

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 27, 2018

Premjit Halarnkar, Ph.D., MPA Global Head of Regulatory Affairs CH Biotech R&D Co. Ltd c/o CH Biotech LLC 601 Kettering Dr. Ontario, CA 91761

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Revision to

Product Label to Add Environmental Hazards Section and to Incorporate Updates to Various Sections including: Company Information, Emergency Contact Information, Personal Protection Equipment (PPE) section, User Safety Recommendations section,

Agricultural Use section, Storage and Disposal section, and Warranty section.

Product Name: ROOTGRO

EPA Registration Number: 90866-11

Application Date: 06/07/2018 OPP Decision Number: 541856

#### Dear Dr. Halarnkar:

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

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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 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 James Parker by phone at (703) 306-0469 or via email at parker.james@epa.gov.

Sincerely,

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

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Enclosure

## RootGro<sup>TM</sup>

Reduces Transplant Shock And Promotes New Root Growth FOR USE ON VEGETABLES, FIELD CROPS, TREE CROPS, SMALL FRUITS AND BERRIES, HERBS, ORNAMENTALS, SOD FARMS, TURF, AND SEED TREATMENT APPLICATIONS

ACTIVE INGREDIENT:		<b>BY WT</b>
Indole-3-Butyric Acid	•••••	0.8%
OTHER INGREDIENTS:	•••••	99.2%
	TOTAL	100.0%

## KEEP OUT OF REACH OF CHILDREN CAUTION

## 

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For non-emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 (NPIC Web: www.npic.orst.edu).

For general product information, call CH Biotech LLC. at (909) 472-3033 between the hours of 9 a.m. -4 p.m. Pacific Time.

EPA Reg. No. 90866-11 EPA Est. No. 90866-CA-001

Net Contents: As marked on container

Batch No.

07/27/2018
Under the Federal Insecticide, Fungicide

under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 90866-11

ACCEPTED

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

## PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution: Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using toilet.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- shoes plus socks

Follow the 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:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## **ENVIRONMENTAL HAZARDS**

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

#### **DIRECTIONS FOR USE**

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

## AGRICULTURAL USE REQUIREMENTS

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

- Long sleeved shirt and long pants and
- Shoes plus socks

#### USE DIRECTIONS FOR CHEMIGATION

Apply this product only through the following types of irrigation systems:

- 1. Sprinkler including center pivot, lateral move, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems.
- 2. Calibrated overhead watering booms

Do not apply this product through any other types of irrigation systems. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems), used for pesticide application to a public water

system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise.

#### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option of the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump control stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitate the pesticide supply tank throughout the application of RootGro™. Except for turfgrass, RootGro should be applied at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop.

Fill the supply tank one-half full with water, add the appropriate amount of RootGro to the tank and finish filling the tank with water.

### SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain function-interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a function pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump; such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. The pesticide supply tank should be agitated throughout the application of RootGro.

#### INTRODUCTION

Cuttings from different varieties and species of plants, shrubs, and trees vary greatly in their capacity to form roots. Some root with ease and others with difficulty, or not at all. It is believed that natural root–forming hormones are present in different plants in varying quantities, and that the ease or difficulty with which a cutting can root is governed by the natural root-inducing hormones present.

The dilution of different strengths of RootGro, which parallel the range of hormones in nature, is a development of striking importance. Different strengths are recommended for different plants, as can be seen in the plant name chart on the following pages.

## TYPE OF CUTTING TO USE:

Cuttings of current season's growth, 4 to 6 inches in length, generally are most satisfactory. Entire shoots of this length, cut at or near the base, should be taken, unless it is known that other plant parts root more readily. Some plants are readily propagated from leaf-bud cuttings. Propagators are familiar with the fact that tip cuttings of some varieties, and parts below the tip in other varieties, root best. This applies also, but to a lesser extent, to cuttings treated with RootGro. The basal cut may be made at a slant or straight with small pruning shears, or with a knife. Large leafed types of cuttings will need to be trimmed, but it is preferable to use the largest leaf area which can be kept in good condition, and at the same time meets the requirements for economy of space.

