



Welcome to the ABS Newsletter for August 2017. Ah, mid-summer. A time to take a breather, other than watering heavily, while most of our trees are taking their summer break. All your pine candles should be cut by this point and deciduous defoliation completed with any new wiring either in progress or all set for the late summer growth spurt. If you're in the North, at the end of this month, flowering quince that need it, should be repotted – and next month if you're in a warmer area. If you took cuttings this year, hopefully many rooted for you!

As always, a major thanks to those who contribute articles. The contributions are greatly appreciated and always in need. The standard plea of the month; if you can contribute or if you have an idea for an article you think would be of interest, please email me at: dave.paris@w3works.com. We always need a cache of articles to choose from so we can make the newsletter interesting! We can handle the writing if we know what the membership would find interesting.

Fertilizer – or How to Start a Holy War By Dave Paris (Rochester, NY)

One moment, please, while I put on my Nomex fire suit. Ok, that's better, now let's talk about fertilizer! So we have two basic types; organic (cakes, balls, etc.) and inorganic (Peter's, Miracle-Gro, etc). The sole purpose we fertilize is to make sure our trees are getting the macro and micro nutrients they need to perform cellular division, be as healthy as possible to withstand or ward off both pests and pathogens, and to build up energy stores in both buds and roots to permit a good & healthy start after their winter hibernation.

The primary differentiation between

organic and inorganic fertilizers is the rate at which the macro & micro nutrients release themselves into our essentially sterile growing medium. Organic fertilizers release their payload over time, as daily watering and the occasional rain dissolve the hard cakes, permitting the roots to absorb nutrients at a steady, but low, rate. Inorganic fertilizers hit all at once, making their way into the tiny pores in our growing media, where the roots can extract what they need. One thing both have in common is that neither provides **all** the micro nutrients the tree needs.

There are a number of factors to account for when deciding on what type and how much. The primary factor is the state of the tree. Is the tree in heavy development or in a state of fine refinement? What species of tree is it? What growing media are we using?

When it comes to organic cakes, I will offer a bit of personal experience. Use either tea bags (ideally cloth that is washable and reusable) or small plastic containers to hold the cakes. Can you use organic cakes without these? Of course. However, they tend to deplete over time and leave a hard crust on the soil surface that needs to be periodically removed during the growing season. Tea bags prevent this crust from forming, though the small plastic container do not. Another crucial part about organic cakes is the need to reposition them on a monthly basis to insure all the roots are being fed equally. If you don't, then you'll likely end up with an area under the cake that has feeder roots all the way to the surface of the media. This eventually leads to a rootball that has uneven growth of fine feeder roots. So move those cakes around to a new area each month. On a well-refined tree, a good strategy is to put them in the corner of the container for one month, then halfway along the edge of the container the next month. The larger the container and the tree, the more cakes you'll need. Just space them evenly and move to an empty area each month. Also be

aware that organic cakes break down and should have fresh cakes replacing old cakes every four to eight weeks, depending on the size of the cake, how dense the binders are, and the general recommendation of the manufacturer (or recipe, if you make your own from components). If the tree is highly refined, use fewer cakes to insure delivery of nutrients, but not to the point that fine ramification is ruined by heavy growth.

Inorganic fertilizers also play a role in delivering micro nutrients that may not be present in the organic cakes. They're also quite helpful during early development of a tree so that it has access to major nutrients required for heavy growth – just watch for wire bite if you're feeding heavily – three weeks isn't uncommon for deciduous trees, nor is a couple months for most evergreens. It's far better to unwire and re-wire rather than having to deal with wire scars, particularly on deciduous trees.

To get all the micro nutrients a tree needs, ideally a combination of both organic and inorganic fertilizers are used. There are some cautions to be taken seriously and those will be noted shortly.

