CAMBIUM DAMAGE IN P. PINASTER BURNS

by

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The result of crown scorch in P. pinaster is known to be detrimental. However, before this study, no attempt had been made to assess likely cambium damage to this species as a result of controlled burning.

In August 1969, a number of experimental fires were run in twelve year old P. pinaster at McLarty's plantation. During burning, flame heights averaged 2.5 ft. and fire intensity ranged from 40 to 45 B.T.U.'s.

Six months later a number of the smallest trees were examined in the experimental fire areas. The G.B.H.O.B. ranged from 8 ins. to 1 ft. 4 ins. and the bark thickness ranged from 0.15 to 0.4 of an inch.

These trees were cut down, peeled and examined for cambium damage. None was found.

One year later experimental fires in thinned areas with intensities up to 260 B.T.U.'s resulted in serious crown scorch.

G.B.H.O.B. for these trees ranged from 10 ins. to 1 ft. 9 ins. and bark thickness ranged from 0.32 to 0.84 of an inch.

Two months later twenty trees were examined. All had gum extrusion from pruning scars but only three indicated gum extrusion from damaged cambium bark.

It would seem from these observations that P. pinaster cambium can withstand considerable fire intensity with little detrimental effect, so that crown scorch could well be the limiting factor in determining the ceiling height of controlled burn intensity.

Observation of the twenty hot burned trees is continuing.