



## Declared Plant Policy

*This policy relates to natural resources management under section 9(1)(d) of the Landscape South Australia Act 2019 (the Act), enabling co-ordinated implementation and promotion of sound management programs and practices for the use, development or protection of natural resources of the State. Specifically, this policy provides guidance on the use and management of natural resources relating to the prevention or control of impacts caused by pest species of plants that may have an adverse effect on the environment, primary production or the community, as per object s7(1)(f) of the Act.*

### gazania (*Gazania* spp.)

Gazania is a tough, low-growing perennial with brightly coloured daisy flowers, native to South Africa. It is widely grown and naturalised in South Australia.

### Management Plan for Gazania

#### Outcomes

- Displacement of native ground cover species from native vegetation by gazania prevented.

#### Objectives

- Reduce the spread of gazania within coastal and mallee areas.
- Protect key native vegetation sites from invasion by gazania.

#### Best Practice Implementation

- Regional landscape boards, Green Adelaide and the Chief Executive of the Department for Environment and Water to enforce the prohibition on sale of gazanias.
- Regional landscape boards and Green Adelaide that have site protection programs to identify native vegetation sites requiring protection from gazania, and develop partnerships with land owners to protect these sites.

#### Regional Implementation

Refer to regional management plans for further details.

Region	Actions
Alinytjara Wilurara	Contain spread
Eyre Peninsula	Contain spread
Green Adelaide	Manage sites (in coastal areas)
Hills and Fleurieu	Manage sites (in coastal areas)
Kangaroo Island	Protect sites
Limestone Coast	Protect sites
Murraylands and Riverland	Monitor
Northern and Yorke	Limited action
South Australian Arid Lands	Limited action

## Declaration

To implement this policy, gazania is declared under the *Landscape South Australia Act 2019* throughout the whole of the State of South Australia so that movement of contaminated produce can be prevented. Its entry to South Australia, movement or transport on a public road by itself or as a contaminant, or sale by itself or as a contaminant are prohibited.

The Hills and Fleurieu and Limestone Coast landscape boards, and Green Adelaide, may require land owners to control gazania plants growing on their land. These authorities are required to control plants on road reserves in their regions and may recover costs from the adjoining land owners.

Gazania is declared in category 3 under the Act for the purpose of setting maximum penalties and for other purposes. Any permit to allow its entry, road transport or sale can only be issued by the regional landscape board or Green Adelaide pursuant to section 197.

Under the *Landscape South Australia (General) Regulations 2020*, Regulation 27 specifies the conditions under which a person is exempt from the operation of section 186 and may transport wool, grain or other produce or goods carrying gazania on public roads, or bring them into the State. Regulation 28 specifies conditions under which a person is exempt from the operation of section 188(2) and may sell wool, grain or other produce or goods carrying gazania. Note that certain produce or goods may be excluded from these general movement and sale exemptions by Gazettal Notice of the Chief Executive, DEW.

The following sections of the Act apply to gazania throughout each of the regions noted below:

Sections of Act	Region									
	AW	EP	GA	HF	KI	LC	MR	NY	SAAL	
186(1) Prohibiting entry to area	X	X	X	X	X	X	X	X	X	
186(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X	X	
188(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X	X	
188(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X	X	
190 Requiring notification of presence										
192(1) Land owners to destroy the plant on their properties										
192(2) Land owners to control the plant on their properties			X	X		X				
194 Recovery of control costs on adjoining road reserves			X	X		X				

The following cultivars, all subject to Plant Breeders Rights in Australia, are exempt from the declaration:

GT20 (marketed as Double Gold™)  
 Sugaja (marketed as Sunset Jane™)  
 Sugamo (marketed as Montezuma™)

Other cultivars may be granted exemption on application by their owners if adequate evidence of their sterility is presented.

## Review

This policy is to be reviewed by 2025 or in the event of a change in one or more regional management plans for gazania.

## **Weed Risk**

### Invasiveness

Gazanias produce abundant wind-blown seeds and spread rapidly when there is suitable bare habitat for establishment such as graded roadsides. They generally grow from seed that germinates in March or April, after autumn rains but before the coldest months of the year. Under favourable conditions in the wild they are able to flower within a year of germination

They also spread vegetatively, often in garden waste as it can be propagated from stem cuttings or the stolons produced by the coastal forms that were formerly called *Gazania rigens*.

Some modern cultivars may be sterile, but this would need to be confirmed for each one by name before their exemption from any section of the Act could be considered.

### Impacts

Gazania competes with dry coastal vegetation, heathland, woodland and grassland, coastal scrub and inland Mallee. It is often found on coastal cliffs, sand dunes, wasteland, stream banks, open grassland and on disturbed soil. In some coastal habitats it can form monoculture groundcovers.

It is also one of the weeds that occupy bare ground under perennial horticulture, and summer fallows in no-till agricultural systems, where it can impede sowing in autumn. The impact of gazania in these systems has yet to be quantified.

### Potential distribution

Given the known current distribution in Australia, the plant could grow across a wide area of South Australia. Gazania is adapted to sandy and other well-drained soils, and is tolerant to salt-laden winds and the levels of frost that occur in southern South Australia.