Let's look at some caveats and cautions:

a) Pines. If your pine has an good population of mycorrhizae in the rootball, use a **very** weak concentration of inorganic fertilizer, use it infrequently (a few times in a season) and lean more heavily on organics, even during the course of heavy development. The salts contained in inorganic fertilizer, in more concentrated solutions, can kill off this beneficial fungi. That's not a beneficial situation. Instead, use more organic cakes during the development stage. The slow release of nutrients can be accessed by the mycorrhizae and delivered to the roots efficiently.

b) Freshly repotted trees. Hold off on fertilizer for a few weeks after repotting so the tree has a chance to start growing new fine feeder roots and

then resume your normal fertilization regimen.

c) Collected Trees. After potting up a collected tree, treat it as you would a root-pruned tree, but instead of resuming a course of heavy feeding, slowly increase the amount of fertilizer over the course of the growing season as the tree acclimates itself to its new home. After the first season in a container, you can then go ahead with a normal fertilization regimen, appropriate for the stage of development of the tree.

Now let's look at some individual nuances based on the type of tree:

a) Satsuki & Azaleas: Starting in spring, fertilize normally up until the flower buds are about ready to open, then hold off all fertilizer during the blossoming. Once blossoming is finished and you've completed higari work on the tree, give it a good feed, and then stop fertilizing. In late August or some point in September, you should be able to gently squeeze the terminal end of a branch and feel a firm but nascent flower bud. Once you feel this, resume the normal feeding regimen until the tree displays fall coloration and then you can stop for the season.

b) Red or Black Pines: Feed in the spring until the buds turn into candles. At this point, stop feeding and let the candles grow, treating them appropriately (the subject of another article and many articles elsewhere). Once you've completed candle cutting, let the new buds develop, open, and harden off. Once the second flush of growth has hardened off, generally a heavy feeding regimen is recommended to prepare the tree for the coming winter and have plenty of energy stored in the roots and new buds set to open in the spring.

c) Other Pines (White, Mugo, e.g. single-flush of growth): Give one or two light feedings in the spring, then hold off until the new buds open and harden off. Once they're hardened off, resume the normal feeding regimen.

The point with pines is you want to give them some nutrients as they come out of dormancy, but not enough to cause excessive growth. On pines that experience two flushes of growth a year, the idea is that we want to have the tree in a state of low reserves for the second flush in order to keep that second flush of growth appropriately sized for the tree. Only once the new needles have hardened off and finished growing do we put the spurs to the tree and let it take up all the macro and micro nutrients it needs prior to dormancy and have an energy store for those two flushes of growth the next year.

The point with satsuki and azaleas is we want the new growth to terminate in a flower bud. By taking away nitrogen, the tree will set flower buds instead of foliage growth. Once the flower buds are created, we can go back to our regular feeding.

During the development stage (or rebuilding a satsuki or azalea using hard cutbacks), I use both organic cakes and a weekly feed of inorganics at ½ strength. During the refinement stage, I use organics and cut back my inorganics to ½ strength every couple weeks. Once a tree gets to maintenance stage, I reduce the amount of organics and feed inorganics at ½ strength just a few times during the growing season.

One last **crucial** point; prior to feeding inorganics, make sure you make one pass of watering well. Give the growing media a chance to really get wet and put existing salts back into solution. Wait 15 to 30 minutes, then make another pass of heavy watering to flush the dissolved salts from the media. Wait another 15 to 30 minutes, and then feed with the appropriate dilution of inorganic fertilizer. I leave the organics in place during this time and don't see a need to remove them. While this two-stage watering should be the normal for regular

watering, not everyone does it. The other benefit that is gained by regular use of an initial and secondary watering is that the organic fertilizer is slightly softened by the first pass, permitting a beneficial release of macro and micro nutrient quantities during the second pass.

The Smile Test for Judging Bonsai

By Andrew Smith (South Dakota)

I like to display my bonsai in a show and have them judged, even if I don't always understand the process completely. I especially like it if the judge has the time and inclination to write comments about my trees. For instance, I think, "Bonsai should only be displayed while they are alive!" and, "Maybe you should take up fishing!" are two of the most helpful pieces of bonsai advice I have ever gotten. I now have some great fishing stories, though I don't have time to tell them here.

