



Solutions for your Environment[™]

Poinsettia Rooted Finished Trial
Auburn University
Fall 2016

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Objective: Determine performance of rooted poinsettias in HydraFiber vs. peat-lite substrates.

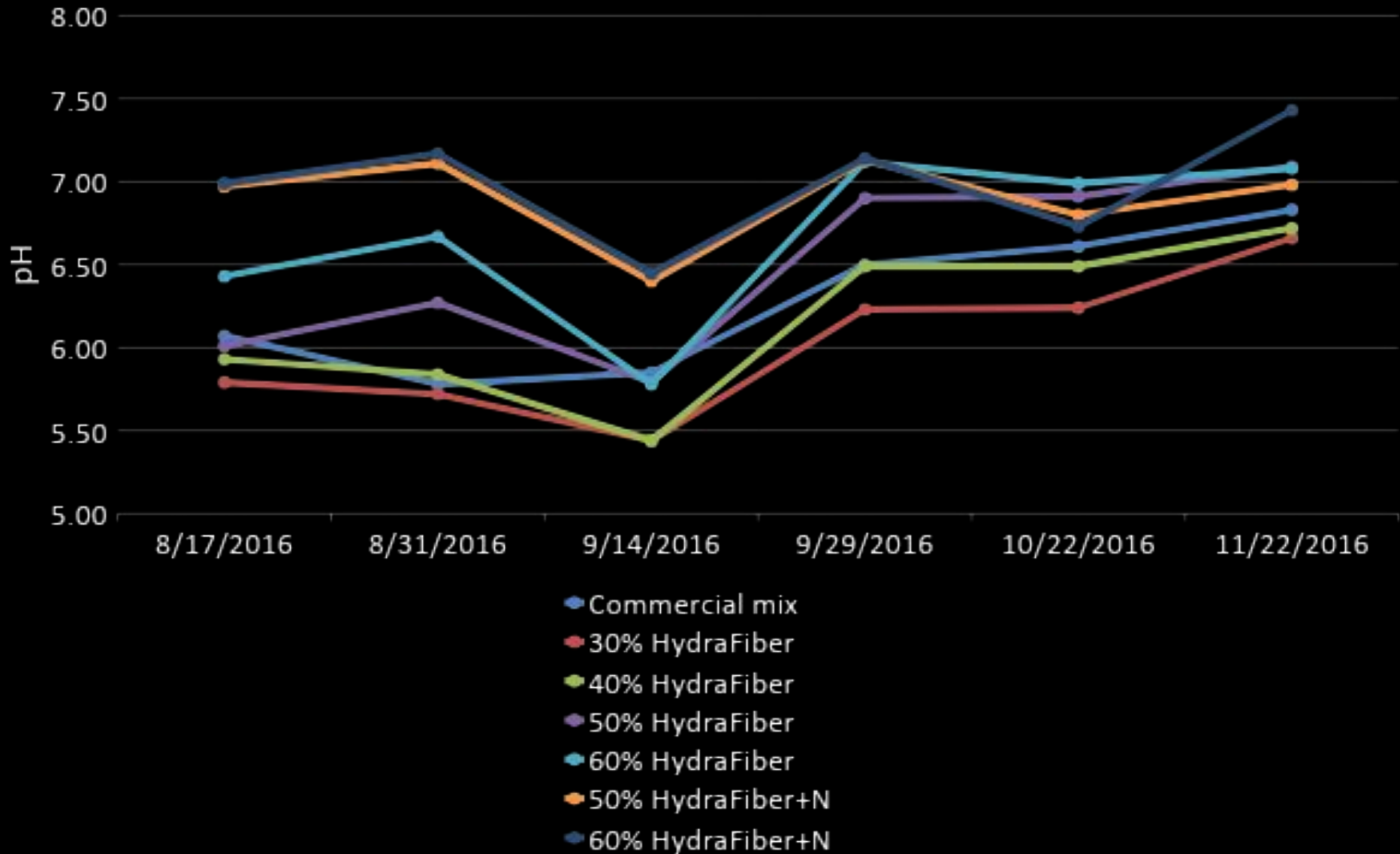
- Initiated 8/17; Terminated 11/22
- Commercial control; mixes ranging from 30% to 60% 160WB
- Poinsettia 'Christmas Day Red'
- 6" Standard pots
- Clear water until 8/24; N at 150ppm w/15-3-16 +3 Ca 2 Mg; lowered to 100ppm N on 10/1
- Pinched 9/7
- Chemical treatments:
 - Safari 1 tsp/gal / Capsil 2.5mL/gal (9/2)
 - B-nine at 1250 ppm; Cycocel 800 ppm spray (9/19)

