PBA Clippings
NEWSLETTER OF THE POTOMAC BONSAI ASSOCIATION
Volume 28 Number 6 • June/July 1998


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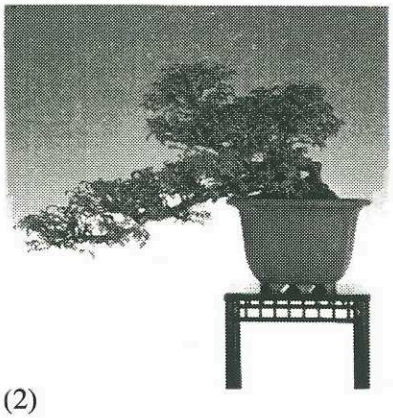
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"The Magnificent Seven"

(see cover story on page 5)

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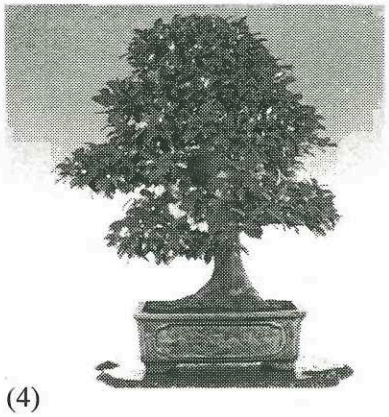
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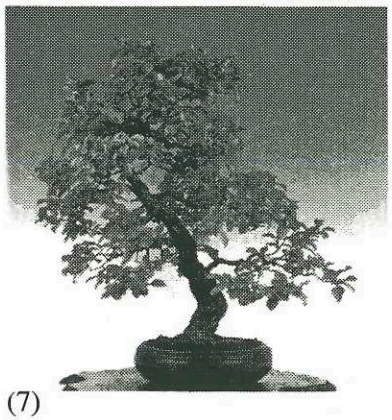
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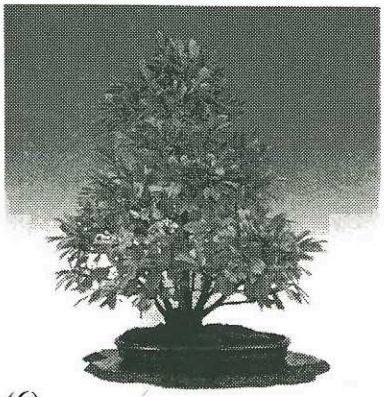
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VOLUME 28 NUMBER 6, JUNE/JULY 1998

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Please send ad copy/articles to the editor: J. F. Koetsch, 6709 Caneel Ct., Springfield, VA 22152; (703) 569–9378.

EDITORIAL by Jules Koetsch

By the time you read this, Beth Potratz will have settled down where her roots are - St. Louis, Missouri. No longer will she be spending a portion of every month helping to edit PBA Clippings, coming up with catchy titles for the articles where apropos, meticulously laying out the contents into final formats, pressing people to submit items in a timely fashion to avoid appearance in Clippings after the fact; getting the disc to the printer; and then getting the printed copies into the U.S. mail, only to have to start the process all over again.

Beth has been filling the job of associate editor/art director of PBA Clippings ever since it came into being in April 1992 as a flashier version of its predecessor the PBA Newsletter. PBA Clippings was the result of Russ Kinerson, then president of PBA, asking at the Northern Virginia club's meeting if anyone could bring the old PBA Newsletter into the newer world of desk top publishing. There was the usual brief pause during which I thought the request would go unanswered. But not more than two minutes passed before Jeff Stephanic offered to undertake the task with one proviso - that another volunteer be found to be his understudy since he foresaw that his future schedule at GWU would demand all of the time that he could give it. Surprise number two was that Beth Potratz then and there volunteered to do just that.

For eight years Beth turned out monthly issues of PBA Clippings for which members of PBA during those years owe her very, very sincere thanks. Through her efforts, the readers were given the opportunity to learn more about the art of bonsai. All too often there are few compensations for volunteers except knowing they did the best job they could -- Beth you did an outstanding job! Your efforts have helped others learn how to create bonsai. We will miss you; and in turn, wish you everlasting success with your bonsai!

P.S. Some of you may have been wondering where the June issue of PBA Clippings has been? After reading the above, you know our staff is in transition and using anonymous help. If all works out, this issue of Clippings will be for June and July.

-- DON'T FORGET --
YOUR SYMPOSIUM IS
OCTOBER 24 - 24, 1998

Meeting location and club contact number for additional information is as listed unless otherwise noted in calendar listing. A member of any one club is eligible to participate in any PBA or PBA member club event.

Baltimore Bonsai Club
Cylburn Arboretum, Baltimore, MD.
3rd Sunday, 1 PM
(410) 668-1868

Bowie Bonsai Club
Bowie Community Center, Bowie, MD
Last Monday, 7 PM
(301) 350-3586
(202) 667-1016

Brookside Bonsai Society
North Chevy Chase Recreation Center, Chevy Chase, MD
3rd Thursday, 7:30 PM
(301) 365-7621

Chesapeake Bonsai Society
Call for meeting time and location
(410) 263-2748

Kiyomizu Bonsai Club
Clearwater Nature Center, Clinton, MD
4th Sunday, 2 PM
(301) 839-2471

Lancaster Bonsai Society
Manheim Twp. Park, Stauffer Mansion
Lancaster, PA
2nd Thursday, 7 PM
(717) 872-5941

Mei-Hwa Penjing Society
(Chinese language spoken)
Bowie Community Center, Bowie, MD
2nd Sunday, 1 PM
(301) 390-6687

Northern Virginia Bonsai Society
Greenspring Horticultural Center, Annandale, VA
2nd Saturday, 10 AM
(703) 575-5616

Rappahanock Bonsai Society
Call for meeting time and location
(540) 775-4912

Richmond Bonsai Society
Imperial Plaza, 1717 Bellevue Ave., Richmond, VA
4th Monday, 7 PM
(804) 527-4000 Ext. 4621

Washington Bonsai Club
U. S. National Arboretum, Washington, D.C.
3rd Saturday, 2 PM
(202) 543-7433

Organizations sponsoring regular events of interest to PBA members:

U.S. Botanical Gardens
(202) 226-4082

U.S. National Arboretum
(202)245-2726

Calender of Events

July

N. Virginia Bonsai Society
Saturday 11
9 am -10 am - "Bring your own tree" critiques
10 am-12 pm -Azalea design and care
12 pm - 4 pm -Workshop - Bring your own material for consultative design, critique and work

Brookside Bonsai Society
Saturday 25
9am-11:30am Visiting collection of club member Tony Meyer.

