

POTOMAC  
**BONSAI**  
ASSOCIATION  
**Newsletter**

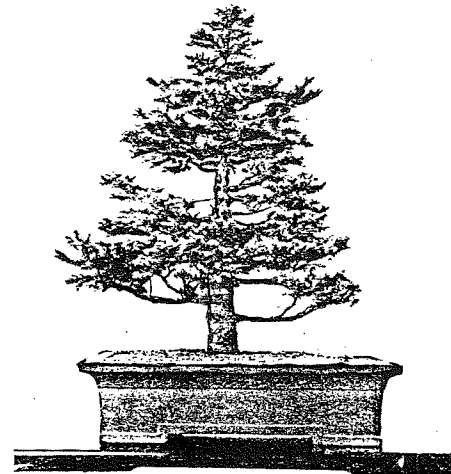
ISSN 0160-9521



## EZO MATSU (SPRUCE)

by Shin Shouryugen

Translated by Jules Koetsch



EDITOR'S NOTE: This translation is just another from the Seibundo Shinka Sha book "Directions for the Preparation of Pine and Conifer Bonsai with Illustrated Explanatory Notes", 1975. Toward the end of the Summer of 1980, my wife, daughter, and I were indeed fortunate to have Dan Robinson take us on a collecting trip in his native area, the Northwest USA. John Hinds came along as his able assistant. The collecting site was idyllic in that dwarf Engelmann spruce abounded in spite of the fact that it has been a collecting site ever since a Japanese man first discovered it as a source of bonsai back at the turn of this century. In those days, he drove up with a horse and buggy from Portland. Felix Laughlin had been there before us and wrote it up in his article "With Dan Robinson" which appeared in the August 1980 PBA Newsletter. Mary Holmes also has found this "tree collectors' paradise". Digging out the trees was child's play since they were rooted in lava-sand. The only encumbrances were medium sized rocks which were pried out of the way.

POTOMAC BONSAI ASSOCIATION  
c/o National Arboretum  
24th & R Sts, NE  
Washington, D.C. 20002

NON-PROFIT ORG.  
U.S. POSTAGE PAID  
SILVER SPRING, MD  
PERMIT NO. 2359

Mr Harold W Merritt  
5451 N 22nd Street  
Arlington, Va 22205

PBA Newsletter: Published by the Potomac Bonsai Association, Inc., a non-profit organization, in the interests of its affiliate member clubs and societies. Circulation: Over 300 internationally on a monthly basis.

Corresponding membership: \$6.50 for 12 monthly PBA Newsletters. PBA Membership includes 12 monthly PBA Newsletters, covered by part of annual membership dues.

For corresponding membership: Contact M. Hersh, 102 Devon Ct., Silver Spring, MD 20910 - make check payable to Potomac Bonsai Association

President: Arschel Morell (301) 669-1487

Editors: Jules F. Koetsch (703) 569-9378  
Mary Holmes (301) 721-1309

Snips and Slips Editor:  
Mary Holmes (301) 721-1309

Science Director:  
Ray Buck (301) 345-4919

Subscription & Circulation: Molly Hersh & Josephine Finneyfrock (301) 589-3725

Send articles (in longhand, typewritten, in Japanese, cassette recording, etc.) to: J. F. Koetsch, 6709 Caneel Ct., Springfield, VA 22152 (703) 569-9378.

The three trees were brought back on the airplane, two in Dan Robinson's favorite containers, cardboard banana boxes, and one in a cardboard clothes hamper procured from a moving company. A goodly portion of the morning on the day of departure was spent in rolling sheets of newspaper to fill the spaces in the box. A liberal tip to the Red Cap at the airport got the three boxes on board the airplane along with our normal baggage. The boxes even survived an airplane transfer at an intermediate stop.

Since then, the trees have survived, living in training boxes. Nothing had been done to the root balls from the time they were collected. Since the Engelmann seem to closely resemble Ezo spruce, I'm going to put into practice what the Ezo spruce article preaches. (Therein lies the true reason for the translation.)

Finally, just to prove that the above is no "fish story", the accompanying photograph shows yours truly with Dan Robinson in the center and John Hinds on the right of the picture. Thanks goes to John Hinds for sending the black-and-white photo.

---

Vast forests of Ezo matsu (Ezo spruce) grow in Hokkaido and the Kurile Islands where snowfall is heavy. Tall evergreens with narrow conical shapes reach heights of forty meters (130 feet). Because the branches hang down below the horizontal and the tips of the branches extend into smaller branches the tree has an overwhelming popularity as a bonsai.

#### SPECIES, INSTRUCTIONS FOR GROWING AND TREE DESIGN

There are two species of Ezo spruce known to the bonsai world, the red Ezo spruce and the black Ezo spruce.

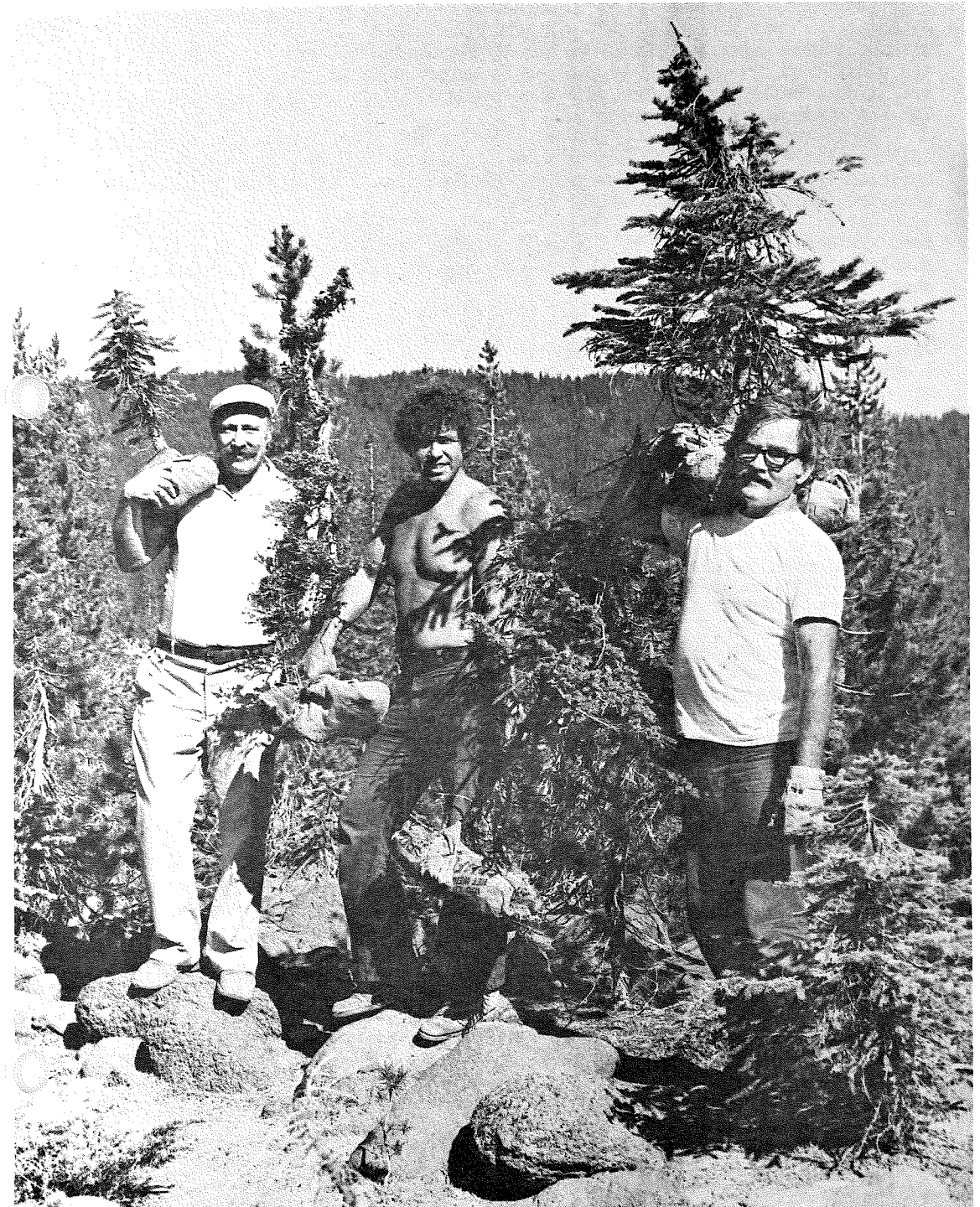
The red Ezo spruce, when compared to the black variety, has fine needles which taper off, and an effeminate, graceful appearance which is what one strives to achieve in a bonsai. Red Ezo spruce's exceptional appeal to the bonsai fancier lies in its small, diminutive needles, the small taper to the branches, the reddish texture of the rough and shell like overlapping bark, and the comparative ease with which the branches can be drooped due to their natural inclination to do so.

