PM 91

7/3/96

1812-392

P 1 of 3

Griffin

ACCEPTED

JUL - 3 1996

Under the Federal Insecticides, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 1812-392

GibbeX™ 20SP

PLANT GROWTH REGULATOR

Made in the US

SOLUBLE POWDER

ACTIVE INGREDIENT	
Gibberellic Acid	20.0%
INERT INGREDIENTS	80.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Flush with plenty of water. Call a physician if irritation persists.
See Label for Additional Precautions and Directions for Use.

GRIFFIN CORPORATION
VALDOSTA, GEORGIA 31601

Net Contents 5.65 oz. (160g)

EPA REG. NO. 1812-392
EPA EST NO. 66196-CA-1

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes eye irritation. 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.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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 disposal of equipment washwaters.

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 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 4 hours.

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 isr:

- Coveralls
- Waterproof gloves
- Shoes plus socks

STORAGE AND DISPOSAL

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

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: Do not reuse empty containers. Triple rinse (or equivalent). 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.

APPLICATION RECOMMENDATIONS

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

Gibbex 20SP 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 State Extension Service 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 State Extension Service 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 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 neutral, and always below 8.5.
- Gibbex 20SP 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 conductive to slow drying conditions.
- Product persistence: Gibbex 20SP should be re-applied if significant rain occurs within 2 hours of application.
- Compatibility: The Gibbex 20SP spray guidelines refer to the use of the product alone. The use of surfactants and other additives has been reported to be beneficial. Griffin Corporation does not assume responsibility for unexpected results due to the tank mixing of Gibbex 20SP with other products.
- 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). Gibbex 20SP can be applied up to 7 days before harvest.

SPRAY GUIDELINES FOR GRAPE

For all grapes, application is recommended by ground sprayer. Apply as a concentrate or dilute spray in sufficient water volume to insure thorough wetting. It is important to wet all flower clusters or berries thoroughly. For specific spray rates and timings, by variety, see accompanying table. Do not exceed maximum rates.

SEEDLESS GRAPE

Do not apply more than 208 grams ai/acre, per growing season, for all uses.

For cluster elongation and looser cluster forms ("Stretch"). 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. **Guide:** Apply one to two applications before bloom when flower clusters are 2 to 5 inches long.

For decreased berry set ("Thinning"), reduced hand-thinning costs, and hastened maturity. **Guide:** Apply one to three applications during bloom. When the bloom period is extended, subsequent sprays should be made 1 to 7 days after the first application.

NOTE: Higher amounts or multiple applications may cause an excess of shot berries or overthinning, especially in young vines or vines with high vigor.

For larger berries ("Sizing") and larger clusters when used in conjunction with established girdling and thinning practices. **Guide:** Apply one to three applications beginning when the average berry size reaches "target" diameter (see Table 1). Timing of the subsequent sprays will be dictated by experience in the vineyard and temperatures occurring between sprays. Potential effect will be reduced if the final spray occurs more than 2 weeks after the first application.

TABLE 1

Application Rates (Grams A.I./Acre) for Seedless Grape, Including Target Berry Diameters

Seedless	Stretch	Thinning	Sizing	
Grape	Grams ai/Acre	Grams ai/Acre	Target	Grams ai/Acre
Perlette	8-16	*	4-5mm	32-80
Flame	8-16	3-16	6-9mm	20-80
Thompson	8-16	8-16	3-5mm	32-80
Raisin	8-16	3-12	4-5mm	4-12
All Others	*	*	12-14mm	8-48

* No recommendations available for this variety/timing at this time.

NOTE: Do not apply more than 208 grams ai/acre per growing season for all uses.

EMPEROR GRAPE

For reducing berry shrivel. This use can also increase berry size. **Guide:** Apply 20 grams ai/acre as one application approximately 2 weeks after completion of berry shatter. This timing should correspond to a period when the predominant berry diameter ranges from 10 to 15mm.

BLACK CORINTH (ZANTE CURRANT) GRAPE

For improving berry size. **Guide:** Apply 1 to 8 grams ai/acre as one application 3 to 5 days after full bloom, but before shatter begins.

