**Table S2.** Two-Factor ANOVA of relative gene expression by tissue type at 10 days post aphid herbivory.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gene** | **Tissue Type** | **PA**  ***P* value** | **AMF**  ***P* value** | **PA\*AMF**  ***P* value** |
| *ACO1* | Local leaf | 0.2240 | 0.0806 | 0.6875 |
| Systemic leaf | 0.4595 | 0.5120 | 0.2115 |
| Roots | 0.4465 | 0.4120 | 0.1621 |
| *AOC* | Local leaf | 0.0835 | 0.0019\* | 0.0008\* |
| Systemic leaf | 0.3314 | 0.5479 | 0.5272 |
| Roots | 0.6142 | 0.1851 | 0.8326 |
| *CalS12* | Local leaf | 0.8654 | 0.0957 | 0.6549 |
| Systemic leaf | 0.0166\* | 0.0017\* | 0.2118 |
| Roots | 0.0850 | 0.0402\* | 0.2667 |
| *ERF1* | Local leaf | 0.5215 | 0.5607 | 0.4070 |
| Systemic leaf | 0.3305 | 0.4245 | 0.4516 |
| Roots | 0.8104 | 0.0433\* | 0.7473 |
| *ETR1* | Local leaf | 0.0676 | 0.2304 | 0.7018 |
| Systemic leaf | 0.3440 | 0.4256 | 0.4149 |
| Roots | 0.1155 | 0.0273\* | 0.6008 |
| *GA20ox* | Local leaf | 0.8175 | 0.5896 | 0.3263 |
| Systemic leaf | 0.3445 | 0.4906 | 0.4397 |
| Roots | 0.1599 | 0.0010\* | 0.3588 |
| *MYC2* | Local leaf | 0.0853 | 0.0690 | 0.4013 |
| Systemic leaf | 0.9058 | 0.0032\* | 0.5771 |
| Roots | 0.0219\* | 0.2331 | 0.0912 |
| *PAL* | Local leaf | 0.1176 | 0.8064 | 0.5147 |
| Systemic leaf | 0.2784 | 0.6608 | 0.5702 |
| Roots | 0.7745 | 0.0363\* | 0.4034 |
| *PI-I* | Local leaf | 0.0625 | 0.0465\* | 0.0455\* |
| Systemic leaf | 0.3443 | 0.1827 | 0.3674 |
| Roots | 0.4534 | 0.4156 | 0.1041 |
| *PI-II* | Local leaf | 0.1057 | 0.5320 | 0.6109 |
| Systemic leaf | 0.8282 | 0.3463 | 0.7379 |
| Roots | 0.9101 | 0.0341\* | 0.6261 |

PA = potato aphid; AMF = arbuscular mycorrhizal fungi

\**P* ≤ 0.05 indicates statistical difference