

THE EFFECT OF A 4 YEAR BURNING CYCLE ON JARRAH REGENERATION

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Observations have been made in fair and high quality Jarrah forest in the Kirup Division following the 2nd cutting cycle.

For some 6 years I have been making observations and notes on areas burned 4 years after the top disposal burn but it has required Mr. Peet's initiative in Forest Notes (Vol. 3 No. 1 and No. 2) to spur me into print. The detailed observations he has made speak for themselves.

I cannot present such detail but must say the results are what I would have expected. My observations used a growth rate of 2 ft. per year of dynamic regrowth stems likely to be required for restocking.

In the areas studied the following observations were made and these may help to explain my conclusions.

1. In the area where the crown fell and also around the stump there generally appears to be less litter accumulation. The reason for this is assumed to be that the crown or producer of litter has been removed from the area around the stump and the crown of a felled tree in the majority of cases falls into an opening in the canopy. The lean of a marked tree tends to be towards an opening and also the marker tries to direct the crown into an opening. If he fails, as we know, the crown makes an opening as it falls.
2. In the subsequent burn the chances of survival of dynamic regrowth in the ashbed of the crown are greatly increased when the top disposal burn is done at least one year after cutting. It is important that bark and fine woody material are burned.
3. Coppice stems with their faster growth rate (about 3 ft per year) have a higher chance of survival than dynamic saplings at age 4. In these days of low stumps coppice stems should play a much more important part in the future crop. Unfortunately a variable proportion of stumps are still high, due to faults resulting from past uncontrolled fires.

4. Second cut forest is generally overstocked with immature sizes. Observations of the openings made by the 2nd cut and the amount of regeneration obtained, lead one to the conclusion that in a great many cases, a high survival rate of the regeneration will only aggravate this overstocking.

5. Jarrah forest of low stocking always appears to produce a light stocking of regeneration. In this bush therefore coppice could be even more important than in higher quality areas.

CONCLUSIONS:

In the types of forest observed, using conditions which cause minimal scorch, a satisfactory burn can be done 4 years after the top disposal burn. Without normal care and common sense it is possible to set back the regrowth considerably.

Since the Dwellingup fire we have endeavoured to burn the forest in even aged belts. The fact that mills have to cut in the forest and leave tops which we normally do not wish to hold more than one year complicates this planning enough. If it were then shown that tops must be held for much longer periods than 4 years the planning of these even aged litter belts would be rather beyond normal mortals.

Without question regeneration must be given 1st priority and we should not lapse into the habit of burning on any prescribed rotation unless it can be shown that our methods are successful in the particular forest concerned.