

Reduced Liquid Feed and Incorporation of Sustane 8-4-4 Results in No Consequence to Plant Response

Summer 2012-Cornell University and Kansas State University

This study evaluated the use of Sustane all-natural 8-4-4 used as an amendment in soilless mix to reduce liquid fertilizer applications in the production of poinsettia. The experiment was conducted at both Cornell University (Neil Mattson, PhD) and Kansas State University (Kim Williams, PhD).

Treatments:

1. Sustane 8-4-4 incorporated in the rooting substrate at 8 pounds per cubic yard and once weekly liquid feed at 200 ppm nitrogen supplied by a 20-10-20 water soluble fertilizer, applied at a 20% leaching fraction.
2. Constant liquid feed 200 ppm nitrogen supplied by a 20-10-20 water soluble fertilizer, applied at a 20% leaching fraction.

Results and Conclusions:

Once weekly fertigation of 200 ppm nitrogen used in conjunction with Sustane all-natural 8-4-4 fertilizer as a substrate amendment produced plants of equal quality and size compared to a fertility program of constant liquid feed (200 ppm N). This result shows a one-time incorporation of Sustane 8-4-4 can reduce water soluble applications by up to 86%, saving significant fertilizer costs and reducing negative environmental impacts.



L-R: Sustane 8-4-4 once weekly liquid feed and constant liquid feed. Photo, Cornell University, 90 days after planting.

