

INITIATION OF ADVENTITIOUS SHOOTS
FROM VITREOUS PINUS PALUSTRIS MICROPROPAGULES

Alex M. Diner
USDA Forest Service
Southern Forest Experiment Station
Alabama A&M University
P.O. Box 1208, Normal, AL 35762

Pinus palustris micropropagules of normal phenotype were generated from vitreous buds and shoots otherwise inappropriate for further use. Twenty-**three vitreous** shoots which had elongated to approximately 1 cm were cut to needles and stem segments, while younger buds in 25 collective vitreous clusters were pried/broken apart from each other. Tissues were then applied to a 0.8% agar-solidified Brown and Laurence mineral salts medium containing 44 uM 6-benzyladenine for 14 days. Following transfer to a growth regulator-free medium containing 1% activated charcoal, new bud growth was identified within 2 weeks. All buds initiated and elongated from vitreous shoots were normal in appearance ($a^y = 3$). With 1 exception, buds initiated from fragments of vitreous bud clusters ($a^y = 2/0.5$ cc) appeared normal. Three buds initiated from one vitreous cluster were themselves vitreous. All newly initiated buds appeared to develop from bases of shoot needles or apical regions of isolated vitreous buds. This procedure may permit rescue and remultiplication of vitreous, select genotypes for subsequent, functional micropropagation.