ARBORICIDE PRESCRIPTION

REVISED JULY 1986

SILVICULTURE BRANCH

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

These notes prescribe the recommended application of Round-up arboricide used for hardwood thinning and a variety of other purposes.

Research to refine these prescriptions is continuing and these notes will be re-issued whenever new information is available. Please advise the Manager, Silviculture Branch if problems arise with the application of these prescriptions, if failures occur or if you wish to suggest improvements to the technique.

These prescriptions are to be applied according to the instructions in the Chemical Users Manual.

These prescriptions are based on data supplied by Research Branch at Busselton and Dwellingup and feedback received from Districts following field application of the prescription.

CONTENT

1. FOLIAR SPRAY

1.1 Used for - Eucalypt regrowth from 300-800mm in height.

1.2 Chemical - Roundup.

1.3 Concentration - Advance growth - 1 part Roundup to 15 parts water.

Coppice - 1 part Roundup to 10 parts water.

(Add Ciba Geigy herbicide dye if required).

1.4 Time of Year - November to February.

1.5 Rate of Application - Complete coverage of foliage.

1.6 Recommended Equipment:-

1.6.1 Plastic pressurised pack spray.

1.6.2 For recommended and compulsory safety equipment refer to the Chemical Users Manual.

1.7 Results:-

1.7.1 The above recommendations give successful results with jarrah and marri regrowth from lignotubers. Stump coppice has had more variable results and the treatment of extensive areas of coppice by this method is not recommended till more reliable results can be re-produced.

1.8 Additional Comments:-

1.8.1 Until it can be determined that fire will not stimulate growth, do not burn within 12 months of poisoning.

1.8.2 Coppice develops very quickly - if not treated within 12 months of cutting (or burning) it will become too large for foliar spraying.

2. CUT STUMP

2.1 Used for - freshly cut stumps of saplings or coppice through to large trees.

2.2 Chemical - Roundup.

2.3 Concentration - 1 Part Roundup, 10 parts water. Add "Ciba Geigy" red herbicide dye if required.

2.4 Time of Year - September to April.

2.5 Rate of Application - 2ml per 25mm of stump diameter, OR 2ml per 75mm of stump circumference.

2.6 Recommended Equipment:-

2.6.1 Drench gun with Rega No.6 nozzle OR

2.6.2 Vaccinator (preferred) - ICI Autovax Model A
- Phillips Automatic. Model 74.

2.6.3 For recommended and compulsory safety equipment refer to Chemical Users Manual.

2.7 Application:

Apply poison at the rate prescribed around cambium and sapwood of the stump. In order to be taken up into the stump it must be applied within 10 to 15 seconds of the cut having been made.

2.8 Additional Comments:-

2.8.1 If working arrangements cannot be devised to accomplish immediate application of poison then treatment should be delayed till the stump coppices and it can be foliar sprayed or notched at a later date.

2.8.2 The rates of application mentioned here were derived from the application to small stumps. They may be less reliable on large stumps.

3. STEM INJECTION (NOTCHING)

3.1 Used for - Saplings to large trees.

3.2 Chemical - Roundup.

3.3 Concentration - 1 Part Roundup to 1 part water.

3.4 Time of Year - All year, (not to be done while it is raining to the extent that rain is running down the stem).

3.5 Rate of Application - Spacing of notch - 15cm (6") apart.

Dose - 30cm (1ft) dbh - 1ml/notch

- 30cm (1ft) dbh - 2ml/notch

Where difficulties are experienced in killing marri, reduce notch spacing to 5 cm.

3.6 Recommended Equipment:-

3.6.1 Notching axe (see Figures 2 and 3) and

Vaccinator - ICI Autovax Model A OR

- Phillips Automatic Model 74

(See Figure 1)

OR Injector bar.

3.6.2 For very large cull trees with thick bark, make notches with a 1kg axe.

3.6.3 For recommended and compulsory safety equipment refer to Chemical Users Manual.

3.7 Application:-

3.7.1 Notching Axe

- Stand at arms length from the selected tree.
- Holding the axe in the preferred hand (ie: right hand if right handed or left hand if left handed), drive the axe into the tree at waist height. The cut must be level and at an angle of 45° to the tree. The axe must penetrate the sap wood (See Figures 4 and 5).
- Push the handle away from the tree to widen the notch and withdraw the axe.
- Immediately place the point of the nozzle of the gun into the sapwood part of the notch and inject the required amount of chemical (ie: 1 to 2 squirts). To ensure that the chemical is taken up into the tree, it must be injected no later than 10-15 seconds after the cut has been made. It must also be injected into the sapwood - any chemical which goes onto the bark is lost. Chemical correctly applied will be seen to be absorbed very quickly into the tree.
- Repeat the treatment for the next notch.

3.7.2 Injector Bar

- Stand at a convenient distance from the tree.
- Drive the injector bar into the base of the tree at a 45 angle. (The bark is often thicker at this point so care is required to ensure that the bar has entered the sapwood).
- Pull the bar downwards to leave a space between the bark and the upper side of the bar.
- Lift the handle to released the required dose (1 to 2 squirts).
- Repeat at next notch.

3.8 Results:-

Browning off of leaves should be evident in 2 to 3 weeks.

3.9 Additional Comments:-

3.9.1 Do not poison trees of the same species within 1m of a crop tree. These often appear to share the same root system - they may be old coppice from a stump which is no longer visible.

