



Growing Ferns as Houseplants: A Toronto Master Gardeners Guide

Light

Ferns generally grow best in filtered or diffused light, for example a bright position out of the direct rays of the sun or near a window filtered by a sheer curtain. Northern windows, except perhaps a bright unobstructed one in summer, are not bright enough for most ferns.

Ferns will not tolerate a strong summer sun but some will accept an east or west window in summer. In winter a full southern exposure is beneficial for some ferns since the sunlight is usually of shorter duration and weaker intensity.

Ferns receiving too much light are less luxuriant, lose their colour and may develop brown leaf margins. Ferns receiving too little light may fail to grow or may produce tall, spindly, undersized fronds.

Temperature

Ferns vary considerably in their temperature requirements as these usually depend on the native environment of the species: they grow not only in the tropics but also near the Arctic and Antarctic. However, ferns sold as houseplants have been grown in greenhouses and will do best in a temperature range of 19-27 °C with a 5 °C drop at night.

Ferns are reasonably adaptable to slight variations in temperature but a uniform day-night cycle is best. Excessive heat or drafts, especially around windows in winter, are fatal. Air temperature is warmer close to the ceiling so hanging plants must be watered more frequently than table or floor plants.

Humidity

As a rule ferns do not thrive in low humidity. To increase the humidity you can mist twice a day with tepid water or set pots on pebbles in a tray with water. Be sure the pots are on the pebbles above the water line.

Grouping plants will also help increase humidity or you can place the ferns in a room that generally has higher humidity. Supplying a humidifier is another option.

Watering

Most ferns prefer to be moist but not wet. Roots need oxygen for life and growth. If plants are overwatered the oxygen is pressed out and the soil packs down so that roots eventually die from rot. Signs of overwatering include soil that is still wet 3 or 4 days after watering, soil that feels soggy and smells sour and pots that are unusually heavy for their size.

Some ferns will tolerate an occasional drying out without collapse of foliage. Properly moist soil should look and feel damp. If the soil is dry 1.5 – 2.5 cm down from the top, it is time to water again. Be sure that the whole root ball is moistened and that excess water seeps out the drainage hole.



One fern that is a little less demanding of indoor humidity is the Kimberly Queen Fern (*Nephrolepis obliterated*). Like the Boston fern (*Nephrolepis exaltata*), it can vacation outdoors in the summer months.

Photo: Helen Battersby

Fertilizing

Ferns generally need little fertilization in humus-rich soil to maintain normal growth when grown outside. However, when grown as houseplants, some fertilization will encourage better growth. A basic 20:20:20 fertilizer or kelp or fish emulsion fertilizer is recommended.

During the active growth period – usually spring and summer – apply fertilizer once a month. A single application is usually sufficient between October and March. Resting or inactive plants do not need fertilizer.

Soil and potting

To perform best ferns need a soil suited to their needs. Generally speaking, packaged potting soils, although a good base for your fern mix, do not provide adequate drainage.

A basic soil mix for ferns would include one part packaged general houseplant soil, one part humus and one part sharp sand or perlite. The humus, usually sphagnum peat moss, provides additional organic matter. It should be pretreated to hold moisture. Pour boiling water over the peat, let it soak, and wring out the excess water after it has cooled. Sand or perlite is added to improve drainage and aeration of the soil. Use sharp sand or builder's sand not fine sand. Perlite, white, sterile, volcanic rock, may substitute for sand. Use medium or coarse grades.

In addition, you may add horticultural grade charcoal which absorbs toxic gases and salts caused by poor aeration in water-logged soils. Be sure to purchase a horticultural grade of charcoal. It may be placed as a layer at the bottom of the pot or added to the soil mix.

Bonemeal, a phosphorus-rich fertilizer, may be added to the soil at the time of potting or repotting – 1 or 2 teaspoon under the roots. Horticultural lime may also be added to provide an alkaline soil which many ferns prefer.

References

1. *Fern Growers Manual*, Barbara Joe Moshizaki
2. *Ferns and Fern-allies of the U.S. and Canada*, David B. Leilinger
3. *Ferns of Grey and Bruce*, Bruce Grey Plant Committee

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