



J&L Garden Center

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620 North 500 West Bountiful, Utah 292-0421

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The Art of "Bonsai"

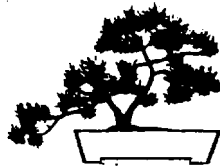
"Bonsai" is the reproduction of natural tree forms in miniature. Literally translated the word bonsai means "Tree In A Pot". Contrary to popular belief, it was the Chinese who actually originated the art of Bonsai. However, the Japanese have perfected it into the highly developed art form that it is today.

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. Bonsai plants can occasionally be displayed indoors, but only for a short period of time. Display your Bonsai inside on special occasions, but do not keep them inside more than two or three days per month.



Placement

Since bonsai trees are not house plants they must be kept outdoors to allow them to go through the natural, seasonal changes. These changes are particularly enjoyable with deciduous trees, whose foliage turns color and drops in the fall.



The ideal place to grow a Bonsai plant is on a bench or table located on a patio or deck. 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 trees, such as pine and juniper, can tolerate full sun. Members of the maple family, and other varieties with delicate foliage, may grow best in full shade. Choose the area best suited to your Bonsai and keep your plant there on a regular basis.

Watering

The watering of a Bonsai is extremely important, and can never be neglected. More bonsai plants die from improper watering than from all other causes combined. Bonsai have very small root balls; they cannot store water. Under normal conditions, water your bonsai plant once a day during the spring, summer and fall. It is very important to keep the small root-ball, and the exposed roots, moist at all times. Bonsai are different than most houseplants that die from too much water, bonsai often die from the lack of consistent water. On a very hot, dry day you may need to mist your plants an additional once or twice a day.



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

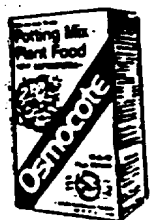
The best time to water is in the morning or late afternoon. Try to avoid watering during the heat of the day, when water on tender foliage may burn the leaf. Bonsai plants do best when they are watered at the same time each day, using a consistent amount of water each time. Make sure that you thoroughly drench the plant so water drains out of the bottom of the pot. This watering schedule applies to most Bonsai plants. However, some very small trees called "Mame" trees, may require more frequent waterings.

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.

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 to the best slow release fertilizers available. It is available in a four month or a nine month formulation. If properly applied in the spring,

Osmocote will 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, Alaska Fish Fertilizer, and Dyna Grow Liquid Plant Food** are good fertilizers to use. Apply this type of fertilizer every three to four weeks from April through October.

Pruning & Training

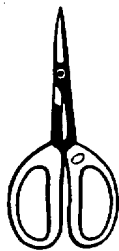
Pruning and training are the most important requirements in keeping a Bonsai Plant "Miniature". Pruning basically means removing the vigorous new growth in the spring, and trimming the new growth regularly throughout the summer. Do not remove all of the new growth or your plant will get weak and die.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

Use soft, pliable wire on Bonsai trees 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 preformed 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.



Insects & Diseases

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. 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 house-plant insecticides safe for most bonsai are **Safer's Insecticidal Soap, Fertililomer Time Release Insecticide, and Schultz Housplant Insecticide.**



Winter Care

The winter dormancy period is necessary to a Bonsai Plant's general health. 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. The plants'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.

Indoor Bonsai

Those plants 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.

When night time low temperatures start to drop below 50°F, move your bonsai plants to its indoor location. The ideal location is on a table or 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 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.

The watering schedule of indoor 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. Place your bonsai in a location away from drafts, hot or cold, especially furnace vents.

Deciduous Bonsai

Deciduous trees are those which drop their leaves every autumn, remain dormant through the winter, and leaf out again in the spring. Deciduous trees 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. Please take the time to thoroughly read this care sheet. If you follow these guidelines and add a little common sense and tender loving care, you can enjoy your bonsai for many years to come.



Watering

Proper watering is critical. Feel the surface of the soil every morning. If the soil is fairly moist, then you do not need to water. If the soil is only slightly moist then it is time to water. Water from above, until the soil is completely soaked. During hot dry weather your tree will need frequent watering. Direct sunlight and wind can cause the soil to dry out rapidly. Very small bonsai in small pots can sometimes dry out in a day or less. Be alert to changing conditions. Allow the soil of your bonsai to dry out a little between waterings but never allow the soil to become bone dry.

Light

Deciduous trees need to be grown outdoors in very good light. Hot sun and wind can cause leaf burn, so you may need to provide some shade from the midday sun during the hottest months.

