LARGE MARRI CAN BE KILLED BY DEEP INJECTIONS OF TORDON

by

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Since the thinning of our prime Jarrah pole stands started, we have been faced with one difficult problem; killing the unmerchantable marri within these areas. In the main these marri are enormous in size and are taking up vast amounts of space and nutrients which should be put to a more economical use. In addition they have proved difficult to kill using the techniques which are satisfactory for jarrah.

For this reason the following two experiments were carried out.

The initial trial was made on 120 veteran marri ranging in girth class from 5' to 15'. Trees were grouped into 10 lots of 12 stems each.

12 combinations of treatments were used to test:-

1. Season of application;
2. distance apart of notches;
3. different doses of Tordon.

A modified miners pick was used to form the notches and a calibrated sheep drencher to inject the required amount of poison solution. Tordon 50D diluted with water was used.

Treatments were as follows:-

A. Notches 10" apart 0.1 gms of Tordon 50 per notch*

B. " 10" " 0.075 " " " " " "

C. " 5" " 0.050 " " " " " "

D. " 5" " 0.025 " " " " " "

Treatments were applied during the months of January -mid summer, June-mid winter, October-mid spring.

* 0.1 gm is the quantity of Tordan contained in 2cc of Tordon 50D.

The seasonal effects which resulted were:-
June 10% deaths;
October 17.5% deaths;
January 5.0% deaths.

The best result was given by the October (spring) treatment, and the worst result by the January (summer) treatment.

Results for different notching distances and amounts of Tordon were:-

10"	at	0.10 gms	16.7% deaths
10"	"	0.075 "	6.7% "
5"	"	0.05 "	20.0% "
5"	"	0.025 "	0 "

From these results it is obvious that there was no significant difference in the distance apart of notches, but there was a considerable difference in the amount of Tordon used.

With these results to hand it was suspected that the results could have been effected by the gum which was exuded by the tree when punctured. Some of the solution might also have been washed out by rain because of unsatisfactory notching.

A second experiment involving 60 veteran marri was laid down on the 29th September, 1968.

Three treatments were used. Trees were tabulated in ascending girth order and then split into three groups of 20 so as to give equal girth representation for each treatment.

To enable the solution to be more readily absorbed it was decided that for two of the treatments holes should be drilled into the outer sapwood (xylem) for a depth of approximately two inches as the notching tool went in only as far as the cambium.

Treatments were as follows:-

1. Notches 10" apart with 0.15 gms of Tordon 50D
2. Drilled holes 10" apart with 0.15 gms of Tordon 50D per notch
3. Drilled holes 0" apart with 0.30 gms of Tordon 50D per notch

Eight months after the treatments were laid down the results were:-

1. Notches 10" apart 0.15 gms per notch - 50% dead
2. Drilled holes 10" apart 0.15 gms per hole - 90% dead
3. Drilled holes 20" apart 0.30 gms per hole - 85% dead.

It is quite obvious that the bored holes gave by far the better results and that the distance between holes had little effect on the results.

Further experiments are planned to find out just how far the distance between bored holes can be extended without losing killing efficiency.