

Growth Performance and Nutrient Uptake of Chrysanthemums Grown in a Compost Amended Substrate in an Ebb-and-Flow System

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Chrysanthemum cultivar "Providence"

Substrates

2 Polymer dewatered biosolids compost (PDBC) :
2 Poultry litter compost (PLC) :
1 Peat (P) : 1 Perlite (P)

Sunshine Mix 1

Container size 6½"

Nutrient source

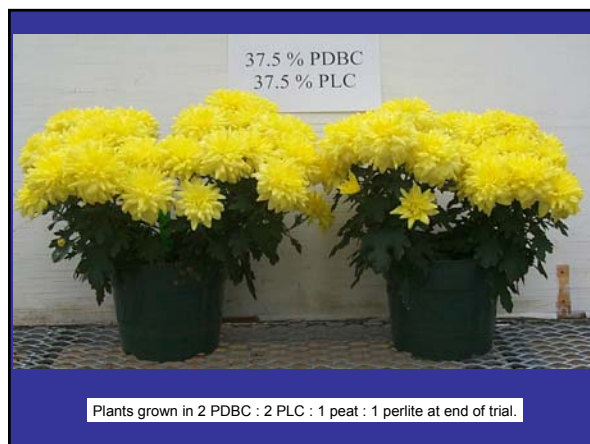
Modified Hoagland solution at ¾ strength
Approximately 157 mg/L N concentration

Prior to planting
Compost treatment
filled pots were leached with 1500 ml tap water

Transplanting
Both treatments were irrigated with 500 ml of tap water

Experimental treatments
Three replicates per treatment
Two pots per experimental tray
Tray was filled with 4500 liter of solution at each irrigation

initiated on March 11, 2005
terminated May 10, 2005

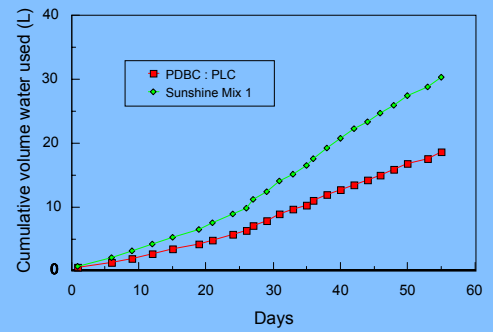


Plant growth data of chrysanthemums grown in an experimental compost substrate and a commercial substrate.

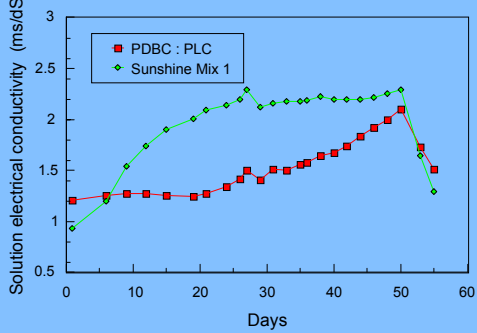
Growth measurements	PDBC : PLC ^z	Sunshine Mix 1
Height (cm)	16.4 b	19.8 a
Number of blooms	44.7 a	48.3 a
Plant diameter (cm)	30.4 b	37.3 a
Shoot dry weight (g)	11.5 b	18.5 a
Flower dry weight (g)	12.0 b	17.7 a

^zPDBC= polymer dewatered biosolids compost, PLC = poultry litter compost.
The experimental substrate ration was 2 : 2 : 1 : 1 of PDBC : PLC : peat : perlite (by vol.)

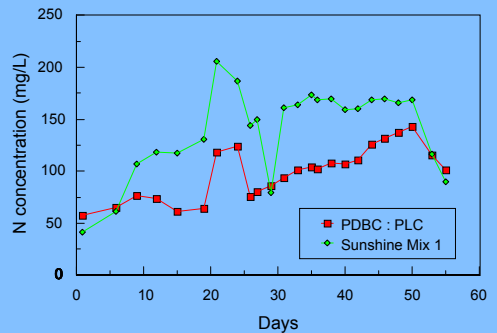
Chrysanthemum 2005



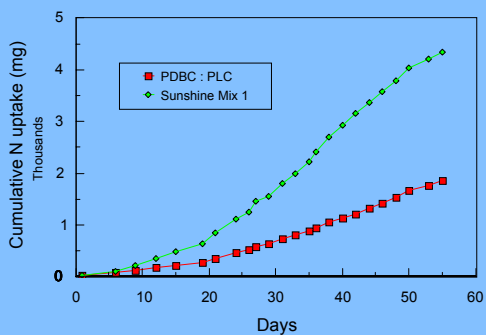
Chrysanthemum 2005



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