Growing Instructions: Almost all the trees marketed are grown from seeds. For this article, a tree must be selected with a straight trunk. A collected tree from an overhanging cliff can be converted to a straight, upright trunk if the overhanging trunk is straight.

#### PURCHASING TREE AND THE FIRST YEAR

Pointers for Purchasing Tree: A good time to purchase the tree is sometime between the 20th through the 31st of March. Select a four to five year old seedling with many downward growing branches, vigorous in appearance, about 15 to 20 cm (six to eight inches) high, and having a trunk diameter at the base of the tree of 8 to 10 mm (about 3/8 inch). Additional points to look for when purchasing the tree are strong rootage to match the trunk which is the primary focus of concern, and the needle characteristics (coloration and compactness).

Preparation for Potting: A pot should be readied for transplanting as soon as possible after the tree has been purchased. A number 3.5 fired clay pot is suitable for potting. The bottom of the pot is covered with a thin drainage layer of red clay pellets. The potting soil is a mix of seven parts red clay soil and three parts paulownia tree sand, both of which have been sieved to be the fine size which does not pass through a sieve of about the



mesh of a window screen. Refer to the illustration. In order to prevent the plant from dying, submerge the pot in water up to the rim of the pot, let it soak for a few minutes, and then place it on an outdoor shelf in full sun and where there is air movement.

April and Afterwards - Exposure: Placing the plant in sun can cause the soil to become overly dry. Ezo matsu grows naturally with a large band of moist soil surrounding it. Therefore, the tree should be watered immediately upon transplanting and kept moist thereafter.

April 10th - Place two fertilizer dumplings (Tamahi) at the edge of the pot. Refertilize in mid July and the beginning of September allotting two dumplings each time. Do not place the succeeding dumplings on the same spot where the predecessors were positioned.

Also, from April until the last part of August, red spider mites may attach themselves to the undersides of the needles. Use an insecticide formulated to kill red-spider mites. Apply it once during the above period. Use a sprayer which will be used exclusively for the insecticide and do not use the sprayer for any other purpose. The spray should be applied in accordance with the directions on the insecticide container and coverage should be all inclusive - the needles (both upper and lower surfaces) and the branches and trunk. Use a cloth or plastic spread over the soil to prevent the insecticide from penetrating the soil and reaching the roots.

Winter Protection: In the outskirts of Tokyo, after December 1st, when there is a freeze such as occurs in the evening, place the plant in a protected area, cold frame or the like.

#### SECOND YEAR - SPROUT PRUNING AND WIRING

During the first part of April, place the plant outdoors on a shelf in a sunny, well ventilated location. Thereafter, water adequately, apply fertilizer, apply insecticide, and provide Winter protection in accordance with the times indicated in the first year schedule of events.

Between the middle and the end of May, new sprouts begin to appear. These are to be pruned in accordance with the illustration. Over this time period, pruning should be done to the new sprouts only after they have completed much of their growth.

The pruning or "plucking" can be done to the sprouts when the new growth has reached approximately 1 cm (3/8 inch). The central sprout which is an extension of the twig, should be plucked so that 1/3 of the sprout, but no more than 5 mm (1/4 inch) has been removed. The side sprouts should be plucked to leave 1/3 of the sprout, but no more than 6 mm (5/8 inch) should be removed. The plucking is done by holding the tip end of the branch in the fingertips of the left hand and with the thumb and index finger of the right hand bend down and break off the desired amount.

Wiring of the Trunk: From 20 September to 10 October, the trunk is wired as shown in the illustration.

The diameter of the wire should be 1/3 of the largest diameter of the trunk. Anchor the wire by first driving it vertically downward into the pot next to the trunk, then apply the wire working from the base to the top of the trunk.

#### THIRD YEAR OPERATIONS

The following operations are to be a supplement to those for the second year since the operations for the second year also apply to the third year. In the third year, during July to August, remove the wire from the trunk so that it does not scar the trunk.

Pruning Branches and Wiring Branches: Branch pruning should take place between 20 September and 10 October. The branches should be wired immediately after they have been pruned.

Branch Pruning: Remove branches so that there are no bar branch pairs and also no forked branches. In pruning the branch, work with groups of three branches, one to one side, the next to the opposite side and the third to the rear of the trunk and so forth. Excess branches or sprouts at the top of the tree should be removed. Refer to the sketch.

Branch Wiring: Wire the branches in pairs as shown on the accompanying sketch. Wire all the branches. Bend the lower most branches slightly below the horizontal and as one progresses up the trunk of the tree gradually bend the branches so that they transition gradually through the horizontal at about mid section to slightly above the horizontal at the top of the tree. Consideration should be given to twisting a branch if necessary so that the undersurface of the branch is not visible from a frontal viewing position. Remember when applying more than one wire to a branch do not cross the wires but apply each successive wire so that it parallels and is adjacent to the previous wire.

The results of the wiring should result in a narrow, conically shaped tree as shown in the figure.

#### FOURTH YEAR MATTERS

During the fourth year do the same actions of adequately watering, applying fertilizer, applying insecticide, pruning sprouts, and providing Winter protection on the proper dates as specified for the third year.

Potting in a Bonsai Pot: During the period of 20 to 31 March, the tree should be placed in a bonsai (display) pot. The straight trunk tree should be placed in the pot so that the tapering trunk is perpendicular to the shallow rim of the pot.

The accompanying figure illustrates the correct placement for the tree in the pot. Since the roots have been disturbed and possibly pruned to fit the tree into the pot, the soil should be thoroughly watered before placing the bonsai outdoors on a shelf.

Wiring of Sprouts and Branches: Between 20 September and 10 October, wire the sprouts and branches to a specific pattern.

Wiring of Primary Branches: Wiring that was applied to the branches during the third year should be removed in the period between June and October to prevent the wire from scarring the branches. The branches may relax their position and seek their pre-wired position.

In rewiring the large branches, follow the same procedure as cited for the third year, but try to avoid overlaying the new wiring over the same paths that the old wiring followed. The wiring should end just short of each branch tip.