Kiyomizu Bonsai Club
Sunday 26
2pm - Slab making at R. Davis' home (members only)

August

Brookside Bonsai Society
Saturday 8
9am - 11:30 - Visit collection of club member Fred Mies

N.Virginia Bonsai Society
Saturday 8
9am - 10 am - "Bring your own tree" critiques
10am-12pm - Tricks of the trade - Julian Adams
12 pm - 4pm - Workshop - Bring your own material for consultative design, critique and work

Kiyomizu Bonsai Club
Sunday 23
2pm - Open discussion.

Letters to the Editor

1998 Vietnam Bonsai Stamp

Vietnam has issued its second set of stamps with a bonsai motif. The set, consisting of six stamps, was issued both perforated and imperforated. The trees on the stamps are as follows:

Barringtonia acutangula Gaerin
Limonia acidissima L.
Pinus merkusti Junghuhn et de Vriese
Deeringua polysperma (Roxb) Amaranthaceae
Ficus elastica Roxb
Wrightia religiosa Hook f.

It is interesting that a third-world country such as Vietnam has issued two sets of bonsai stamps, whereas the United States of America sees fit to not issue any.

Jerry Antel (Brookside)

MONTHLY CARE TIPS FOR JULY

Although the months of June and July will have passed by the time you receive this edition, you may wish to keep these tips for next year. They have been compiled from 4 Japanese bonsai magazines and Yuji Yoshimura's book. A major portion of the following schedules are from a Japanese book which cites the various tasks one can perform during each of 12 months for each of 5 climate zones of Japan extending from the coldest parts of northern Hokkaido to the warmest southernmost parts of Kyushu. The average temperatures for the region wherein Tokyo lies correspond closely to the average temperatures for the area around Washington, DC. Weather patterns change from year to year and can affect changes in the timing for doing various operations relative to styling and maintaining bonsai. For example, the dates to remove plants from winter storage can vary, as well when to put them in winter storage. The following listings give the reader suggested times for doing various tasks. As one gains experience, one can establish one's own schedules. For the neophytes, it is suggested you check with the experienced members of your respective clubs when there is any doubt about the timing of any task. Nothing in bonsai is inflexible.

For some species listed below, wiring is indicated as a task. There is nothing wrong with wiring a plant when the foliage is mature. But it should not be done when any new buds or growth are present because of the high possibility that the wiring will destroy them.

Most practitioners of bonsai in this country have a general rule that in the summer months they do not fertilize their bonsai. The reasoning is that the plants get too stressed and burn out trying to grow after they consume the fertilizer. In fact, in the previous months' schedules wherever fertilizing is to done, it is noted as "apply fertilizer balls" since that is how the Japanese do it. If you do not use fertilizer balls, you will have to make up your own schedule for applying fertilizer. However, the times the words "apply fertilizer balls" appear should indicate when fertilizing should be done. It also should be indicated that the strength or useful life of fertilizer balls is usually one month. Hence where a gap of more than a month appears between applications it is to be assumed that one should hold back on applying other types of fertilizer during that time period. As for fertilizing in the summer months, you will note in the following schedules that for some species the application of fertilizer balls is called for in June or July. It has been alleged that some Japanese bonsai growers think we do not fertilize enough. You must decide for yourself when to stop fertilizing.

JULY

Unless the watering requirements are noted for any of the plants listed below, the prior month's watering schedule still applies, as well as the plant's location (i.e., sun or shade). A general rule followed by many is to discontinue any fertilization during the summer months. Use your discretion where fertilizing is suggested for July.

CONIFERS

Black pine: In the last ten days of June we removed the weakest sprouts. In the beginning of July, remove the intermediate size sprouts usually found on the branches midway up the tree. The last sprouts or biggest are removed about 10 days after removing the intermediate size sprouts. Mist the areas where the sprouts have been removed once per day. Wire the branches during the last 20 days of the month. Measure the length of wire needed before wiring.

Cryptomeria: No more repotting can be done this month. Water 3 times per day unless your soil mix or wet weather conditions do not necessitate such action. Apply insecticide if mites are present. Wire and clip sprouts to maintain the desired shape and when finished fertilize once.

Hemlock: Take a break from any chores except watering.

Hinoki: Wire and definitely trim back new growth.

Larch: No chores except to water.

Needle juniper: Begin watering up to 3 times per day if soil mix and/or weather conditions necessitate

(continued on page 13)

Bonsai Source Listings

At the last PBA board meeting, it was proposed to publish a list of bonsai material sources on a quarterly basis in the PBA Clippings. A listing would consist of the name, address (2 lines), telephone number, and e-mail address. The cost per year would probably be $20 to $30. If you know of anyone who might be interested, send their name and address to:

Jerry Antel
6409 Middleburg Lane
Bethesda, MD 20817
or call (301) 320-5251.

DONOR DAYS

The fourth week in April of this year, the U.S. National Arboretum formally accepted eight superb bonsai for the National Bonsai and Penjing Museum. Seven of the trees came from Japanese donors and one was from John Y. Naka's collection.

The seven trees are dubbed "The Magnificent Seven" after the American movie of the same name - a Western which starred Yul Brynner, Eli Wallach, and Steve McQueen. The relevance in naming the trees "The Magnificent Seven" is that the movie was the American version of the Japanese tale of seven samurai who volunteer to help the inhabitants of a small town protect themselves from a band of armed cutthroats intent on carrying out their annual looting, pillaging, and raping of the village. The Japanese movie, "The Seven Samurai," was directed by one of Japan's best movie directors, Akira Kurosawa, and starred his and everyone else's quintessential samurai - Toshiro Mifune. Even with sub-titles, that movie is a "classic." All in all, I guess it sounds better to name the seven bonsai "The Magnificent Seven" rather than "The Seven Samurai" - more in keeping with the American movie version since the trees are now residing in this country; but more so probably, because the name "Magnificent Seven" fits the exquisite beauty of each of the bonsai. If you hadn't figured out the basis for the name "The Magnificent Seven", now you know.

