# cytogro®

## Hormone Biostimulant for Ornamental Turf, Nursery and Landscape Management

A HORMONE BIOSTIMULANT TO PROMOTE ROOT GROWTH, ESTABLISHMENT, DEVELOPMENT AND GROWTH OF CUTTINGS, TURF, NURSERY AND LANDSCAPE CROPS.

#### **Active Ingredients**

Cytokinins, as kinetin based on bioassay	. 0.005
Other Ingredients	99.995
Total	00.000%

CytoGro Hormone Biostimulant contains aqueous extract of seaweed meal, a source of cytokinin extracted from seaplants which promote root growth, increase tiller rhizome and stolon production and provide vigor and stress tolerance to ornamental turf, lawn landscape and nursery plantings. CytoGro contains hormone cofactors such as amino acids, vitamins, proteins, carboxylic acids, mannates and sea minerals derived from aqueous extracts of sea plants.

### CAUTION KEEP OUT OF REACH OF CHILDREN

	FIRST AID
If swallowed	<ul> <li>Call poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call poison control center or doctor for treatment advice.</li> </ul>
	oduct container or label with you when calling a poison control center or oing for treatment. You may also call 1-800-222-1212 for emergency medical

#### SEE INSIDE THIS LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

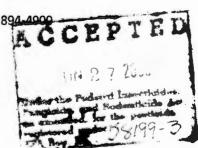
Net contents: 1 gallon/3.78 liters

9 lbs./4 kg.

EPA Registation # 58199-3

EPA Establishment # 211-KS-1
Distributed by Plant BioTech, Inc. – HC 66 Box 74 – Deming, NM, U.S.A.- 505-894

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#### **PRECAUTIONARY STATEMENTS**

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling.

#### Personal Protective Equipment

Applicators and other handlers must wear long-sleeved shirt and long pants and shoes plus socks.

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations:**

#### Users should:

- -Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- -Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- -Remove personal protective equipment 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. Before using CytoGro Hormone Biostimulant, read and follow the precautions appearing on the label.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, waterproof gloves and shoes plus socks.

#### **Chemigation system**

Apply CytoGro Hormone Biostimulant only through the following types of systems: sprinkler, including center pivot, lateral move, end tow, side roll, traveler, big gun, solid set, or hand move; or drip (trickle) irrigation systems. Do not apply this product through any other type of system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non uniform distribution of treated water.

If you have questions about calibration, 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 about the chemigation systems and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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 at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back flow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to 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, solenoidoperated 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 motor 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 pesticides and capable of being fitted with a system interlock.

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

**Sprinkler Chemigation**: The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriate located on the irrigation pipeline to prevent water source contamination from back blow.

The pesticide injection system 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 also 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 motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide3 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.

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

Supply pesticide tank agitation, especially if product is to sit in tank for over 6 hours.

## CYTOGRO Hormone Biostimulant for Turf, Nursery and Landscape Crop Management

USE CYTOGRO IN COMBINATION WITH A WELL-BALANCED FERTILITY PROGRAM AND GOOD MANAGEMENT PRACTICES. THE COMPANY RECOMMENDS THE USE OF SOIL AND TISSUE TESTING, AND ADDITIONAL NUTRIENTS AND MICRO NUTRIENTS AS NEEDED.

#### SHAKE WELL BEFORE USING.

#### **DIRECTIONS FOR USE**

<u>Do not apply to crops which will be used for food or feed purposes.</u> It is a violation of federal law to use this product in a manner inconsistent with its labeling. Before using CytoGro Hormone Biostimulant for Turf, Nursery and Landscape Management,

read and following the precautions appearing on the label. For best results CytoGro Hormone Biostimulant for Turf, Nursery and Landscape Crop Management should be applied in the early morning or late afternoon. Follow the specific rate uses below. Apply with sufficient water to get thorough foliage coverage. CytoGro Hormone Biostimulant for Turf, Nursery and Landscape Crop Management can be applied as mixture with most fungicides, herbicides, insecticides or liquid fertilizer. For maximum root growth response when used on turf or sod, add iron sulfate to CytoGro spray solution.

#### TURF

<u>Spring application:</u> Make an early application of 1 to 2 fl. oz. CytoGro per 2500 sq. ft. to promote tiller, rhizome or stolon growth, to develop a deep root system, and to give the turf a rapid start once winter dormancy is broken and growth begins. Continue monthly applications throughout spring and summer. Spring application is important to provide a deep root system which will condition the turf and reduce the stress of disease and summer heat or low rainfall.

<u>Fall Application</u>: Two to three applications of CytoGro (1 to 2 fl. oz. per 2500 sq. ft.) should be made in the fall beginning about eight weeks before the turf becomes dormant (eight weeks before first frost date in the northern states) to promote root growth and provide the grass with the vigor to better endure the stress of winter (reduce winter kill) and improve survival of a good healthy turf for the following spring.

Golf Greens, Fairways, Football and Soccer Fields, and Baseball Infields and Outfields: At the beginning of spring growth apply I to 2 fl. oz. per 2500 square feet at the breaking of dormancy. Make successive maintenance applications of 1/2 to 1 fl. oz. per 2500 sq. ft. at monthly intervals or as needed to maintain root growth, tillering, appearance and vigor throughout the growing season. During periods of intensive use apply 1/2 to 1 fl. oz. per 2500 sq. feet weekly to the greens, infield or playing field to maintain root structure and renew growth and vigor between games. Make three applications of 1/2 fl. oz. per 2500 sq. ft. at 2 week intervals in the fall beginning about eight (8) weeks before turf becomes dormant to promote root growth and increase winter stamina to reduce winter kill.

