



CITY OF CAPE TOWN  
ISIXEKO SASEKAPA  
STAD KAAPSTAD

# SPEKBOOM

## THE WONDER PLANT



How to grow yours and help remove carbon dioxide from the atmosphere.

Making progress possible. Together.

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More information available from:  
Recreation and Parks Department  
Newlands Nursery

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# SPEKBOOM (*PORTULACARIA AFRA*)

Also known as pork bush or elephant's food (English); spekboom (Afrikaans); iGqwanitsha (isiXhosa).



**DID YOU KNOW?** Elephants eat parts of the plant and drop leaves and branches which help the plant to grow in other places. When elephants step on the plant, broken parts fall to the ground and grow new roots!

## WHY IS IT SPEKTACULAR?

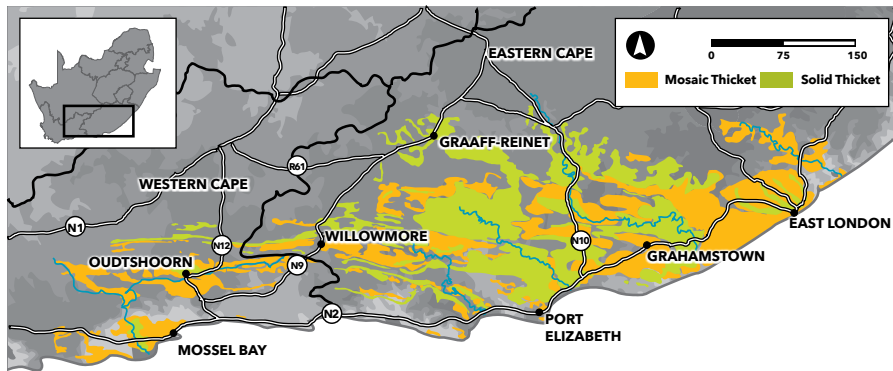
- ✓ This proudly South African plant, although naturally growing in very dry areas, can be as effective as trees at absorbing carbon dioxide from the atmosphere.
- ✓ It can survive in extremely dry conditions.
- ✓ By planting one (or many) you can help remove a small amount of carbon dioxide from the air and do your part to help the planet.

Attractive, evergreen succulent shrub (or small tree)

Can reach 2-5 m in height, (although usually around 1,5-2 m in a garden)

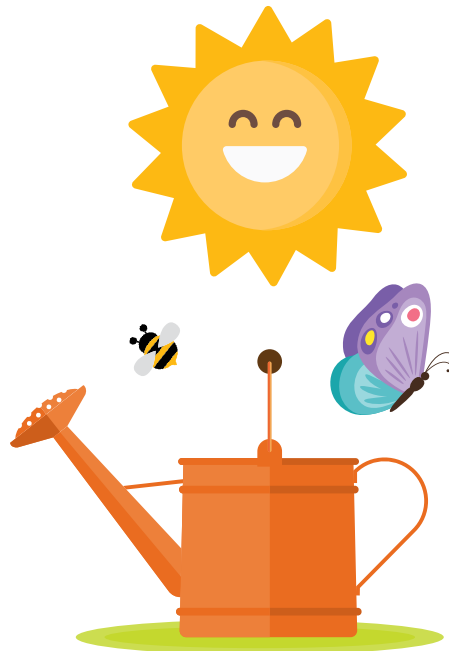


# WHERE DOES IT GROW?



- ✓ This resilient (tough) plant is found mostly in the Eastern Cape, and especially in the dry Karoo region, where growing conditions are ideal.
- ✓ It is not endemic (does not occur naturally) to Cape Town.
- ✓ It likes very sunny areas where it's exposed to maximum sunlight.
- ✓ It thrives in poor soils and tolerates both drought and frost.

Although it's not endemic to Cape Town it can still be planted in gardens and parks (permission needed) and play a role in helping to reduce levels of carbon dioxide in the air.



