

## Ficus...a great plant for bonsai in Southern California

By Charlie Mosse, August 2020

Ficus have been up and coming for many years now. The varieties that do well in our climate also do well with our water and overall drier conditions. They tolerate our local water with high pH, chloramines used for treating the water and high salt content. Ficus are found in humid climates as well as dry climates of the world. Both types do well here in San Diego. It is worth noting that ficus are great for practicing your bonsai skills. It is encouraging that they are very responsive to the actions you take on them. They can be developed "quickly" (relatively) into nice looking bonsai.

All ficus like warm weather. During warm weather is the best time for them to be re-potted, transplanted, grafted, defoliated, leaf pruned, have cuttings taken or air-layered. Providing the tree is healthy, recovery from major work is fast (usually measured in weeks to a couple of months) during the warm months. What the weather trends tell us each year is more important than knowing/memorizing tasks by the month. Weather patterns in general are changing, not to mention the variations we see each year anyway, so use the months as a guide or memory jog but use the actual weather to make your final decisions of scheduling work.

The warm months are June through October but there are caveats. If you start work in the spring before "prime time", then the recovery time will take longer, sometimes a lot longer if the weather stays cool. If you start work in the fall, the coming cooler days and nights will slow down the recovery time, sometimes significantly if we get early storms. If you can protect the tree(s) from the cooler conditions, then it is OK to proceed.

I have found through experience and talking with others, that keeping ficus in the sun during the winter helps them through the cold times but, this does not ensure they will always be OK. If you have a greenhouse or something that will protect sensitive trees, use it and you will not have to worry about the cold and wet periods.

Below are the varieties that are most commonly used for bonsai here in SoCal which includes some basic information. You will learn more nuances as you grow.

***Ficus microcarpa***: Excellent plant for shohin or medium or large bonsai depending on the cultivar you are growing. The leaf is easy to reduce through the usual cultural practices of bonsai and proper defoliation techniques. Fast grower and tolerates cold and wet better than the others Ficus listed here. They are very easy to propagate by cutting or air-layer and respond to and recover very fast from defoliation...full or partial. Microcarpas grow nicely in full sun except it is wise to shelter a bit during 95+ degree weather just to be safe to protect the roots and leaves. I grow some of mine in full sun in El Cajon but protect as needed only if it gets over 100 degrees. 30% shade cloth is a good fulltime option.

***'tiger bark'***: Same growth habit as its parent microcarpa but has "spotted" bark which is quite attractive. Degree of coloration in the light colored spots can vary by plant. Has slightly smaller leaves and a bit more compact growth than its parent. Good back budding qualities. Grows fast and recovers quickly from heavy work on roots and shoots, and defoliation. They have good cold tolerance and rainy weather tolerance.

Tiger Barks are grown as shohin up to large bonsai. Note: Shohin are up to 8" tall. Chuhin is the next size category from 8"+ to about 16" or so. They can be grown larger if desired.

**'melon seed'**: Naturally has a small leaf to that reduces nicely with culture. It has an off-colored leaf that resembles the green and slight yellowishness of a ripe watermelon. It is a compact grower and very prolific back-budder. This makes it very forgiving if something is mistakenly cut off making re-growing a branch in the right spot very likely. Good for shohin and forest plantings. It can produce a nice trunk base.

***Ficus 'green island', 'green mound' and a few others***: Not nearly as fast a grower nor does they back-bud as much as the other varieties. Has typical microcarpa leaf color and has a mounding nature making it more natural for a wide bonsai. Creating density takes more time than the varieties mentioned in this article, e.g. not nearly as dense as quickly as 'melon seed'. They are a little sensitive to cool weather but still tolerate it, just not quite as well as 'tiger bark'. They will lose some leaves but generally not defoliate if too cold. Good for shohin and smaller chuhin sized trees.

***Ficus 'burtt-davyi'***: Is very popular and is one that comes from the drier South African areas. Small leaf with the ability to have small leaves for excellent proportion for shohin and Kifu size trees. Also, very easy to propagate by cutting and air-layer. Responds to and recovers very fast from defoliation...full or partial. Leaf color is a bit lighter than microcarpa. A healthy '*burtt-davyi*' can easily withstand hard root pruning and hard trimming. Good back-budder like microcarpa but not as prolific as '*melon seed*'. They tolerate the cold nicely as long as they are not constantly wet. Best protected from too much rain in the winter and kept in the sun.

