73049-15

8/31/2001

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#### **MASTER LABEL**

**Primary Product name:** 

ProGibb 4% Plant Growth Regulator Solution

Active Ingredient:

 Gibberellic Acid.
 .4.0% w/w

 Inert Ingredients.
 .96.0% w/w

 Total.
 .100.0% w/w

EPA Registration No. 73049-15

Valent Biosciences Corporation 870 Technology Way Libertyville, IL 60048

ACCEPTED

AUG 3 1 2001

Under the Federal Insocticides, Fungicide, and Rodenticide Act, as emended, for the posticide registered under EPA Reg. No. 22049-15

#### **SUB LABEL I**

## ProGibb 4% Plant Growth Regulator Solution.

For use on grapes, citrus, banana, blueberry, stone fruit, strawberry, cranberry, artichoke, carrot, celery, cucumber, lettuce for seed, melon, pepper, potato seed, rhubarb, spinach, and hops.

# ProGibb® 4% Plant Growth Regulator SOLUTION For agricultural use.

Active Ingredient:	
Gibberellic Acid	4.0% w/v
Other Ingredients	96.0% w/v
•	100.0% w/s

ProGibb 4% liquid contains approximately 1.0gram active ingredient per fluid ounce of formulated product.

## KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que co la sua lique a usted en detalla. (If you do not understand the label, find someone to explain it to you in detail).

For MEDICAL and TRANSPORT Emergencies ONLY Call 24 Hours A Day 1-800-892-0099. For All Other Information Call 1-800-6-VALENT

EPA Registration No. 73049-15 EPA Establishment No.

Valent BioSciences Corporation 870 Technology Way Libertyville, IL 60048

Net Contents:		
This container will treat _	_acre at the maximum use rate, as recommended for use on	

medical emergencies, you may also call toll-free 1-800-892-0099 for treatment information.

FIRST AID		
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
	HOT LINE NUMBER	

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist, and avoid contact with skin.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt
- Long pants
- Chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning of equipment or disposing of equipment washwaters.

#### PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE! Keep away from heat and open flame.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

EXCEPTION: If the product is soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton
- Shoes plus socks
- Protective eyewear

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

#### PESTICIDE STORAGE:

Keep containers tightly closed when not in use. Keep away from heat and open flame.

#### PESTICIDE DISPOSAL:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### GENERAL DIRECTIONS FOR USE

Use only as directed. The label should be read thoroughly and understood before making applications. Keep out of reach of children.

Do not apply this product through any type of irrigation system.

#### Application recommendations:

ProGibb 4% contains gibberellic acid, which is an extremely potent plant growth regulator; when applying plant growth regulators, deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, may result in undesirable effects. Always consult the Valent agricultural specialist in your area for the spray regimen best suited to your conditions.

- Do not apply to plants under pest, nutritional, or water stress.
- When a range of rates is indicated, use the concentration and spray volume recommended locally by the Valent agricultural specialist.
- For optimum effectiveness, thorough spray coverage must be achieved; all parts of the plant or crop must receive the spray or desired results will not occur. Prepare solution concentrations by mixing the required amount of product with water in a clean, empty spray tank. Dispose of any unused spray material at the end of each day following local, state or federal law.

- For best results, the water pH should be around 7.0, and always below 8.5.
- ProGibb 4% applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night time applications are encouraged when day time conditions are not conducive to slow drying conditions.
- Product persistence: ProGibb 4% should be re-applied if significant rain occurs within 2 hours of application.
- Compatibility: Except when specifically noted, this ProGibb 4% spray guidelines refer to the use of the product alone. The use of surfactants and other additives has been reported to be beneficial. Data concerning the compatibility of ProGibb 4% with other agricultural compounds, except DiPel DF and XenTari DF, are not available. Valent Biosciences does not assume responsibility for unexpected results due to the tank mixing of ProGibb 4% with other products not recommended on this label.
- DO NOT apply using ULV application methods. For aerial applications spray volumes must be greater than 2 gallons per acre (10 gallons per acre for tree crops).
- No preharvest interval is required for this product.

## • SPRAY GUIDELINES FOR CROP CATEGORIES

#### GRAPE

For all grapes, application by ground sprayer is recommended. Apply as a concentrate or dilute spray in sufficient water volume to ensure thorough wetting. It is important to wet all flower clusters or berries thoroughly. For cultivar specific spray rates and timings, see accompanying tables.

SEEDLESS TABLE GRAPE			
CLUSTER STRETCH SPRAYS			
OBJECTIVE/BENEFIT	APPLICATION TIMING/ RECUMMENDATIONS		
For cluster elongation and looser cluster forms. To reduce costs of thinning, allow better air circulation to aid in the control of bunch rot, and increase light penetration to aid in sugar development.  Make one to three applications before to when flower clusters are 2 to 7 inches to the flower clusters are 2 to 7 inches			
CROP/CULTIVAR	RATE (grams a.i. /acre)		
Perlette Seedless	8-24		
Flame Seedless	8-24		
Thompson Seedless	8-24		
Raisin	8-24		
Other Seedless Grapes	No recommendations are available at this time.		

SEEDLESS TABLE GRAPE			
BERRY THINNING SPRAYS			
OBJECTIVE/BENEFIT APPLICATION TIMING/ RECOMMENDATION			
For decreased berry set, reduced hand-thinning costs, and hastened maturity.	Make one to four applications during bloom. Only 1-2 applications for "Other Seedless Grape". When the bloom period is extended, subsequent sprays should be made 1 to 7 days after the first application		
CROP/CULTIVAR	RATE (grams a.i. /acre)		
Perlette Seedless	No recommendations available for this variety/timing at this time.		
Flame Seedless	3-16		
Thompson Seedless	8-20		
Raisin	3-12		
Other Seedless Grapes	0.5-12		

- Higher amounts or multiple applications may cause an excess of shot berries or overthinning, especially in young vines or vines with high vigor.
- For "Other Seedless Grapes" use caution as some of the new cultivars are very responsive and may over-thin easily. A grower should consult the Valent representative or local specialist before thinning cultivars with which he has no familiarity.

SEEDLESS TABLE GRAPE		
BUMP SPRAY		
Thompson Seedless		
OBJECTIVE/BENEFIT	APPLICATION TIMING/RECOMMENDATIONS	
To help initiate the beginning of the berry growth period.	Make one application of 16-24 grams a.i./acre during the period between the last thinning spray and the first sizing spray.	

SEEDLESS TABLE GRAPE			
BERRY SIZING SPRAYS			
OBJECTIVE/BENEFIT		APPLICATION	TIMING/ RECOMMENDATIONS
For larger berries and larger cluused in conjunction with estable		Make one to four applications beginning when the average berry size reaches "target"	
and thinning practices		diameter (See below). Timing of the subsequent sprays will be dictated by experience in the vineyard and temperatures occurring between sprays. Sprays made after 15-20 days from the first sizing spray are less	
CROP/CULTIVAR	Target Berr	effective.  y Diameter *	RATE (grams a.i. /acre)
Perlette Seedless	4-5 mm		32-128
Flame Seedless	6-9 mm		20-128
Thompson Seedless	3-5 mm		32-128
Raisin	3-5 mm		. 4-20
Other Seedless Grapes	3-14 mm		8-60
*Target average berry diameter	for the first appl	ication	

- In some growing regions and for some cultivars, high amounts of gibberellic acid may reduce fruitfulness (cluster counts) the following year.
- High amounts of gibberellic acid may also delay berry skin color development, sugars accumulation and overall maturation.
- A grower should consult the Valent representative or local specialist before sizing cultivars with which he has no familiarity.

