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SOLU CAL + INTENSIFY - BLUEGRASS

May - July 2019
Cantiague Park, Hicksville, NY 11530

PURPOSE OF TRIAL

The purpose of this experiment was to quantify the effect Solu Cal + Intensify had on turf growth and soil biology. The parameters utilized to ascertain efficacy were clipping weight, tissue analysis and MPN counts in soil.

PROTOCOL & METHODOLOGY

TREATMENT	FERTILIZER RATE	SOLU - CAL APPLICATION
Solu Cal Plot 1	10 lbs per 1000 sq ft 5-15-19	6 lbs per 1000 sq ft 5-25-19
Solu Cal Plot 2	10 lbs per 1000 sq ft 5-15-19	6 lbs per 1000 sq ft 5-25-19
Control Plot 1	10 lbs per 1000 sq ft 5-15-19	None
Control Plot 2	10 lbs per 1000 sq ft 5-15-19	None

* Test Plots were treated with Solu Cal + Intensify and fertilized with 8-2-4
* Control Plots were fertilized with 8 – 2 – 4, they did not receive any Solu Cal + Intensify (fertilizer only)
* Plots were watered on an as needed basis throughout the trial
* A randomized 15” x 21” inch swath was removed from each 1000 sq ft plot in fairway, analyzed and data was recorded as follows

BLUEGRASS CLIPPING WEIGHT (grams)

TREATMENT	Fresh Weight 5-15-19	Fresh Weight 5-30-19	Fresh Weight 6-15-19	Fresh Weight 6-30-19	Fresh Weight 7-15-19	Cumulative Weight All Dates
Solu Cal Plot 1	8.21	11.67	13.56	13.45	12.93	11.964
Solu Cal Plot 2	8.86	11.93	12.98	13.14	12.81	11.944
Control Plot 1	8.28	11.32	11.67	11.76	11.34	10.874
Control Plot 2	8.37	11.34	11.57	11.98	11.23	10.898

* Fresh clipping weight indicates that plots treated with Solu Cal + Intensify stimulated more growth than the control plots.

BLUEGRASS TISSUE ANALYSIS (ppm)

TREATMENT	Nitrate – Nitrogen (ppm) Baseline Taken 5-15-19	Nitrate – Nitrogen (ppm) Taken 7-17-19
Solu Cal Plot 1	376	534
Solu Cal Plot 2	410	561
Control Plot 1	404	479
Control Plot 2	397	485

Tissue analysis indicates that Solu Cal + Intensify increased nitrate nitrogen levels in turf-grass blade as compared to Control Plot

MPN COUNTS (Microbial Counts)

TREATMENT	CFU / gram of soil Baseline Taken 5-15-19	CFU / gram of soil 7-17-19
Solu Cal Plot 1	2.34×10^5	7.74×10^6
Solu Cal Plot 2	3.89×10^5	6.76×10^6
Control Plot 1	3.28×10^5	8.19×10^5
Control Plot 2	2.87×10^5	8.83×10^5

Microbial analysis of the soil indicates that Solu Cal + Intensify enhanced soil biology over 1 log (10 X). Control Plots (fertilizer only) had little effect on biological activity in soil profile less than 1 log

RESULTS AND DISCUSSION

The data generated in this trial supports the assertion that Solu Cal + Intensify enhances turf growth. All three parameters (clipping weight, tissue analysis & soil biology) were enhanced by the addition of Solu Cal + Intensify. The growth differential can be directly attributed to enhanced nutrient availability, utilization and efficiency. Enhanced nutrient efficiency can be attributed to a reduction in nitrate leaching and nutrient solubilization which in turn was facilitated by the Intensify Microbial Biocatalyst