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Poster Abstract – G.26

GENETIC DISSECTION OF PHENOLOGICAL TRAITS DURING BUDSET IN POPLAR

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The work has the objective to contribute to the knowledge of the genetic control of budset and to identify genomic region associated to this trait in *Populus* spp. For this purpose two full-sib families of black and white poplar obtained from parents divergent for phenology have been measured. The study has been realized on the basis of a protocol designed to monitor the dynamic of different phenological phases during budset in the black poplar. Only the phase of transition (1.5) from the structure of the shoot to the bud has been measured in white poplar. Data analysis have allowed to decompose the contribution of the different phases to the dynamic of bud set in black poplar and to select 5 phases characterizing the process (phase 2.5, phase 1.5, subprocess 1 and 2, 50% of individuals in phase 1.5). The results have shown the significant genotypic differences in the two full-sib families and the budset traits were characterized by high coefficients of genetic variation and broad sense heritability. The obtained results will be discussed in relationship to the answer of the two full-sib families to the photoperiod and temperature introducing, in prospect, the utility of this work for genetic improvement and the mapping of QTLs associated to the bud set in poplar.