



Soil Foodweb Incorporated

Center Moriches, NY



APEX-10 Increasing Soil Biomass & Nutrient Availability

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The Soil Foodweb NY. through a biological assay, examined the effect that **APEX-10** had on soil microorganism reproduction and activity.

TRIAL STANDARDS

Prior to the study a base soil was mixed to determine total and active bacteria, fungi, protozoa and nematodes, and measure the available nitrogen created by the biomass. Three test sites, each site treated as follow over 90-days on Day 1, Day 30, Day 60.

Site #1 Control Water

Site #2 APEX-10 at 3 oz. per 1000 sq. ft.

Site #3 APEX-10 at 6 oz. per 1000 sq. ft.



Samples were collected and assayed for total and active microbial populations on Day-7, Day-45, and Day-90.

Day-7: Increases in fungal activity in both low and high rate sites, more significant high rate. Total bacterial biomass and again more significant at the high rate.

Day-30: Bacterial & fungal activity increased a low rate sites while both had slowed at the high rate, fungal biomass having increased at the high rate.

Day-90: fungal increased at low rate. Fungal increased at the high rate as well as the low rate. Total bacterial had significant higher percentages with both low and high rates.

SUMMARY

APEX-10 provided resources for bacteria and fungi growth, as well as bacteria and fungi activity from the start. This indicates that **APEX-10** is a quick colonizing resource for fungi and bacteria growth.

Increases in predatory microbes, protozoa and nematodes was significant at the end of the project, due to increases in bacterial and fungal biomass as a result of good microbial growing conditions attributed to **APEX-10**.

Results

A composite of all three plots at each rate. Both were sent to Rutgers University for chemical analysis of nutrients.

The analysis recorded lower extractable nutrients in the **APEX-10** composites. This coincides with the increase in soil biology, and microbes retaining higher levels of nutrients in the presence of **APEX-10**.

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Microbe Population Increase

Category	3oz. Per 1,000	6oz. Per 1,000
Active Bacteria	39%	26%
Total Bacteria	46%	67%
Active Fungi	32%	32%
Total Fungi	55%	78%
Flagellates	395%	504%
Amoeba	2,480%	3,091%
Ciliates	350%	650%
Beneficial Nematodes	2%	15%
Root Feeding Nematodes	0%	0%
Available Nitrogen	400%	667%