## TIME TO TAKE CUTTINGS:

Cuttings of most deciduous shrubs usually root best when taken during June, July and August in the New York area. A few varieties can be taken the latter part of April, and others during May, depending upon when the new growth starts. Cuttings taken between August and December will vary considerably in their capacity to root, but a number of varieties will root well when taken at that time. Cuttings of certain plants are available over a much wider range of time in the South than in the North, and corresponding season advance must be considered. Cuttings of plants grown indoors are taken according to the condition of the material, without regard to season.

## **CARE OF CUTTING MATERIAL:**

Cutting material should be kept fresh. Cuttings of many varieties keep fresh when the basal ends of stems are immersed in water or wrapped in wet cloth or burlap until ready to be placed in the RootGro solution. Shoots and branches should not be kept in closed containers for long periods of time. Depending on humidity conditions, frequent spraying of the cuttings or covering with moist cheesecloth, will prevent excessive wilting.

## PLANTING CUTTINGS AND HOW TO CARE FOR THEM:

After treatment with RootGro, the cuttings should be planted in a mixture of ½ peat moss and ¾ sand (by volume), or in sand only, until rooted. Propagators who have a satisfactory rooting medium should continue to use it. Any method of planting cuttings, which keeps them in good condition, may be used. When cuttings are planted in a vertical position, they require more critical care than when slanted in such a way that the exposed leaves lie flat or close to the surface of the rooting medium. Sufficient shade must be provided at all times, particularly on hot, bright days, to keep the cuttings fresh, but not dense enough to cause rotting of leaves, or mold growth. Immediately after planting, the cuttings should be watered thoroughly and regularly according to climatic conditions. The rooting medium below the surface must not be allowed to become dry.

A temperature in the bed of 70° to 75\_°F has proved satisfactory for many species. Temperatures below 60\_°F are not generally satisfactory with tested cuttings.

## APPLICATION INSTRUCTIONS

Dip the basal end cuttings, individually or in bunches into the diluted RootGro solution for 3-5 seconds.

Following dipping, place cuttings into planting medium. Depending on the species, rooting will take place in several weeks or months under a moist greenhouse environment. Transplanting may be performed once the cuttings have rooted.

# TO REDUCE TRANSPLANT SHOCK AND PROMOTE NEW ROOT GROWTH - for Shrubs, Flowers, Groundcovers & Houseplants

Rose, Arborvitae, Gardenias, flowering trees and other ornamentals, bare root transplant or in containers, use 2 tablespoons of product per 10 gallons of water. Apply to root area in transplanting hole then cover roots with soil. After planting, repeat applications biweekly as a drench to thoroughly wet the root area using one teaspoon per 10 gallons of water.

**Annual and perennial flowers (bedding plants):** Use one tablespoon per 10 gallons of water and apply to thoroughly saturate root zone at time of planting. Repeat at weekly intervals until plants are well established.

**Groundcovers** such as Ivy, Iceplants, Geranium, Cotoneaster, Barberry, & Ajuga. Use 1 tablespoon per 10 gallons of water and apply thoroughly, saturating root zone area at time of planting. Repeat at weekly intervals until plants are well established.

**Houseplants (repotting and planting):** Use 1 tablespoon per 10 gallons of water and water thoroughly at weekly intervals to saturate root zone until plants are well established.

**Established plants:** To continue new root growth, use 1 tablespoon per 10 gallons of water and water plants once a month.

TO REDUCE TRANSPLANT SHOCK AND PROMOTE NEW ROOT GROWTH –For various field crops; such as, brassica vegetables, leafy vegetables, cucurbit vegetables, fruiting vegetables, root & tuber vegetables, legume vegetables, citrus fruits, pome/stone fruits, vines, grapes and strawberries, alfalfa, cereal grains, turf grass, sod grass, and cotton. (NOT FOR USE IN CALIFORNIA)

Mix RootGro with the transplant water at the rate of 6-8 fl- oz- product per 100 gallons and apply at planting time. Make foliar application or side-drench at the same use rate two weeks after transplanting. Two to three applications may be needed early in the growing season.

