

REGULATION OF REPRODUCTIVE ONSET AND VEGETATIVE GROWTH IN POPLAR

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Unlike annual plants, trees show repeated cycles of transition between vegetative and reproductive growth at sexual maturity. However, it is not clear how trees coordinate vegetative and reproductive growth without a developmental conflict. Through manipulative physiological and genetic experiments coupled with field studies, expression profiling, and network analysis, we show that the whole genome duplication products *FLOWERING LOCUS T1* (*FT1*) and *FLOWERING LOCUS T2* (*FT2*) coordinate these two important processes in poplar (*Populus* spp.). We will present our experimental findings in detail and discuss how they could provide new insights into tree improvement via breeding and biotechnology.