

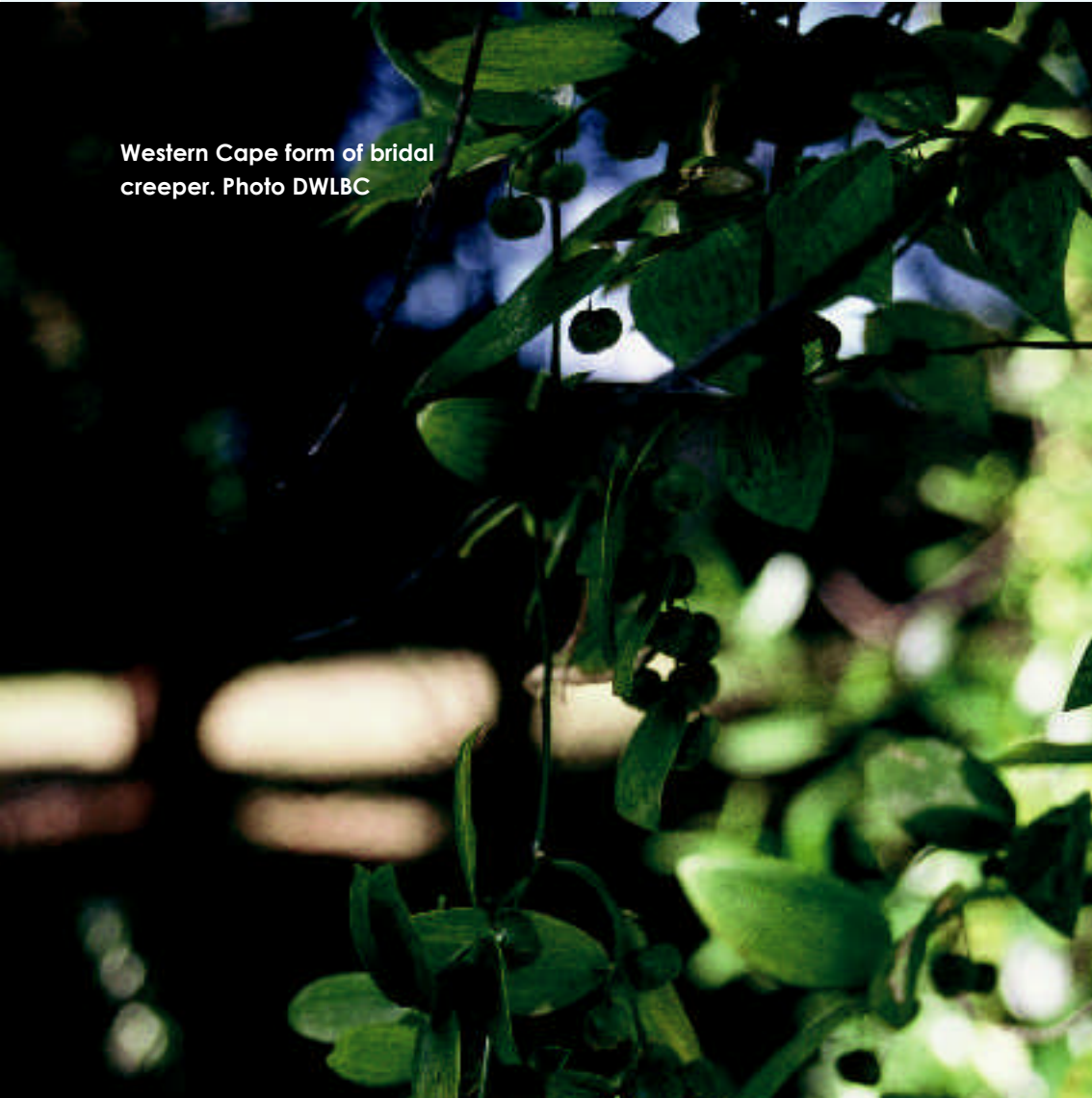
WESTERN CAPE FORM OF BRIDAL CREEPER

Asparagus asparagoides

Other common names:

