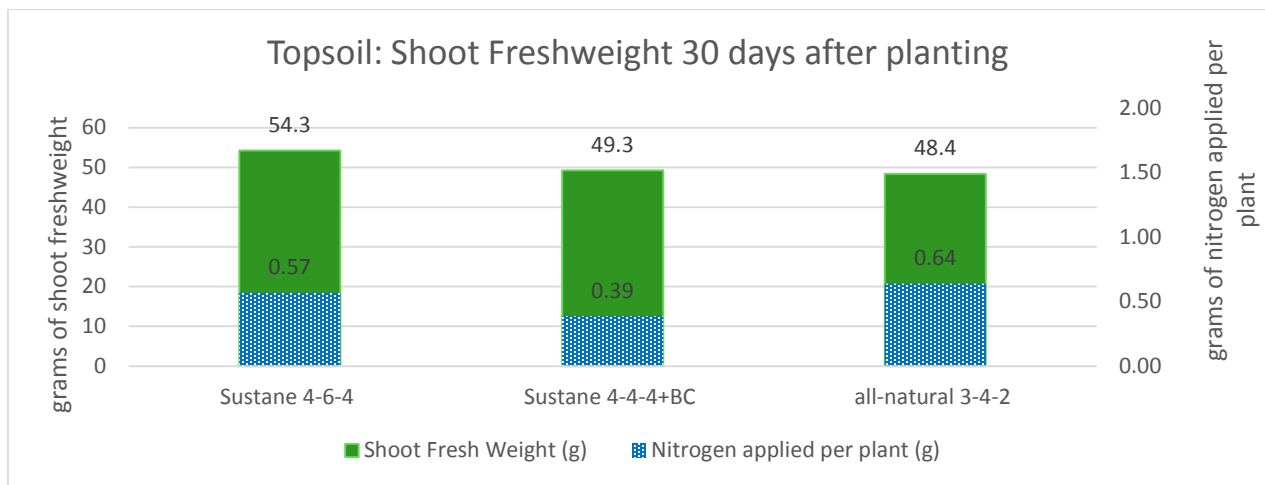


Sustâne 4-4-4+10% Biochar

Improved Nitrogen Uptake Efficiency: Use less fertilizer...grow same size plant.

Introduction: The trial evaluated the effects of three fertilizers on the growth of “Better Boy” tomatoes. Plants were transplanted as plugs into topsoil. At planting 3 fertilizer comparisons were applied to the soil surface and gently “worked into” the top two inches of soil, just prior to planting. Plants were grown for approximately 30 days, this paper shows data on shoot fresh weights obtained through a destructive harvest at the trial conclusion.

Results: There were no significant differences in shoot fresh weight between fertilizer treatments, at 30 days after planting. However the Sustâne 4-4-4+biochar received 32% and 39% less nitrogen than the Sustâne 4-6-4 and the Natures Care 3-4-2, respectively, with no consequence to plant performance. This result suggests greater whole-plant nitrogen uptake efficiency with the Sustâne 4-4-4+biochar, probably due to better retention of nitrogen in the root zone, where the biochar was able to hold nitrogen reducing the potential of leaching from the container. There was also a no fertilizer control, the shoot fresh weight for the control was 16.9 grams.



Shoot fresh weight values are the mean of six individual plant replications, no statistical differences detected, ANOVA, $\alpha=0.05$.



From left to right: Sustâne 4-6-4+10%biochar, Sustâne 4-6-4, a 3-4-2 all-natural fertilizer. Photos taken 30 days after planting.