



Seminar

Thursday 18th June 1992

Water Relations, Leaf Area and Jarrah Growth

by Stuart Crombie

Management objectives for designated Multiple Use Jarrah Forest call for some thinning of regenerating stands to promote growth on retained trees.

Results of the Inglehope thinning experiment 25 years after initial treatment indicate that:

- i) thinning did not reduce stand basal area increment (BAI) as stand basal area was reduced from 30 m² ha⁻¹ to 10 m² ha⁻¹; (1300 stems ha⁻¹ reduced to 300).
- ii) supplying Nitrogen and Phosphorous fertilizer trebled unthinned stand BAI and increased LAI of moderately thinned stands by up to 50 percent.
- iii) Leaf Area Index (LAI) of heavily thinned stands had not regained prethinning values after 25 years.
- iv) thinning relieved summer water deficits by up to 40 percent; supplying fertilizer increased water deficits by up to 70 percent compared to unfertilized unthinned stands and by more than 100% compared to heavily thinned stands.

Implications of changes in leaf area and summer water deficits for jarrah growth and survival in response to thinning, disease and summer drought will be discussed.

Venue:
CALM Wildlife Research Centre
Ocean Reef Road (near Joondalup Drive)
Woodvale

Time: 3.00pm