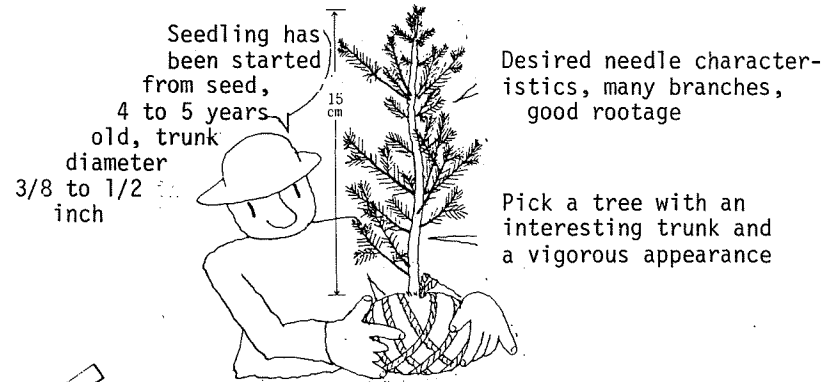
Wiring of Small or Side Branches: After wiring the primary, central branches, immediately start wiring the lateral or side branches. Use number 23 or 24 gauge copper wire. Although it is difficult, endeavor to wrap the wire around the branches without crushing or tying down the needles. Bend all upward side branches downward to lie flat in the horizontal planes of their main branches. When viewed from the side, the side branches should be positioned so that their tips form a narrow, triangular shape. However, when viewed from the top, the tip of the side branches most likely will form an irregularly shaped edge.

Wiring should be done so that no two wires cross, but always be parallel to each other. Wiring should be renewed every year. Please refer to the illustrations.

EZO SPRUCE  
(EZO MATSU)  
SCHEDULE OF EVENTS

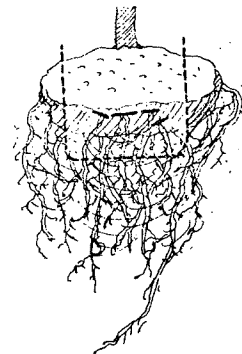
1ST YEAR

PURCHASING PLANT - March 20th - 31st



Purchase a balled and wrapped tree with the above characteristics.

POTTING TREE - USE PROPER POT

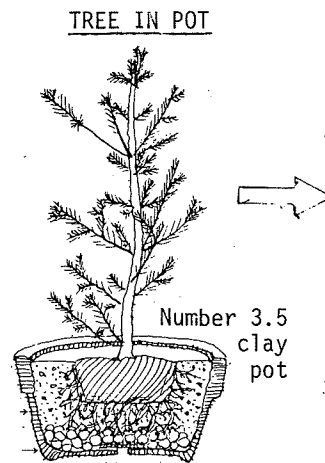


Prune roots

Potting soil (fine size)  
7 parts red clay  
3 parts paulownia tree sand

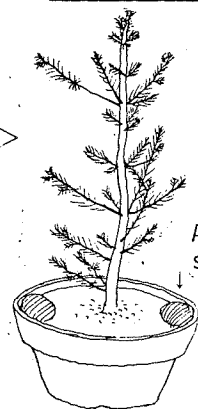
Red clay pellets

Carefully disentangle the roots so as not to sever the small, hair roots.

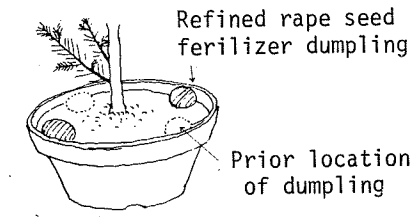


TREE IN POT

FERTILIZE  
APRIL 10th-20th



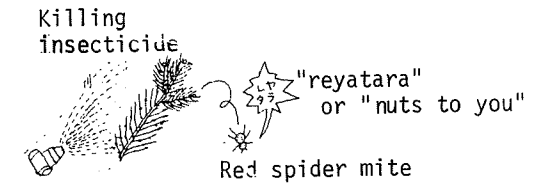
Apply rape-seed dumpling at edges of roots.



Refined rape seed fertilizer dumpling

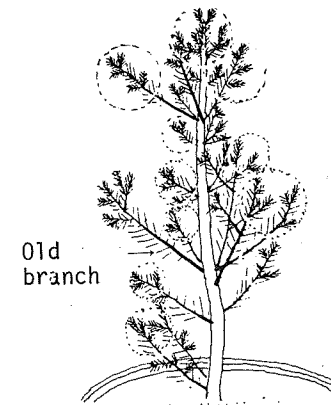
Prior location of dumpling

FERTILIZER APPLICATION  
July 10th to 20th



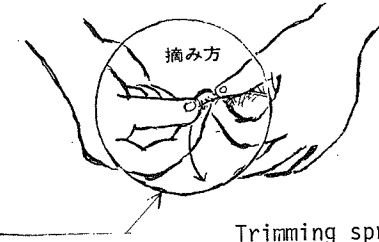
USE INSECTICIDE April to August  
Apply insecticide twice during the above period.

2ND YEAR

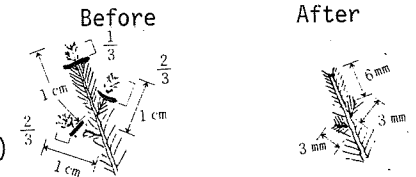


Old branch

(- Line for plucking growth)



Trimming sprouts

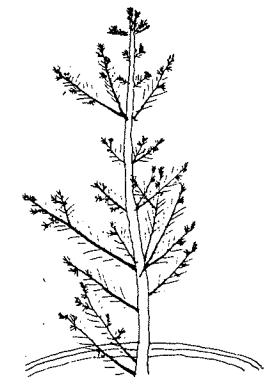


Before

After

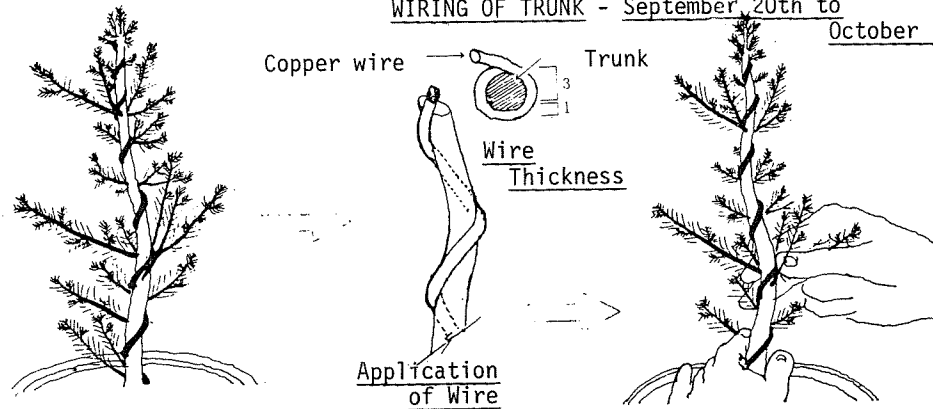
TRIMMING SPROUTS May 10th - 20th  
Pluck only the new growth, - do not .. reduce the branch by cutting back into the old growth (only remove entire branches). Pluck 1/3 of the growth on the center branch sprout and 2/3 - the side sprouts by using the thumb and index finger as shown in the insert.

The results of the trimming are shown on the right. Mist the foliage after trimming the sprouts.



2ND YEAR Continued

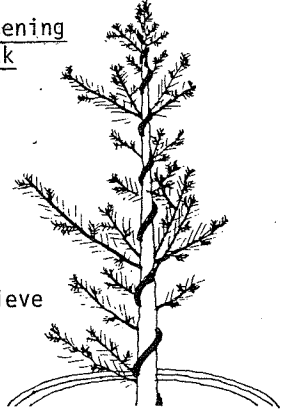
WIRING OF TRUNK - September 20th to October 10th



Wire Applied to Trunk

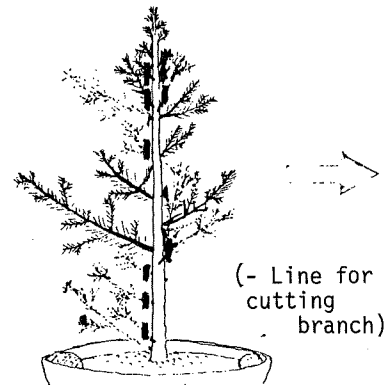
Use copper wire that is 1/3 of the thickest trunk diameter. Start wiring from the bottom of the trunk.

