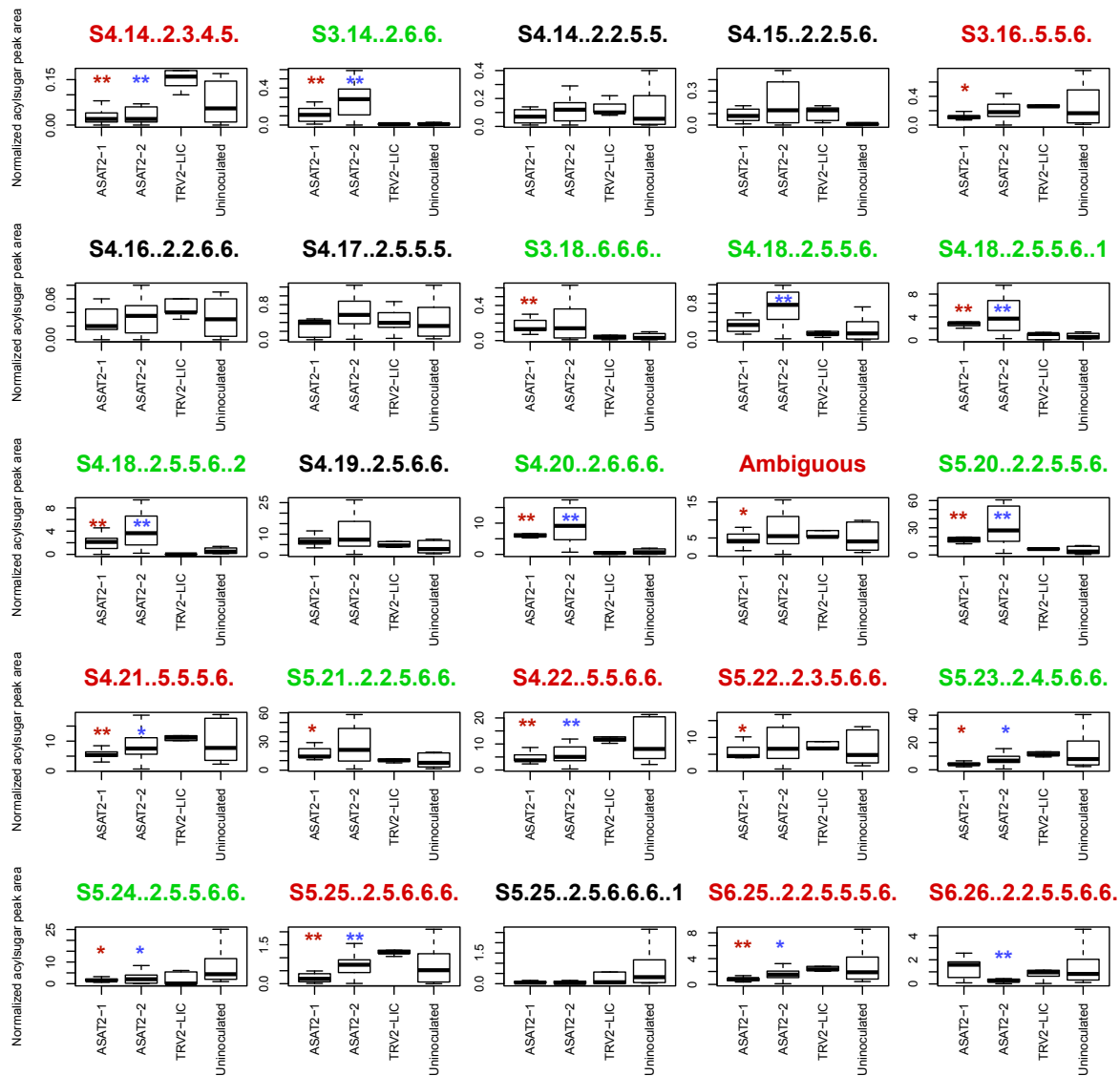


**Figure 3-Figure Supplement 2**



**Figure 3-Figure Supplement 2: Individual acylsugar levels in *SsASAT2* VIGS replicate 1.** The boxplots denote the summed normalized acylsugar peak areas, obtained using the LC/MS extracted ion chromatograms, across all plants in the experiment. Blue and red asterisks indicate significant changes in *SsASAT2-1*\_TRV2-LIC and *SsASAT2-2*\_TRV2-LIC comparisons, respectively. \*:  $p < 0.05$ ; \*\*:  $p < 0.01$  using the KS test. Acylsugar names in green show significant increases and the names in red show significant decreases compared with the TRV2-LIC control.

These results show that C2 acylated derivatives of S3:16(5,5,6), S3:17(5,6,6) and S3:18(6,6,6) [e.g.: S4:18(2,5,5,6); S5:20(2,2,5,5,6)] increased significantly, while C5 derivatives of these acylsugars [eg: S4:21(5,5,5,6); S5:25(2,5,6,6,6)] decreased significantly in the silenced lines. One possible explanation for this result is that another transcript was silenced in addition to *SsASAT2*. However, the single *Salpiglossis* transcript with 100% identity to the silencing fragment over 18 nucleotides is not preferentially expressed in the trichomes of uninfected *Salpiglossis* (~360 reads in trichome; ~550 reads in shaved stem) and is annotated as an ion channel. Thus, the reason for this unusual phenotype is still unclear.