

# 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

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

EPA Reg. No. 73049-15

EPA Est. No. 33762-IA-001

List No. 5016

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### KEEP OUT OF REACH OF CHILDREN

### WARNING—AVISO

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

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).

## 1.0

FIRST AID	
<b>If in eyes</b>	<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>
<b>If swallowed</b>	<ul style="list-style-type: none"><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>
<b>If inhaled</b>	<ul style="list-style-type: none"><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>
<b>If on skin or clothing</b>	<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	
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.	

## 2.0

### PRECAUTIONARY STATEMENTS

### 2.1

#### HAZARD 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.

### 2.2

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

### 2.3 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.

### 2.4 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 by cleaning of equipment or disposing of equipment washwaters.

### 2.5 Physical or Chemical Hazards

FLAMMABLE! Keep away from heat and open flame.

## 3.0 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.

## 4.0 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 the restricted-entry intervals. 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

## 5.0 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.

## 6.0 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.

## 7.0 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.

### 7.1 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. Discard 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 daytime conditions are not conducive to slow drying conditions.
- Product persistence: ProGibb 4% should be reapplied 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 WDG, 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 harvest interval is required for this product.

## 8.0 SPRAY GUIDELINES FOR GRAPES

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.

### 8.1 SEEDLESS TABLE GRAPE CLUSTER STRETCH SPRAYS

OBJECTIVE/ BENEFIT	APPLICATION TIMING/ RECOMMENDATIONS
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.
CROP/CULTIVAR	RATE (grams a.i./acre)
Perlette Seedless Flame Seedless Thompson Seedless Raisin	8-24
Other Seedless Grapes	No recommendations are available at this time.

### BERRY THINNING SPRAYS

OBJECTIVE/ BENEFIT	APPLICATION TIMING/ RECOMMENDATIONS
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
NOTE:	
<ul style="list-style-type: none"> <li>Higher amounts or multiple applications may cause an excess of shot berries or overthinning, 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. A grower should consult the Valent representative or local specialist before thinning cultivars with which he has no familiarity.</li> </ul>	

### BUMP SPRAY — For 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.

### BERRY SIZING SPRAYS

OBJECTIVE/ BENEFIT	APPLICATION TIMING/ RECOMMENDATIONS
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.

### BERRY SIZING SPRAYS (CONT'D.)

CROP/ CULTIVAR	TARGET BERRY 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 application.

#### NOTE:

- 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.

## 8.2 SEEDED GRAPE

### BERRY SIZING SPRAYS

OBJECTIVE/ BENEFIT	APPLICATION TIMING/ RECOMMENDATIONS		
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.		
CROP/ CULTIVAR	Berry Diameter (mm)*	Whole vine spray. Rate in grams a.i./acre	Direct spray to the cluster only or dip the clusters. Rate in ppm's of a.i.
Emperor Red Globe Calmeria Christmas Rose Rogue Queens	12-16 12-18 12-16 12-16 12-16 12-15	20	40-50

\*Predominant average berry diameter for this application.

#### NOTE:

- 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 circulation and light penetration within the cluster. Under certain conditions this application may help reduce the incidence of bunch rot and sour rot. A grower should ALWAYS consult the Valent representative or the local agricultural specialist before making this application if he has no prior experience with this application.	Make a single spray. Apply when the clusters found in the dominant shoots arising from buds on count spurs are starting to elongate and show separation of the uppermost flower groups. This timing usually coincides with average cluster length of 3-4 inches (1-5 inch overall cluster length range). For each cultivar, follow the rate directions given on the table below. Use 100 gallons of water per acre.

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**8.2 SEEDED GRAPES (CONT'D.)  
WINE GRAPE (CONT'D.)**

CROP/CULTIVAR	RATE (grams a.i./acre)
Palomino Sauvignon Blanc Tinta Madeira	0.4-1
Aleatico Carignane Chardonnay	1-2
Chenin Blanc French Colombard Pinot Noir Valdepenas	1-2
Barbera Petite Sirah Zinfandel	2-4
Green Hungarian	4-8
Grenache Alicanté	8
Salvadore	8-16

NOTE:  
 • 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.

**9.0 SPRAY GUIDELINES FOR 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.

**9.1 CITRUS: FIELD APPLICATIONS**

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/RECOMMENDATIONS
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.
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.

**9.1 CITRUS: FIELD APPLICATIONS (CONT'D.)**

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/RECOMMENDATIONS
NOTE: • 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. • 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.			
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) may be beneficial.
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: • When applied two years in a row, an even larger difference in harvest pattern and maturity may occur.			
Tangerine Hybrids (Orlando, Robinson, Minneola, 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: • 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.			
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: • 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.			