***Ficus benjamina***, weeping fig is not used as much but does make a nice medium to large bonsai. It is more sensitive to hard pruning of branches where a few leaves must remain on a cut branch to ensure, not guarantee, the survival of the branch. The leaves are glossier than microcarpa and, '*burtt-davyi*' making them more attractive to many. Leaf size reduction is not quite as easy as the microcarpa and '*burtt-davyi*' but can be made to reduce to a good size for a larger chuhin size or a large bonsai. *Ficus benjamina* and cultivars seem to have good winter tolerance in San Diego. I have grown and seen 'too little' and 'contorta' survive the winter, particularly last year's wet winter, and look OK in the spring. Just watch out for wet feet for too long a period of time.

***Ficus benjamina 'too little'***: Is definitely a dwarf (short) version of its parent. Leaves are much smaller, at least 1/4 the size of the regular *F. benjamina* and curved over backwards. Same nice color and gloss. Also sensitive to hard cutting back but back buds more than its parent. Trunk seems to have a nice gradual taper on most trees. The small leaves and a very dense growth habit makes them very good for shohin, small chuhin and forests like the forest as the Bonsai Pavilion in the Safari Park.

***Ficus benjamina 'contorta'***: Leaves look very much like 'too little'. The branches grow in a naturally curvy fashion and in random directions. The branches are a bit brittle but due to its curvy, random nature, cut-n-grow works fine without having to wire much, if at all. Good for shohin. Few images are available since it is very new to bonsai cultivation.

There are many other benjamina cultivars like '*kiki*' but are not seen much.

***Ficus salicaria***, narrow leaf fig or willow leaf fig. This is also an immensely popular tree. Leaf reduction is particularly good and easy to do. Shohin fans love this species of ficus and one will see that it is also suitable as a chuhin. The tree responds very nicely to defoliation and hard pruning of roots and

branches. It can produce a nice chunky base with time. New growth has a nice bronzy cast to it that can remain on mature leaves but to a lesser degree. Easy to propagate by air-layering and fairly easy to do cuttings. They tolerate the cold nicely as long as they are not constantly wet. During the winter it is best protected from too much rain and kept in the sun.

There are more species used for bonsai but many are not as easy to style or get the desired leaf size reduction except perhaps for use as larger bonsai. Those take more time and effort but can be quite rewarding. Try *Ficus ingens* or *Ficus concinna*. *Ficus rubiginosa*, 'Port Jackson fig' is also grown as a chuhin bonsai and can be found locally at Evergreen Nursery and Walter Andersen's.

**Soil:** Make sure your soil mix drains well. The club mix of 2-2-1, pumice-scoria-orchid bark works well. It is used successfully at the Pavilion. You can add more bark since ficus do like moisture. 1-1-1 is fine. If you prefer, use akadama instead of bark. Using a soil cover, as mentioned in Neil Auwarter's JFG tour talk, is an excellent way to conserve soil moisture, encourage roots nearer the surface and helps a bit to keep the roots cooler. Ryan Neil has an excellent presentation on soil cover and Jonas DuPuich has a good discussion on his blog. Adding organic supplements from the beginning helps to inoculate the soil with good fungi, bacteria and micro-nutrients. This is a good practice since our basic soil components are nutrient and soil organism poor.

Particle sizes recommended for ficus are listed below but may vary with your watering habits, weather in your area, and even the micro-climate in your yard.