Straightening Trunk



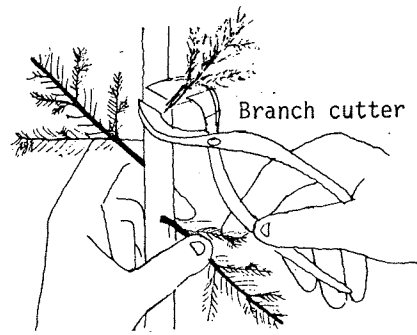
Final Shape  
Bend the wire to achieve a straight trunk.

3RD YEAR  
PRUNING BRANCHES - -  
September 20th to October 10th



Pruning Branches

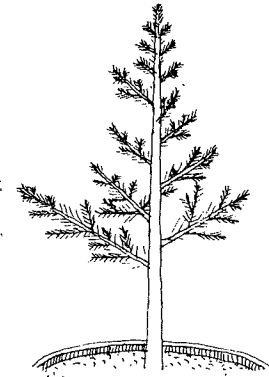
Avoid bar and wheel branches. Remove alternate branches from the trunk. Thin out much of the top growth.



Method of Branch Removal

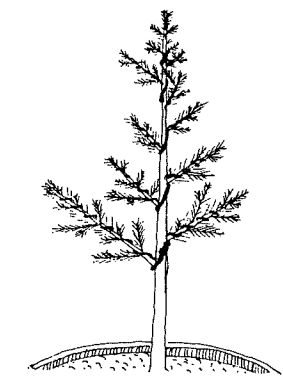
When using the right hand to operate the branch cutter, use the left hand to deflect and thereby protect the nearby branch.

3RD YEAR Continued



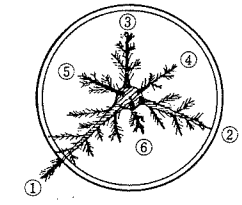
Results of Branch Removal

Appearance of the tree after removing the branches. The remaining branches are now ready for wiring.

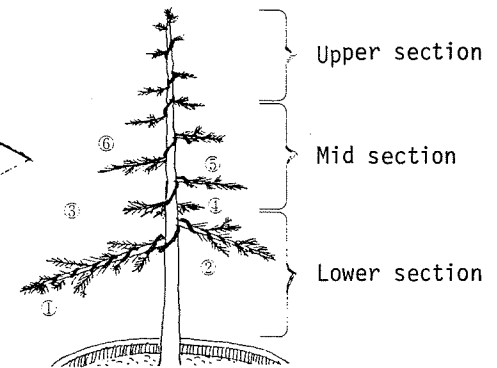


Wiring in Place

Use wire which is 1/3 the thickness of the branch. Apply a single wire to two branches.



Top View  
Results of Wiring  
Branch Arrangement

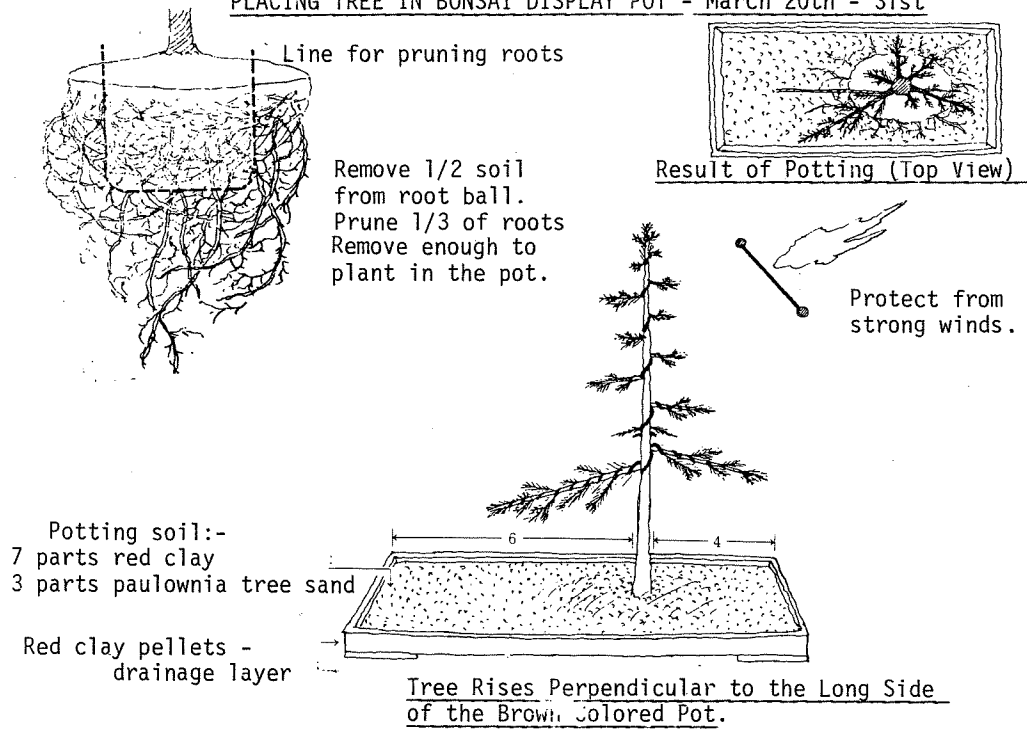


Result of Wiring Branches

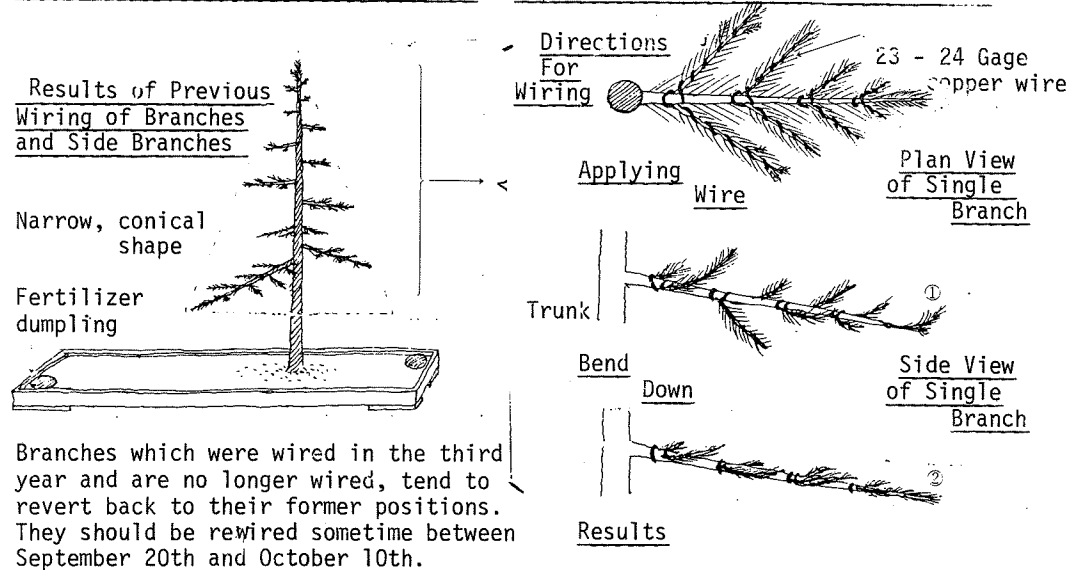
Lower section - bend the branches slightly downward. Mid section - bend the branches almost horizontal. Upper section - bend the branches slightly upward. All the branches form a narrow conical-shape when viewed from the front.