## **CUTTINGS**

#### **Dilution Rate:**

Cutting type	Dilution rate	Amount of product in amount of water
1. Softwoods or succulents	1:20	Mix 1 fl- oz- product in 20 fl- oz- water
2. Semi-hardwoods	1:10	Mix 1 fl- oz- product in 10 fl- oz- water
3. Hard woods	1:5	Mix 1 fl- oz- product in 5 fl- oz- water

Mix only enough RootGro solution to be used immediately. Photodegradation may occur; therefore, RootGro solution must be used within 10 hours of preparation.

RootGro is recommended for use on all nursery stock cuttings including Woody ornamentals, Deciduous hardwoods, Evergreens, Ground Covers, and Perennials

The following plants have been successfully rooted with IBA supplement. Cuttings which respond to dilution 1 (1:20) may be injured by use of dilution 3 (1:5), or in some cases, dilution 2 (1:10).

For plant types or species not found in the following list it is suggested Dilution 1 or 2 be used.

## The following plants have been successfully rooted with RootGro

Common Name	Scientific Name	RootGro Dilution
Acanthopanax	Acanthopanax sp.	3 (1:5 dilution)
African Violet	Saintpaulia sp.	1 (1:20 dilution)
Ageratum	Ageratum sp.	1
Andromeda	Andromeda japonica	1
Apple	Malus sp.	2 or 3
Arbor-Vitae(Thuja) vars.	Thuja ellwangeriana aurea nana	2 (1:10 dilution)
	Thuja occidentalis vars.	2 or 3
Arbutus (Trailing)	Epigaea repens	3
Ardisia	Ardisia japonica	2
Azalea vars.	Azalea spp.	2
Barberry	Berberis sp.	1
Bayberry	Myrica sp.	1
Beauty Berry	Callicarpa sp.	1
Beauty Bush	Kikwitzia amabilis(tips)(June-July)	3
Beech	Fagus sp. (August)	2
Begonia	Begonia sp.	1
Birch	Betula sp.	3
Bittersweet	Celastrus sp.	3
Blackberry	Rubus sp.	1
Bluebeard	Caryopteris sp.	1
Blueberry	Vaccinium carymbosum vars.	1 or 2
Bougainvillea	Bougainvilla sp.	1
Bowstring-Kemp (Snake plant)	Sanseveria	1
Boxwood	Buxus sp.	3
Broom	Cystisus sp.	1 or 2
Bush-Arbutus	Albelia grandiflora rosea (tips best)	1
Butterfly bush	Buddleia sp.	1
Camellia	Camellia sp.	3
Candytuft	Iberis sp.	1
Carnation	Dianthyus vars.	1
Catalpa	Catalpa sp.	3
Chaste Tree	Vitex sp.	3

Chestnut	Castanea sp.	2
Chokeberry	Aronia sp.	2 or 3
Chrysanthemum	Chrysanthemum	1
Cinquefoil	Potentilla sp.	2
Clematis		2
Clerodendron	Clematis sp.	1
	Clerodendron sp.	
Clockvine	Thunbergia sp.	1
Coleus	Coleus blumei	1 3
Cotoneaster	Cotoneaster horizontalis	
Crabapple	Malus sp.	2 or 3
Crape Myrtle	Lagerstroemia indica	1
Crassula	Crassula rubicunda	1
Creeper	Parthenocissus sp.	1
Croton	Codiaeum sp.	1
Cryptomeria	Cryptomeria sp.	3
Currant	Ribes tenuiflorum	1
Dahlia	Dahlia vars.	1
Daphne	Daphne sp.	1 or 2
Deutzia	Deutzia magnifica	1
Dewberry	Rubus sp.	1
Dianthus (see Carnation)		
Dogwood	Cornus florida (July)	3
Dovetree	Davidia sp.	1
Douglas fir	Pseudotsuga sp.	3
Dracena	Dracena sanderiana	1
Dutchmanspipe	Aristolochia sp.	1
Eider	Sambucus sp.	1 or 2
Elm	Ulmus sp. (June-July)	1
Escallonia	Escallonia sp.	3
Euonymus	Euonymus sp.	1
False arborvitae	Thujopsis sp.	2
Fir	Abies sp.	3
Firethorn	Pyracantha sp.	1 or 2
Flowering Cherry vars.	Prunus sp. and vars.	1
Flowering quince	Chaenomeles sp.	3
Fontanesia	Fontanesia sp.	1
Forsythia	Forsythia sp.	1
Franklinia	Gordonia alatamaha	2
Fringe Tree	Chionanthus sp.	2 2
Fuchsia	Fuchsia spp.	1
Gardenia	Gardenia florida	1, 2 or 3
Geranium	Geranium spp.	1
Germander	Teucrium sp.	2 or 3
Golden chain	Laburnum spp.	2
Grape	Vitis sp. and vars.	3
Hawthorne	Crateagus sp.	3
Hazelnut	Corylus sp. (June)	1 or 2
Heath	Erica carnea vars.	3
Heather	Calluna vulgaris vars.	3
Hemlock vars	Tsuga sp. and vars. (Sept-June)	2 or 3
Hibiscus	Hibiscus (tropical)	2
Hibiscus (Rose of Sharon)	Hibiscus syriscus vars.	2
Thorsess (1000 of bilaton)	(leafy and dormant)	3
Holly (American)	Ilex opaca, Ilex pernyi	3
Holly (Chinese)	Ilex cornuta	3
Holly (English)	Ilex cornuta Ilex aquifolium	3
nony (English)	non aquijonum	5