Shohin (up to 8" tall): mix of 1/32" to 1/8" sized particles

Chuhin (8"- 16" tall): 1/16" to 3/16" sized particles

Large Bonsai (>16" tall): 1/16" to 1/4", mostly 1/8" to 1/4" particles

**Wiring:** Ficus bark is relatively soft and thin and therefore is subject to bruising and tearing. However, the tissue can repair itself easily. How significant the wound is will dictate how long it will take to heal. Aluminum wire is less abrasive than copper wire so aluminum is preferred. One needs to use a larger diameter wire when using aluminum to get the same holding power as copper. However, the larger diameter wire is better since it will not cut in as deeply. Since Ficus grow rapidly and the wood is soft, wire has to be watched closely for cutting in since it can happen very quickly during fast growth periods. About 2-3 weeks after wire application, the wire needs to be checked weekly because the wire will cut into the soft wood quickly. If the wire cuts in, as long as it is not too deep leaving only a dent, the bark will fill in eventually. If it cuts in more than 1/4 of the diameter of the wire, the scar will take a long time to heal, if at all.

**Fertilizer:** Ficus are not fussy. Be sure roots are MOIST BEFORE applying fertilizer. Fish emulsion/kelp, Milorganite, Espoma's Holly-tone (if available), BioGold, organics in tea bags are common. Non-organic types like MiracleGro are good but they are salts, so be careful. One has to apply MiracleGro and similar products more often since they are so soluble in water and bonsai get watered a lot. Slow release fertilizer types like GroPower pucks or GroPower pelletized, Apex bb's and Osmocote bb's work well. Fertilize as per needs and developmental stage of the tree and the time of year. Do not fertilize by the calendar or schedule. That is not how plants grow. Even in winter lightly fertilize your Ficus to keep them healthy but not to support rapid growth. The roots are not active or marginally active and the much of the fertilizer will be not taken up by the roots. Be careful not to fertilize too much during prime

growing weather because long internodes and larger leaves will result. Fertilize by plant needs, not a convenient schedule.

**Watering:** Watering is up to you and your micro-climate conditions. Ficus use a lot of water during late spring growth and then water use rises greatly during the summer months when it is hot and they are growing the most. During peak watering periods using organic base fertilizers like Milorganite help to more gradually and evenly release the fertilizer to the tree roots. Fall and winter reduce water needs like most plants. They do not mind wet feet during periods of growth but when they slow down and eventually stop in the winter, wet feet for too long a period will cause root rot. Keep a watch out for cold, wet conditions.

Note: Air circulation is good for trees because it enhances photosynthesis. However, windy locations will cause rapid loss of water from pots. A windy day at 75 degrees can dry pots just as fast as a calm 90 degree day so protection is needed at times.

**Sun Protection:** Protection is not needed in general. But if it has been cool and cloudy for a long stretch of time and the temperature spikes, protect your trees during mid-day approximately 11 am through 3 pm. If your tree has been partially or fully defoliated, be cautious of the remaining leaves which have been shaded to require some relief. Sometimes the newly exposed bark can be damaged by the sun. In a few weeks the tree should be safe but it does depend on the temps/sun. Reflected heat from sunny walls can be a great spot in the cooler months but advise caution when it is very warm.

**Insects:** Insects are usually not a significant problem. Thrip, scale, mealy bugs and wasp galls may need to be controlled. Thrips will cause new leaves to roll up. Scale are hard bumps found primarily on the stems and on stems at leaf junctions called leaf axils. Wasp galls are bumps found on leaves of only microcarpas but are not seen that often. Mealy bugs are white, fuzzy masses found anywhere on the plant. Systemics like Bayer Tree and Shrub granules work well for ficus insects as does the physical removal of infested parts. Otherwise one can use insecticidal soaps, oil (but not during temps over 80 degrees), physical removal and then spray. Once the plant is cleaned up, keep an eye out and remove the insects when seen to keep them under control.

**Winter protection:** Pot tipping is advisable for many bonsai during wet periods and even protecting them from the rain at times. Cold and wet is not good for ficus. Cold nights even without rain can cause a ficus to weaken. Bottom heat, cold frames, green house time and even putting them out into the sun during the day and back into protection at night is advisable. Microcarpa types are more resistant to the cold than the others. I have my ficus out in the elements but do protect the burtt-davyi, willow leaf, and benjamina types from the cold. What is cold for ficus in the winter? Upper 60's to low 70's are very favorable. Mid-60's are OK. Below high 50's to 60 is cool. Low 50's into upper 40's is very cool. Lower 40's are cold. High 30's are very cold. Low 30's are very, very cold and detrimental to most ficus. There are variations in cold sensitivity by species, tree health/vigor and micro-climate where grown.