But one time when I was fishing I was thinking about a bonsai show I went to a few years ago. My old wooden boat had sprung a leak, but it wasn't filling up fast enough that I didn't have time to consider other things.

The artist judging the show had printed up about a 14-point list of items to score bonsai on, with a score of one to five, or something, on each item. For instance, the nebari was a separately scored item, the trunk taper was a separately scored item, the bark was a separately scored item and so on, all the way up to the top of the tree.

I was displaying two trees in the show, and at the end of it I got my scored sheets back for each tree. I think one tree got a 28 and the other a 32 out of a possible I don't know how many. Actually, I don't remember at all what the trees got, or what the possible high score was. The interesting thing to me was that the lower scoring tree actually won a prize later on (given by

someone else), while the higher scoring one did not.

Of course, I knew that old boat had a slow leak, which is why I had brought a plastic container along to bail with. It might have worked better if the container had not been a plastic bonsai pot with holes in the bottom, but I have hundreds of those things laying around so it was hard to pass up the convenience.

Anyway, I thought the scoring sheets were pretty useful, just for pointing out areas that could use improvement, if nothing else. They kind of point out a direction to go with each tree, and it's almost always better to have a plan, than not. I liked the idea so much that when I got home I made one up for my wife, thinking she might jump at the chance to improve herself. And we'd both be happier.

I was wrong about that. All she did was make up a score sheet to use against me and the first thing she put down was, "Buys old wooden boat: -20." So she wasn't even going to try and be fair. I told her that purchases, other than excess shoes, were not a personal attribute and were therefore outside of valid scoring criteria, but she didn't seem to care.

The water in the boat was starting to get over the tops of my shoes, which is when I usually start getting concerned. I was bailing water as fast as an L-133 bonsai pot with extra drain holes would let me, but we were riding the waves like a submarine setting off for the deep. And just then I hooked into a big one!

Most of my trees will never even go to a show, of course, and even the ones that do are only on public display for a few days in their, hopefully, very long lives. And my goal for keeping them is not really to win prizes, anyway. It's something else completely. So figuring out

how to judge them, what the plan is, can be a bit of a mystery.

Since a bonsai is not a strictly functional item, like a hammer, it's hard to say if it is working properly or not. You could say the function of a bonsai is to be beautiful, but beauty requires a partner to recognize and admire it, and what is beautiful to one person is often completely invisible someone else.

Economically, you could say the function of a bonsai is to be sold and bring in money. But that's not the function for the people who are buying and admiring them, and who drive the whole thing. And even though I'm in the business, I got into it to support my passion for bonsai. So economics is not the real function of bonsai, even for me.



As if all the water in the boat wasn't doing enough to pull us into the cold, inky depths, the monster on the end of my line was practically dragging us to the bottom and through the waves this way and that. My rod was bent double and

monofilament sizzled off the reel so fast that it made the water boil as it went into the lake. I forgot all about bailing for a moment and my pot floated over the bow and sank out of sight in the clear water. We were going down!

To make a longer story shorter, over the years I've come up with my own criteria for judging my bonsai and deciding which ones to keep and which ones to sell. It's simple: if they make me smile, I keep them. That's the only criteria. Nothing else matters. If I smile when I see them, then by my standards they are great bonsai. That is their function.

My rod was just at the breaking point when suddenly the line slackened and went limp. The water in the boat was up past my belly button, but I couldn't abandon ship yet. The monster was about to break the surface!

I found a rock this year that I liked. It's a piece of hard blue-gray granite and it has a unique, small, groove in the top. I decided to plant a tree in the groove. The only tree I had that would fit was an eastern white pine seedling. The tree has no bark, no taper and no branch structure. But it fit. So I planted it in the groove and put some cast deer I got from Frank Mihalic up on the rock. By most standards it's probably not even a bonsai yet. But I smile every time I see it. Every time!

The water began to churn and bubble as the monster raced for the surface. Then it broke free from the water and went thrashing into the air trying to shake the hook from its gaping jaws.

