



The smell of this fluid-filled pitcher plant draws insects.

## Dragon's Blood

Plants need more than nutrients to survive. They also need water. Most plants die with little water. Not the dragon's blood tree.

The dragon's blood tree lives in a hot, dry **climate**. It oozes a red sap that looks like blood. That's how the tree got its name.

The tree is shaped like a mushroom. Its leaves on top act like an umbrella. They cast a shadow over the tree's roots. This keeps the ground cool. Rainwater in the soil can't **evaporate** too quickly. This gives the tree roots more time to store water.

This shade helps the young trees, too. They sprout under the adult trees and the shade protects them.

## Drying Out to Survive

The dragon's blood tree isn't the only plant that can live with little water. One kind of fern can, too. It does this by playing dead.

This fern is an air plant. It attaches itself to trees and other plants. It gets nutrients from air and rainwater.

Most plants cannot survive if they lose 10 percent of their water. This fern can lose 97 percent without dying. It dries up. Its leaves curl and turn brown. It looks dead. It's not. As soon as it rains, the fern uncurls. The leaves turn green again.

Scientists think this fern could live 100 years without water. One rainfall would make it green again.



## Seaweed in the Desert

Few plants live in the desert. It's too dry. Yet the desert seaweed grows well in one desert.

Like most plants, it has roots and a stem. But it only has two leaves. These leaves grow and grow. They clump together around the plant.

At night, fog covers the desert. The long, twisted leaves soak up the water in the fog.

Night after night, the leaves take in water. It isn't much, but it keeps the desert seaweed alive. It can live for more than 1,000 years.



The tops of these dragon's blood trees block sunlight and protect the roots.

## Twisted and Broken

Desert seaweed can live a long time. The bristlecone pine can live longer.

These trees grow on the tops of mountains. The weather is harsh and windy. Most plants die in this weather. The bristlecone may look dead, too.

Many of its branches may be twisted or broken. Much of its bark may be missing. Some of its needles may have fallen off. Don't be fooled by its looks.

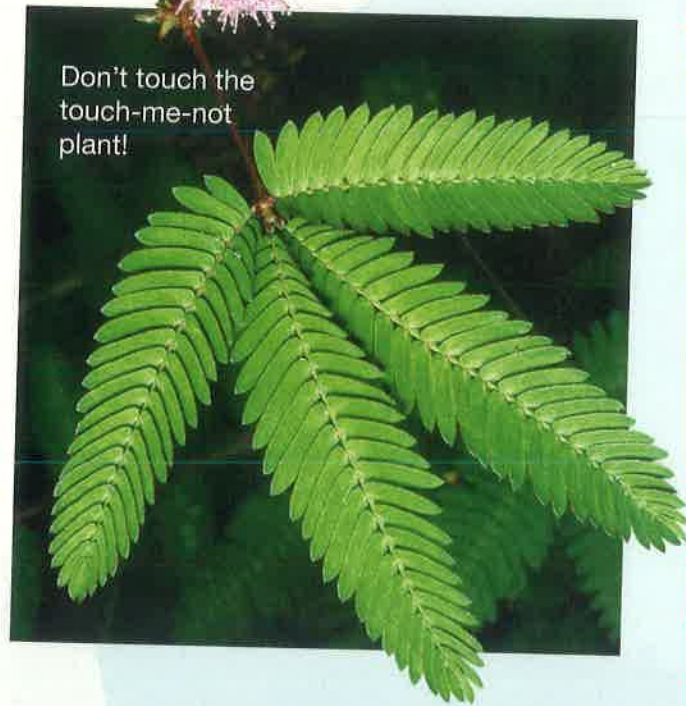
The bristlecone is a survivor. Its bark is thick and tough. Bugs can't drill into it. The tree's sticky sap also helps keep bugs away.

Sometimes a bristlecone is damaged by lightning or fire. The part that is damaged dies, but the rest of the tree stays alive.

## Spreading Seeds

All plants need food, air, water, and room to grow. They need to spread their seeds, too. Some use animals to carry their seeds away. Other plants use the wind.

The exploding cucumber explodes. This plant swells as its seeds ripen. Then it bursts and seeds shoot out!



## Movers and Shakers

Scientists can explain how most plants survive. Some plants behave in strange ways, though.

When the touch-me-not plant is touched, its leaves fold up. Its stem droops. After awhile, the plant goes back to normal.

Scientists are not sure why the plant does this. It might be shaking off bugs. Or it might be scaring away animals that want to eat it.

There's still a lot to learn about plants and how they survive. In tough environments, there may not be enough food, water, or good weather. Yet plants still grow there. Some eat meat. Some dry out. Others explode. They do what it takes to survive.

# WORDWISE

**carnivore:** a meat eater

**climate:** the usual weather that occurs in a place over time

**evaporate:** to change from a liquid into a vapor or gas

**nutrient:** a chemical that a living thing needs to be healthy

This ancient bristlecone pine is twisted and gnarled but is still a healthy tree.



# Coming in April

**Land Ho!** Thousands of islands rise out of Earth's waters. How did they get there?

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