

National Arbor Month



Historically, South Africa did not have a culture of tree planting, and it was in the 1970s that a real need to promote tree planting was recognised. The concept of National Arbor Day ensued from the 1973 Green Heritage Campaign.

To date, the campaign has graduated to Arbor Month, which is a national campaign initiated to celebrate South Africa's trees and to raise awareness about their importance.

The theme for Arbor Month 2020 is

Forests and BioDiversity.

This year the department would like to ask you to:

PROTECT OUR INDIGENOUS FORESTS | HELP PREVENT VELD AND FOREST FIRE | PLANT A TREE TO GREEN OUR COUNTRY, MITIGATE AGAINST CLIMATE CHANGE | PLANT INDIGENOUS TREES THAT SAVE WATER | USE WATER CONSERVING METHODS WHEN PLANTING TREES AND INTEGRATE FRUIT TREES INTO YOUR FOOD GARDENS.

How can you help to protect our indigenous forests?

Our forests are under threat from people who are careless with our heritage. Never cut down a tree in a natural forest and do not remove an animal or living plant without permission. Explain to others the importance of protecting our natural places.

How can you help to prevent forest fires?

Each year veld and forest fires destroy thousands of hectares of trees and grasslands. Many people are injured and even killed.

Animals are endangered and people's livelihoods are destroyed. These fires also damage our economy by destroying valuable assets.

Do not light fires in the open air during winter time when it is dry.

Do not be careless with flammable material.

Report fires to your fire brigade or police station as soon as possible.

Never drive or walk into an area that is on fire.

If you are a landowner, it is recommended that you become a member of the local Fire Protection Association. Ask your local forestry office for details.

Why must we plant trees?

Many places in South Africa are barren and lifeless because they do not have trees, gardens or plants. In the past, trees were not planted in township areas while suburbs have usually had trees growing for many years. We have to plant trees in every town, city and school in South Africa.

We need to plant a tree with every new home. We need to ensure that every clinic has trees. You can help by planting trees at home or working with your school, church, or local government to plant trees.

Integrating fruit trees in your food garden can address household food security. Remember we are a water-scarce country, so use methods that conserve water to irrigate your trees.

National Arbor Month serves to promote awareness for the need to plant and maintain indigenous trees throughout South Africa, especially for the many disadvantaged communities who often live in barren and water stressed areas.

It further intends to:

- Raise awareness of South Africa's urban and rural greening initiatives.
- Promote better understanding of trees, particularly indigenous trees and fruit trees.
- Highlight the important role trees play in sustainable development and the livelihoods of people and their environment.

Indigenous trees are a heritage to our society. They serve various purposes in our lives and in the lives of other living organisms.

They provide important habitats for survival of bird, animal and insects.

Our indigenous trees form an important part of the tourist attraction areas of South Africa.

The following are some of the benefits derived from trees:

Trees benefits our lives, we may consider a number of products that we derive from trees such as:

Building materials, paper, fibre, oils, gums, syrups, pharmaceutical products, fruit and nuts.

We also recognize the visual benefits we reap from trees as leaves change colour from season to season, and small trees grow into larger trees.

Trees provide more than just products and ornamental beauty: they offer an almost endless list of environmental and economic benefits, some of which are crucial to our well-being.

Trees produce oxygen while using up carbon dioxide. Some scientists contend that the over-abundance of carbon dioxide in the earth's atmosphere will lead to the "greenhouse effect".

Smog can be filtered by trees, ash, pollen and dust may be trapped by a tree's foliage.

Soil is conserved by trees; falling leaves and needles decompose providing rich nutrients for the soil.

The roots of trees prevent soil erosion and tree canopies reduce flooding and rainfall run-off.

A tree's various parts absorb sound waves, deflect the waves in different directions, and thereby reduce the sound's intensity.

Properly placed evergreen trees act as a windbreak and an insulator. In the winter, this can translate into lower home heating.

Deciduous trees will if strategically placed provide shade to a home's roof and outside walls, can help reduce air conditioning costs in the summer.

Property values are enhanced by the beauty and charm of the landscape offered by trees.

They break up the monotony of masonry, cement, metal and glass along city streets and sidewalks.

Areas with trees often attract more people (e.g. tourists, customers).

Recreational places benefit from the presence of trees.



Trees are a valuable resource providing both environmental and economic benefits. By planting even a single tree, or million trees the country can make a difference.

