

Columbus Bonsai Society Newsletter - May 2005

Man has Spring been weird this year. I really think that frost and 70 degree days should not coexist in the same week. Hope you remembered to water after it got warm again. Several of us at the board were lamenting that this had been a hard year for some plants and we had lost some of ours. Then we realized they were the same species in many cases. This winter was hard on boxwood - I have one left that was outside and a undeveloped mame that I had inside. All the *B. microphyllum* var. *kingsville* that I had outside got crisped. I blame the extreme cold snap that happened without snow cover and the daily thermal cycling that went with it. I'm surprised that I didn't loose any pots to freeze thaw cycles. Some Japanese maples got hit pretty hard too.

The Demo of group planting by Jose was very informative and as usual, interesting. Everyone was thinking, "What's he going to do with Those?" And the answer was making an attractive planting of two and three clumped trees that will fill in and support each other as they grow and bud out. We will let this grow and establish and then auction it off either in the fall or next spring.

Coming Attractions

Ross Lebold will be leading a Mugo pine workshop for the meeting this month and 8 of the 14 trees have been claimed. So - There is still room to claim a spot for the Mugo pine, pot, and soil for \$10. If you have a pine that you have been waiting on to style or pot up bring it and your supplies in and we will work with you on it. Many of the techniques for Mugo can be applied to other pines and we will all be geared up for the activity, so go ahead and bring in your problem child - or your well behaved pine that you just haven't had time to deal with yet this year.

There will be Intro Bonsai classes offered by Franklin Park Conservatory again this year, They will be offered consecutive Wednesdays, May 11, 18, and 25 at 6:30 in the evenings. The classes start with design elements, move on to care and pest control, and the final session will include styling and potting of a tropical. I believe the tree this year will be a ficus. The last two years these were from Miami Tropicals and were nice specimens. If you or any one you know would like to take a beginning course on bonsai this is a good opportunity to get a complete class in to establish the basics. We have several members who got started with the club from these courses. Contact Franklin Park Conservatory for details of time and cost. There is a discount for FPC members. Phone 614-645-1507 or <http://www.fpconservatory.org> to get details.

Vigilance

By Ken Schultz

Well, last fall I must not have been very vigilant because some of my trees got freeze dried by this winter's winds. There were also the plunging temperatures, colder than it had been for the past four years, and while it snowed, it did not snow when we had cold windy days. Why should I car you ask? Do you have Kingsville boxwood with leaves that look like they've been dipped in bleach? Are some of your evergreens "crunchy"? I got lazy and while I did take things off their benched and tuck them away, with the number of trees in my care, I ran out of good protected places and didn't get extra burlap.

The result this spring did not show up right away. We had two very warm weeks in April, in fact too warm. Things began to leaf out in their protected places and despite better judgment I started moving things around, though I knew better than to trust the weather until after May 9, our official “last frost date”, if you can believe that 100% This has resulted in two evenings of taking things with tender leaves into my polly hut greenhouse to make sure tender leaves and flowers were not killed, adding to the toll of the winter damage.

And with the early warm weather pushing leaves and candles out, I asked, did I miss my opportunity to repot that tree again this year? Of course the answer is, did you miss the chance last year too? You just cannot keep passing over those trees that have gotten pot bound. You know the ones that are starting to rise up out of their pots because the root ball has grown so much that there isn't anymore room. The soil mass either dries out too fast, or when you water, it puddles on top and does not soak in right away.

And back to those warm days, did you water? I wasn't really ready, but bonsai dry out so quickly, I have already watered more this year than I did all of last year when it rained at least every other day. In fact, I just watered before I came in and started this article. No I haven't made a real dent in repotting, but I have gotten to those rising up or not absorbing water. I will have to judge the strength of some trees to decide if they can tolerate a “late” repotting. Right now I am thinking, is it time to begin the fertilizer regime? Too much too soon can make leaves bigger and needles longer.

Bonsai teaches a number of things. Lessons learned. Watch the weather – everyday, and water accordingly. Seize the moment, today may be the only day you will have to repot a particular tree. And don't be discouraged. I have been practicing bonsai for fourteen years, and I realize that there is a great deal that I still need to learn. While I have a good number of trees, those that I lost this winter and spring were precious to me. Yet, if I will not give up the pursuit of this trying hobby. When we were talking at the Board meeting, we shared our Winter and Spring stories of woe, Red Green's infamous line...”We're all in this together.” Seemed to give me the courage to go home and enjoy our bonsai hobby and not dwell on the setbacks. After all, we have trees to get show ready.

