



Australian Association of Bush Regenerators (WA) Inc

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NEWSLETTER

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Effectiveness of 2,2-DPA in Controlling *Babiana*, *Ixia* and *Allium* in Native Bushland

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Introduced geophytes pose a serious threat to bushland communities. While restricted in distribution within Kings Park, *Allium*, *Babiana* and *Ixia* species have the potential to spread rapidly impacting upon biodiversity. With encouraging results from the use of 2,2-DPA (Propon) on *Watsonia* species within the bushland it was decided to trial the herbicide on *Babiana angustifolia*, *Ixia maculata* and *Allium triquertrum*.

Concentrations were chosen based on full and half recommended rates for *Watsonia* control, (740g/kg 2,2-DPA) at 5 and 10 kg/ha plus the surfactant Agral at 3.5ml/L. Plots with sufficient weed cover were selected and sprayed at a rate of 0.1/ha. It was noted that, particularly with the *Ixias*, smaller plants displayed variable wetting, it was also noted that due to their dense upright nature coverage was not absolute. Due to growth conditions *Allium* plants

exhibited elongated growth this along with the high density of plants led to dense matting which prevented complete herbicide coverage.

Within four days of herbicide application the *Ixia* started to yellow, after two weeks both the *Babiana* and *Ixia* showed significant indications of stress, though there was no indication of herbicide damage to the *Allium* trials.

Twelve months after herbicide application, the plots were scored. There was no emergence of *Babiana* at either concentration. *Ixia* trials showed a 96% reduction in cover using the lower rate of herbicide and 99% reduction with the higher rate. This less than complete kill may be attributed to the poor coverage of plants at time of herbicide application. Although *Allium* showed no signs of stress post treatment there was a 94% reduction in cover using 5kg/ha and a 97% reduction at 10kg/ha.

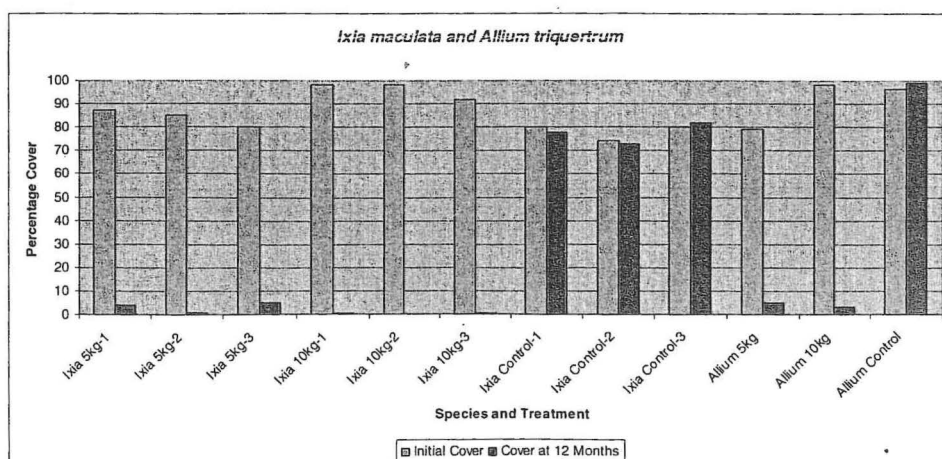


Figure 1: Cover of *Ixia maculata* and *Allium triquertrum* in control and treated plots (5kg/ha and 10kg/ha) pre-treatment and 12 months post-treatment.

