

## SUPPLEMENTARY MATERIAL

**Table S1.** Results of factorial analysis of variance (ANOVA) examining the effect of three N treatments and three cultivars on total yield and percentage discard fruit, in muskmelon and sweet pepper. Significant effects are shown as: ns, p>0.05; \*, p<0.05; \*\*, p<0.01; \*\*\*, p<0.001.

Year	Effect	df	Muskmelon		Sweet pepper	
			F-value		F-value	
			Total yield	% Discard fruit	Total yield	% Discard fruit
2020	Block (B)	3	3.77*	2.80ns	0.59ns	54.54**
	Nitrogen (N)	2	21.88*	21.38*	139.49***	10.16ns
	Cultivar (C)	2	65.57*	6.44**	2.37ns	0.27ns
	N x C	4	0.85ns	1.26ns	4.84***	29.53***
	Error	24				
2021	Block (B)	3	0.63ns	3.85*	3.86*	5.89**
	Nitrogen (N)	2	306.75***	31.84***	2.35ns	0.54ns
	Cultivar (C)	2	10.95***	18.61***	2.40ns	7.79**
	N x C	4	1.69ns	7.22***	0.42ns	0.99ns
	Error	24				

**Table S2.** Results of factorial analysis of variance (ANOVA) examining the effect of three N treatments and three cultivars on fruit firmness and TSS, in muskmelon and sweet pepper. Significant effects are shown as: ns, p>0.05; \*, p<0.05; \*\*, p<0.01; \*\*\*, p<0.001.

Year	Effect	df	Muskmelon		Sweet pepper	
			F-value		F-value	
			Firmness	TSS	Firmness	TSS
2020	Block (B)	3	11.78***	4.11*	0.23ns	3.91*
	Nitrogen (N)	2	0.77ns	11.79***	0.34ns	4.45*
	Cultivar (C)	2	12.00***	58.58***	39.53***	47.58***
	N x C	4	1.23ns	0.67ns	0.17ns	1.00ns
	Error	24				
2021	Block (B)	3	1.90ns	0.84ns	2.74ns	1.62ns
	Nitrogen (N)	2	5.30*	2.87ns	1.25ns	11.21***
	Cultivar (C)	2	6.56**	24.32***	13.21***	39.58***
	N x C	4	0.21ns	0.56ns	0.90ns	0.63ns
	Error	24				

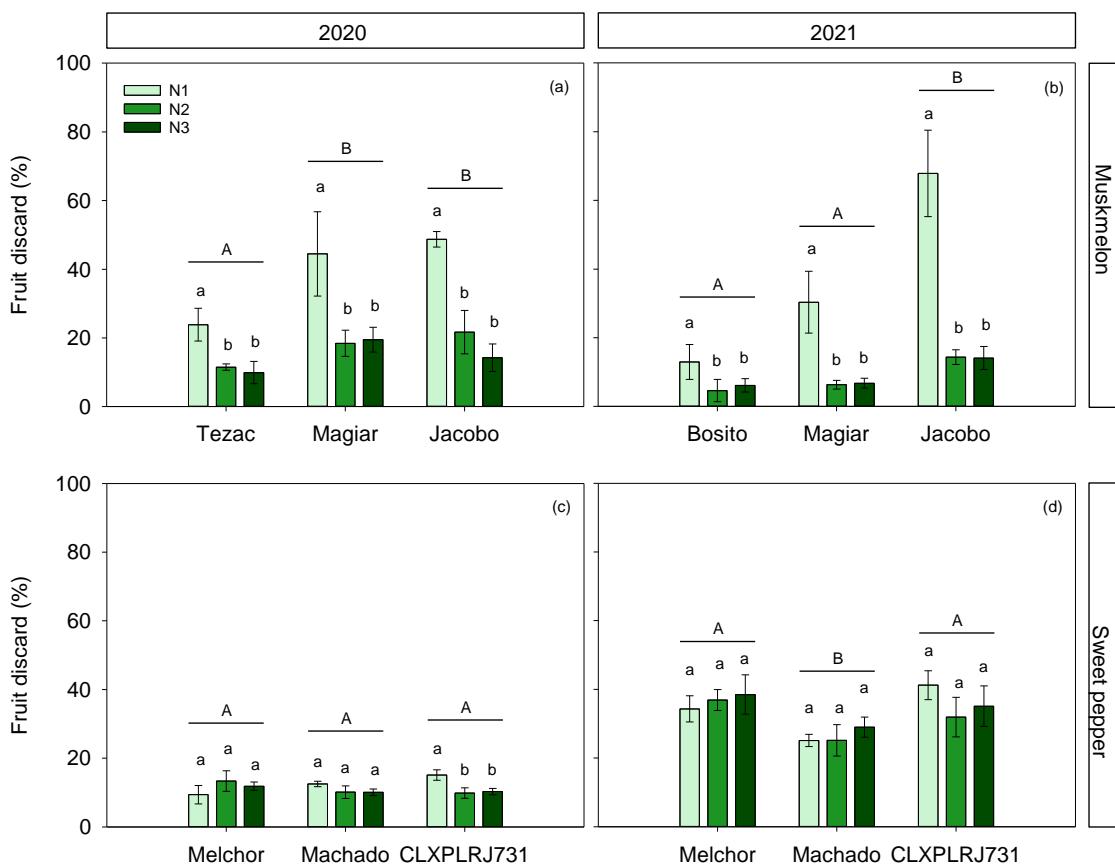
**Table S3.** Results of factorial analysis of variance (ANOVA) examining the effect of three N treatments and three different cultivars on fruit weight and equatorial and polar fruit diameters, in muskmelon and sweet pepper. Significant effects are shown as: ns, p>0.05; \*, p<0.05; \*\*, p<0.01; \*\*\*, p<0.001.