Holly (Japanese)	Ilex crenata vars.	2
Honeysuckle	Lonicera sp.	1
Jasmine	Jasminum nudiflorm	1
Jetbead	Rhodotypus sp.	1
Juniper vars.		3
Kerria	Kerria sp.	1
Knotwood		3
Laburnocytisus	Laburnocytisus sp.	1 or 2
Lantana	Lantana sp.	1
Laurel		3
Lavender	Lavandula sp.	1
Leucothoe	Leucothoe sp	2
Lilac (French-Hybrids)		3
Lily Scales	Lilium (Scales)	1 or 2
Linden	Tilia sp.	1
Locust		3
Magnolia		2 or 3
Maidenhair Tree		2
Manzanita	Arctostaphylos sp.	3
Maple (Japanese)	Acer japonicum palmatum vars.	3
Matrimony Vine		3
Melastoma	Melastoma spp.	1
Mock Orange	Philadelphus sp.	1
Mulberry	Morus alba	1
Ninepark	Physocarpus sp.	3
Oak	Quercus sp.	3
Oleander	Oleander nerium	2 3
Olive		
Orange (sour)	Citrus aurantium	3
Orixa	Orixa sp.	1
Osage Orange	Maclura sp.	1
Osmanthus	Osmanthus sp.	2
Pachysandra	Pachysandra terminalis	2 or 3
Pea Shrub	Caragana sp.	1
Pear (stock)	Pyrus serotina	1
Pecan		3
Penstemon	Penstemon sp.	1
Periwinkle	-	2
Petunia	Petuniasp	1
Philodendron	Philodendron sp.	1
Phlox	Phlox sp.	1
Photinia	Photinia sp.	1
Pine		2 or 3
Poinsettia	Euphorbia vars.	1
Poplar	Populus sp.	1
Pricklypear Cactus	Opuntia sp.	1
Privet	9	3
Raspberry	Rubus sp.	1
Retinospora vars.		3
71.1.1.1.		3
Rhododendron vars.		3
Rose	Rosa vars.	1
Russian olive	0 1	3
Sage	Salvia sp.	1
Sequoia (Giant)		2 2
Silverbell	Halesia sp.	2

Snapdragon	Antirrhinum sp.	1
Snowbell	Styrax sp.	3
Snowberry	Symphoricarpus sp.	1
Sourwood	Oxydendrum sp.	3
Speedwell	Veronica sp.	1
Spirea	Spirea sp.	1
Springscent	Fothergilla major	2
Spruce(Blue)	Picea pungens	2
Spruce(Norway) vars.	Picea excelsa vars.(Nov-Feb)	1
Stevia	Stevia sp.	1
Stewartia	Stewartia pentagyna	1
St. Johnswort	Hypericum sp.	1
Sweetleaf	Symplocos	1
Taxus (see Yew)		
Trofoliate-Orange	Poncirus sp.	2
Trumpet creeper	Campsis sp.	1
Tuliptree	Liriodendron sp.	3
Umbrella Pine	Sciadopitys verticillata	3
Verbena	Verbena sp.	1
Viburnum	Viburnum sp.	1
Waxmyrtle	Myrica sp.	1
Weigelia	Diervilla sp.	1
Willow	Salix sp.	1
Wintergreen	Gautheria sp.	2
Wisteria	Wisteria sp.	2
Witch Hazel	Hamamelis sp.	2
Yellowwood	Cladrastis sp.	2
Yew	Taxus spp.	2 2 2 3
Zelkova	Zelkova sp.	2