"The Magnificent Seven" were formally presented at a reception held at the U.S. National Arboretum on Thursday, April 23, starting at 1:00 p.m. The honored guests included His Excellency Kunihiko Saito (the Japanese Ambassador) and Mrs. Saito; Mr. Saburo Kato (Chairman, Nippon Bonsai Association); and the seven donors of the bonsai. The acknowledgment on the program reads:

"The gift of these seven new masterpiece bonsai would not be possible without the generous support of two organizations: The Nippon Bonsai Association, Tokyo, arranged for the donation of seven bonsai and generously provided for the plants to be shipped to Washington, D.C.; the National Bonsai Foundation's major role in helping to arrange the gift and underwrite the cost of this gala presentation ceremony."

The Japanese Ambassador gave a fresh version of the old joke - "This tree is 205 years old. How do I know? I grew it from seed." His version went like this -" The Japanese Ambassador was showing a bonsai in the embassy's garden and noted that it was 503 years old. The visitor asked him how he could be so precise. His reply was that he'd been at the embassy for 3 years and his predecessor, upon leaving, said that it was 500 years old.

It should be of interest to every bonsaiist to know something of the background of each of the Magnificent Seven bonsai pictured on Page 1 - how they came about, their years in training, and their containers. The pots themselves are exquisite, having come from the two prime kilns in Asia - one located at Yixing, Jaingsu Province, China; and the other in Tokoname, Japan.

(Continued on page 14)

FAREWELL DAN

"Fairwell Dan" was the title on the piece of paper that came in the mail from the U.S. National Arboretum. It was announcing that Dan Chiplis was leaving his job as Assistant Curator with the National Bonsai and Penjing Collection. There was a potluck luncheon on June 3rd at the Arboretum where many of Dan's friends and coworkers assembled to wish him well in his next job. Dan told us that he was delighted with his new job, a position with the Smithsonian as the horticulturist in charge of the garden in the yet-to-be-built Smithsonian American Indian Museum in D.C.

We in bonsai who have benefited from Dan's knowledge and experience with bonsai - his lectures, demonstrations and workshops, will always remember Dan as an excellent teacher with a warm and friendly personality. Dan did say that he does not intend to disappear completely from the Arboretum scene and intends to come back as a volunteer. The best of luck to Dan in his new job!

BONSAI POTTING MIXES or The Real Dirt by Don Waitkus,

from the Lake Chapel Bonsai Society Bonsai News, January 1996 (continued from May 1998 issue)

STRAINING THE POTTING MATERIALS HELPS YOUR PLANTS!

You can alleviate some of the problems by straining/sieving your bonsai mix materials. Particles less than 3/32" and greater than 1/8" should be strained out of each component of the mix, with the exception of the fertilizers and certain soil amendments. I've heard that 3/16" should be the maximum size, but apparently that thinking has recently changed.

WHERE DO YOU FIND SUCH STRAINERS? Most bonsai supply sources have them, sometimes called "riddles," usually in sets of three, and mostly with 1/16", 3/16", and 1/4" grid sizes. The grid dimensions vary about l/64" to 1/32" from nominal. On occasion, I have "borrowed" my wife's strainers, if they were of a size to suit my needs. Having been caught at this more than I care to admit, I was most thoroughly convinced that it was less hazardous to seek more conventional sources. To my surprise, I discovered that it was possible to buy common strainers of various mesh sizes in the housewares section of many stores like WalMart and Kmart.

At one time, hardware stores carried a large selection of strainer mesh, usually bronze. But now, about all you'll find is a "hardware cloth" of galvanized material with the smallest size in a 1/4" mesh. Some hardware stores may be able to provide a 1/8" mesh "soft screen," but you'll have to search. You can make a simple frame to suspend/support the mesh as an aid to the straining operation.

HOW TO STRAIN THE ORGANIC AND INORGANIC MATERIALS. Before you start to strain your materials, be sure to let them dry out thoroughly. Otherwise, all you'll do is clog the strainer. It is useful to have the black tubs usually used for mixing small batches of concrete or mortar available to assist in the drying and straining process. Pour in your material and let it sit in the sun for a while until quite dry. Stir occasionally during the drying process to expose moist material.

The straining of the inorganic and organic materials is done to remove excessively large and small particles. To be effective, this must be a two-part screening. The largest particle size should not be in excess of that which can pass through a 1/8 inch mesh screen; while the smallest particles to be used should not be less than 3/32 inch, a shade more than 1/16 inch. You can always add larger sized material for large plants if the need arises. I was surprised to read that the Brooklyn Botanic Garden discards only the materials which pass through l/32-inch screen, and they practice graduated layer striation during potting. This book was printed in 1976 and it may not represent their current practices.

Some enthusiasts prefer to add shredded pine or redwood bark to their potting mix, in which case it might not be necessary to screen this medium, except to remove excessively large chunks which could interfere with potting or screening to remove the dust. If the bark is too large for your purposes, you might consider running it through a chipper/shredder to arrive at a suitable size. If you don't have a shredder, you might try running small batches through your blender, alternately chopping and straining until you get the size you want. It's noisy, but it works! It does not harm the blender, providing that you don't force or overload the container. Be sure to clean the blender thoroughly before inviting me over for cocktails.

WHAT DO YOU DO WITH THE PARTICLES THAT ARE TOO LARGE OR TOO SMALL? Those potting mix particles less than 3/32" can be used as a topping material for your bonsai prior to the application of moss or just for aesthetics. Other than that, it is suggested that you add the very fine, strained materials to your garden. Your garden will love you for it. On the other hand, the very large clods or clumps which cannot be crushed into smaller pieces should be discarded. Unfortunately, these large pieces are not suitable for much more than filling a hole in your back yard. Nevertheless, there are a few exceptions to the "nothing smaller than 3/3 inch" rule. The only substances which can be reasonably used in less than this size are bonemeal, bloodmeal, cottonmeal, gypsum, lime, acidic compounds, etc. The majority of these materials will be in nearly dust form and will be added as fertilizers, amendments, and pH fixatives. It won't be necessary to strain these types of materials, because only small quantities are to be added and will not adversely affect the mix.