SE	EDEI	O GRAPES	
BERI	RY SIZ	ZING SPRAYS	
T		APPLICATION TIME	NG/ RECOMMENDATIONS
	and	diameter range. App	n during the indicated berry plication can be made as a as a spray or dip directly to
Berry Diameter (mm)*	R	Whole vine spray. ate in grams a.i. /acre	Direct spray to the cluster only or dip the clusters.  Rate in ppm's of a.i.
12-16	20		40-50
12-18	20		40-50
12-16		20	`40-50
12-16	20		40-50
12-16		20	40-50
12-15		20	40-50
	BERI Tze in listed cultivars; shrivel in Emperor.  Berry Diameter (mm)*  12-16  12-16  12-16  12-16	BERRY SIZ  IT  ze in listed cultivars; and shrivel in Emperor.  Berry Diameter (mm)* R  12-16  12-16  12-16  12-16	Make one application diameter range. Approximate whole vine spray, or the cluster.  Berry Diameter (mm)*  12-16  12-16  12-16  20  12-16  20  12-16  20  12-16  20

<sup>\*</sup> Predominant average berry diameter for this application.

- The whole vine application may reduce fruitfulness (cluster counts) the following year.
- High amounts of gibberellic acid may also delay berry skin color development, sugars accumulation and overall maturation.
- A grower should consult the Valent representative or local specialist before sizing cultivars with which he has no familiarity.

OBJECTIVE/BENEFIT	APPLICATION TIMING/RECOMMENDATIONS		
-To increase berry size	Make one application 3-5 days after full bloom, but before shatter begins.		
CROP/CULTIVAR	RATE (grams a.i. /acre)		
Black Corinth (Zante Currant)	1-12		

WINE GRAPE			
OBJECTIVE/BENEFIT	APPLICATION TIMING/		
	RECOMMENDATIONS		
To increase cluster length and improve air	Make a single spray. Apply when the clusters		
circulation and light penetration within the	found in the dominant shoots arising from		
cluster. Under certain conditions this	buds on count spurs are starting to elongate		
application may help reduce the incidence of	and show separation of the uppermost flower		
bunch rot and sour rot.	groups. This timing usually coincides with		
	average cluster length of 3-4 inches (1-5 inch		
A grower should ALWAYS consult the	overall cluster length range). For each cultivar.		
Valent representative or the local agricultural	follow the rate directions given on the table		
specialist before making this application if he	below. Use 100 gallons of water per acre.		
has no prior experience with this application.			
CROP/CULTIVAR	RATE (grams a.i. /acre)		
Palomino	0.4-1 .		
Sauvignon Blanc			
Tinta Madeira			
Aleatico	1-2		
Carignane			
Chardonney			
Chenin Blanc			
French Colombard			
Pinot Noir			
Valdepenas			
Barbera	2-4		
Petite Sirah			
Zinfandel			
Green Hungarian	4-8		
Grenache Alicante	8		
Salvadore	8-16		

- DO NOT make this application less than three weeks before anticipated full bloom.
- This application will most likely cause some reduction in yield of seeded wine grape cultivars. This reduction in yield may result from: a) increase in shot berries in the year of application; b) reduction in fruitfulness (cluster counts) in the first and second year following the application.

#### CITRUS

For citrus, apply in sprays of sufficient water volumes to ensure thorough fruit wetting. In most cases, this application will cause some drop of older mature leaves; this drop of older leaves is inconsequential. However, application to trees of low vigor or under stress (pest, nutritional, or water, etc) may cause severe leaf and/or fruit drop. Do not apply in white wash sprays in which lime or other caustic material has produced a high pH in the spray tank. Applications of copper fungicides and/or oils within three weeks (before or after) the ProGibb 4% application may result in significant leaf drop and fruit drop.

CITRUS: FIELD APPLICATIONS				
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE	APPLICATION TIMING/	
		(grams a.i.	RECOMMENDATIONS	
		/acre)		
Navel Orange	To delay rind aging, reduce physiological disorders (e.g., rind staining, water spotting, sticky or tacky surface, puffy rind and rupture under pressure), and produce a more orderly harvesting pattern.	16-48	Make one or two applications as a concentrate or dilute spray.  1) Early application: spray approximately 2 weeks prior to color break (typically August November). This timing causes the greatest delay in rind aging and produces the firmest rind possible.  AND/OR  2) Late spray: one application after marketable color (typically October – December). This late	
	!		spray may cause re-greening.	
		<u> </u>	spray may cause re-greening.	
Valencia Orange (For California and Arizona use only)	To reduce rind creasing and to delay rind aging and softening	40-80	Make a single application as a concentrate or dilute spray in August to October to target crop of young fruit.	
NOTE:				
<ul> <li>Do not apply the early spray to groves that may be harvested early, as fruit coloring will be delayed. Do not apply from January through July, as production may be reduced the following year.</li> <li>Slower color development should be expected in the target crop. Increased re-greening of mature fruit may occur. After marketable color is achieved, treatment effects may be reduced the longer treated fruit remain on the tree.</li> </ul>				
All Round	To delay aging and	20-60	Make a single application in	
Oranges (For Florida use only)	softening of the rind, and to reduce creasing and		August to October to trees with a target crop of young fruit. The	

addition of pure organo-silicone type surfactant at 0.05% (6 fl. Oz. In 100 gallons) may be beneficial.

puffiness.

	CITRUS: FIELD APPLICATIONS (con't)				
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS		
Lemon/Lime	To decrease the amount of small ripe fruit and produce a more desirable production pattern relative to market demand.	10 – 32	Make a single application when target crop is ½ to ¾ full size, but still green.		
NOTE.					
1 7-	-	en larger diffe	erence in harvest pattern and		
maturity ma	y occur.				
Tangerine Hybrids	To delay disorders associated with rind	20 – 40	Make one spray application two weeks prior to color break. Apply		
(Orlando,	aging, puffiness, and	İ	as a dilute spray.		
Robinson,	softening, and to		,		
Minneola,	increase peel strength, of				
Sunburst, and	tangerine hybrids				
others)					
NOTE:					
,	<ul> <li>Do not apply if early harvest is planned. Do not apply after coloring as pre-harvest rind staining may occur. Application during coloring may cause variation in rind color development.</li> </ul>				
Grapefruit (Not for	To delay disorders	16 – 48	Make one or two dilute spray		
use in California)	associated with rind		applications in sufficient volume		
	aging (e.g., puffiness,		to ensure coverage. Do not exceed		
	softening, and orange		20 ppm a.i. in spray solution.		
	coloration), prevent				
	preharvest drop of		EARLY: Make application two		
	mature fruit, increase		weeks prior to color break. Apply		
	peel strength, reduce		as a dilute spray (AUG-SEP).		
_	water loss during	}	AND/OR		
	storage, and produce a		LATE: Make application after		
	more orderly harvesting		marketable color has developed		
	pattern.	<u> </u>	(OCT-DEC).		

• Do not spray groves that may be harvested early since fruit coloring will be delayed. Treated fruit may re-green if allowed to remain on the tree for extended periods. Application made after December, or when trees begin to break dormancy, may adversely affect new crop. Do not use concentrate sprays. Results may vary from season to season depending on environmental conditions. The delay in rind aging is greatest when spray is applied before color change. This spray timing produces the firmest rind possible.