## SPRAY MIX COMPATABILITY

RootGro is compatible with a wide range of fertilizer and pesticide products. Good agitation must be maintained for those applications that contain pesticides. Always check compatibility prior to mixing and apply any pesticide spray mixes as soon as possible. In the event of pesticide mixing problems, the additions of a compatibility agent is recommended.

If this product is to be tank mixed with fertilizers or with other pesticides, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ration as the anticipated use. If any indications of physical incompatibility develop; such as separation, sedimentation, gel formation, etc., do not use this mixture for spraying. Indications of in compatibility usually will appear within 5 to 15 minutes after mixing.

## MIXING SEQUENCE

1. Water 2. Fertilizer 3. RootGro 4. Compatibility agent (if needed) 5. Pesticides APPLICATIONS WITH SOIL-APPLIED FERTILIZER

For in-furrow, banded, side-dressed and broadcast applications through conventional equipment, apply RootGro in conjunction with/or following the application of pesticides and/or fertilizers. Best results are obtained when RootGro is incorporated, injected, or applied in a zone or band in the soil at a minimum depth of two (2) to four (4) inches.

## APPLICATIONS WITH DRY GRANULAR FERTILIZERS

RootGro may be directly impregnated on dry granular fertilizers. Apply sufficient RootGro to provide the recommended label rates per acre when treated fertilizer is applied. Dry granular fertilizer treated with RootGro have an indefinite shelf life.

## TRANSPLANT SOLUTIONS

Mix 6-10 fl- oz with each 100 gallons of transplant solution.

## GENERAL DOSAGE RECOMMENDATION

Row or Band and Injection Applications: Use RootGro at the rate of 5-6 fluid ounces per acre. Broadcast applications: Use RootGro at the rate of 10-11 ounces per acre.

#### RECOMMENDED CROPS

For application rates for any given crop, use at the general dosage recommendation, unless otherwise indicated.

BRASSICA (COLE) LEAFY VARIETIES: (Broccoli, Brussels Sprouts, Cabbage, Chinese Cabbage,

Cauliflower, Chinese Mustard, Collards, Kale, Kohlrabi, Mustard Greens, Rape Greens)

CUCURBITS: (Cantaloupe, Casaba Melons, Cucumbers, Gherkins, Gourds, Honeydew Melons, Mango Melons, Muskmelons, Pumpkins, Summer Squash, Watermelons, Winter Squash)

**LEAFY VEGETABLES (EXCEPT BRASSICA):** (Celery, Cress, Endive, Fennel, Lettuce, Orach, Spinach, Swiss Chard

ROOT, TUBER AND BULB VEGETABLES: (Artichokes, Burdock, Carrots, Cassava, Chicory, Garlic, Ginger, Ginseng, Horseradish, Leek, Onion, Parsley, Parsnip, Potato, Radish, Rutabaga, Salsify, Shallot, Sweet Potato, Turnips, Yams)

**FRUITING VEGETBLES:** (Bell Peppers, Chile Peppers, Cooking Peppers, Eggplant, Ground Cherry, Pepinos, Pimentos, Sweet Peppers, Tomatillo, Tomatoes)

**LEGUMES:** (Beans, including *Lupinus* sp. *Phaseolus* sp., and *Vigna* sp., Broadbeans, Chickpeas, Guar, Jackbean, Lablab Beans, Lentils, Peas, Soybeans

#### FIELD CROPS

**CEREAL GRAINS:** (Barley, Buckwheat, Corn, Millet, Oats, Popcorn, Rice, Rye, Sorghum (milo), Wheat, Wild Rice)

WHEAT: Winter Wheat-Apply 6fl oz prior to or at planting followed by 6-11 fl oz applied pre-greenup and up to Feekes growth stage 5. Spring Wheat-Apply 6-11 fl oz prior to or a planting if needed, apply an additional 6-11 fl oz at Feekes stage 5.

