

If the watsonia is growing among native plants, the herbicide may be painted on using a "watsonia glove" (Figure 1). This is time-consuming but effective.

Where herbicides are used, the corms will remain, undecayed, in the soil for at least five years, and their physical presence will inhibit regeneration by native species. Thus they should be removed if possible.

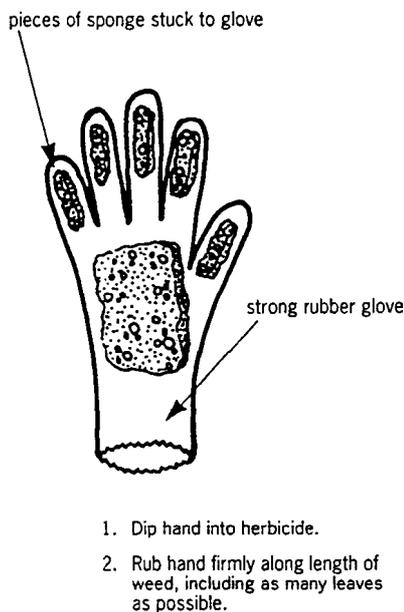


Figure 1. Watsonia glove.

Manual pulling

The best method of control for small infestations is to physically remove the whole plant. Where plants occur in open areas this is relatively easy, especially if it is done immediately after heavy rains have saturated the soil. The corms must be destroyed, as they will shoot again if merely discarded. Bonfires must be carefully supervised and thoroughly burnt as corms can survive incomplete burning.

Seeds often fall and subsequently germinate in the midst of desirable shrubs, such as *Hibbertia hypericoides*. Pulling them up may damage the shrub. Painting the leaves with herbicide may be the preferred treatment in this situation.

After a bushfire, the opportunity should be taken to attack the watsonia which will be highly visible as it resprouts immediately after the fire. Within a week of the fire, broadscale herbicide may be used with little damage to the native vegetation, which is slower to begin new growth. If, however, new growth has appeared, treatment of individual watsonia plants will be required, but they are readily accessible and a whole area may be cleaned up with the certainty that nothing has been missed.

Once this has been done, a careful check every July–August will be needed to eliminate seedlings that have germinated from windblown seed.

Outcomes from the Watsonia Workshop

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The afternoon session was devoted to a workshop. Michael Elliott of the Community Landcare Branch of the Department of Agriculture was the facilitator for about 50 participants. The workshop allowed all those present to contribute their own ideas and experiences about watsonia, and to learn directly from others in the group. On a broader scale it identified the perceived magnitude of the watsonia problem, possible control strategies, and made general recommendations to initiate appropriate actions towards achieving identified goals.

Participants were divided into four groups each comprising a mixture of people including professional scientists, representatives from shire councils, various State government agencies, community conservation groups, bush regenerators, and others. Each group, was asked to address four questions.

The questions were:

- i. If the current trends identified today continue, what will the future scenario be in relation to watsonia?
- ii. What would you like the future to look like in relation to watsonia?
- iii. What strategies are required to take us from our current situation to the future position we have identified?
- iv. What recommendations would this group like to put forward and to whom?

Each recorded their findings on butchers paper and presented a summary to all participants at the end of the session.

Many common findings emerged although there was some variety in the approach used. This paper presents a brief summary of the outcomes from each question. A record of the findings made by each group is available on request from the editors.

Summary of answers

Q1. If the current trends continue today, what will the future scenario be in relation to watsonia?

Each group had a similar view that watsonia infestations would spread displacing native vegetation especially along roadsides, railway reserves, and watercourses resulting in loss of bushland habitat, loss of species, invasion of new habi-

tats, increased summer fire hazard, and loss in landscape amenity value and tourism value. There is also the possibility of new hybrids forming and new horticultural species escaping into bushland. Tolerance to herbicides might become a problem. After successful control of watsonia, there will be increased difficulty in regeneration of local species due to a loss of the natural seed bank.

As infestations spread into new and inaccessible habitats, costs and difficulty of control will both increase. All groups agreed that there was no hope of the watsonia situation improving unaided and every possibility of it getting worse. There is likely to be an increased community recognition of the damage to bushland caused by environmental weeds in general.

Q2. What would you like the future to look like in relation to watsonia?