SPRAY GUIDELINES FOR CITRUS

For all citrus, apply in sprays of sufficient water volumes to insure thorough fruit wetting. Application to trees of low vigor or under stress (pest, nutritional or water, etc.) may cause severe leaf and/or fruit drop. In most cases some drop of older mature leaves will occur after application. Do not apply in white wash sprays in which lime or other caustic material has produced a high pH in the spray tank.

NAVEL ORANGE

To delay rind aging and reduce rind disorders (e.g., rind staining, water spotting, sticky or tacky surface, puffy rind and rupture under pressure) and to produce a more orderly harvesting pattern. The delay in rind aging is greatest when an *early spray is applied. This spray timing produces the firmest rind possible.* **Guide:** Apply 16 to 48 grams ai/acre as a concentrate or dilute spray in sufficient water volume to insure thorough wetting.

Early Spray: Apply one spray approximately 2 weeks prior to color break, which normally occurs August through November.

OR

Late Spray: Apply one spray after marketable color has developed, normally *from October through December.* ***This late application may cause fruit re-greening.***

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.

VALENCIA ORANGE

To reduce rind creasing and to delay rind aging and softening. **Guide:** Apply a single spray in August to October to trees with a target crop of young fruit. Apply 40 to 80 grams ai/acre as a concentrate or dilute spray in sufficient water volumes to insure thorough wetting.

NOTE: 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.

OTHER ROUND ORANGE

(All States Except California)

To reduce rind creasing and to delay aging and softening of the rind. **Guide:** Apply a single spray in August to October to trees with a target crop of young fruit. Apply 40 to 80 grams ai/acre as a concentrate or dilute spray in sufficient water volume to insure thorough wetting.

NOTE: 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.

LEMON/LIME

To decrease the amount of small ripe fruit and to produce a more desirable production pattern relative to market demand. **Guide:** Apply one spray when target crop is 1/2 to 3/4 full size, but still green. Use 10 to 32 grams ai/acre as a concentrate or dilute spray in sufficient water volume to insure thorough wetting. When applied 2 years in a row, an even larger difference in harvest pattern and maturity occurs.

TANGERINE HYBRIDS

To delay disorders associated with rind aging, puffiness, and softening, and to increase peel strength, of tangerine hybrids such as Orlando, Robinson, Minneola and Sunburst. **Guide:** Apply 20 to 40 grams ai/acre approximately 2 weeks prior to color break. Apply as a dilute spray in sufficient water volume to insure thorough wetting.

NOTE: Do not apply if early harvest is planned. Do not apply after coloring as preharvest rind staining may occur. Application during coloring may cause variation in rind color development.

(All States Except California)

To increase fruit set and yields as tangerine hybrids with pollination problems such as the Orlando, Robinson, Minneola and Sunburst. **Guide:** Apply 8 to 30 grams ai/acre during full bloom. Apply as a dilute spray in sufficient water volume to insure thorough wetting.

NOTE: Fruit sizes may be reduced and color development slightly retarded. A slight increase in mature leaf drop may occur in trees under stress.

GRAPEFRUIT

(All States Except California)

To delay disorders associated with rind aging (e.g. puffiness, softening and orange coloration) to prevent preharvest drop of mature fruit, to increase peel strength and reduce water loss during storage, and to produce a more orderly harvesting pattern. The delay in rind aging is greatest when an early spray is applied before color change. This spray timing produces the firmest rind possible. **Guide:** Apply 16 to 48 grams ai/acre in a minimum of 250 gallons per acre.

Early Spray: Apply one spray approximately 2 weeks prior to color break, which normally occurs August through September.

OR

Late Spray: Apply one spray after marketable color has developed which is normally from October through December. **This late application may cause fruit re-greening.**

NOTE: Do not apply the early spray to groves that may be harvested early as fruit coloring will be delayed. It is advisable to spot pick heavy crops to aid early marketing and to avoid reduction of yields, which generally follow late held *crops. Applications made to fully colored fruit will begin to 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.

