.</li> </ul> Applications at EL17 may stretch the bunch and may be more effective than later applications. Applications at EL25 may result in some bunch thinning (less berries per bunch). Applications higher than 1.25 g/100 L and later timings may result in reduced bloom in the next season (reduced return bloom or bud fruitfulness) on certain varieties and under certain environmental or physiological conditions.
<b>PRUNES</b>	2.5 g	Apply 3 to 4 weeks before normal harvest date (when fruit shows approximately 14% soluble solids) to delay harvest 14 to 17 days. This delayed maturity will result in increased sugar content and thus a higher dry-out ratio.

CROP	RATE/100L	CRITICAL COMMENTS
<p><b>PASTURE</b> (Winter dormant grass-dominant, high intensity usage)</p>	<p>2.5 to 20 g</p>	<p><b>To stimulate production of winter dormant grass-dominant pastures for high intensity grazing such as dairy pasture or sheep lambing paddocks:</b></p> <p>Apply in a minimum volume of 100 L/ha.</p> <p>Stimulation of winter pastures is dose dependent with higher dose rates giving greater stimulation of growth however the balance between increased Dry Matter and total nutritional value may be lost if the rates used are higher than optimal.</p> <p>As a starting point, lower rates of 2.5 to 10g/100L may be used on pastures dominant in phalaris as this grass is highly responsive to ProGibb.</p> <p>Higher rates of 10 to 20g/100L may be needed on pastures dominant in perennial ryegrass, annual ryegrass or cocksfoot.</p> <p>A single application can be made at any time from the beginning of June to the middle of August.</p> <p>Multiple applications, applied as an adjunct to rotational grazing strategy, can be made every 3 to 4 weeks with the final application no later than the middle of August.</p> <p>Growth stimulation is usually seen within 7 days of application and ceases around 3 to 4 weeks after application. Animals should be returned to the pasture no later than 4 weeks after application to ensure pasture does not become rank.</p> <p>Pastures should be at least 1 year old prior to a ProGibb application</p> <p>Applications in late Winter or early Spring may lead to a suppression of Spring growth.</p> <p>Don't apply when there is insufficient soil moisture to support rapid plant growth.</p> <p>Soil fertilizer levels have to be sufficient to allow for the increase in pasture production. The addition of nitrogen-based fertilizer such as urea may give added pasture growth.</p>

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

**WITHHOLDING PERIOD: NOT REQUIRED WHEN USED AS DIRECTED.**