



J&L Garden Center

The All Season Gift and Garden Center

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The Art of 'Bonsai'



'Bonsai' is the reproduction of natural tree forms in miniature. Literally translated, the word bonsai means "Tree In A Pot". This art form has its origin in Japan and China, where it has been practiced for centuries. Bonsai are grown in pots and are totally dependent upon you for their care.

The first thing to learn about Bonsai trees is how to properly care for them. Although there are some species of plants that are adaptable to indoor conditions, most Bonsai plants must be kept outdoors. Even outdoor Bonsai plants can be displayed indoors for special occasions, but only for a short period of time. A bonsai is a living, miniature tree, and not a house plant; therefore, your bonsai has special needs and must be maintained in a cool/cold environment during the winter season.

As a guide, around Thanksgiving Day, it is time to prepare your bonsai for its winter dormancy period, which should last approximately three months. During this time, your tree does not require much light. However, it will still require watering.

Placement

Bonsai plants may be either house plants or outdoor plants, depending on the variety you select.

Outdoor bonsai plants must be allowed to go through their natural, seasonal changes. These changes are particularly enjoyable with deciduous plants, whose foliage turns color and drops off in the fall.

The ideal place to grow an **Outdoor Bonsai Plant** is on a bench or table located on a patio or deck, where it can be seen and cared for on a regular basis.

Most bonsai plants grow best in morning sun and afternoon shade. The morning sun is not as hot and dehydrating as the afternoon sun. Such placement prevents water stress late in the day.

However, some plants, such as pine and juniper, can tolerate the full sun. Members of the maple family, and other varieties with delicate foliage, may grow best in full shade.

Move your bonsai plant around the yard as desired. Put them anywhere you want for parties and other special occasions, but choose the area best suited for your Bonsai and keep your plant there on a regular basis. Plants become accustomed to certain conditions and changing the growing conditions may cause stress and the plants may suffer.

Indoor bonsai plants grow best in a well lit area. They must receive adequate light from either a natural source, or from an artificial grow light. Be aware of your plants' needs, and provide any additional humidity or moisture that are naturally provided to plants growing outside.

If you want, you can put your indoor bonsai plants outdoors in the late spring, summer, and early fall. Filtered sun or morning sun is best for most varieties, though some varieties can thrive in full sun. Be sure to bring your Indoor Bonsai Plants back indoors before the temperatures drop below 40 degrees F.

Watering

Watering a Bonsai plant is extremely important, and can never be neglected. More bonsai plants die from improper



watering than from all other causes combined. To be successful with your bonsai, we suggest that you pay close attention to the subtleties of proper watering.

Check the Soil Daily. If you are a beginner, it is very important to check your bonsai daily for water. If you cannot tell by simply feeling the surface of the soil, don't be afraid to use a moisture meter, or stick your finger into the soil. If you pay attention, the soil will tell you when to water.

Avoid Bone Dry Soil. This is critical. Never let all of the soil completely dry out (be particularly mindful on hot, sunny days, or hot windy days). Don't be afraid to check the soil with a moisture meter until you are confident. Pay attention. Bonsai cannot be ignored.

Bonsai have very small root balls; they cannot store water. Under normal conditions, water your bonsai plant once every two or three days during the spring, summer and fall. It is very important to keep the small root-ball, and the exposed roots, slightly moist at all times.

Bonsai are different than most houseplants that die from too much water, bonsai often die from the lack of consistent soil moisture. If they go a day too long -too dry-, they may not recover. On a very hot, dry day, you may need to mist your plants once or twice a day, in addition to your normal watering, because of the nature of their root system.

Avoid Consistently Soggy Soil. Though it is very important to soak the soil when you water, no part of the soil should be allowed to stay soggy for extended periods. Try to avoid watering any 'extra-wet sections' of the pot, even if other sections of the pot are 'extra-dry'. Try to keep the soil evenly moist throughout the container. Let the soil dry down, but not become bone dry, between waterings.

Adjust to Changing Conditions. Your bonsai will need frequent watering when the weather is hot and plants are growing vigorously. Conversely, your bonsai may need less frequent watering during damp, cool or cloudy conditions. If your bonsai is inside the house, air-condition-



ing, heating and other factors can influence how fast the soil dries down. The pot size can have an effect, as can the type of plant, the soil mix, and the placement of your bonsai. The key is to pay attention to how fast the soil dries out under various conditions, and to adjust accordingly - quickly.



Winter Water Needs. During the winter months, when your bonsai plant is dormant, you should water your bonsai plant just frequently enough to ensure that the root ball never dries out completely. Do not keep your plants wet all the time.