STAR RUBY GRAPEFRUIT

(All States Except California)

To reduce early-season small fruit drop of Star Ruby Variety thereby increasing yields. **Guide:** Apply a single spray during the bloom period. Use 25 grams ai/acre in a minimum of 250 gallons of water per acre.

NOTE: Results may vary from season to season depending on environmental conditions. Maintain a well-balanced fertilization and watering program.

SPRAY GUIDELINES FOR FRUIT CROPS

BLUEBERRY

(All States Except California)

To improve fruit set. For natural fruit set problems due to insufficient natural honeybee pollination, adverse weather conditions, or physiological factors.

Highbush Blueberry (for varieties such as Coville, Jersey, Stanley, Earliblue, Weymouth, Walcott, Berkeley, Blueray, Bluecrop, 1316A, Concord and others)

Guide: Make one or two applications at 40 grams ai/acre in 100 gallons of water. The single application should be made at full bloom (when 75% of the *flowers are fully open). When two applications are made, spray the first one at* full bloom, and the second one within 10 to 14 days of the first one. For Weymouth, application can be delayed up to 2 weeks after bloom to increase size of "shot" berries.

Rabbiteye Blueberry (for varieties such as Aliceblue, Beckyblue, Bonita, Brightwell, Climax, Delite, Tiftblue, Woodward and others)

Guide: Make a single application of 40 grams ai/acre in 100 to 300 gallons per acre when most of the flowers are elongated but not yet open (bloom Stage 5).

OR

For multiple applications make two to four applications 10 to 14 days apart starting at bloom Stage 5. Spray 40 grams ai/acre in 50 to 300 gallons per application.

SWEET CHERRY

To produce larger, brighter colored, firmer fruit. **Guide:** Apply a single spray *when the fruit is light green to straw colored. Use 16 to 48 grams ai/acre in* sufficient water volume to insure thorough wetting.

NOTE: Color development and harvest may be slightly delayed.

RED TART CHERRY

(All States Except California)

To maintain and extend high fruiting capacity of bearing 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 2 or 3 years after program initiation. Applications must be applied annually to insure vegetative development and subsequent yield improvement year after year. **Guide:** 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 ai/acre, depending on tree age and vigor (see Table 2). Apply as a concentrate or dilute spray in sufficient water volume to insure thorough wetting.

TABLE 2

Recommended Application Rates (grams ai/acre) for Tart Cherry Trees by Age

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

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.

SPRAY GUIDELINES FOR NON-BEARING YOUNG TART AND SWEET CHERRY TREES

(All States Except California)

To reduce flowering and fruiting in young tart and sweet cherry trees in order to minimize the competitive effect of early fruiting on tree development.

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.

Guide: Apply a single spray of 20 to 40 grams ai/acre, 2 to 4 weeks after bloom. Apply a foliar spray of 25 to 50 gallons per acre, assuming a tree density of 100 trees per acre equivalent. Under conditions of low vigor, two applications are recommended. If two spray applications are made, allow at least a 7 day interval between sprays.

SPRAY GUIDELINES FOR OTHER FRUIT

OLYMPUS STRAWBERRY

(All States Except California)

To increase runner production of mother plants of the Olympus cultivar. **Guide:** Apply a single spray of 20 grams ai/acre to mother plants 10 to 30 days after planting. At the time of spraying, plants should have 1 to 6 leaves. Apply 100 gallons/acre to thoroughly wet new foliage to the point of run-off.

NOTE: Not for use on fruiting plants. Treatments may not be effective on plantings set out after mid-May.

SPRAY GUIDELINES FOR VEGETABLE CROPS

RHUBARB

To break dormancy on plants receiving insufficient chilling and to increase marketable yield of forced rhubarb. **Guide:** Make a single application of 2 fluid ounces (60 ml) of a solution containing 20 grams ai in 10 gallons of water to each cleaned crown, when the rest period is not completely broken. When the rest period is broken by cold weather, apply 2 fluid ounces (60 ml) of a solution containing 10 grams ai in 10 gallons of water to each cleaned crown.