Each tree will help to contribute to cleaner air, lower energy costs, greater protection of our soil and water supplies, reduced noise levels, contribute to food security and a more ambient environment in which to live.

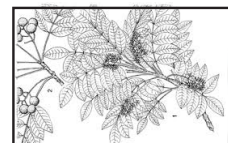
In addition to the planting of trees, emphasis is made to highlight the need for the conservation of forests and in particular indigenous trees that are threatened by extinction.

To this end, the Arbor Month campaign will promote planting of two indigenous species that have been identified and named as trees of the year.

These trees are selected from commonly found trees and the rare tree species.

For 2020 the following two tree species have been selected as trees of the year

1) **Ekebergia capensis: Cape Ash** - This tree has been selected from the list of common species.



2) **Adansonia digitata: Baobab** - This tree has been selected from the list of rare/uncommon species.



Champion Trees Project



The purpose of the Champion Tree Project is to identify and protect trees that are of national importance and worthy of special protection, due to their remarkable size, age, aesthetic, cultural, historic or tourism value. Similar projects have been established in several other countries, but this is the first of its kind in Africa.

Nomination forms with guidelines for the nomination process are available from the DFFE. Every nomination cycle starts on 1 August each year, and ends on 31 July the following year.

Seventy five trees and groups of trees have been declared by the department as Champion Trees, based on criteria such as size, age and historical value.

More trees have been shortlisted, and will be declared during 2020.

These trees are all protected under the National Forests Act of 1998.

They include the Tsitsikamma Big Tree along the Garden Route, the Post Office Milkwood tree of Mossel Bay, the Sagole Baobab tree in Limpopo and Camphor trees planted at Vergelegen Estate in the Western Cape three centuries ago.

The oldest planted tree in South Africa is a Saffron pear, brought from the Netherlands and planted in the Dutch East India Company's gardens in Cape Town more than three centuries ago.

Historic trees include a Poplar tree, which served as a landmark for refugees during the apartheid regime who found a safe haven in the Johannesburg house of Ruth Fischer, the daughter of Bram Fischer, who was a founding member of the South African Communist Party.

A group of international and local tree climbers has visited and climbed the champion trees around the country, contributing to more accurate height measurements, and installing nesting boxes for the rare Cape Parrot in some of the large champion trees that occur in natural forests.

All the trees were also visited by a professional photographer, to create a proper photographic record of the trees, which will also be used for the publication of a book on the champion trees within a year.

Trees and Climate Change

It is now well known that global climate is changing and that it is likely to continue changing for many years to come. Climate change brings about unusual weather, droughts, floods, melting of the permanent ice of the north and south poles, as well as rising ocean levels. All this is the result of air pollution caused by human activities.

One of the main pollutants responsible for this phenomenon is the greenhouse gas Carbon Dioxide (CO₂).

Greenhouse gasses have the ability to trap the sun's heat in the atmosphere and so prevent the earth from cooling down.

Green plants are a vital defence against climate change because they have the natural ability to remove CO₂ from the atmosphere and store the carbon as biomass.

Trees are especially valuable because they produce wood, in which large quantities of carbon is locked up for many years.

To put this into perspective; one hectare of forest growing at the rate of producing 10m³ of wood per year will be removing carbon to the equivalent of 14 million m³ of air.

For further information on Arbor Month, including the programme of events, posters and leaflets please contact the department.

(Contact the Arbor Month Co-ordinators Mr Michael Modise at 012 309 5787 or Ms Nosipho Ndzimbomvu at 012 309 5883).



One can visualise this as a column of air 1.4 km deep over an area of forest the size of two soccer fields.

Do keep in mind that trees do not all grow equally fast, and all forests are not equally productive as carbon sinks. Trees in urban environments and commercial forestry plantations are generally quite fast growing and are therefore active carbon sinks. Under favourable conditions some plantations can achieve average annual growth rates of 20m³ per hectare.

Forests and the Economy

According to Forestry South Africa, forestry is estimated to contribute about 150 000 jobs, predominantly in rural areas where there are high levels of unemployment. This translates to about 11.5% of job losses in the sector due to factors of production affecting profitability throughout the value chain. The contribution to the economy is estimated at R 45.5 billion.

This translates to 7.7 % of Manufacturing GDP and 25.5% of Agricultural GDP, including Pulp and Paper. It is through commercial plantations that timber is produced for construction, mining, furniture, paper production and other beneficial timber related enterprises.