CITRUS: FIELD APPLICATIONS (con't)				
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE	APPLICATION TIMING/	
		(grams	RECOMMENDATIONS	
		a.i./acre)		
Star Ruby	To reduce early-season	25-35	Make a single dilute application	
Grapefruit (Not for	small fruit drop of Star	1	during the bloom period.	
use in California)	Ruby Variety thereby			
,	increasing yields.			
NOTE:		<u> </u>		
	vary from season to season o	denending or	n environmental conditions.	
	ell-balanced fertilization and			
Clementine	To increase fruit set and	1-8		
	}	1-0	Make one to two applications from	
Mandarin	yield		50% petal fall up to 3 weeks after	
			petal fall. Use a dilute spray with	
	į		sufficient spray volume for	
			adequate coverage of tree canopy.	
NOTE:			_	
The number of	of applications depends upo	n amount of	desired fruit set. Generally, more	
	• • • • •		•	
fruit will be set by 2 applications, earlier applications, higher rates, and climactic				
conditions me	re favorable to set Differe	nces in the c	ron strain may also interact with the	
			crop strain may also interact with the	
above factors	to affect the degree of fruit		crop strain may also interact with the l. Reductions in final fruit size can	
above factors occur as a res	to affect the degree of fruit ult of excessive fruit set.	set achieved	l. Reductions in final fruit size can	
above factors occur as a res Tangerine Hybrids	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and		Make one to two applications	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson,	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of	set achieved	Make one to two applications during the bloom period. Apply as	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst,	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on	set achieved	Make one to two applications	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson,	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of	set achieved	Make one to two applications during the bloom period. Apply as	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst,	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on	set achieved	Make one to two applications during the bloom period. Apply as	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on	set achieved	Make one to two applications during the bloom period. Apply as	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California) NOTE:	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.	set achieved	Make one to two applications during the bloom period. Apply as a dilute spray.	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE: • Fruit sizes m	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color dev	8 – 30	Make one to two applications during the bloom period. Apply as	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE:  • Fruit sizes m mature leaf de	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE:  Fruit sizes m mature leaf de Navel and Valencia	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  In the property of the desired control of the spray of	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California) NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  ightly retarded. A slight increase in Make a single application in December - January. Apply in	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE:  Fruit sizes m mature leaf de Navel and Valencia	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California) NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California) NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz/100	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California) NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida use only)	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and yield.	8 – 30  /elopment sl r stress.	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz/100 gallons).	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE:  • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida use only)  Ambersweet	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under the property of	8-30 /elopment sl	Make one to two applications during the bloom period. Apply as a dilute spray.  ightly retarded. A slight increase in  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz/100 gallons).  Make a single application in	
above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida use only)  Ambersweet Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under To enhance fruit set and yield.	8 – 30  /elopment sl r stress.	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz/100 gallons).  Make a single application in January. Apply in 125-175 gallons	
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above factors occur as a res Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)  NOTE: • Fruit sizes m mature leaf de Navel and Valencia Orange (For Florida use only)  Ambersweet Orange (For Florida	to affect the degree of fruit ult of excessive fruit set.  To increase fruit set and yield. The number of applications depends on desired fruit set.  ay be reduced and color develop may occur in trees under the property of	8 – 30  /elopment sl r stress.	Make one to two applications during the bloom period. Apply as a dilute spray.  Make a single application in December - January. Apply in 125-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz/100 gallons).  Make a single application in January. Apply in 125-175 gallons	

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
Grapefruit (Not for use in California)	To enhance fruit set, size and yield	15-25	Make a single application in December - January. Apply in 125-175 gallons of water per acrewith a pure organo-silicone type surfactant at 0.05% (6 fi. oz/100 gallons).

	CITRUS: POSTHARVEST APPLICATIONS				
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS		
Lemon	To delay fruit senescence and prolong storage life. The delay in senescence may reduce the incidence of infection by sour rot (Geotrichum candidum).	50-100	Add 2 to 4 fluid ounces of product (2 to 4 grams of a.i.) in 10 gallons of storage wax, which has been diluted as per wax label instructions.		
Yellow lemons and other mature citrus fruit	To delay aspects of rind senescence and color changes	50-100	Add 2 to 4 fluid ounces of product (2 to 4 grams of a.i.) in 10 gallons of storage wax, which has been diluted as per wax label instructions.		

## • FRUIT CROPS

FRUIT CROPS				
CROP/CULTIVAR	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING / RECOMMENDATIONS	
Banana	To stimulate plant growth, and to overcome the effects of stress caused by insect, disease or adverse weather.  These applications may also improve fruit size and quality and overall yield.	1 –6	Apply by air or ground equipment once every 30 to 90 days throughout the year. Use sufficient water volume to achieve good coverage of the foliage. Make more frequent applications (monthly) during the 6 months prior to anticipated weather stress periods.	
Blueberry (Not for use in California)  Highbush: Coville, Jersey, Stanley, Earliblue, Weymouth, Walcott, Berkeley, Blueray, Bluecrop, 1316A, Concord, and others	To improve fruit set.	40-80	Make a single application of 80 grams a.i. in 40 to 100 gallons of water/acre. The application should be made at full bloom (when 75% of the flowers are fully open).  OR  Make two applications at 40 grams a.i./acre in 40 to 100 gallons of water. Make the first application at full bloom, and the second one within 10-14 days of the first one. For Weymouth, application can be delayed up to two weeks after bloom to increase size of "shot" berries.	
Blueberry: (Not for use in California) Rabbiteye: Aliceblue, Beckyblue, Bonita, Brightwell, Climax, Delite, Tiftblue, Woodward, and others.	To improve fruit set.	40-80	Make a single application of 40 to 80 grams a.i./acre in 40 -to-100 gallons of water per acre when most of the flowers are elongated but not yet open (bloom Stage 5).  OR  Make two to four applications 10-to-14 days apart starting at bloom Stage 5. Spray 20 to 40 grams a.i./acre in 40 to 100 - gallons of water per application.	

	FRUIT CF	ROPS (Con't)	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING / RECOMMENDATIONS
Sweet Cherry	To produce larger, brighter colored, firmer fruit.	16-48	Apply a single spray when the fruit is translucent green to straw colored. Use sufficient water volume to ensure thorough wetting.
MOTE:			
• Color deve Red Tart Cherry (Not for use in California)	To maintain and extend high fruiting capacity of tart cherry trees and reduce the occurrence of "blind" nodes.  Treatment will cause bud differentiation, which is apparent the year after application. Therefore, changes in shoot, spur, and flower production will not be evident until two or three years after program initiation.  Applications must be applied annually to ensure vegetative development and subsequent yield improvement year after year.	y be slightly d 4-18	Apply one spray 14-to-28 days after bloom. Optimum timing is defined as that stage when 3-to-5 terminal leaves have fully expanded, or, at least 1-to-3 inches of terminal shoot extension has occurred. Use 4 to 18 grams a.i./acre, depending on tree age and vigor (See Table below). Apply as a concentrate or dilute spray in sufficient water volume to ensure thorough wetting.

• Rates are based on expected normal tree vigor at various ages. Adjust rate according to tree vigor. If trees are vigorous, use lowest recommended rates. Lowest rates should also be used on trees that have been heavily pruned or hedged. Use higher rates for trees low in vigor and weak in shoot and spur production. Excessive application rates will increase vegetative growth at the expense of fruit production the following year. Applications will not improve growth of trees under stress conditions, such as nutritional, moisture, or pest. Best results will be obtained when combined with good cultural practices.

# RECOMMENDED APPLICATION RATES (GRAMS A.I./ACRE) FOR TART CHERRY TREES BY AGE

Tree Age (years)	Rate (grams a.i./acre)
6-10	4-6
11-15	8-10
16-20	10-14
20 + years	14-18

	FRUIT C	ROPS (con't	)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING/ RECOMMENDATIONS
Stone Fruit Group	To increase fruit firmness and improve fruit quality in the season of application	16-32	Apply as a single spray one to 4 weeks prior to the beginning of the harvest period. Use sufficient water to achieve complete coverage of fruits and foliage.
	ation may cause reduction in flo if it is made during the months		e year following the application, th July.
Italian Prune (Not for use in California)	To reduce internal browning, improve quality, and increase size.	16-48	Make a single application four to five weeks before expected harvest. Apply in sufficient water volume to ensure thorough wetting.
NOTE:			<u></u>

 Color development and harvest may be slightly delayed. May reduce bloom the following season.

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING/ RECOMMENDATIONS
Non Bearing Stone Fruit (Not for use in California)	To reduce flowering and fruiting in young stone fruit trees in order to minimize the competitive effect of early fruiting on tree development.	20 – 80	Make a single application during the period of flower bud initiation for the following year. Consult with the Valent representative or local horticulturist for timings and rates for specific cultivars in your area. Use sufficient water to achieve good coverage of the canopy.

#### NOTE:

Do not spray trees in the first year. Treat in the second season for reduction of flowering
in the third season, and again in the third season if flower reduction and fruiting is desired
in the fourth season. Treat only trees that are in good physiological condition.
Discontinue treatment the year before desired harvest.

FRUIT CROPS (Con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING/ RECOMMENDATIONS
Strawberry (Not for use in California)	To increase runner production of mother plants.	15-25	Make a single application to mother plants 10 – 30 days after planting. Plants should have 1-6 leaves at spraying. Apply 100 gallons spray/acre to point of run-off.

