

**Table S1.** Systematic approach followed to identify the APX genes in cultivated and wild soybeans.

**Table S2.** Systematic approach followed to identify the CAT genes in cultivated and wild soybeans.

**Table S3.** Cis-regulatory elements identified in the APX gene promoters.

**Table S4.** Cis-regulatory elements identified in the CAT gene promoters.

**Table S5.** Collinearity analysis of the *APXs* and *CATs* gene pairs.

**Table S6.** RNA-seq data of fourteen soybean tissues for *APX* and *CAT* genes freely available at SoyBase.

**Table S7.** *APX* and *CAT* genes expression dataset (RNA-seq) under WD, HS and WD+HS stresses publicly available at SoyBase.

**Table S8.** Primers used for RNA-sequence analysis

**Table S9.** Wild soybean APX and CAT genes closest homologs in Arabidopsis