## 9.1 CITRUS: FIELD APPLICATIONS (CONT'D.)

CROP/VARIETY	OBJECTIVE/BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/RECOMMENDATIONS
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: • Results may vary from season to season depending on environmental conditions. Maintain a well-balanced fertilization and watering program.			
Clementine Mandarin	To increase fruit set and yield.	1-8	Make one to two applications from 50% petal fall up to 3 weeks after petal fall. Use a dilute spray with sufficient spray volume for adequate coverage of tree canopy.
NOTE: • 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 climatic conditions more favorable to set. Differences in the crop strain may also interact with the above factors to affect the degree of fruit set achieved. Reductions in final fruit size can occur as a result of excessive fruit set.			
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: • Fruit sizes may be reduced and color development slightly retarded. A slight increase in mature leaf drop may occur in trees under stress.			
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).
Amber-sweet 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).
Grapefruit (Not for use in California)	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).

## 9.2 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 ( <i>Geotrichum candidum</i> ).	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.

## 10.0 SPRAY GUIDELINES FOR 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)	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)	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.

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## 10.0 SPRAY GUIDELINES FOR FRUIT CROPS (CONT'D.)

### FRUIT CROPS (CONT'D.)

CROP/ CULTIVAR	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.

**NOTE:**

- Color development and harvest date may be slightly delayed.

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.	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.
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**NOTE:**

- 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

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.
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**NOTE:**

- This application may cause reduction in flower counts the year following the application, particularly if it is made during the months of May through July.

## FRUIT CROPS (CONT'D.)

CROP/ CULTIVAR	OBJECTIVE/ BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
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:**

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

## 11.0 SPRAY GUIDELINES FOR NON-BEARING FRUIT TREES

### NON-BEARING STONE FRUIT TREES

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.

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.
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**NOTE:**

- 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 (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.
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**NOTE:**

- 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.

## 12.0 SPRAY GUIDELINES FOR VEGETABLE CROPS

### VEGETABLE CROPS

CROP/ VARIETY	OBJECTIVE/ BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
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 may 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. A second spray 14 days later may be required to achieve the desired amount of foliar recovery in severe disease situations or cool weather. Do not apply more than twice per crop.
NOTE: • Dilutions of greater concentration can increase the risk of excessive top growth, 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.	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: • Do not apply by air in California. Do not apply earlier than 4 weeks before harvest as bolting may occur.			
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.
NOTE: • For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.			
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.

### VEGETABLE CROPS (CONT'D.)

CROP/ VARIETY	OBJECTIVE/ BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
NOTE: • For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.			
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: • This use is recommended for areas with short growing seasons, or when low temperatures slow plant growth.			
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: • The high rate is recommended for areas and/or varieties with pollination and/or fruit set problems.			
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: • The high rate is recommended for plants with heavy fruit loads.			
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: • Under high soil temperatures use the minimum concentration for dormant seed. Do not treat rested seed pieces.			
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.
NOTE: • Keep forcing house temperatures at 40°F-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.			

CONTINUED

## 12.0 SPRAY GUIDELINES FOR VEGETABLE CROPS (CONT'D.)

### VEGETABLE CROPS (CONT'D.)

CROP/ VARIETY	OBJECTIVE/ BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
Spinach (Not for use in California)	To facilitate har- vest, increase yield and improve quality of fall and over- winter spinach.	6-10	Apply a single spray 10- to-18 days before each anticipated harvest on fall or over-winter spinach, ideally when daytime tem- peratures are 40°F-to-70°F and during early morning hours when dew is pre- sent on crop. Make appli- cations in 10-to-50 gal- lons of water per acre by ground sprayer or in a minimum of 5-to-10 gal- lons of water per acre by air. When applied to pro- mote growth of second cutting, wait until some regrowth has started before spraying. Maxi- mum benefit is obtained when below normal tem- peratures predominate fol- lowing application and growth would be other- wise 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.			

## 13.0 SPRAY GUIDELINES FOR OTHER CROPS

### HOPS

CROP/ VARIETY	OBJECTIVE/ BENEFIT	RATE (grams a.i./acre)	APPLICATION TIMING/ RECOMMENDATIONS
Hops: Seeded and seed- less Fuggle hops and similar varieties adapted to the North- western 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.

## 14.0 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.

## 15.0 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.

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04-3916/R4

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