**Best time to propagate, transplant or up-pot:** Consistently warm weather is best! Daytime highs in the 80's and 90's and lows 65+. July through mid-September are generally ideal. June is also good but not quite as ideal. May is usually too early but is doable with the plants responding more slowly. The rate of recovery is directly related to favorable temperatures for a good period of time, at least 3-4 weeks of warm days and nights. If nights are cool in the 50's but 80's during the day, the trees will respond well with proper care but may take a bit longer to develop roots. The warm days will help overcome the cool nights. High average temps in the 60's is a very marginal time for working ficus. Once the temps

average in the 70's then one can start working the trees. When the temps average in the high 70's and beyond then go for it. As the daytime highs get more favorable, check the night temps. Once the night temps get into the 60's, go for it. Is this perfect? No, it is just a guide based on the experience of many.

**Cuttings** from older growth are better than young tips. Be sure to cut where the stem turns color and looks a little older....very similar to juniper cuttings. The selected branches/branch ends should be starting to harden for best results. Cuttings are more successful when they are about pencil sized or larger. They can be quite large as compared to other plants, sometimes up to 2-3 inches in diameter. I have seen ficus cuttings from 1/4" to 1" successfully done on a regular basis. Leave about 4-6 leaves per branch tip and importantly remove newer and softer leaves that will most likely draw too much water. More mature, hardened leaves are best to leave than soft ones. Some cuttings will be branched with some having as many as 5-10 branches on the cutting. Keep the soil moist and mist the leaves a few times a day if you can. Keeping the cutting in an enclosed or mostly enclosed environment will give the best results be it a baggie, an inverted jar, clear plastic storage box or a greenhouse. Starting cuttings in June through August will give quick results with sufficient roots for potting most likely in about 6-10 weeks, sometimes less time. Warm temperatures are important for good results.

**Air-layers:** Typical air-layering techniques used for most plants also apply to ficus. Start in the late spring through roughly August and you should have sufficient roots in 6-10 weeks. Results will vary with weather and local micro-climate in your yard, unless you have a greenhouse set-up then rooting is usually faster.

**Notes:** Sufficient roots from air-layers and cuttings take longer when done out of the warm season. Wintertime is usually not good with night temps in the 40's and 50's and daytime highs usually in the high 50's and 60's. If started too soon in the spring or in the fall, roots will still develop, it takes longer. The rooting is faster when bottom heat is applied. If winter is mild, sometimes success is realized without much protection. If you want fast results, take cuttings and create air-layers May/June through September. If you start in mid-September, roots develop in mid to late October, still Ok but it is getting late. Days are shorter, can be cooler, and nights are definitely cooler.

Sources for ficus information:

Jerry Meislik's two books. *FICUS, The Exotic Bonsai* and his new, more comprehensive book *The World of FICUS BONSAI* are excellent sources of ficus information. His most current book can be found at [Jerry's new book on Amazon](https://www.amazon.com/dp/B000000000). Jerry also has a web site with excellent ficus information at <https://www.bonsaihunk.us/>.

Adam Lavigne of *adamaskwhy* fame from Florida has an excellent web site <https://adamaskwhy.com/> with lots of good ficus information and general bonsai information. He does photo sequences that are very detailed and with unique commentary at times. He is a fun character but knows his subject.

Wigert's Bonsai Nursery in Florida has a good web site and is now offering inexpensive video classes and some free videos. <https://www.wigertsbonsai.com/>

Juan Andrade is also an excellent practitioner with ficus and other warm weather species. He is currently apprenticing in Japan. You can find his videos online. Google Juan Andrade Bonsai to find links to his activities, in particular... <https://www.bonsaiempire.com/locations/bonsai-artists/juan-andrade>.

Ficus Study Group on FaceBook. International group. OK source.

SDBC's experienced members can assist with ficus questions and concerns several of who are associated with ficus groups.

Thanks to Fred Miyahara, Eric Jacobson, John Jackson, Bill Graham, 'Lyn Stevenson and Sylvia Mosse for their edits and contributions.

Charlie Mosse