**Table S3.** Gene ontology (GO) terms enriched between treatment when compared to the control. For each comparison, the treatments involved, regulation of expression (upregulated in…), number of differentially expressed genes (DEGs), and their corresponding gene ontology (GO) final branch terms, are summarized. The higher regulation indicates which treatment (C, R, T or R+T) resulted in increased expression of the gene. The final branch GO term represents the last node in the pathways were almost all other enriched gene ontologies converge. No distinction between the GO term classifications (biological process, molecular function, or cellular component) are specified.

|  | **Cultivar** | **Comparison** | **Upregulated in…** |  **DEGs** |  **GO terms** | **Final branch GO terms** | **GO description** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Inbred | C vs R | C | 115 | 18 | GO:0016052 | carbohydrate catabolic process |
| GO:0004497 | monooxygenase activity |
| GO:0020037 | heme binding |
| 2 | Inbred | C vs R | R | 22 | 2 | GO:0043169 | cation binding |
| 3 | Inbred | C vs T | C | 39 | 0 | N/A |  |
| 4 | Inbred | C vs T | T | 93 | 0 | N/A |  |
| 5 | Inbred | C vs R+T | C | 104 | 0 | N/A |  |
| 6 | Inbred | C vs R+T | R+T | 8 | 0 | N/A |  |
| 7 | Hybrid | C vs R | C | 219 | 5 | GO:0055085 | transmembrane transport |
| 8 | Hybrid | C vs R | R | 373 | 30 | GO:0006350 | transcription |
| GO:0006915 | apoptosis |
| GO:0006952 | defense response |
| GO:0005524 | ATP binding |
| GO:0003777 | microtubule motor activity |
| GO:0003899 | DNA-directed RNA polymerase activity |
| Supporting information 3 continued… |
| 9 | Hybrid | C vs T | C | 5 | 0 | N/A |  |
| 10 | Hybrid | C vs T | T | 28 | 0 | N/A |  |
| 11 | Hybrid | C vs R+T | C | 492 | 35 | GO:0006412 | translation |
| GO:0055114 | oxidation reduction |
| GO:0006865 | amino acid transport |
| GO:0009055 | electron carrier activity |
| GO:0004497 | monooxygenase activity |
| GO:0020037 | heme binding |
| GO:0015171 | amino acid transmembrane transporter activity |
| GO:0005840 | ribosome |
| 12 | Hybrid | C vs R+T | R+T | 545 | 4 | GO:0007017 | microtubule-based process |
| GO:0003777 | microtubule motor activity |