

73049-16

12/14/2004

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ProGibb® Plus 2X  
Plant Growth Regulator  
Soluble Powder  
For agricultural use.

For Organic Production

Active Ingredient:  
 Gibberellic Acid.....20.0% w/w  
 Other Ingredients.....80.0% w/w  
 Total.....100.0% w/w

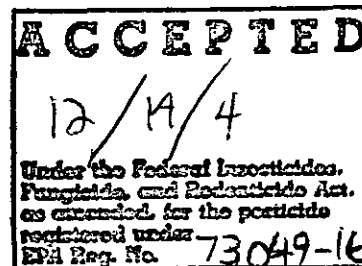
ProGibb Plus 2X contains approximately 32 gram active ingredient per 160 g of product.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See inside booklet for Precautionary Statements and Use Directions.

EPA Registration No. 73049-16  
EPA Establishment No.

Valent BioSciences Corporation  
870 Technology Way  
Libertyville, IL 60048



Net Contents: 160 g

This container will treat \_\_\_ acre at the maximum use rate, as recommended for use on \_\_\_\_\_.

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <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 on skin or clothing	<ul style="list-style-type: none"> <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	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact toll-free 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-6-Valent.</p>	

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Avoid breathing dust. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long sleeved shirt and long pants.
- Waterproof gloves
- Shoes plus socks

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**

For terrestrial uses: 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 disposing of equipment washwaters and rinsate.

**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 state or tribal 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 4 hours **unless wearing appropriate PPE.**

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 with a minimum of short sleeve shirt and shorts underneath.
- Waterproof gloves
- Shoes plus socks

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## 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 instructions:

ProGibb Plus 2X 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 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: Re-apply ProGibb 4% if significant rain occurs within 2 hours of application.
- Compatibility: Except when specifically noted, this ProGibb 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 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 provides the best coverage. 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.

<b>SEEDLESS TABLE GRAPE</b>	
<b>CLUSTER STRETCH SPRAYS</b>	
<b>OBJECTIVE/BENEFIT</b>	<b>APPLICATION TIMING</b>
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 bloom when flower clusters are 2 to 7 inches long.
<b>CROP/CULTIVAR</b>	<b>RATE (grams a.i. /acre)</b>
Perlette Seedless	8-24
Flame Seedless	8-24
Thompson Seedless	8-24
Raisin	8-24
Other Seedless Grapes	Not enough data is available for this variety/timing to determine the most effective rate at this time.

<b>SEEDLESS TABLE GRAPE</b>	
<b>BERRY THINNING SPRAYS</b>	
<b>OBJECTIVE/BENEFIT</b>	<b>APPLICATION TIMING</b>
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, make subsequent sprays 1 to 7 days after the first application.
<b>CROP/CULTIVAR</b>	<b>RATE (grams a.i. /acre)</b>
Perlette Seedless	Not enough data is available for this variety/timing to determine the most effective rate at this time.
Flame Seedless	3-16
Thompson Seedless	8-20
Raisin	- 3-12
Other Seedless Grapes	0.5-12
NOTE.	
<ul style="list-style-type: none"> <li>• Higher amounts or multiple applications has sometimes resulted in an excess of shot berries or over-thinning, especially in young vines or vines with high vigor.</li> <li>• For "Other Seedless Grapes" use caution as some of the new cultivars are very responsive and may over-thin easily. Consult a Valent representative or local specialist before thinning unfamiliar cultivars.</li> </ul>	

<b>SEEDLESS TABLE GRAPE</b>	
<b>BUMP SPRAY</b>	
<b>OBJECTIVE/BENEFIT</b>	<b>APPLICATION TIMING</b>
Thompson Seedless	
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.

