

Burton Farms

Frank Burton - Coolidge, GA



Trial Details

Grower Standard Fertilizer: 10-5-5 liquid injected via drip irrigation

Field Size: 4.5 acres

Treatment Plots: 4 replications on 225 ft beds

Planting Date: Bare root strawberries transplanted on Oct 15, 2024

Treatments

- EnSoil Algae™ (7.1 oz/Acre) + 100% Fertilizer
- EnSoil Algae™ (7.1 oz/Acre) + 50% Fertilizer
- Full Grower Standard Fertilizer Program

Key Results

Increased Yield: Plants treated with EnSoil Algae™ saw up to a 80% increase in yield compared to the standard program.

Longer Shelf Life: Berries had less mold after 10 days, meaning less waste and a fresher product with a longer shelf life.

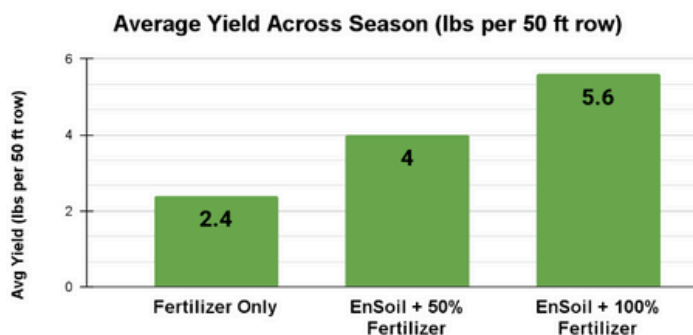
Better Nutrition: The fruit was richer in key nutrients like sugar, iron, and zinc.



Yield Results

1. Increased Yield in Both EnSoil Treatments

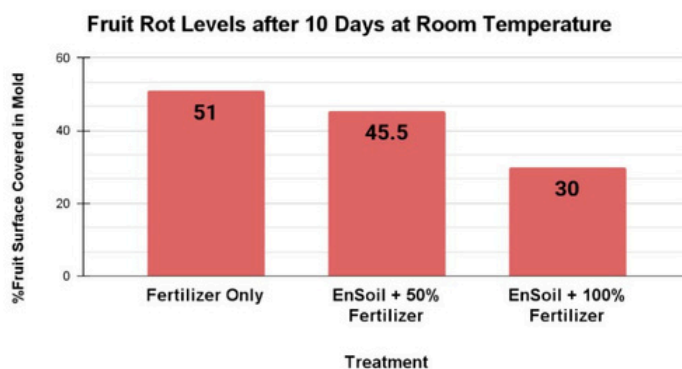
Treatment	Avg Yield (lbs per 50 ft row)
Fertilizer Only	2.4
EnSoil + 50% Fertilizer	4.0
EnSoil + 100% Fertilizer	5.6



Shelf Life Results

2. Improved Shelf Life in EnSoil Treatments

Treatment	% Fruit Surface Covered in Mold After 10 Days at Room Temp.
Fertilizer Only	51
EnSoil + 50% Fertilizer	45.5
EnSoil + 100% Fertilizer	30



Photograph from 10 Day
Shelf Life Evaluation #1

Botrytis Gray Mold is more evident in Fertilizer Only treatment which showed significant mold growth compared to minimal mold growth in both EnSoil Algae™ treatments.

Nutritional Quality Results

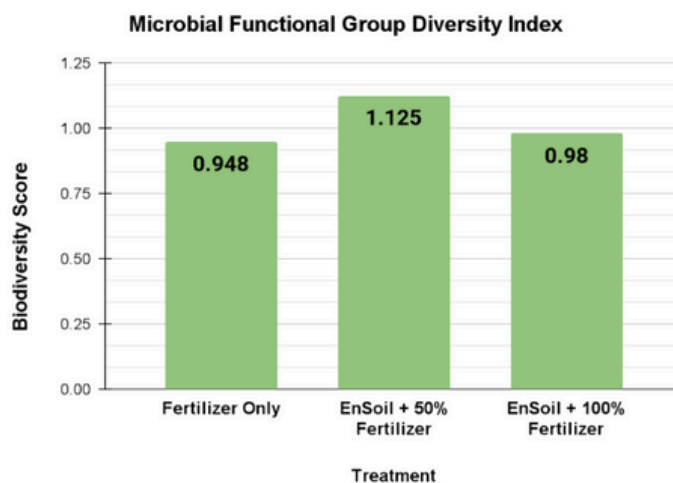
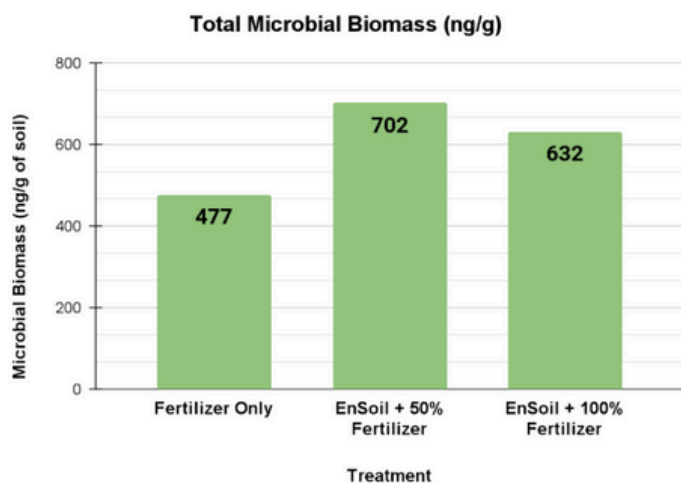
3. Enhanced nutritional quality with higher sugar, iodine, zinc, and iron content of fruit in EnSoil Treatments

Treatment	Total Sugars (%)	Iodine Content (ppm)	Zinc Content (ppm)	Iron Content (ppm)
Fertilizer Only	65.46	253.99	18.82	9.68
EnSoil + 50% Fertilizer	76.86	337.81	19.67	10.81
EnSoil + 100% Fertilizer	70.77	374.95	21.67	10.54

Microbial Biomass Results

4. Higher soil microbial biomass in EnSoil Treatments according to PLFA Tests

Treatment	Total Microbial Biomass (ng/g)	Microbial Functional Group Diversity
Fertilizer Only	477	0.948
EnSoil + 50% Fertilizer	702	1.125
EnSoil + 100% Fertilizer	632	0.98



Conclusion

The results indicate that applying EnSoil Algae™ improves the diversity and abundance of soil microbes. This enhancement of microbial populations increases nutrient availability, which led to a significant increase in strawberry yield, improved shelf life, and better nutritional quality, even when the standard fertilizer program was reduced by 50%.

Discussion

The results clearly show that the EnSoil Algae™ application improved the biological function of the soil to support optimum strawberry growth. By enhancing the soil's microbiology, the product improved nutrient availability enough to allow for a 50% reduction in fertilizer without negatively impacting crop performance. Instead, crop performance improved with EnSoil Algae™ application alongside a 50% fertilizer reduction.

This is a powerful finding because strawberries, like sweet corn, are heavy nutrient feeders. While a decline in available nutrients is expected with less fertilizer, the EnSoil Algae™ treatment mitigated this effect. It is a testament to the strong correlation between healthy soil microbes and nutrient uptake. The fact that the fruit also exhibited a longer shelf life and higher nutritional content further underscores the holistic benefits of a microbe-rich soil environment. Ultimately, this gives growers an opportunity to reduce their costs, lessen their environmental impact, and deliver a premium product to the market.

