

A Bonsai Close-Up on Indoor Tropical Bonsai in Northeastern Zones

By Pauline F Muth of pfm bonsai studio

In the traditional sense of bonsai, there are no indoor bonsai. Bonsai artists created their masterpieces from the local species that could remain outside year round in their climate. Modern houses generally are not suitable for the growth of bonsai. Yet people today want to grow their trees inside their homes; so specialized botanical knowledge that allows people to grow houseplants must be learned and modified to work with bonsai. If we remember that the first bonsai artists had to learn the special techniques that allow a tree to survive in a pot environment, we can treat growing bonsai indoors as a learning extension of existing bonsai horticulture.

In order to grow bonsai in our homes we need to overcome the following problems that are inherent with indoor conditions:

- Lack of enough light intensity and duration for photosynthesis
- Low humidity (this effects some species) that can be desert like
- Insect infestations that occurs when household insects are treated to your fresh bonsai
- Temperatures that are not compatible with the life cycles of certain species

Indoor bonsai are those that are designed from trees or shrubs that are not hardy in our climate and must be protected from frost and freezing by being grown indoors in cold weather. (Under most circumstances it is too difficult to grow the bonsai from species that are hardy in our climate indoors. There are some special techniques that can make it possible. This will be discussed in a future Close-Up.) During frost-free months indoor bonsai should be grown outside on a table or stand. Most take full sun. Ask the merchant for the proper light conditions for your plant or research the conditions it needs.

Growing conditions for Indoor Bonsai

1. **LIGHT** Light is the energy that uses nutrients, water and air to produce life and growth. When indoors, give the bonsai as much light as possible [A southern, western or eastern window can work. A northern exposure is not enough light. Ideally you can provide artificial light (12-14 hours under plant lights)]. Turn the tree often for best growth. Each species of bonsai has its own light requirements...ask about this when purchasing the bonsai or research their needs in order to grow them best.
 - a. ***Lack of light is the critical limiting factor*** when it comes to growing tropical or semi-tropical trees indoors. Even if you have a greenhouse, you will need to provide additional light in fall and winter until the days get long enough to supply sufficient light energy. If you are growing your bonsai in a southern window, add in artificial light to supplement the natural light.
 - b. There are a few species that can exist in the southern light of fall and winter and will survive until summer. *Ficus* and *Carissa* are two of these. It must be noted however that the internodal spacing of new growth will be longer than you would like and the leaf color may not be as green as in summer.

- c. Flowering species require the most light especially if you want blooms.
 - d. Bonsai do well in artificial light gardens. Growing under various types of artificial lights allows you full control over the bonsai's environment. Choose wide spectrum fluorescent lights. Grow the plants close to the light. Adjust the distance based on the plants reaction in your environment.
 - e. Measure light with a light meter...a luxometer.
2. **WATER** Water them regularly (no softened water). Outside you may use a watering can with a fine rose or a garden hose equipped with a fine nozzle. Indoors, in your sink, water gently from the top daily. DO NOT soak established bonsai for watering. If you leave bonsai soaking in a tray with water you will develop root rot. To increase humidity place a few stones or small tiles in a tray of water and place the bonsai on these tiles. Most indoor bonsai will need daily watering in the arid environments of our homes. (Note: if the bonsai soil is too compacted or has glued on stones, the trees will not grow since the soil will not take in water...return the tree to the merchant if you just have purchased it. If the compaction is due to lack of repotting, do so. The ideal timing for repotting is discussed later.)
 3. **FERTILIZER** Fertilize with organic pellets such as Bio Gold during the growing season. These pellets allow you to fertilize once each month and they fertilizer is slowly released as you water. In the spring, treat the soil with a dose of micronutrients and a dose of chelated iron. Repeat the iron one month later. Spring for these trees starts in January if they have enough light. If the tree is a flowering species, add a dose of super-phosphate each month to promote flowering. Continue to fertilize through September. Allow the tree to rest from November through December.
 4. **TRIMMING** Allow branches to grow to two sets of leaves and then pinch or cut new growth back to one new set of leaves as it grows to maintain the shape and promote good branching.
 5. **INSECT PROBLEMS** While the bonsai is indoors wash the plant in Ivory Liquid solution, Concern Soap or Safer Soap every 10 days to prevent insect problems. Remember to rinse the plant later with clear water. When the bonsai is outside, insect problems are greatly reduced.
 6. **REPOTTING** Repot tropical trees in mid summer during their dormant period or in early winter before new growth starts. This is at the end of December or early January. Repotting involves changing the soil and trimming the roots so that new fine roots may grow. When you repot, add iron, micronutrients, mycorrhiza and Bio Gold to the bottom layer of soil. Be sure to put mesh over the pot holes and wire the bonsai into the pot. After repotting, you will soak the bonsai in a solution of water and transplanting solution.

Some indoor bonsai may be kept indoors year round IF provided with plenty of light, higher than normal household humidity and regular watering and fertilizer. They will benefit greatly from being placed outdoors in frost-free weather. When making the transition from indoors to outdoors you must be careful to prevent leaf burn. For some species you can defoliate before moving the tree outdoors. For other species you will

need to slowly acclimate the bonsai by moving it into a shady area first before gradually moving it to full sun.

Growing bonsai indoors is an adventure in learning. Start with one or two of the easier species and achieve success with them before moving on. Start with small sized bonsai, as the light requirements for them are more achievable than larger species.

Characteristics of trees that make good indoor bonsai:

- Life cycles that do not require temperature fluctuations...temperature and seasonal changes in their natural environment are minimal
- Their natural climate is similar to that of our home's interior

Some Species that have been grown for bonsai indoors

		<u>Difficulty</u>	<u>Lux</u>
Adenium obesum	Desert rose	easy	1000
Bougainvillea glabra		easy	2000
Bucida spinosa	Black olive	moderate	1500
Buxus	Boxwood	moderate	800
Carissa macrocarpa or grandiflora	Natal plum	easy	900
Calliandra hamematocephala	Powderpuff	difficult	2000
Camellia japonica		moderate	1000
Carmona microphylla	Fukien tea	difficult	1000
Cuphea hyssopifolia	False heather	moderate	1000
Cotoneaster		easy	1500
Eugenia myrtrifolia	Bush cherry	easy	1500
Ficus	fig	easy	800-2000
Fuchsia		moderate	800
Gardenia		moderate	1000
Grewia	Star flower	moderate	1500
Hedera	Ivy	easy	800
Lantana		moderate	2000
Malpighia coccigera		moderate	1500
Murraya paniculata	Orange jasmine	moderate	1000
Myrtus communis	Myrtle	moderate	1000
Olea	olive	easy	1000
Pelargonium	Geranium	easy	1000
Punica granatum Nana	Dwarf pomegranate	moderate	1500
Pyracantha	Firethorn	moderate	1000
Rosmarinus officinalis	Rosemary	moderate	1000
Sageretia theezans		difficult	1000
Serissa foetida		moderate	1000
Ulmus parvifolia	Chinese elm	easy	1000

There are many others species that can be used for indoor bonsai. Experiment.

Please be advised that the above information is the result of my experiences with my specific horticultural habits in my climate and may not work as well for you. Experiment with a few bonsai at first and modify based on your experiences.

Keep growing,

Pauline F Muth

pfm bonsai studio

7 Western Avenue

West Charlton NY 12010

Pauline@pfmbonsai.com

518 882 1039