Year	Effect	Muskmelon			Sweet pepper		
		F-value			F-value		
		Fruit weight	Equatorial diameter	Polar diameter	Fruit weight	Equatorial diameter	Polar diameter
2020	Block (B)	3	0.98ns	0.46ns	1.70ns	1.48ns	1.82ns
	Nitrogen (N)	2	8.56**	8.44**	9.57**	1.37ns	0.40ns
	Cultivar (C)	2	1.11ns	2.36ns	1.18ns	82.40***	9.58***
	N x C	4	0.45ns	0.25ns	1.15ns	0.23ns	0.17ns
	Error	24					1.07ns
2021	Block (B)	3	5.49**	4.15*	0.72ns	0.90ns	4.08*
	Nitrogen (N)	2	1.70ns	21.34***	17.60***	0.50ns	2.59ns
	Cultivar (C)	2	1.20ns	26.89***	1.13ns	135.50***	39.70***
	N x C	4	3.52*	1.69ns	0.57ns	3.60*	1.20ns
	Error	24					0.70ns

**Table S4.** Results of factorial analysis of variance (ANOVA) testing the effect of three N treatments and three different cultivars on internal fruit colour in muskmelon and sweet pepper. Significance is shown as: ns, p>0.05; \*, p<0.05; \*\*, p<0.01; \*\*\*, p<0.001.

