## Lettuce Trial

We were asked to do a small lettuce trial using a rate of 8.3 grams of Supergrow mixed in 1 gallon of water vs CAN-17 at 154.6 ml per 5 gallons of water. The only evaluation for this trial were vigor assessments.

Trt #	Product	Application Timing	Rate
1	Supergrow 6-1.5-2.5	Every 7 days	8.3 grams per 1 gal of water
2	CAN-17	Every 7 days	154.6 ml CAN-17 per 5 gal water; this solution is then siphon fertigated using 75 gal water/5 gal of fertilizer solution

## **Results:**





## **Discussion:**

Statistical analysis demonstrated that treatment 1 (Spuergrow) was significantly higher than treatment 2 (CAN-17) in all vigor evaluations except for the Dec. 1<sup>st</sup> assessment. When observing the plants, we notice that treatment 1 had a slightly darker green color than treatment 2 which

meant that more chlorophyll was present also, we noticed that treatment 1 had slightly longer foliage than treatment 2 (Appendix A lettuce photos). In the future I recommend doing yield data to see if the Supergrow product performs better than CAN-17. Growers want to maximize the yield per acreage so, providing yield data will provide concrete data that this product has potential to compete with other products.

### Conclusion:

Based on the data from this trial Trt 3 (Supergrow at 8.3g) performed the best in the vigor evaluation and it also had a good performance in number of inflorescences. Tissue analysis showed that Trt 3 and 4 (CAN-17) had the highest nitrogen percentage but since this data was not statistically analyze we cannot tell if these differences are significant. For future recommendation yield data should be collected to provide an insight whether the Supergrow fertilizer outperforms CAN-17. Same conclusion can be concluded for the lettuce trial; more data needs to be collected to have a better understanding if Supergrow fertilizer is effective in the leafy greens and strawberry industry.

# Plant Sciences Gourmet Lettuce Trial OrganicsRx Supergrow vs. Can-17 2022



SUPERGROW 7-6-6 8.3 grams powder per gl.

CAN-17 17-0-0 154.6 ml.