Rice: Apply 6-11 fl oz per acre at the 3-leaf to tillering stage of plant growth.

Cotton: Apply 5-6 fl oz per acre in the seed furrow at planting or side-dressing shortly after planting.

Forage: (Alfalfa, Clovers, Grasses, Timothy, Vetch)

#### TREE CROPS

CITRUS: (Calamondin, Grapefruits, Kumquats, Lemons, Limes, Oranges, Tangelos, Tangerines)

**NUTS**: (Almonds, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filberts, Hickory Nut, Macadamia Nut, Pecan, Walnut.)

POME FRUIT: (Apple, Crabapple, Mayhew, Pear, Quince)

STONE FRUIT: (Apricots, Cherries, [sweet and sour], Nectarines, Peaches, Plums, Prunes.)

## SMALL FRUITS AND BERRIES

(Blackberries, Blueberries, Boysenberries, Cranberries, Currants, Dewberries, Elderberries, Gooseberries, Grapes, Huckleberries, Olallieberries, Raspberries, Strawberries, Youngberries)

## **HERBS**

MISCELLANEOUS COMMODITIES (NOT LISTED ELSEWHERE ON THIS LABEL): Avocado, Hops, Kiwifruit, Grapes, Bananas, Figs, Peanuts, Pineapple, Mango, Okra, Mushrooms, Papaya, Persimmon.

## **ORNAMENTALS**

(Flowers, shrubs, trees, deciduous nursery stocks [trees, shrubs, and flowers] and greenhouse crops and other ornamentals): Apply 5-6 fl oz in 100 gallons of water as a drench solution for soil and media, or apply 10 oz- in 100 gallons of water as a directed spray. The applied spray solution should be incorporated into the root zone by irrigation or rainfall.

#### **SOD FARMS**

Apply 6-11 fl- oz- per acre with fertilizer and irrigate to incorporate into the soil profile. Apply 4-8 times per season.

#### **TURF**

(Greens, Tees, Fairways, and Lawn): Apply 10z- in 100 gallons of water per acre and incorporate into the root zone by irrigation.

#### SEED TREATMENT APPLICATION

Use RootGro as a seed treatment that aids in the enhancing germination and early season root development. The application of ½ to 5.6 fl oz per 100 weight of seed is recommended for the following crops: Corn, Cotton, Dry Beans, Peanuts, Rice, Sorghum, Soybeans, Sugar Beets, Wheat.

#### POTATO SEED PIECES

Use 1/3 to ½ fl<sub>7</sub> oz<sub>7</sub> of RootGro per 100 lbs of cut seed pieces. Seed pieces should be treated immediately after cutting and apply the material in sufficient water to ensure that they are covered thoroughly. RootGro can be mixed with other seed treatments and carriers to ensure that uniform coverage is obtained.

#### STORAGE AND DISPOSAL

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

## **PESTICIDE STORAGE:**

Store product in the original container. Store product in a cool, dry locked place out of the reach of children and out of direct sunlight

#### 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. Do not reuse or refill this container. Triple rinse (or equivalent). 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 a 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. For chemical spill, leak, fire or exposure, call CHEMTREC at 1-800-424-9300.

#### LIMITED WARRANTY AND DISCLAIMER

NOTICE: CH Biotech R&D Co., Ltd. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use. Buyer assumes all risks of use and handling which is a variance in any way with the directions herein To the extent consistent with applicable law, CH Biotech R&D Co., Ltd. makes no other express or implied warranty of fitness or merchantability. To the extent consistent with applicable law, in no case shall CH Biotech R&D Co., Ltd. or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. CH Biotech R&D Co., Ltd. and Seller offer this product and the Buyer and user accept it, subject to the foregoing Limited Warranty and Disclaimer which may be varied only by agreement in writing signed by a duly authorized representative of CH Biotech R&D Co., Ltd.

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