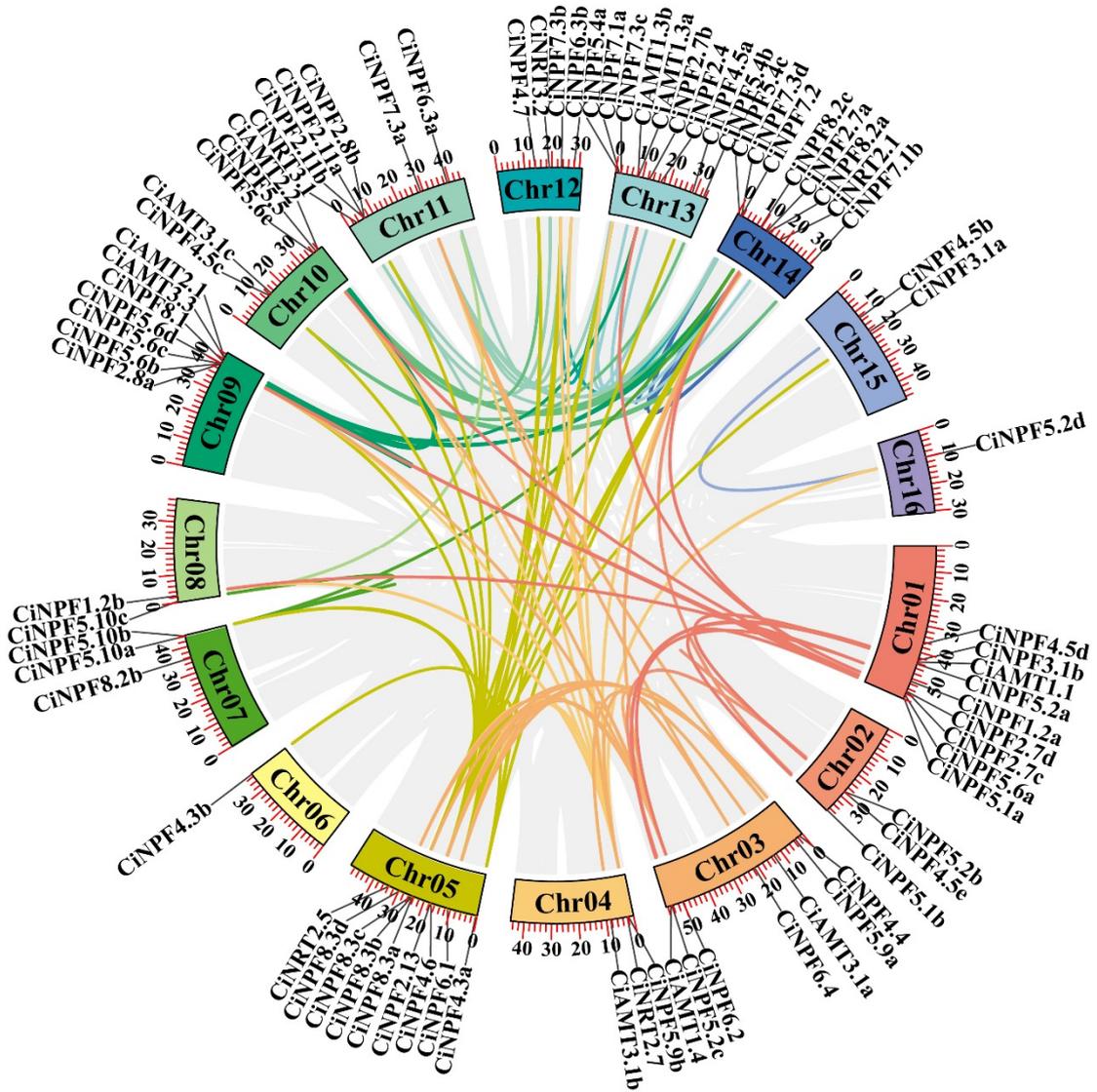
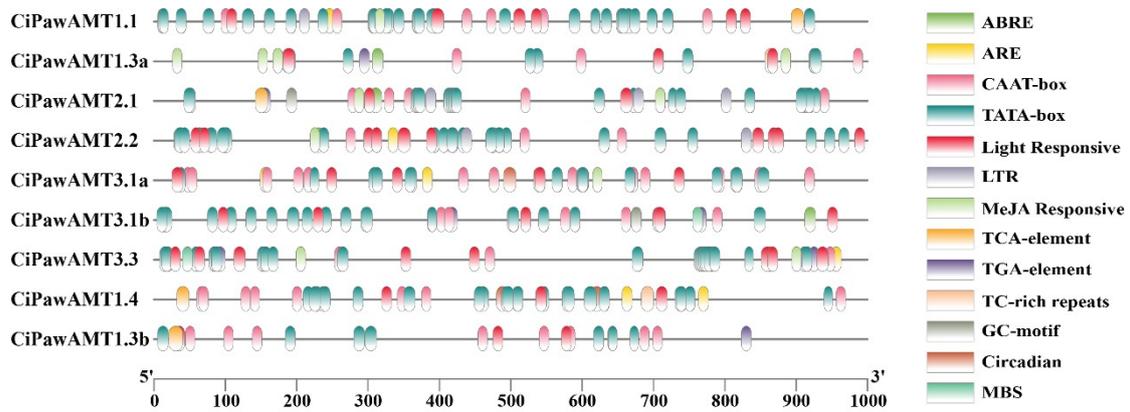


Figure S1. Synteny analysis of *AMT* and *NRT* gene families in pecan.



**Figure S2.** Cis-elements analysis of *AMT* genes in pecan (*Carya illinoensis*). ABRE involved in the abscisic acid responsiveness; ARE involved in anaerobic responsiveness; CAAT-box involved in promoter and enhancer regions; TATA-box involved in core promoter element around -30 of transcription start; Light Responsive involved in light responsiveness; LTR involved in low-temperature responsiveness; MeJA responsive involved in the MeJA-responsiveness, include CGTCA-motif and TGACG-motif; TCA-element involved in salicylic acid responsiveness; TGA-element involved in auxin responsiveness; TC-rich repeats involved in defense and stress responsive; GC-motif involved in anoxic specific inducibility; Circadian involved in circadian control; MBS involved in drought-inducibility.



**Figure S3.** Cis-elements analysis of *NRT* genes in pecan (*Carya illinoensis*). ABRE involved in the abscisic acid responsiveness; ARE involved in anaerobic responsiveness; TATA-box involved in core promoter element around -30 of transcription start; MBS involved in drought-inducibility; Light Responsive involved in light responsiveness; CAT-box involved in meristem expression; CAAT-box involved in promoter and enhancer regions; MeJA responsive involved in the MeJA-responsiveness, include CGTCA-motif and TGACG-motif; RY-element involved in seed-specific regulation; TGA-element involved in auxin responsiveness; GCN4\_motif involved in endosperm expression; TCA-element involved in salicylic acid responsiveness; LTR involved in low-temperature responsiveness; GC-motif involved in anoxic specific inducibility; Circadian involved in circadian control; TATC-box involved in gibberellin-responsiveness; TC-rich repeats involved in defense and stress responsive; HD-Zip 1 involved in differentiation of the palisade mesophyll cells; MBSI involved in flavonoid biosynthesis.



**Figure S4.** Protein-protein interaction network of *AMT* and *NRT* genes in *Arabidopsis*.