CONSIDERATION 2: TEXTURE

This is another important characteristic which is frequently overlooked. A smooth particle, such as river

Soil, continued

gravel, has less surface area than a rough particle, such as pumice or "sharp" sand. The roots of a bonsai would tend to slide around the smooth surface of the river gravel, while the rough textured pumice or course sand would tend to aggravate the roots, causing them to divide and subdivide into larger masses of the tiny root hairs. This directly results in branches that are more twiggy, detailed, twisted, and with greater ramification. If you have a choice, always favor materials of a rough texture in your mix. Textured materials of an inorganic nature could be, but are not limited to, pumice, featherock chips, lava cinders, lava rock, decomposed granite, river gravel, crushed marble, uncolored aquarium gravel, silica sand, swimming pool sand, coarse sandblast sand, fly ash, black beauty sandblast grit, pea gravel, solite, Turface, chicken grit, horticultural charcoal, etc. Be aware that the featherock chips are not a commercial product. They are a result of your labor of making little ones out of a big one. Lava rock is a similar product, requiring the same type of reducing labor. It has also been suggested that kitty litter, vermiculite, perlite, garage floor oil absorber, and other manufactured materials could be used in the mix. But you should be aware that some of these are relatively soft materials and may have a tendency to break down quickly or have a tendency to crush when worked into position around the roots. Some kitty litter has a tendency to mat together when wet, and colored litter has chemicals which may be hazardous to the health of your plants.

PART 3

CONSIDERATION 3: POTTING MIX COMPOSITION

The soil composition is not as critical as particle size, and it has been stated that the particle size is more important than the pH. However, the pH should not be ignored. A plant that normally lives in a 5.0 pH cannot be expected to do well at a pH of 9.0. Be aware of where your plant normally grows. If it normally grows on the forest floor in shade, it probably has a low ultraviolet tolerance, and it is getting a lot of naturally decomposed plant material for its food and, for that reason, will probably be in the low pH category. On the other hand, plants which grow in decomposed rock or limestone formations will tend to be more alkaline in nature. The term alkaline, again, is only relative.

3a. Composition Variables. The soil composition is highly dependent on the type of plant to be potted. The variables to be considered are pH, leaf size, and UV (ultraviolet) tolerance.

VARIABLE: pH - The Acidity or Alkalinity. THE BONSAI WORKSHOP provides information based on arbitrary or subjective values for various characteristics as they apply to comparative line graphs. It was not explained how the assigned values were determined for any of the characteristics. There was no explanation given for how the pH values of 0 to 100 compare to the normal pH scale. For that reason, I have opted not to describe these characteristics in any detail. I would be willing to discuss it further should anyone be interested.

THE FIVE GROUPS AND COMPOSITION

GROUP 1: 3/4 Organic to 1/4 Inorganic: azalea, rhododendron, bald cypress, redwood, tropical foliage plants

GROUP 2: 2/3 Organic to 1/3 Inorganic: alder, birch, beech, hornbeam, elm, zelkova, dogwood, maple

GROUP 3: 1/2 Organic to 1/2 Inorganic: Pyracantha, wisteria, quince, fig, corokia, holly, boxwood, apple, peach, pear, cherry, plum. cotoneaster

GROUP 4: 1/3 Organic to 2/3 Inorganic: larch, ginkgo, fir, spruce, hemlock, cypress, Cryptomeria

GROUP 5: 1/4 Organic to 3/4 Inorganic: oak, pine, juniper, alpine and desert plants, jade (crassula), eucalyptus

I was impressed with the accuracy of the desert plants and jade mix shown in Group 5. This is the constituent makeup suggested by many cacti and succulent texts. You should be aware that within each group there may be species, subspecies, cultivars, or hybrids that will not precisely fit a group, so you will have to extrapolate for those special circumstances.

Please note that the aforementioned blends are only suitable for pot mixes. Trees planted on rock slabs or clinging-to-rock style need a mud/muck blend of very little, if any, organic material.

BRIAN BATCHELDER of South Florida - Also, be aware that there is a school of thought that uses pure sphagnum moss for the potting medium; no soil or inorganic material.

Soil, continued

This is a favorite treatment by Mr. Batchelder, but it is frowned on by traditionalists. While frowned upon, it has certain appeal and should not be ignored. He completely removes any soil from the roots. He then proceeds to stuff sphagnum moss which has been thoroughly saturated with water, around and into the roots during the repotting process. A sprinkling of moss is applied over the sphagnum, which eventually achieves the same appearance as the moss on a conventionally potted tree. From the specimens shown, it appears that recovery and growth are quite rapid. All the plants are quite lush in appearance.

OTHER UNRECOMMENDED BLENDS. Other texts do not exactly coincide with the above mentioned groups. For example, one text states that pines and conifers should be potted in a mix containing 50% organic and 50% inorganic materials; maples and zelkovas should be potted with 80% organic and 20% inorganic materials; and fruiting or flowering plants should be potted with 100% organic materials. Also, the average mix proposed by Brooklyn Botanic Garden is 70% organic and 30% inorganic. Another text proposes an average mix as 2/3 organic, 1/3 inorganic. This same text states that conifers should be potted in a mix containing 50% organic and 50% inorganic materials; and that broad-leaf plants should be potted in a mix containing 75% organic and 25% inorganic materials. Furthermore, they also suggest that you can use soil from your yard and state that you do not even have to strain it before using it in your potting mix.

In all the above cases, the inorganic material was sharp sand and the organic material was soil or humus with some peat, manure, or leaf mold. You can easily see that there can be an infinite variety of potting mix blends and, thus a major source of confusion for the average hobbyist. In all fairness, though, it should be noted that these are all relatively old texts and may not reflect current thinking by the authors.

CONSIDERATION 4: MICROORGANISMS. This consideration is not as important as the previous three, but it should not be ignored. It is interesting, too, that many of the bonsai texts suggest you take soil from your garden or collect it from the wild. Apparently, they have no concerns for weeds, disease, or pests which could also be collected with the soil. Some texts went so far as to tell you to bake your soil in the oven to sterilize it. Many plants take advantage of microorganisms to accomplish life processes. Fertile soil is full of microorganisms and many forms of bacteria which contribute to the beneficial breakdown of the soil. Now, if you are of a mind to go into your garden and collect some soil for bonsai, and if you bake that soil in your oven for a while, besides the smell, you will find that you have probably killed off as many good guys as you have bad guys. Not a good tradeoff and expensive. As a side comment, Vapam, the soil fumigant, has a formulation for fumigation of soil batches that will be used for potting mixes; but you can't use the soil for about three weeks because of the need for the gas to dissipate.

If you want to use soil/loam/humus in your mix, it is best to buy a bag of potting soil, not potting mix, from your local garden center. Just be sure that it has been treated to kill the weed seeds and pests. You can use composted cow manure or shredded peat moss or any combination of these materials, which will be discussed in more detail later.