South-western Cape form of bridal creeper

Western Cape form of bridal
creeper. Photo DWLBC



Section 07 : Western Cape form of Bridal Creeper

Until 2003, it was generally accepted that the bridal creeper present in Australia originated from a single South African variety. In 2003 an amateur botanist, Kath Alcock of Naracoorte, South Australia described and illustrated a different form of bridal creeper growing near the coastal town of Port MacDonnell. Unfortunately, the implications of her discovery were not realised by authorities at the time and it was not until officers from the CSIRO and DPI Victoria came across the same plants in 2004, whilst releasing bridal creeper biological control agents, that confirmation of the existence of a second form was received. In June 2006 other infestations were found in the Adelaide Hills.

Investigations revealed that this was the South-western Cape form of bridal creeper; described in South Africa as a form of *Asparagus asparagoides* (Kleinjan and Edwards, 1999). Within Australia the National Asparagus Weeds Management Committee (NAWMC) temporarily shortened the name to Western Cape form of bridal creeper. The scientific name of *Asparagus asparagoides* remains the same.

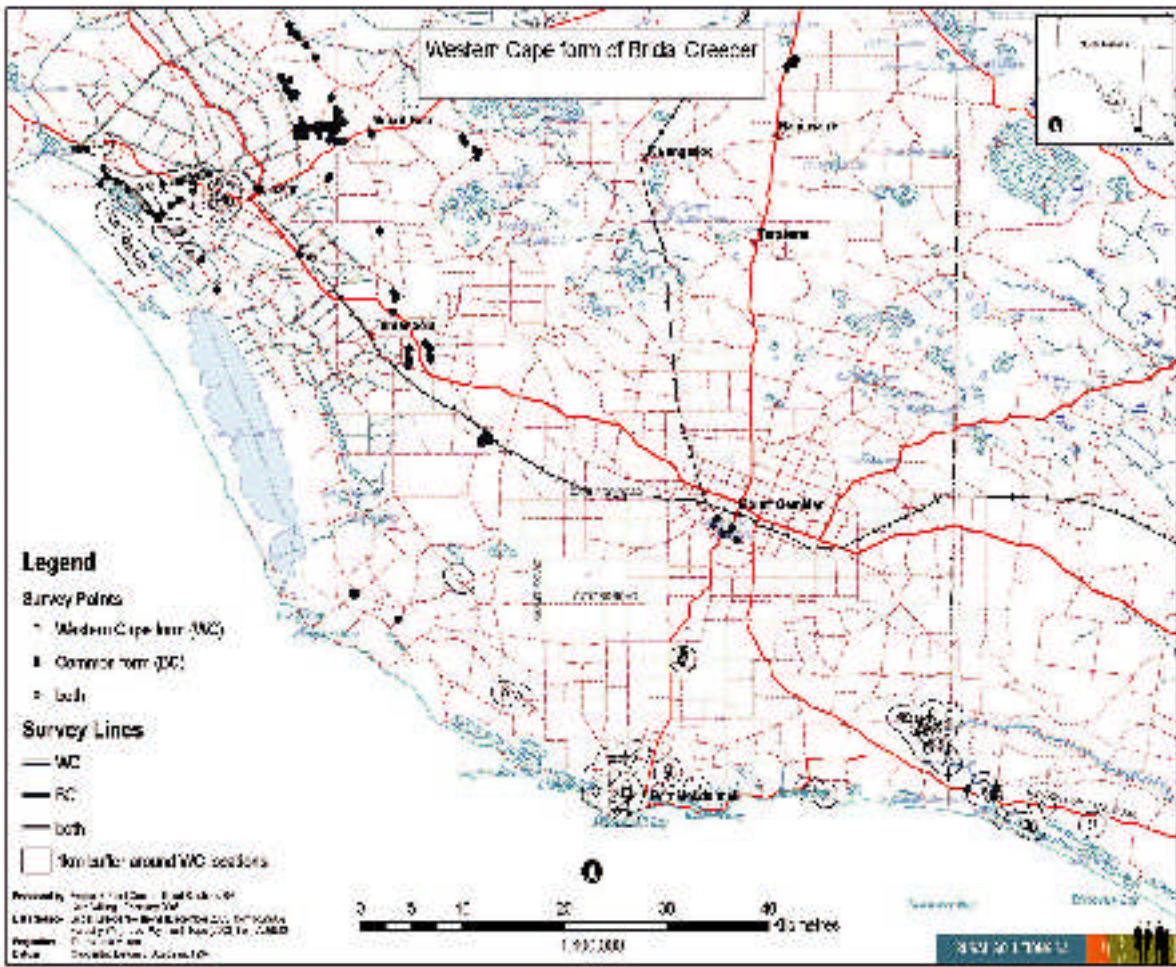
What makes this finding significant is the discovery of this form's resistance to the common bridal creeper rust fungus *Puccinia myrsiphylli*. The implication being that the Western Cape form could potentially re infest remnant vegetation cleared of common bridal creeper. With an inherent resistance to the rust in the environment, the plant could spread with little hindrance. Only costly chemical and physical removal will contain the weed. Effective and expedient management is required to prevent the Western Cape form from reaching its potential growth range across Southern Australia.