How to Water. Watering from the bottom up is probably the best method for indoor bonsai. Place the bonsai pot in a sink with water deep enough that it comes level with the rim of the pot. Let it soak water up through the drainage holes of the pot until the air bubbles cease to rise to the surface of the soil (approximately 15-20 min.). The surface of the soil will be well soaked.

Some people prefer top watering. The best way to top water your bonsai is to run the water gently onto the soil for five to ten seconds, wait a few seconds, to let it move down into the soil, and repeat this process three or four times. You want to soak the whole root ball. You should do it as many times as you see fit.

If your Bonsai is outside, the best time to water is in the morning or late afternoon. Try to avoid watering during the heat of the day, when water on tender foliage may burn the leaves.



Apply water with a watering can or a hose end sprayer that can provide a fine, soft spray: Do not wash soil from the root system. Occasionally, you may want to soak your plant for 10 to 15 minutes in a tub of water to completely saturate the soil with water.

A fine layer of moss, placed on the top of the soil, may help prevent erosion. Moss also enhances the overall appearance of your bonsai plant and may help the soil to stay wet longer.

Watering may sound a little complicated at first, but don't be discouraged. It is not really difficult. The secret is to learn the needs of your bonsai by paying attention. Once you have developed the habit of paying attention, you will see how simple and straight-forward the **Art of Watering** can be.

The watering schedule of bonsai plants depends on many factors: variety, size, temperature, humidity, and light. Watering bonsai plants once a day is usually sufficient, however, high heat or low humidity may dictate a different watering schedule. To increase the humidity around your bonsai plant you can place the plant's pot in a shallow saucer filled with gravel and water.

Fertilizing

Proper fertilization is necessary for a Bonsai to remain healthy and beautiful. Since a Bonsai is grown in a relatively small amount of soil, it is important to regularly replenish the soil's supply of nutrients.

Time release fertilizers work very well, since they release a small amount of fertilizer each time you water. **Osmocote** is one of the best slow release fertilizers available. It is available in either a four month or a nine month formulation. If properly applied in the spring, Osmocote may last an entire season, taking much of the guesswork out of fertilizing your bonsai.



Water soluble fertilizers are also widely used. **Miracle Gro All-purpose Plant Food, GrowMore Seaweed Extract, Alaska Fish Fertilizer, and Bonide Liquid Plant Food** are also good fertilizers to use. Apply this type of fertilizer, about half of the normal strength, every three to four weeks from April through October. Do not fertilize bonsai plants during the winter; while they are dormant.



Bonsai Soil Mix

Bonsai plants don't grow well in the potting soil normally used for other potted plants, which is designed to retain water and provide a source of nutrients. Bonsai soil is mixed specifically for container-bound trees, having increased drainage and aeration to encourage a dense network of fine roots to grow in small containers. Bonsai soil particles are also much larger than normal potting soil.



Using the right soil mixture for your Bonsai is crucial. Soil is important to supply your trees with nutrients, but it also needs to drain properly, provide enough aeration for the roots, and retain water long enough to benefit the plant.

The quality of soil used directly affects the health and vigor of your plant. Many unhealthy Bonsai trees and shrubs are very often planted in a poor (often totally organic) potting soil: even worse; planted in normal garden soil. Garden soil easily hardens when it gets dry, which gives no benefit to the growth of the bonsai plant, in fact, it is very harmful to the plant.

There are a number of qualities that are required in a good bonsai soil mix.

Good water-retention. The soil needs to be able to hold and retain sufficient quantities of water to supply moisture to the bonsai between each watering.

Good drainage. Excess water must be able to drain immediately from the pot. Soils lacking good drainage retain too much water. They lack aeration and are liable to create a build up of salts. Too much water-retention will also cause the roots to rot, killing the plant.

Good aeration. The particles used in a bonsai mix should be of sufficient size to allow tiny gaps, or air pockets, between each particle. Beside the need of oxygen for the roots, it is also important to let the good bacteria (mycorrhizae) have room to grow, so the processing of food will take place before being absorbed by the root-hairs and sent to the leaves for photosynthesis.

Hoffman Bonsai Soil Mix is ready to use; no other ingredients are needed. It provides proper plant support, moisture retention and adequate drainage.

You can also learn how to mix your own bonsai soil; just make sure you use high quality ingredients.

Pruning & Training

Pruning and training are the most important requirements in keeping a Bonsai Plant "Miniature". Pruning basically means removing the vigorous new growth in the spring, and trimming the additional growth regularly throughout the summer. Do not remove all of the new growth, or your plant will get weak and may die. Your plant needs some new growth to provide the necessary nutrients for survival.



Use soft, pliable wire on Bonsai to temporarily train and position branches. Wrap the wire carefully around each branch and position the branch where it needs to be. Never leave the wire on a plant long enough to create scars. This art of pruning and training Bonsai is one that is learned over years and years of practice, along with a few mistakes along the way.