- Not for use on fruiting plants. Treatments may not be effective on plantings set out after mid-May.
- Response varies with cultivar and location. Consult your Valent representative or local horticulturist for specific recommendations.

			····
Cranberry	To reduce or	10-50	Make a single application at
(Not for use in	completely eliminate		early bloom (2-5% scatter
California)	the crop in the year of		bloom). Use sufficient water to
	application	_	ensure thorough coverage.

- Applications made later than indicated may result in no effect or actually result in increased fruit set (opposite effect).
- Responses will vary with cultivar, age of the bog and location. Consult the Valent representative or local specialist for specific information.

#### VEGETABLE CROPS

Artichoke  To accelerate maturity and shift harvest to an earlier date  To delay leaf senescence.  Fresh and Processing  Foresh and Processing  To delay leaf senescence.  Maintaining vigorous foliage may reduce the incidence of infection by Alternaria dauci.  NOTE:  Dilutions of greater concentration can increase the risk of excess particularly with a second application.  Celery  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  RECCE  For proper increase in three initiation interest in the particular interest in the partic	
and shift harvest to an earlier date  and shift harvest to an earlier date  To applic interv fourth suffice ensure entire buds)  Carrots, Fresh and Processing  Alternaria dauci.  NOTE:  Dilutions of greater concentration can increase the risk of excess particularly with a second application.  Celery  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  Diversity of the recent initiate initiate for application.  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.	PLICATION TIMING/ COMMENDATIONS
Processing  Maintaining vigorous foliage may reduce the incidence of infection by Alternaria dauci.  NOTE:  Dilutions of greater concentration can increase the risk of excess particularly with a second application.  Celery  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  Weeks comm to commend to concentration by equipment of the process	
Dilutions of greater concentration can increase the risk of excess particularly with a second application.  Celery  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  Make to four Use 2 per according to the property of the particularly of the particularly of the particularly of the particularly with a second application.  Only 10 Make to four Use 2 per according to the particularly of the particularly of the particularly with a second application.  Only 10 Make to four Use 2 per according to the particularly of the particularly with a second application.	ke the first application 4 –6 eks after emergence using amercial ground or aerial ipment with spray centrations of 20-30 ppm. A cond spray 14 days later may required to achieve the ired amount of foliar overy in severe disease ations or cool weather. not apply more than twice crop.
Celery  To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.  Make to four Use 2 per according to the conditions of saline soils, and obtain earlier acre for 5-t acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of saline soils, and obtain earlier acre for 10 per according to the conditions of the conditi	essive top growth,
conce	ke a single application one four weeks prior to harvest. 25-to-50 gallons of water acre by ground application 5-to-10 gallons of water per e for aerial application cept in California). Use ver concentrations if olying 3-to-4 weeks before vest and higher acentrations within 1-to-2 eeks before harvest.

#### NOTE:

• Do not apply by air in California. Do not apply earlier than 4 weeks before harvest as bolting may occur.

	VEGETABLE	CROPS (con	't)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. / acre)	APPLICATION TIMING/ RECOMMENDATIONS
Cucumber (Not for use in California)	To stimulate fruit set during periods of cool temperatures.	1-4	Make one application prior to bloom followed by two additional applications at intervals of 10-to-14 days. Up to four applications may be required. Use sufficient water volume for thorough coverage of exposed foliage.
1	um benefits, vines must be to cool temperatures.  To obtain uniform	in good condi	tion, except for reduced rate of
Lettuce for seed	bolting and increase seed production	1-4	Apply one to four applications at two-week intervals, beginning at the fourth true leaf. Use sufficient water volume to ensure thorough wetting.
Melon (Not for use in California)	To stimulate fruit set during periods of cool temperatures	1-4	Make one application prior to bloom followed by two additional applications at intervals of 10-to-14 days on cantaloupes and watermelons.
ł	um benefits, vines must be to cool temperatures.	in good condi	tion, except for reduced rate of

	VEGETABLE	CROPS (con	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE	APPLICATION TIMING/
		(grams a.i. / acre)	RECOMMENDATIONS
Pepper	To promote plant	1-3	Apply one to two sprays in
(Not for use in	growth		25-to-50 gallons of water per
California)			acre at two-week intervals.
			Begin sprays 2 weeks after
			transplanting.
NOTE:			
	recommended for areas wit	<b>h shor</b> t growi	ng seasons, or when low
	es slow plant growth.		
Pepper (Not for	To increase fruit set and	1-3	Apply one to two sprays in
use in California)	promote fruit growth		25-to-50 gallons of water per
			acre at weekly intervals during
	<b>.</b>		the flowering period.
NOTE:  • The high ra set problem		s and/or varie	•
• The high ra		s and/or varie	•
The high ra set problem  Pepper (Not for use in California)	ıs.		ties with pollination and/or frui  Apply in 25-to-50 gallons of water per acre at the beginning of the picking
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan	1-3	ties with pollination and/or frui Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.
The high ra set problem  Pepper (Not for use in California)  NOTE:	te is recommended for plan  To stimulate uniform	ts with heavy	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in	ts with heavy 0.2- 0.4 (grams in	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in maximum production,	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in maximum production, more uniform	ts with heavy 0.2- 0.4 (grams in	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of newly harvested	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to
The high raset problem Pepper (Not for use in California)  NOTE:  The high ra	te is recommended for plan  To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of	ts with heavy 0.2- 0.4 (grams in 100	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.  fruit loads.  Dip whole or cut seed pieces in a solution containing 0.2-to-0.4 grams a.i. in 100 gallons of water prior to

• Under high soil temperatures use the minimum concentration for dormant seed. Do

not treat rested seed pieces.

VEGETABLES (Con't)					
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING/ RECOMMENDATIONS		
Rhubarb	To break dormancy on plants receiving insufficient chilling and to increase marketable yield of forced rhubarb	10 – 20 (grams in 10 gallons)	1) When the rest period is not completely broken, make a single application of 2 fluid ounces (60 ml) of a solution containing 20 grams a.i. in 10 gallons of water to each cleaned crown.  2) When the rest period is broken by cold weather, apply 2 fluid ounces (60 ml) of a solution containing 10 grams a.i. in 10 gallons of water to each cleaned crown.		

• Keep forcing house temperatures at 40 – 50°F for 24 hours after application. If house is warmer than 50°F, crowns should be covered with plastic. Temperatures above 50°F may lower yields and cause poor stalk color.

Spinach	To facilitate harvest,	6-10	Apply a single spray 10-to-18 days
(Not for use in	increase yield and		before each anticipated harvest on
California)	improve quality of fall		fall or over-winter spinach, ideally
	and over-winter spinach.		when daytime temperatures are 40°
	ĺ		F-to-70° F and during early morning
	!		hours when dew is present on crop.
	}		Make applications in 10-to-50
			gallons of water per acre by ground
			sprayer or in a minimum of 5-to-10
	1		gallons of water per acre by air.
			When applied to promote growth of
			second cutting, wait until some
			regrowth has started before spraying.
	<u> </u>		Maximum benefit is obtained when
			below normal temperatures
			predominate following application
			and growth would be otherwise
			slowed in untreated spinach.

### NOTE:

 Since the promotion of bolting may occur, do not apply after the mid-winter period or if temperatures may be expected to exceed 75° F within several days of application. Do not apply on spring plantings.

#### • HOPS

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING/ RECOMMENDATIONS
Hops: Seeded and seedless Fuggle hops and similar varieties adapted to the Northwestern states.	To increase fruit set and yield.	4-6	Make a single application in 100- 150 gallons of water per acre when vine growth is 5-8 feet in length.

CONVERSION TABLE
ProGibb 4% contains approximately 1 gram of active ingredient per fluid ounce of product

Grams of active ingredient	Fluid Ounces of ProGibb 4%
0.5	0.5 oz
1.0	1 oz.
2.0	2 oz
4.0	4 oz
5.0	5 oz
8.0	8 oz
10.0	10 oz
12.0	12 oz
16.0	16 oz
20.0	20 oz
_ 25.0	25 oz
32.0	32 oz
40.0	40 oz
48.0	48 oz
50.0	50 oz

#### **NOTICE TO USER:**

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

c<sub>2001</sub>

**SUB-LABEL II** 

# RYZUP\* PLANT GROWTH REGULATOR SOLUTION

For use on rice and cotton.

