Supporting Table S1: Generalized regression model showing parameter estimates of relative treatment effects on response variables (Morpho-physiological traits and nutrients content). The values indicate the Wald ChiSquare values.

Term	RWC	LA	SPAD	Height	SBM	RBM	RSR	MSI
CH-UG	0.52	306.06***	3.75	0.01	18.96***	9.82*	7.13*	352.73***
(CH+HO)-UG	0.46	84.27***	39.83***	2.11	1.45	1.29	1.55	30.09***
(CH+UG)-UG	30.44***	157.97***	0.54*	65.36***	1.19	0.13	0.07	488.81***
(CH+UG+HO)-UG	15.62***	35.32***	93.29***	217.68***	22.60***	2.68	1.10	1438.8***
HO-UG	81.88***	182.11***	135.7***	0.12	6.44*	0.59	0.45	162.88***
(HO+UG)-UG	13.27***	129.46***	63.88***	0.29	2.50	0.20	0.49	38.01***
NF-UG	1582.99***	209.99***	387.8***	0.31	19.18***	0.50	2.25	134.49***
[SS-WW]	390.61***	296.92***	891***	10.26***	131.90***	1.00	0.01	1356.9***
[MS-SS]	15.94***	29.46***	418.1***	0.82	22.64***	3.55	5.47	192.48***
(CH-UG)*[SS-WW]	21.90***	0.03	4.41*	0.65	8.72*	1.11	0.95	3.29
(CH-UG)*[MS-SS]	1.08	3.48	49.4***	0.58	4.95*	3.11	17.99***	57.15***
[(CH+HO)-UG]*[SS-WW]	1.77	0.88	27.42***	3.65	3.26	2.36	10.93***	0.12
[CH+HO-UG]*[MS-SS]	0.58	0.42	1.72	3.29	1.61	3.05	16.86***	0.98
[CH+UG-UG]*[SS-WW]	31.85***	8.37*	67.93***	144.74***	1.94	0.14	0.13	20.72***
[CH+UG-UG]*[MS-SS]	4.21*	1.31	1.17	62.75***	0.12	2.92	7.63*	2.26
[(CH+UG+HO)-UG] *[SS-WW]	29.92***	17.33***	45.46***	129.67***	9.20*	0.17	0.93	236.71***
[CH+UG+HO-UG]*[MS-SS]	17.94***	29.13***	4.9*	12.73***	5.56	2.13	10.71	25.99***
[HO-UG]*[SS-WW]	3.15	0.26	1.45	3.36	0.01	1.54	12.68*	4.66*
[HO-UG]*[MS-SS]	1.27	35.34***	8.56	1.57	0.09	4.62*	28.13***	110.51***
[(HO+UG)-UG]*[SS-WW]	1.94	0.21	36.34***	4.55*	8.57*	0.10	5.32*	20.7***
[(HON+UG)-UG]*[MS-SS]	0.62	0.05	1.42	11.94***	7.49*	0.62	14.28***	16.66***
[NF-UG]*[SS-WW]	113.41***	0.56	18.48***	72.49***	0.09	0.37	0.01	6.24
[NF-UG]*[MS-SS]	1.17	0.42	44.53***	83.11***	2.09	0.49	4.07*	11.71**
AIC	408.53	282.41	226.2	308.33	334.43	576.41	83.72	256.16
R^2	0.9	0.99	0.99	0.97	0.97	0.49	0.73	0.99

