# ProGibb® LV PLUS

**PLANT GROWTH REGULATOR LIQUID**

**ACTIVE CONSTITUENT: 100 g/L GIBBERELLIC ACID**

**For Foliar Spray Application to Certain Varieties of Grapes, Citrus, Prunes and Cherries to Promote Desirable Harvest Effects.**

**To stimulate production of winter dormant grass-dominant pastures for high intensity grazing such as dairy pasture or sheep lambing paddocks.**

**For Reduction of flowering and fruiting (THINNING) of apricots, nectarines and peaches in the next cropping season.**

## DIRECTIONS FOR USE

### RESTRAINTS

Note: 10 mL product per 100L = 10ppm

Use with a non-ionic wetter.

**DO NOT** apply if rain is likely within 6 hours.

**DO NOT** apply in combination with other growth regulators or pesticides unless stated in directions for use section.

**DO NOT** apply to low vigour trees under pest, nutritional, water stress or extreme weather events such as frosts.

| CROP | RATE/100L | CRITICAL COMMENTS |
|---|---|---|
| **CITRUS** | | Apply in a minimum volume of 5,000 L/ha to ensure thorough coverage of fruit.<br>**DO NOT** use where blemish is a problem.<br>For optimum results adjust the spray tank solution to pH 4.0-4.5 (see mixing instructions). |
| Navel and Valencia Oranges | 10-20 mL | **For reduction in Creasing:** Prior to applying ProGibb, remove all previous season Valencia oranges. Apply ProGibb when Navel/Valencia oranges are between 30-50 mm fruit size or golf-ball stage (generally January-February).<br>Rates lower than 20mL:<br>• should be used when it is anticipated that fruit will be harvested for early markets<br>• may be used on applications to late navel selections |
| Navel Oranges | 10 mL | 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 (colour break).<br>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 | 10 mL | To delay rind ageing for late marketing and reducing rind blemish apply at three-quarters to full colour. |
| 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. |
| **Cherries** | 10-20mL | 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. |

| CROP | RATE/100L | CRITICAL COMMENTS |
|---|---|---|
| **GRAPES** | | |
| Currants – dried fruit | 1 mL + 100ppm Cycocel | **To achieve berry thinning:** Apply a single, combined application **(commonly used in NSW and SA)** at 100% capfall. Ensure thorough coverage of bunches. |
| | 100ppm Cycocel followed by 1 mL ProGibb LV | **To achieve berry thinning:**<br>**Split Application (commonly used in Vic):**<br>(a) Apply Cycocel 7 days after bunch droop.<br>(b) Apply ProGibb LV at 80-100% capfall. |
| | 200ppm Cycocel followed by 1 mL ProGibb LV | Use the 200ppm rate of Cycocel on vigorous vines. |
| | 300ppm Cycocel followed by 1 mL ProGibb LV | Use the 300ppm rate of Cycocel on excessively vigorous Carina vines only.<br>Ensure thorough coverage of bunches. |
| Sultanas – dried fruit | 10 mL | **To achieve berry thinning:**<br>Apply when bloom or blossom is at 100% capfall stage (full flowering). |
| 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. |
| | 10 mL | **To achieve bunch elongation (stretch):**<br>Apply when bunches are half to two-thirds of their final length (when bunches are between 10-15cm in length). This application is usually applied 10-14 days before the first sign of bloom. |
| | 10 mL | **To achieve thinning, two separate applications of 10 mL within the same season are required:**<br>Apply first application of 10 mL at 40% cap fall. |
| | 10 mL | Apply second application of 10 mL at 80% cap fall (usually 2-3 days later). |
| | 30 mL | **To achieve increase in berry size, two separate applications of 30 mL within the same season are required:**<br>Apply first application of 30 mL when smallest berry size is 4mm and larger berries up to 6mm (berry shatter may be incomplete at this size). |
| | 30 mL | Apply second application of 30 mL 5 to 7 days later.<br>Trim bunches within two weeks of shatter to leave 3 to 4 shoulder sprigs.<br>All spray timing stages should be judged on the top part of the bunch, as the bottom is removed at trimming. |
| Early Madeleine | 20 mL | **To achieve increase in berry size:**<br>Apply when berries reach 4mm in diameter. Excessively vigorous vines should be cinctured 3-5 days before treatment with this product. |
| Perlette | 12 mL | **To achieve thinning:**<br>Apply at 70% capfall. |
| | 20 mL | **To achieve increase in berry size:**<br>Following the 12 mL application for thinning, apply the 20 mL application, when berries reach 4-5mm in diameter. Trim bunches as required. |

| CROP | RATE/100L | CRITICAL COMMENTS |
|---|---|---|
| Flame Seedless | 10 mL | **To achieve thinning:**<br>Apply at 70% capfall. |
| | 30 mL | **To achieve increase in berry size, two separate applications of 30 mL within the same season are required:**<br>Apply first application of 30 mL when berries have reached 7-9mm in diameter. |
| | 30 mL | Apply second application of 30 mL when berries have reached 9-10mm in diameter. |
| **PRUNES** | 10 mL | 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. |
| **PASTURE**<br>**(Winter dormant grass-dominant, high intensity usage)** | 10 to 80 mL | **To stimulate production of winter dormant grass-dominant pastures for high intensity grazing such as dairy pasture or sheep lambing paddocks:**<br>Apply in a minimum volume of 100 L/ha.<br>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.<br>As a starting point, lower rates of 10 to 40mL/100L may be used on pastures dominant in phalaris as this grass is highly responsive to ProGibb LV.<br>Higher rates of 40 to 80mL/100L may be needed on pastures dominant in perennial ryegrass, annual ryegrass or cocksfoot.<br>A single application can be made at any time from the beginning of June to the middle of August.<br>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.<br>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.<br>Pastures should be at least 1-year-old prior to a ProGibb LV application<br>Applications in late Winter or early Spring may lead to a suppression of Spring growth.<br>Don't apply when there is insufficient soil moisture to support rapid plant growth.<br>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. |