THEME: Forests and Biodiversity

The theme for the 2020 Arbor Month Campaign is Forests and Biodiversity - Too Precious to lose. Forests cover one third of the Earth's land mass, performing vital functions around the world.

Forests are the most biologically diverse ecosystem on land, home to more than 80% of the terrestrial species of animals, plants and insects, and all these forms of life have a direct or indirect effect on the ecosystem.

Trees of the year.



"When we drink a glass of water, write in a notebook, take medicine for fever or build a house, we do not always make the connection with forests. And yet, these and many other aspects of our lives are linked to forests in one way or another"

(United Nations, 2020).

Forest Biodiversity faces a challenge from human activities such as rapid deforestation, destruction and degradation of land, poaching and the introduction of invasive species from other ecosystems endanger forest biodiversity.

Worldwide, more than 12 million hectares of forest is lost per year, much of it with its rare and rich biodiversity. Humans have played a major role in these declines from the way we use land water, also through farming practices, fishing, to logging, mining and other attempts to pluck natural resources from fragile habitats.

Another major challenge our ecosystem is facing is forest fires, which causes animal and economic losses, as well as the release of huge carbon stores into the atmosphere.



The key messages that the DFFE is promoting in 2020 is sustainable use of forests and forest resource; conservation of forest biodiversity and prevention of forest fires.

Sources: United Nations. 2020. International Day of Forests 21 March.

Partnerships in Arbor Month and Greening

Tree planting, including the development of parks and recreational facilities can be expensive when done on a large scale.

For this reason, it is necessary for good partnerships between government, the corporate sector, non-government organisations and communities to work together in greening our country.

The Department of Forestry, Fisheries and the Environment has established a good working relationship and partnership with Total South Africa in greening our country and promoting Arbor Month.

The partnership has been in place for over ten years and has resulted in numerous projects being initiated. These include small community parks, orchards, school greening projects, assisting with water tanks where there are problems with water.

Total South Africa supports the Million Trees Programme and the Arbor City Awards Competition. Through their support, many of the greening interventions have been realised.

This shows that working together we can take greening forward in this country.

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1 EKEBERGIA CAPENSISGATUS



Tree profile

FACTS AT A GLANCE

SCIENTIFIC NAME: *Ekebergia capensis*
COMMON NAME: Cape Ash/ Dogplum
SA Tree No: 298
SIZE: large tree, grows up to 15 metres
WATER REQUIREMENTS: Drought tolerant
LEAVES/FLOWERS: Leaves are large and glossy green. Flowers are white, sweetly scented, occasionally with pink tinge.
FEATURE: Semi-deciduous tree with a moderately heavy, flattish crown
MAINTENANCE: Low maintenance

DESCRIPTION

Cape ash grows in the Western Cape along the coastal distribution right through to the Eastern Cape in South Africa. The species also grows in Kwa-Zulu Natal, Mpumalanga and the Limpopo province. This tree also extends beyond South Africa into the Kingdom of Eswatini, Southern Mozambique, and Zimbabwe. It occurs in a number of different habitats, from high altitude evergreen forests to riverine forests, and from the sea level to about 1500m above sea level.

ECOLOGY

The fruits of *E. capensis* are eaten by birds such as Knysna and Purple-crested louries, barbets, bulbuls, mousebirds and hornbills. Other animals such as monkeys, bushbucks and nyala readily feed on the fallen fruits of this tree. Leaves are browsed by domestic stock and game.

USES

Cape ash has been used as a stunning street tree. The species also makes good shade in gardens. Its light and soft wood with straw colour makes attractive furniture. The bark is used as an emetic, and for treating dysentery. It can also be used for tanning. Tree roots can be used to treat heartburn, headache and chronic coughs, whilst the leaves can be used as a remedy for intestinal worms

GROWING *Ekebergia capensis*

E. capensis is a reasonably fast growing tree, and can be grown from seed. Seeds can be soaked in water for a day and sown in trays with river sand or potting soil, and planted not deeper than 5mm. The species can also be propagated from cuttings. Hardwood cuttings can be planted in trays filled with river sand, or can be planted directly into the ground as *truncheons*. *E. capensis* grows well when it is given lots of water.