<b>SEEDLESS TABLE GRAPE</b>		
<b>BERRY SIZING SPRAYS</b>		
<b>OBJECTIVE/BENEFIT</b>	<b>APPLICATION TIMING</b>	
For larger berries and larger clusters when used in conjunction with established girdling and thinning practices	Make one to four applications beginning when the average berry size reaches "target" 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 effective.	
<b>CROP/CULTIVAR</b>	<b>Target Berry Diameter *</b>	<b>RATE (grams a.i. /acre)</b>
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 application		
NOTE:		
<ul style="list-style-type: none"> <li>In some growing regions and for some cultivars, high amounts of gibberellic acid have occasionally been observed to: <ul style="list-style-type: none"> <li>reduce fruitfulness (cluster counts) the following year,</li> <li>delay berry skin color development, sugars accumulation and overall maturation.</li> </ul> </li> <li>Consult a Valent representative or local specialist before sizing unfamiliar cultivars.</li> </ul>		

<b>SEEDED GRAPES</b>			
<b>BERRY SIZING SPRAYS</b>			
<b>OBJECTIVE/BENEFIT</b>		<b>APPLICATION TIMING</b>	
To increase berry size in listed cultivars; and also to reduce berry shrivel in Emperor.		Make one application during the indicated berry diameter range. Application can be made as a whole vine spray, or as a spray or dip directly to the cluster.	
<b>CROP/CULTIVAR</b>	<b>Berry Diameter (mm)*</b>	<b>Whole vine spray. Rate in grams a.i. /acre</b>	<b>Direct spray to the cluster only or dip the clusters. Rate in ppm's of a.i.</b>
Emperor	12-16	20	40-50
Red Globe	12-18	20	40-50
Calmeria	12-16	20	40-50
Christmas Rose	12-16	20	40-50
Rogue	12-16	20	40-50
Queens	12-15	20	40-50
* Predominant average berry diameter for this application.			
NOTE:			
<ul style="list-style-type: none"> <li>• The whole vine application has sometimes reduced fruitfulness (cluster counts) the following year.</li> <li>• High amounts of gibberellic acid has occasionally delayed berry skin color development, sugars accumulation and overall maturation.</li> <li>• Consult a Valent representative or local specialist before sizing unfamiliar cultivars.</li> </ul>			
<b>OBJECTIVE/BENEFIT</b>		<b>APPLICATION TIMING</b>	
To increase berry size		Make one application 3-5 days after full bloom, but before shatter begins.	
<b>CROP/CULTIVAR</b>	<b>RATE (grams a.i. /acre)</b>		
Black Corinth (Zante Currant)	1-12		



- **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 has been known to result in significant leaf drop and fruit drop.

CITRUS: FIELD APPLICATIONS			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
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 has been known to 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 style="list-style-type: none"> <li>• In groves that will be harvested early do not apply the early spray as fruit coloring will be delayed. Do not apply from January through July, as production has occasionally been observed to be reduced the following year.</li> <li>• Slower color development is to be expected in the target crop. Increased re-greening of mature fruit has been observed to occur. After marketable color is achieved, treatment effects are possibly dissipated the longer treated fruit remain on the tree.</li> </ul>			
All Round Oranges (For Florida use only)	To delay aging and softening of the rind, and to reduce creasing and puffiness.	20-60	Make a single application in 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) has been shown to be beneficial.

CITRUS: FIELD APPLICATIONS (con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/
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 1/2 to 3/4 full size, but still green.
NOTE: <ul style="list-style-type: none"> <li>When applied two years in a row, an even larger difference in harvest pattern and maturity has been reported</li> </ul>			
Tangerine Hybrids (Orlando, Robinson, Minncola, Sunburst, and others)	To delay disorders associated with rind aging, puffiness, and softening, and to increase peel strength, of tangerine hybrids	20 - 40	Make one spray application two weeks prior to color break. Apply as a dilute spray.
NOTE: <ul style="list-style-type: none"> <li>Do not apply if early harvest is planned. Do not apply after coloring as pre-harvest rind staining may occur. Application during coloring has been observed to result in variation in rind color development.</li> </ul>			
Grapefruit (Not for use in California)	To delay disorders associated with rind aging (e.g., puffiness, softening, and orange coloration), prevent preharvest drop of mature fruit, increase peel strength, reduce water loss during storage, and produce a more orderly harvesting pattern.	16 - 48	Make one or two dilute spray applications in sufficient volume to ensure coverage. Do not exceed 20 ppm a.i. in spray solution.  EARLY: Make application two weeks prior to color break. Apply as a dilute spray (AUG-SEP). AND/OR LATE: Make application after marketable color has developed (OCT-DEC).
NOTE: <ul style="list-style-type: none"> <li>Do not spray groves that are to be harvested early since fruit coloring will be delayed. Treated fruit has been known to re-green if allowed to remain on the tree for extended periods. Application made after December, or when trees begin to break dormancy, have been observed to adversely affect the new crop. Do not use concentrate sprays. Results have been known to 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.</li> </ul>			

