PBA NEWSLETTER

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TREE OF THE MONTH

Juniperus Virginiana

BY JOHN SIMPSON

Several years ago my son was mowing the lawn for the first time in the spring. He came in and said "Dad, there are a bunch of small trees growing in the yard and I hate to cut them with a lawn mower." I went out with him and found a large number of Eastern Redcedar seedling volunteers. Not knowing what else to do with them, I dug them up and put them in a large pot. That fall I took Cliff Pottberg's advanced course in Bnsai and needed some trees for a forest. I cut back drastically a larger Redcedar which had a trunk of about ½ to 3/4 of an inch in diameter and used the seedlings to fill out the forest. I used them in their natural shape with no wiring. Thus, quite by accident was born one of my favorite Bonsai.

Eastern Redcedar is not really a true cedar. It is actually a juniper, as its botanical name indicates. It was given the name Juniperus Virginiana because the first botanical specimens were from the Virginia colony. Although Redcedar is truly a part of the juniper family, it has many of the characteristics of a cedar. Its wood is a bright pinkish red to deep reddish brown, surrounded by a thin layer of nearly white sap wood. It is highly aromatic and thus is used as lining for clothes chests and closets. It also has a shreddy light red brown bark which is quite thin and peels off in narrow, fibrous strips. This bark is characteristic of even relatively young trees, thus giving it that aged look of sabi which is so prized in Bonsai.

The red bark and red wood led French Canadians to name this tree baton rouge, which means red stick. It is said that when they traveled to Louisiana and found the same tree, they gave this name to their state capital, Baton Rouge.

Being a juniper it has the two forms of tiny evergreen leaves which are characteristic of many junipers, i.e. (1) the round "juvenile" foliage found on seedlings and vigorous twigs, and (2) the mature foliage which is scale-like in appearance. This foliage may be trimmed like any other juniper simply by pinching it off with the thumb and forefinger. Thus, the shape of the tree can be controlled easily for a Bonsai. On the other hand, the downside is Bill Merritt's classic remark that "anyone who has a juniper Bonsai is consigned to a life of constantly pinching back."

Small inconspicuous male and female flowers appear on different trees, and occasionally on the same tree, from February to May. By autumn the flowers develop dark purplish-blue berries. These berries are highly aromatic and are used to flavor gin. The natural reproduction of redcedar is by seed only, and these are often scattered by birds.

The natural range of the Eastern Redcedar extends throughout the entire East and Midwest, with the exception of the far northern and far southern states. It grows in a wide variety of soil and climactic conditions, with its size being highly affected by such conditions. In poor soil in a northern climate it may be scarcely larger than a bush. However, in fertile alluvial soil in a warm climate it may grow as high as 120 feet, with a trunk as much as 4 feet in diameter. Normally, however, the tree grows to a height of 20 to 50 feet tall, with a trunk 1 or 2 feet in diameter.

Perhaps the primary value of Eastern Redcedar from a Bonsai standpoint is its ready availability. Creating a forest of about 15 trees can be a burden if you have pay $5 or $10 per tree at a nursery. Redcedar is readily available in large quantities in the wild at no cost.

I doubt that Redcedar would be good for any other style of Bonsai except a forest. However, I can't really say because I have never tried it in any other style. I do, however, recommend it for a forest planting.

Soil Survey

Dr. J. W. Boodley of Cornell University gave a very appropriate lecture on soil media at the 1978 ABS Symposium. I hope that ABS reprints his lecture. In it he said that a good soil mixture should have 50% solids, 25% liguids, and 25% gas. I was sure that as a scientist Dr. Boodley was able to measure the physical distribution of good soil, otherwise he wouldn't make the statement. When questioned on how to measure the relative volume of gas, liquids, and solids in a soil his reply was as follows: measure the core space by adding water and the air space by draining it over a period of 24 hours.

So I set about to conduct a few experiments on the physical characteristics of some bonsai soil materials. First of all I needed a procedure using available home utensils. I had a fluid-ounce measuring cup rather than the graduate measuring cc. I decided that 10 oz. was a good sample size; besides, a wide mouth peanut butter jar fitted that size perfectly. The 10 oz. mark was taped to the jar. The maximum hole that would retain a screen was cut into the lid. I inserted a 16-mesh aluminum screen into the lid hole.

