

Holly



The holly plant has unique-looking leaves! Most people can easily recognize its spiky-edged shaped leaves. But the holly doesn't make its leaves for show. The thick, tough leaves with spiky edges don't make a very good meal for most animals. Animals like deer usually leave it alone, unless they are very hungry.

The thick, waxy leaves serve another purpose. Better than most plants, they do an excellent job of keeping water in the leaves. But the holly plant has needs too. It likes lots of sunlight and nutrient rich soils. And it cannot survive extremely cold winters.

Baobab Tree



The baobab tree sure looks unusual. Its trunk is so thick! A tree's trunk is its main stem. In all trees, the trunk moves water from the roots to the branches and leaves. Baobab trees live in parts of Africa, Madagascar, and Australia where the rainfall is often very heavy during one part of the year. The rest of the year is extremely dry. To survive the long dry months, the baobab tree absorbs huge amounts of water and stores it in its trunk. The tree trunk expands to hold all the water and the plant uses it throughout the dry season.

Another way the baobab tree reduces water loss is by shedding its leaves during the dry season. The Baobab tree has another adaptation to the dry, hot environment. Its trunk is fire resistant, keeping it safe from fires.

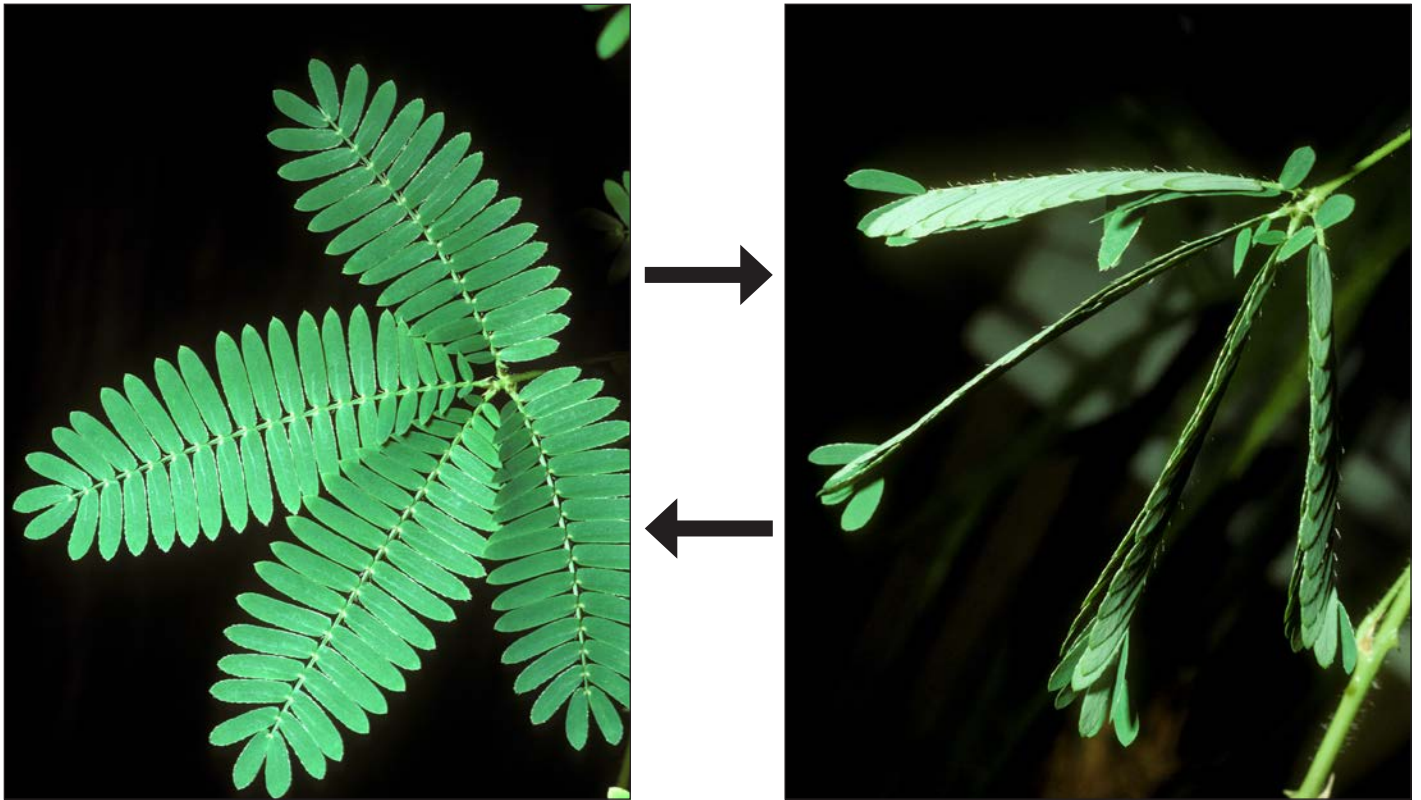
Prickly Pear Cactus



The prickly pear cactus has stems that are flat and round like a paddle. Unlike a paddle, you wouldn't want to grab it! The prickly pear cactus' stems and its fruit – the “prickly pears” – are covered in spines. These can puncture and irritate your skin. For this reason, the spines are a good defense against predators. The spines work well for the plant in another way too. Once they grow, the spines become hard and dry. This reduces the amount of water lost to the hot and dry environment compared to other plants' leaves. Prickly pears have another structure to retain water– a thick waxy coating all over their pads and fruit.

The prickly pear cactus is commonly found in the deserts of the U.S. and Mexico. Since people have the tools to get past the spines, the delicious prickly pear is eaten by many people!

Sensitive Plant



The sensitive plant is sensitive to vibrations. When shaken or touched, the leaves move! This behavior protects it from herbivores that are looking for food. The leaves fold inward and droop, making them harder for an herbivore to see. The rapid movement may also scare the animal away.

The sensitive plant is native to South and Central America and is found throughout the tropics. It grows in low-nutrient soils. It forms a dense ground cover, preventing growth of other plants nearby. The sensitive plant also closes its leaves at night and in a very hot environment. Some scientists think that the sensitive plant closes its leaves at these times to prevent water loss.

Winter Rye



