

both from the ground and from the air and as a result all known patches have been treated several times and most have been eliminated.

FORESTS AND WOODY PLANT WEEDS IN VICTORIA

Reviewed by

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Harvestable forests in Victoria consist of approximately 8.4 million acres of hardwoods and 100,000 acres of softwoods. Several types of weed problems are encountered - unwanted woody weeds, mainly acacias, competing with young pines; unwanted eucalypts both coppice and seedlings competing with young pines; mixed scrub hindering site preparation prior to sowing to eucalypts; and planting of pines, eucalypts; herbaceous weeds competing with transplanted pines and eucalypts; and nursery weed control.

Woody plants such as blackberries, furze, sweet briar, boxthorn and hawthorn are important weeds of grazing areas, roadsides and wastepieces where they occupy space which could be better occupied by less objectionable species (all have spines or prickles which deter grazing animals and seriously limit utilization of infested areas).

PRESENT PRACTICE OF WEED CONTROL

Most scrub and acacia weeds in young pines are adequately controlled by aerial spraying with 2,4,5-T (butyl ester) at 1 lb a.i. per acre in late May or June, two years after planting. The control of unwanted eucalypt coppice and seedlings is not widely practiced at present but trials are in progress and field adoption of either spraying with picloram/2,4,5-T mixtures or stump treatment or stem injection with picloram mixtures is imminent. General scrub control is achieved by aerial spraying with 2,4,5-T (butyl ester) at 3 lb a.i. per acre followed 18 months later by bulldozing, burning and aerial sowing of eucalypt seeds. The control of herbaceous weeds around young pines and eucalypts is not currently practiced, although cultivation is sometimes used prior to planting. Weed control in nurseries is carried out with power kerosene or paraquat as pre-emergent treatments and power kerosene or simazine as

post-emergent treatments.

The control of the woody noxious weeds is achieved mainly by spraying although mechanical removal is used to some extent on sweet briar and boxthorn.

The current control practices are as follows:

- blackberries: overall spraying with 2,4,5-T ester (0.07% emulsion)
- or overall spraying with amitrole (1 gal Weedazol TL plus in 50 gals water)
 - or overall spraying with picloram/2,4-D (1 gal Tordon 50-D in 50 gals water)
 - or application of picloram granules (2%) at 9 lb of granules per 100 sq. yds.
- furze: overall spraying with 2,4,5-T ester (0.13% emulsion)
- or overall spraying with amitrole (1 gal Weedazol TL plus in 50 gals water)
 - or overall spraying with picloram/2,4-D (1 gal Tordon 50-D in 130 gals water)
- sweet briar: basal spraying with 2,4,5-T ester (2.0% emulsion)
- or overall spraying with picloram/2,4-D (1 gal Tordon 50-D in 100 gals water)
- boxthorn: cut stump treatment with undiluted amine 2,4-D
- or application of fenuron pellets at 1-2 oz per bush
- hawthorn: cut stump treatment with either undiluted amine 2,4-D or undiluted picloram/2,4-D

EFFECTIVENESS OF RESEARCH, EXTENSION, AND LEGISLATION

In both the forestry field and in the treatment of noxious woody plants research has produced effective control practices for most problems but there are still some areas in need of improvement. These are:

1. an effective treatment for controlling herbaceous weeds around young pines and eucalypts
2. an effective means of controlling spray drift particularly for use in aerial spraying
3. a general improvement in spray effectiveness through a definition of optimum conditions - droplet size, weather conditions etc. - for example eucalypt control by foliar

spraying could be improved

4. the development of more effective herbicides or means of control for some species - blackberries, boxthorn, hawthorn.

Extension activities have been reasonably effective through the production of manuals for field staff, recommendation booklets and other literature for the general public and field days to explain and demonstrate new techniques.

Legislation provides that the noxious woody plants mentioned above should be controlled. This is reasonably effective in confining these weeds and preventing them from invading new areas.