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CITRUS: FIELD APPLICATIONS (con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/
Star Ruby Grapefruit (Not for use in California)	To reduce early-season small fruit drop of Star Ruby Variety thereby increasing yields.	25-35	Make a single dilute application during the bloom period.
NOTE: <ul style="list-style-type: none"> <li>Results vary from season to season depending on environmental conditions. Maintain a well-balanced fertilization and watering program.</li> </ul>			
Clementine Mandarin	To increase fruit set and yield	1-8 grams a.i. per 100 gallons of spray volume	Make one to two applications from early bloom up to 4 weeks after petal fall. Allow a minimum of three days between sprays. Use a dilute spray with sufficient spray volume for adequate coverage of tree canopy.
NOTE: <ul style="list-style-type: none"> <li>The number of applications depends upon amount of desired fruit set. Generally, more fruit will be set by 2 applications, earlier applications, higher rates, and climactic conditions more favorable to set. Differences in the crop strain also interact with the above factors to affect the degree of fruit set achieved. Reductions in final fruit size occur as a result of excessive fruit set.</li> </ul>			
Tangerine Hybrids (Orlando, Robinson, Minneola, Sunburst, and others) (Not for use in California)	To increase fruit set and yield. The number of applications depends on desired fruit set.	8 - 30	Make one to two applications during the bloom period. Apply as a dilute spray.
NOTE: <ul style="list-style-type: none"> <li>Fruit size has been known to be reduced and color development slightly retarded. A slight increase in mature leaf drop occurs sometimes in trees under stress.</li> </ul>			
Navel and Valencia Orange (For Florida use only)	To enhance fruit set and yield.	15-25	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).
Ambersweet Orange (For Florida use only)	To enhance fruit set and yield.	15-25	Make a single application in 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).

<b>CITRUS: FIELD APPLICATIONS (con't)</b>			
<b>CROP/VARIETY</b>	<b>OBJECTIVE/BENEFIT</b>	<b>RATE (grams a.i./acre)</b>	<b>APPLICATION TIMING</b>
Grapefruit (Not for use in California)	To enhance fruit set, size and yield.	15-25	Make a single application in 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).

- **FRUIT CROPS**

FRUIT CROPS			
CROP/CULTIVAR	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
Banana (not for use in California)	To stimulate plant growth, and to overcome the effects of stress caused by insect, disease or adverse weather. These applications have been observed to improve fruit size and quality and overall yield	<u>Aerial spray</u> : Apply 6 to 20 grams a.i. per acre per spray. Use sufficient water volume to achieve adequate coverage of the canopy.	Make applications every 3-4 weeks throughout the year. Use higher rates prior to, and during the periods of intense stress. It is permissible to tank-mix with the standard pesticide treatments applied by air.
		<u>Ground spray</u> : Apply 6 to 20 grams a.i. per acre per spray. Use sufficient water volume to achieve adequate coverage of the canopy.	Direct applications to the daughter plants. Make first application when the daughter plant is selected. Make applications every 3-4 weeks throughout the year as needed. Use higher rates prior to, and during the periods of intense stress. It is permissible to tank-mix the product with pesticides.
	To stimulate early growth in new plantations, increase plant vigor and accelerate the time to flowering.	Apply 2-16 grams a.i. per acre per spray. Use sufficient water volume to achieve adequate coverage of the canopy	Make the first application a few days after transplanting, when plants are established. Repeat applications at 3-4 weeks intervals.
	Application by injection into the pseudostem		NOTE: Make sure that the needle tip does not touch the growing tissue at the center of the pseudostem .
	1. To promote Plant Growth:	Apply 5 ml per plant of a 640-1280 ppm solution.	Apply to plants over 5 feet tall on a monthly basis until flowering occurs. Make one application per generation
	2. To promote healthy root system	Apply 50 – 400 ml per plant of a 250-1000 ppm solution	