Location

Good air circulation and fresh air are essential for the health of your trees. Deciduous trees must be grown outside from spring to fall. 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. Some people even put their smaller trees in the refrigerator. Temperatures between 30°F and 40°F are ideal. Under these conditions your bonsai will be dormant and will not need light. However you must not forget to check for water. Even though dormant trees use very little water, drying out completely can still be dangerous. Watch the new buds closely in late winter to early spring. When the buds begin to swell, your deciduous bonsai has begun to grow. You must now move it to a location where the temperature stays above 35°F and the light is very good. When frost danger is over it is time to move your tree back outdoors.

Fertilizing

Your bonsai does best with consistent feeding during the growing season (spring, summer and fall). We recommend using **Osmocote Fertilizer**. Scatter Osmocote on the surface or gently push the granules into the soil. Apply about one teaspoon per six square inches of soil surface. Osmocote lasts about four to six months. For a richer mix, supplement with **Dyna Grow Liquid Plant Food** about every four to six weeks during the spring and summer. Do not fertilize during the winter.

Pest and Disease Prevention

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

Repotting and Styling

Most bonsai plants need to be repotted every two or three years. Occasional trimming (and perhaps wiring), will also be necessary to keep your bonsai looking good. We recommend consulting a good book, a bonsai professional, or competent enthusiast for advice.

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. Please take the time to read this care sheet. If you follow



these simple guidelines and add a little common sense and tender loving care, you can enjoy your bonsai for many years to come.

Watering

Proper watering is critical. Feel the surface of the soil every morning. If the soil is fairly moist, then you do not need to water. If the soil is only slightly moist then it is time to water. Water from above until the soil is completely soaked. During hot dry weather your tree will need frequent watering. Direct sunlight and wind can cause the soil to dry out rapidly. Very small bonsai in small pots can sometimes dry out in a day or less. Be alert to changing conditions. Allow the soil of your Bonsai to dry between waterings but never allow the soil to become bone dry.

Light

Give your conifer bonsai as much direct sunlight as possible. As a rule you cannot overexpose your conifer bonsai to light, however, you can harm it by not giving it enough light. Though most conifers thrive in direct sunlight, a few, like the Hinoki Cypress adapt well to light shade.

Location

Good air circulation and fresh air are essential for the health of your bonsai. Conifers 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 out 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.

Indoor

If you keep your coniferous bonsai indoors, for a few weeks, try to keep it on a bright, open window sill when possible. In the winter, try to keep it in a bright window sill in a room that cools down at night. Avoid placing your bonsai close to a heat source.

Fertilizing

Your bonsai does best with consistent feeding during the growing season; spring, summer and fall. We rec-

ommend using **Osmocote Fertilizer**. Scatter the granules on the surface or gently push them into the soil. Apply about one teaspoon per six square inches of soil surface. Osmocote lasts about four to six months. For a richer mix, supplement with **Dyna Grow Liquid Plant Food** about every four to six weeks.

Pest Prevention

Clean your bonsai once or twice a month by removing dead or unhealthy foliage. Be sure to remove the brown foliage around the inner branches. Wash the foliage each time you water by running the water through the foliage. Misting is useful when the air is dry, as it provides extra moisture and helps keep the foliage clean. Spider mites are a threat to conifers. Hold a white piece of paper under your tree and gently shake the foliage. If there are mites, some will fall onto the paper. If you look very closely, you can see them slowly crawling around. If your tree has mites, treat with **Safer's Insecticidal Soap** or with **Fertilome Time Release Insecticide**. Repeat every four days until they are eliminated. If you have a serious infestation be sure to check your plants regularly the rest of the growing season.

Repotting and Styling

Most bonsai need to be repotted every two or three years. Occasional trimming (and perhaps wiring), will also be necessary to keep your bonsai looking good. When trimming a conifer do not hedge prune. Pinch, or selectively prune unwanted growth. If you need help, we recommend consulting a good book, a bonsai professional, or a competent enthusiast for advice.

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.



Watering

Proper watering is critical. Feel the soil every morning. If the surface is dry or only slightly moist it is time to water. Water from above until the tree is thoroughly soaked. During hot dry weather your tree will need more frequent watering. Most tropical bonsai plants do not like their soil to be dry, but a few such as Ficus and Bougainvillea like to dry out completely between waterings. Bougainvillea plants will not bloom if they are kept too wet. Some tropical succulents like to dry out for several days. Most tropical bonsai plants, however, do not like their soil to become bone dry.

Temperature

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.