4TH YEAR

PLACING TREE IN BONSAI DISPLAY POT - March 20th - 31st



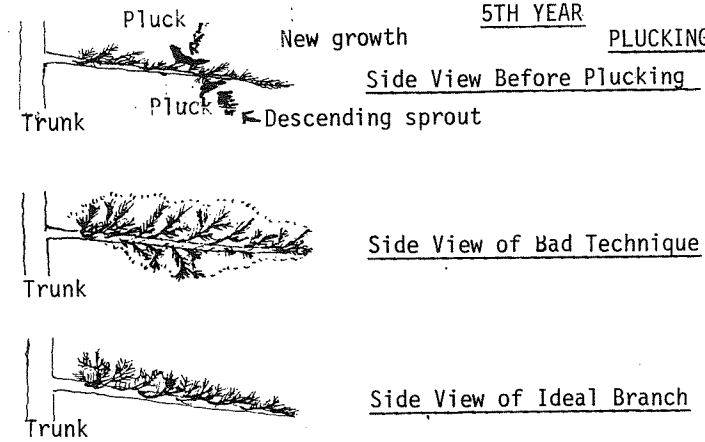
WIRING OF BRANCHES AND SIDE BRANCHES - September 20th to October 10th



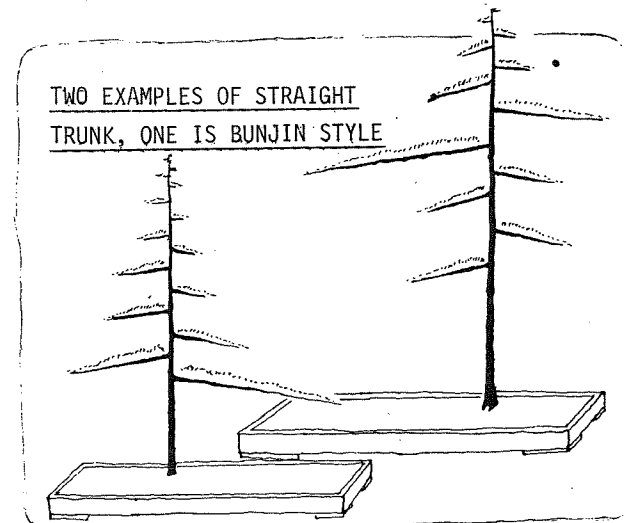
Branches which were wired in the third year and are no longer wired, tend to revert back to their former positions. They should be rewired sometime between September 20th and October 10th.

5TH YEAR

PLUCKING OF NEW SPROUTS



Extensive plucking should be done to the new growth and to remove sprouts extending downward from the branches and appearing on the trunk.



EZO SPRUCE  
SCHEDULE OF EVENTS

<u>MONTH/DAYS</u>	<u>YEAR</u>				
	1 st	2 nd	3 rd	4 th	5 th
March 20 - 31	Purchase tree Repot Place outdoors on shelf. Water adequately			Repot in bonsai display pot. Place outdoors on shelf. Water adequately	
April 1 - 10		Place outdoors on a shelf. Water adequately.			Place outdoors on a shelf. Water adequately
April 10 - 20	Apply fertilizer Apply insecticide				
May 10 - 20		Pluck sprouts			
June 20 - 30	Apply insecticide				
July - August			Remove wire from trunk	Remove wire from large branches	Remove wire from large and small branches
September	Apply fertilizer				
September 20 to October 10		Wire trunk	Prune branches Wire branches	Wire large and small branches.	
December 1 - 10	When frozen over - remove the bonsai to a sheltered area at night.				

After the 4th year the operations are repeated except for repotting which should be done once every 3 years. Endeavor to maintain the downward sloping branches appearance.

## Ezo Matsu Continued from page 5

### FIFTH YEAR AND AFTERWARDS

Repot the tree once every three years. Every year follow the scheduled times for the fourth year as to when to water, fertilize, apply insecticide, pluck sprouts, and provide Winter protection.

Each year, new sprouts will appear on the trunk and branches. Remove the new sprouts on the trunk and carry out extensive plucking of the sprouts to prevent each branch's foliage from forming too wide a shape when viewed from the top. Also, sprouts or branches which emanate from the underside of a branch, should be removed. Prune the top of the tree so that it does not become too dense and unsightly with foliage.

## PBA Board Meeting

The following are highlights from the PBA Board Meeting on Tuesday, February 16th. The PBA Board elected to meet, in place, as the Nominating Committee since time did not permit selecting one. As a result, the nominations for PBA officers during the 1982-1983 time frame are:

- H. William Merritt . . . . . President
- Felix B. Laughlin . . . . . First Vice President
- Frederick H. Mies . . . . . Educational Vice President
- Godfrey E. Trammell, Jr. . . . . Treasurer
- Arschel Morell . . . . . Secretary

It was voted to distribute from the PBA Treasury \$100.00 to each PBA member club.

The PBA Board agreed to sponsor a one-day free workshop for new members on May 8th. Details will appear in the next PBA Newsletter. On the 6th of June, PBA will sponsor a one-day chartered bus trip to New Hope, Pennsylvania to visit Chase Rosade Bonsai Studio and Jerry Stowell's outstanding bonsai collection.

Effective immediately, each member club will pay annually \$6.00 vice \$5.00 for each member to PBA. Also, effective immediately, PBA non-members subscribing to PBA will pay \$6.50 for twelve monthly PBA Newsletters.

## A PLAGUE UPON THOSE SPIDER MITES

Most insect pests that plague the bonsai grower of indoor or subtropical plants are big enough to be seen and quickly dispatched before they inflict too much damage. However, the spider mites are the exception. This group of sucking insects are so small that the first sign of their presence is usually a stippling of the leaves, followed by a dulling or yellowing of the foliage and often leaf drop. A close examination of the leaf axils will reveal the tell-tale webbing from which these insects get their name.

We've all been told that spider mites thrive in warm, dry environments, thus explaining the customary winter infestation of house plants. Unfortunately, since there are at least three common types of spider mite with different temperature and humidity preferences we are likely to invite a new species while discouraging the old. For example, the microscopic cyclamen mite, which has a wide host range and feeds on buds and young leaves, develops quickest at 80-90% relative humidity and temperatures of around 60°F. The broad mite flourishes at a temperature of 70-80°F and high humidity, is smaller and more mobile than the cyclamen mite and feeds on the lower surfaces of young leaves, causing them to curl downward. The third commonly occurring mite, the two-spotted, is most prolific at high temperatures and low humidity, its short, two-week life cycle leading to a population explosion in the typical winter home atmosphere. This mite feeds on the under sides of mature leaves as well as on buds and flowers.

When bonsai are receiving their daily spraying to provide needed humidity, water droplets clinging to the spider mite's web will make it

clearly visible. Or with all three types of mite preferring to feed on the under surfaces of leaves, sometimes their presence can be detected by rubbing the leaf between the fingers. A grainy feeling on the fingers afterward is an indication that quick action is needed.

The most commonly used miticide is Kelthane. However, it has several drawbacks, not the least of which is that it should not be used indoors. Kelthane has been reported to cause phytotoxicity (which can take the form of leaf-burn, cupping or chlorosis, and distortion of leaf and flower buds) on chrysanthemums, gardenias, *Hedera* sp., and seedlings (types unspecified). Spider mites have also been reported to become resistant to repeated spraying.

The miticide, Pentac, has not been found to be phytotoxic to any species used for bonsai, and is now available in a formulation which can be used in the home. It is called DEXOL Tenderleaf Whitefly & Mealybug Spray, Dexol Industries, Torrance, California 90501. Pentac is effective primarily against the eggs, but the spray also contains Resmethrin which rapidly kills the adults, and additionally, an insect growth regulator which should provide long term control.

In the past, precautionary spraying done every fall before plants went into storage or came into indoor growing areas had not prevented an outbreak of spider mite in the winter or early spring. Apparently the spider mite along with the aphid lays an over-wintering type of egg which will hatch when the indoor environment is suitable—or when new growth starts. An insecticide which destroys the egg stage should help to break this cycle.

