

## THE PROBLEM OF BONESEED IN VICTORIA

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Attitudes towards weeds are changing today. Evidence of this in Victoria is the concern over the South African boneseed (*Chrysanthemoides monoliferum*).

### THE PROBLEM

As a weed boneseed is unique for, at present, it does not affect farming in any way and in fact is rarely seen growing on agricultural land. This is difficult to understand when adjacent roadsides carry heavy infestations. The problem with boneseed is that it poses a great threat to native shrubs and wildflowers especially in reserves set aside for the preservation of these species. It is a weed affecting our 'quality of life'.

The seedlings can establish beneath large trees or among smaller shrubs like those found in coastal areas. Boneseed produces numerous seeds and, although germination per cent is very low, many seedlings will arise beneath a single plant and so a thicket soon develops. These clumps become so dense that light penetration is reduced and understorey species do not flourish. In fact some species may die out altogether.

### HISTORY AND DISTRIBUTION

Boneseed was first introduced into Victoria in 1858 when it was planted in the Botanic Gardens. It was probably also planted as a garden shrub elsewhere as the Herbarium records it from Cheltenham and Brighton Beach in 1910. Ewart, in 1930, in his Flora of Victoria, referred to it as an occasional garden escape. Recent Herbarium records show boneseed to be widely distributed throughout the western half of Victoria. It is well established on the shores of Lake Hindmarsh in the northern Wimmera and along the coastline at Portland, Lorne, and Airey's Inlet. It is also found extensively on the Bellarine Peninsula, in the You Yangs, and on the Mornington Peninsula. The only records of its presence east of Melbourne are from the Dandenong Ranges, Healesville, and Phillip Island. A dense infestation occurs within 3 miles of Melbourne in the Yarra Bend National Park. There would appear to be no climatic limits restricting its spread in Victoria so the lack of infestations east of Melbourne is difficult to understand.

Undoubtedly most spread can be attributed to garden plantings and disposal of garden rubbish, but birds and animals also contribute.

CONTROL

Boneseed can be controlled and even eradicated where infestations are small. The simplest and most effective method is to pull up the plants. However, follow-up work is needed because many of the accumulated seeds in the soil will germinate following removal of the old plant. If plants are cut to within 6 in. of the ground fewer seedlings appear but regrowth from the stump occurs.

On large infestations hand pulling or cutting is impracticable and in these situations chemical control becomes necessary.

In trials to evaluate the effectiveness of granules and overall sprays, several herbicides produced a complete kill of the foliage. Often, however, regrowth of the treated plant occurred. In other cases there was no regrowth but seed germination was not affected. The ideal herbicide treatment should kill the parent plant and prevent seedling establishment. Picloram can produce the desired result but its use involves a problem since infestations are in flora reserves and it does not have sufficient selectivity.