MYCORRHIZAE. An interesting microorganism is the mycorrhiza. It is a beneficial fungus that attaches itself to roots in the form of nodules and is usually visible to the eye. Mycorrhizae live in a symbiotic relationship with plants. The mycorrhizae derive water and nutrients from the roots of the plant, and the plant benefits from the nodule, because the fungus can process atmospheric nitrogen as a nutrient. Your bonsai can benefit from its existence if you inoculate your bonsai mix with a known population of mycorrhizae. While mycorrhizae are normally associated with pines, many other plant species can benefit from this fungus. Fungicides such as benomyl in certain formulations can be critically detrimental to the formation of mycorrhizae. Some texts recommend that you use small portions of the original soil from the root area of the plant and blend it in the potting mix during repotting. For more information on this subject, obtain IFAS bulletin OHC-1 8, Mycorrhizae for Nursery Production from your Extension Office.

PART 4 - BONSAI POTTING MIXES

There are five considerations in the make-up of bonsai potting mixes: Particle size, texture, potting mix composition, microorganisms, and aesthetics. The last article discussed the importance that particle size and texture play in constructing a suitable potting mix for your bonsai. We will begin this discussion with

Soil, continued

consideration number five.

CONSIDERATION 5: AESTHETICS. Of less concern is the consideration of aesthetics. There is not much to discuss here, except that which is supposed to represent soil should at least look like soil. One of the problems with a bonsai mix is that too often it does not look like soil. It often has shiny particles showing up on the surface. The aggregate may be shiny and exposed pumice or perlite which shows up as a dull white. I suppose that this may be the best reason for planting moss in your bonsai pots. Some aggregate showing up is okay, but it should not dominate the scene. I don't advocate painting the mix, but you might consider a light dusting of the very fine soil that passed through the smallest strainer. The moss even seems to bond to this very nicely. One author uses hemlock bark for part of the organic content of his mixes. Before use, he ages this material in a brew of steer and chicken manures for about a year, so that it turns a dark brown (nearly black) color. I wonder if this would work on perlite or pumice. If you try this out, please let me know about the results and the smell. Also, be aware that aging in the presence of manure will have a tendency to change the fertilizer balance of your mix.

Organic materials: potting soil, humus, composted peat moss (not sphagnum), composted manure (Black Kow is normally the cleanest) are all available locally (usually in five- to fifty-pound bags) and are inexpensive. These must be strained to provide the type of material you want for your mix. Most of these materials consist of mainly small particles; and as a result, you will probably relegate about 60% to your compost pile or garden.

Composted manure has about a 0.5 content of nitrogen, phosphorus, and potassium. I am now using a composted cow manure and shredded peat moss blend rather than potting soil, because of the added fertilizer benefit. I have found that Black Kow and Hyponex are the cleanest over a period of time. The potting soil and cheaper manures have a tendency to sprout up more weedlings while in storage. Another strike against potting soil is that there are so many large clumps of peat, twigs, bark, rocks and unidentified black clods. Quite often, very fine sand has been added along with small quantities of perlite and/or foamed plastic.

Beware of a product Called "Recycled Soil." It is expensive, contains many pieces of shredded plastic, and starts to develop weedlings almost as soon as it is opened. You will only get about 20% usable material from a 50-pound bag. The remainder consists of large matter which might even be rejected by your garden. It appears that this might be developed from the shredded compost currently available free from your local recycling center.

Oak leaf mold and compressed or shredded peat moss are sometimes difficult to find and are somewhat expensive. The oak leaf mold does not require straining, but the compressed peat may require straining to remove excessively small particles after the bale is loosened up. These fine particles will tend to absorb the nitrogen and, in turn, nitrogen-starve your plant. Pine bark or redwood bark is often available at numerous nursery outlets and is inexpensive. Orchid potting bark can also be used, although it is more expensive than the others. The orchid bark also comes in various sizes, of which the smallest (about 3/16") would be ideal. Small bags of shredded pine bark are sometimes available.

INORGANIC MATERIALS. Coarse sand is available as sandblast sand or silica sand from sources such as Home Depot, Scotty's, or on special order from some hardware stores. Be aware that there is also a silicate product, which is sometimes called silica sand, that is used as desiccant (drying agent) to absorb excess moisture. It is blended with calcium chloride (salt) which can have an adverse effect on some plants. Used sandblast sand is often repackaged and sold for homeowner consumption. This sand has already been broken down from its full size into smaller particles, which are mostly too fine for bonsai use. Often available from the same sources are lava rock, pea gravel, river gravel, crushed marble, etc. You will have to shop for the right size. Pool filter sand and river sand are generally too fine for bonsai. NEVER, and I repeat, NEVER USE OCEAN BEACH SAND.

Solite is an inexpensive, manufactured, pelletized product of various sizes from dust to 3/4 inch. It is available from Florida Solite Corporation which is located on Clay County Road 209 toward Russell. Turface is a manufactured, pelletized, calcined clay product. I do not know of any local sources for this product. Featherock is available from Reed's Construction Supplies in Jacksonville. It comes in large

Soil, continued

pieces which you must break down to suitable size. Featherock has the best texture features, and its sharpness will hasten the process of root division. Chicken/turkey grit is available from standard feed stores. Black beauty sandblast grit is a product developed from fly ash or industrial chimney waste products. It is black, very shiny, and smooth until broken down by the action of blasting. I hesitate to recommend it because it is so smooth and hard. Pumice is relatively new as a bonsai aggregate, but California bonsai enthusiasts have adopted it over anything else. In addition to being a very light-weight material, the texture is only surpassed by featherock, so root division is enhanced. Unfortunately, I am unaware of any local sources for pumice. I acquired some from a California cactus nursery, and while it is inexpensive (about $8.00 for a 40-pound box), it costs $24 for shipment to Florida.

