

Plants for Your Home and Office

Ferns

Robert G. Anderson, Extension Floriculture Specialist

Ferns have been common houseplants for many years. Ferns have been given from mother to daughter and traded among friends ever since plants have been grown in homes. Ferns naturally tolerate the lower light intensities and moderate temperatures of a typical home. Most ferns also require humid conditions, a feature relatively uncommon in modern centrally heated and air-conditioned homes. Thus, rock trays with evaporating water may be necessary for the culture of many ferns in the home.

Ferns have two distinctly different habits that require distinctly different cultural conditions. Many ferns with an upright or creeping habit grow naturally on the forest floor in humus soil. Epiphytic ferns, however, are found along the branches of the large trees that form a forest canopy. This article deals with ferns typically from the forest floor that can be cultured in typical potting soil and containers.

Boston ferns are the most common of ferns grown as pot plants. These plants demonstrate the habit typical for most non-epiphytic ferns. Handsome-pinnately- divided leaves (fronds) arise from the short-erect stem of the plant. Lateral stems (stolons) also arise from the stem. These thin, rapid-growing stem will root and form new plants at regular intervals. Stolons can be pruned from the more vigorous ferns but some should be redirected into the original container to maintain a "bushy" plant. Stolons can also be directed into another pot with soil to propagate the fern. Some species and cultivars will remain attractive for 12-24 months in the same container. Others require more frequent propagation because the stolons have out grown the container. Annual propagation of ferns from pots or hanging baskets through new stolons or divisions of the old plant is the best way to keep your fern looking and growing well.

The plant best recognized as a fern by consumers is certainly the Boston fern (*Nephrolepis exaltata*). Cultivars of this species display variations with large vigorous leaves ('Hillii') to smaller leaves with tightly packed divisions that give the leaf a feathery appearance ('Fluffy Ruffles', 'Norwoodii', etc.). The Boston fishtail fern (*N. biserrata furcans*) and the pygmy sword fern (*N. cordifolia*) are often available in hanging baskets or similar containers because of their attractive, pendant leaves.



Boston ferns tolerate low humidity conditions better than most ferns. The finer, feathery-leaved cultivars and species require more humidity however, than the larger, vigorous forms. Yellowing and loss of leaflets from leaves of Boston ferns is the most common problem in the home. This is caused by a combination of leaf age, insufficient watering and insufficient humidity. When plants have over grown their container, they should be propagated by division or by stolon plantlets.

Brake ferns and table ferns in the genus *Pteris* are common as small potted ferns. These ferns have distinctive linear and much-separated divisions in the leaf. Some cultivars exhibit silver-white leaf variegation, which is uncommon in ferns. *Pteris* species and cultivars have shallow root systems and prefer small containers and plenty of water. Insufficient humidity is the major limiting factor for good growth of these plants in the home.



Brake or Table Fern - *Pteris*

Maidenhair ferns (*Adiantum* sp.) are one of the most attractive ferns because of their fine, graceful, and feathery texture. Wiry, black petioles accent the soft green fan-shaped leaflets of each leaf. The pendant leaves arise from a much-branched, narrow stem (rhizome) that grows just beneath the soil surface. Maidenhair ferns prefer small containers for their shallow root systems and they dislike repotting.



Maidenhair Fern - *Adiantum*

Adiantum will not tolerate low humidity or dry air from heating or cooling vents. Any method to increase the humidity in the home is necessary for the culture of these ferns. Many *Adiantum* species occur naturally on limestone cliffs, thus lime rock added to your potting soil to maintain a soil pH of 7.0 or above may aid your maidenhair fern in long-term growth. If your maidenhair fern accidentally dries out thoroughly and all the leaves die, do not throw the plant away. The plant will produce new leaves when you begin watering again. Be careful not to over water and cause root and stem rots while the plant has only a few new leaves.



Fishtail or Holly Fern - *Cyrtomium*

The fishtail or holly fern, *Cyrtomium falcatum*, can be grown indoors or as a hardy garden perennial.

This plant has a short erect stem that should always be planted at or above the soil surface. Leaves of this fern are dark, glossy green and divided into segments shaped like holly leaves. Fishtail ferns tolerate low humidity quite well, but will wilt and leaflets will burn very easily if not watered regularly.

The button fern, *Pellaea rotundifolia*, is a nice small fern. Leaves are narrow, up to 1 foot long, and have evenly spaced, oval leaflets; that are small, waxy, and dark green. Although this fern can tolerate a low humidity, the leaflets fall very easily if the plant is not watered regularly.

Potted ferns grow best in soilless potting soil. The potting soil for potted ferns should be evenly moist at all times from periodic and thorough watering. Do not allow peat-based media to dry out because they are difficult to remoisten thoroughly. Most ferns are light feeders and need

fertilizer at 2 to 4 month intervals. Vigorous Boston ferns can be fertilized every month while they are growing rapidly.

Terrestrial ferns occur naturally under trees and other vegetation in the forest. They receive filtered sunlight for 10 to 15 hours a day during the growing season. Thus, 4 to 5 hours of filtered or reflected light is not sufficient for most ferns in the home. They must have filtered or reflected sunlight for a full day or partial to full sun for 2-3 hours a day for best growth. Remember that higher temperatures reduce the humidity automatically, so plan to add humidity for your ferns during the warmest part of the day.

Common houseplant pests - aphids, mealy bugs, and spider mites - will damage ferns because of the soft succulent tissue in fern leaves. Prevention of insect introductions and organic cures of insect infestations are best for ferns because many insecticides will damage the soft succulent tissue of fern leaves. A final note: determine the location of the sori (masses of spores for fern reproduction) on the underside of the leaves so the sori are not mistaken for insects and insects are not mistaken for sori!