By Margery Craig,  
Brookline, Massachusetts

DISTINGUISHING FEATURES OF THREE SPIDER MITES		Cyclamen Mite	Broad Mite	Two-spotted Mite
Optimal Growth At	Temp.°F	60	70-80	70-80
	Humidity %	80-90	high	low
Life span, weeks		4	4	3-4
No. of eggs laid		100 +	100	100
Hatch, in days		3-7	3	3-7
Larvae move		Slowly	Rapidly	
Life cycle, weeks		4-6	1	2 or less

The above article is from ABSTRACTS Vol. 9 No. 5 of Nov. 81 published by The American Bonsai Society.

## FLORAFEST III "A Plant and Garden Show"

PBA will again participate in the annual Florafest at the U. S. Botanic Garden Conservatory which is on the Mall just to the West of the Capitol. Trees for the bonsai exhibit are to be delivered by 4:00 p.m. on Thursday, March 11th. Dates for setting up the exhibit are March 10th and 11th. The Florafest will be open to the press at 5:00 p.m. on March 11th to be followed at 7:00 p.m. by a VIP showing. After Thursday, March 11th, Florafest will be open to the public. Take-down is scheduled for Wednesday, March 17th.

Let's make the PBA bonsai exhibit an excellent one. PBA members are encouraged to volunteer to:

- Help set up the exhibit.
- Man the exhibit during the showtimes.
- Help take down the exhibit.
- Provide trees.

Telephone Bill Merritt (PBA First Vice President) (301) 536-4052.



MARCH 12 through MARCH 16, 1982, FLORAFEST III "A PLANT AND GARDEN SHOW" - Gardeners, artist and children and all ages will enjoy FLORAFEST III "A PLANT AND GARDEN SHOW" which comes to the U.S. Botanic Garden Conservatory from Friday, March 12 through March 16, 1982, 9:00am to 5:00pm.

A "FANTASYLAND" of enchanting exhibits is being created by local plant societies, gardens and horticultural groups. Brookside Gardens will create "A Child's Fantasy Garden" complete with a 'goddie-gumdrop-tree', or "Return to Oz" with the Fairfax County Park Authority. Perhaps you are interested in "Plant Hunting in China" presented by the National Arboretum or "A Zoological Garden" presented by who else?---The National Zoological Park. "Step Back in Thyme" with the Herb Society of Prince Georges County or visit the D.C. Master Gardeners' "Enchanted Glen". A diversity of plants will be on display from "Castle Gesneriads" to "Orchid Serendipity".

There is no admission charge and as a special highlight professional landscape architects and horticulturists will be available to answer your questions.

Look for the Fantasy Castle in front of the U.S. Botanic Garden Conservatory, located at the foot of the Capitol on First Street and Maryland Avenue, S.W., just a short walk from the Federal Center Metro Station (blue line). Bring your children, parents and friends to FLORAFEST "A PLANT AND GARDEN SHOW" March 12 through 16, 1982 from 9:00am to 5:00pm.

The National Arboretum will also install an exhibit on "Plant Hunting in China" in the Baltimore Plant and Flower Show, March 24-28, 1982. Watch your local newspaper for details of the show.



## Announcement of Two Bonsai Classes at Shoen Bonsai

1. Japanese Black Pine Class: The black pine must be of middle or an older age but no seedlings. The trees must be approved by the instructor. Shoen Bonsai can provide specimens if the students have no suitable trees. Each student can work with a maximum of two trees.

2. Goyo (Pinus Parviflora) Class: Same as above except the students must provide their own Goyo pines as the Goyo pine stock in Shoen Bonsai is rather limited.

INSTRUCTOR: J. Y. HAGA

It has been this instructor's belief that it is almost impossible to meet four or five times in one season to teach a whole year's care (or two to three years beyond the first year) of bonsai trees. These experimental classes are to guide the students for a whole year's (and also for the subsequent years) care of Japanese black pine and Goyo pine. If the experiment is successful, we would like to expand to other species of trees in the future.

### APPLICANTS

The student can be advanced bonsai hobbyists or beginners. However, they must be able to provide sufficient time for the prearranged, year round classes and for the bonsai cares at home. The students must show a strong commitment to carry through with these classes for a whole year. If you are preoccupied with your work or must travel frequently this is not for you.

### FEES

The fee is \$90.00, payable in advance. The fees are not refundable even if a student quits in the middle of the year or misses the classes.

### TOOLS

Each student must provide one's own tools. No borrowing from the instructor or fellow students is allowed.

### CLASS SCHEDULE

Each class will have a three person minimum and a five person maximum. The classes will be held on prescheduled weekends. The following is the tentative schedule of classes:

- |  |                      |
|--|----------------------|
| 1. Mid February 1982                     | 5. June              |
| 2. End of February or beginning of March | 6. Beginning of July |
| 3. April or May                          | 7. September         |
| 4. June                                  | 8. November          |
|  | 9. January 1983      |

If any individual tree needs special techniques or treatments such as grafting, jin making, etc., the additional sessions will be provided at \$10.00 per lesson.

### APPLICATION AND FURTHER INFORMATION

Please visit, write, or call: Shoen Bonsai and Japanese Garden, 601 E. Gude Drive, Rockville, MD 20850. (301) 762-0878.

## WELCOME! Bowie Bonsai Club

A hearty welcome goes to the recently formed Bowie Bonsai Club which has weathered two meetings to date. Mr. Akey Hung is the founder of the club. How did he do it? He decided that since he is a resident of Bowie, the meeting places of PBA member clubs were not convenient to his home. So, he placed an advertisement in the local Bowie newspaper, and seven interested parties responded. They're off to a fine start, see this issue's Calendar of Events.

EDITOR'S NOTE: The article "Grafting the Pine" in the February 1982 PBA Newsletter does not go into all the details and ramifications associated with grafting. There are many tricks one learns either through his or someone else's experiences. For instance, dipping the scion in Wilt-Proof before fixing it as a graft is done by almost all Japanese who graft. Perhaps the best advice is what was passed along to me recently, -if you have a tree (a prized or potentially prized possession) and want a branch grafted, take it to an expert in grafting and let the expert do it.

ERRATA: Next to last paragraph in the Tamahi article, page 16 of the February 1982 PBA Newsletter, starting with "Don't bury the Tamahi. . . nutrients." should read: "Don't bury the Tamahi because more water goes into the Tamahi when buried, fermentation goes on, the Tamahi breaks down faster and causes root rot."

### JIU-SAN BONSAI

#### THE COMPLETE BONSAI SHOP

One of the East's largest selections of bonsai containers, tools, books—including those printed in Japan (BONSAI MASTERPIECES). Rare plants, indoor-outdoor bonsai & saikei, flower stones, pre-bonsai, soils, figurines, wire, stands.

NO MAIL ORDER

Our new location.— Open 7 days/week  
1243 Melville Rd., Farmingdale, N.Y. 11735  
Tel. (516) 293-9246

# U S NATIONAL ARBORETUM

MARCH 1, 8, 15, 1982, PLANNING AN HERB GARDEN - Holly Shimizu, Curator of the National Herb Garden, will conduct a three session workshop which will cover the basic steps for planning a home herb garden. Ordering, propagation, cultural requirements, design considerations, and uses of herbs will be covered.

Participants will meet on Monday, March 1, 8, 15, 1982, from 10:30am to 12:00 noon in the Arboretum Administration Building classroom. Class periods will be divided between lecture and time in the National Herb Garden.

The class will be limited to twenty(20) students and advanced registration is mandatory. Don't delay as this class will be popular. For reservations, call the Education Office at the Arboretum (472-9279). There is no charge for the class. The cost of the required text and materials will be \$6.00. The text and materials will be given out at the first class meeting. All checks for materials should be made out to *Friends of the U.S. National Arboretum* and mailed to the Education Department at the National Arboretum before reservations are confirmed.

E-HORT-070 - RAISING & USING ANNUALS, PERENNIALS, BULBS, & ROSES THOMSON  
HELD: NATIONAL ARBORETUM ACTIVITY CENTER \$35.00  
Tuesday: April 27; May 4, 11, 18, 25; June 1.