# RYZUP® PLANT GROWTH REGULATOR SOLUTION

Active Ingredient:	
Gibberellic Acid	4.0% w/v
Inert Ingredients	96.0% w/w
Total	<del></del>

RyzUp liquid contains approximately 1.0 gram active ingredient per fluid ounce of formulated product.

## KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

For MEDICAL and TRANSPORT Emergencies ONLY Call 24 Hours A Day 1-800-892-0099. For All Other Information Call 1-800-6-VALENT

EPA Registration No. 73049-15 EPA Establishment No.

Valent BioSciences Corporation 870 Technology Way Libertyville, IL 60048

Net Contents: \_

This container will treat acres at the maximum use rate, as recommended for use on

	FIRST AID
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	HOT LINE NUMBER

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### **WARNING**

Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist, and avoid contact with skin.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt.
- Long pants.
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton.
- Shoes plus socks.
- Protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Exposed treated seed may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water.

#### PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE! Keep away from hear and open tiarne.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product through any type of irrigation system.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

EXCEPTION: If the product is soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls.
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton.
- Shoes plus socks.
- Protective eyewear.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Keep containers tightly closed when not in use. Keep away from heat and open flame.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

## GENERAL DIRECTIONS FOR USE

Use only as directed. The label should be read thoroughly and understood before making applications. Keep out of reach of children.

Do not apply this product through any type of irrigation system.

#### Application recommendations:

RyzUp contains gibberellic acid which is an extremely potent plant growth regulator; when applying plant growth regulators, deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, may result in undesirable effects. Always consult the Valent agricultural specialist in your area for the spray regimen best suited to your conditions.

- Do not apply to plants under pest, nutritional, or water stress.
- When a range of rates is indicated, use the concentration and spray volume recommended locally by the Valent agricultural specialist.
- For optimum effectiveness, thorough spray coverage must be achieved; all parts of
  the plant or crop must receive the spray or desired results will not occur. Prepare
  solution concentrations by mixing the required amount of product with water in a
  clean, empty spray tank. Dispose of any unused spray material at the end of each
  day following local, state or federal law.
- For best results, the water pH should be around 7.0, and always below 8.5.
- RyzUp applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night-time applications are encouraged when day-time conditions are not conducive to slow drying conditions.
- Product persistence: RyzUp should be re-applied if significant rain occurs within 2 hours of application.
- DO NOT apply using ULV application methods. For aerial applications spray volumes must be greater than 2 gallons per acre.
- No preharvest interval is required for this product.

APPLICATION TIMING/

#### RICE

USE

## 1) FOLIAR APPLICATION

OBJECTIVE/

UGL	ODGECTIVE	IMAL	IN I DICHTION I INTENTO
	BENEFIT	(oz/acre)	RECOMMENDATIONS
Seedling Applications (Early Season)		1 to 3 fl oz	At the 1-2 and 4-5 leaf stages of
	·	(30 to 90 ml)	growth
With use of a non-	May promote vigorous	1 to 2 fl oz	Early flooding may reduce
ionic surfactant or in	and more uniform	(30 to 60 ml)	the additional flushing costs
tank mix combination	seedling growth of rice		associated with a delay in
with rice herbicides	prior to permanent flood		establishing the permanent
	establishment. This may		flood, reduce weed
With some dry and	permit earlier flooding (5	1.5 to 3 fl oz	infestations and the number
water-based herbicide	to 10 days earlier) of drill	(45 to 90 ml)	of herbicide applications,
formulations, or when	or broadcast-seeded rice	}	and/or promote earlier and
temperatures will	and is particularly		more uniform grain maturity.
likely average 75° F or	effective on semi-dwarf	İ	more difform gram maturity.
less during 14 days after application.	varieties.	}	
arter application.	varieties.	<u> </u>	•
Panicle Extension App	lications (Lata Secon)		
Tank mix with a non-	To promote main culm and	3 to 8 fl oz	Between split-boot and 100%
ionic surfactant known	tiller panicle extension.	(90 to 240	panicle heading.
to be non-phytotoxic	May increase panicle	ml)	Heading applications to the
to rice.	height of rice. This may	"""	first crop may also accelerate
	facilitate harvest		re-growth of second crop
	efficiency in the field by	Í	rice. This may result in
	allowing the rice grain to		earlier second crop maturity
	be cut above the leaf	)	and maximized grain yield.
	canopy at faster combine		and maximized grain yield.
	speeds and at reduced		
	vegetative load. Grain	}	
	quality and maturity may	1	
	be advanced with the		
	]	{	
	promotion of tiller panicle		
	development.	<u> </u>	s tank miv combinations with

RATE

Timing and dosage should be based upon environmental conditions, tank mix combinations with herbicides, and preferred permanent flood practice in relation to rice leaf stage. **Do not** apply when rice is subjected to drought stress conditions.

Foliage may temporarily appear lighter green in color due to accelerated growth rates following RyzUp application.

#### 2) HYBRID RICE SEED PRODUCTION

USE	OBJECTIVE/	RATE	APPLICATION TIMING/
	BENEFIT	(grams a.i./acre)	RECOMMENDATIONS
Panicle Extension	Improved pollination and seed yield.	20-100	Make 1-5 applications at regular intervals during the heading period to promote main culm and tiller panicle extension.

#### For Foliar and Hybrid Rice Seed Production:

#### **Mixing Instructions**

Fill the treatment tank with half of the final tank mix volume. Add the required amount of RyzUp and mix thoroughly while adding water to the desired final volume. Dispose of any unused spray material at the end of the day.

#### **Application Equipment**

RyzUp may be applied by aerial or ground spray equipment. As an aerial spray, use a spray system capable of producing a uniform spray pattern of medium to fine spray droplets at 10 gallon per acre (GPA). Apply no less than 3 GPA of total spray volume. Low pressure ground sprayers equipped with boom and flat fan nozzles using 10 to 15 GPA spray volume may be used.

#### Compatibility with Other Chemicals

RyzUp can be tank mixed with most commonly used rice herbicides and fungicides. When applying RyzUp in mixture with Arrosolo<sup>®</sup>, Riverside Propanil<sup>®</sup> 60DF, Stam<sup>®</sup> M4, Stam<sup>®</sup> 80EDF, or Wham!<sup>®</sup> EZ, plus one of their recommended adjuvants, use of an additional surfactant is not necessary. Do not apply RyzUp with Whip<sup>®</sup> IEC or Whip<sup>®</sup> 360.

#### **Use Precautions**

Avoid drift or accidental application to other crops

#### 3) SEED TREATMENT APPLICATION

RyzUp stimulates seed germination and promotes faster and more uniform stand establishment				
USE	OBJECTIVE/ BENEFIT	RATE (fl. oz.)	APPLICATION TIMING/ RECOMMENDATIONS	
Seed treatment for rice	May promote germination and emergence for semidwarf and tall	0.5 to 2.1 fl oz product in 8-20 fl oz water/100 lbs seed (Equivalent to 15 to	For use with drill or broadcast seeding systems.	
	varieties.  May help increase	62 ml in 237 to 591 ml water/45 kg seed)	Do not apply RyzUp prior to a 24 hour presoak or to water used for the	
	final stand density and uniformity when seed are planted deeper to		presoak.  Do not exceed 2.1 fl oz product/100 lbs of seed	
	receive adequate moisture.		(or 62 ml product/45 kg seed)	

#### **Mixing Instructions**

RyzUp may be applied to seed with standard mist treating equipment. For best results, higher treatment volume of 12 to 20 fl oz per 100 pounds of seed (355 to 591 ml/45 kg seed) ensures complete and uniform coverage.