When is Bigger Better?

By Ken Schultz

The answer in most bonsai circles is when you're looking at a tree's nebari, or diameter of its trunk. For those with unlimited funds, buying a tree with a thick trunk is the obvious answer. And occasionally I find myself saying, “I'm too old to wait for this thing to grow.” It takes several years to grow a thicker tree. The better ones will take 15 to 20 years. I read in one book that there are nurseries in Japan where they grow their bonsai stock in the ground for 45 years before they pot them up. However, take heart, remember that it isn't necessarily how old the tree is but “how old it looks”.

That is why I seem to go for smaller trees while some of our club members go for larger. Larger trees need bigger trunks to give the appearance of old age. If you are one of those who want bigger trees with thicker trunks, you need to consider planting your pre-bonsai in the ground.

This also helps to solve some of those nasty freeze dried tree issues described in the “Vigilance” article. A tree placed into a bonsai pot slows drastically in adding diameter to its growth but in five years you will soon have a nebari of 3” or more. One source claims that a crabapple can be grown to a 5” trunk in six years from a cutting.

If you decide that you will try growing some trees in the ground there are a number of things to remember. One is that you may end up cutting off a great deal of growth in the process of developing a nice trunk. There will be “sacrifice” growth that you may allow to grow for a period of time that you know will eventually be cut off. Also you need to capture in your mind’s eye how big your tree will be when it is potted up. That first branch in the ground could be next year’s trunk. And each year can involve the same process of selecting that branch that will be the direction of new growth for your developing trunk.

In one article, the writer said that he is growing good nebari, he may eventually cut off all the branches and reestablish them once the trunk he wants had been developed. I still struggle with the desire to keep growth on a tree that I have just come to realize does not fit in with my new concept of what the final tree will look like. I took a crabapple to our Board meeting this month that was in full bloom. I pointed at a place slightly above the first branch and said, when its done blooming, I plan to cut it off here. There was some discussion about the exact place, but most present agreed that it would greatly increase the taper and appearance of age with that tree. The experts say that such drastic cuts should not be made after the leaves have hardened off as the food supply in the roots will have been depleted, so I may have to wait until after the leaves drop in the fall.

I have also read conflicting reports on how these cuts should be made. Most trees have a little die back from such a cut. Others may die to the next healthy bud node. As a result some say that it makes no difference if you cut at 45 degrees or blunt cut the tree, since it will die back anyway. I cannot agree or disagree. It seems that this is species dependant. Some trees don’t die back a great deal and others will. Usually I’ve found maples always die back. The other controversy is whether or not to use cut paste. I find myself using it on trees that tend to dry and dieback (maples) and not on tropicals. I’m not sure if this is the right process, but I noticed that Jose’ asked for the cut paste when he was working on the Ginnela maples in April.

If you don’t want to plant your trees in the ground, remember that what you are essentially doing is giving them unlimited pot space, so the next best choice is to “over pot.” Give them a nice five or ten gallon container. Or place the bottom of the container into the ground, allowing the roots to grow out the drain holes into the surrounding soil. If you do this you must continue to water the container, not the surrounding soil to keep the roots near the tree healthy. And whatever you do, check on the growth so that it doesn’t get away from you. Some growers think that a tall sacrifice top waving about in the wind helps the trunk to thicken, especially with cedars and redwood. If you try this remember you want a tree that back buds easily and you need to think about where the trunk will be cut, so that the scar will be in the back.

Tree of the Month

Obtaining Maximum Growth in Pre-Bonsai by Brent Walston

Introduction

This article is an exchange between John Powers and Brent Walston that took place on the Internet Bonsai Club in July 1996. John is asking a series of questions regarding how to obtain rapid growth for training bonsai.

Brent:

John, you have posed an interesting set of questions, just the kind of stuff that I think about all the time. As you alluded below, maximum growth for bonsai does not exist in a vacuum, there is always a price to pay for maximum flat out growth, such as loss of trunk curvature and taper which I think is best achieved by growing out whips and then cutting them off. [For more on this see the article Developing Large Trunks for Bonsai (<http://www.evergreengardenworks.com/trunks.htm>)]

John asks:

Will most trees grow best in the ground as opposed to large containers? Is there a certain point where a large container works as well or better than a ground planted tree?