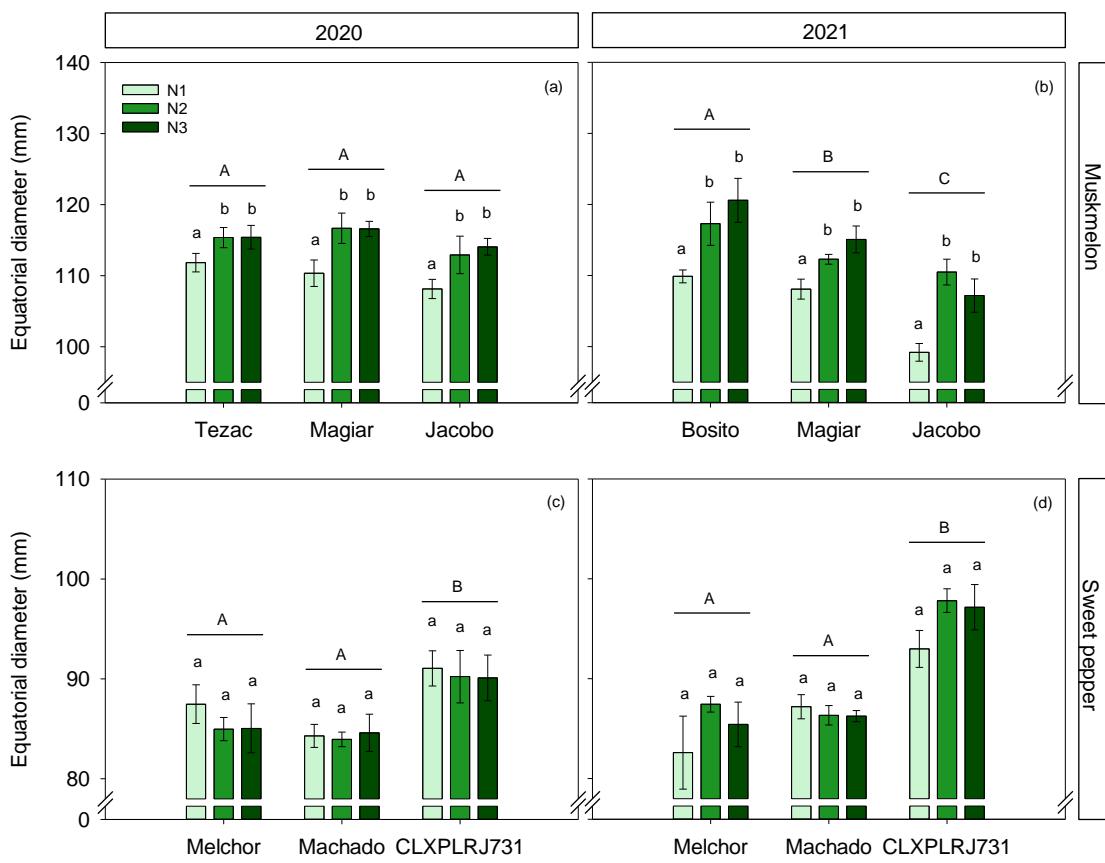
Year	Effect	df	Muskmelon						Sweet pepper					
			F-value						F-value					
			L*	a*	b*	h	C*	IC*	L*	a*	b*	h	C*	IC*
2020	Block (B)	3	3.65*	1.80ns	4.01*	0.70ns	3.10*	1.45ns	0.80ns	0.65ns	0.79ns	0.46ns	1.63ns	0.91ns
	Nitrogen (N)	2	3.91*	0.26ns	12.82***	5.96**	9.12***	8.59**	14.92***	0.55ns	13.99***	5.40*	4.46*	12.22***
	Cultivar (C)	2	11.77***	142.80***	123.70***	304.66***	79.87***	284.87***	6.44**	8.55**	5.24*	0.38ns	10.50***	0.83ns
	N x C	4	2.16ns	2.49ns	1.94ns	0.93ns	1.64ns	1.30ns	0.36ns	7.26***	2.06ns	1.46ns	6.27**	1.49ns
	Error		24											
2021	Block (B)	3	1.40ns	1.80ns	4.00*	0.30ns	3.86*	0.26ns	99.19***	3.58*	8.11***	0.11ns	4.82**	11.05***
	Nitrogen (N)	2	7.20**	4.19*	36.04***	23.90***	29.59***	27.37***	1.12ns	1.03ns	1.43ns	0.32ns	1.14ns	0.21ns
	Cultivar (C)	2	56.20***	410.82***	89.76***	930.50***	74.31***	750.04***	2.51ns	24.91***	11.54***	5.91**	23.95***	1.37ns
	N x C	4	3.30*	9.56***	1.79ns	9.90***	2.47ns	10.77***	0.11ns	2.53ns	0.57ns	2.63ns	1.96ns	1.60ns
	Error		24											

