

## **ABSTRACT**

**MSc. Thesis**

### **IN VITRO PROPAGATION OF STONE PINE THROUGH SOMATIC EMBRYOGENESIS AND BUD CULTURE**

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**This study was carried out at Adnan Menderes University, Faculty of Agriculture, Department of Horticulture, Tissue Culture Laboratory between 2005 – 2007. In the study, somatic embryogenesis and bud culture techniques were used to be propagated of stone pine (*Pinus pinea* L.) clonally and rapidly. Cotyledons of embryos excised from mature seeds were used for somatic embryogenesis trials. The cotyledons were cultured on three different media DCR, modified LP and modified 1214, contain three levels of three growth regulators. White and transparent callus masses were formed on cotyledon explants. But somatic embryos were not achieved. The shoot-tip of the one year old shoot are cut into 5-8 mm of segments approximately. Shoot segments were cultured on ½ DCR medium that contains seven different levels of growth regulators. Bud swelling and needle leaves protruding were seen on some of the segments**

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#### **Key Words**

**In vitro, somatic embryogenesis, bud culture, *Pinus pinea* .**