# WHY WE SHOULD REDUCE LEVELS OF CARBON DIOXIDE (CO<sub>2</sub>) IN THE AIR

- ✓ Carbon dioxide is a normal part of air (the atmosphere) and is released by people and animals when they breathe out. Plants use this carbon dioxide to make their own food and then release oxygen into the air, for animals and people to breathe in.
- ✓ Carbon dioxide is also one of the major greenhouse gases responsible for warming the Earth's atmosphere and leading to climate change. This occurs when levels of carbon dioxide in the air are too high.
- ✓ Carbon dioxide is produced by the burning of fossil fuels (coal, petroleum) that we use for generating electricity, powering our cars, as well as by deforestation (cutting down trees) and farming.
- ✓ Currently, people are producing atmospheric carbon dioxide faster than the environment can absorb it.
- ✓ The carbon dioxide creates a "blanket" in the atmosphere around the Earth causing heat from the sun to be trapped instead of being released back into space. This extra heat causes changes to Earth's weather systems, which is also known as climate change.

## HOW DOES SPEKBOOM REDUCE CO<sub>2</sub>?

The spekboom has the ability to make use of two different photosynthetic<sup>1</sup> pathways.

1. When conditions are favourable (good), it manufactures its food to sustain growth by using the same method (pathway) that most other plants use.
2. However, when conditions are not favourable (not good) and other plants have to shut down and wait for enough rain, the spekboom can switch to a different pathway called Crassulacean Acid Metabolism (CAM) whereby it can continue to grow and absorb large amounts of carbon dioxide despite adverse climatic conditions. This allows the plant to thrive in the arid or semi-arid conditions that it is indigenous to.

<sup>1</sup> Photosynthesis is the process in which plants use sunlight to turn carbon dioxide into sugars that the plant can use as energy.

# IMPORTANT INFORMATION BEFORE YOU PLANT!

Since spekboom does not naturally occur in Cape Town:

- ❗ It should not be planted in any nature reserves, natural areas, or conservation sensitive sites in the city. The natural vegetation of the region has an equally important role to play in carbon sequestration (capturing) and must be protected and restored to promote this function.
- ❗ In a city, spekboom does not provide the same benefits as planting trees as it does not provide much shade. Shading (best provided by trees) of streets and buildings is important for reducing heat in urban areas and therefore helping people to cope with the effects of climate change.
- ❗ Spekboom should not be planted in greenbelts.



## REMEMBER:

IF YOU ARE THINKING ABOUT PLANTING SPEKBOOM IN YOUR LOCAL PARK, YOU WILL NEED PRIOR PERMISSION FROM THE RECREATION AND PARKS DEPARTMENT. PLEASE CONTACT THE CUSTOMER CALL CENTRE ON 0860 103 089 TO FIND THE DETAILS OF YOUR LOCAL AREA OFFICE.



# HOW TO GROW OR MULTIPLY YOUR SPEKBOOM

Spekboom propagates very easily, and a broken-off branch can quickly grow roots and create a whole new plant.

## STEP 1



Find a healthy, vigorous mother plant to take a cutting from - your plant will be genetically identical.

## STEP 2



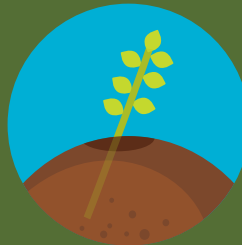
Take a stem cutting, approximately 10 cm to 50 cm in length with a clean, sharp knife or secateurs.

## STEP 3



Remove any leaves from the bottom third of the cutting.

## STEP 4



To plant it, push the cutting into well-drained soil, up to where the leaves start. Water immediately.

# TIPS FOR KEEPING YOUR SPEKBOOM HEALTHY

Your spekboom will stay in a good, healthy condition if you follow these four tips:

## TIP 1



Spring to autumn are the best months to plant cuttings.

## TIP 2



Water often in summer and less in winter.

## TIP 3



Let the soil dry between watering, usually four to five days.

## TIP 4



Give enough water to keep the leaves from shrivelling.

# SPEKBOOM HAS LOTS OF USES

- ✓ The leaves of the spekboom are high in Vitamin C and **can be eaten**. They have a delicious sour or tart flavour. Add some to your salads!
- ✓ Suck a leaf if you're **thirsty**.
- ✓ Sucking a leaf is used to treat **exhaustion, dehydration** and **heat stroke**.
- ✓ Tortoises, game animals, elephants and domestic stock love **eating** them!
- ✓ It helps as a **soil binder** to prevent soil erosion.
- ✓ Crushed leaves can be rubbed on blisters and corns on the feet to **provide relief**.
- ✓ You can chew the leaves if you have a **sore throat**.
- ✓ The juice is used for **soothing ailments** of the skin such as pimples, rashes and insect stings.
- ✓ The juice is also used as an **antiseptic** and as a treatment for **sunburn**.





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