

## FORESTS AND WOODY PLANT WEEDS IN WESTERN AUSTRALIA

Reviewed by

J.G. Paterson

Department of Agriculture, Western Australia

### SIGNIFICANCE OF WEEDS

Woody plant weeds constitute a significant problem over restricted parts of the state, the most important species being mesquite (*Prosopis juliflora*), blackberry (*Rubus* spp.) and various eucalypts. Mesquite can be a problem in the pastoral areas of the north of the state. Blackberry occurs naturally in the south-west where the annual rainfall usually exceeds 30 inches. Eucalypts occur generally, the predominant species depending mainly on soil type and climate. Jarrah (*E. redunca* var. *elata*) are the main species. These can be a problem on newly cleared land and along public utility service lines.

Other woody weeds such as sarsparilla (*Muehlenbeckia adpressa*) and cotton bush (*Asclepias fruticosa*) occur over more restricted areas.

In the jarrah forests eucalypt regrowth is often too dense for optimum growth and some thinning is necessary. An area approaching 3,000 acres is chemically treated last year for this purpose.

### PRESENT WEED CONTROL PRACTICES

Woody weeds are at present treated with either 2,4,5-T, 2,4-D or picloram, or with a combination of these herbicides. Where 2,4,5-T is used this is carried in either water, as an emulsion or in diesel fuel as a solution. The oil solution is used as a basal treatment against mesquite and in some cases against eucalypts. The water emulsion is generally used as a high volume treatment at a concentration of 0.25% with a 1% diesel fuel additive.

An 0.1% emulsion has proved effective against most types of blackberry but recently improved performances have been obtained by lowering the concentration to less than 0.05% and correspondingly increasing the volume of application.

A combination of picloram and 2,4-D amine is now widely used by the Conservator of Forests for thinning jarrah regrowth in Western Australia. An average of 14 fluid ounces of commercial product (Tordon 50-D) per acre is required.

**THE EFFECTIVENESS OF RESEARCH, EXTENSION AND LEGISLATION**

Legislation has been introduced to control the spread of several woody plant weeds in Western Australia. Among these are mesquite, blackberry and cotton bush, all of which are 'primary noxious weeds.' Control of these weeds in certain defined areas must be attempted. In most cases dramatic response has been obtained mainly as a result of direct action by the Agriculture Protection Board, the body empowered with the necessary authority.

Extension has not been the sole means of stimulation and, in fact, where action is required the response to extension alone is often less than satisfactory. In view of the poor response to extension, research has become increasingly important as it is essential to be able to recommend a potentially successful method of control where direction is involved.