In early 2006 a management strategy was developed by the NAWMC, involving community and State agencies from South Australia and Victoria to treat all known infestations in the border region with herbicide and eradicate outlying populations identified in a comprehensive mapping exercise undertaken in 2005. In the Adelaide Hills a similar mapping exercise was undertaken in September and a management plan developed for implementation in late 2006 and followed up in 2007.

Vigilance is required from all land managers to ensure that this form of bridal creeper is not growing on their property. Any finding must be reported to your local noxious weed authority.

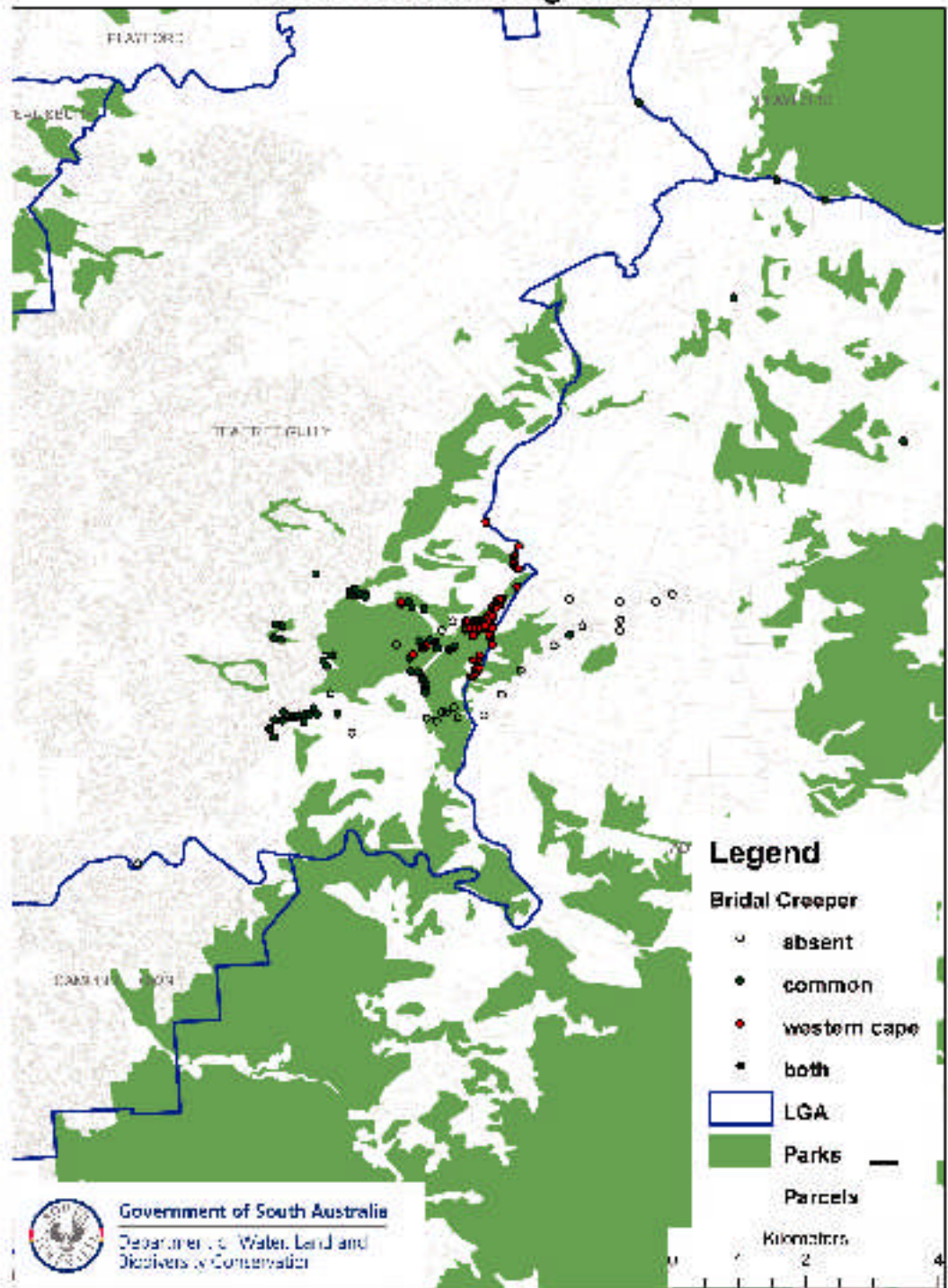