Selection, culture, and landscape uses of annuals, perennials, bulbs, and roses for the Greater Washington area. Stresses the nature and effects of micro-climates. Low maintenance practices.

E-HORT-232 - LANDSCAPE PLANTS FOR SPRING GRAY \$46.00  
HELD: National Arboretum, Classroom Administration Building  
Saturday: April 10, 17, 24; May 1, 8, 15, 22, 29; June 5, 12. TIME: 9:00 to 11:00 a.m.

Includes spring flowering trees, and landscaping to attract birds. Using resources of the National Arboretum, students will have laboratory and field sessions to examine seasonal value, identifying characteristics, and general cultural requirements of selected trees, shrubs, vines, and ground covers.

E-HORT-120 - INTRODUCTION TO BONSAI DRECHSLER \$35.00 & \$20.00 materials fee.  
HELD: National Arboretum, Classroom.  
Saturday: May 1, 8, 15, 22 TIME: 8:00 a.m. to 10:30 a.m.

The Japanese art of creating miniature trees and landscapes in shallow containers. This basic course includes lectures, discussions, demonstrations, and practice in the art of Bonsai, from a nursery pot to a bonsai pot. Includes root pruning, top pruning, styles and shaping, and care and maintenance.

E-PHOS-235 - NATURE PHOTOGRAPHY WORKSHOP HIGGINS \$69.00  
HELD: National Arboretum, Classroom.  
Tuesday: April 6, 13, 20, 27; May 4, 11. TIME: 6:00 p.m. to 9:00 p.m.  
Weekend Field trips. April 10, 17, 24, 25.

Close-up and landscape photography techniques. Color, black and white, filters, lenses, and flash. Composition and lighting stressed. Emphasis on how to see or locate, the best render nature subjects. Flowering plant family characteristics featured. Lower plant life forms, fauna and inanimate nature also included. Discussion of nature literature and nature photography. Field work and trips. Slide and print critiques. Use 35 mm single reflex camera. Select and prepare photographs for display. Prerequisite: students advised, but not required, to have 35 mm single reflex camera with close-up lens.

E-HORT-140 - LANDSCAPE USE OF TREES, SHRUBS, VINES, AND FLOWERS BRILLIANTINE  
HELD: U.S.D.A. South Building \$46.00  
Wednesday: April 7, 14, 21, 28; May 5, 12, 19, 26; June 2, 9. TIME: 6:00 p.m. to 8:00 p.m.

Principles of landscape design with emphasis on plant material as a major design element. Classification of plants by both horticultural and design characteristics. Discussion of plant ecology and plant association. Identification techniques, and other relevant topics.

E-HORT-230 - THE HOME GREENHOUSE NAKOSTEEN \$35.00 & 2.00 material fee  
HELD: National Arboretum, Activity Center  
Wednesday: April 28; May 5, 12, 19, 26 TIME: 6:30 - 8:30 p.m.

Designed to provide fundamentals of building and caring for the home greenhouse and plants. Lectures and laboratories on the types of greenhouse structures; pointers and greenhouse construction. Factors involved in growing quality plants: Types of containers, soil media, growing conditions. Field trip to several operational home greenhouses.

## NATURAL HISTORY FIELD STUDIES

E-NATH-135 - SPRING FLOWER IDENTIFICATION MAZZEO \$46.00 & 2.00 materials fee.  
HELD: National Arboretum, Administration Building Classroom.  
Mondays: April 5, 12, 19, 26; May 3, 10, 17. TIME: 6:30 to 8:30 p.m.  
FIELD TRIPS: Sat. April 24; May 1; Sun. May 16.

Introduction to principles of plant taxonomy and techniques of plant collecting and identification. Study of the principal vascular plant families of Central Atlantic region. Laboratory and field practice in identifying specimens through use of identification keys. Saturday field trips: April 24; May 1, 16.

Registration: Mail registration will be accepted beginning February 1 through March 13, 1982. Registration in person will take place on the patio of U.S. Department of Agriculture, 14th & Independence Avenue, S.W., Washington, DC 20250, March 29, through April 3, 1982. Late registration will be held April 5, through April 10. A late fee is charged for late registration. The Graduate School telephone number is 447-4419.

All registration should be sent to the USDA Graduate School, 14th & Independence Ave., S.W., Washington, DC 20250.

## Reflections On Watering and Soils



Mr. Jack Eden of WTOP

Last October, Jack Eden who hosts a radio program on the Washington, DC radio station WTOP and also has authored a book, "Garden of Eden", spoke at the PBA 1981 Symposium. One aspect of plant care which he addressed, was pH. His analogy is well worth remembering, "if the pH of your plant's soil is not correct, the plant develops lockjaw". Plants simply won't be able to obtain the nutrients they need if the soil is too alkaline or too acid.

Jack Eden's talk prompted me to reconsider what I did last year to try and achieve that perfect harmony between soil mix, watering, and fertilizing. Also, I did a little bit of book reviewing.

A most important factor in growing things lies in properly regulated pH conditions of the soil. PH values are in multiples of 10, pH of 7 is taken as the neutral condition between acid and alkaline soil. A pH of 6 is 10 times more acid than soil with a pH of 7, a pH of 5 is 100 times more acid, and a pH of 4 is 1,000 times more

acid. Also, the ever continuing leeching action of rainfall and watering, plus application of fertilizer, cause soil to slowly become more acid.

I broke out the Hydrion Soil Tester, litmus papers which provide pH in the range from a pH of 4.5 to a pH of 7.5 with a color chart for every 0.5 pH step within that range. The method for using the paper, as I've finally learned, is to press it against the moist soil sample for 30 seconds. (Don't touch the measuring part of the paper with your finger, use a piece of metal, so that you don't influence the resulting color of the paper.) If the soil is too dry, moisten a sample of the soil with water and then make the test.

However, I checked the pH of my tap-water, and found it to have a pH of 4.5! Now that isn't supposed to be. Water is supposed to be less acid than that. Last Spring, it was checked out as alkaline, slightly above a pH of 7.0. At present, I make my tap-water neutral by using bicarbonate of soda, very little, just a pinch in a quart of water seems to do the trick-most of the time.

As Jack Eden pointed out, bicarbonate of soda will make the water more alkaline and raise the pH for those plants requiring this, and household vinegar will make the water more acid. The pHyrion paper will give you an accurate check on the pH.

Next, Jack Eden mentioned using a 1/4 teaspoon or thereabouts of epsom salts in water to make your plant foliage gain a healthier look. I did that to my plants before bedding them down for the Winter, and the magnesium in the epsom salt did perk up the needles and leaves giving them a healthy looking hue. This started me thinking back to my trying to analyze my soil mix last year.

Last Spring, I thought it would be interesting to try to determine how much nutrients (nitrogen, phosphorous, and potassium) was inherent in a soil mix of terra-green, a fired clay, should provide the nutrients if any; the gran-in-grits, crushed granite, should hold no nutrients. Furthermore, the terra-green in absorbing water to which fertilizer has been added, should be a potential reservoir of nutrients for feeding plants during successive watering-only applications. Well, the experiment went down the drain so to speak, when I found the Sudbury Soil Test Kit (econo-version) didn't read anything but pH. I mixed solutions of Sudbury nitrogen powder, another of potassium powder, and one of phosphate. None had any

## Gypsy Moths Can Kill Your Bonsai Part I

This spring, for the first time, the gypsy moth may be a serious threat to forests and ornamental trees in the Washington area. The larvae, which are among the most voracious of all pests, attack virtually all hardwoods, and also will eat the leaves of other deciduous trees and the needles of pines.

A single gypsy moth larva could defoliate a good-sized bonsai collection in a few hours. The leafy trees might regenerate. The pines almost certainly would die.