(Continued on page 4)

in this issue:

Use of 2,2-DPA in weed control	1, 4, 5
November Forum	2
AABR Committee	2
Dieback news	2
Controlling weeds with sugar	3
WANTED	3
In Safe Hands safety manual	5
Glyphosate resistance	6
Longstem seedlings	6, 7
Western Weeds	7
Medecos	8

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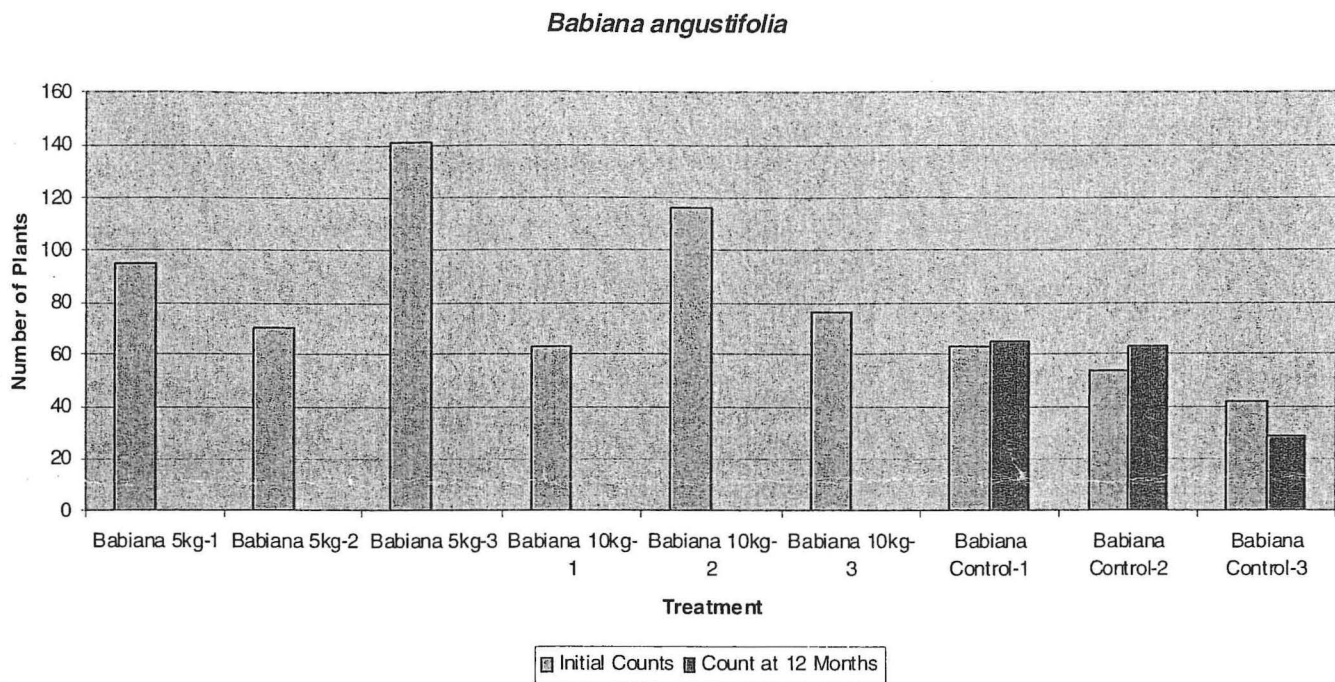


Figure 2: Number of *Babiana angustifolia* plants in control and treated plots (5kg/ha and 10kg/ha) pre-treatment and 12 months post-treatment.

To test the tolerance of local native species to 2,2-DPA a selection of greenstock was treated with both concentrations of herbicide (Table 1). These trials comprised 20 species representing 16 genera from 7 families. The trials indicated 2,2-DPA at 5 and 10 kg/ha.

Herbicide (a penetrant) at 2ml/L produced severe leaf and root damage at both rates to all species. Initially 5 kg/ha was less damaging but still caused leaf drop on every species tested with the exception of *Anigozanthus anglesii*. However, all species (except *Ozothamnus cordatus*, as insufficient material was available) at 5 kg/ha recovered. At 10 kg/ha *Ozothamnus cordatus*, *Calothamnus quadrifidus*, *Melaleuca huegelii* and *Grevillea crithmifolia* were killed. Further trials are being conducted with greenstock and seedlings covering wider range of families. Early indications are that 2,2-DPA will impact the majority of greenstock species to some degree, through the burning of foliage. Observations in the field indicate that established vegetation has the ability to regenerate after initial herbicide damage.

