

## Pat<sup>2</sup>H Marigold and Geranium 2011 Study

**Objective:** To evaluate the effects of OceanSolution™ protocols on the growth of marigolds and geraniums compared with standard synthetic applications.

**Trial Location:** PAT<sup>2</sup>H Horticultural Research Services, Inc. Rydal, GA

**Trial Dates:** November 3, 2011-January 17, 2012

**Principal Investigator:** Warren D. Davenport

**Methods:** During this greenhouse trial, protocols using OceanSolution (OS) protocols were compared with an industry standard synthetic fertilizer (20-10-20) and an untreated control. “Maverick Red” geraniums and “Inca II Yellow” marigolds were grown in potting mix and received a series of applications of both foliar and drench applications over the course of 2.5 months.

### Results:

<b>Geraniums</b>	Avg. Total Weight (g)	Avg, Growth Index (cm)	Avg Root Quality (1-9)	Avg # of Flowers
OS Drench	46.2	20.2	6.0	1.0
OS Drench and Foliar	49.7	20.9	5.8	0.9
20-10-20	53.2	21.9	5.4	1.0
Untreated Control	1.1	4.1	1.6	0.0
<b>Marigolds</b>				
OS Drench	46.5	16.0	4.5	3.1
OS Drench and Foliar	49.6	16.0	4.1	3.5
20-10-20	48.0	16.4	4.4	3.6
Untreated Control	2.8	8.3	1.9	1.0

**Conclusions:** Data from these tests indicate that OS protocols have the ability to achieve the same level of commercial acceptability as industry standard protocols in plants that do not require large amounts of macronutrients. They were a identical or smaller by a statistically insignificant amount compared to 20-10-20 in virtually every category. This is interesting because OS contains virtually no P or N, is entirely natural, and is OMRI listed-approved for organic production.





Above: OceanGrown Geranium test. Below: OceanGrown Marigold test

