



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 1, 2015

Mr. Rusty Millar
Director of Regulatory Affairs
601 Kettering Drive
CH Biotech R&D Co., Ltd.
Ontario, CA 91761

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Acceptable Amendment Updating Company Name and Address, EPA Registration Number, and EPA Establishment Number.
Product Name: GA₃₄
EPA Registration Number: 90866-10
Application Date: July 29, 2015
OPP Decision Number: 507882

Dear Mr. Millar:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims

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made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Andrew Reighart of my team by phone at (703)-347-0469 or via email at reighart.andrew@epa.gov.

Sincerely,

A handwritten signature in blue ink that reads "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

Andrew Bryceland, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

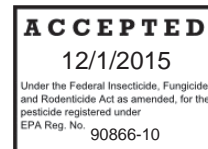


GA₃ 4%

Plant Growth Regulator Solution

ACTIVE INGREDIENT:		
Gibberellic Acid		4.0% w/w
OTHER INGREDIENTS:.....		96.0% w/w
	TOTAL	100.0% w/w

GA₃ 4% contains approximately 1.0 gram active ingredient per fluid ounce of formulated product.



KEEP OUT OF REACH OF CHILDREN CAUTION

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).

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general product information, call CH Biotech, LLC. at (909) 472-3033 between the hours of 9a.m.- 4p.m. Pacific Time.	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPA Reg. No. 90866-10

EPA Est. No. 90866-CA-1

Batch No.

Produced for CH Biotech R&D Co., Ltd.

By CH Biotech, LLC.

601 Kettering Drive

Ontario, CA 91761

Tel: 909.472.3033

Email: info@chbio.com

Net Contents: 1 U.S. Gallon (3.78SL)

Net Weight: 8.85 lbs (4.014kg)



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PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks

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

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

ENVIRONMENTAL HAZARDS

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

PHYSICAL OR CHEMICAL HAZARDS

FLAMMABLE! Keep away from heat and open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during applications. 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 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 areas 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, so it or water is:

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

NON-AGRICULTURAL USE REQUIREMENTS

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

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

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.

GENERAL INFORMATION

Use only as directed. The label should be read thoroughly and understood before making applications. Do not apply this product through any type of irrigation system.

Application Instructions:

GA3 4% contains gibberellic acid which is an extremely potent plant growth regulator; when applying plant growth regulators, follow the label directions for rates, timings, and water volumes. Do not apply untested spray mixes.

- Do not apply to plants under pest, nutritional, or water stress.
- Effectiveness requires that all parts of plant or crop receive thorough spray coverage or desired result 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, use water with a neutral pH and always below 8.5.
- GA3 4% applications made under slow drying conditions (cool to warm temperatures, medium to high relative humidity, and no wind) will increase absorption by the plant, thus optimizing effectiveness. Night-time applications are encouraged when day-time conditions are not conducive to slow drying conditions.
- Product persistence: GA3 4% should be re-applied if significant rain occurs within 2 hours of application.
- No preharvest interval is required for this product.
- Compatibility: The GA3 4% spray guidelines refer to the use of the product alone. The use of surfactants and other additives has been reported to be beneficial. CH Biotech R&D Co., Ltd. does not assume responsibility for unexpected results due to the tank mixing of GA3 4% with other products.
- DO NOT apply using ULV application methods. For aerial applications use spray volumes of 2 gallons per acre or greater (10 gallons per acre for tree crops).

SPRAY INSTRUCTIONS FOR CROP CATEGORIES

GRAPE

For all grapes, apply by ground sprayer. Apply in sufficient water volume to ensure thorough wetting. It is important to wet all flower clusters or berries thoroughly. For specific spray rates and timings, by variety, see accompanying tables. Do not exceed maximum rates.

SEEDLESS GRAPE

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 three applications before bloom when flower clusters are 2-to-7 inches long.

For decreased berry set ("Thinning"), reduced hand-thinning costs, and hastened maturity:

Guide: Apply one to four applications during bloom. Make only 1-to-2 applications for "Other Seedless Grapes": When the bloom period is extended, make subsequent sprays 1-to-7 days after the first application.