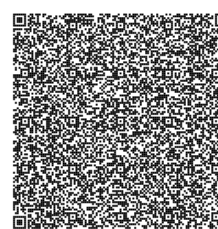
APPEARANCE

Cape ash is a large semi-deciduous tree that can attain a height of 15 metres. This tree has a heavy but lush canopy that can appear to be roundish. This tree can display a lovely red colour during autumn. The main stem of the Cape ash is characterised by a rough light grey to almost black bark, with few buttress roots at the base.

FLOWERS, FRUIT, LEAVES

E. capensis consists of small white sweetly scented flowers, which occasionally have a pink tinge. Flowers appear in loose sprays in the summer months (September-November). The tree bears fleshy red berries that are almost spherical in shape. Leaves of this tree are large and glossy green, often tinged with pinkish patches.

Other Benefits



REFERENCES
 Coates, P. E. 2002. Trees of Southern Africa, (3rd ed). Struik, Cape Town.
 Germishuizen, G. & Meyer, N.L. (eds) 2003. Plants of Southern Africa: an annotated checklist. Strelitzia 14. National Botanical Institute, Pretoria.
 Van Wyk, B. & Van Wyk, P. 1997. Field Guide to Trees of Southern Africa. Struik, Cape Town.
 Venter, F. & Venter, J. 1985. Making the most of indigenous trees. Bitza Publications, Pretoria.

2 ADANSONIA DIGITATA



Tree profile

FACTS AT A GLANCE

SCIENTIFIC NAME: *Adansonia digitata*
COMMON NAME: Baobab
SA Tree No: 467
SIZE: large tree, grows up to 20-30 metres
WATER REQUIREMENTS: Drought tolerant
LEAVES/FLOWERS: Leaves are hand-sized and divided into 5-7 finger-like leaflets. Flowers are large, white and sweetly scented.
FEATURE: Deciduous tree, often referred to as an upside down tree because its branches look like roots.
MAINTENANCE: Low maintenance

DESCRIPTION

The baobab tree is indigenous to Africa. It is found in areas of South Africa, Botswana, Namibia, Mozambique and other tropical African countries. It is commonly found in the thorn woodlands of African savannas, which tend to be hot and dry. In South Africa, it is only found in the warm parts of the Limpopo province.

ECOLOGY

A. digitata flowers are primarily pollinated by bats. Various insects and birds also visit the sweetly scented flowers. The seed capsules of the tree do not split open, but hang on the tree until it is blown off by wind or gets collected and enjoyed by monkeys, baboons and people. The hollow trunks of baobab are ideal nesting sites for birds such as rollers, hornbills, parrots and kestrels, while their branches welcome eagles, vultures and storks nests.

REFERENCES
 Coates, P. E. 2002. Trees of Southern Africa, (3rd ed). Struik, Cape Town.
 Germishuizen, G. & Meyer, N.L. (eds) 2003. Plants of Southern Africa: an annotated checklist. Strelitzia 14. National Botanical Institute, Pretoria.
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 Venter, F. & Venter, J. 1985. Making the most of indigenous trees. Bitza Publications, Pretoria.

Oil and Powder Info



USES

Large baobab trees with hollow stems have been used by people for centuries for various purposes including houses, prisons, pubs and storage bans. This species is grown for its sour fruit and leaves. These are used to make beverages, sauces, porridges and soup. Seeds are also edible and can be roasted for use as coffee substitute.

The bark of this tree is used for fibre, and also for products such as mats, ropes, fishing nets, fishing lines, sacks and clothing. Leaves, bark and seeds have been used to treat malaria, tuberculosis, fever, diarrhoea, anaemia, toothache and dysentery.

GROWING *Adansonia digitata*

Baobabs can easily be grown from seeds. These should be soaked in hot water and allowed to cool for up to 24 hours, then sown. Seeds are best sown in spring and summer in a well-drained seedling mixture containing one-third sand in depths of 4-6 mm. Germination may take 2-6 weeks.

APPEARANCE

Baobabs are deciduous trees that can grow up to 30 metres tall. The species has a swollen trunk that is often hollow, with the size of 3-7 metre in diameter. It bears short, stout and tortuous branches and has a thin canopy.

FLOWERS, FRUIT AND LEAVES:

Flowers are white, large, pendulous, solitary or paired, and open at night. Flowering begins in the rainy season (November – January). Fruits are large pods with seeds and pulp. Leaves are simple, dark green on top, and borne at the end of a 16 cm-long petiole. The leaflets are long and broad.