**Figure S1**



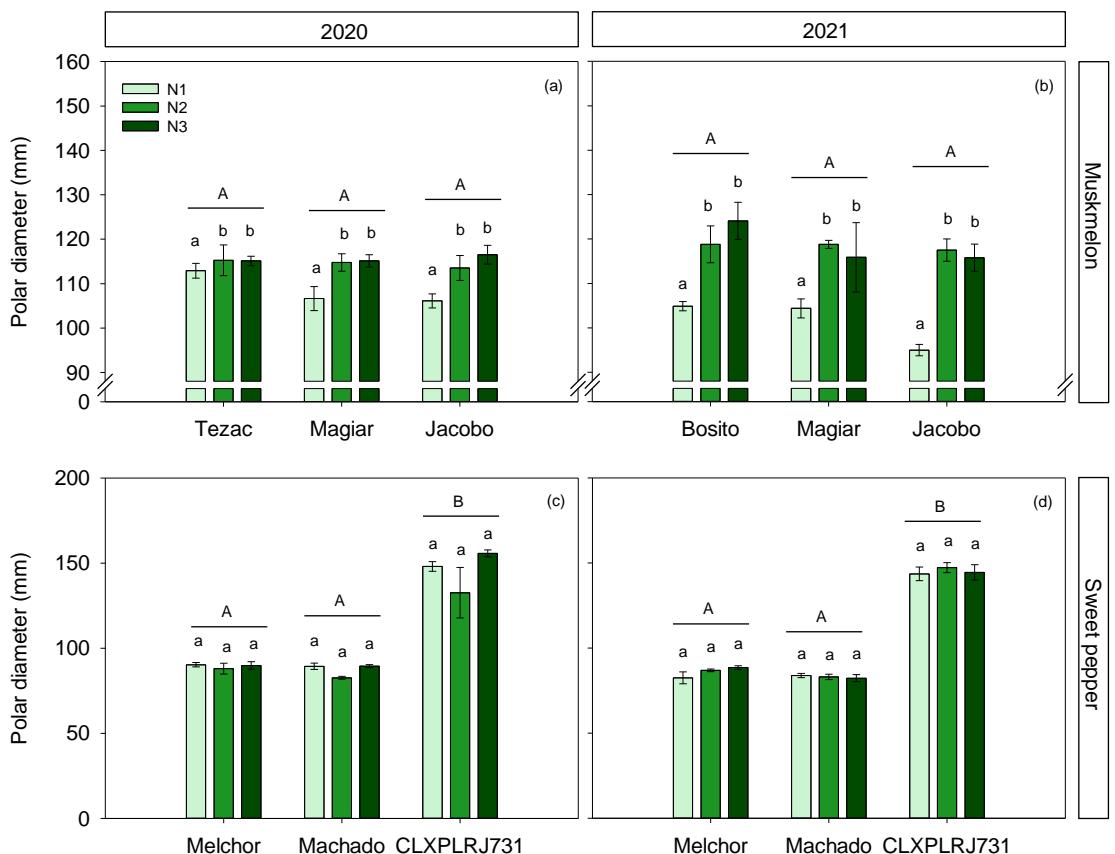
**Figure S1.** Percentage of fruit discard for three different cultivars and three N treatments, for muskmelon ((a) and b)) and sweet pepper ((c) and d)) crops, conducted in 2020 and 2021 years. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.

**Figure S2**



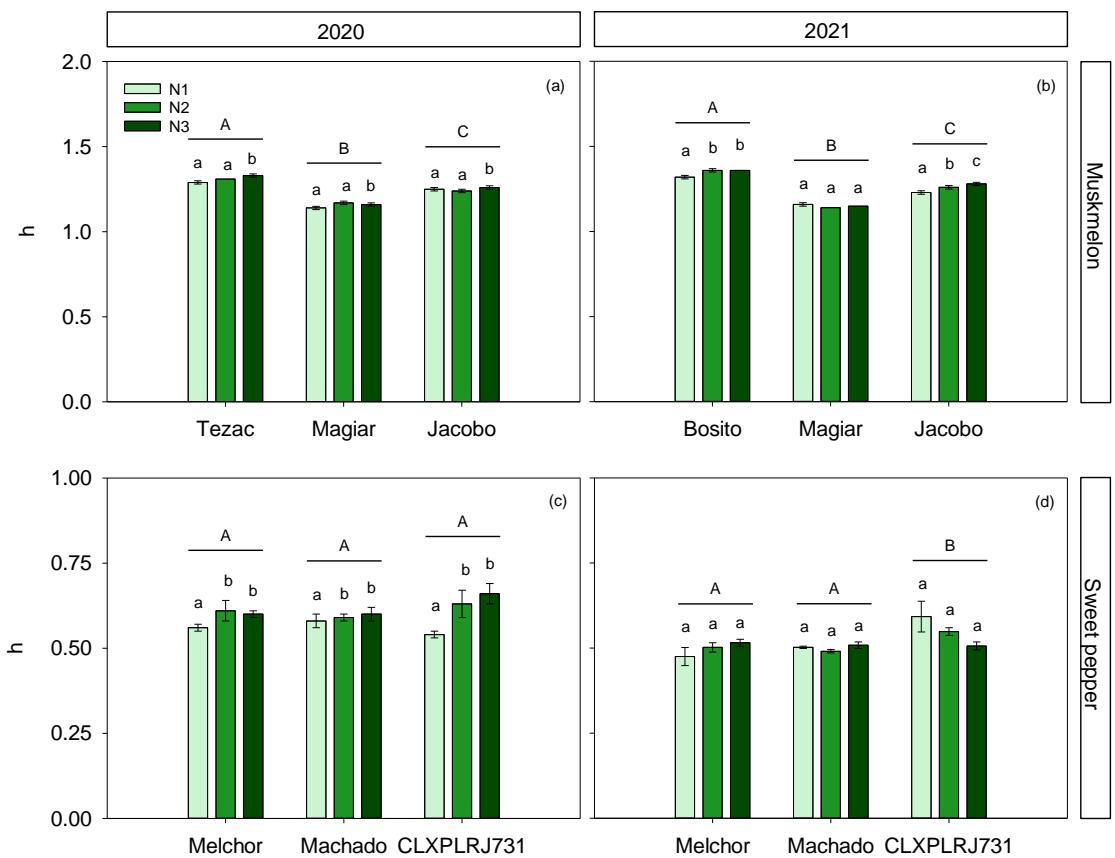
**Figure S2.** Fruit equatorial diameter for three different cultivars and three N treatments, for muskmelon ((a) and b)) and sweet pepper ((c) and d)) crops, conducted in 2020 and 2021 years. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.