NOTE: Higher amounts or multiple applications cause an excess of shot berries or overthinning, especially in young vines or vines with high vigor. For "Other Seedless Grapes", new cultivars are very responsive and are over-thinned easily. Consult a local specialist before thinning unfamiliar cultivars.

To help initiate the beginning of the berry growth period in Thompson Seedless variety "bump spray":

Guide: Apply 16-to-24 grams a.i./acre as a single application during the period between the last thinning spray and the first sizing spray.

For larger berries ("Sizing") and larger clusters when used in conjunction with established girdling and thinning practices:

Guide: Apply one to four applications beginning when the average berry size reaches "target" diameter (See Table 1).

Timing of the subsequent sprays is dictated by experience in the vineyard and temperatures occurring between sprays.

Potential effect is reduced if the final spray occurs more than two weeks after the first application. Consult a local specialist before sizing unfamiliar cultivars.

TABLE 1 Application Rates (Grams A.I./Acre) for Seedless Grape, Including Target Berry Diameters

Seedless Grape	Stretch	Thinning	Sizing	
	grams a.i./acre	grams a.i./acre	"Target" Diameter	grams a.i./acre
Perlette	8-to-24	*	4-to-5 mm	32-to-128
Flame	8-to-24	3-to-16	6-to-9 mm	20-to-128
Thompson	8-to-24	8-to-20	3-to-5 mm	32-to-128
Raisin	8-to-24	3-to-12	3-to-5 mm	4-to-20
All Other Seedless Grape	*	0.5-12	3-to-14 mm	8-to-60

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

NOTE: High amounts of gibberellic acid reduces fruitfulness (cluster counts) the following year and delays berry skin color development, sugars accumulation and overall maturation.

SEEDED GRAPE

Emperor Grape

For reducing berry shrivel. This can also increase berry size:

Guide: Make applications as a whole vine spray, or as a spray or dip directly to the cluster.

Whole vine spray- Apply 20 grams a.i./acre as one application when the predominant berry diameter is 12-16 mm.

Directed spray to grape clusters or cluster dip- Prepare a spray solution of 40 to 50 ppm (16 to 20 grams a.i. per 100 gallons water) and apply as a direct spray to clusters or dip the clusters.

NOTE: Whole vine application reduces fruitfulness (cluster counts) the following year. High amounts of gibberellic acid may also delay berry skin color development, sugars accumulation and overall maturation. Consult a local specialist before sizing unfamiliar cultivars.

Red Globe, Calmeria, Christmas Rose, Rogue and Queens

To increase berry size:

Guide: Make application as a whole vine spray, or as a spray or dip directly to the cluster.

Whole vine spray -Apply 20 grams ai./acre as one application when the average berry size reaches the "target" diameter (See Table 2).

Directed spray to grape clusters or cluster dip- Prepare a spray solution of 40 to 50 ppm (16 to 20 grams a.i. per 100 gallons water) and apply as a direct spray to the cluster only or dip the clusters.

NOTE: Whole vine application reduces fruitfulness (cluster counts) the following year. High amounts of gibberellic acid delays berry skin color development, sugars accumulation and overall maturation. Consult a local specialist before sizing unfamiliar cultivars.

TABLE 2 Application Rates for Seeded Grapes, Including Target Berry Diameters

Seeded Grape	"Target" Diameter	Whole Vine Spray (grams a.i./acre)	Direct Spray to Cluster or Cluster Dip (rate in ppm of a.i.)
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

Black Corinth (Zante Currant) Grape

For improving berry size:

Guide: Apply 1-to-12 grams ai./acre as one application 3-to-5 days after full bloom, but before shatter begins.

Wine Varieties

To increase cluster length, improve air circulation and light penetration within the cluster and help to reduce the incidence of bunch and sour rot:

Guide: Apply one spray when clusters found in the dominant shoots arising from buds on count spurs are starting to

elongate, average 3-to-4 inches in length, and show separation of the uppermost flower groups. Use 100 gallons of water per acre. Concentrations for registered varieties are shown below (See Table 3).

