GARFIELD PARK CONSERVATORY ALLIANCE

November Plant Highlights: Leaf Adaptations

**Please note: due to the ever-changing and growing nature of the Conservatory, plants may move locations and flowers and fruit may not always be visible.

Dichondra

Photo credit: californiagardens.com

Where do we find it in the Conservatory and why do we find it here?

We can find the dichondra in the Palm House. Dichondra is often used for ground cover because it does not usually grow taller than two inches and can grow where most turf-type grass cannot.

How does it grow or reproduce and what is special about it?

The dichondra is a flowering, seeding plant. When it grows, it stays low to the ground because it does not need that much sunlight! This is also a reason why the leaves are small. Some people even use it as an alternative to grass and mow it as they would a traditional lawn.

What is its leaf adaptation?

Plants protect themselves from the sun just like we do! Dichondra does so through its silvery color and fuzzy texture. The silvery color reflects light away from the plant and the fuzziness gives the plant shade.

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Green Wave Fern

Where do we find it in the Conservatory and why do we find it here?

We can find the green wave fern in the Fern Room. Since it is a type of fern, it enjoys the same conditions as other ferns: somewhat shady, humid air, and moist soil.

How does it grow or reproduce and what is special about it?

Instead of seeds and flowers, ferns have spores, which are on the underside of the fern fronds (leaves). When the spores are mature, they will fall from the fronds, get carried away by wind and water, and eventually becomes a new fern. By looking at ferns, we are looking back in time—spores are how plants reproduced before they evolved flowers, fruit, and seeds! Different species of ferns have different spore patterns. Can you find the spores on the green wave fern? The twisting nature of the green wave fern's leaves also exposes more surface area of the leaves to sunlight!

What is its leaf adaptation?

The leaves of the green wave fern (also known as the twister fern) twist and turn as they reach up to the sky! When it rains or when there is morning dew, the channels created by the twists of the fern help funnel water down to the base of the plant like a waterslide! The twisting leaves also help the fern absorb more sunlight. Finally, there are spores only at the tops of the mature green wave fern leaves so that they fall farther away from the mother plant and are more likely to grow into new ferns.

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Palm Grass

Where do we find it in the Conservatory and why do we find it here?

We can find the palm grass in the Palm House because the moist, partial-sun conditions of the Palm House are ideal for palm grass growth.

How does it grow or reproduce and what is special about it?

The palm grass can reproduce through rhizomes or through seeds and flowers. Its flexibility in how it reproduces increases its chances of survival as a species!

How do humans use it or interact with it?

People have used palm grass in a variety of ways. For example, people can use the grass to weave nets. The seed produced by the palm grass is a grain and can be eaten like rice. Also, in Taiwan, folklore says that the number of corrugations in a leaf of palm grass could predict the number of typhoons!

What is its leaf adaptation?

Did you know that the palm grass is the only type of grass with blades that look like palm fronds? The leaves of the palm grass are corrugated (like an accordion or a pleated skirt) in order to channel water towards the base of the plant when it rains! Sometimes, the leaves can be hairy to protect the plant from the sun. You also might see some blades of palm grass that have white edges; this is because no chlorophyll is produced in those parts of the grass!