Brent replies:

In general trees will grow fastest when planted in the ground. However, there are some caveats to be considered. It has been my experience that trees grow more slowly when first planted in the ground rather than shifted to a larger container. This effect seems to last one to two years for most species I have observed. I think what is going on is that the tree is sacrificing top growth for root growth, but it is also possible that the tree has more difficulty getting established in this (usually) denser medium. This is most dramatically seen in California Oaks. In nature these trees spend the first five years of their lives sinking their tap and lateral roots in search of water, the tops grow hardly at all. At some point the root growth slows, the process reverses and suddenly the top growth explodes growing as much as four or five feet in a single season after growing only inches for several years. In pots I have watched them do the same thing, they grow very little until all the soil is colonized with roots then the tops grow very quickly.

So in the long run planting in the ground is the best solution, but only if you plan to leave your trees undisturbed for three or more years, otherwise it will be slower than container growing. This assumes of course that water, soil drainage, structure and fertility are adequate.

John:

What type of soil do trees in the ground grow best in? I know roots need oxygen, moisture, and micro and macro nutrients. In a container these four things are best supplied by a coarse and fast draining mix. Would a similar soil work as well in the ground, or since the tree is in the ground with better drainage, would a finer mix with more organic compounds allow greater fuel for growth?

Brent:

I used to believe the latter, that since you can use finer soils for ground growing, it was superior as well. Now I'm not so sure. I think the very same mixes that are used for containers when used

for ground growing will achieve superior results. But you must pay the price of increased watering and fertilizing. All of this is anecdotal, but I'm a good observer, and hard headed, I like to do things for myself and see if they really work.

I have mounds of discarded potting soil and peat and perlite from cutting flats, hundreds of yards of it at one time. I didn't do much with it for a while and just sort of watched things grow in it. Now this stuff was not really soil, it contained almost no native soil and was so fluffy you could hardly walk in it. I have locust trees that have naturalized and the seed comes up everywhere. One seedling came up in the middle of the pile one year. That locust seedling grew over ten feet tall in a single season, yet the mix was so loose that I could still pull it out roots and all with a good yank, which I did.

The root mass was incredible, it never did reach any substantial earth which was at least three feet below. My second experience with this phenomenon was last year. I plowed all my old discarded potting soil from the dead plants into a bank below a new area for trees in pots. Rather than just waste this bank of soil mix which was as much as two feet deep in places, I used it to plant a 'Catlin' elm forest for future use. I figured to let them grow out, prune them, then dig them as I needed them. I planted over a hundred of my little liners, small plants with quarter inch trunks and about six inches tall. This was last spring.

'Catlin' grows slowly that's why I wanted to get some in the ground. I recently harvested a bunch of the stems for cuttings, so I got a good look at what has happened. In the deepest soil areas the whips are almost five feet tall and the trunk caliper is now about an inch and a half. Other 'Catlin's that I put in the ground about three years ago in creek silt have hardly grown at all. Some of the best growth yet has come from the 'escape method' where I put five gallon cans on the ground and allow the tree roots to escape through the drainage holes and into the earth. I love this method because it is so efficient. You must continue to water through the can to keep the above ground roots alive. When you get the trunk you want, you simply sever the escaped roots at the holes and cut back the top of the tree at the same time or sometime before. I am getting massive 'Seiju' elms by this method. They are putting on more than an inch of caliper per year.

John:

Can feeding gradually be built up to larger than normal levels? Overdosing a tree with large amounts of fert all at once would not be beneficial, but if you were growing a tree in the ground, and the soil was nutrient rich, could you gradually increase the amount of available nutrients? Can foliar feeding be increased as well. Is there a point you can over foliar feed? I know that with hydroponic growing, the plants are watered every time with a nutrient rich solution. Can anything like this be done with a tree in the ground?

Brent:

The same principles of feeding apply whether you are growing in the ground or in containers. Container mixes do not contain enough clay or fines to hold nutrients well and must be fertilized heavily and frequently to make up for this. If you use this type of mix for ground growing you will still have to fertilize heavily. Most bonsai mixes have very poor nutrient holding capacity, that is why we fertilize so often or continuously. If you are growing in native sandy loam the need for fertilizer is greatly reduced, so is watering. It is very difficult to give a set formula

because of the great number of variables involved. You must rely on the plants and become good at recognizing good nutrition by growth and leaf color.