Media Treatments

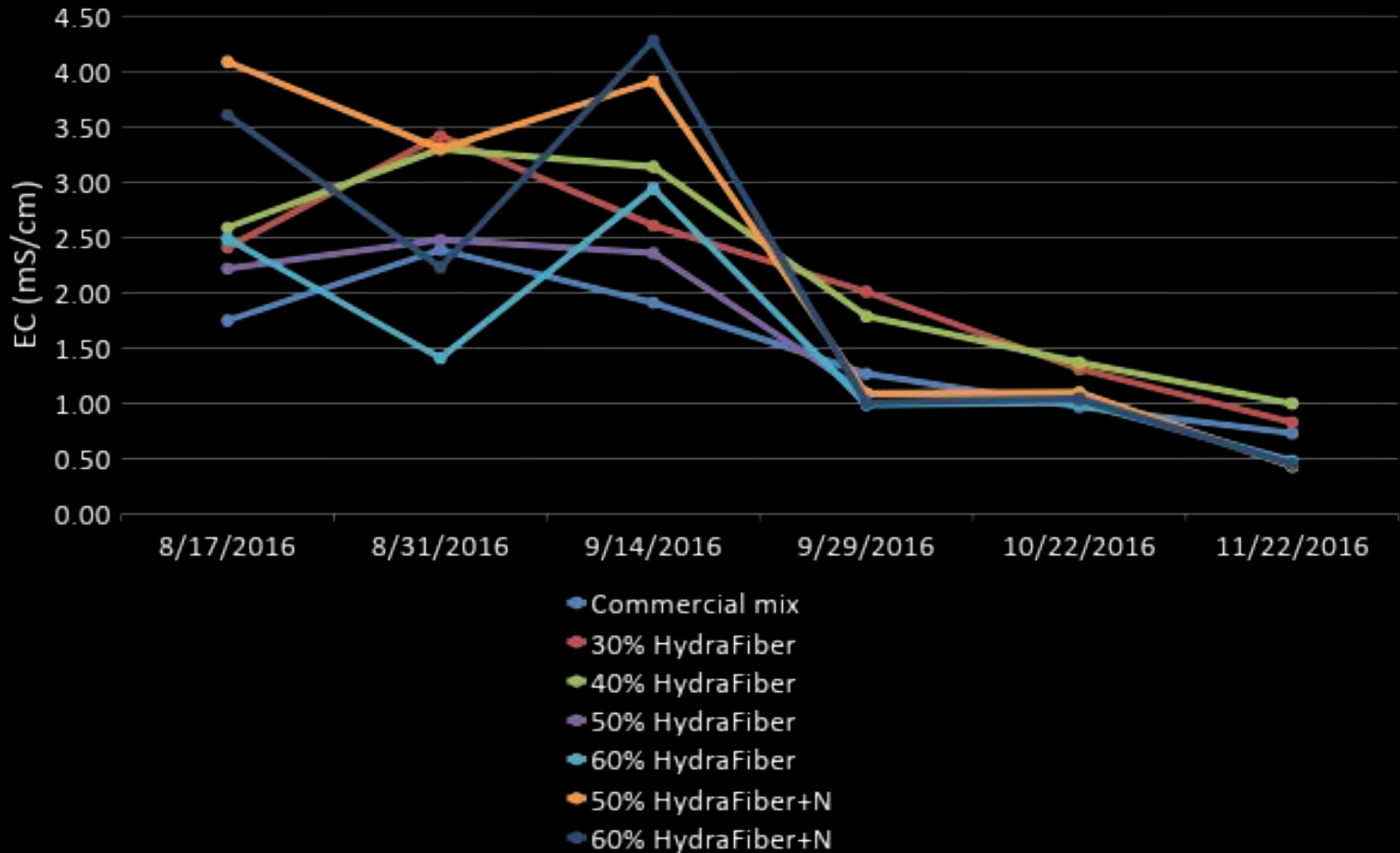
1. Commercial Control (Peat/Perlite)
2. 70% Peat: 30% HydraFiber 160WB
3. 60% Peat: 40% HydraFiber 160WB
4. 50% Peat: 50% HydraFiber 160WB
5. 40% Peat: 60% HydraFiber 160WB
6. 50% Peat: 50% HydraFiber 160WB + N*
7. 40% Peat: 60% HydraFiber 160WB + N*

