

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

# Stoller's N-LARGE™

## Gibberellic Acid Growth Regulant

ACTIVE CONSTITUENT: 100 g/L GIBBERELLIC ACID

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

**Important: read the attached booklet before use.**

UN 1170



Flammable Liquid

UN N. 1170	ETHANOL SOLUTION
PG II	HAZCHEM 2 WE
In an emergency Dial 000 Police or Fire Brigade	

**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:** Will irritate the eyes and skin. Avoid contact with eyes and skin. When opening the container and preparing the spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves. Wash hands after use. After each day's use, wash gloves and contaminated clothing.

**FIRST AID:** If poisoning occurs, contact a doctor or Poisons Information Centre (Ph. 131126).

**PRECAUTION: Flammable.** Avoid concentrations higher than those recommended.

**MATERIAL SAFETY DATA SHEET:** Additional information is listed in the Material Safety Data Sheet.

**EMERGENCY INFORMATION:** Contact Stoller Australia Pty Ltd, 1 Creswell Rd, Largs Bay, SA 5016.  
Telephone Number: 08 8169 0900.



**STOLLER AUSTRALIA  
PTY LTD**  
1 Creswell Rd  
Largs Bay  
SA 5016

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## DIRECTIONS FOR USE

**Restraint:** Do not use with a non-ionic wetter. NOTE: 10 mL product per 100 mL = 10 ppm. Do not apply to plants under pest, nutritional or water stress.

CROP	RATE /100 L	CRITICAL COMMENTS
<b>CITRUS</b>		Apply in minimum volumes of 5000 L/ha to ensure thorough coverage of fruit. Do NOT use where blemish is a problem. For optimum results ensure the spray tank solution is at a pH of 4.0-4.5. See mixing instructions.
Navel and Valencia Oranges	10-20 mL	<b>For reduction in creasing:</b> Prior to applying Stoller's Gibberellic Acid, remove all previous season Valencia fruit. Apply Stoller's Gibberellic Acid to Navel/Valencia oranges when fruit are between 30-50 mm in diameter (generally January – February). Rates lower than 20 ml: <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	10 mL	To delay rind ageing for late marketing (or when fruit is likely to be stored for more than 2 weeks before sale) and reduce rind blemish for longer life, apply when oranges turn from green to silver (colourbreak). When fruit drop is a problem, apply a stop-drop spray. Stoller's Gibberellic Acid is compatible with common stop-drop sprays containing 2,4-D sodium salt. Use 2,4-D at 10 ppm.
Mandarins	10 mL	To delay rind ageing, for late marketing and to reduce rind blemish, apply at three quarters to full colour.
Grapefruit	10 mL	To delay rind ageing, apply the spray when grapefruit turn from green to silver (colourbreak) 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	10 mL	To delay rind ageing, apply Stoller's Gibberellic Acid 4-6 weeks ahead of fruit maturity.
<b>GRAPES</b>		
Currants – dried fruit	1 mL + 100 ppm Cycocel	<b>To achieve berry thinning:</b> Apply a single combined application (used commonly in SA and NSW) at 100% capfall. Ensure the spray thoroughly covers the bunches.
	100 ppm Cycocel followed by 1 mL Stoller's Gibberellic Acid.	<b>To achieve berry thinning: (Split applications commonly used in Vic).</b> (i) Apply Cycocel 7 days after bunch droop. (ii) Apply Stoller's Gibberellic Acid at 80-100% capfall.
	200 ppm Cycocel followed by 1 mL Stoller's Gibberellic Acid.	Use the 200 ppm rate of Cycocel on vigorous vines.
	300 ppm Cycocel followed by 1 mL Stoller's Gibberellic Acid.	Use the 300 mL rate of Cycocel on very vigorous Carina vines only. Ensure the spray thoroughly covers the bunches.
Sultanas – dried fruit	10 mL	<b>To achieve berry thinning:</b> Apply Stoller's Gibberellic Acid when bloom or blossom is at 100% capfall stage (full flowering).