Tools

Special tools for trimming and pruning are available. Although you can improvise, the old adage "The proper tool for the job makes life easier" is especially true for Bonsai. If you remove a branch with regular pruners you usually leave a stub which will make the plant grow a "Bull's-eye". Most Bonsai plants should be pruned with concave pruners. Bonsai pruners must also be kept extremely sharp so they make clean cuts. Proper tools are a great investment to this hobby.



Re-Potting

Re-potting must be performed periodically on most Bonsai plants. The reason for re-potting is to supply a pot-bound root system with fresh soil. Most deciduous trees require repotting every two or three years, while slower growing evergreens may only require re-potting every four to five years. This is a general guideline, which varies with species and growing conditions. Every tree's root system should be examined on an annual basis, in the late fall, to determine if repotting is necessary. A good sign that a bonsai needs to be re-potted is when the roots start growing out of the drainage hole. Let the plant tell you when it is ready for a new pot.



Re-potting is not difficult, and is perfectly safe if done during the late winter or early spring, prior to the appearance of any new growth.



Pest and Disease Prevention

A bonsai plant is nothing more than a miniature version of a normal tree, and therefore can be treated with insecticides and fungicides that are commonly used in normal gardening.

Clean your bonsai once or twice a month by removing dead or unhealthy foliage. When the air is dry, clean the leaves regularly using a soft cloth and insecticidal soap; misting the leaves often is also recommended. The young shoots of deciduous bonsai are especially tasty to aphids. If you detect these tiny sucking insects, you can blast them off with a hard spray of water and apply a good houseplant insecticide.

If a problem is found, be sure to choose the best chemical for the problem your plant has. Read the chemical's label before using it. Always take your bonsai plant outside to spray it with chemicals not listed for indoor use. Some of the common houseplant insecticides safe for most bonsai are **Bonide Systemic Insecticide**, **Bonide Insecticidal Soap**, or **Fertilome Indoor/Outdoor Insect Spray**.

If you detect diseases, insects, or other problems that you are unable to identify, consult a professional before the plant is beyond hope.



Winter Care

The winter dormancy period is necessary to an Outdoor Bonsai Plant's general health. When night temperatures are consistently below freezing you should move your deciduous bonsai into a protected, unheated location like a garage, basement or cold frame. Under these conditions your bonsai will be dormant and will not need as much light.



Winter dormancy should not be avoided by placing your Bonsai plant in a heated area.

This rule does not apply to tropical plant varieties; tropical plants do not require the same winter dormancy period. The degree of winter protection necessary is determined by the severity of the winter weather and by the type of bonsai plant you are growing. During mild winters very little protection may be needed. Severe winters may require extra protection. Choose an area you can monitor easily.

Suggested winter protection areas are:

1. Buried into a protected flower bed.
2. Placed in a cold frame or in a cold greenhouse.
3. Placed in an unheated garage or storage shed.
4. Put in a window well of an unheated basement window.
5. Put in an enclosed, unheated porch or patio.

Remember to check your bonsai plants regularly for moisture. Even though dormant trees use very little water, drying out completely can still be dangerous. The plant's root system should remain moist at all times during the winter. But, be careful not to keep them too wet, or allow them to freeze solid.

Watch the new buds closely in the late-winter to early-spring. When the buds begin to swell, your bonsai is beginning to grow. You must now move it to a location where the temperature stays above 35°F and has sufficient light. When frost danger is over it is time to move your outdoor bonsai back outdoors; be careful with indoor bonsai plants.

Bonsai Definitions

Different species have different bonsai requirements so make sure you research well about the exact needs of your specific plant.



Indoor Bonsai Those plants that are referred to as indoor varieties, are actually sub-tropical or tropical plants. The care and maintenance is identical to that of hardy plants during the spring, summer and fall. However, because they cannot tolerate temperatures below 40°F. Their winter care is considerably different.

If outside, move your indoor bonsai plants back to their indoor locations when the night temperatures start to drop below 50°F. The ideal location is on a table, or a stand, in front of a south or west facing window. A northern exposure is the least desirable location for bonsai because of the lack of sunlight. However, additional light can be supplemented by using grow lights. Four to six hours of good sunlight each day should be sufficient for most indoor bonsai plants. Grow lights, if needed, should be on 12 to 14 hours per day and off the rest of the time. Do not leave grow lights on all the time; plants need to rest.



Outdoor Bonsai A common misconception about Bonsai plants is that they all should be kept indoors. Actually, many trees should be grown outside, exposed to the four seasons, including temperature changes.