FERTILIZERS AND AMENDMENTS. If fertilizers are to be added to the organic mix, they should be limited to small quantities of bone meal, composted manure, blood meal, rape seed and/or cottonseed meal. These substances should be added after the other organic materials have been strained, but before they are blended with the inorganic materials. Any potting mix amendments such as gypsum, pH adjusters, etc., must be thoroughly blended into the organic batch mix before use. As a starting point, it is suggested that to each gallon of blended organic and inorganic mix, you add 4 teaspoons of bonemeal (0-10-0), 3 teaspoons of gypsum, and 1 teaspoon of super phosphate (0-15-0). As it is difficult to find gypsum locally, I substitute 3 teaspoons of horticultural limestone per gallon of mix. In addition to the bonemeal and super phosphate, I add 4 teaspoons of blood meal (12-0-0) or 8 teaspoons of cottonseed meal (6-1-1) per gallon and blend thoroughly. These additions of organic nitrogen will help to offset the absorption of nitrogen by the decomposition of bark and will help the plant off to a good start. I prefer to use these substances because they are solid organic materials. This fact enables them to last longer and have less of a tendency to migrate out of the potting mix.

pH CONTROL. It is a good idea to occasionally check the pH of the blended bonsai mix to avoid extremes in acidity or alkalinity. As the soil mix is usually being prepared in smaller quantities, it is relatively simple to add lime or sulfated products to achieve the desired results. Know your plant!! I cannot overemphasize this important point. Be aware of the pH in which it normally lives. If you cannot find a chart of plant pH values, aim for a 6.0 to 6.5 pH for most common plant varieties. When you start working with tropical plants or plants like buttonwood, be aware that there is a tendency for some of these plants to prefer alkaline conditions.

STORAGE OF MATERIALS. Once your organic and inorganic materials are strained, it is recommended that they be stored in containers which will keep them dry but in suitable working condition.

PART 5

Now that we have discussed the what, where, and why of bonsai potting mixes, let's turn our attention to the how. In this final installment we will talk about the actual preparation and control of your bonsai potting mixes.

POTTING MIX COMPOSITION. It is possible to develop an infinite combination of organic materials once they have been strained and properly stored. However, I recommend that you establish a standard mixture of organic and inorganic materials as a base from which to work. As many of you already know, in addition to my bonsai, I have an extensive collection of cacti and succulents. For many years I had made separate organic mixtures for both collections. After a while, I decided to make a general batch and add various components for each plant category. Unfortunately, this was still quite bulky, so I had to decide what would give me the most value for my effort and reduce the total volume of potting mixtures. I finally settled on the following standard organic mixture: 60% composted cow manure, 30% shredded peat moss, 10% oak leaf mold. I can then modify this standard mix by adding other organic components to suit the requirements of the various plant groups (as covered in Part 3). For example, you can add pine bark to this basic mix for conifers or more peat moss for azaleas. One way I modify this basic mix is to add 30% pine bark and reduce the volume of the basic organic blend to 70%. In this way, my basic organic blend remains consistent, which is an important feature in growing consistently healthy plants. Next, for the inorganic portion of my potting mixes, I have settled on the following standard mixture: 30%

Soil, continued

pumice, 40% sharp silica sand, 30% Solite. Finally, when potting time comes around, I simply determine in what group the plant belongs. I then mix the necessary amount of the standard or modified organic mix with the above inorganic mix to meet the specified organic/inorganic composition ratio for that specific plant group. Once you have the organic/inorganic ratio of the blend completed, you can add the required amendments and mix the entire batch thoroughly. Having completed this task, you now have a completed bonsai potting mixture. You can make small or large batches using this method. In addition, you can custom blend as you need. Your basic organic and inorganic blends never have to change. And, as I stated earlier, consistency is an important feature in growing consistently healthy plants.

IDENTIFICATION. As a matter of personal control, it is a good idea to identify your specific blend with a permanent marker. You can write on the lid, attach a plastic tag, or place a plastic bag in the container in which your mix is stored. This way you always have a permanent record of your mix, along with any adjustments you may have made. You can wash off previous markings with lacquer thinner or acetone (nail polish remover).

BATCH MIX CONTROL. When you make a batch mix for potting, quite often you will have some mix left over. Keep that in a separate covered container, properly identified. The next time you have to make up a bonsai mix, that leftover material can be incorporated with your new batch of the same plant group. This could mean that you might have five or more different group ratio containers. Personally, I do not like that much material lying around. So, if the new batch to be made is of a relatively close ratio, and there isn't a lot of the leftover material, it is easier to blend that in with the new batch rather adding more containers.

USED MATERIALS. After repotting a number of plants, I save all the salvaged material in a separate container. At a later, more convenient time, I will strain out all the inorganic materials The strained organic materials go into the compost pile or directly into the vegetable garden. The inorganic materials are placed into a bucket of water with 1 tablespoon of household bleach per gallon and allowed to soak for a few days. The water is poured off into another container to soak dirty pots. Then, the inorganic materials are rinsed, drained of excess water, and allowed to dry for future use. It isn't that I'm cheap (well, that's not completely true), but I've put too much time and effort into acquiring, straining, and blending that material to just throw it away. The inorganic materials are not live materials, and for that reason, they are not natural disease carriers or pest havens. However, I do sterilize them anyway, just for good measure. I have several hundred plants of various types, so when I repot, there is usually quite a bit of old potting mix collected. The landfills are filling up fast enough without me adding these recyclable materials to them.

This concludes our discussion of bonsai potting mixes. I hope you have enjoyed this article and that the information contained in it will help you on your quest to develop the next American Masterpiece Bonsai.

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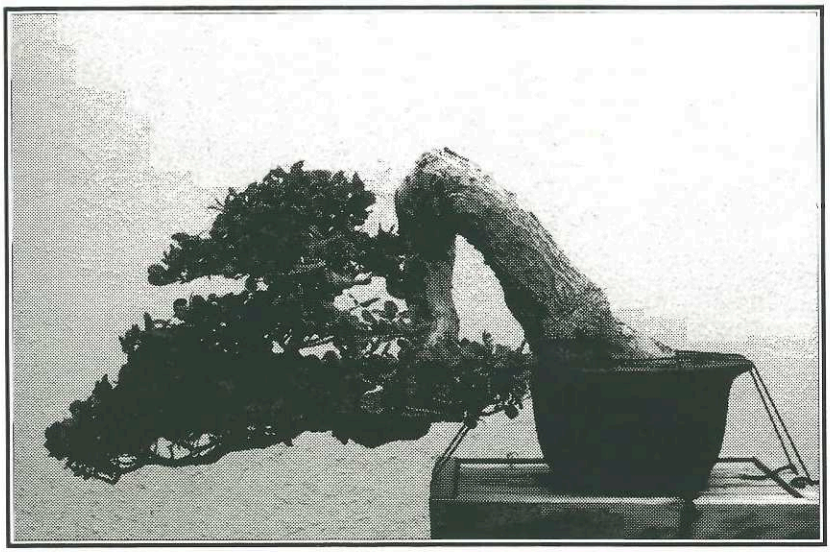
JOHN Y. NAKA's GIFTS

A ceremony was held on April 25 at the U.S. National Arboretum where two of John's gifts to the Arboretum were formally accepted - one is the bonsai shown on this issue's front page (Photo 8) and the second gift was his self-portrait. The following writeups are from the National Bonsai Foundation Bulletin, Spring 1998, Volume IX, Number 1.