The rainfall requirements of gazania are generally unknown; the current distribution would appear to suggest that the arid areas of South Australia are too dry to support significant infestations. Current known infestations are generally confined to coastal regions, riparian environments and pastures within the arable areas of the state. It is also frequent on roadsides in towns and outside properties in many areas including the Murray Mallee.

## **Feasibility of Containment**

### Control costs

Grazing normally provides control in paddocks. Herbicide trials have been carried out to find optimum treatments on coastal dunes. In general, surfactants are necessary to get herbicide into the leaves, which are protected by a waxy cuticle and appressed hairs.

Gazania tolerates occasional mowing or slashing, and moderate shading by taller vegetation. Hand weeding is not an efficient method of control because all the stem and rhizome must be destroyed to prevent regrowth.

### Persistence

Gazanias are extremely hardy plants, being fire resistant, highly tolerant of frost, salinity and drought. They are not, however, tolerant of water logging.

The plant is able to regenerate from a soil seedbank following control, but it is not known if these seeds can remain dormant in soil for more than five years.

### Current distribution

Gazania is grown in gardens throughout South Australia. Wild populations are widespread and common in coastal areas near former plantings from the west coast to the lower Limestone Coast, and also inland mainly in Mallee areas. Recorded from all regions except Alinytjara Wilurara.

### **State Level Risk Assessment**

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

<b>Land use</b>	<b>Weed Risk</b>	<b>Feasibility of control</b>	<b>Response at State Level</b>
Native vegetation	medium 54	high 23	protect sites

### **Considerations**

Gazania is a very common garden plant due to its ease of growth, attractiveness and low maintenance. Its stress-tolerant characteristics, and its wide genetic base, allow it to grow in many native vegetation types.

Risk assessment indicates site protection as the appropriate action at State level in native vegetation. For this reason, the sale of gazania is prohibited uniformly across the State to minimise future spread to new areas. Any named cultivars proven by the industry to be sterile might be exempted from this declaration in the future.

Regional management plans for gazania vary according to its presence and the type of regional habitats. The Eyre Peninsula and Alinytjara Wilurara regions contain its spread, and Kangaroo Island protects sites, in each case without a need for enforced control. The distribution of gazania is monitored in the Murraylands and Riverland region, and there is limited action in the South Australian Arid Lands and Northern and Yorke regions.

Green Adelaide and Hills and Fleurieu aim to manage coastal sites, and the Limestone Coast aims to protect native vegetation sites. In these regions, section 190(2) is applied as necessary to achieve the management aims, and gazanias cultivated in private gardens are not targeted.

## Synonymy

*Gazania* Gaertn., De Fructibus et Seminibus Plantarum (1791).

Taxonomic synonyms:

- Gazania hirtella* DC., Prodr. (DC.) 6: 511 (1838)
- Gazania krebsiana* Less., Syn. Gen. Compos. 44 (1832)
- Gazania leiopoda* (DC.) Roessler, Mitt. Bot. Staatssamml. München 3: 388 (1959)
- Gazania leucolaena* DC., Prodr. (DC.) 6: 509 (1838)
- Gazania linearis* (Thunb.) Druce, Rep. Bot. Exch. Cl. Brit. Isles 1916: 624 (1917)  
*Gorteria linearis* Thunb., Prodr. Pl. Cap. 162 (1800)
- Gazania longiscapa* DC., Prodr. (DC.) 6: 513 (1838)
- Gazania maritima* Levyns, J. S. African Bot. 8: 260 (1942)
- Gazania pavonia* R.Br., Hortus Kewensis 5 (1813)
- Gazania pectinata* Spreng., Syst. Veg. (ed. 16) 3: 607 (1826)
- Gazania rigens* (L.) Gaertn., De Fructibus et Seminibus Plantarum (1791)  
*Othonna rigens* L., Pl. Rar. Afr. 24 (1760)
- Gazania rigida* (Burm.f.) Roessler, Mitt. Bot. Staatssamml. München 3: 397 (1959).  
*Arctotis rigida* Burm.f., Prodr. Fl. Cap. 28 (1768)
- Gazania serrata* DC., Prodr. (DC.) 6: 510 (1838)
- Gazania splendens* Hend. & A.A.Hend., Ill. Bouquet 1: t. 29, f. 1 (1859)
- Gazania uniflora* (L.f.) Sims, Bot. Mag. 48: t. 2270 (1821)  
*Gorteria uniflora* L.f., Suppl. Pl. 382 (1782)

These names have been given to populations in South Africa that have diverged only within the last half million years, and consequently are still interbreeding. The gazanias introduced to Australia are of mixed parentage across this complex, and in recent decades have been selectively bred for improved flowers.

Other common names include treasure flower, coastal gazania, trailing gazania and clumping gazania.

## Reference

Howis, S., Barker N.P. & Mucina, L. (2009) Globally grown, but poorly known: species limits and biogeography of *Gazania* Gaertn. (Asteraceae) inferred from chloroplast and nuclear DNA sequence data. *Taxon* 58: 871–882.

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**Minister for Environment and Water**

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