*Supplemental slowly available N added

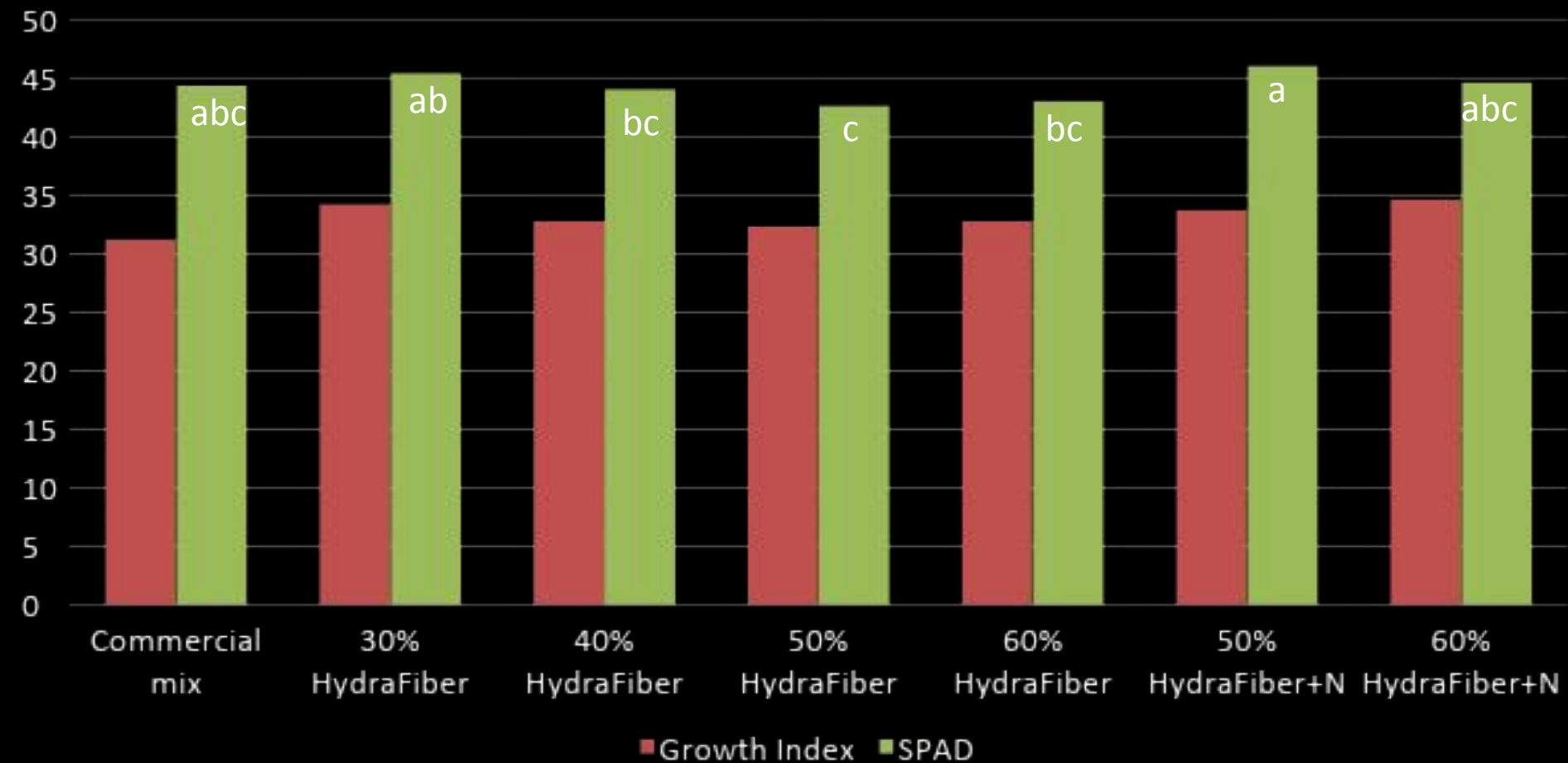
Substrate pH



Substrate EC



Growth Index and Chlorophyll SPAD Measurements 49 DAP

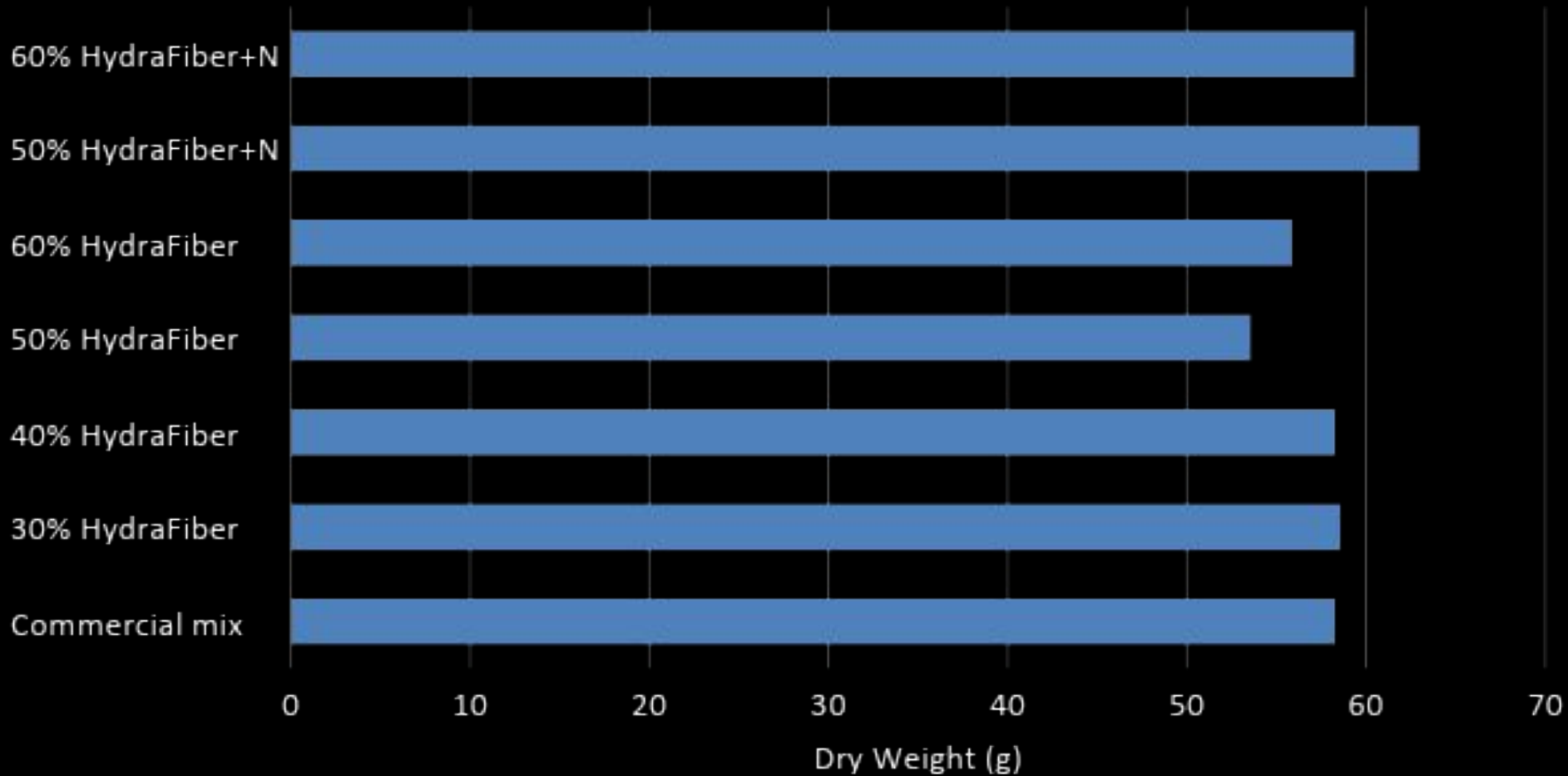


Least squares means comparisons among substrates using the Shaffer simulated method at $\alpha = 0.05$. (NS for Growth Index)

Least squares means comparisons to the commercial mix using the Dunnett's method at $\alpha = 0.05$ (*). (SPAD only)

Note: None of the HydraFiber mixes were different from the commercial mix based on Dunnett's test. (SPAD only)

Shoot Dry Weight 94 DAP



Least squares means comparisons among substrates using the Shaffer simulated method at $\alpha = 0.05$. (NS for Shoot Dry Weight)

