

# cyto gro<sup>®</sup>

SEAWEED-DERIVED  
HORMONE BIOSTIMULANT

**MORE ROOTS  
LESS MONEY**

Bermuda grass sod field regrowth after harvest



### What is CytoGro?

CytoGro is an EPA (USA) registered liquid hormone biostimulant derived from seaweed extracts. The primary ingredients are cytokinins and auxins combined with natural extracts of amino acids, vitamins, proteins, carboxylic acids, carbohydrates, natural plant hormones, sea minerals, and nutrients derived from sea vegetables. This proprietary combination promotes deep, dense root development which strengthens plants and increases tolerance to stress caused by disease damage, insect infestation, lack of moisture, poor water quality, and other environmental factors.

### What is a Hormone Biostimulant?

Cytokinins are plant hormones. They occur naturally, produced by the roots of all plants and play a major role in the development of root and tiller buds.

Under ideal growing conditions, plants produce enough natural cytokinins. However, during temperature or moisture extremes, herbicide damage, or insect or disease stress, the plant's natural production of cytokinins is diminished. This is where CytoGro comes to the rescue!

### How does CytoGro Work?

Under stress, plants produce less cytokinin. CytoGro supplements the level of cytokinins in stressed plants which increases strength and resilience. In tests, treated turf roots grew 25 – 50% more than their untreated counterpart. CytoGro retards plant aging and improves photosynthesis. All this simply means is that plants treated with CytoGro are stronger and healthier.

### What Does CytoGro Do for Plants?

CytoGro enhances plant growth by developing a deeper, denser root system. Importantly, CytoGro helps plants withstand stress from harsh environments, temperature extremes, drought, insect damage, high salinity, and traffic. In high traffic areas, such as athletic fields and parks, CytoGro produces a rapid repair and recovery of damaged turf. CytoGro also conditions plants to tolerate salinity from poor quality irrigation water or fertilizer salt buildup. It enhances calcium uptake which negates the adverse effect of increased sodium. It brings about a deeper, denser root system and a denser canopy in spite of salts in the soil.





### Consistency Is Of Supreme Importance.

Research has shown that seaweeds vary dramatically in quality by source of harvest and type. The Bay of Fundy in eastern Canada is the source of most of CytoGro's extracts as it has been found to produce seaweed of optimal consistency. We also take great effort to test every batch of seaweed extract used in CytoGro. The USDA Mung Bean Bioassay/Relative Rooting Index Test is the accepted method for measuring hormone content and for detecting rooting activity. Every batch of CytoGro is tested using this method to assure product efficacy and consistency.



### EPA Registered # 90022-1

CytoGro is an EPA (USA) registered hormone biostimulant. EPA registration assures that every jug of CytoGro contains the same amount of active ingredient. Every batch of CytoGro contains a guaranteed 50 ppm cytokinin, ensuring consistent application results.

### Compatible with Growth Regulators

CytoGro is formulated to contain extremely low levels of gibberellic acid. At warmer temperatures, gibberellic acid consumes the turf's valuable carbohydrates promoting unwanted top growth at the expense of needed root development. Gibberellic acid also promotes the excess production of seed heads in turf. This can be particularly unsightly in turf areas containing a high percentage of Bermuda grass or annual blue grass.

The extremely low levels of gibberellic acid in CytoGro ensures that the turf's energy is directed where it is needed most—maintaining and building root mass and disease tolerant leaf tissue. By doing so, CytoGro fights root shrinkage on greens and tees, increases insect and disease resistance, and also makes an excellent complimentary addition to plant growth regulator programs. CytoGro will not counteract PGRs and is compatible with modern gibberellic acid blocking growth regulators.



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### Where Should I Use CytoGro?

#### Turf:

Golf greens, fairways, football and soccer fields, baseball infields, sod production, newly laid sod, lawns, playgrounds, parks, recreational areas, landscaped roadways and cemeteries—anywhere you need dense, strong turfgrass, particularly in areas where turf tends to undergo periodic stress. CytoGro can be used on grasses such as Bentgrass, Bermudagrass, Centipede, Fescue, Kentucky Bluegrass, Perennial Ryegrass, St. Augustine and Zoysia.

#### Initial application rate:

0.8 fl. oz. per 1,000 sq. ft. (2 pints per acre)

#### Monthly application rate:

0.4 fl. oz. per 1,000 sq. ft. (1 pint per acre)

For maximum root growth and green-up from CytoGro, tank mix with iron sulfate or chelated iron.

#### Spring Application:

Stimulates growth and overcomes cool weather stress. It also promotes tiller, rhizome or stolon growth to give turf a rapid start with rapid fill-in of damaged areas. For newly sprigged and sodded areas, CytoGro speeds up establishment.

#### Summer Application:

Maintenance applications improve the plant's quality, resilience and resistance to stress.

#### Fall Application:

Promotes vigor and better endurance of winter stress.

#### Nurseries & Greenhouses:

For propagation of cuttings; for transplanting of rooted cuttings, balled and burlapped nursery stock, bedding plants; to overcome stress in container nursery production; to promote rapid uptake of nutrients in correcting deficiencies; to increase bud development on flowering plants. 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.

#### Landscape Management:

For transplanting of trees, shrubs, and bedding plants; to speed up the correction of nutritional deficiencies such as iron chlorosis in pin oaks; to enhance nutrient uptake in root feeding of trees and shrubs; to improve flowering and stress tolerance of bedding plants in beds. Spray bedding plants at 2 to 4 week intervals with a solution of 1 fl. oz. CytoGro per three gallons water.

#### Benefits of using CytoGro

- Deeper, denser root system on all treated plants
- Denser canopy on turf; more breaks on trees, shrubs and flowering plants
- Increased survivability of transplants, seedlings, and sod
- Improved tolerance of stress from disease, insects, salinity, drought and other environmental conditions
- Rapid uptake of nutrients and correction of nutrient deficiencies – Increases Fertilizer Efficiency
- Retards turf senescence
- Easy to use – use as a foliar spray, in a watering program, or as a soil drench; can be tank mixed
- Increased bud development in flowering plants
- Effective on all plants
- Easy on the budget