Fill the treatment tank with half of the final tank mix volume. Add the required amount of RyzUp and mix thoroughly while adding water and other co-applied seed treatment products (see Compatibility with Other Chemicals section) to the desired final volume.

An approved dye must be added to distinguish RyzUp treated seed and prevent inadvertent use for food, feed, or oil purposes. Treated seed must be labeled in accordance with the requirements of the Federal Seed Act.

#### Use Restriction

Do not use treated seed for food, feed or oil purposes.

#### Compatibility with Other Chemicals

RyzUp is compatible with most commonly used fungicide seed treatments (e.g. Vitavax CT and Dithane), standard dyes, and sticker/binding agents. When preparing tank mixes, ensure adequate physical compatibility and mixing.

#### COTTON:

RyzUp may help to shorten the vegetative growth "lag" phase. This benefit may reduce the time interval needed to develop optimum leaf area and plant height, thus maximizing the potential for earliness and improved yields.

USE	OBJECTIVE/ BENEFIT	RATE (oz/acre)	APPLICATION TIMING/ RECOMMENDATIONS
On young cotton plants	Promote growth and increase seedling vigor	1 to 6 fl oz (30 to 180 ml).  Use higher rates (within the indicated range) when temperatures will likely average 75°F or less during the 14 days following application(s).	In-furrow application to seed, or as a foliar application from the cotyledon leaf stage through the 7 leaf/node stage. Repeat applications as needed to a maximum of 3 applications. Applying more often than necessary to achieve the desired height, may result in excessive vegetative growth.

Do not apply RyzUp to cotton plants that are under drought stress. If the cotton plants are under continuous stress, application of RyzUp should be delayed until the stress is alleviated and the plants are beginning to recover.

Avoid drift or accidental application to other crops.

#### **Mixing Instructions**

Fill the treatment tank with half of the final tank mix volume. Add the required amount of RyzUp and mix thoroughly while adding water to the desired final volume. Dispose of any unused spray material at the end of the day.

## **Application Equipment**

RyzUp may be applied by aerial or ground spray equipment. As an aerial spray, use a spray system capable of producing a uniform spray pattern of medium to fine spray droplets at 10 gallon per acre (GPA). Apply no less than 3 GPA of total spray volume. Low pressure ground sprayers equipped with boom and flat fan nozzles using 10 to 15 GPA spray volume may be used.

#### Compatibility with Other Chemicals

Data regarding the compatibility of RyzUp with herbicides used in cotton are not available.

## **NOTICE TO USER**

Seller makes no warranty, express or implied, or merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

°2001

# **SUB LABEL III**

ProGibb T&O
Plant Growth Regulator Solution

For use on turf and ornamental plants.

# ProGibb T&O Plant Growth Regulator Solution

#### For use on turf and ornamental crops.

Active Ingredient:	
Gibberellic Acid	4.0% w/w
Other Ingredients	96.0% w/w
Total	

ProGibb T&O liquid contains approximately 1.0 gram active ingredient per fluid ounce of formulated product.

# KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

For MEDICAL and TRANSPORT Emergencies ONLY Call 24 Hours A Day 1-800-892-0099. For All Other Information Call 1-800-6-VALENT

EPA Registration No. 73049-15 EPA Establishment No.

Valent BioSciences Corporation 870 Technology Way Libertyville, IL 60048

Net Contents:				
This container will treat _	acres at the maximum use rate,	as recommended for	use on	

	FIRST AID
lf in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergencies, you may also call toll-free 1-800-892-0099 for treatment information.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Harmful if inhaled or absorbed through skin. Do not get in eyes or on clothing. Avoid breathing vapor or spray mist, and avoid contact with skin.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt
- Long pants
- Chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile
- rubber, neoprene rubber, polyvinyl chloride, and viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### USER SAFETY RECOMMENDATIONS

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning of equipment or disposing of equipment washwaters.

#### PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE! Keep away from heat and open flame.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

EXCEPTION: If the product is soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, and viton
- Shoes plus socks
- Protective eyewear

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter without appropriate protective clothing until sprays have dried.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

#### **PESTICIDE STORAGE:**

Keep containers tightly closed when not in use. Keep away from heat and open flame.

#### PESTICIDE DISPOSAL:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER DISPOSAL:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# GENERAL DIRECTIONS FOR USE ON ORNAMENTAL CROPS, CUT FLOWERS AND TURFGRASS

#### **PRODUCT INFORMATION**

ProGibb T&O is an extremely active plant growth regulator. Care must be used in measuring, diluting, and applying ProGibb T&O.

A foliar application of ProGibb T&O supplies plants with an additional source of the naturally occurring plant growth regulator gibberellin. Gibberellins are involved in numerous plant development processes. Adding gibberellic acid (GA3) promotes a number of desirable effects in floriculture crops including increased flower size, increased flower number, uniform flowering, increased stem elongation, and a decrease in time to flower. Additionally, gibberellin applications have been shown to reduce the minimum temperature required to initiate plant growth and will overcome bud and seed dormancy. In Bermudagrass turf, adding ProGibb T&O will initiate and/or maintain growth and prevent color change during periods of cold stress and will maintain and/or enhance regrowth during summer months.

#### **GENERAL INSTRUCTIONS**

When applying plant growth regulators, deviations in rates, timings, or water volumes from the label directions may result in undesirable effects.

For optimum effectiveness, thorough spray coverage must be achieved; only plant parts covered with spray solution will be affected. Plant parts not directly covered with ProGibb T&O will not respond to the application.

An effective dose of ProGibb T&O is strongly dependent on application volume. Plant response can vary if a given rate is applied at different spray volumes. Uniformity of spray solution is equally important.

When applying foliar applications of ProGibb T&O spray plants to run-off. The actual spray application rate will vary depending on plant size and spacing density. A spray application rate which is effective for 6-inch potted plants spaced at a density of 1 pot per square foot is 2 quarts of finished spray solution per 100 square feet of bench area.

Differences in plant response to ProGibb T&O due to differences in plant surfaces, leaf orientation, and plant structure are possible. It is recommended that ProGibb T&O be applied during morning or late afternoon hours or when plants are not under environmental stress as extreme temperatures can influence plant response to ProGibb T&O.

#### **DETERMINING OPTIMAL APPLICATION RATES**

The rates recommended on this label are ranges and should be used only as a guide.

An optimum ProGibb T&O rate will depend on desired expectations as well as physical and environmental factors. Specific growing practices such as watering, potting media, fertilization, temperature, and light conditions will affect plant responses to a given ProGibb T&O rate.

Results from ProGibb T&O applications are dependent upon timing, rate, frequency of application, and plant vigor at application. ProGibb T&O applications made under slow drying conditions (cool temperatures, low air movement and medium to high relative humidity) will increase absorption by the plant, thus optimizing effectiveness.

To determine optimum use rates, conduct trials on a small number of plants under actual use conditions using the lowest recommended rate. When a range of rates is indicated, use the lowest concentration recommended until familiarity is gained.

#### LIMITATIONS

- For optimum effectiveness, thorough spray coverage must be achieved; all parts of the plant or crop must receive the spray or desired results will not occur.
- Do not apply to plants under pest, nutritional, or water stress. ProGibb T&O will not correct or substitute for treatment of pest, nutrient, or water stresses.
- Do not apply after flower buds show color.
- Do not apply through any type of irrigation system.
- Avoid drift onto non-target species.
- Do not mix ProGibb T&O with pesticides, fertilizers, wetting agents, spreader stickers or other adjuvants.
- Over-application may result in accelerated plant growth/development.
- Do not apply ProGibb T&O to any food crop.
- Do not reuse soil from plants treated with ProGibb T&O.

#### MIXING INSTRUCTIONS AND RATE CONVERSION TABLE

Apply with standard spray equipment set according to manufacturer's recommendations.

ProGibb T&O mixes readily with water. For best results, water pH should be 7.0 and always below 8.5.

Foliar Applications: Always make sure application equipment is thoroughly clean before mixing. When preparing ProGibb T&O for use as a foliar spray, fill tank to one half full. Add the recommended amount of ProGibb T&O according to the rate conversion table below. Complete filling the tank. Dispose of any unused spray material at the end of each application following local, state or federal law.

