



Supplemental Figure 1. Overexpression of BdbZIP10 and GFP only control reveals best phenotype with leaf float. A) GFP only transgenic callus tissue does not activate endogenous bZIP10 or other oxidative stress reporters. Error bars are SEM. B) Control (wild-type) and BdbZIP10o/e plantlets do not display obvious phenotype under non-treated conditions. C) Paraquat spray application to leaves and soil do not show obvious oxidative stress senescence. Note that Control and BdbZIP10::GFPo/e plants have a similar phenotype during maturity. D) Leaf floats of paraquat treatment display characteristic bleaching phenotype, especially at exposed cut end. Note the reduction in bleaching with BdbZIP10o/e. E) Vector construction for BdbZIP10 and BdbZIP10::GFP transgenic plants.

| Brachy Ascension | Gene Name | Forward | Reverse |
|------------------|-------------|---------------------------|--------------------------------|
| Bradi1g65540.1 | ASN1 | GTGCCGTTCTCGACAAG | AAGATCAGGGTCGTACAGC |
| Bradi1g06450.1 | GST24 | CAAGAAGGTCTACGACTGCG | GGTCCTCAGAATCTCCTTCATC |
| Bradi3g43070.1 | CSD2 | CTTCACGGCTTCCACCT | TTTGGGTAAAGTGTGGTCCTG |
| Bradi5g02940.2 | SIRT1 | GAAAGACCTGACATGAAGCCTGTA | CTCTAGCCATTGATGTTTCCCT |
| Bradi5g18000.1 | GPX6 | TAACGTGCGATCCCAGTG | GCCTTGGTCCTTGTACTTCTCATAAA |
| Bradi5g22077.1 | GSC1 | CCAGCCATTTCAATCAAGAACG | AAACTGCCGACAGGTACA |
| Bradi1g18340.1 | SOD1 | CCAGAAGATGAAACTCGCCA | GAATGCGGTCCAGTCAGG |
| Bradi2g30580.1 | MSD1 | GCGCAATCAAGTTCAACGG | TCACCACCACCCTCACTG |
| Bradi4g02040.1 | LSD1 | CGTCTTCTGTCAAATGTGCTATC | ATTGTAGGTGGCAAAGGTCTCA |
| Bradi1g30140.1 | bZIP10 | ACAGCTACTTCGACGAGAT | CAGGTGTGGGTGTGGGA |
| Bradi1g53680.1 | ZIP3 | TCCGTGATCATCGGCAT | CCTCGAACATCTGGTGGGA |
| Bradi1g64487.1 | NAS4 | GTGCCAATTGTCAGCCC | ACCACTTCAGTAGTGGCAAA |
| Bradi2g22530.1 | ZIP5 | ATCATCGGGATGTCTTTAGG | TTGATGGAAAGTTAGCGCAAT |
| Bradi1g06860.7 | EF1 | CAAGATTGGTGGCATTGGAAC | AACGGACTTGACCTCAGTG |
| Bradi4g45390.1 | ATG8 | AGGAGCAGTCTCCAGAAA | TATAAAGATGAACTGCCCAACCG |
| Bradi4g00660.1 | UBC18 | TCTTGTCCATGCTGTCTAGCTC | TTCCGTTGCGGCAGTTC |
| Bradi1g37667.1 | ZIP4, -1379 | TCAATGATGCACCCGCT | AGAATGGATAACAGATACGTGG |
| Bradi1g37667.1 | ZIP4, -261 | TACCCACATTCTGTATAATCAAAGC | AATGGGAGTGGTACTTATGC |
| Bradi1g37667.1 | ZIP4, 67 | GGATTGACAATTTCTCATATCCAAC | GAAGTCCCTCTTTGGGATACA |
| Bradi1g37667.1 | ZIP4, 3277 | TATCTGACTTCTGGGTATTGGA | TCTTACACATTGAATCAAATTACAATTACT |
| Bradi1g65540.1 | ASN1, -2224 | CGCTCTTGCATACTCTCCC | ACGAGGAGCAGATCACAAAC |
| Bradi1g65540.1 | ASN1, 22 | GCGCTCTCATCCGCTAA | CGAGGAAGAAGAAGAGCAAGT |
| Bradi1g65540.1 | ASN1, 1504 | AGAGGCATTCGAGAAGGT | GTCAGTTCCAGTCAGTCAACA |

Table S1. Primers used for QPCR and RTQPCR.