

Benefits and Limitations of Weed Control Treatments

Building the capacity of Local Government to implement accountable and effective weed control programs

The Local Government Herbicide Use and Integrated Weed Management Working Group has collated data from trials of commonly used weed control treatments to share information on cost and effectiveness. Twenty-five Local Governments from across Western Australia participated in the survey. Qualitative ratings (0 low - 5 high) were used to evaluate the efficacy and cost effectiveness of each treatment, and quantitative data was provided on cost per hectare and percentage weed control for up to 42 days following treatment.

Local Governments have trialled a range of weed control treatments, including pre-emergent and post-emergent herbicides, organic herbicides (pine oil, pelargonic and acetic acid), manual, mechanical, suppression and thermal (hot water, steam and solarisation) treatments.

Pre-emergent herbicides have not been widely trialled or adopted for use by Local Government. The most commonly used post-emergent herbicides are glyphosate, fusillade and metsulfuron, which have demonstrated high efficacy and cost effectiveness. Several Local Governments restrict the use of glyphosate to specific areas, including the Town of Bassendean, Shire of Denmark, Town of Mosman Park, City of Joondalup and City of Subiaco.

Organic herbicides showed low to medium effectiveness in controlling weeds, with most products not adopted for ongoing use by Local Government.

The majority of contributing Local Governments have incorporated non-chemical weed control such as manual hand removal, slashing and competitive planting and mulching into their integrated weed control programs. The City of Fremantle reported that manual weed control in bushland areas was beneficial in reducing herbicide use and off-target vegetation damage.

There are 17 Local Governments that have reviewed the use of steam weed treatment. All found that steam weed treatment is a costly option compared with other weed control methods. The City of Joondalup uses steam in conjunction with hot water, which has better ground penetration and lower water use than steam alone. Seven Local Governments have adopted the use of steam as an ongoing treatment in their weed control programs, including the Town of Bassendean, Shire of Bruce Rock, Cities of Fremantle, Joondalup, Perth, South Perth and Subiaco. As this treatments are not selective, application is restricted to specific areas such as garden beds and paved areas to avoid off target damage.