"John Naka recently donated another bonsai from his collection to the



Museum. This tree is a California Live Oak (Quercus agrifolia) in the cascade style. John collected this tree in February 1986 from a cattle ranch near Lompoc, California. At the time, John noted that it had few branches but was in good condition.

"Over the last 12 years, John kept a meticulous record of his training and care of this oak. (In fact, John has always done this with all of his trees. Each tree is tagged with a number, and John then keeps copious notes of when he repots, removes branches, fertilizes, sprays for insects or fungus, etc.) John's records reveal the true extent of his dedication to the care of his bonsai.

"His records for the care of this California Live Oak show that in March of 1989, he began wiring and styling the tree into half (semi) cascade style. They also note when he pruned its branches, and what type of fertilizer he used. In January of 1990, John repotted the tree into its present container - a limited-edition octagonal pot made by Kataoka Shoshen. In June 1991, John noted in his records that the bonsai was 'tied down against an earthquake'!

"This bonsai was first exhibited at a Golden State Bonsai Federation convention in November of 1993, and has been exhibited a number of times since then.

"The self-portrait by John Naka was in response to a request from both the National Bonsai Foundation and the U.S. National Arboretum. John was asked to do this painting so that it could be hung in the museum.

"John's thousands of students are very familiar with his artistic talents because of the sketches he often draws of how particular bonsai should look after a few years in training. These days, John may spend more time painting than he does working on his bonsai collection. "Some of his subjects are what one would perhaps expect: towering redwoods in the Sierra Nevadas, and boldly colored mountain ranges. Other paintings simply reflect John's love of

DONOR DAYS (continued from page 5)

life in general - like his painting of rabbits all facing the viewer except for one (Alice Naka says it's actually John) who seems to be mischievously scampering off in the other direction; or his painting of a Mexican boy asleep under a large sombrero. John also has done several abstract paintings. At present, John is working on a large painting of a Japanese castle surrounded by a majestic pine forest. All of his paintings are in oil.

"In the photograph, John is shown standing next to the self-portrait in his studio at home in Whittier, California."

The self-portrait was unveiled at the ceremony on April 25. Dr. Elias, Director of the U.S. National Arboretum, in his speech accepting both gifts noted that he had seen the California Live Oak on more than one visit to John's home and admired it each time he saw it.

John always has at least one anecdote to tell. He spoke of how he was at a function talking to the wife of the Japanese Counsel/cil General. She asked him a question, and because John is hard of hearing, he thought she was asking him for his age, so he responded "83." She took on a very startled look which puzzled John; but her husband intervened and said that his wife's question was, "How many grandchildren do you have?"

Bonsai Source Listings

At the last PBA board meeting, it was proposed to publish a list of bonsai material sources on a quarterly basis in the PBA Clippings. A listing would consist of the name, address (2 lines), telephone number, and e-mail address. The cost per year would probably be $20 to $30. If you know of anyone who might be interested, send their name and address to Jerry Antel, 6409 Middleburg Lane, Bethesda, MD 20817 or call (301) 320-5251.

(Tips - continued from page 4)

such action. Mist the needles every time you water.

Sawara cypress: Prune new growth where desired and wire where needed.

Shimpaku (Sargent juniper): Repot once every 3 years - any time during the first 10 days of the month. Cuttings may be planted during the first 10 days of the month. Whenever watering is done, mist the leaves.

Spruce: At the start of the month, you may have to water as much as three times per day to supply the plant's needs.

White pine: Insure every day that the plant is getting enough water. Also spray with a fungicide if needlecast is present.

Yew: Use insecticide against scale.

DECIDUOUS:

(Non-fruiting/non-flowering)

Beech: Prune any excess growth in the form of twigs and minor branches. At the beginning of July place the plant so that it is in the shade for one half the day. Place fertilizer balls during the middle of the month.

Chinese elm: Apply fertilizer balls during the first 10 days of the month. Remove any wire that is cutting into the bark. Let new growth proceed so that eight pairs of leaves are on a branchlet, and then cut back to 4 leaf pairs. Remove any unwanted lengths of new growth.

Ginkgo: Remove unwanted branches. Apply fertilizer balls during the first 10 days of the month. Remove any wire that is cutting into the bark.

Hornbeam: Wire as needed. Prune unwanted new growth and branches to maintain shape.

Japanese maple: Wiring can be done during this month, but constantly check what has been wired to insure the wire is not biting into the bark. If total leaf defoliation has not been done in June, it can be done during the first 10 days of this month. See the section for Beech in the month of June for further advice. At the beginning of July, place the plant so that it is in the shade for one-half of the day. Water 3 times per day if necessary.

Trident maple: Prune unwanted lengths of branches and push back new growth. Wiring can be done this month, but don't neglect checking old wiring. At the beginning of July, start watering 3 times per day if necessary. Apply fertilizer balls during the middle of the month.

Weeping willow: Prune and removed unwanted branches. Wire if still required. Apply fertilizer balls during the last 10 days of the month.

Winged Euonymous: During the middle of the month, check wiring and remove if necessary. Prune and thin out foliage. Apply fertilizer

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The Magnificent Seven (continued from page 5)

Photo 1 shows a Juniperus rigida (Needle Juniper) that is 250 years old, but only 30 years in training. It was collected in the wild on Noto Peninsula, Ishikawas Prefecture, Japan. The container is from Yixing. The donor, the Honorable Yoshiko Tsuchiya, is the Governor of the Saitama Prefecture, the Chairperson of the National Governors' Association in Japan, and the former President of the House of Councilors. Governor Tsuchiya has appreciated bonsai for about 50 years.

Photo 2 shows a Ligustrum obtusifolium (Border Privet) that is 60 years old but only 20 years in training. It was collected in the wild on Shikoku Island, Japan. The container is from Yixing. The donor, Mrs. Seiko Koizumi, established and was President of the Suzunoya Kimono Store, and also is the Chairperson of the Seiko Kimona Foundation. She has published a number of books on the kimono. Mrs. Koizumi has been involved with bonsai for over 20 years.