**Figure S3**



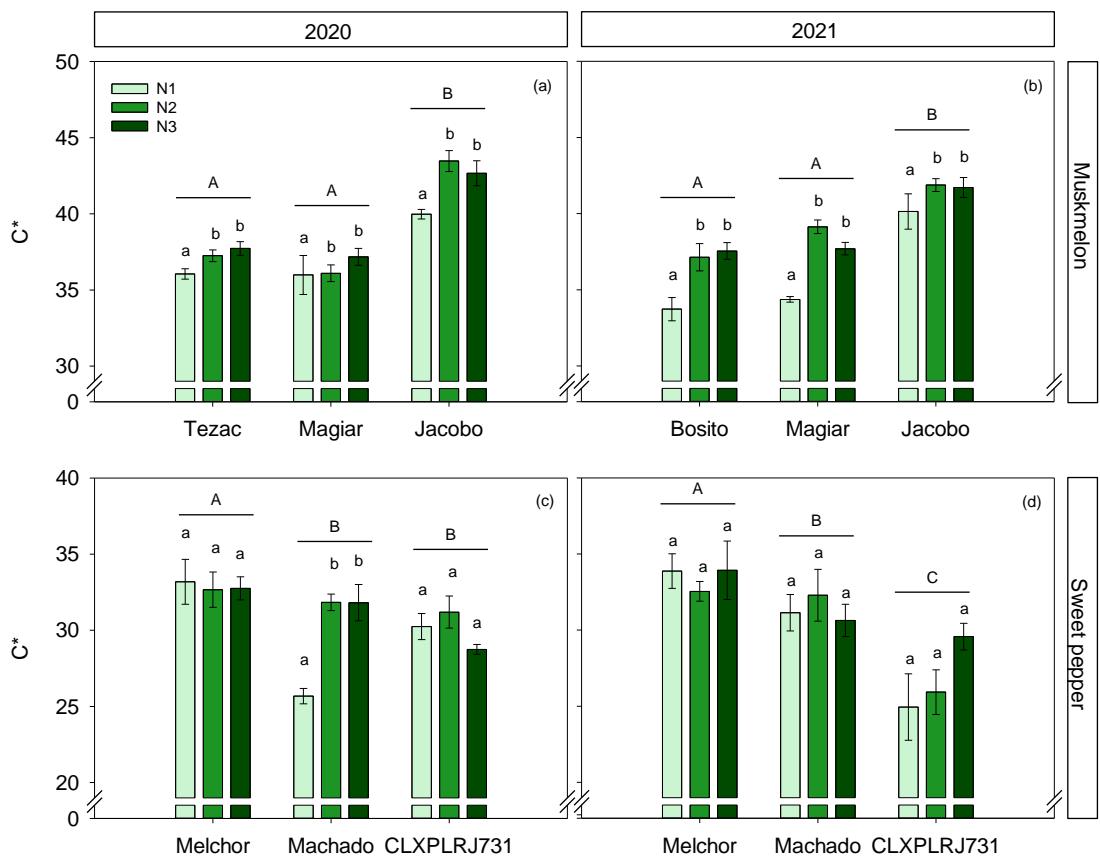
**Figure S3.** Fruit polar diameter for three different cultivars and three N treatments, for muskmelon ((a) and (b)) and sweet pepper ((c) and (d)) crops, conducted in 2020 and 2021 years. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.