The best defense against the gypsy moth is to destroy its egg masses. These may be found now on the bark of trees, in wood piles, on fences, under picnic tables, on the underside of recreation vehicles which were in the northeastern United States last summer, or in virtually any other spot which may have been visited by a female moth and left undisturbed during the winter. The egg mass averages about 1 1/2 inches long and 3/4 of an inch wide. It is lumpy and is covered with buff or yellowish hairs. Each such mass may produce as many as 1,000 hungry caterpillars in late March or later, depending on the climate.

Egg masses should be scraped off their host object, doused with kerosene or lighter fluid and burned. Look for them and destroy them before the eggs begin to hatch.

Edmund L. Castillo

Next month: How to identify and kill the larvae.

Washington Bonsai Club

effect on the dyes from the soil test kit when added to the solutions. I wrote a letter of complaint, but they chose to ignore it.

I did send some soil samples to the local Fairfax County Cooperative Extension Office for free soil tests. The results were:

	MIX	
	No. 1	No. 2
Terra-green	40%	50%
Gran-i-grits	40%	50%
Peat moss	20%	- -
Nitrate Nitrogen	Not measured.	Low
Soluble Salts	Not measured.	Medium
Phosphorous	Very high	Very high
Potassium	Very high	Very high
Magnesium	Very high	High
pH	5.6	7.1

The first sample was not tested for nitrogen. Mr. G. Stewart Bunn, the county agent, indicated that the nitrogen test would be done by specifically requesting it on the soil form. Hence, the second test shows the results. Note the low value of nitrogen. I've gone to using fertilizer dumplings or Tamahi as the fertilizer. A shot of a liquid fertilizer as an alternate source is applied once in a while.

Comments and ideas relative to the above will be welcomed and passed along to the readers.

# CALENDAR OF EVENTS

March 2- Baltimore Bonsai Club in conjunction with Baltimore Department of  
March 23: Recreation is sponsoring a series of beginner's courses in bonsai  
on every Tuesday evening (March 2, 9, 16, 23). Fee is \$25.00 and  
materials are provided.  
BALTIMORE (301) 922-9310

March 7: 2:00 p.m. to 5:00 p.m. at Bowie Community Center, Mary Holmes will  
Sunday talk on collecting in preparation for April 4th Collecting Trip,  
see below.  
BOWIE (301) 390-6687

MARCH 9, 1982, BONSAI REFINEMENT WORKSHOPS - Mr. Robert Drechsler, Curator  
of the National Bonsai Collection, will conduct a Bonsai Refinement Workshop  
in which he will assist individuals in repotting and refinement of their  
bonsai. Participants must bring their own bonsai tools, wire, and soil if  
repotting is planned. The Arboretum will provide no supplies or equipment.

There is no charge for the workshop which will be held in the Bonsai workroom  
adjacent to the National Bonsai Collection. The workshop will be held  
Tuesday, March 9, 1982, from 1:00-3:00pm. The workshop will be limited to  
five(5) persons, and advanced registration is required. To register, please  
phone the Arboretum Education Department at 472-9279. This workshop will be  
repeated on April 13, 1982. Prerequisite: An introductory bonsai class.

March 11: 7:30 p.m. at Annapolis Library, West Street. There will be a demon-  
Thursday stration of carving feather rock.  
ANNAPOLIS (301) 263-3995

March 12- Florafest III, "A Plant and Garden Show" US Botanic Garden Conserva-  
March 16: tory, 9:a.m. to 5:00 p.m. See article on page

March 13: 10:00 a.m. at Gulf Branch Nature Center. Juli Haga of Shoen Bonsai  
Saturday will talk on the many aspects of styling bonsai including roots, trunk,  
branch and sub-branch distribution, various styles (upright, slanting,  
etc.). Bring trees for helpful hints on how to improve their styles. Also, "NO-  
NO" styles will be discussed. Emphasis will be on Japanese style, not American  
style. NORTHERN VIRGINIA (202) 383-7832

March 18: 7:30 p.m. Discussion of "Preparation for Showing Trees - Grooming,  
Thursday Pots, Stands, Companion Plants" by Bill Merritt, PBA Vice President.  
Bill is presently conducting a Beginner's Course at the National  
Arboretum (See March 20th below) and is an interesting, knowledgeable lecturer  
on bonsai. (Advance notice: We will join the Annapolis and Bowie Clubs on a  
collecting trip on April 4th at 2:00 p.m. Details will be presented at the  
meeting or call F. Mies (301) 299-6194.) RAFFLE. We will meet at our new loca-  
tion: Col E. Brooke Lee, Jr. HS, Room 220, Monticello Avenue, Silver Spring.  
BROOKSIDE (301) 299-6194

March 20: 2:00 p.m. at National Arboretum. Back to Basics! This will be the  
Saturday second in a series of five monthly sessions. Good for newcomers and  
those who have had some experience and wish to review. This course  
emphasizes the philosophy as well as the techniques of bonsai. Bill Merritt is  
the instructor. Telephone following number for more details even if you have  
not or cannot attend all the sessions.  
WASHINGTON (202) 583-2676

March 21: 2:00 p.m. at Cylburn Park. Meeting will be a soils workshop.  
Sunday BALTIMORE (301) 922-9310

March 21: 2:00 p.m. Repotting session including techniques. Also, the April  
Sunday Annual PBA Spring Bonsai Show will be discussed including the club  
display. Bring plants for the display. Please telephone the below  
number for details and location of the meeting.  
KIYOMIZU (301) 423-8230

March 24- Baltimore Bonsai Club will be showing trees at the Baltimore Con-  
March 28: vention Center.  
BALTIMORE (301) 922-9310

MARCH 31, 1982, SPRING TOUR OF THE GOTELLI DWARF CONIFER COLLECTION -  
Sue Frost, Curator of the Gotelli Conifer Collection. This tour through the  
Gotelli Collection will emphasize the change of seasons from dormant winter to  
colorful spring in the evergreen garden. Many spring bulbs will be blooming  
and we will see interesting color changes as the conifers push into new growth.

Tour begins at 10:00am from the Gotelli Collection parking area and will last  
approximately one and a half (1½) hours (weather permitting).

April 4: 2:00 p.m. The new Bowie Bonsai Club will join the Brookside and  
Sunday Annapolis Clubs for a collecting trip. Meet at Mr. Foto, in front  
of the A&P, Patuxent Shopping Center, Crofton, MD. Directions:  
Route 50 about 10 miles outside the Beltway, take Route 3 North (toward  
Baltimore). About 3 miles, turn right onto Route 450 East. Shopping center  
is on the right. Questions?? - call Mary Holmes, see below.  
ANNAPOLIS (301) 721-1309

April 8: 7:30 p.m. at Annapolis Library, West Street. Jules Koetsch from the  
Thursday Northern Virginia Club will show a short movie of bonsai pot making  
in Japan and give a talk on making pots using the slab technique  
followed by a demonstration. Bring any trees you have for display in the PBA  
Annual Spring Bonsai Show.

April 24- 10:00 a.m. to 5:00 p.m. Annual PBA Spring Bonsai Show, National  
April 25: Arboretum. PBA Annual Meeting on April 24th at 5:30 p.m.

ANNAPOLIS (301) 263-3995

April 1- California Bonsai Society, Inc., Silver Anniversary Bonsai Exhibition  
April 4: and Jubilee, Los Angeles, California. See January 1982 PBA Newsletter  
for more details.

April 25: Fourth Festival of Learning sponsored by the Bonsai Society of Greater  
Sunday New York. See January 1982 PBA Newsletter for more details.

If you plan to attend a meeting other than your parent club's meeting, it is recom-  
mended to telephone the number listed above to confirm the arrangements. Because  
of any of a number of reasons, the schedule above can be changed. To be further on  
the safe side, you can telephone as early as possible to let the club know that you  
expect to attend and then request that you be advised of any schedule changes.