

**Table S5 Expression levels of PeTIFY genes under dehydration and cold stresses.**

| GeneName       | subfamily | Expression level |           |           |           |           |      |           |           |           |           |
|----------------|-----------|------------------|-----------|-----------|-----------|-----------|------|-----------|-----------|-----------|-----------|
|                |           | CK1              | Dehy_2h-1 | Dehy_8h-1 | Cold_2h-1 | Cold_8h-1 | CK2  | Dehy_2h-2 | Dehy_8h-2 | Cold_2h-2 | Cold_8h-2 |
| PH01001078G028 | JAZ       | 0.00             | 4.21      | 5.48      | 2.84      | 0.25      | 0.00 | 3.51      | 4.38      | 3.42      | 0.93      |
| PH01001852G002 | JAZ       | 0.00             | 4.06      | 4.96      | 3.66      | 2.00      | 0.00 | 3.44      | 4.04      | 3.42      | 2.64      |
| PH01000213G141 | JAZ       | 1.35             | 4.74      | 5.68      | 3.78      | 3.02      | 1.37 | 4.88      | 4.26      | 3.99      | 2.20      |
| PH01000038G047 | JAZ       | 1.53             | 5.74      | 5.91      | 4.76      | 5.50      | 1.57 | 5.07      | 3.06      | 5.19      | 4.74      |
| PH01000115G002 | JAZ       | 1.83             | 6.06      | 5.97      | 4.06      | 5.79      | 2.01 | 5.33      | 3.86      | 4.48      | 4.70      |
| PH01144128G001 | JAZ       | 3.47             | 3.48      | 4.30      | 2.99      | 2.82      | 3.51 | 3.92      | 4.03      | 2.50      | 2.67      |
| PH01000213G138 | JAZ       | 3.57             | 6.21      | 6.56      | 5.54      | 6.59      | 3.84 | 5.96      | 4.77      | 5.85      | 6.50      |
| PH01001078G042 | JAZ       | 3.60             | 6.54      | 6.48      | 6.34      | 6.27      | 3.67 | 6.28      | 5.51      | 6.38      | 5.70      |
| PH01000052G054 | JAZ       | 3.82             | 5.26      | 5.57      | 4.58      | 4.47      | 3.88 | 5.04      | 3.79      | 4.67      | 3.30      |
| PH01000158G021 | JAZ       | 4.44             | 5.68      | 5.66      | 5.26      | 5.61      | 4.46 | 5.30      | 4.89      | 5.44      | 4.52      |
| PH01000038G051 | JAZ       | 4.49             | 6.20      | 7.93      | 5.53      | 5.71      | 4.76 | 6.60      | 6.99      | 5.77      | 5.69      |
| PH01000115G004 | JAZ       | 4.87             | 6.84      | 8.05      | 6.13      | 6.35      | 4.96 | 7.47      | 6.94      | 6.73      | 6.22      |
| PH01000008G296 | JAZ       | 5.21             | 7.28      | 7.75      | 6.26      | 6.22      | 5.19 | 6.98      | 6.97      | 6.32      | 6.00      |
| PH01000360G103 | JAZ       | 6.04             | 6.92      | 7.23      | 6.43      | 6.41      | 6.02 | 6.77      | 6.43      | 6.69      | 5.52      |
| PH01000310G050 | JAZ       | 6.35             | 8.05      | 8.13      | 9.03      | 8.62      | 6.29 | 7.83      | 6.41      | 9.10      | 8.29      |
| PH01002950G002 | JAZ       | 6.67             | 7.56      | 7.74      | 6.66      | 6.36      | 6.64 | 7.55      | 6.93      | 6.74      | 6.04      |
| PH01000597G066 | JAZ       | 7.13             | 7.50      | 7.48      | 7.61      | 7.22      | 7.11 | 7.21      | 6.87      | 7.88      | 7.09      |
| PH01000361G058 | JAZ       | 0.00             | 0.00      | 0.13      | 0.00      | 0.00      | 0.00 | 0.00      | 0.00      | 0.33      | 0.00      |
| PH01000549G040 | TIFY      | 4.39             | 2.80      | 2.86      | 2.23      | 1.05      | 4.35 | 3.59      | 3.00      | 2.33      | 0.02      |
| PH01000836G066 | ZML       | 0.00             | 0.00      | 0.00      | 0.00      | 1.25      | 0.00 | 0.00      | 0.00      | 0.00      | 0.00      |
| PH01000114G066 | ZML       | 1.01             | 1.05      | 1.35      | 0.67      | 2.03      | 1.37 | 0.82      | 1.67      | 0.54      | 1.16      |
| PH01000878G062 | ZML       | 1.85             | 1.37      | 1.63      | 0.02      | 1.84      | 1.81 | 1.30      | 1.63      | 0.92      | 1.05      |
| PH01000750G069 | ZML       | 2.52             | 1.70      | 1.48      | 0.02      | 0.32      | 2.32 | 1.76      | 1.27      | 0.47      | 0.55      |
| PH01001584G035 | ZML       | 3.45             | 3.01      | 3.33      | 2.23      | 2.61      | 3.68 | 3.32      | 2.80      | 2.88      | 2.17      |

Note: Expression level was present as RPKM value and log2 Normalized. Dehy indicates Dehydration.