Winter rye is exceptional because it survives at temperatures below freezing and thrives under snow cover. The plant is able to live through harsh winters because it produces an antifreeze substance. This hinders the growth of ice crystals within the plant. Without it, the ice would kill the plant.

Since winter rye lives through the winter, it is planted in the fall. It will even grow during the winter on warm, sunny days. When spring comes, it already has a head start on other plants. Not surprisingly, winter rye is popular in colder climates. You can find winter rye in pumpernickel and rye bread. It's a popular breakfast cereal and is also fed to livestock.

Pitcher Plant



Pitcher plants are carnivorous. They usually grow in soil that is nutrient poor. Since there are not enough nutrients in the soil, the pitcher plant needs to get them from somewhere else. To survive, the pitcher plant digests insects. The leaves of a pitcher plant are shaped like a pitcher and are partially filled with liquid. Insects are drawn to the plant because of its bright color and sweet smell. The edge of the pitcher plant is slippery. Many insects that climb on the rim slip and fall to the bottom of the pitcher plant—where they are slowly consumed. These plants still make their own food using sunlight, but they get their nutrients from insects instead of soil!

Pitcher plants often grow in wetlands—a habitat that is wet, boggy and usually sunny. To prevent the pitcher from completely filling up with rain water, some pitcher plant leaves have a lid that acts like an umbrella.

Resurrection Plant



This plant (*Selaginella lepidophylla*) is also called a resurrection plant. It can be found in the deserts of Mexico and the southwestern United States. Plants like these have been around for over 400 million years. That's a long time! Some people also call it the dinosaur plant. Part of the reason it has lasted so long is because these plants can withstand long periods of drought.

The picture on the left shows the resurrection plant in "hibernation." It is dried out and curled up into a ball. The plant looks completely dead, but it is still alive. When rains come again, the plant soaks up the water, and its leaves uncurl. It turns green, and it starts making its own food again.

Poison Ivy



Have you ever touched poison ivy? Just thinking about it makes some people feel itchy. Poison ivy produces a sap that, when it comes in contact with skin, causes itching, irritation, and sometimes a rash. This is a great defense against animals that might want to eat it!

Poison ivy and its relatives are commonly found throughout North America. They are found in many environments except deserts and high mountains. Like many plants, poison ivy has a thin, waxy layer on its leaves to hold in water. It likes the sun, but can live in forests too. Since poison ivy can be found in many places, you should learn to identify it in order to avoid it. The four characteristics of poison ivy are (1) cluster of three leaflets, (2) edges of the leaflets look smooth, not rough, (3) alternate leaf arrangement, and (4) lack of thorns.