I think the emphasis on foliar feeding is greatly overdone. Roots are the primary method that plants have devised to take up water and nutrients, and they are hundreds of times more efficient at it than leaves. The response may be faster when fertilizer is applied to leaves but in the long run it is the roots that will take up and store the far greater part of nutrients needed.

Foliar feeding is fine as long as the runoff ends up on the roots, if it just escapes, it is a terrible waste. You would be hard pressed to over feed by applying fertilizer to the leaves unless you used too strong a concentration. In any case if the runoff is going to the roots as well how do you know that it is too much foliar feed or too much root feed?

Overfertilizing trees, no matter how you apply it, will result in salt burn, you will see it at the margins of the leaves, they will turn brown and dry out.

John:

What types of fertilizer should be used to fuel super growth? What NPK ratios should be used and when? What do high nitrogen fertilizers do? I know high phosphorous ferts help in fruiting and flowering. What else do they help in. What is the Potassium used for? Would using only a very high Nitrogen fert during the growing season help.

Brent:

Personally I don't think the type of fertilizer matters a bit as long as it has what the plant needs, which is NPK and minor nutrients such as iron, calcium, magnesium, manganese, zinc, copper, molybdenum, boron, cobalt, and nickel. You will pay a little more for a fertilizer that has these minors but it is well worth it, especially when growing on such a small scale as most of us are. Nitrogen is the primary nutrient for green growth. It will make leaves large, deep green and will create long internodes in good growing conditions and with adequate soil space. It is essential in spring when deciduous and evergreen plants are putting out new growth. It should be tapered off at the end of the season to stop forcing soft new growth that could be damaged by frost. Phosphorus is important in promoting root growth, flowering, strengthening cell walls and for fighting off diseases. Potassium aids in general cell functioning. A balanced fertilizer seems to work just fine under normal conditions (all the numbers for NPK are the same such as 10-10-10). Higher nitrogen percentages are suitable for spring growth and for acid conditions.

John:

Are there methods of lengthening the growing season. Without a greenhouse it would be difficult to grow a tree during winter, but for container plants, you could bring some into the house and grow them under fluorescent lights. On average, how long do temperate trees need for a dormancy period.

Brent:

Living where I do, I have an almost nine month growing season if you count root growth. This is where I think there is potential for simple extended season growth. It is very difficult to do

anything about air temperature when growing outside, but soil temperatures can be changed or maintained by some rather simple methods.

Most of think trees go dormant when the leaves fall. Not true. There is no top growth but the roots continue to grow until the soil temperature falls below about sixty to sixty five degrees. This continued root growth occurs here in Northern California until about Christmas, root growth picks up again in late Feb depending on the weather. By extending root growth you set up the plant for increased top growth the following season. You can maintain fall temperatures longer by mulching with an insulating layer such as straw, etc, and you can raise spring temperatures sooner by mulching with black plastic to capture the sun's heat.

John:

Grow bags for grounded trees restrict downward growth and allow upward growth. I know it is the lateral roots near the surface of the soil that feed the tree. The vertical and/or tap roots are used for anchorage. Would the use of grow bags help? Is there an optimum depth that at which a tree should be planted?

Brent:

Last first, in general a tree should never be planting any deeper than it was growing, and this is usually the position of the first roots, although there is a better way to tell. If you bury the crown of a tree you stand a good chance of getting crown rot which will girdle the bark and cause the death of the tree. When trees germinate the seedlings exhibit root tissue and stem tissue and for most woody species there is an observable demarcation, usually a ring of tissue which is the crown. You can bury the tissue up to the crown, you can also leave the crown exposed if there are better roots down below. I use this phenomenon when root grafting pines. I pot the understock high so I can graft below the crown of the tree. After the graft takes I bury the exposed stem up to the graft union which will disappear into the nebari and make a clean undetectable graft for bonsai.

