

WANDOO SEEDLING SURVIVAL

By C. J. Edwards

Officers who have worked in the Wandoo forest have, no doubt, noticed the strong tendency for Wandoo regeneration to occur almost solely over ash beds. Even without actually observing seedling regeneration, the typical habit of Wandoo saplings and poles to occur in groups of perhaps a dozen, would lead observers to assume that this ash bed germination pattern was normal.

Over the last couple of years, officers of the Mundaring Division have been conducting controlled observations in an attempt to learn more about Wandoo germination and survival and the factors that control it. No striking conclusions can be made at this stage, nor can any be expected, since the main purpose of the observations is to confirm (or refute) suspected trends and give a better basis for conclusions that have already been tentatively made.

Perhaps a few notes on one aspect of this work, the study of seedling survival, would be of interest.

Three plots, consisting of burnt crowns with two year old seedling regeneration, were selected, one in the Julimar State Forest and two in the Wandoo forest east of Mundaring.

In each plot two sample areas of four square feet were pegged out. These areas were subjectively selected in an attempt to get a fair average sample for the entire plot.

Observations to Date -

1. Regeneration was extremely heavy and in some cases completely outlined the burnt crown.
2. Height and vigour of the seedlings varied. The largest and most vigorous normally occupied the bole area where the ash residue was thickest and tapered off gradually towards the edge of the crown.
3. The number of seedlings per unit area followed a reverse pattern and were fewer in the bole area than in the crown.
4. Height increment of the largest seedlings was approximately seven inches and this represented a thirty per cent. increase in height for the year.
5. Mortality rate (2nd to 3rd year) was found to be variable over the sample areas examined; extremes being 60% mortality in one case and 0% mortality in two cases. The overall average mortality was approximately ten per cent. for the year ending March, 1964.

As a final comment with regard to this work, it should be mentioned that attempts are already underway to provide rough quantitative data on seedling mortality during the first few years following germination (not covered in the plots discussed), and to adopt a system whereby the records of all plots etc. are continually brought under notice and not allowed to gather dust in the archives.

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