**Figure S4**



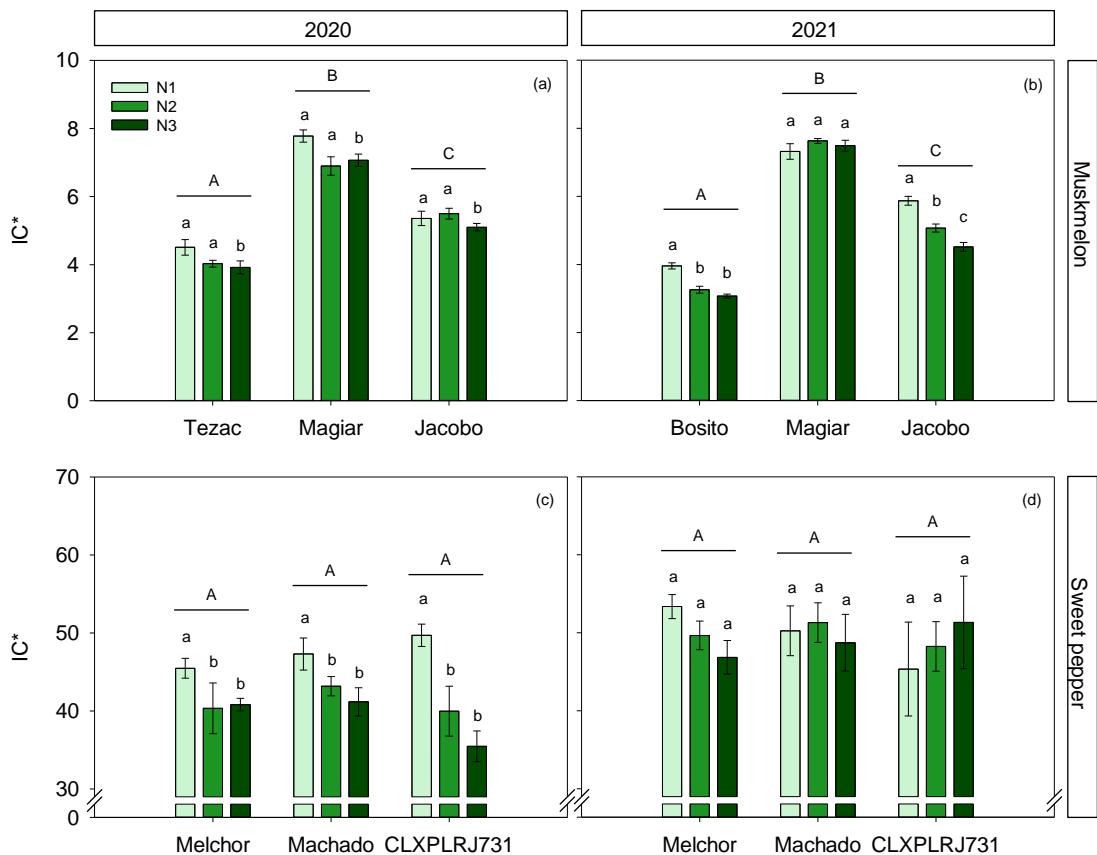
**Figure S4.** Fruit hue angle ( $h$ ) for three cultivars and three N treatments, for muskmelon ((a) and b)) and sweet pepper ((c) and d)) crops, conducted in 2020 and 2021 years. Fruit measurements are internal for muskmelon and external for sweet pepper. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.

**Figure S5**



**Figure S5.** Fruit chroma ( $C^*$ ) for three cultivars and three N treatments, for muskmelon ((a) and b)) and sweet pepper ((c) and d)) crops, conducted in 2020 and 2021 years. Fruit measurements are internal for muskmelon and external for sweet pepper. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.

**Figure S6**



**Figure S6.** Fruit colour index ( $IC^*$ ) for three cultivars and three N treatments, for muskmelon ((a) and b)) and sweet pepper ((c) and d)) crops, conducted in 2020 and 2021 years. Fruit measurements are internal for muskmelon and external for sweet pepper. Different lower-case letters show significant differences between N treatments within each cultivar; different upper-case letters show significant differences between cultivars. Values are means  $\pm$  SE.