NOTE: Do not make applications less than three weeks before bloom. IT IS IMPORTANT that the proper rate be used on each variety; if late applications are made or if indicated rates are exceeded, reduction in yield may occur during the year of application and subsequent years. This reduction in yield may result from an increase in shot berries in the year of application and reduction in fruitfulness (cluster counts) in the first and second year following application. If growers have no experience with this application, consult local agricultural specialists before making this application.

TABLE 3 Application Rates (Grams A.I./Acre) and Recommended Water Volume on Seeded Wine Varieties.

Variety	Grams a.i./acre	Gallons a.i./acre
Palomino, Sauvignon Blanc, Tinta Madeira	0.4-to-1	100
Aleatico, Carignane, Chardonnay, Chenin Blanc, French Colombard, Pinot Nair, Valdepenas	1-to-2	100
Barbera, Petite Sirah, Zinfandel	2-to-4	100
Green Hungarian	4-to-8	100
Grenache Alicante	8	100
Salvadore	8-to-16	100

CITRUS

For all citrus, apply in sprays of sufficient water volumes to ensure thorough fruit wetting. Do not apply to trees of low vigor or under stress (pest, nutritional, or water, etc.) to avoid 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. Do not make applications of copper fungicides and/or oils within three weeks (before or after) application of GA3 4% to avoid significant leaf and fruit drop.

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 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 in sufficient water volume to ensure thorough wetting.

EARLY SPRAY: Apply one spray approximately two weeks prior to color break, which normally occurs August through November.

AND/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 are harvested early, as fruit coloring will be delayed. Do not apply from January through July, as production will be reduced the following year. Expect slower color development in the target crop. After marketable color is achieved, treatment effects will be reduced the longer treated fruit remains on the tree.

To enhance fruit set and yield: (For Florida Use Only)

Guide: Make a single application of 15-to-25 grams a.i./acre during December or January in 125-to-175 gallons of water per acre. Use a pure organo-silicone type surfactant at 0.05% (6 fl. oz./100 gallons).

VALENCIA ORANGE (For California and Arizona use only)

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 in sufficient water volume to ensure thorough wetting.

NOTE: Do not apply the early spray to groves that are harvested early, as fruit coloring will be delayed. Do not apply from January through July, as production will be reduced the following year. Expect slower color development in the target crop. Increased re-greening of mature fruit may occur. After marketable color is achieved, treatment effects will be reduced the longer treated fruit remains on the tree.

(For Florida Use Only)

To enhance fruit set and yield:

Guide: Make a single application of 15-to-25 grams a.i./acre during December or January in 125 to 175 gallons of water per acre. Use a pure organo-silicone type surfactant at 0.05% (6 fl. oz./100 gallons).

OTHER ROUND ORANGES (For Florida Use Only)

To reduce rind creasing and puffiness, 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 20-to-60 grams ai./acre in sufficient water volume to ensure thorough wetting. Use a pure organo-silicone type surfactant at 0.05% (6 fl. oz. in 100 gallons).

AMBERSWEET ORANGE (For Florida Use Only)

To enhance fruit set and yield:

Guide: Make a single application of 15-to-25 grams a.i./acre during January in 125-to-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz./100 gallons).

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 2-to-3/4 full size, but still green. Use 10-to-32 grams ai./acre in sufficient water volume to ensure thorough wetting.

When applied two 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 two weeks prior to color break. Apply in sufficient water volume to ensure 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 of development.

(All States except California)

To increase fruit set and yields on tangerine hybrids with pollination problems such as the Orlando, Robinson, Minneola and Sunburst:

Guide: Apply 8-to-30 grams a.i./acre during full bloom. Make one to two applications. Apply in sufficient water volume to ensure thorough wetting.

NOTE: Expect reduced fruit sizes and slightly retarded color development. A slight increase in mature leaf drop will 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 a.i./acre in a minimum of 250 gallons per acre.

EARLY SPRAY: Apply one spray approximately two weeks prior to color break, which normally occurs August through September.

AND/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 are harvested early as fruit coloring will be delayed. Spot pick heavy crops to aid early marketing and to avoid reduction of yields, which generally follow late held crops. Fully colored fruit to which applications have been made 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, will adversely affect new crop. Do not use concentrate sprays. Results vary from season to season depending on environmental conditions.