Foliar Tissue Analysis 63 DAP

	(%)						(ppm)					
Substrate	N	P	Mg	K	Ca	S	B	Fe	Mn	Cu	Zn	Al
Commercial mix	3.44ns	0.280ab	0.349b	2.60c	0.715ab	0.199ns	16.95ab	53.2ns	28.1c	0.725b	19.7c	13.1ns
30% HydraFiber	3.62	0.262b	0.434ab	2.68bc	0.568b	0.205	14.63b	53.7	39.0bc	0.875ab	21.4bc	11.0
40% HydraFiber	3.16	0.290ab	0.447a	2.95abc	0.633ab	0.202	15.85ab	48.9	48.4ab	0.900ab	24.2abc	10.0
50% HydraFiber	3.89	0.276ab	0.508a	3.04ab	0.758a	0.220	17.93a	58.7	58.5a	1.100ab	26.8ab	12.1
60% HydraFiber	3.79	0.308a	0.478a	3.15a	0.750a	0.214	18.23a	57.6	66.0a	1.275a	27.1ab	15.4
50% HydraFiber+N	3.51	0.250b	0.447a	2.65bc	0.688ab	0.202	17.85a	52.0	56.7ab	0.850ab	24.7abc	9.7
60% HydraFiber+N	3.51	0.244b	0.453a	2.69bc	0.702ab	0.215	17.80a	55.7	55.4ab	1.100ab	29.5a	12.9

Least squares means comparisons among substrates using the Shaffer simulated method at $\alpha = 0.05$. ns=not significant.



Control

70 Peat: 30 160WB



Control

60 Peat: 40 160WB



Control

50 Peat: 50 160WB



Control

50 Peat: 50 160WB + N



Control

40 Peat: 60 160WB



Control

40 Peat: 60 160WB + N

Conclusions

- All tested treatments resulted in market-quality plants.
- Can successfully grow poinsettias up to 60% HydraFiber.
- Supplemental N did not provide commercially significant benefits at tested feed rate.
- No statistical differences in plant growth (Shoot dry weight).
- Despite some statistical differences in SPAD and foliar tissue measurements, differences did not manifest in visual quality differences.