All groups wanted to see effective control of watsonia and ultimately eradication from bushland areas and public areas of WA. Two of the groups wanted to see watsonia totally eradicated from the State. All agreed there will be a need to regenerate bushland areas previously infested with local native species, not allowing other weed species to colonize.

Declaration of watsonia as an 'environmental weed' and all local authorities declaring watsonia as a 'pest plant' under existing provisions were also part of the vision.

An increased public awareness and understanding of the problem, banning of nursery sales of watsonia, and effective control measures are all needed in the future.

Q3. What strategies are required to take us from our current situation to the future position we have identified?

Many strategies were similarly identified by each group and these fell under the following headings:

i. Education

Raising of public awareness amongst landholders, all relevant government agencies, and local Shires so that watsonia is a recognized weed to be controlled. An information brochure illustrating *Watsonia*, *Chasmanthe* and

Crococsmia with their identifying features and agreed common names, and recommended control options is needed. Wide distribution to land managers of a more detailed information booklet, such as the one produced by the Eastern Hills branch of the Wildflower Society, is also needed.

ii. Co-operation

Co-operation and communication amongst federal and state governments, local government authorities, public utilities, conservation groups and the general public to achieve a co-ordinated approach to control of watsonia. This requires recognition of responsibility of all parties, otherwise control measures will not be cost effective or successful overall.

iii. Legislation

Legislative changes are needed to identify watsonia as an 'environmental weed' in WA and to enforce accepted controls by all relevant parties. This could be done by review of existing noxious weed legislation to include environmental weeds and by broadening the role of the APB to be responsible for co-ordinating control.

iv. State Weed Committee

There was considerable pressure for the establishment of a State Weed Committee to ensure co-operation for control of all bushland weeds (or environmental weeds, depending on preferred terminology). The Committee would comprise representatives from the lead nature conservation agencies and large bushland managers as well as the conservation movement. Its suggested functions include:

- identification of research priorities, including taxonomy, biology, habitats invaded and control methods
- co-ordination of surveys to establish distribution of watsonia
- co-ordination of public education (see above)
- an overall control strategy, with specific standardized control measures
- encouragement of community involvement in weed control
- management of funding

Q4. What recommendations would this group like to put forward and to whom?

The recommendations put forward by each group generally reflected and in some cases duplicated the strategies given in answer to question 3. This summary attempts to crystallize similar recommendations into discrete general proposals of practical use in addressing the watsonia problem. They reflect the views of the workshop participants and as such are a valuable contribution to decision makers from the grass roots of interested workers, be they bush regenerators, wildflower enthusiasts, research scien-

tists or interested citizens.

i. Watsonia Task Force

Three of the four groups recommended that the Ministers for Agriculture, Environment, and Local Government jointly establish a 'Watsonia Weed Task Force' (variously termed a committee or consultative body) with adequate powers to address the watsonia problem. Its specific functions should include:

- assessment of watsonia distribution
- public education about watsonia, including its control
- research priorities
- co-ordination of watsonia control amongst land managers at a regional level
- access to funding and co-ordination of funding priorities

ii. Legislation

All groups recommended that there be legislative measures introduced to control watsonia. A review of the existing weed legislation is needed to include a category of environmental weeds (or bushland weeds) in some way. Some participants identified the APB as the most appropriate agency with its existing infrastructure and expertise to enact controls, whilst others identified CALM or a combination of the two. It was generally felt that each land manager should be responsible for weed control.

iii. Funding

All groups made recommendations about the need for funding watsonia research and control. It was recognized that the federal government, state and local government all need to supply resources. The Task Force or Committee suggested above could be responsible for allocation of funds in a co-ordinated program for the south west. One group recommended that the Roadside Conservation Committee be the responsible body.

iv. Education

All groups recommended education of the general public, state and local governments about the watsonia problem. An information brochure as an outcome of this workshop was suggested for wide distribution. The booklet by Peter Day of the Wildflower Society is recognized as an excellent publication deserving wider circulation.

v. Co-ordination

Participants emphasized the need for a well co-ordinated approach to watsonia to achieve effective use of resources. A catchment or regional approach based on an understanding of the mechanisms of spread is essential if control is to be effective.

vi. Support of local community groups

Community involvement was recommended as an integral part of control programs.

Editors Acknowledgments

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