

WEEDS IN PASTURE AND GRAZING LANDS IN TASMANIA

Reviewed by
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Nowhere in Tasmania are there large areas of pasture dominated by a single weed or a few species in association. Consequently both weed research and present weed control practice are directed against a number of small problems. The problem of pasture weeds can be divided into preventing competition from weeds during the establishment of improved pasture species and the control or eradication of weeds on established pastures.

SIGNIFICANCE OF WEEDS IN PASTURE

Perennial rye grass, the principal grass species sown has good seedling vigour and weed competition is not generally regarded as a serious problem during early establishment particularly when good seed beds are prepared. First year stands of lucerne are frequently affected.

Thistle species which are not generally grazed by stock are the worst weeds of pasture in Tasmania. Slender thistles, *Carduus* spp. and *Cirsium vulgare* are the most abundant and widespread. Infestations frequently follow insect attacks on pasture and are heaviest and most common in low rainfall areas where *Trifolium subterraneum* is abundant. Most other weeds which cause pasture deterioration have some grazing value. *Cryptostemma calendula*, *Hordeum* and *Erodium* spp. are examples of such annual pasture weeds while *Senecio jacobaea*, *Holcus mollis* and *Cirsium arvense* are examples of biennials or perennials which are a problem in the wetter areas.

Although their present level of infestation is low, serrated tussock, *Nasella trichotoma*, cotton thistle, *Onopordum acanthium* and nodding thistle, *Carduus nutans* are considered to have a dangerous spread potential and programmes for their State-wide eradication are under way. Good results have been achieved with serrated tussock and the infested area has now been reduced from approximately 8,000 acres (3,200) to under 2,000 acres (800) in the ten years since the start of the campaign. Infestations are also much lighter. Eradication campaigns for the two thistle species, cotton thistle covering approximately 5,000 acres (2,000) and nodding thistle 300 acres (130) were started two years ago and initial results are promising.

No proper assessment has been made of the economic loss caused by pasture weeds in Tasmania.

PRESENT PRACTICE OF WEED CONTROL

Herbicides are occasionally used in newly sown grass and clover pastures and more frequently in young lucerne where 2,4-D.B. and Paraquat are useful.

In established pastures cultivation and resowing sometimes with an intervening cropping phase is used for weed control. Approximately 70,000 acres (28,000) of thistles and other weeds are sprayed annually with phenoxyacetics but without producing much permanent effect. Dicamba is employed to kill cotton thistle while serrated tussock is mainly controlled by hand hoeing. Ragwort is pulled or spot sprayed.

EFFECTIVENESS OF RESEARCH, EXTENSION AND LEGISLATION

Research work which established the value of dicamba has made possible the campaign for the eradication of cotton thistle. Extension work and legislation action, where required, have contributed to its initial success and to the other eradication schemes being undertaken, serrated tussock particularly, but have had little effect on the control of other noxious weeds.

Research has made a useful contribution to the control of weeds in lucerne and has indicated the value and the limitations of herbicides generally for the control of weeds in pasture.