FRUIT CROPS (Con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING
Blueberry (Not for use in California)  <u>Highbush:</u> 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. Apply 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. To increase size of "shot" berries in Weymouth, delay the application up to two weeks after bloom.
Blueberry: (Not for use in California)  <u>Rabbiteve:</u> 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.



<b>FRUIT CROPS (Con't)</b>			
<b>CROP/VARIETY</b>	<b>OBJECTIVE/BENEFIT</b>	<b>RATE (grams a.i. /acre)</b>	<b>APPLICATION TIMING</b>
Banana (not for use in California)	To simulate bunch fruit development, improving fruit size and quality, and overall yield.	Apply a solution of 200 – 500 ppm. Use sufficient water volume to achieve adequate coverage of bunch and fruit.	Make application prior to bunch bagging program or approximately 14 days after floral bunch emergence. It is permissible to tank-mix with the standard pesticide treatments
	Post-harvest treatment  To extend fruit green life	Apply a solution of 750 to 1500 ppm . The solution can be sprayed or brushed to the crown.	Apply after washing the fruit and before packing. It is permissible to tank-mix with other protectants.
Pineapple (not for use in California)	To improve fruit size.	Apply 125-250 grams a.i. per acre per application.	Apply after flowering. Make 2 applications at 3-5 weeks intervals. Direct sprays to the fruit. Use sufficient water to achieve adequate coverage.
	To improve uniformity of fruit maturity and enhance harvest efficiency.	Apply 12-24 grams a.i. per acre per application.	Make the first application a few days after planting when plants are established. Repeat applications at 3-4 weeks intervals.
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.
NOTE:			
<ul style="list-style-type: none"> <li>• Color development and harvest date may be slightly delayed.</li> <li>• Use higher rates with heavier crop loads.</li> </ul>			
Sweet Cherry (Not for use in California)	To produce larger, brighter colored, firmer fruit in cultivars with uneven maturity	16-48	Make 2 applications. Apply 1/3 to 1/2 of the total desired amount when the majority of the fruit is translucent green, Apply the remaining material 3-7 days later, when the majority of the fruit is straw colored.
NOTE:			
<ul style="list-style-type: none"> <li>• Color development and harvest date may be slightly delayed.</li> <li>• Use higher rates with heavier crop loads.</li> </ul>			

FRUIT CROPS (Con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
Sour Cherry (Not for use in California)	To maintain and extend high fruiting capacity of sour cherry trees by promoting spur formation and reducing the occurrence of "blind" nodes. Spur formation 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 spur development and subsequent yield improvement year after year.	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 dilute spray in sufficient water to ensure thorough wetting, or as a concentrate spray ensuring uniform coverage.

NOTE:

- Rates are based on expected normal tree vigor at various ages. Adjust rate according to tree vigor. If trees are vigorous, use lowest indicated rates. Use lowest rates 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.

