

Summer Nutrition - Warm Season Turf

Proper nutrition for warm season turf is critical to managing high quality warm season greens. A balanced yet aggressive approach is needed to promote growth and assure availability of nutrients. BioPro products are excellent for summer fertilization because of their balanced nutrient blends, their high-grade organics that help provide a sustained release of nutrients and energy for soil microbial activity, their micronutrients, and their natural humates, which increase nutrient uptake.

Nutrient Monitoring Program

The following program should be used as a guide. Monitoring nutrient levels in leaf tissue and soils is critical for designing the most efficient nutrient program. BioPro recommends the use of a diagnostic service that provides soil, water, and NIRS (Near Infrared Reflectance Spectroscopy) tissue analysis. With diagnostic results, BioPro nutrient programs may be modified to correct imbalances and prevent future problems.

Application Recommendations

June 15

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|---|---------|
| 1) Multi-Purpose (6-0-0) | 3 oz. |
| 2) Tuff Greens (0-0-13) | 2 oz. |
| 3) Greens Plus (14-4-10)**
(0.15 lb. N/1000sf) | 12 oz. |
| 4) Nutrisolve | 3 oz. |
| 5) CytoGro | 0.4 oz. |
| 6) H3O | 2 oz. |

July 1

- | | |
|----------------------------|-------|
| 1) Multi-Purpose (6-0-0) | 3 oz. |
| 2) Enviro K (0-0-30) | 3 oz. |
| 3) Calcium Plus (8-0-0-10) | 6 oz. |
| 4) Iron Plus (15-0-0-6) | 3 oz. |

July 15

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|---|---------|
| 1) Multi-Purpose (6-0-0) | 3 oz. |
| 2) Tuff Greens (0-0-13) | 2 oz. |
| 3) Greens Plus (14-4-10)**
(0.15 lb. N/1000sf) | 12 oz. |
| 4) Magnesium Plus (7-0-0-6) | 3 oz. |
| 5) CytoGro | 0.4 oz. |
| 6) H3O | 2 oz. |

August 1

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|--------------------------|-------|
| 1) Multi-Purpose (6-0-0) | 3 oz. |
| 2) Enviro K (0-0-30) | 3 oz. |
| 3) Spectrum | 3 oz. |
| 4) Iron Plus (15-0-0-6) | 3 oz. |

August 15

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|---|---------|
| 1) Multi-Purpose (6-0-0) | 3 oz. |
| 2) Tuff Greens (0-0-13) | 2 oz. |
| 3) Greens Plus (14-4-10)**
(0.15 lb. N/1000sf) | 12 oz. |
| 3) Calcium Plus (8-0-0-10) | 6 oz. |
| 4) CytoGro | 0.4 oz. |
| 5) H3O | 2 oz. |

September 1

Begin either “BioPro Fall Fertilization for Warm Season Turf”, or “Standard BioPro Overseeding Program”.

** Substitute 9-14 oz. Greens Plus (12-0-12) when phosphorus is not desired.

Mixing: Fill spray tank with ½ the necessary water; add *Multi-Purpose* or *Bio CN* first, then additional products one at a time; if *Calcium Plus* is in the mix add it last; add remaining water last.

Note: Syringe lightly after application of liquid products

BioPro Products

Calcium Plus (8-0-0-10) is a chloride free, readily available calcium source. Calcium is critical for vigorous new growth and for establishing stress tolerance for the next season.

CytoGro (Liquid Root Biostimulant) is an EPA registered hormone biostimulant that improves turf tolerance to stress resulting from disease, insect damage, drought, and soil temperature extremes by augmenting cytokinins and auxins, the turf's natural growth hormones.

Enviro K (0-0-30) provides potassium from potassium carbonate, a high quality, less caustic, chlorine-free source that is retained in the root zone longer for more uniform and consistent uptake by plants. It also contains organic acids from leonardite, which enhances turf performance and improves soil quality. Potassium's role in stress tolerance and recovery is well known.

Greens Plus 14-4-10 & 12-0-12 (Liquid NPK Nutrient Blend) are balanced nutrient blend with nitrogen, phosphorous, and potassium in the same ratio as they are generally found in plant tissue. Nitrogen is supplied as a polymethylene urea blend to provide uniform turf growth and color. This product contains 8.85% controlled release nitrogen, and organic acids from leonardite, which may enhance nutrient uptake.

H3O (Liquid Soil Moisture Management Product) employs a revolutionary new chemistry formulated to manage root zone moisture, making efficient use of water and protecting the turf from the harmful effects of drought stress, thus reducing disease pressure and root shrinkage. It attracts and holds free water molecules from the air within the soil, and efficiently transfers them to the plant root.

Iron Plus (15-0-0-6) is a particularly effective Fe source. Humic acid is known to be an excellent organic chelator of Fe increasing its availability for plant uptake and mobility within plant tissue.

Magnesium Plus (8-0-0-6) is an excellent source of plant available magnesium with an organic base. Magnesium is involved in increasing stress tolerance in turf plants.

Multi-Purpose 6-0-0 (Liquid Organic Soil Conditioner) is a unique mixture of organic acids and biostimulants derived from a biological composting and extraction process. It is designed to increase nutrient availability to the plant, stimulate soil microbial activity, increase root mass, and improve overall turf quality.

Nutrisolve (Liquid Micronutrient Blend) is a complete blend of micronutrients chelated with a proprietary combination of citric, fulvic, and other organic acids. Chelates stabilize nutrients, and enhance their uptake and translocation within the plant. Micronutrient content: S 2.79%, Fe 2%, Mn 2%, Zn 0.75%, Cu 0.25%, B 0.08%

Spectrum (Liquid Micronutrient Blend) is a blend of citrate-chelated micronutrients. It is formulated for areas with excessive levels of Cu and Zn. Micronutrient content: Mg 1.5%, Fe 3%, Mn 1%, S 2%

Tuff Greens (0-0-13) is a superior potassium source with calcium, silica, and iron that increases leaf stiffness for increased wear tolerance and greens speed.