To enhance fruit set, size and yield:

Guide: Make a single application of 15-to-25 grams ai./acre during December or January in 125-to-175 gallons of water per acre with a pure organo-silicone type surfactant at 0.05% (6 fl. oz./100 gallons).

GRAPEFRUIT, STAR RUBY VARIETY (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-to-35 grams a.i./acre in a minimum of 250 gallons of water per acre.

NOTE: Results 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:

Guide: Make one to two applications of 1-to-8 grams ai./acre in sufficient spray volume to ensure adequate coverage of tree canopy. Make applications from 50% petal fall up to three weeks after petal fall.

NOTE: The number of applications depends upon the desired amount of fruit set. Generally, more fruit will be set by 2 applications, earlier applications, higher rates, and climatic conditions more favorable to set. Differences in crop strain 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.

POSTHARVEST APPLICATIONS

LEMON

To delay fruit senescence and prolong storage life:

Guide: Add 2 to 4 fl. oz. of GA3 4% (2 to 4 grams of a.i.) in 10 gallons of storage wax which has been diluted as per the wax label instructions. The incidence of sour rot is reduced by delaying senescence.

YELLOW LEMONS AND OTHER MATURE CITRUS FRUIT

To delay rind senescence and color changes:

Guide: Add 2 to 4 fl. oz. of GA3 4% (2 to 4 grams of a.i.) in 10 gallons of storage wax which has been diluted as per the wax

label instructions. The incidence of sour rot is reduced by delaying senescence.

FRUIT CROPS

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 a.i./acre in sufficient water volume to ensure thorough wetting.

NOTE: Color development and harvest will 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 two or three years after program initiation. Make annual applications to ensure 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 a.i./acre, depending on tree age and vigor (See Table 4). Apply in sufficient water volume to ensure thorough wetting.

TABLE 4 Recommended Application Rates (Grams A.I./Acre) for Tart Cherry Trees by Age

Tree Age (years)	Rate (grams a.i./acre)
6 TO 10	4 TO 6
11 TO 15	8 TO 10
16 TO 20	11 TO 14
20+ YEARS	14 TO 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. 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 are obtained when combined with good cultural practices.

VEGETABLE CROPS

ARTICHOKE

To accelerate maturity and shift harvest to an earlier date:

Guide: For perennials, apply one to three applications at bud irritation 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 ensure thorough wetting of the entire plant (leaves, stems and buds).

OTHER CROPS

RICE *(Not for Use in California)

FOLIAR APPLICATION

Early season foliar application of GA3 4% promotes vigorous and more uniform seedling growth of rice prior to permanent flood establishment. This may permit earlier flooding (5 to 10 days earlier) of drill or broadcast-seeded rice and is particularly effective on semi-dwarf varieties. Early flooding may reduce the additional flushing costs associated with a delay in establishing the permanent flood, reduce weed infestations and the number of herbicide applications, and/or promote earlier and more uniform grain maturity.

*Late season foliar applications of GA3 4% between split-boot and 100% heading increases panicle height of rice. This may facilitate harvest efficiency in the field by allowing the rice grain to be cut above the leaf canopy at faster combine speeds and at reduced vegetative load. Grain quality and maturity are advanced with the promotion of tiller panicle development. Heading applications to the first crop accelerates regrowth of second crop rice. This results in earlier second crop maturity and maximized grain yield.

Timing and Rate Recommendations

Seedling Applications (Early Season)

Apply GA3 4% at a rate of 1 to 3 fl oz (30 to 90 ml) of product per acre to rice between the 1-2 and 4-5 leaf stages of growth. Timing and dosage is based upon environmental conditions, tank mix combinations with herbicides, and preferred permanent flood practice in relation to rice leaf stage.

For best results, apply GA3 4% at a rate of 1 to 2 fl oz (30 to 60 ml) of product per acre using either a non-ionic surfactant known to be non-phytotoxic to rice or in tank mix combination with rice herbicides (See Compatibility with Other Chemicals section). Use higher rates of 1.5 to 3 fl oz (45 to 90 ml) of product with some dry and water-based herbicide formulations, or when temperatures will likely average 75°F or less during 14 days after application.

