

Growing Guide for Tillandsia (Air Plants)

Introduction: The term 'Air Plants' is the common name for bromeliad species belonging to the Tillandsia genus. Tillandsias comprise the largest number of species within the Bromeliad family (Bromeliaceae) and also span the widest range of territory. From the southern USA to Central America and throughout South America, over 500 species of Tillandsia grow in a wide variety of habitats. In the wild, Tillandsias can be found at altitudes ranging from sea level to mountainous terrain; in environments as diverse as steamy jungles, hot arid deserts, cool cloud forests and high mountain ridges. The majority of Tillandsia species are epiphytes, a term applied to plants that cling to objects such as rocks and trees. Epiphytes absorb moisture and nutrients through their foliage and the roots are used primarily to provide support for the plant. This is why the root structure of epiphytic plants is usually smaller than that of terrestrial plants which depend upon roots for nutrient absorption as well as stability. Epiphytes are not parasites, as host plants and trees merely provide support, not sustenance.

Light Requirements: In temperate and continental climates, Tillandsias are commonly grown as houseplants, although they can be placed in a shady location outdoors during the warmer summer months. Indoors, Tillandsias should be placed in a location where they will receive bright diffuse sunlight for the majority of the day. Filtered sunlight through a south or east facing window is ideal. Even in northern regions, Tillandsias can scorch if the plants are exposed to direct mid-day sunlight, particularly during the summer months. Tillandsias grown in glass terrariums are especially susceptible to sun damage, as curved glass can concentrate the sun rays and burn the plants. Tillandsias can also be cultivated under bright artificial lights such as LED or fluorescent lighting. Halogen and incandescent lights are not recommended for this purpose, as these lamps produce enough heat to damage plants that placed in close proximity to the light fixture.

Watering: The watering schedule for Tillandsias may vary throughout the year, depending upon the cultivation method. Tillandsias grown under household conditions usually need additional misting or soaking during the colder months, due to the reduction in room humidity caused by home heating. If Tillandsias are grown in terrariums, it is usually not necessary to increase the watering during the winter as the terrarium provides a more humid environment than household air. In general, Tillandsias appreciate misting once or twice a week. As an alternative, the plants can be submerged in water for 15 minutes about once a week. Soaking is the preferred watering method if the surrounding air is very dry. A longer period of submersion (up to 12 hours) can also benefit Tillandsias before and after a period of non-maintenance, such as a two or three week holiday. Tillandsias are not normally affected by chlorine or minerals in the water source, although excessively hard water should be avoided. Collected rainwater can provide an added benefit as it often contains low levels of nutrients.

Fertilization: Tillandsias need very little nutrients, as they subsist mostly via photosynthesis and the absorption of atmospheric gases such as carbon dioxide. Judicious application of small amounts of fertilizer once a month can stimulate flowering and increase the vigor of Tillandsias. Orchid fertilizers or general purpose fertilizers can be applied as a foliar spray or by soaking the plants in fertilized water. The application rate should be no more than 1/4 teaspoon per gallon of water or 1/4 the strength recommended on the fertilizer container (whichever is less). Fertilizers should always be used sparingly on Tillandsias and the plants should be monitored to check on their response to the fertilizer.

Temperature: Most Tillandsia species tolerate a wide range of temperatures and a typical household temperature is fine. Tillandsias grown in a backyard greenhouse should not be exposed to freezing or temperatures above 35 Celsius.

Mounting: Tillandsias can be mounted on a wide variety of objects. Corkbark, driftwood, seashells and branches are just a few examples of suitable materials. A clear waterproof glue such as E6000 works well as a bonding agent. The adhesive should be applied off-centre to the base of the Tillandsia in order to avoid interfering with the emerging roots. Thin coated wire can be used to hold the plant in place until the glue sets. In a terrarium setting, Tillandsias can be wired in place or secured with light gauge fishing line until the roots become attached to the mounting media. Avoid using bare wire, as copper is toxic to the plants and other metals may rust.

Flowering & Propagation: As with all bromeliads (including the pineapple plant), a Tillandsia plant slowly fades away after flowering. Mature Tillandsias begin to produce offsets (pups) before and during the flowering period. By the time the blooming plant is finished, the offsets will have become large enough to separate from the parent plant or vice versa. Tillandsia species that produce multiple offsets can be left undisturbed and will eventually develop into an attractive spherical clump. If the Tillandsia flowers are pollinated, the flower will produce dandelion-like seeds that can be germinated. However, Tillandsia seedlings are very slow growing and a seedling takes years to develop into a mature plant.

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