Supporting Table 1 *continue*

Factors	K	Mg	Na	Ca	Fe	N	C	S	P	Cu	Mn	Zn
CH-UG	4.84***	49.74***	12.09***	221.8***	0.17	14.01***	1.09	0.22	2.66	0.38	1.28	28.82***
(CH+HO)-UG	22.23***	45.97***	1623.2***	81.18***	0.48	0.17	1.95	3.41	0.58	0.13	4.3*	0.01
(CH+UG)-UG	74.44***	724.83***	326.82***	85.29***	0.24	0.01	3.72	34.8***	3.02	0.46	4.17*	0.2
(CH+UG+HO)-UG	133.64***	1379.79***	2535***	1.12	5.09*	0.05	7.07**	1.57	6.32*	0.11	7.63**	5.57*
HO-UG	9.92*	39.11***	41.42***	609.5***	0.18	3.56*	7.44**	0.01	2.84	0.15	8.19**	25.11***
(HO+UG)-UG	158.34	516.32***	20.53***	187.6***	7.91*	3.21	7.55**	21.8***	0.41	0.18	0.23	2.37
NF-UG	56.84	152.7***	374.69***	38.91***	6.59*	38.76***	8.26**	0.36	38.54***	0.58	5.09*	0.21
[SS-WW]	23.4	615.83***	69.24***	787.1***	6.7*	129.3***	42.99***	11.5***	29.07***	0.67	26.88***	20.77***
[MS-SS]	32.1	55.43***	21.24***	209***	1.84	44.52***	49.22***	2.82	2.66	0.04	7.69**	7.73**
(CH-UG)*[SS-WW]	62.97	3.95*	3.91*	40.72***	0.01	5.62*	49.74***	0.2	25.66***	0.06	0.25	44.05***
(CH-UG)*[MS-SS]	53.24	0.65	0.8	37.69***	0.41	1.38	55.52***	0.18	15.61***	0.01	0.03	9.29***
[(CH+HO)-UG]*[SS-WW]	0.68	3.15	432.52***	21.02***	0.58	0.23	64.17***	2.44	1.12	0.04	1.41	3.18
[CH+HO-UG]*[MS-SS]	5.02*	0.05	82.14***	27.73***	0.05	5.8**	65.67***	0.01	0.01	0.01	0.35	1.12
[CH+UG-UG]*[SS-WW]	12.87	255.23***	63.75***	38.09***	0.01	0.07	66.03***	16.7***	19.59***	0.06	0.72	4.76*
[CH+UG-UG]*[MS-SS]	2.78	24.76***	76.98***	17.33***	0.22	1.07	68.35***	3.85*	13.02***	6.41*	1.08	2.56
[(CH+UG+HO)-UG] *[SS-WW]	0.23	203.92***	296.49***	0.07	2.95	0.01	76.74***	0.04	35.06***	0.06	5.3*	28.04***
[CH+UG+HO-UG]*[MS-SS]	0.49	110.9***	77.22***	7.11*	0.45	0.54	84.29***	0.38	4.96*	0.01	1.21	11.34***
[HO-UG]*[SS-WW]	50.62***	14.92***	1.66	209.4***	0.01	3.61	142.9***	6.78**	29.72***	0.01	1.41	54.15***
[HO-UG]*[MS-SS]	7.64*	1.51	1.75	47***	0.13	1.03	172.2***	2.35	59.47***	0.001	0.33	9.49***
[(HO+UG)-UG]*[SS-WW]	136.9***	91.11***	0.15	85.54***	29.3***	0.22	189.9***	11.4***	2.03	0.01	0.02	2.86
[(HO+UG)-UG]*[MS-SS]	37.76***	8.34*	0.85	22.66***	18.3***	0.03	193.5***	0.01	2.41	0.01	0.38	1.5
[NF-UG]*[SS-WW]	2.13	38.89***	121.7***	0.71	2.03	15.41***	203.5***	0.01	13.81***	0.01	1.76	33.18***
[NF-UG]*[MS-SS]	2.34	0.07	111.5***	14.4***	0.07	6.67**	1359***	0.05	11.44***	0.04	1.28	13.4***
AIC	442.55	162.92	217.29	230.1	312	193.1	358.9	108	209.8	127.5	135.5	89.05
R Square	0.97	0.99	0.98	0.99	0.64	0.96	0.98	0.86	0.96	0.35	0.75	0.81

Where, CH = Chitosan, UG = ultra-green, HO = homegrown organic nutrition, SS=severe stress, MS = moderate stress, WW = well-watered, WC = relative water content, LA = leaf area, MSI = membrane stability index, RSR root to shoot ratio, AIC = Akaike information criterion, RWC = relative water content, LA = leaf area, MSI = membrane stability index, SBM = Shoot Biomass, RBM = root biomass, and RSR root to shoot ratio. ** = highly significantly ($p \leq 0.001$) and * = as significantly ($p \leq 0.05$) different.