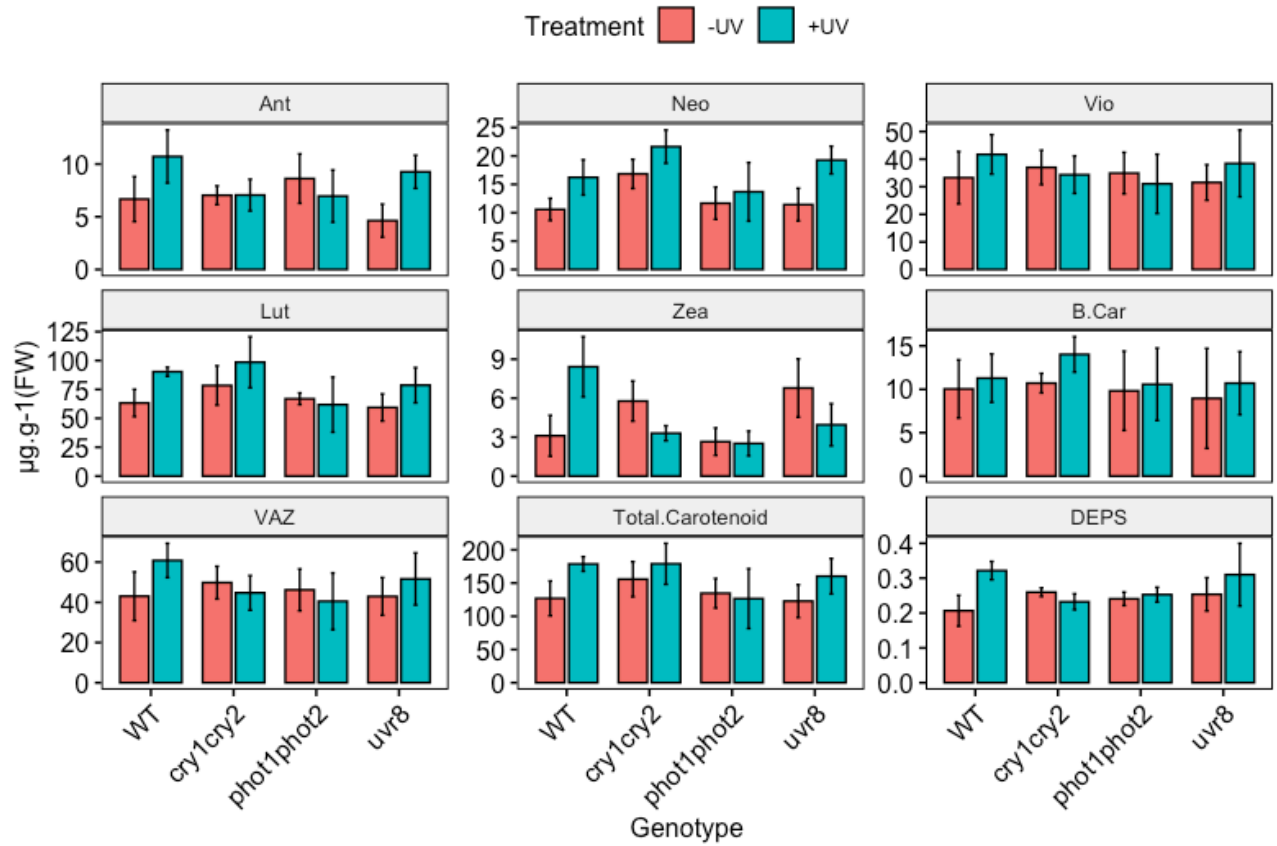
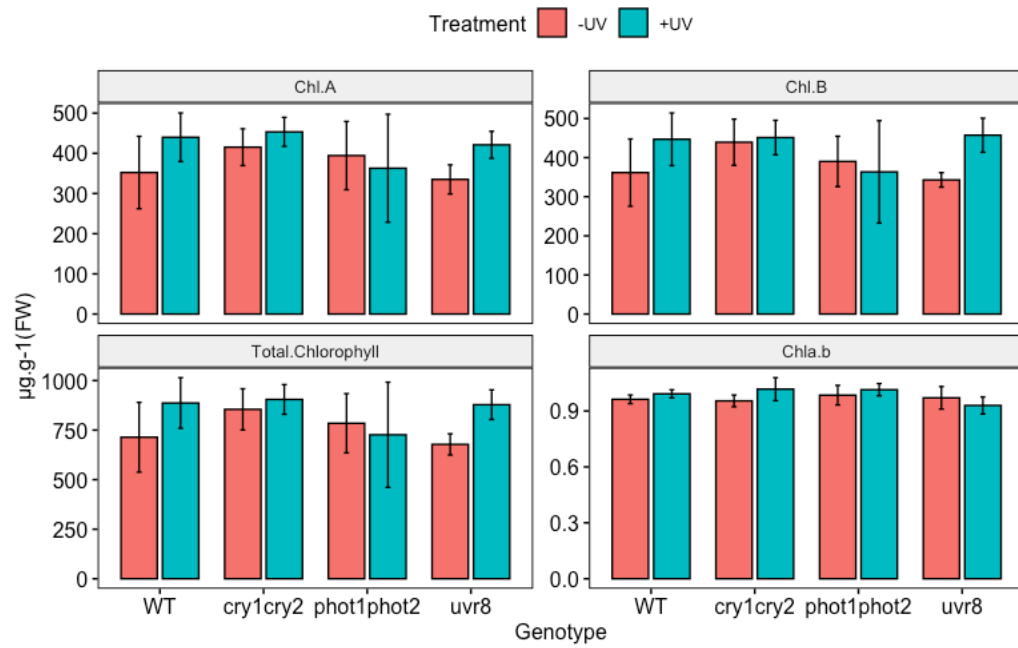


