



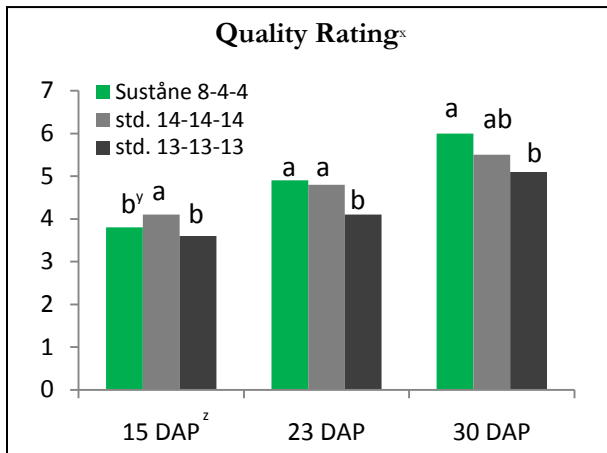
Research File: Sustane® 8-4-4
Fertility Trial, Begonia (*Begonia x*
***Semperflorens-Cultorum* 'Cocktail**
Whiskey')
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Due to increased environmental awareness and escalating costs of quality control release fertilizers greenhouse production is in need of alternative nutrient sources, preferably derived from sustainable resources. Therefore, Sustane® 8-4-4, an all natural fertilizer made from aerobically composted turkey litter was evaluated for use on 'Cocktail Whiskey' begonias. The trial compared Sustane 8-4-4 (45 day) to two industry-leading control release fertilizers, a 13-13-13 (T70) and a 14-14-14 (3-4 mo.). Each fertilizer was incorporated at a rate of 0.85 pounds of nitrogen per cubic yard. The potting medium was a 50:40:10 mix (by volume) of pine bark, peat and perlite.

Picture taken at 28 days after planting.



Sustane **Standard** **Standard**
8-4-4 **14-14-14** **13-13-13**



^x plants rated on a scale of 1-9, 9=best

^y means within a measurement date followed by different letters indicates significant differences, according to Duncan ($\alpha=0.05$)

^zDAP corresponds to days after planting

At 30 days after planting quality rating was best for plants grown with Sustane 8-4-4 and the standard 14-14-14. At 23 days after planting, growth index, calculated as the sum of plant-width₁, -width₂ and -height divided by 3, was greatest for plants grown with Sustane 8-4-4 and the standard 14-14-14 at 8.2 and 8.3, respectively. Growth index of plants grown with the standard 13-13-13 was 7.3 at 23 days after planting. Average flower number was measured at 23 days after planting, there were no differences in flower number for the three fertilizers tested.

Conclusions: For all parameters measured 'Cocktail Whiskey' begonia bedding plant material grown with Sustane 8-4-4 performed equal or better to plants grown with either of the two control release fertilizers with an N-P-K ratio of 1-1-1. The trial results show Sustane 8-4-4 can provide greenhouse growers with the same performance as current industry-leading synthetic control release fertilizers.