All set with a volumetric measure and a test container, I proceeded as follows. Fill the container to the 10 oz. mark with the sample and settle down the mix as one would do in a Bonsai pot. Next, measure out about 6 oz. of water in the measure and record the exact amount. Next, fill all the voids in the sample to the 10 oz. level and record the amount remaining in the measure. The difference is the volume of voids. Next turn the sample over and drain the water (and some dusty fines) into a 16 oz. cup. I usually drained samples for 15 to 45 minutes and then measured the drainage, washed dust and all. The drainage represents the air space in the sample.

I observed that some samples either settled or swelled when water was added. If it settled I added more sample. If it swelled I removed some sample. The 10 oz. sample size was very convenient; however,, my oz. measure was not the best for estimating the parts of an ounce. The arithmetic with a 10 unit sample is convenient. The metric users might use a 50 cc. sample and an 18 oz. jar.

Sand and gravel should be washed to remove dust-like fines and then dried. In event, this procedure is not recommended for samples containing many fines such as will pass thru 20 mesh. Samples must be dry. Moist samples will produce misleading results.

Soil measurements were easy with this procedure. Here are some preliminary results:

	PERCENT		
	Solids	Water	Air
Chicken Grit (Grower Grade)*	49	6	45
Kitty Litter (Brand-Unscreened)**	45	38	17
Kitty Litter (Brand-Screened)***	44	37	19
50/50 Mix (Grit and Litter)	47	31	22
Equal Mix (Grit, Litter, Peat Moss)	52	35	13
Washed Creek Sand (4 to 16 mesh)****	57	31	12
White Sand (16 to 20 mesh)	57	42	1

Notes:

* 67% on 8 mesh, 33% on 16 mesh

** 0% on 4 mesh, 31% on 8 mesh, 60% on 16 mesh, and 9% thru 16 mesh

*** 34% on 8 mesh, 66% on 16 mesh

**** 50% on 8 mesh, 50% on 16 mesh

There are several conclusions that were derived from these results.

1. It seems unlikely that any bonsai soil mixture will contain as much as 25% air. However, when roots are introduced, 25% air may be possible.
2. The amount of solids in bonsai mixtures is about 50% except when a lot of fines are allowed.
3. All the mixes tested retained more than 25% moisture. Small particles and fines will raise the amount of moisture up to 40%.

There were some surprises in these tests. Fine sand in a container will not release much of its moisture. As a matter of fact, most materials hold a considerable

proportion of moisture. Furthermore, there was no significant decrease in water retained when drained over 24 hours. These tests did not evaluate evaporation in normal potting.

Only one of the above samples had organic material so the samples may not represent a complete bonsai soil. These were taken for purposes of getting data. Bonsai experts recommend various amounts of inorganics from 0 to 33%; soil scientists say at least 5%. The amount and type of organic material fro best bonsai growth is beyond the scope of these tests.

Cliff Pottberg reported kitty litter tests in PBA Newsletter of January 1973 on six brands. He measured from 17 to 35% fines thru 18 mesh, as compared to 9% in above sample. His samples retained 68 to 118% water by weight. This suggests that unscreened kitty litter can get very soggy.

Comments are offered for careful consideration.

1. The practice of screening out fines thru 16 mesh is strongly supported.
2. Since many inert materials retain considerable moisture in a pot by various surface mechanisms, the need to add water absorbing material is subject to further justification.
3. Some air is known to be necessary in a soil mixture for plant growth. The small proportion of air to sustain a mature plant as compared to a developing plant needs to be explored. It appears that 20% air may be satisfactory for rapid growth assuming all other growth needs are met.
4. It also suggests that a mix containing mostly course inert materials and only one part in 6 or 10 organic material should be preferred over the usual one-third mixtures.

These experiments will probably open up a multitude of comments. More coarse materials and mixes will be examined for their physical make-up. The writer invites your observations.

--- Harvey Everett

President's Message (from PBA)

GET WELL SOON, CLIFF!

PBA SYMPOSIUM

The 4th annual PBA Symposium was a smaching success. Registration reached 130 participants, with 9 bazaar vendors, and it was our first international Symposium (5 Canadians attended from the Toronto Bonsai Society). The programs were varied and exciting, and, from the enthusiastic response, the types of programs people wanted to see.