| CROP | RATE | CRITICAL COMMENTS |
|---|---|---|
| For reduction of flowering and fruiting **(THINNING)** of apricots, nectarines and peaches in the next cropping season.<br>**Restraints:**<br>**For thinning use only: Use only on fully bearing mature trees.** | | |
| STONEFRUIT:<br>Apricots, Nectarines, Peaches | 30-160 mL/100L water in a minimum volume of 1000L | Apply as a single spray at flower bud initiation stage. This is generally from early December to late January.<br>Timing of application is dependent on the variety, with application to early season varieties being made in early December and application to late season varieties being made late in January. Please consult your Sumitomo Chemical Australia Pty Ltd representative for the latest information on the best application timing and rate for your varieties and region.<br>Increase rate to increase thinning efficacy but **DO NOT** apply more than 160mL/100L as this may lead to excessive thinning.<br>Additional blossom or fruit thinning may be necessary to adjust the final crop load; where late frosts occur, fruit thinning will be preferable to blossom thinning.<br>If fruit are present, fruit firmness may be increased. Soluble solids levels may be slightly delayed in some varieties.<br>**DO NOT** apply less than 1000 L/ha.<br>Please review the recommendations in the GENERAL INSTRUCTIONS. |

**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.**

# 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 10-15cm), causes them to grow longer than normal and may prevent over-tightness of bunches. This application is usually applied 10-14 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.

## 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 – 6.0, however optimum results occur when the spray mix is in the pH range of 4.0-4.5. 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 non-ionic spreader at 10mL per 100L solution.

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.

Use of ProGibb LV, particularly at higher rates (20 ppm) can delay colouring by 1-2 weeks, early in the season.

## GRAZING MANAGEMENT

Application of ProGibb LV 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 LV 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

**(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.

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

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

**(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 point of 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.

**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 10 to 40 mL/100L may be used on pastures dominant in phalaris as this grass is very responsive to gibberellic acid.

Higher rate of 40 to 80 mL/100L may be required on pastures dominant in perennial ryegrass, annual ryegrass or cocksfoot.

## THINNING – Mixing

Prepare spray material by mixing the required amount of product with water only in a clean, empty spray tank. **DO NOT** apply a wetting agent. **DO NOT** allow solution to stand for more than 24 hours.

Ensure the spray mix is in the pH range of 6.0 to 8.0. Use a portable pH meter or calibrated pH strips to determine the spray mix pH. Adjust high pH's with a suitable acidifying solution and recheck the pH after 5 minutes agitation.

## THINNING – Application

Application is recommended by ground sprayer. For optimum results in apricots, nectarines and peaches uniform coverage of leaves, shoots and buds is required.

Appropriate spray nozzles and machinery are important. Too much spray directed at the lower sections of the canopy may overthin these areas but not result in sufficient thinning in the upper canopy. Use sufficient water volume to ensure thorough wetting of the whole canopy. Responses will vary with species, variety, rate, application timing and temperature. For best results apply when temperatures are between 20 and 30°C.

Use with caution when trees have been harmed due to winter injury, over cropping, etc.

## THINNING – Controlled Use

There are hundreds of stonefruit varieties with new varieties being commercialised regularly. Different varieties respond differently to PROGIBB LV.

Low rates may be sufficient for some varieties but insufficient for others. For easy to thin varieties the high rates may cause excessive thinning. Weather conditions, chill-factor, plant stress, growing conditions all play a role in the final thinning result. Because so many factors are important, we recommend:

1. Growers who have not used PROGIBB LV previously, or who have planted new varieties, should apply PROGIBB LV to a row or two of each variety over a few seasons.
2. When treating whole blocks, a row or two, that receives no spray drift, should be left untreated (ie an untreated control) so that the level of thinning response due to PROGIBB LV can be clearly quantified.
3. Growers should keep accurate records of date of application, rates and volume of spray applied, temperature and relative humidity at time of application, and the level of thinning response obtained.
4. Growers need to decide what level of thinning best suits their operations, and then apply the rate that results in this level of thinning. Experience over several years will identify this rate.

Precise determination of levels of thinning are necessary and are best recorded using the methodology appropriate for your crop (ie blossom counts; quadrant counts).

## COMPATIBILITY

ProGibb LV can be combined in the spray vat with 2,4-D as a cling spray, as well as with products containing Cycocel. For other insecticide, fungicide or nutritional sprays, please contact your local Sumitomo Chemical Australia representative. Always carry out a small test mix to check compatibility before spraying larger areas. Always check the label instructions for all products used.

## PRECAUTIONS

Use all solutions on the day of preparation.

## 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

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

Wash hands after use.

## FIRST AID

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

## SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet.

## EMERGENCY INFORMATION:

Contact Valent BioSciences, 51 Rawson Street, Epping, NSW 2121, Australia.
Telephone Number 1 800 060 671

## IMPORTANT NOTICE

These goods are to be used only for the purpose and as specified on the label, and are not suitable for any other purpose. To the fullest extent permitted by law, we do not accept or bear any liability on any basis for any loss, damage, cost or expense, arising in any way, directly or indirectly, in connection with the goods.



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