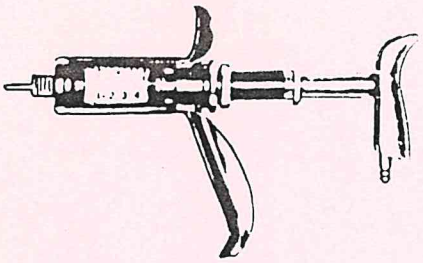


Figure 1

Vaccinator

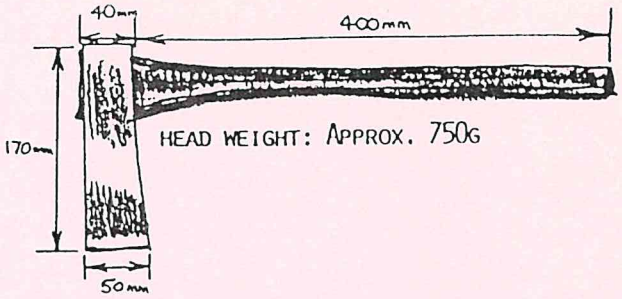
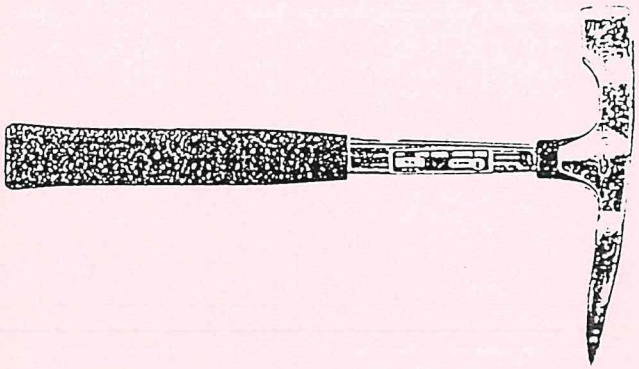


Figure 2

A recommended notching axe made by cutting a 3lb axe in half. Note importance of having the cutting face wider than remainder of head.



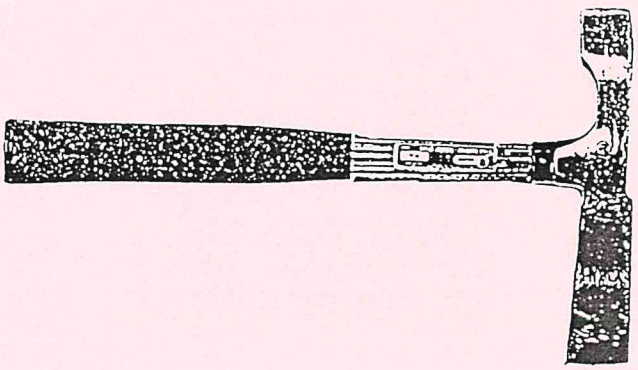


Figure 3

A. Standard 24oz brick hammer.

B. Notching axe made by cutting off the blade and welding it on at right angles. Weld with the bevelled face on the lower side (to suit right or left hander). Grind bevel so that it is not so pronounced.

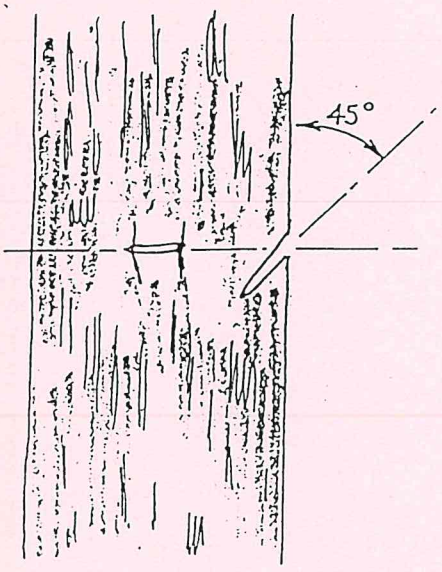


Figure 4

Correct angle of notch.

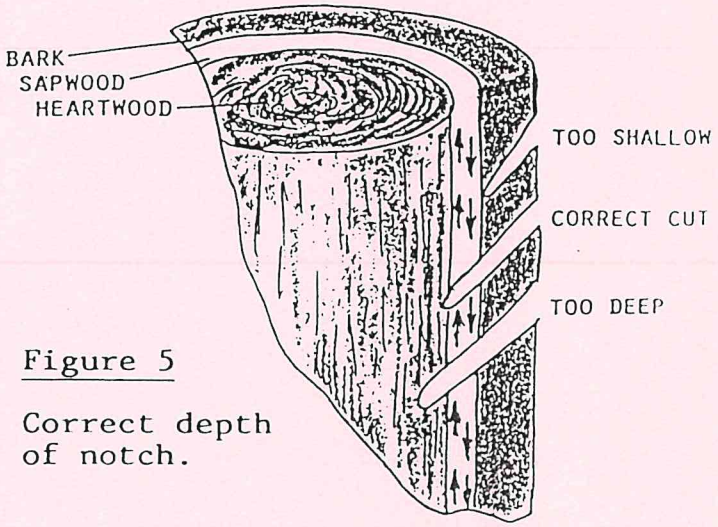


Figure 5

Correct depth of notch.