As Symspoium chairman I want to thank each of the committee people for all the hours of hard work and worry that each of them put in and I feel that all PBA and our bonsai friends should know who they are: Vicki Ballantyne, registration; Fred Mies, bazaar; Harvey Everett, exhibit; Molly Hersh, banquet and refershments; Jules Koetsch, program; Richard Meszler, PBA flea market and silent auction; Arschel Morell, workshop. But many others contributed their time and efforts: Dave Garvin, Barbara and Dave Bogash, Howard Clark, Jim Newton, Bruce Ballantyne, Dave Flipse, John Patterson, Bill Merritt, Jo Finneyfrock, and many others. And a special thanks to Tory Pottberg who picked up the pieces after Cliff's illness and brought them all together.

Next month the PBA Newsletter will run a special issue on the Symposium, complete with several pages of photographs, so that those who attended can relive some of the fun and those who missed it can see what they missed.

--- Mary Houlton

CLUB CALENDAR

October 12 Thursday	General workshop. 7:30 p.m. Annapolis Library. Members bring own materials and tools. Selected leaders from club will guide & help new members. ANNAPOLIS
October 14 Saturday	Collecting trip to southern PG County. Meet at Wnedy's Hamburgers, Branch Avenue (Route 5), Clinton, Md. 9:30 a.m. For information call Bob Sitnick 821-3142. NORTHERN VIRGINIA BONSAI SOCIETY
October 15 Sunday	Problem tree workshop. 1:00 p.m. Croton Hill Farms. BALTIMORE
October 20 Friday	Bonsai in winter by Richard Meszler. 7:30 p.m. Head House, Brookside Gardens Botanical Gardens. Emphasis on indoor bonsai. Bring trees for critique. BROOKSIDE GARDENS BONSAI CLUB
October 29 Sunday	Workshop on restyling and potting. 2:00 p.m. Clearwater Nature Center. KIYOMIZU
October 29 Sunday	Annual Baltimore Bonsai Club Show. 10:00 a.m. to 6:00 p.m. Cylburn Park. BALTIMORE
November 11	Wintering plants & tool maintenance. 10:00 a.m. Gulf Branch Nature Center. NORTHERN VIRGINIA BONSAI SOCIETY
November 17 Friday	Bonsai models from nature. 7:30 p.m. Head House, Brookside Botanical Gardens. Photographic slides of interesting trees growing "in the field" or in a garden. Members slides welcome. Contact Howard Clark, 948-8758, Harvey Everett, 933-0483, or Janet Lanman, 365-7621. BROOKSIDE

Snips and Slips

A few months ago in the PBA Newsletter Harvey Everett reported a tip for reducing the leaf size on buttonwoods that he gleaned from John Naka. Cut the leaves down to the desired size, and subsequent growth will come out smaller than the original size. At the 1978 PBA Symposium Naka-san informed us during his demonstration that the same thing can be done with Ficus benjamina, with the same desired results. Has anyone tried it with other broad-leafed evergreens, such as mountain laurel (Kalmia latifolia) or privet (Ligustrum sp.)?

MORE LIGHT ON THE SUBJECT

To intensify daylight on indoor bonsai kept on a window sill, set up a piece of white cardboard inside the room the width of the window and at an angle that reflects the light from the outside. A little trial and error will indicate the correct angle to catch the most daylight and bounce it back to the plant. Professional photographers use white cardboard all the time to remove shadows and brighten up an area.

from Yama Ki Newsletter

STOP, THIEF!

Dave Brown of the Annapolis Bonsai Club had four trees stolen on September 1, and the ugly spector of bonsai theft raises its head again in PBA. Dave lost three Scotch pines, each 18" tall with 1½" diameter trunks, and an azalea, 30" tall with a 1" trunk. If anyone sees bonsai for sale which meet this description please contact Dave at (301) 647-8225. The editor and PBA Board would like to hear from anyone who has any ideas on how to prevent or discourage bonsai theft, also. With the increasing popularity of bonsai, theft is not likely to go away and suggestions on how to protect our trees will be most welcome so we can lock the barn door before the horse is stolen.