The world is home to just over 60,000 different tree species. There are around 3.04 trillion trees on earth, however 3.5 billion to 7 billion of these trees are cut down every year. Trees are able to communicate and defend themselves against attacking insects.

Scientists have found that trees can flood their leaves with chemicals called phytomolecules when the insects begin their raid. Trees also release sugars to other trees so they can start their own defense.

Trees help fight the effects of climate change by absorbing carbon dioxide and other pollutants, bacteria, and store carbon and emit pure oxygen.

A tree can absorb as much as 32 kilograms of carbon dioxide per day and can sequester 1 ton (907kg) of carbon dioxide by the time it reaches 40 years.

The General Sherman, a giant sequoia, is the largest tree (by volume) in the world, standing 83.8m tall with 52,000 cubic feet of wood (1,486.6m).

Trees are some of the oldest living organisms on earth. For example, a 5-year-oak can live up to over 500 years. The world is home to just over 60,000 different tree species.

The age of a tree can be determined by the number of rings in the trunk. The size of the growth ring is determined in part by environmental conditions such as temperature and water availability. The age of a tree can be determined with smaller trees, which later repay them with larger trees.

The marula tree is native in most parts of East, West, North, Southern and Central Africa. In South Africa it is more prevalent in the Limpopo province in the Bo-Philani tree area. It typically grows in woodlands, on sandy soils.

Leaves appear green because of chlorophyll which absorbs red and blue light energy, causing water to bounce off the leaf’s surface. Scientists have found that older bigger trees share nutrients with smaller trees, which later repay them back when they have developed.

In South Africa, only 0.4% of our landmass is covered by natural forest. That’s only 500,000 ha, by 31 million ha of savannah systems.

Different parts of the tree grow at different times of the year. A typical pattern is for most of the foliage growth to occur in the spring, followed by trunk growth in the summer and root growth in the autumn and winter. Leaves on deciduous trees are sensitive to seasonal changes.

The apple-leaf tree also called the real yellowwood (Podocarpus latifolius) is the National Tree of South Africa.

An average tree is made up of 99% dead cells, only around 1% of it is alive at any time, consisting of the leaves, root tips, and phloem (a thin layer of outer bark that acts as a food delivery system). One large tree can provide a day’s supply of oxygen for up to four people.

The world is home to just over 60,000 different tree species. There are around 3.04 trillion trees on earth, however 3.5 billion to 7 billion of these trees are cut down every year.
The theme for the 2019 Arbor Month Campaign is "Forest and Sustainable Cities". The Department of Agriculture, Forestry and Fisheries (DAFF) has declared every August as Arbor Month. For Arbor Month 2019 is "Forest and Sustainable Cities."

The Arbor Month campaign is a national campaign that aims to promote the planting of trees and the appreciation of forest and natural areas. It is a way to encourage people to take action to protect the environment and combat climate change.

Arbor Month is celebrated in South Africa every August, and it is a time when people are encouraged to plant trees and participate in tree-planting activities. The purpose of the campaign is to raise awareness of the importance of trees and the role they play in ensuring a sustainable and healthy environment.

Each year, Arbor Month focuses on a specific theme that highlights the importance of trees and forestry. In 2019, the theme was "Forest and Sustainable Cities," which aimed to promote the planting of trees and the appreciation of forest and natural areas as a way to combat climate change.

The campaign encourages people to plant trees, participate in tree-planting activities, and raise awareness of the importance of trees and the role they play in ensuring a sustainable and healthy environment.

The following are some of the benefits derived from trees:

- Trees provide shade and help prevent soil erosion.
- They help reduce the amount of heat absorbed by the earth's surface, which helps to regulate temperature.
- Trees can improve air quality by absorbing pollutants and releasing oxygen.
- They help to reduce noise pollution and provide a visual barrier.
- Trees help to maintain soil moisture, which is important for crops and other vegetation.
- They help to control flooding and stabilize riverbanks.
- Trees help to maintain soil fertility by providing nutrients to the soil.

Champion Trees Project

The purpose of the Champion Trees Project is to identify and protect trees that are of national importance and to promote the planting of trees in South Africa.

Champion trees are trees that are of exceptional size, age, or rarity, and that have a special significance to the country or people. They are selected by a committee of experts and are protected by law.

Champion trees are selected based on various criteria, such as size, age, rarity, and cultural or historical significance. They are protected by law to ensure that they are not cut down or damaged.

Champion trees are important for several reasons:

- They provide a natural record of the past, including the history of people and their cultures.
- They provide a physical record of the environment, including the climate, soil, and water.
- They provide a natural record of the evolution of species.
- They provide a natural record of the impact of human activity on the environment.

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