Current and predicted distribution

In 2005 a project, funded through the Federal Government's Defeating the Weed Menace programme successfully mapped the growth range within the higher rainfall border region between South Australia and Victoria. A second mapping effort to determine the growth range in the Adelaide Hills will be completed in October of 2006. The results of the South East SA and Victoria survey is available from the bridal creeper webpage at www.weeds.org.au/bridalcreeper/. The results of the 2006 Adelaide Hills survey will be available on the same webpage from November 2006.

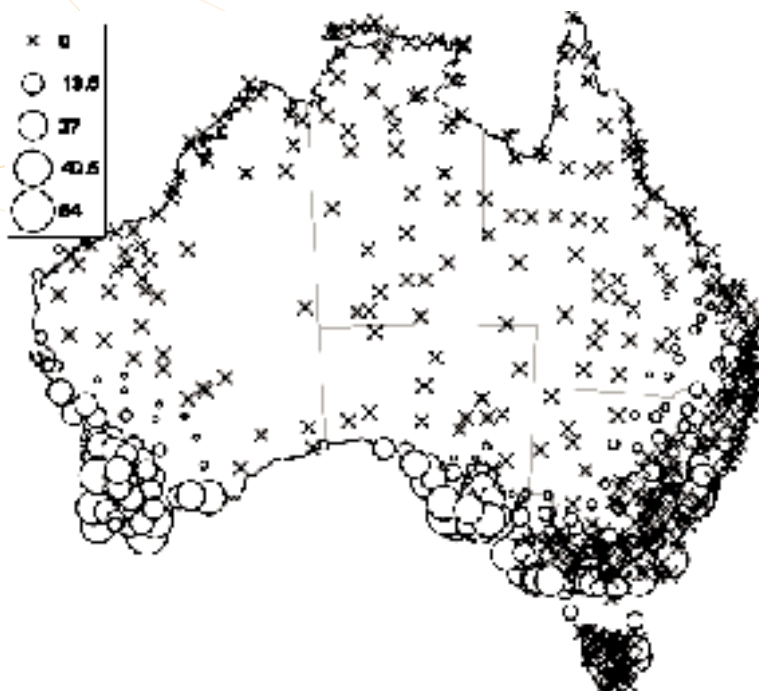


Maps 1 & 2 : Current known distribution of The Western Cape form at time of publishing manual.

