

Supplementary Table 3 – ANOVA of within *Yucca gloriosa* trait differences across genotypes, and an ANCOVA of trait differences in genotype ~ treatment.

ANOVA of within-Y. gloriosa trait differences across genotypes					
	Df	Sum sq	Mean Sq	F value	p
Leaf thickness	25	3.93E+05	1.57E+04	1.663529	0.11577
residual	22	2.08E+05	9.46E+03		
IAS	25	8.77E-02	3.51E-03	3.363057	0.00317
residual	21	2.19E-02	1.04E-03		
maxTA	23	7.10E+05	3.09E+04	2.60951	0.00145
residual	62	7.34E+05	1.18E+04		
mean cell	25	2.01E+06	8.02E+04	2.00461	0.05179
residual	22	8.80E+05	4.00E+04		
mean stomata	24	1.01E+04	4.19E+02	3.737353	0.00831
residual	13	1.46E+03	1.12E+02		

ANCOVA of within Y. gloriosa trait differences between genotypes and treatments							
		Df	Sum sq	Mean Sq	F value	p	
AUC	genotype	21	3087.7	147	2.3369	0.001964	**
	treatment	2	10640.4	10640.4	169.1194	0	***
	genotype * treatment	21	793.1	37.8	0.6003	0.912421	
	residuals	131	8242	62.9			
AUC_night	genotype	21	32.392	1.54246	2.4592	0.001075	**
	treatment	1	0.561	0.56081	0.8941	0.346105	
	genotype * treatment	21	31.117	1.48176	2.3624	0.001733	**
	residuals	131	82.166	0.62722			
deltaH+	genotype	23	443475	19281.5	4.7781	6.15E-09	***
	treatment	1	20161	20161.4	4.9962	0.02725	*
	genotype * treatment	23	346373	15059.7	3.7319	1.19E-06	***
	residuals	120	484245	4035.4			

Abbreviations:

AUC	Area under the curve, LiCor data
AUC_night	Area under the curve, LiCor data, night only
deltaH+	Leaf acid accumulation
maxTA	Maximum amount of acid accumulated (well-watered)
IAS	Intercellular airspace
mean cell	Mean cell area (um)
mean stomata	Mean stomatal density