Rate Conversion Table\*

	14810 000	TCI STOIL I ADIC	
ppm (parts per million)	Milliliters (ml) of	Milliliters (ml) of	Fl. oz. of ProGibb
(GA <sub>3</sub> )	ProGibb T&O per	ProGibb T&O per	T&O per gallon of
	liter of spray	gallon of spray	spray solution
	solution	solution	
1	0.03	0.1	0.003
5	0.15	0.6	0.02
10	0.3	1.1	0.04
25	0.74	2.8	0.09
50	1.5	5.6	0.19
100	3.0	11.2	0.4
250	7.4	28.0	0.95
500	14.8	56	1.9
750	22.2	84	2.8
1,000	29.6	112	3.8

<sup>\*</sup>ProGibb T&O is a liquid. Each fluid ounce contains approximately 1.0 gram of active ingredient.

# ORNAMENTAL CROPS, CUT FLOWERS AND TURFGRASS

- The following recommendations are based on results with common cultivars.
   Differences in responsiveness may vary between cultivars, growing conditions, and cultural management systems. Therefore, prior to widespread usage, test a small number of plants from each cultivar under a specific set of growing and cultural management conditions to verify desired efficacy.
- ProGibb T&O is an extremely potent plant growth regulator. The general effects on floriculture crops are to increase plant size through increased stem elongation and leaf and petal expansion. If applied at an improper time, at excessive rates, or too frequently, plants may become long and spindly with weak stems.

# SPRAY GUIDELINES FOR ORNAMENTALS

	AZALEA			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS	
Azalea	As a Partial Replacement of Cold Treatment to Break Flower Dormancy Applications of ProGibb T&O have been shown to partially replace a cold treatment needed to break flower dormancy of azalea.	250-500	For three consecutive weeks apply a single foliar application. Begin applications only after plants have received 3 to 4 weeks of chilling. Plants should be at Stage 5 of floral development (i.e., style elongated and open) when treatment is initiated. A representative spray schedule would consist of applications made at 3, 10, and 17 days after four weeks of chilling. Flowers will not develop properly if applied prior to Stage 5.	

#### Note:

- Thorough spray coverage is essential for uniform flowering.
- Do not apply after flower buds show color.
- Cultivars such as 'Gloria', 'Prize', and 'Redwing', a single spray of 1,000 ppm after 4 weeks of chilling has proven effective in breaking dormancy

Azalea	As a Complete	1,000	For four to six consecutive
	Substitution of Cold		weeks apply a single foliar
	Treatment to Break		application of 1,000 ppm.
	Flower Dormancy		Plants must be at Stage 5 of
	Applications of ProGibb		floral development (i.e., style
	T&O have been shown	•	elongated and open) before
	to completely substitute		first spray is applied. Flowers
	for a cold treatment that		will not develop properly if
	is needed to break		applied prior to Stage 5 of
	flower dormancy of		floral development.
	azalea.		•

#### Note:

- Thorough spray coverage is essential for uniform flowering.
- Do not apply after flower buds show color.

	AZALEA	(con't)	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Azalea	To Inhibit Flower Bud Initiation During Vegetative Growth Applications of ProGibb T&O have been shown to inhibit flower bud initiation during vegetative growth of azalea.	100-750	Apply a single foliar application of ProGibb T&O at 100 to 750 ppm beginning 2 to 3 weeks after each pinch. Continue applications on a weekly basis for 1 to 2 weeks after the first application.
Note:			
Apply a ma	ximum of three application	<del></del>	
	CALLA		
Calla Lily	For increased	500	Soak rhizome or tuber in
	flowering	<u> </u>	ProGibb T&O at 500 ppm for
}	Applications of ProGibb T&O have been shown		10 minutes prior to planting.
	to increase the number	ļ	
	of flowers per rhizome or tuber in Calla Lilies.		
Note:	or tuber in Cana Lines.		
Some flow be reduced		•	n some cultivars. Rates should or concentration may vary
	CAME	LLIA	
Camellia	For Substitution of	2.0%	Dilute ProGibb T&O in half
	Chilling Requirements	solution	by mixing equal volumes of
	and to Increase Bloom		product and water. Remove
}	Size		the vegetative bud
	Applications of ProGibb		immediately adjacent to or
	T&O have been shown		below the floral bud. Place a
	to substitute for the		single drop of the prepared
	chilling requirements		solution to the vegetative bud
	and increase bloom size of camellia.		scar.
Note:	or carretta.	L	1
The additio	n of a deposition aid (such	as carboxym	ethylcellulose) to thicken the

CYCLAMEN			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Cyclamen	For Uniform Flowering Both bud and foliar applications of ProGibb T&O have been shown to promote uniform flowering of cyclamen.	10 to 15	Bud Application: With a dropper apply 8 ml (0.25 fl. oz.) of a 10 to 15 ppm solution directly to the crown when buds are pinhead size in the leaf axils (generally when there are 10 to 12 unfolded leaves). Earlier applications may be ineffective in promoting uniform flowering.
		25	Foliar Application: Apply a single foliar application of 25 ppm directly toward the crown and adjacent leaves when buds are pinhead size in the leaf axils (generally when there are 10 to 12 unfolded leaves). Thoroughly wet the crown.

#### Note:

• Applications applied too late or at excessive rates may result in weakened floral stems or poorly formed flowers.

FUCHSIA				
Fuchsia	For Tree Forms: The following recommendations are for the production of tree forms of common fuchsia cultivars by stem elongation.	250	For four consecutive weeks apply a single foliar application of 250 ppm.  Begin applications after the plant has reached desired size. Spray the entire plant to the point of run-off.	

## Note:

- Treated plants may require staking after application.
- Concentrations higher than 250 ppm may cause plants to become stretched and spindly, with weakened stems.

	GERAN	IIUM	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
CUTTINGS			
Geranium	For increase in flower number and flower size. Applications of ProGibb T&O have been shown to increase flower number and flower size of geranium cuttings.	1-5	Apply a single foliar application of 1 to 5 ppm when inflorescence first begins to show color. Direct spray at the developing inflorescence.
	prior to inflorescence show ause peduncle stretching.	ring color or	concentrations higher than 5
Geranium	For flowering advancement Applications of ProGibb T&O have been shown to advance flowering 10 to 21 days depending upon variety of geranium.	5-15	Apply a single foliar application of 5 to 15 ppm when first flower bud set is noted. Spray the entire plant to the point of run-off.
Note:	gerana.		
	iming or concentrations abo	ve 15 ppm r	nay cause plant stretching.
Geranium	For Tree Forms: The following recommendations are for the production of tree forms of common geranium cultivars by stem elongation.	250	For four consecutive weeks apply a single foliar application of 250 ppm.  Spray the entire plant to the point of run-off.
Note: • Treated pla		r application	

	HYDRA	NGEA	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Hydrangea	For chilling substitution to break flower bud dormancy Applications of ProGibb T&O have been shown to substitute for chilling requirements to break flower bud dormancy of hydrangea.	2-5	For one to four consecutive weeks apply a single foliar application of 2 to 5 ppm.  Begin applications at the start of forcing. For best results, thoroughly cover all growing points containing flower buds.
• •	ications or concentrations high weaken stems.  POMPOM CHRY		
Pompom Chrysanthemum	For Elongated Peduncles Applications of ProGibb T&O have been shown to elongate peduncles of Pompom chrysanthemum.	25-60	Apply a single foliar application of 25 to 60 ppm 4 to 5 weeks after initiation of short days. Apply directing the spray solution towards the flower buds.
	)		

Note:

Spathiphyllum

Some flower distortion or leaf stretching may occur on cultivars such as 'Petite', 'Starlight', 'Tasson', and 'Mauna Loa'. Rates should be reduced when this is noted. On other cultivars, users should first evaluate ProGibb T&O on a small number of plants <u>prior to</u> application of the product on a commercial basis.