Distribution of Bridal Creeper in Anstey Hill Recreation Park and surrounding areas.



Map 2: Potential Distribution of Western Cape



Predictive mapping based on matching the climatic conditions within the weeds original home range in South Africa shows that it can potentially grow along all Australian coastlines with a Mediterranean climate.



Dried remains of previous years growth under trees. Photo DWLBC

Growth Cycle

The growth habit of this form is similar to that of the common bridal creeper. Shoots appear after first rains in early autumn. Initial growth is rapid and shoots grow upright to twine amongst nearby shrubs, trees and other supports. Flowering commences in August and first fruits in late September. Leaves turn yellow and drop off at the beginning of summer leaving a taggle of dried stems with blackened fruit attached. Green cladodes have been observed on the plant as late as January where it is growing in moist conditions and under shade. Appendix 1 graphically depicts the plants life cycle.

Distribution method


The Western Cape form is distributed in much the same manner as the common bridal creeper. The main vectors are birds, foxes and possibly rabbits. The dumping of garden waste onto roadsides and into remnant bushland is undoubtedly how the initial infestations would have been established. Trading or sharing of plant material by gardeners is the most likely answer as to how the weed has appeared in the four distinct geographic areas.



Emu scat containing black Western Cape bridal creeper seed. Photo DWLBC

Variance between the two forms of Bridal Creeper

While the two forms can be identified by visual inspection of the above ground portion of the plant, this is often difficult because both forms may display the same characteristics depending on growing conditions. The most reliable method of identification is to dig up the tubers of the mature plant.

Cladode (Leaf)	Appearance and characteristics
	<p>Cladode (Leaf)</p> <p>The cladodes of the two forms may appear similar depending on growing condition. In general the cladode of the Western Cape is larger than the common form. It is thick with a waxy feel as opposed to the common form's soft feel and high sheen. The colour of the Western Cape form is a dark blue green while the common form tends to be a bright green colour. A detailed description of the cladode is set out in Appendix 2. Do not rely on the cladodes for identification, as it may be difficult to distinguish between the two forms unless they are growing in close proximity to each other.</p>

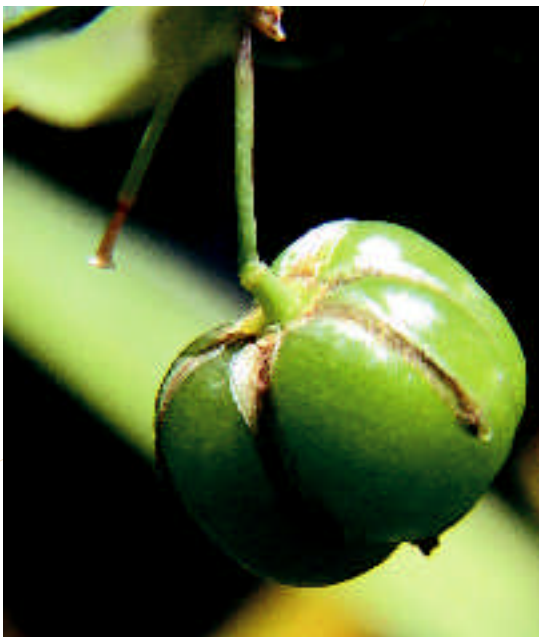


- Dark green colour
- Leathery texture
- Flatter leaf
- Waxy texture
- Larger than the common form