Name	
<i>Acacia cochlearis</i>	<i>Hardenbergia comptoniana</i>
<i>Acacia cyclops</i>	<i>Kennedia prostrata</i>
<i>Acacia lasiocarpa</i>	<i>Kunzea ericifolia</i>
<i>Acacia pulchella</i>	<i>Grevillea crithmifolia</i>
<i>Allocasuarina humilis</i>	<i>Jacksonia furcellata</i>
<i>Anigozanthus manglesii</i>	<i>Melaleuca huegelii</i>
<i>Anthrocercis littorea</i>	<i>Melaleuca systema</i>
<i>Calothamnus quadrifidus</i>	<i>Olearia axillaris</i>
<i>Daviesia divaricata</i>	<i>Ozothamnus cordatus</i>
<i>Eucalyptus gomphocephala</i>	<i>Templetonia retusa</i>

Table 1. Species used in initial greenstock tolerance trials

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Figure 3: Allium trials, 10kg/ha treatment to left control on the right



Figure 4: *Ixia maculata* trials, Control in foreground 10kg/ha plots in the background

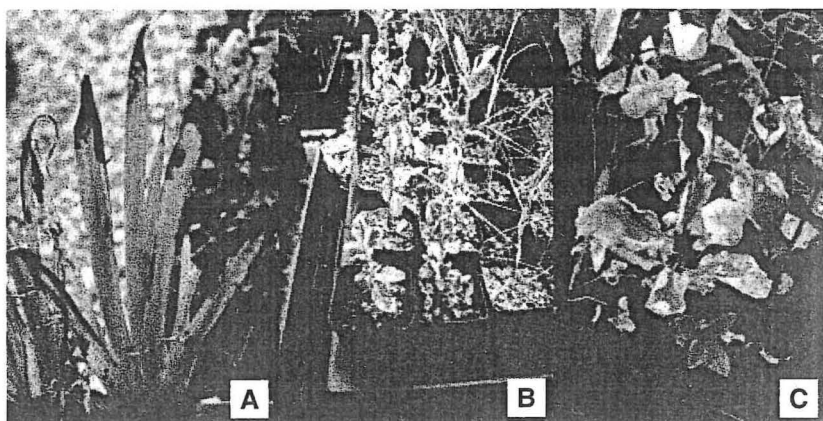


Figure 5: Impact of 5kg/ha 2,2-DPA on A) *Anigozanthus manglesii*, B) *Spyridium globulosum*, and C) *Eucalyptus gomphocephala*

Conservation Volunteers

In Safe Hands

A Safety Management Toolkit for Community Groups in Practical Conservation

A manual including two DVDs (Training Program and Documentation) was recently released by the Conservation Volunteers Australia (CVA) and the Rio Tinto WA Future Fund.

Complimentary copies of the manual have been sent to every NRM regional body and their sub-regional groups as well as Landcare and friends groups. *In Safe Hands* was also produced with the support of the Department of Environment and Conservation.

The manual provides valuable information to groups to help them minimise any risks associated with undertaking practical conservation work.

Contents

- Occupational Health and Safety Policy and Implementation Guidelines
- Guidance Notes
- Safety Prompts
- Volunteer Induction Guide
- Project Briefing Guide
- Volunteer Safety Card
- Documentation and Record Keeping
 1. Volunteer Registration Form
 2. Risk Assessment Form
 3. Project Safety Check
 4. Site Safety Inspection Report
 5. Accident Report Form
 6. Serious Incident Investigation Report
 7. Paracetamol Use Form
 8. Project Report

For further information please contact CVA on 9336 6911 or e-mail perth@conservationvolunteers.com.au

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