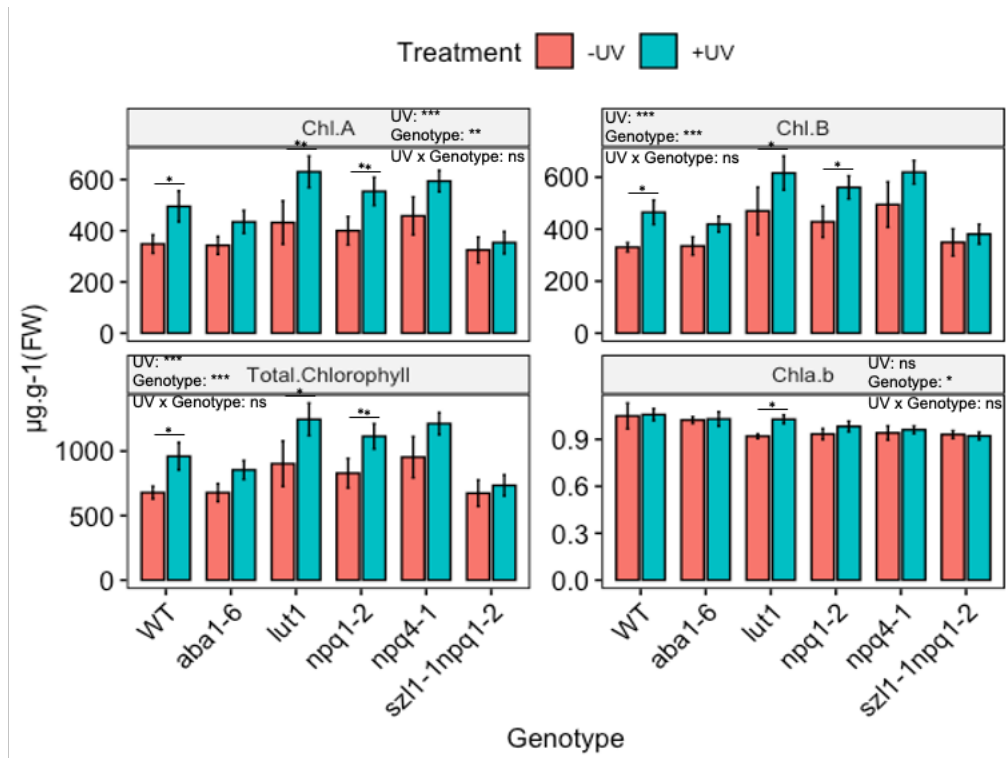
**Figure S1:** Chlorophyll levels ( $\mu\text{g. g}^{-1} \text{FW}$ ) of wild-type *Arabidopsis thaliana* (Col-0) exposed to varying durations of UV. Plants were subjected to UV treatment for 3.75 hrs daily and harvested after 18 hours on days 2, 4, 6, 8 and 10. Bar plots show means and error bars indicate standard error for  $n = 5$ . 0.05\* and 0.01\*\* depict significant differences and ns depict non-significant differences, between treatments.



**Figure S2:** Carotenoid levels ( $\mu\text{g. g}^{-1}$  FW) of wild type (WT) and photoreceptor (cryptochrome (cry1cry2), phototropin (phot1phot2) and UVR8) deficient *Arabidopsis thaliana* (Col-0). Plants were subjected to UV treatment for 3.75 hrs daily and harvested after 18 hours on day 4. Bar plots show means and error bars indicate standard error for  $n = 5$ .



**Figure S3:** Chlorophyll levels (µg. g<sup>-1</sup> FW) of wild type (WT) and photoreceptor (cryptochrome (cry1cry2), phototropin (phot1phot2) and UVR8) deficient *Arabidopsis thaliana* (Col-0). Plants were subjected to UV treatment for 3.75 hrs daily and harvested after 18 hours on day 4. Bar plots show means and error bars indicate standard error for n = 5.



**Figure S4:** Chlorophyll levels (µg. g<sup>-1</sup> FW) of wild type (WT) and carotenoid biosynthesis (*aba1-6*, *lut1*, *lut2*, *npq1-2*, *npq4-1*, *szl1-1* and *szl1-1npq1-2*) impaired *Arabidopsis thaliana* (Col-0) mutants. Plants were subjected to UV treatment for 3.75 hrs daily and harvested after 18 hours on day 4. Bar plots show means and error bars indicate standard error for n = 5. 0.05\*, 0.01\*\* and 0.001\*\*\* depict significant differences and ns depicts non-significant difference, between treatments.