Efficacy of Organics Rx Supergrow 6-1.5-2.5 as an alternative to CAN-17 in greenhouse-grown lettuce plants. Trial ID: Lettuce Protocol ID: Lettuce Organix RX vs. CAN-17 Investigator (Creator): Mike Nelson Project ID: Sponsor Contact: Kathleen Hiraga										
Crop Scientific Name Crop Name Crop Variety Rating Date SE Description	Lact garc Allstar	uca sativa en lettuce Gourmet> 12/1/2021	Lactur garde Allstar G 1	ca sativa n lettuce ourmet> 2/8/2021	Lactu garde Allstar ( 12	ica sativa en lettuce Gourmet> 2/16/2021	Lactud garde Allstar G 12/	ca sativa n lettuce ourmet> /22/2021	Lactuc gardei Allstar G	a sativa n lettuce ourmet> Average
Rating Type Rating Unit/Min/Max Number of Subsamples ARM Action Codes Number of Decimals	(	Vigor 0-10, 0, 10 5 2	0-	Vigoi 10, 0, 10 5 2	0.	Vigor -10, 0, 10 5 2	0-1	Vigor 10, 0, 10 5 2	0-1	Vigor 10, 0, 10 5 T1 2
Trt Treatment No. Name	1	A.Mean	2	A.Mean	3	A.Mean	4	A.Mean	5	A.Mean
1 Supergrow @ 8.3 gms per 1 gal	а	8.18	а	9.00	а	8.85	а	8.28	а	8.58
2 Can-17 @ 154.6 mls per 5 gal water. This Solution then siphon fertigated using 75 gals water per 5 gals of fertilizer solution.	а	7.63	b	7.93	b	8.25	b	7.88	b	7.92
LSD P=.05 Standard Deviation CV Levene's F <sup>^</sup> Levene's Prob(F) Skewness <sup>^</sup> Kurtosis <sup>^</sup>	0.58 0.26 3.3 0.00 1.00 0.1	3               	0.353 0.157 1.85 0.00 1.00 0.0 -0.2059		0.000 0.0		0.225 0.100 1.24 0.00 1.00 0.0 -0.7		0.157 0.070 0.85 0.00 1.00 0.0 -0.2511	
Replicate F Replicate Prob(F) Treatment F Treatment Prob(F)	0.634 0.641 8.854 0.0588	4 3 4 3	1.000 0.5000 94.017 0.0023		0.000 1.0000 0.000 1.0000		2.833 0.2076 32.000 0.0109		0.316 0.8156 176.872 0.0009	
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$										
Crop Scientific Name Crop Name Crop Variety Rating Date SE Description	Lac gar Allsta	tuca sativa den lettuce Gourmet> 12/1/2021	Lactuca garden Allstar Gor 12/	i sativa lettuce urmet> 8/2021	Lactuca sa garden let Allstar Gourr 12/16/2	ativa L tuce g net> Alls 2021	actuca sativa garden lettuce star Gourmet 12/22/202	a Lac e garo > Allstar 1	tuca sativa den lettuce Gourmet> Average	
Rating Type Rating Unit/Min/Max Number of Subsamples ARM Action Codes Number of Decimals		Vigor 0-10, 0, 10 5 2	0-10	Vigor ), 0, 10 5 2	\ 0-10, (	/igor ), 10 5	Vigo 0-10, 0, 10	r 5 2	Vigo 0-10, 0, 10 5 T1	
Trt Treatment						_	-	-	-	-
No. Name	Plot	1	2		3		4		5	_
1 Supergrow @ 8.3 gms per 1 gal	101 202 301 402 an =	8.00 8.10 8.50 8.10 8.18		9.00 9.00 9.00 9.00 9.00		8.80 8.80 8.90 8.90 8.85	8.40 8.20 8.30 8.20 8.20	) ) ) 3	8.55 8.53 8.68 8.55 8.55	5 3 3 5 3
2 Can-17 @ 154.6 mls per 5 gal water. This Solution then siphon fertigated using 75 gals water per 5 gals of fertilizer solution.	102 201 302 401	7.50 7.50 7.50 8.00		8.10 8.00 8.00 7.60		8.20 8.20 8.30 8.30	8.10 7.90 7.70 7.80	) ) )	7.98 7.90 7.88 7.93	3 ) 3 3
Mea	an =	7.63		7.93		8.25	7.88	3	7.92	2
Rating Type Vigor = vigor Rating Unit/Min/Max 0-10. 0. 10 = 0-10 index/scale										

ARM Action Codes T1 = ([1]+[2]+[3]+[4])/4

Means followed by same letter or symbol do not significantly differ (P=.05, Duncan's New MRT). Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL. Could not calculate LSD (% mean diff) for columns 3 because error mean square = 0. ^Calculated from residual.

## Plant Sciences, Inc.

Efficacy of Organics Rx Supergrow 6-1.5-2.5 as an alternative to CAN-17 in greenhouse-grown lettuce plants.							
Trial ID: Lettuce Location: PSI Greenhouse Trial Year: 2021							
Protocol ID: Lettuce Organix RX vs. CAN-17 Investigator (Creator): Mike Nelson							
Project ID: Study Director:							
Sponsor Contact: Kathleen Hiraga							
Trial Chatway Fastablished							

Trial Status: E established ARM Trial Created On: 12/23/2021

### Conducted Under GLP: No Conducted Under GEP: No

Role: SPONSR sponsor Sponsor: Kathleen Hiraga

#### Site and Design Treated Plot Width: 4 m Treated Plot Length: 6 m Treated Plot Area: 24.0 m2 Treatments: 2 Replications: 4

**Study Design:** RACOBL Randomized Complete Block (RCB)

Notes			
Context	Date	Ву	Notes
STATUS	12/23/2021	Mike Nelson	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	12/23/2021	Mike Nelson	Automatically added by ARM: Trial Status updated to 'E' when Rating Date entered.