Western Cape Cladodes: Photo RSSA

Berries and Seeds

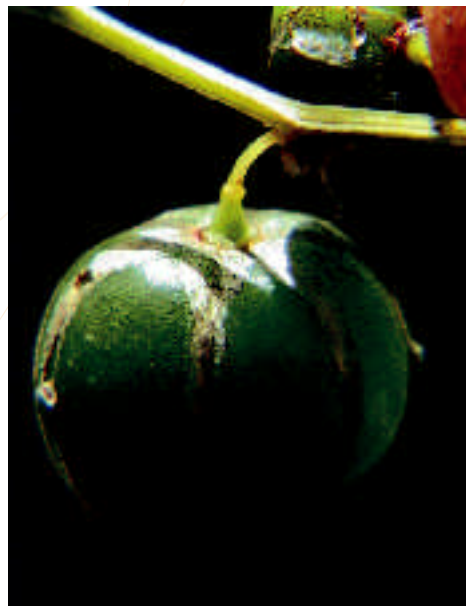
Appearance and characteristics






Berry of the Western Cape form. :
Photo RSSA

A small variation between the shape berries of the two forms can be distinguished but again this is not a reliable method of identifying the plant. The berry of the Western Cape has three distinct lobes while that of the common form has six lobes.

Berry of common form: Photo RSSA



Tubers	Appearance and characteristics
 <p data-bbox="312 752 863 779">Tubers of the Western Cape form: Photo DWLBC</p>	<p data-bbox="983 304 1469 465">This is the most reliable feature used to distinguish between the two forms of bridal creeper. The size and growth habits of the Western Cape form are very distinctive.</p> <ul data-bbox="1007 510 1430 674" style="list-style-type: none"> • large tubers. • forms a rosette around the rhizome. • each tuber ends in a fine root.
 <p data-bbox="312 1335 794 1361">Tubers close to soil surface: Photo DWLBC</p>	<ul data-bbox="1007 837 1469 1032" style="list-style-type: none"> • tubers grow close to the soil surface. • grow to a length of between 40mm - 75 mm. • rhizome grow vertically in the soil.
 <p data-bbox="691 1384 1174 1435">Western Cape Form</p> <p data-bbox="323 1921 683 1973">Common Form</p>	<p data-bbox="1222 1424 1417 1585">Comparison between the tubers of the two forms. Photo DWLBC.</p>