NOTE: Do not apply when rice is subjected to drought stress conditions. Foliage may temporarily appear lighter green in color due to accelerated growth rates following GA3 4% application.

*Panicle Extension Applications (Late Season)

GA3 4% may be applied at a rate of 3 to 8 fl oz (90 to 240 ml) of product per acre between split-boot and 100% panicle heading to promote main culm and tiller panicle extension. Tank mix with a non-ionic surfactant known to be non-phytotoxic to rice. Timing and dosage is based upon environmental conditions, tank mix combinations with herbicides, and preferred permanent flood practice in relation to rice leaf stage.

NOTE: Do not apply when rice is subjected to drought stress conditions. Foliage may temporarily appear lighter green in color due to accelerated growth rates following GA3 4% application.

Mixing Instructions

Fill the treatment tank with half of the final tank mix volume. Add the required amount of GA3 4% and mix thoroughly while adding water to the desired final volume. Dispose of any unused spray material at the end of the day.

Application Equipment

Apply GA3 4% by aerial or ground spray equipment. As an aerial spray, use a spray system capable of producing a uniform spray pattern of medium to fine spray droplets at 10 gallons per acre (GPA). Apply no less than 3 GPA of total spray volume. Use low pressure ground sprayers equipped with boom and flat fan nozzles using 10 to 15 GPA spray volume.

Compatibility with Other Chemicals

GA3 4% can be tank mixed with most commonly used rice herbicides and fungicides. When applying GA3 4% in mixtures with Arrosolo®, Riverside Propanil® 60DF, Stam® M4, Stam® 80EDF, or Wham!® EZ, plus one of their recommended adjuvants, use of an additional surfactant is not necessary. Do not apply GA3 4% with Whip® IEC or Whip® 360.

SEED TREATMENT APPLICATION

Use GA3 4% as a seed treatment for rice. GA3 4% stimulates seed germination and promotes faster and more uniform stand establishment. The following table describes GA3 4% application and expected benefits.

GA3 4% Seed Treatment Application

Crop	GA3 4% Use Rates	Important Considerations	Benefits
Rice	0.5 to 2.1 fl oz product in 8-20 fl oz water/100 lbs seed (Equivalent to 15 to 20 ml in 237 to 591 ml water/45 kg seed)	For use with drill or broadcast seeding systems. Do not apply GA3 4% prior to a 24 hour presoak or to water used for the presoak. Do not exceed 2.1 fl oz product/100 lbs of seed (or 62 ml product/45 kg seed).	May promote germination and emergence for semi-dwarf and tall varieties. May help increase final stand density and uniformity when seed are planted deeper to receive adequate moisture.

Mixing Instructions

GA3 4% may be applied to seed with standard mist treating equipment. For best results, higher treatment volume of 12 to 20 fl oz per 100 pounds of seed (355 to 591 ml/45 kg seed) ensures complete and uniform coverage.

Fill the treatment tank with half of the final tank mix volume. Add the required amount of GA3 4% and mix thoroughly while adding water and other co-applied seed treatment products (see Compatibility with Other Chemicals section) to the desired final volume.

Add an approved dye to distinguish GA3 4% treated seed and prevent inadvertent use for food, feed or oil purposes. Treated seed must be labeled in accordance with the requirements of the Federal Seed Act.

Use Restriction

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

Compatibility with Other Chemicals

GA3 4% is compatible with most commonly used fungicide seed treatments (e.g. Vitavax® CT and Dithane®), standard dyes, and sticker/binding agents. When preparing tank mixes, ensure adequate physical compatibility and mixing.

HYBRID RICE SEED PRODUCTION (Not for Use in California)

Apply GA3 4% during heading to increase panicle height of hybrid rice. This will facilitate pollination and harvest efficiency in the field, thus maximizing potential seed yield.

Timing and Rate Recommendations

For hybrid rice, make 1 to 5 applications of 20 to 100 grams a.i./acre at regular intervals during the heading period to promote main culm and tiller panicle extension, thus helping to maximize flower pollination.

Use Precautions

Avoid drift or accidental application to other crops. Higher rates of GA3 4% application to hybrid rice plants can result in excessive vegetative growth, thus producing a taller plant that is more prone to lodging.