**APPLICATION RATES (GRAMS A.I./ACRE)  
FOR SOUR 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

<b>FRUIT CROPS (con't)</b>			
<b>CROP/VARIETY</b>	<b>OBJECTIVE/BENEFIT</b>	<b>RATE (grams a.i. /acre)</b>	<b>APPLICATION TIMING</b>
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.
NOTE: <ul style="list-style-type: none"> <li>This application has occasionally caused reduction in flower counts the year following the application, particularly if it is made during the months of May through July.</li> </ul>			
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: <ul style="list-style-type: none"> <li>Color development and harvest have occasionally been slightly delayed. Observation of reduced bloom the following season is occasionally seen.</li> </ul>			

<b>NON BEARING STONE FRUIT TREES</b>			
<b>CROP/VARIETY</b>	<b>OBJECTIVE/BENEFIT</b>	<b>RATE (grams a.i. /acre)</b>	<b>APPLICATION TIMING</b>
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: <ul style="list-style-type: none"> <li>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.</li> </ul>			

FRUIT CROPS (Con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
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.
NOTE:			
<ul style="list-style-type: none"> <li>• Not for use on fruiting plants. Treatments have not been as effective on plantings set out after mid-May.</li> <li>• Response varies with cultivar and location. Consult your Valent representative or local horticulturist for specific indications.</li> </ul>			
Cranberry (Not for use in California)	To reduce or completely eliminate the crop in the year of application	10-50	Make a single application at early bloom (2-5% scatter bloom). Use sufficient water to ensure thorough coverage.
NOTE:			
<ul style="list-style-type: none"> <li>• Applications made later than indicated have been known to result in no effect or actually result in increased fruit set (opposite effect).</li> <li>• Responses will vary with cultivar, age of the bog and location. Consult the Valent representative or local specialist for specific information.</li> </ul>			

• VEGETABLE CROPS

VEGETABLE CROPS			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. / acre)	APPLICATION TIMING/
Artichoke	To accelerate maturity and shift harvest to an earlier date	10 – 20	For perennials: apply one to three applications at bud initiation stage. For annuals: apply one to four applications at 2-week intervals, beginning at the fourth true leaf. Use sufficient water volume to ensure thorough wetting of the entire plant (leaves, stems and buds).
Carrots, Fresh and Processing	To delay leaf senescence. Maintaining vigorous foliage has been shown to help reduce the incidence of infection by <i>Alternaria dauci</i> .	1-6	Make the first application 4 – 6 weeks after emergence using commercial ground or aerial equipment with spray concentrations of 20-30 ppm. In severe disease situations or cool weather a second spray 14 days later is sometimes required to achieve the desired amount of foliar recovery. Do not apply more than twice per crop.
NOTE:			
<ul style="list-style-type: none"> <li>Dilutions of greater concentration can increase the risk of excessive top growth, particularly with a second application.</li> </ul>			
Celery	To increase plant height and yield and to overcome stress due to cold weather conditions or saline soils, and obtain earlier maturity.	2.5 – 10	Make a single application one to four weeks prior to harvest. Use 25-to-50 gallons of water per acre by ground application or 5-to-10 gallons of water per acre for aerial application (except in California). Use lower concentrations if applying 3-to-4 weeks before harvest and higher concentrations within 1-to-2 weeks before harvest.
NOTE:			
<ul style="list-style-type: none"> <li>Do not apply by air in California. Do not apply earlier than 4 weeks before harvest as bolting has been known to occur.</li> </ul>			

VEGETABLE CROPS (con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. / acre)	APPLICATION TIMING
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. It is acceptable to use up to four applications. Use sufficient water volume for thorough coverage of exposed foliage.
NOTE: <ul style="list-style-type: none"> <li>For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.</li> </ul>			
Lettuce for Seed	To obtain uniform 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.
NOTE: <ul style="list-style-type: none"> <li>For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.</li> </ul>			

