Bottlebrush
(Callistemon species)
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1. BACKGROUND

1.1 Origin and distribution

The bottlebrush is a woody shrub native to Australia. Most bottlebrushes occur in the east and south-east of Australia. Bottlebrush shrubs can be found growing from Australia’s tropical north to the temperate south. They often grow in damp or wet conditions such as along creek beds or in areas which are prone to floods.

Description

It is an evergreen plant with leaves of 5 to 10 cm in length. The plant got its name from the red, spiky bottlebrush-shaped flower that appears in the spring time. Each flower has a very long, red stamen and inconspicuous petals. The flowers of this plant are grouped in their characteristic “bottlebrushes” at the end of the branches. The long stamens give the shrub its ornamental quality.

Production areas in South Africa

The shrub is produced in Gauteng, Mpumalanga, North West, Free State, Limpopo, KwaZulu-Natal and Western Cape provinces of South Africa.

1.2 Temperature and soil requirements

Temperature

The brush is extremely drought tolerant and produces red flowers in the spring and summer. It is frost tolerant to a temperature of -6 °C. They grow well in full sun and beside a sheltered, sunny wall. The shrub should be planted in an area that receives maximum morning sunlight. Later in the day it requires some degree of shade, particularly if it is planted in a...
sunny area. It is best to situate the plant in an area that receives the appropriate degrees of light and shade to ensure its growth.

**Soil requirements**

The shrub thrives in clay, loam and sand soils that are moderately fertile, moist but well drained. Poor soil should be mixed with compost to improve drainage. The soil pH should be neutral to acidic (pH 0-7).

The soil should be mulched with some quantities of straw in order to maintain the moisture of the soil and allow for easy growth of the plant.

### 2. CULTURAL PRACTICES

#### 2.1 Soil preparation

The soil should be broken-up to 45 cm depth, using a fork. The soil should be mixed with compost if the area is strictly sandy and has no organic matter in it. The soil should be mixed with compost or manure to a depth of 15 cm. A hole should be dug twice the diameter of the root ball, but it should not be deeper than the depth of the root length in the container.

#### 2.2 Propagation

The shrub can be propagated through vegetative reproduction and rounded seeds. It can be reproduced vegetatively using cuttings. Cuttings are taken from mature shrubs.

The plant should be placed in the hole at the same height as it was in the container. Propagating the plant straight into the soil can weaken the tree. The hole should be filled halfway up with soil. Soil on the hole should be gently compacted to remove air pockets. The remainder of the hole should be filled up with soil and compacted again.

#### 2.3 Planting

The shrub should be planted in a place where it receives at least 6 hours of sunlight a day to maximise the number of blooms and growth of the plant. Seeds should be planted during spring or summer. Only bottlebrush shrub seeds should be sown within a 1,5 m spacing with a depth of 5 cm on the open field.

#### 2.4 Fertilisation

All-purpose fertiliser with low phosphorus should be applied to the soil once at the start of spring and once in summer. A fertiliser mixture of 10:5:10 should be used. This gives the shrub extra nutrients for a richer soil. The shrub should be fertilised twice a year. Organic matter can also be used as fertiliser to supplement the fertiliser mixture of the shrub with all the nutrients it needs.

#### 2.5 Irrigation

The newly planted shrub should be watered well. It should be continually watered for two to three times a week for the first three weeks during early growth (juvenile) stage. From there, the established (mature) shrub should be watered regularly one to two times a week, depending on the weather conditions.

The top layer of soil should be allowed to dry out before the plant is watered again. This will ensure that the excess water does not damage the plant.

#### 2.6 Weed control

Existing weeds and grasses should be removed from the planting site as they will compete with the plant for water and nutrients.

Mulches reduce the problems of weed competition for the plant and will help to reduce the number of weed seeds in the production field.
2.7 Pest and disease control

Pests
There are several pests which attack the shrub such as sawfly larvae, scale and webbing caterpillar (web moth).

• SAWFLY LARVAE
Sawfly larvae are bronzy green in colour with a pointed tail. They occur in groups which cause great damage to the foliage of the shrub.
Preventive measure:
These pests are best controlled physically by removing them by hand, using gloves. They are also controlled with a jet of water from a hosepipe.

• SCALE
Scale pests are tiny—typically inconspicuously, coloured and largely im-mobile. They attack the trunks and branches of the shrub. They spend their lives quietly removing sap from the leaves. It causes dieback of branches and occasionally kills off the shrub.
Preventive measure:
It is controlled by a strong jet of water from a hosepipe, and this has to be carried out several times.

• WEBBING CATERPILLAR (WEB MOTh)
These are pests that are able to construct their webs. They cause branch-es to become bare of leaves and encrusted with a webbing material full of brown dust-like material.
Preventive measure:
The shrub should be checked regularly. Remove webbing by hand and destroy it. A strong jet of water from a hosepipe can be used to control this pest.

Diseases

• PHYTOPHTHORA ROOT ROT
Phytophthora root rot is a disease that infects the plants that have been exposed to excessive waterlogging conditions. Under wet conditions, the fungus that causes root rot grows rapidly and infects the root systems of the surrounding plants. Symptoms of infection include the yellowing of leaves, early defoliation, reddish-brown roots that are brittle to the touch, the dieback of branches and the discolouration of branches.
Control measure:
The soil below the plant should be prevented from becoming overly satu-rated in the spring and summer months.

• CANKERS
These are caused by a fungus, which damages the plants. Symptoms of infection include swollen areas on the branches of the plant. The fungi spread as the disease progresses, which leads to stunted growth of the plant and even the die off of branches.
Control measure:
Infected areas of the plant should be pruned and disposed of.

• TWIG GALL
Twig gall is a fungal disease known to infect a number of woody ornamentals, including bottlebrush. The shrubs infected with twig gall have branches that are enlarged and swollen. The other common symptom of the disease is the presence of an abundance of shoots from the branches of infected shrubs.
Control measure:
The soil around the plant should be prevented from becoming oversatu-rated with water as this promotes the growth of the fungus that causes the disease. Infected branches should be pruned and disposed of. The used shears should be sterilised to prevent the spores of the fungus from being transmitted to other branches after every cut.

3. USES
The shrubs are used as foundation plant in borders, around parking lots and on the side of water pools for landscaping purposes.
Reference


www.flowerite.co.za

www.theflowerexpert.com