Compatibility with Other Chemicals

Most commonly used rice herbicides and fungicides are compatible with GA3 4%. When applying GA3 4% in mixtures with Arrosolo®, Riverside Propanil® 60DF, Starn® M4, Starn® 80EDF, or Wham!® EZ, plus one of their suggested adjuvants, use of an additional surfactant is not necessary. Do not apply GA3 4% with Whip® IEG or Whip® 360.

Mixing Instructions

Fill the treatment tank with half of the final tank mix volume. Add the required amount of GA3 4% and mix thoroughly while adding water to the desired final volume. Dispose of any unused spray material at the end of the day.

Application Equipment

Make aerial applications of GA3 4% with spray systems capable of producing a uniform spray pattern of medium to fine spray droplets. Apply no less than 3 gallons per acre (GPA) of total spray volume. Use low pressure ground sprayers equipped with boom and flat fan nozzles using 10 to 15 GPA spray volume.

CONVERSION TABLES

Grams of Gibberellic Acid Per Acre	To	Amount of GA 3 4% Formulation Per Acre
Desired Gibberellic Acid Concentration (Grams Active Ingredient per acre) in Finished Spray		GA ₃ 4% Liquid Contains Approximately 1.0 Gram Active Ingredient/Fluid Ounce of Formulated Product
0.2		0.2 oz.
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.
128.0		128 oz.

ppm (parts per million) GA ₃ 4% ^o	Milliliters (ml) of GA ₃ 4% ^o per liter of spray solution	Milliliters (ml) of GA ₃ 4% ^o per gallon of spray solution	Fl. oz. of GA ₃ 4% ^o per gallon of spray solution
1	0.03	0.1	0.003
5	0.15	0.6	0.02
10	0.3	1.1	0.04
25	0.74	2.8	0.09
50	1.5	5.6	0.19
100	3.0	11.2	0.4
250	7.4	28.0	0.95
500	14.8	56	1.9
750	22.2	84	2.8
1000	29.6	112	3.8

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:

Non-refillable container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Do not reuse this container. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container% full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER

The directions for use of this product are believed to be adequate and must be followed carefully, it is impossible to eliminate all risks inherently associated with the use of this product. The use of this product being beyond control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with printed directions and established safe practice. To the extent allowable by State law the Buyer's or user's exclusive remedy, and CH Biotech R&D Co., Ltd. the manufacturer's or the seller's total liability shall be limited to damages not exceeding the cost of the product. No agent or employee of CH Biotech R&D Co., Ltd. or the seller is authorized to amend the terms of this warranty disclaimer or the product's label or to make a presentation or recommendation different from or inconsistent with the label of this product.

Propanil® is a registered trademark of Agrilience, LLC

Whip® is a registered trademark of Aventis CropScience.

Dithane® and Stam® are registered trademarks of Dow AgroSciences LLC.

Wham® is a registered trademark of RiceCo.

Arrosolo® is a registered trademark of Syngenta Crop Protection, Inc.

Vitavax® is a registered trademark of Uniroyal Chemical Company, Inc.

Produced for CH Biotech R&D Co., Ltd.

By CH Biotech, LLC.

601 Kettering Drive

Ontario, CA 91761

Tel: 909.472.3033

Email: info@chbio.com





GA₃ 4%

Plant Growth Regulator Solution

ACTIVE INGREDIENT:		
Gibberellic Acid		4.0% w/w
OTHER INGREDIENTS:		96.0% w/w
	TOTAL	100.0% w/w

GA₃ 4% contains approximately 1.0 gram active ingredient per fluid ounce of formulated product.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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).

FIRST AID

If swallowed:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general product information, call CH Biotech, LLC. at (909) 472-3033 between the hours of 9a.m.- 4p.m. Pacific Time.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPA Reg. No. 90866-10

EPA Est. No. 90866-CA-1

Batch No.

Produced for CH Biotech R&D Co., Ltd.

By CH Biotech, LLC.

601 Kettering Drive

Ontario, CA 91761

Tel: 909.472.3033

Email: info@chbio.com

Net Contents: 1 U.S. Gallon(3.785L)

Net Weight: 8.85lbs



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