VEGETABLE CROPS (con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. / acre)	APPLICATION TIMING
Pepper (Not for use in California)	To promote plant growth	1-3	Apply one to two sprays in 25-to-50 gallons of water per acre at two-week intervals. Begin sprays 2 weeks after transplanting.
NOTE: <ul style="list-style-type: none"> <li>This use is best for areas with short growing seasons, or when low temperatures slow plant growth.</li> </ul>			
Pepper (Not for use in California)	To increase fruit set and promote fruit growth	1-3	Apply one to two sprays in 25-to-50 gallons of water per acre at weekly intervals during the flowering period.
NOTE: <ul style="list-style-type: none"> <li>The high rate is most efficacious for areas and/or varieties with pollination and/or fruit set problems.</li> </ul>			
Pepper (Not for use in California)	To increase fruit size	1-3	Apply in 25-to-50 gallons of water per acre at the beginning of the picking period.
NOTE: <ul style="list-style-type: none"> <li>The high rate is best for plants with heavy fruit loads.</li> </ul>			
Potato seed	To stimulate uniform sprouting to aid in maximum production, more uniform development, fewer late maturing plants, and to break dormancy of newly harvested potatoes that have not had a full rest period.	0.2- 0.4 (grams in 100 gallons)	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 planting.
NOTE: <ul style="list-style-type: none"> <li>Under high soil temperatures use the minimum concentration for dormant seed. Do not treat rested seed pieces.</li> </ul>			

VEGETABLES (Con't)			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
Rhubarb	To break dormancy on plants receiving insufficient chilling and to increase marketable yield of forced rhubarb	10 – 20 in 10 gallons of water	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.
<p>NOTE:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>			
Spinach, Mustard greens, Collard greens and Turnip greens (not for use in California)	To facilitate harvest, increase yield and improve quality of fall and over-winter crops.	4-10	Apply a single spray 10-to-18 days before each anticipated harvest on fall or over-winter crops, ideally when daytime temperatures are 40° 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 gallons of water per acre by air. When applied to promote growth of second cutting, wait until some regrowth has started before spraying. Maximum benefit is obtained when below normal temperatures prevail following application and growth would be otherwise slowed in untreated spinach.
<p>NOTE:</p> <ul style="list-style-type: none"> <li>Since the promotion of bolting has been known to occur, do not apply after the mid-winter period or if temperatures are expected to exceed 75° F within several days of application. Do not apply on spring plantings.</li> </ul>			



OTHER CROPS			
CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i. /acre)	APPLICATION TIMING
Watercress (not for use in California)	1) To enhance growth in adverse weather conditions; 2) To help plants resume growth after insect and disease attacks; 3) To increase root free stem length during low light/short day conditions.	15-25 per application	Make one or two applications per acre per crop 3 to 7 days before harvest. Use 50-100 gallons of water per acre. Spray only when there is no standing water in the bed.
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 Plus 2X contains approximately 1 gram of active ingredient per 5 grams of product

Grams of active ingredient	Grams of ProGibb Plus 2X
0.5	2.5
1.0	5.0
2.0	10.0
3.0	15.0
4.0	20.0
5.0	25.0
8.0	40.0
10.0	50.0
20.0	100.0
32.0	160.0

**Grams of ProGibb Plus 2X for given ppm's or Gibberellic Acid at Different Water Volumes.**

Gallons of Water	parts per million (ppm)								
	4	5	6	8	10	15	20	30	40
75	6.0	7.5	9.0	12.0	15.0	22.5	30.0	50.0	60.0
100	8.0	10.0	12.0	16.0	20.0	30.0	40.0	60.0	80.0
125	10.0	12.5	15.0	20.0	25.0	37.5	50.0	75.0	100.0
150	12.0	15.0	18.0	24.0	30.0	45.0	60.0	90.0	120.0
200	16.0	20.0	24.0	32.0	40.0	60.0	80.0	120.0	160.0
250	20.0	25.0	30.0	40.0	50.0	75.0	100.0	150.0	
300	24.0	30.0	48.0	48.0	60.0	90.0	120.0		

NOTE: The numbers inside the table are the grams of ProGibb Plus 2X needed to obtain the desired ppm's for each gallonage.

Example:

To make 250 gallons of a 20 ppm gibberellic acid solution, dissolve 100 grams of ProGibb Plus 2X in 250 gallons of water.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:**

Keep containers tightly closed when not in use.

**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:**

Do not reuse empty containers. 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.

**Warranty and Disclaimer Statement**

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