Those plants that are referred to as outdoor varieties, are varieties that are native to colder climates and can withstand winter conditions, though there are limits. If you live in a climate with fairly mild winters, you can keep your outdoor bonsai outside all year. If you live in a cold climate, your outdoor bonsai will need some winter protection. If you would rather grow bonsai in your home or office, you should grow an indoor bonsai variety.

Deciduous Bonsai Deciduous plants are those which drop their leaves every autumn. They remain dormant through the winter, and leaf out again in the spring. Deciduous plants make very desirable bonsai with their brilliant fall colors, striking silhouettes during the winter and lush foliage during the growing season. Varieties Include: Japanese Maple, Trident Maple, Chinese Elm, Beech, Hornbeam, Crabapple, Ginkgo and many others.



Coniferous Bonsai Conifers are cone bearing evergreen trees. Many conifers make excellent bonsai. These include: Spruce, Pine, Juniper, Cedar, Cypress, Hemlock, Larch, Cryptomeria, and others. Most conifers are very hardy and should be grown outside in all but the coldest weather.



If possible, put your conifer outside in the spring when the temperature is above 45°F and leave it outside all spring, summer and fall. Winter hardy coniferous bonsai plants can tolerate very cold temperatures, but they cannot always tolerate the very cold wind.

When night temperatures are consistently below freezing, it is time to move your coniferous bonsai into a cool or unheated garage, basement, cold frame or very cool room in the house. Remember to regularly check your plant for water. Though bonsai plants use less water in the winter, letting them completely dry out can still be dangerous to the plant.

When night temperatures are back above freezing, it is time to move your coniferous bonsai back outside. To avoid sunburn, gradually move your plant from the shade to full sun.

Tropical Bonsai The tropical belt surrounds the equator. Trees native to this area include: Ficus, Fukien Tea, Natal Plum, Buttonwood, Bougainvillea, and many others. Because these plants thrive in warm temperatures the year round, they are well suited to indoors.



Tropical bonsai thrive in hot, humid climates. They are at their best during the summer when temperatures are above 75°F and when they have high humidity. Tropical bonsai tend to sunburn in hot temperatures when the humidity is low. In the winter most do best between 65°F and 75°F. Humidity is still important, even in the winter.

Subtropical Bonsai Subtropicals are plants native to climates with hot summers and mild winters. Many subtropicals make excellent indoor bonsai. These include: Serissas, Brush Cherries, Okinawan Hollies, New Zealand Tea Trees, Catlin Elms and many others.

Subtropical bonsai can tolerate summer heat with adequate watering. Most do best with winter temperatures between 45°F and 65°F. Freezing or near freezing temperatures should always be avoided; they may die if they get too cold.

Start a Bonsai Plant From Scratch?

Growing your own bonsai doesn't mean it has to be pricey. It can be much less expensive than buying a fully developed plant. When starting from scratch, you can either start from a pre-bonsai plant, or you can start from a fully-developed, normal plant, just by pruning it.



It will take a longer time. Dedication and attention on your part is required, but the rewards will be amazing. You'll gain invaluable experience, and you will appreciate your bonsai far more when you know that it is a direct result of your efforts.

The easiest way to start is to purchase bonsai starter plants. Otherwise, some of the ugliest plants in a Nursery make the best subjects to start with.

Your first decision is to choose the right species of plants. A good rule of thumb is to buy the kind of plants that thrive in your area. People often try to grow the more exotic, tropical plants. Although it is possible to get the tropical indoor bonsai to grow in colder climates, it is much more difficult. Wait to try growing these types until you get a little more experience.

Your next step is to choose the right pot. The shape and size of the container is what makes a bonsai - a 'bonsai'. Too big, or too small of a pot, can damage the bonsai's growth and development. Make sure there is a drainage hole in the bottom of the pot. Also, make sure you use good soil, and apply the correct type of fertilizer, at the appropriate time.

You should start by trimming and shaping the tree, but not just the branches, you should also trim the roots. Keep in mind that it is the cutting of roots, and restricting the plant to a shallow pot, that keeps the bonsai miniaturized. You must maintain the proper amount of top growth for the amount of roots that you keep. Leaving too much top growth can be just as damaging to your success, as removing too much all at once.

Correct watering habits, proper light conditions, the right potting procedure, consistent pruning practices, and preventing insects and diseases, are just a few of the basics you need to familiarize yourself with when you start growing bonsai plants.

When you have finished your 'work-of-art', you need to become familiar with the conditions your plant needs, to keep it looking its best. The conditions may change from month to month, and from year to year.

Don't be too disappointed if your first two or three experiments end in failure. It is called the 'Art Of Bonsai' for a reason: 'It is Not an Exact Science'.



Please take the time to learn more about your specific plants. If you follow a few simple guidelines, add a little common sense, and provide some tender loving care, you can enjoy your bonsai plants for many years to come.