NOTE: Keep forcing house temperatures at 40°F to 50°F for 25 hours after application. If house is warmer than 50°F, the crowns should be covered with plastic. Temperatures in the forcing house above 50°F may lower yields and cause poor stalk color.

ARTICHOKE

To accelerate maturity and shift harvest to an earlier date. **Guide:** 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 10 to 20 grams ai/acre per application in sufficient water volume to insure thorough wetting of the entire plant (leaves, stems and buds).

CELERY

To increase plant height and yield and overcome stress due to cold weather conditions or saline soils, and to obtain earlier maturity. **Guide:** Apply a single spray 1 to 4 weeks prior to harvest at a rate of 2.5 to 10 grams ai/acre. Use 25 to 50 gallons per acre by ground application or 5 to 10 gallons per acre for aerial application.* Use lower concentrations applying 3 to 4 weeks before harvest and higher concentrations within 1 to 2 weeks before harvest.

*Do not apply by air in California.

NOTE: Do not apply earlier than 4 weeks before harvest as bolting (seed stalk formation) may occur.

LETTUCE FOR SEED

To obtain uniform bolting and increase seed production. **Guide:** Apply one to four applications at 2 week intervals, beginning at the fourth true leaf. Use 1 to 4 grams ai/acre per application in sufficient water volume to insure thorough wetting.

MELON AND CUCUMBER

(All States Except California)

To stimulate fruit set during periods of cool temperatures. **Guide:** Use 2 grams ai/acre in sufficient water volume for thorough coverage of exposed foliage. Make one application prior to bloom followed by two additional applications at intervals of 10 to 14 days on cantaloupes and watermelons. On cucumbers, up to four applications may be required.

For maximum benefits, vines must be in good condition, except for reduced rate of growth due to cool temperatures.

PEPPER

(All States Except California)

To promote plant growth. **Guide:** Apply one to two sprays of 1 to 3 grams ai/acre in 25 to 50 gallons per acre at 2 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.

To increase fruit set and promote fruit growth. **Guide:** Apply one to two sprays of 1 to 3 grams ai/acre in 25 to 50 gallons per acre at weekly intervals during the flowering period. The high rate is recommended for areas and/or varieties with pollination and/or fruit set problems.

To increase fruit size. **Guide:** Apply 1 to 3 grams ai/acre in 25 to 50 gallons per acre at the beginning of the picking period. The high rate is recommended for plants with heavy fruit loads.

SEED POTATO

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. **Guide:** Dip whole or cut seed pieces in a solution containing 0.2 to 0.4 grams ai/acre 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.

SPINACH

(All States Except California)

To facilitate harvest, increase yield and improve quality of fall and over-winter spinach. **Guide:** Apply a single spray 10 to 18 days before each anticipated harvest on fall or over-winter spinach, ideally when daytime temperatures are 40°F to 70°F and during early morning hours when dew is present on crop. Apply 6 to 8 grams ai/acre in 10 to 50 gallons per acre by ground sprayer or in a minimum of 5 to 10 gallons 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 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.

SPRAY GUIDELINES FOR OTHER CROPS

HOP

(Northwestern U.S. Only)

For seeded and seedless Fuggle hop and similar varieties adapted to the Northwestern states. To increase yield and fruit set. **Guide:** Apply a single spray when vine growth is 5 to 8 feet in length. Use 4 to 6 grams ai/acre in 100 to 150 gallons/acre.

CONVERSION TABLE

Gibbex 20SP is a 20% active ingredient soluble powder.

GRAMS ACTIVE/ACRE	TO	AMOUNT OF GIBBEX 20SP PER ACRE
1.0	=	5 grams
2.0	=	10 grams
32.0	=	160 grams

WARRANTY STATEMENT

GRIFFIN warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of GRIFFIN. In no case shall GRIFFIN be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the Buyer. The exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling, or application of this product, whether in contract, warranty, tort, negligence, strict liability, or otherwise, shall not exceed the purchase price paid for this product or at Griffin Corporation's election, the replacement of this product. GRIFFIN MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

GCN 070296
CPC 060038