**Table S1:** Putative genes and their primers used for evaluation of transcriptional regulation using qRT-PCR analyses.

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| **#** | **Gene Name** | **Gene ID** | **Annotation** | **Primers Sequence** |
| 1 | *CmHEMA* | *MELO3C006296.2* | glutamyl-tRNA reductase-binding protein, chloroplastic [35] | F: TCTGTTGCGACGATTTCCGA  R: GAAACGAACGCCAACACCAA |
| 2 | *CmGOGAT* | *MELO3C008481.2* | glutamate synthase 1 [NADH], chloroplastic [36] | F:ATGCTAGAGCTGGAGGGTGA  R:CTTCCACAACAGCCTTTGCC |
| 3 | *CmPOR* | *MELO3C016714.2* | protochlorophyllide reductase, chloroplastic [37] | F:TCACTGGAGAACACACGAGC  R:GCCTGAGACAGCCTCTGTTT |
| 4 | *CmPAO* | *MELO3C023571.2* | Polyamine oxidase [38] | F:CAAAGCTGCTCCAGATGGGA  R:GGCAATGCCCGCAGATTTAG |
| 5 | *CmSPS* | *MELO3C003715.2* | sucrose phosphate synthase [39] | F:ATGGCGGGAAATGATTCGGT  R:AATCCAAATCCTCCAGCCTCGTGT |
| 6 | *CmPEPC* | *MELO3C018724.2* | phosphoenolpyruvate carboxylase [40] | F:ATGGCAGCGGTTAAGAACTT  R:TCTCTCATACTCAGCTGCAA |
| 7 | *CmRubisco* | *MELO3C012180.2* | ruBisCO large subunit-binding protein subunit beta, chloroplastic [41] | F:TTTCCAAACAAACCGCCGTC  R:TCAGGACGGTTTCACCATCG |
| 8 | *CmPSB* | *MELO3C004308.2* | photosystem II reaction center Psb family protein [42] | F:CCCTCCAAACCCTCACCAAA  R:GCTATAGCAGGAAGGCCAGG |
| 9 | *CmHCF136* | *MELO3C023596.2* | Photosystem II stability/assembly factor HCF136, chloroplastic [43] | F:GGCGACTCTGCAACAACAAC  R:GGGAGAGTGAAACAGCAGCT |
| 10 | *CmAPX* | *MELO3C003559.2* | ascorbate peroxidase [44] | F:TCTCCTCCGCCACTACTTCA  R:CAGATCGCTGTCTACGCTGT |
| 11 | *CmPOD* | *MELO3C002242.2* | peroxidase [45] | F:CCGCCATGTCAGCATTCAAC  R:CGAACCTCCCCTTTCCTTCC |
| 12 | *CmSOD* | *MELO3C017624.2* | superoxide dismutase [46] | F:ATGCCGTTAACCCACTCGTT  R:TAGACCTCTTCGTCGCTACCT |
| 13 | *Cm4CL* | *MELO3C002346.2* | 4-coumarate CoA ligase (4CL) [30] | F:CGAAGCGGTTTCTGTCCTCT  R:GGCCATTGCATAGGGAGGTT |
| 14 | *CmMet* | *MELO3C016513.2* | Metallothionein (Met) [47] | F:TGCGACTGTTCCGACAAGAC  R:CAATTGTTGCAGCCACAGTTTG |
| 15 | *Actin* | |  | F:GTGACAATGGAACTGGAATGG  R:AGACGGAGGATAGCGTGAGG |