Photo 3 shows a Corylopsis spicata (Spike Winter-hazel) that is 25 years old and 15 years in training. It was cultivated in Kochi Prefecture, Shikoku Island, Japan. The container is from Tokonami. Mr. Masayuki Yokoo, the donor of the tree, is the former Bureau Director of the Ministry of Agriculture and Forestry. He is also a winner of the Kokufu Bonsai Prize. Mr. Yokoo has enjoyed bonsai for about 40 years.

Photo 4 is of a Camellia Japonica that is 60 years and has 60 years in training. It is a cultivated specimen and was grown in Saitama Prefecture, Japan. The container is a product of Guandong Province, China. The tree was donated by Mr. Ginnosuke Sakuma who is the president of a publishing company in Japan, and the winner of the Kokufu Bonsai Prize. Mr. Kofuku has been a bonsai enthusiast for 30 years.

Photo 5 pictures the Taxus cuspidata (Japanese Yew) donated by Mr. Reiji Takagi. The bonsai is 230 years old and has been training for 30 years. It was collected in the wild on Hokaido Island, Japan. The pot was made in Yixing. Mr. Takagi is the President of the Meiko Company Limited, and the Chairman of the Takagi Traditional Horticulture Foundation which runs the Takagi Museum. He is also a winner of the Kofuku Bonsai Prize and has appreciated bonsai for about 50 years.

Photo 6 depicts the Magnolia kobus which is 30 years old with 10 years in training. The plant was collected in the wild on Kyushu Island, Japan, and is now in a pot from Tokoname. The donor of the tree is Mr. Kazuo Moriyama, the President of the Moriyama Limited Responsibility Company and of the Moriyama Tourist Agency. He, too, is a winner of the Kofuku Bonsai Prize. Mr. Moriyama's appreciation of bonsai began in 1955.

Photo 7 shows an Celastrus orbiculatus (Oriental Bittersweet) which is 50 years old and has been in training for 20 years. It was collected in the wild in Northeastern Honshu Island, Japan, and is in a Tokoname container. Mr. Hirosumi Ichihara who donated the tree, is the President of the Nippon Satsuki Association and the President of Sansei Corporation, Ltd. He also has won the Kofuku Bonsai Prize. Mr. Ichihara has enjoyed bonsai for about 30 years.

Have you noticed the different ages of the trees and, by contrast, the number of years in training? Also note that of the seven trees, two were cultivated and five were collected in the wild and thus are indigenous to Japan.

Housing of Out-of-Town Symposium Attendees

The annual PBA symposium is scheduled for October 24-25 at the National Arboretum. In order help out-of-town PBA members cut down on expenses (mainly from Richmond and Lancaster), PBA is looking for local members who would be willing to house a new friend on Saturday night. If you would like to volunteer for this, call Jerry Antel, (301) 320-5251.

Rosmarinus Officinalis by Ernie Kuo

Rosmarinus offficinalis, commonly known as rosemary, is an evergreen shrub. The short needle-like foliage, when bruised, emits an unmistakable aromatic odor. The leaves are widely used as a seasoning herb. The light blue flowers bloom from fall to spring. It enjoys full sun and a well-drained soil. It endures drought with ease and it is hardy to USDA Zone 8.

Rosemary is often used as ground cover in the Southern California area because of its resistance to drought. The old trunks of rosemary get very gnarly and interesting and therefore attract a lot of bonsai enthusiasts. The dilemma most bonsai enthusiasts face with a collected old rosemary is the trunk and branches are too interesting to cut, so they usually have a bonsai that has too many themes. The bonsai enthusiast must first overcome the problem of too many themes on his rosemary. Then, he has to decide on the style. Finally, there is the problem of wiring because rosemary branches are very brittle.

I have a rosemary that has endured my neglect for many years. At the time of this article, it is not fit for photography, so this article will go to the editor without a photograph. Over the years, I have learned one thing from my little rosemary. Its growth habit points to the solution of the styling and training problems. Before I go into that, I would like to mention that with certain bonsai material, the growth habit of the material itself dictates the style and the method of styling. If we go along with the growth habit of the material, we will have a better chance of success. Rosemary is apparently this kind of bonsai material.

If you feed your rosemary regularly, it will produce lots of little blue flowers and long branches that will eventually droop. When you clip the tip of the long branches, little branches will usually appear on the top and side of the branches. These little branches will initially try to grow upward to reach the sun until they also get too long and begin to droop. This growth habit can be harnessed to style rosemary by using the clip-and-grow method. The droop of the rosemary branches is sometimes too vertical to be artistic, so I also deploy little sticks or wires to prop them up a little. So, actually, this method should be called the clip-and-grow-and-prop method of training.

In summary, the growth habit of rosemary suggests that the weeping style as the preferred one. To create a weeping style rosemary, we prune the tree to leave the most interesting line, plant the tree somewhat upright and let it grow itself into a weeping style. All we have to do is clip-and-prop to help it along.

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(Tips - continued from page 13)

balls during the last part of the month.

Flowering/fruiting plants

Crabapple: In the beginning of July, water 3 times per day if necessary.

Gardenia: In the middle of the month, remove the spent blossoms and also prune to achieve desired shape. Pruning can be done so that 3 leaf pairs are left on new growth. Apply fertilizer balls during the last 10 days of the month.

Holly: Up to the end of the first 10 days of the month, branches can be pruned and new growth cut back to 3 leaves where desired. After the 10th of the month, it may be necessary to water twice a day; and after the 20th of the month, watering may need to be upped to 3 times per day. Also, place the holly in a location where it gets one half day shade. At the end of the month, apply fertilizer balls.

Pyracantha: After the 10th of the month, stop pruning branches and removing unwanted ones. At the beginning of the month, increase the watering to twice daily, and during the last 10 days increase the watering to 3 times per day. Apply fertilizer balls during the middle of the month.

Quince: During the middle of the month, begin watering 3 times per day if warranted. Apply fertilizer balls during the last 10 days of the month.

Satsuki: At the beginning of the month begin watering 3 times per day if warranted. Apply fertilizer balls during the middle of the month.

Ume: In the middle of the month, begin watering 3 times per day if warranted.

Wisteria: In the first 10 days prune unwanted lengths of branches. During the last 10 days of the month apply fertilizer balls.

(continued on page 16)