It was a little brown trout, about four inches long. I have no idea how it pulled the boat around so much. Maybe we were just sinking, because I've used minnow bait bigger than that fish.

Anyway, while it was flipping around up in the air an eagle swooped down from an enormous old dead pine on the shore and grabbed the fish for dinner. It took him back to the dead tree and landed right on the top. I didn't really care about the fish because it was below the size limit anyway, but I had about a six-dollar lure on the end of that line and I didn't want to lose that.

So I hauled back on my rod as hard as I could and reeled with all my might. The eagle took the fish and flew away, but my hook got stuck in the treetop. I yanked again. The tree was rotten and it broke off and fell right towards me.

It crashed into the lake with a mighty splash, missing me by mere inches. But it was a good thing because now my boat completely sank and headed for the bottom. I grabbed my tackle box and rod, climbed up on the log, and walked back to shore. I didn't even get my hair wet.

When I got home my wife said, "Where's your boat?" And I said, "What boat?" I had just gained 20 points. Then I went down to look at my bonsai. And I smiled.

A SPECIAL INVITATION

If for some reason you weren't able to attend the very special 50th Anniversary ABS/BSF Convention, you can still enjoy a part of history. Purchase a commemorative book, *New World Bonsai 2017*. Along with comments by a number of world class seminar teachers, the book will include professional portraits of 50 displays of beautiful bonsai that have been chosen from over 100 submissions for exhibit at the Convention. Enjoy in hard copy the beauty of equal numbers of both tropical and temperate trees. Click [HERE](#) to pre-order *New World Bonsai 2017*.

Upcoming Events

April 13-15, 2018 MidAtlantic Bonsai Societies Spring Festival (MABS) – Cromwell, CT

Guest Artists:

Daisuku Nomoto (Japan), Tony Tickle (UK), Matt Reel & Tyler Sherrod (USA)

April 19-22, 2018 “Gateway to Bonsai”

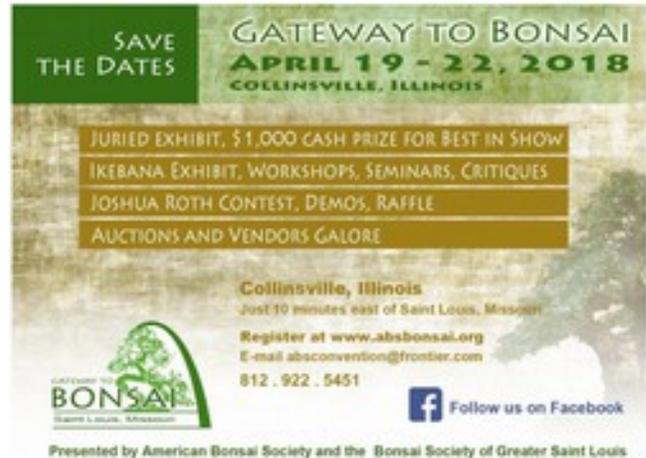
Guest Artists:

Marc Noelanders, Bjorn Bjorholm and Matt Reel

Bonsai Workshops and Learning Seminars hosted by The American Bonsai Society and The Bonsai Society of Greater St. Louis.

37 workshops and classes offered for your learning experience. 3 Critiques, Juried Bonsai and Ikebana Exhibit, Large Vending Area, Joshua Roth New Talent Contest, Raffles, Auctions and Demonstrations by Marc Noelanders and Bjorn Bjorholm

Gateway Center, One Gateway Drive
Collinsville, IL 62234
(10 minutes east of St. Louis)



September 8-9, 2018 - 6th US National Bonsai Exhibition. Rochester, NY

September 14-16, 2018 – NW Bonsai Rendezvous. Portland, Oregon. Hosted by BSOP and PNBCA Visit <http://portlandbonsai.org> for more information.

June 21-23, 2019 - 2nd US National Shohin Bonsai Exhibition. Kannapolis, NC

Newsletter Submissions:

Please send submissions, upcoming events, article ideas, raves, rants, and so forth to dave.paris@w3works.com

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