Light

Most bonsai need to be grown in very good light. If you can, put your tropical outdoors in the summer. Light shade, filtered sun, or morning sun is best for most varieties. When indoors keep your tropical in a window or very close to one. If you cannot provide enough light in the winter, we suggest supplementing with grow lights.

Fresh Air

Air circulation is very important, so open the window on warm days. When you cannot open windows, we suggest using a fan for several hours a day. Keep your bonsai away from cold drafts and heat sources.

Fertilizing

Your bonsai does best with consistent feeding during the growing season (spring, summer and fall). We recommend using Osmocote Fertilizer. Scatter them on the surface or gently push them into the soil. Apply about one Teaspoon per six square inches of soil surface. Osmocote lasts about four to six months. For a richer mix, supplement with Dyna Grow about every four to six weeks.

Pest Prevention

Clean your bonsai once a week by removing dead or unhealthy foliage. Wash each time you water by running the water through the foliage. Misting is useful when the air is dry, as it provides extra moisture and helps keep the foliage clean. If you detect pests treat with insecticidal soap every three days until the infestation is cleared up. For serious infestations consult a professional.

Repotting and Styling

Most bonsai need to be repotted every two or three years. Occasional trimming will also be necessary to keep your bonsai looking good. We recommend consulting a good book or a bonsai professional (or competent enthusiast) for advice.

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. There are another group of plants which are native to temperate climates but which behave like subtropicals when grown indoors. The most notable of these are Kingsville and other dwarf Boxwoods and dwarf Hollies like the Pagoda and Green Dragon.

Watering

Proper watering is critical. Feel the soil every morning. If the surface is dry or only slightly moist it is time to water. Water from above until the tree is thoroughly soaked. During hot dry weather your tree will need frequent watering. Direct sunlight and wind can cause the soil to dry out rapidly. Very small bonsai in small pots can sometimes dry out in a day or even hours. Be alert to changing conditions. Misting can be helpful when the air is dry. Misting should not be considered a substitute for watering. **Allow the soil of your bonsai to dry between waterings, but never allow the soil to become bone dry.**

Temperature

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.

Light

Most bonsai need to be grown in very good light. If you can, put your subtropical bonsai outdoors in the late spring, summer, and early fall. Filtered sun or morning sun is best for most varieties, though some (especially larger ones) can thrive in full sun. When indoors keep your subtropical in a window or very close to one. If you cannot provide enough light in the winter, we suggest supplementing with grow lights.

Fresh Air

Air circulation is very important, so open the window on warm days. When you cannot open windows, we suggest using a fan for several hours a day. Keep your bonsai away from heat sources.

Fertilizing

Your bonsai does best with consistent feeding during the growing season (spring, summer and fall). We recommend using Osmocote Fertilizer. Scatter them on the surface or gently push them into the soil. Apply about one Teaspoon per six square inches of soil surface. Osmocote lasts about four to six months. For a richer mix, supplement with Dyna Grow about every four to six weeks.

Pest Prevention

Clean your bonsai once a week by removing dead or unhealthy foliage. Wash each time you water by running

the water through the foliage. Misting is useful when the air is dry, as it provides extra moisture and helps keep the foliage clean. If you detect pests treat with Insecticidal soap every three days until the infestation is cleared up. For serious infestations consult a professional

Repotting and Styling

Most bonsai need to be repotted every two or three years. Occasional trimming will also be necessary to keep your bonsai looking good. We recommend consulting a good book or a bonsai professional (or competent enthusiast) for advice.

The Art of Watering Bonsai

Watering is the single most important bonsai care. If your goal is 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 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 careful on sunny days). Don't be afraid to stick your finger into the soil. Pay attention. Bonsai cannot be ignored.



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. Try to avoid watering wet sections. Drying down (but not becoming bone dry) between waterings is very important.



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 fre-



quent watering during damp, cool or cloudy conditions. If your bonsai is in the house, air-conditioning, heating and other factors can influence how fast the soil dries down. Pot size can have an effect, as can the type of tree, soil mix and the placement of your bonsai. The key here is to pay attention to how fast the soil dries out under various conditions and to adjust accordingly.



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. (approx 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, waiting a few seconds to let it move down into the soil, and repeating this process three or four times. You want to soak the whole root ball. If you have to water more than three or four times to satisfy yourself that the soil is completely saturated, then do it as many times as you see fit.

If your Bonsai is outside, you can use a hose with a nozzle that will allow the water to rain gently over and through the needles or leaves and flow into the soil. Let the puddles of water soak into the soil and repeat until the water runs out of the drainage holes in the bottom of the pot.

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 straightforward the Art of Watering can be.