<b>CROP</b>	<b>RATE/100 L</b>	<b>CRITICAL COMMENTS</b>
Sultanas – fresh fruit		Prune according to vine vigour – avoid more than 8 canes per vine except in special circumstances. Begin thinning late October. Thin bunches so that only the largest bunch per shoot remains. 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 the product in at least 2250 L/ha directed at the bunch area.
	10 mL	<b>To achieve bunch elongation (stretch):</b> Apply when bunches are half to two-thirds of their final length (when bunches are between 10-15 cm in length). This application is usually applied 10-14 days before the first sign of bloom.
	10 mL	<b>To achieve thinning, two separate applications of 10 mL within the same season are required:</b> Apply the first application of 10 mL at 40% capfall.
	10 mL	Apply the second application of 10 mL at 80% capfall (usually 2-3 days later).
	30 mL	<b>To achieve an increase in berry size, two separate applications of 30 mL within the same season are required:</b> Apply the first application of 30 mL when the smallest berries are 4 mm in diameter, and the largest berries are up to 6 mm dia. Berry shatter may be incomplete at this larger size.
	30 mL	Apply a second application of 30 mL 5 to 7 days later. Trim bunches within two weeks of shatter to leave 3-4 shoulder sprigs. All spray timing stages should be judged on the top part of the bunch, as the bottom is removed at trimming.
Early Madeline	20 mL	<b>To achieve an increase in berry size:</b> Apply when berries are 4 mm in diameter. Excessively vigorous vines should be cinctured 3-5 days before treatment with this product.
Perlette	12 mL	<b>To achieve berry thinning:</b> Apply at 70% capfall.
	20 mL	<b>To achieve an increase in berry size:</b> Following the 12 mL application for thinning, apply at 20 mL, when berries reach 4-5 mm diameter. Trim bunches as required.
Flame seedless	10 mL	<b>To achieve berry thinning:</b> Apply at 70% capfall.
	30 mL	<b>To achieve increase in berry size, two separate applications of 30 mL within the same season are required:</b> Apply the first application of 30 mL when berries have reached 7-9 mm in diameter.
	30 mL	Apply the second application of 30 mL when the berries have reached 9-10 mm in diameter.
<b>PRUNES</b>	10 mL	Apply 3 to 4 weeks before normal harvest date (when fruit shows approximately 14% soluble solids) to delay harvest 14 to 7 days. This delayed maturity will result in increased sugar content and thus a higher dryout ratio.

CROP	RATE/100 L	CRITICAL COMMENTS
<b>PASTURE</b> (Winter dormant grass-dominant, high intensity usage)	10 to 80 mL	<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 10 to 40mL/100L may be used on pastures dominant in phalaris as this grass is highly responsive to N-Large</p> <p>Higher rates of 40 to 80 mL/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 an N-Large application.</p> <p>Applications in late Winter or early Spring may lead to a suppression of Spring growth. 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.</p> <p>The addition of nitrogen-based fertilizer such as urea may give added pasture growth.</p>

NOT TO BE USED FOR ANY OTHER 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 should be sprayed onto bunch stems when bunches are half to two-thirds of their final length (usually 10-15 cm), 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, i.e., it has a thinning effect.

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

### MIXING

Prepare a concentrated 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 maximum of 10 mL per litre of a non-ionic spreader. Citrus only: If using an adjuvant with spreader, do not add additional spreader.

### Precautions

Do not store prepared solutions for longer than one day.

## 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 Stoller’s Gibberellic Acid, particularly at higher rates (20 ppm) can delay colouring by 1-2 weeks, early in the season.

## GRAZING MANAGEMENT

Application of N-Large should be made when pastures are ready to be tested following removal of animals. Rank pasture should be grazed prior to application of N-Large.

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.

N-Large 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: N-Large 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 N-Large 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 when the weather is cool, e.g. in the morning or after an irrigation in the afternoon. Avoid 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.

**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 N-Large 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.

### COMPATIBILITY:

Stoller’s Gibberellic Acid 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 do a small test mix to check compatibility before spraying larger areas. Always check the label instructions for all products used.

### PROTECTION OF CROPS, NON-TARGET PLANTS

Do NOT apply under adverse 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.

## **EXCLUSION OF LIABILITY**

Unless otherwise expressly stated in writing neither Stoller Australia Pty Ltd nor the distributor has any knowledge or the particular use to which the buyer proposes to put this product. In purchasing this product the buyer must rely solely upon his own skill and judgment as to its suitability for the particular purpose for which it is required. Except to the extent that exclusion or denial of liability is prohibited under the Trade Practices Act or any relevant state legislation, the Companies and the distributor expressly exclude any warranty as to the quality or fitness of any goods sold for any purpose whatsoever and deny all responsibility in contract tort negligence or otherwise for any harm or damage resulting from the use of such goods or from acting on the advice or recommendations as to such use given in good faith by any representative of the Companies or the distributor. If these conditions are unacceptable to the buyer, the goods should be returned to Stoller Australia Pty Ltd unopened within seven (7) days for refund of purchase price.

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D.O.M.

Batch No

SPECIMEN