<u>Sod:</u> Spray CytoGro to newly laid sod at 1 to 2 fl. oz. per 2500 sq. ft. to promote rooting and increase the rate of sod establishment. Maintain growth and vigor with monthly applications of ½ to 1 fl. oz. per 2500 square feet.

<u>Sod Farming</u>: Spray CytoGro at 1 pint/acre monthly to sod fields to promote root, tiller and rhizome growth and to bring the crop to harvest more quickly. Maintain accelerated growth with CytoGro applications of 1/2 to 1 pint/acre at 2 to 4 week intervals or as needed. Spray CytoGro at ½ to 1 pints per acre to sod 1 to 4 days before harvesting to initiate new root growth and speed up establishment when sod is laid.

Lawns, Playgrounds, Parks, Recreational Areas, Landscaped Roadways and Cemeteries: Apply 2 fl. oz. per 2500 square feet at the beginning of spring growth to promote a deep root system and tillering to fill sparse areas. Apply at 1/2 to 1 fl. oz. per 2500 square feet monthly to maintain health and vigor of the turf. Application can be made more frequently as needed to condition the turf for stress or for periods of heavy use.

<u>Nutritional sprays</u>: For better color response from nitrogen, phosphorous, potash, iron, sulfur, zinc and other nutrient sprays use 1/2 pt CytoGro per acre with nutrient

spray solution. For greens or smaller area, add 1/2 to 1 fl. oz. CytoGro per 3 to 5 gallons spray solution.

	RATE CHART		
Fl. Oz./2500 Sq. Ft.	Fl. Oz./1000 Sq. Ft.	Pints/Acre	
1/2 fl. oz	0.2 fl. oz.	1/2 pint	
1 fl. oz.	0.4 fl. oz.	1 pint	
2 fl. oz.	0.8 fl. oz.	2 pints	

**NURSERY AND GREENHOUSE USE:** To promote bud differentiation, cell division, root induction and growth and to reduce apical dominance. Use CytoGro in your watering program or as a foliar spray, with plant nutrients.

<u>Propagation of Cuttings</u>: Dip cuttings in appropriate commercial hormone powder or rooting solution (such as Rootone or Hormex) and stick in rooting medium. Spray or mist cuttings with a solution of 1 fl. oz. CytoGro to 3 gallons water (1 qt./100 gallons) at weekly to 2 week interval until root buds initiate. Then spray at 2 to 4 week intervals.

<u>Transplanting</u>: Add 1 fl. oz. CytoGro per 3 gallons of transplant solution (fertilizerwater). Drench the root zone. Follow with spray to foliage or add through irritation system at 2 to 4 week intervals at the rate of 1 quart per 100 gallons..

<u>Production</u>: To increase growth rate, improve quality and resilience of nursery and greenhouse crops, add 1 fl. oz. CytoGro per 3 gallons (1 quart/100 gallons) of fertilizer or water solution and apply through the irrigation system or via foliar spray.

<u>Nutritional Deficiencies</u>: To promote rapid uptake and correction of nutrient deficiencies in ornamentals and turf, add CytoGro to Iron, nitrogen phosphate or potash fertilizers, zinc or other nutrient solutions at the rate of 1 fl. oz. per 3 gallons (1 gt/100 gallons). Apply as a foliar spray or soil drench.

#### LANDSCAPE MANAGEMENT (see Turf uses also)

<u>Bedding Plants:</u> Spray bedding plants at 2 to 4 week intervals with a solution of 1 fl. oz. CytoGro per three gallons water, fungicide or nutrient spray to promote growth, flowering and maximum color development.

<u>Lawn Care</u>: Spray CytoGro to lawns at the rate of 1 fl. oz. per 2500 sq. ft. CytoGro can be added to liquid fertilizer, insecticide, fungicide, insecticide or herbicide sprays.

<u>Transplanting of trees, shrubs or bedding plants</u>: See transplanting instructions under nursery use.

<u>Maintenance</u>: To promote growth and reduce stress from drought, disease or nutrient deficiency. Spray CytoGro to foliage at the rate of 1 fl. oz. per 3 gallons of water or fertilizer solution (1 quart per 100 gallons).

<u>Nutritional Deficiencies</u>: To promote rapid uptake and correction of nutrient deficiencies in ornamentals and turf, add CytoGro to Iron Sulfate, nitrogen, phosphate, or potash fertilizers, zinc or other nutrient solutions at the rate of 1 fl. oz. per 3 gallons (1 gt/100 gallons). Apply as a foliar spray or soil drench.

Root Feeding: Mix CytoGro with root feeding solutions at the rate of 1 fl. oz. per three gallons of nutrient solution.

#### STORAGE AND PESTICIDE DISPOSAL

**STORAGE:** Store in a cool place and out of direct sunlight. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER: The manufacturer warrants only that the chemical composition of this product conforms to the ingredient statement given on the label, and that the product is reasonably suited for the labeled use when applied to the Directions for Use, Recommendations for use of the product are based on tests believed to be reliable. THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES. INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FTNESS FOR A PARICULAR PURPOSE, WHICH ARE EXPRESSLY DISCLAIMED. This limited warranty does not extend to the use of this product inconsistent with label instructions, warnings or cautions, or to the use of the product under abnormal conditions such as drought, excessive rainfall, tornadoes, hurricanes, etc. These factors are beyond the control of the manufacturer or the seller. Any damages arising from a breach of the manufacturer's warranty shall be limited to direct damages, and shall not include indirect or consequential damages such as loss of profits or values, except as otherwise provided by law. To the fullest extent permitted by law, the BUYER must assume all responsibility if not used in accordance with directions or established safe practices, including injury or damage resulting from its misuse as such or in combination with other materials.

The terms of this Limited Warranty and Disclaimer cannot be varied by any written or verbal statements or agreements. No employee or agent of the seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.