To accelerate bloom

number of flowers per

Applications of ProGibb

T&O have been shown

to increase flowering of

and increase the

Spathiphyllum.

plant

150-250

Apply a single foliar application of 150 to 250

growing points.

ppm approximately 9 to 12

weeks prior to expected date

of sale. Spray to the point of

run-off and thoroughly wet all

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
AGLAONEMA ANTHURIUM DIFFENBACHIA (Dumb Cane)	To accelerate bloom and increase the number of flowers per plant. Applications of ProGibb T&O have been shown to increase flowering of Araceae	250-500 250-500 250-500	For one to four consecutive weeks apply a single foliar application of 250 to 500 ppm. Begin applications at the start of forcing. For best results, thoroughly cover all growing points containing flower buds.
SYNGONIUM	To accelerate bloom and increase the number of flowers per plant. Applications of ProGibb T&O have been shown to increase flowering of Araceae	500-2,000	For one to four consecutive weeks apply a single foliar application of 500 to 2,000 ppm. Begin applications at the start of forcing. For best results, thoroughly cover all growing points containing flower buds.

#### Note:

◆ Application of ProGibb T&O has been shown to reduce the days to flowering and increase the number of flowers per plant. Apply 1 or 2 applications during the vegetative phase of plant development to induce bloom. On other cultivars, users should first evaluate ProGibb T&O on a small number of plants <u>prior to</u> application of the product on a commercial basis..

# **APPLICATIONS TO CUT FLOWERS**

ProGibb T&O may be applied to ornamental plants grown for cut flowers to promote stem elongation and flowering. Applying ProGibb T&O can dramatically promote flowering in many dicot and some monocot plants.

NOTE: ProGibb T&O is very active and application at an excessive rate can result in undesirable effects. Users should first evaluate ProGibb T&O on a small number of plants <u>prior</u> to application of the product on a widespread basis.

#### **CUT FLOWERS**

COLFLOWERS	AST	ER	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Aster: Callistephus chinensis Monte Carlo-type Novi-type Belgi-type	To promote stem elongation, and break dormancy. Applications of ProGibb T&O have been shown to increase stem elongation and reduce time to flowering.	50-100	Make 1-3 applications of 50- 100 ppm during the early vegetative period. Apply when plants are 2"- 6" in height. Keep applications 2-3 weeks apart.
	BABY'S BREAT	H (Gipsopl	nila)
Gipsophila	To accelerate plant growth, increase number of flowering stems, increase flower number and increase uniformity. Applications of ProGibb T&O have been shown to promote uniform and increased flowering of Gipsophylla.	150-500	Apply 3-4 applications of 150-500 ppm at 4 weeks of growth (after pinching). Keep applications 2 weeks apart.
	DELLC OF IDEL	ND (Malue	
Moluccella	To accelerate plant growth and stem elongation Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Bells of Ireland.	50-100	Apply when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

	BUPLU	REUM	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm)	APPLICATION TIMING/ RECOMMENDATIONS
Buplureum	To promote plant growth and stem elongation Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Buplureum sp.	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	САМРА	NULA	•
Campanula medium	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Campanula	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	CANDY TU	FT (Iberis)	
Iberis oderata	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Candy Tuft.	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

CUT FLOWERS (	con't)		
	COLUMN STOC	CK (Matthio	ola)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Stock	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Matthiola incana	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	DELPHI	NIIIM	
	DEM III		
Delphinium species: including D. elatum, D. grandiflorum, D. belladonna, D. bellamosum, D. cardinale, D. nudicale, and Delphinium hybrids.	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Delphinium	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	DIDISCUS (	Trachyme)	
Trachyme	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Didiscus	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

	HYDRA	NGEA	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Hydrangea	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Hydrangea	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	LARKS	SPUR	•
Larkspur Consolida ambigua, C. orientalis, Delphinium ajacis	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Larkspur	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	LISIANTHU	S (Eustoma	)
Lisianthus	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Eustoma grandiflora.	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

	PHL	OX	
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm a.i.)	APPLICATION TIMING/ RECOMMENDATIONS
Phlox paniculata and Drummondi hybrida	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Phlox	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	QUEEN ANNE'S	LACE (An	nmi) .
Queen Anne's Lace	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Queen Anne's Lace	50-1 <b>00</b>	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	SAFFLOWER	(Carthamu	s)
Safflower	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Safflower	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

CUT FLOWERS (	SOLIDASTEI	R (Solidago	)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm)	APPLICATION TIMING/ RECOMMENDATIONS
Solidaster	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Solidago.	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	STATICE (I	imonium)	
Statice	For earlier flowering and increased flower yield. Applications of ProGibb T&O have been shown to decrease the time to flower, increase stem elongation, and increase flower yield of Statice.	400-500	Apply as a foliar spray 10 ml (0.33 fl. oz.) of a 400 to 500 ppm solution to each plant when plants are 10 inches or more in diameter (approximately 90 to 110 days after sowing).
	specified rates. nore than one application.	y photoperio	od, nutrition, and temperature.  Apply as a foliar spray when plants are 4"- 8" in height.
	elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Statice		Keep applications 2-3 weeks apart.

	SUNFLOWER	(Helianthu	is)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (ppm)	APPLICATION TIMING/ RECOMMENDATIONS
Sunflower	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Sunflower	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.
	SWEET WILLIA	M (Diantl	nus)
Sweet William	To promote plant growth and stem elongation. Applications of ProGibb T&O have been shown to promote plant growth and stem elongation of Sweet William	50-100	Apply as a foliar spray when plants are 4"- 8" in height. Keep applications 2-3 weeks apart.

# **APPLICATIONS TO TURFGRASS**

Foliar applications of ProGibb T&O have been shown to initiate or maintain growth and/or prevent color change during periods of cold stress on Bermudagrass grown in golf courses, parks and turf farms.

TUF Cool Weather App	RF (GOLF COURSES, PAlication	ARKS AND	TURF FARMS)
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams of a.i/acre)	APPLICATION TIMING/ RECOMMENDATIONS
Bermudagrass (Tifdwarf, Tifgreen, and other cultivars)	To initiate or maintain growth and prevent color change during periods of cold stress and light frosts.	10-25	Apply 10 grams a.i./acre weekly or 25 grams a.i./acre biweekly in 25-to-100 gallons of water/acre.

#### NOTE:

- Maintain adequate moisture and proper fertilization programs recommended in local area.
- Keep applications of the high rate at least two weeks apart.
- Do not use on dormant turf
- Discontinue treatments if thinning is observed. More frequent mowing may be necessary.

Bermudagrass	To maintain or	1-3	Apply 1-to-3 grams a.i./acre
Tifdwarf, Tifgreen	enhance regrowth of golf course		weekly in 25-to-100 gallons of water/acre.
	Bermudagrass during summer months.		

#### NOTE:

- Maintain adequate moisture and proper fertilization programs recommended in local area.
- Keep applications of the high rate at least two weeks apart.
- Do not use on dormant turf
- Discontinue treatments if thinning is observed. More frequent mowing may be necessary.

BEDDING PLANTS, ANNUAL AND PERENNIAL POTTED CROPS (for example: Tree Form Azalea, Flowering Chrysanthemum, Poinsettia) FIELD-GROWN ORNAMENTALS AND BULB CROPS

#### Application Instructions for Promotion of Plant Growth

ProGibb T&O may be applied to bedding plants, annual and perennial potted crops, and bulb crops to promote plant growth. Applying ProGibb T&O can dramatically promote plant growth of most dicot and some monocot plants. Additionally, a foliar ProGibb T&O application can be utilized to overcome over-applications of a gibberellin-inhibiting plant growth regulator.

- When applying ProGibb T&O to promote plant growth, start with 1 ppm unless previous experience warrants higher use rates.
- Following assessment of plant response, and if desired results are not evident, reapplication or an increase in rate may be warranted.

NOTE: ProGibb T&O is very active and application at an excessive rate can result in undesirable stem elongation. Users should first evaluate ProGibb T&O on a small number of plants <u>before</u> application of the product on a widespread basis.

Rate (ppm) (parts per million)	Timing	Method
1 to 25	Apply a single application directly to plant foliage	Foliar application

#### NOTICE TO USER

Seller makes no warranty, express or implied, or merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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