



**Research File: Sustane® 8-4-4
Fertility Trial, Marigold (*Tagetes
erecta* 'Inca II Orange')**

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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 'Inca II Orange' marigold. 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.



The trial was performed in Rydal, GA during the summer of 2008, picture taken at trial termination 43 days after planting.

Picture taken at 27 days after planting.



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

At 42 days after planting shoot fresh weight of marigolds grown with Sustane 8-4-4 was 22.3 grams compared to 23.8 and 28.4 grams for plants grown with the standard 13-13-13 and 14-14-14 control release fertilizers, respectively. Quality ratings of plants grown with Sustane 8-4-4 taken at 8, 15, 22, 29, 36 and 42 days after planting were equal to the quality ratings of plants grown with the standard 13-13-13 and 14-14-14 control release fertilizers.

Conclusions: For all parameters measured 'Inca II Orange' marigold bedding plant material performed best when grown with Sustane 8-4-4 compared to 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.