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Ferns for Indoors

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The many ferns we use as indoor plants occur naturally on the floor of tropical and sub-tropical forests under dense canopies. These same conditions must be reproduced in our homes for successful fern growth. This publication discusses the basic ingredients for fern culture in the home—cool room temperatures, moist soil, and indirect light.

Temperature

Room temperatures which are comfortable for people are usually too warm for ferns. Daytime temperatures for successful fern growth should not exceed 72°F. Night-time temperatures should be on the cool side, below 60°F.

Humidity

Low humidity around the home, usually averaging 10 to 15 percent, can be a problem for many tropical indoor plants. Thirty percent humidity is about as low a level as a fern can tolerate. Forty to 50 percent humidity is a more desirable range.

Symptoms of plant damage caused by low humidity include browning and drying of the tips of the leaves or fronds. Also, yellowing and dropping of interior leaves can mean that the atmosphere is too dry.

There are several methods for overcoming the low humidity problem. One way is to add humidifiers to your home heating system or to buy a self-contained electric humidifier. Another way to raise humidity around your plants is to place potted plants in saucers or trays filled with gravel. Then add water to the trays or saucers, maintaining at least 1/4 inch of water at all times. The water that evaporates from the gravel surface will increase the humidity around your fern. Double-potting your fern is another method of raising humidity. Place the potted fern inside another container—perhaps a decorative pot—and fill the area between the pot and the container with pea gravel or sphagnum moss. Now,

keep the moss or gravel moist to humidify the plant. Many people suggest that misting on a daily basis helps to raise humidity. Actually, misting only helps remove dust from the plant leaves. The previously mentioned methods are more effective and less time consuming than misting.

Light

Because ferns grow in a wide range of native habitats, there is a fern suited to most light conditions found in the average home. For example, a north or east window usually provides good light conditions for ferns, while south, east, and west windows will probably need a reduction of light. A sheer curtain will help reduce light penetration. Or simply position the fern far enough from the window to avoid direct sunlight.

Remember, asparagus ferns are not ferns at all, but members of the lily family. Therefore they require bright, direct light all year around. Refer to Table 1 for light requirements and other needs of specific ferns.

Potting

Choose a clean clay pot, plastic pot, or decorative container for your fern. Anything can be used if it has a drainage hole at the base of the container to remove excess water. Gauge the selection of your container to the size of your plant. Small plants should be in small pots, and larger plants should be in large pots. It is a common misconception that a small plant in a large pot will have “room to grow.” It is more likely that it will drown in the excess water which is being held in the soil.

The soil mix is an essential part of successful fern culture. A typical mix contains equal parts of peatmoss, sand, and garden soil. Pasteurize this mix by baking it in a closed container (such as a roasting pan) at 200°F for 20-25 minutes. This baking destroys disease-causing organisms.

Water

There are no hard and fast rules about watering ferns. The best way to determine when to water is to know your plant requirements and to use the “dirty finger method” for checking soil moisture. Feel the soil to determine its moisture level. Some ferns, such as the Boston Ferns, should be watered when the soil becomes slightly dry on the surface; others, like the Maidenhair and the Button Fern, need to be continually moist. When you water, use room temperature water and thoroughly soak the soil until water drains from the bottom of the pot. Plants should not be allowed to sit in the drained, excess water.

Your watering practices help determine your success with ferns. If plants are over- or underwatered, shedding of leaflets will occur.

Of course, no one factor will determine successful indoor growth for ferns or any other plant. But the factors discussed in this publication are the basics for successful fern growth, and all elements must be given attention to adapt tropical ferns to indoor conditions.

Organizations

The following organizations are additional sources of information about fern culture.

The American Fern Society
www.amerfernsoc.org

Los Angeles International Fern Society
www.smcdaniel.net/laifs/

Related Publications

Contact your county Extension office to receive copies of the following publications.

HO-1 New Plants from Layering

HO-39 Indoor Plant Care

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** This publication was originally authored by Juliann Chamberlain.*

For more information on the subject discussed in this publication, consult your local office of the Purdue University Cooperative Extension Service.

Table 1. Growth requirements for various ferns.

Name	Light	Soil Mix	Fertilization
Boston Fern <i>Nephrolepis exaltata</i> 'Bostoniensis'	2 hours of indirect sun in winter. Locate in filtered shade during spring, summer, and fall.	$\frac{1}{3}$ loamy garden soil $\frac{1}{3}$ sand or perlite $\frac{1}{3}$ peat or shredded sphagnum add 1 part leaf mold	Fertilize monthly April to September and once every 2 months for the remainder of the year. Natural fertilizers such as fish emulsion give good results.
Fluffy Ruffles <i>Nephrolepis exaltata</i> 'Fluffy Ruffles'	Same requirements as Boston Ferns.	Same requirements as Boston Ferns.	Same requirements as Boston Ferns.
Dwarf Boston Fern <i>Nephrolepis exaltata</i> 'Compacta'	Same requirements as Boston Ferns.	Same requirements as Boston Ferns.	Same requirements as Boston Ferns.
Staghorn Fern <i>Platycerium bifurcatum</i>	Bright, indirect light—water every day during summer.	Use mixture of peat moss, oak leaves, and chopped sphagnum moss between flat front and wooden slab.	Requires little fertilization. Once a year add top dressing of soil mixture between flat front and wooden slab.
Rabbit's-Foot Fern <i>Davallia fejeensis</i>	Morning sun in winter. Indirect light in summer.	Use a mixture of: $\frac{1}{4}$ potting or garden soil $\frac{1}{4}$ peat moss $\frac{1}{4}$ finely chopped pinebark $\frac{1}{4}$ sand or small gravel	Fertilize March to September with plant food or organics such as fish emulsion.
Maidenhair Fern <i>Adiantum cuneatum</i>	Bright, indirect light.	$\frac{1}{2}$ peat moss $\frac{1}{4}$ potting soil $\frac{1}{4}$ equal parts sand, leafmold add 1 tablespoon of limestone per 1 gallon of mixture.	Fertilize monthly April to August. Use regular fish emulsion. Follow instructions.
Asparagus Fern <i>Asparagus plumosus</i> (Not a true fern)	Bright light at all times.	$\frac{1}{3}$ garden or potting soil $\frac{1}{3}$ peat moss $\frac{1}{3}$ sand—add small amount of leaf mold	Fertilize weekly from early spring through September. Keep moist.
Bird's Nest Fern <i>Asplenium nidus</i>	Low to bright light.	$\frac{1}{3}$ potting soil $\frac{1}{3}$ peat moss $\frac{1}{3}$ sand, gravel in equal parts	Keep moist at all times.
Button Fern <i>Pellaea rotundifolia</i>	Low or subdued light at all times except during winter.	Same as above except add 1 teaspoon of lime to each quart of mixture.	Water when slightly dry on surface.

Adapted from *Bulletin 737: Growing Ferns*, CES University of Georgia, College of Agriculture, by Henry Clay, Douglas Crater, Gerald Smith.

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