Tubers close to the soil surface with size 11 boot: Photo DWLBC

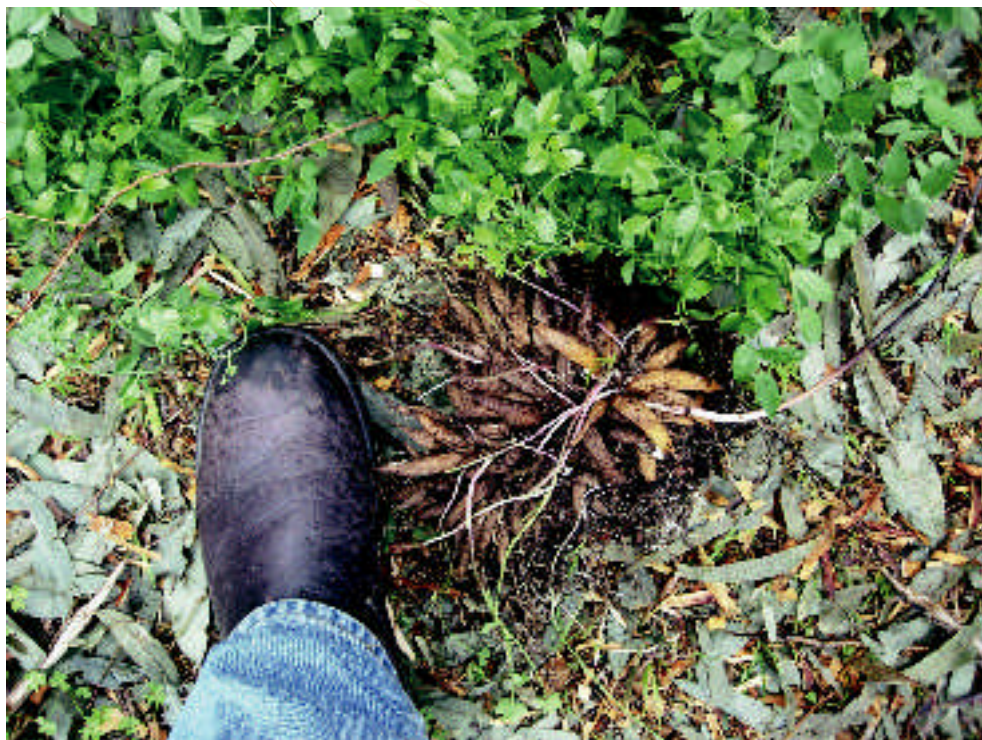
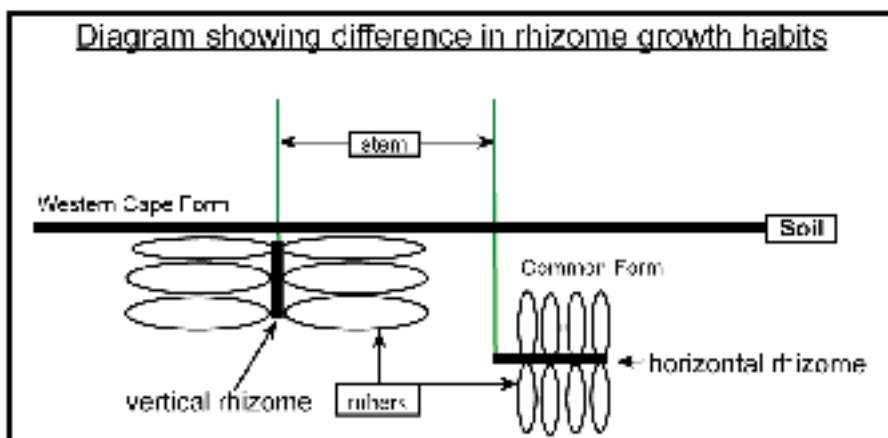


Diagram 1: Differing growth habits of the two bridal creeper forms



Controlling infestations

At the time of writing this manual, trials to establish the most effective herbicide to be used against this form had not been completed. Results of the study will be released in the second half of 2006. All results will be posted on the bridal creeper website at <http://www.weeds.org.au/WoNS/bridalcreeper/>.

Until an effective control method has been developed, the same control methods used on the common form apply to this weed.

Leafhoppers damage has been observed on cladodes and the rust fungus may be present where both forms of bridal creeper coexist. Preliminary research undertaken by the CSIRO has indicated that the rust fungus attacks the seedlings of the Western Cape form. No long-term research on biological controls had been undertaken at the time of writing this manual. This section will be updated and posted to the bridal creeper website at <http://www.weeds.org.au/WoNS/bridalcreeper/> when any new research is received.



Leafhopper damage on Western Cape cladode. Photo RSSA

The comparison poster is freely available online from www.weeds.org.au/bridalcreeper/.

Coles, R.B. Willing, K.L. Conran, J.G. and Gannaway,D. 2006. *The identification and distribution of Western Cape form of bridal creeper Asparagus asparagoides in the South East of South Australia and Western Victoria*. Plant Protection Quarterly, Vol 21, No 2. Online <http://www.weeds.org.au/WoNS/bridalcreeper/>. Accessed 14/08/06

Klienjan C.A, Edwards P.B. A Reappraisal of the Identification and Distribution of *Asparagus asparagoides* in Southern African. South African Journal of Botany (65), 23 - 31

Growth Calender -Western Cape form of bridal creeper												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flowering								■	■			
Fruiting										■	■	
Dieback	■	■									■	■
Regrowth	■	■	■	■	■	■	■	■	■	■	■	■
Germination			■	■	■	■	■	■				
General Growth Pattern		■	■	■	■	■	■	■	■	■	■	■
Growth pattern in suitable conditions			■	■	■	■	■	■	■	■	■	■
Adapted from Weed CRC Bridal Creeper Weed Management Guide												

Section 07

Notes

Notes