Taps roots are a phenomenon of seedlings. If you cut the tap root off a seedling, it will only form lateral roots and never grow another true tap root. That is why it is important to obtain plant material that has been properly handled in the early stages for bonsai. It will not have a tap root and instead there will be a nice dense shallow ball of lateral and hair roots. I think grow bags are over-rated, they are designed for easy removal of trees not for achieving maximum root growth. Trees for bonsai should not be planted in the ground until they have had the preliminary root work done anyway such as removing the tap roots and straightening out the surface laterals to achieve good nebari. You can cut the surface roots once a year or every other year with a sharp spade to increase root density near the crown and make lifting out easy. This procedure should be superior to grow bags.

Brent Walston is at Evergreen Gardenworks and the URL of the website is:

<http://www.EvergreenGardenworks.com>

For a free price list by mail:

Evergreen Gardenworks

PO Box 537

Kelseyville, CA 95451

Book of the Month

The Art of Natural Bonsai: Replicating Nature's Beauty

By David Joyce

This is perhaps one of the best bonsai books that I have reviewed. I found it to be one of those books that combine the facts of bonsai with lessons that the author learned through a lifetime of raising bonsai. Many of the sections of this book are completed with trees that David Joyce raised over his lifetime. He devotes several chapters to specific species that he has grown; crabapple, wisteria, cedar, chamaecyparis, maple, yew, juniper, and larch. These chapters come later in the book. The author first sets the groundwork of understanding what to few of us take the time to learn when we decide that we like the way bonsai trees look and plunge headfirst into the hobby. Chapter 2, which is over 50 pages long, covers the horticultural information of raising trees in pots. There is information on watering, pre-season shoot-tip pruning, mid season pruning, late season pruning and heavy pruning. There is even a section on winter protection.

I cannot begin to tell you all that I would about this book. It gives an education just through the photo histories of the trees that the author raised. In one case history the author collected two plants. One was repotted, trained and fed over a 28-year period. The other tree he did not repot for 28 years. I personally did not think this would be possible, but it illustrated the importance of regular repotting in a bonsai tree's development. Another set of photos showed a cedar before and two years after repotting.

The chapters devoted to the tree species is also filled with case history photographs. The Boulevard Chamaecyparis has been in training for 17 years and the caption reads,..."this is an acceptable beginning." The author purchased it at a garden center in 1975. Another case history is a "mother daughter scotch pine" initially started from seed. There are a series of photos showing wiring and pruning between 1988 and 1997. There are a number of case histories in the section on maples. One is an Acer Ginnala (same as the trees we used in April) started from seed in 1973 and shown in September 1999.

There are studies using Shimpaku and other popular materials. I know for sure that I will go to this book for fact and ideas as long as I practice bonsai. I rate it a must have for a good bonsai library. Unfortunately there will not be another book by this author as he passed away shortly after completing this work. ~Ken Schultz

Bonsai Here and Beyond the Outerbelt

Unless otherwise noted, The Columbus Bonsai Society meets the third Sunday of every month at 2:00 pm. at the Franklin Park Conservatory. Board meetings are held the first Tuesday of the month at 7:00 in the Franklin Park Conservatory library. The meetings are open to members.

May 15 - Club Meeting at Franklin Park Conservatory. A mini Mugo Pine workshop by Ross Lebold.

May 17 - Dawes - Soil creation

May 28-30, 2005 5th Annual World Bonsai Convention, Washington, D. C.

"<http://www.bonsai-wbff.org/wbc5/main.htm>"

June 4&5 - Dawes show

June 18-19 - 30th Annual Columbus Bonsai show. It's not too early (NOW!) to start thinking about what you want to show. Just think, you have months to get it ready for looking its best - pot, wiring, best accent plant, best display stand. At this point you have the time to do it up in traditional style.

June 21 - Dawes - Tropical Plant Repotting

July 17 - Club meeting is a Field Trip to the Cincinnati Krohn Conservatory

July 19 - Dawes - Jining/leaf pruning

August 21 - Club meeting at Franklin Park Conservatory. Elections. Tropical subjects w/cutting exchange

August 16 - Dawes - fertilizer making

September 18 - Picnic

Sept 20 - Dawes - Road trip/Demo

October 16 - Club meeting at Franklin Park Conservatory. Guest artist Keith Scott. Tentatively a Scotts Pine/Juniper Demo and tree critique.

Oct 18 - Dawes - Over-Wintering

November 20 - Club meeting at Franklin Park Conservatory.

Nov 15 - Dawes - Pot selection/Orientation

December - Holiday dinner