ADVENTIVE EMBRYOGENESIS IN YELLOW-POPLAR TISSUE CULTURES: A PRELIMINARY REPORT

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Among hardwood forest tree species, there have been only a few reports of adventive embryogeny. We initiated cultures of yellow-poplar (Liriodendron tulipifera) from embryos from seeds collected from a single tree at two week intervals between mid-August and late October, 1984. Proembryogenic nodules developed from the explants 5-6 weeks after cultures were transferred to a medium containing 2,4-D and 6BA. Within a month following transfer of proembryogenic nodules to a hormone-free medium supplemented with casein hydrolysate, embryoids differentiated. Prembryogenic cultures have also been grown in suspension culture and produced embryoids. All four cultures that produced embryoids originated from immature embryos from seed collected during the last week of August and the first week of September. Although most embryoids appeared abnormal, those with well-formed cotyledons and radicles were capable of developing into normal plantlets.

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