APEX-10

Advancing Soil Health With Carbon-Rich Innovation

- **APEX-10** is supported by extensive university research and real-world field validation, with exceptionally high soluble carbon content measured at 89.4% that is unmatched in the industry.
- This high concentration of bioavailable carbon from **APEX-10** fuels microbial populations, activity, and fosterers cell growth of beneficial bacteria, fungi, and other essential soil microbes.
- Though microbial life accounts for less than 1% of total soil volume, it's responsible for 60% to 80% of all soil metabolic activity. This makes **APEX-10** an essential and proven input for sustaining vigorous, biologically active soils.
- Conventional turf management practices prioritize plant growth over soil biology, leading to long-term degradation of microbial vitality. **APEX-10** helps restore balance by reinvigorating the soil ecosystem and building a foundation for long-term resilience.
- Carbon comprises 40% to 50% of microbial cell weight, is the most critical nutrient for microbial survival and function. **APEX-10** provides a highly bioavailable source of carbon that enhances microbial metabolism, improves soil structure, and has demonstrated to support turf productivity.
- Environmental variables pH, moisture, temperature, and nutrient availability directly influence both plant health and microbial populations. **APEX-10** works in synergy with these factors, acting as a powerful soil conditioner that enhances microbial performance and promotes optimal growing conditions.

Microbes And How They Serve The Soil & Plant

Soil microbes are part of a dynamic complex ecosystem. Research with **APEX-10** has demonstrated its significant influence on microbial communities that thrive around plant roots and play a critical role in improving soil quality and plant health.

APEX-10 supports these beneficial microbes and proven to enhance their ability to mineralize carbon and organic matter, making essential nutrients readily available to plants. This strengthens plant vitality, improves soil structure, increases moisture retention, and reduces the risk of erosion and runoff. The result is a healthier, more resilient soil system capable of supporting long-term productivity.

Soil Organic Matter and Microbial Mineralization

Soil organic matter (SOM) is fundamental to healthy plant growth and plays a critical dual role in supporting microbial life. It serves as both an energy source for microbial activity and a carbon source for the formation of new cells.

Microbes require a continuous supply of active SOM to thrive and **APEX-10** delivers that essential carbon. Soils treated with **APEX-10** are proven to be biologically more active, contain higher levels of available carbon that fuel microbial reproduction, accelerate nutrient cycling, and enhance overall soil fertility. As a result, plants benefit from improved access to nutrients and healthier growing conditions.

Conclusion

- **APEX-10** has been extensively validated through university research and real world application for its ability to stimulate microbial activity, not only in soil but also in complex environments. It facilitates electron transfer, chelates metals, and enhances both microbial and plant nutrient assimilation.
- Research confirms that **APEX-10** improves plant metabolic function, increases nutrient uptake, and boosts chlorophyll production. These benefits lead to higher photosynthetic activity, enhanced carbohydrate synthesis, accelerated cell growth, and ultimately healthier, more productive turf that is, stronger, more stress tolerant, with a higher level of quality.
- **APEX-10** enhances microbial diversity and abundance, and supports soil the environment where beneficial organisms thrive. This microbial richness enables beneficial microbes to outcompete pathogens, reducing disease pressure and promoting natural soil resilience.

APEX-10 stimulates bacteria and fungi, essential for organic matter decomposition, nutrient cycling, and soil structure development, all of which are critical for sustainable turf. The diverse microbial interactions fostered by **APEX-10** contributes to a more robust and functional soil ecosystem.

Studies from both academic and private institutions have shown that **APEX-10** can increase microbial populations and activity by up to fivefold. These results underscore the powerful role of **APEX-10** in building healthier soil and turf.

Green Nature

Green Nature
(856) 912-3111
info@greenature.life

www.greennature.life