

POTOMAC  
**BONSAI**  
ASSOCIATION

# Newsletter

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TOSHOU , NEEDLE JUNIPER , JUNIPERUS RIGIDA

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TRANSLATED BY JULES KOETSCH

Editor's notes: The following article:  
was translated from the Japanese book "DIRECTIONS  
FOR THE PREPARATION OF PINE AND CONIFER BONSAI  
WITH ILLUSTRATED EXPLANATORY NOTES". The  
following brief description of juniperus rigida  
was taken from "ORNAMENTAL CONIFERS" by  
Charles Robinson, Hafner Press, A Division of  
Macmillan Publishing Co., Inc., New York, 1975.

This is one of those junipers that should  
be clearly labelled "Handle with Care"; not  
because of fragility on behalf of the plant,  
but because the needles are unbelievably sharp  
and any person handling a quantity of this  
species would soon find himself obliged to wear  
gloves for protection. Nonetheless, it an  
interesting conifer with a graceful drooping  
habit of growth forming a bush of 2m (6 ft.)  
by 1m (3 ft.) wide for a good ten years' growth,  
highlighted by a Spring flush of buff-colored  
shoots, and turning a brownish-green once  
growth has stopped. It is a native of Japan  
and has been much cultivated by the Japanese  
in temple gardens.



The appeal of Toshou (needle juniper), notwithstanding that it is in your  
home with dead branches, is that an appearance is created which indicates that

the plant could have triumphed by living through the winter storms. In that case, the weight of snow and storms snap-off branches and trunks. After all that is done, the wind and rain bleach the exposed wood. The part of that year's thickness of tree ring growth that survives will have new growth appearing on what was assumed to be dead branches.

The bleached white of the dead wood on branches and trunk is termed by the Bonsai World as "shari" or "jin". Of course the above can also be found or made on pine, cryptomeria, and the like.. However, the best species for using jin and shari are toshu and shimpaku.

Select a seedling that is beautiful, and one seldom finds that any jin has been produced especially on trees raised from seed. Organize the branches so that when one creates jin on the branches, the look or appearance of the resulting bonsai will have the jin as a "signature" of that particular bonsai.

#### DISPOSITION OF THE QUALITIES

From the top of a healthy, tall tree, one should be able to produce a healthy sapling with green colored needles. It should be from 3 to 12 cm (1½ to 5 inches) in height when cut. (The length will be reduced when the end is squared-off.) The tree bark should be reddish-brown in color. If there is a deep split running up the trunk, study the color and if it is dark gray, the top can be selected as a sapling.

The kanji (Chinese characters) for Toshou are 杜木公. In the bonsai world, if one is unable to find Toshou in his locality, the varieties of bezou, himono, and nezu are also excellent.

In Japan, the natural growth of Toshou occurs along the North Central Coastal Highway on Honshu (the main Japanese island). There, the trees facing the sun (on the north side of a river or the south face of a mountain and exposed to the sun) appear to have as a rule, a fondness for the sun. Those Toshou even flourishing in the wet valley or ravines appear strong even as do those in dry conditions, which indicates their will to survive.

In preparing a bonsai, many choose a tree which has been raised from seed. (Much in the following paragraphs can be applied to seedlings grown from seed.) In this article the tree is obtained by cutting the trunk and planting the cut portion.

#### FIRST YEAR EFFORT

Method of selecting Tree During April 1st to May 10th choose a wick or top of a Toshou which is healthy. The part to be cut should be 5 to 10 cm (2 to 4 inches) high and about the thickness of a lead pencil at its base. The trunk should be selected so that the widest branches fan out on opposite sides of the trunk. This will leave smaller branches to the front and rear. The wider branches will be associated with the larger roots that will develop and thus those roots will not emanate to the front of the tree.

Having removed the wick or head of the tree and prior to planting it, cut the end with a sharp knife so that it is squared-off. Then without much delay, place the end into the hole that was previously made in the soil located in the pot. In so doing it is significant that the woody tissue portion and the edge of the cut are not injured when the wick is placed into the hole. After the wick has been positioned in the hole, fill the hole with soil and press the soil in place.

Managing Afterwards Having completed the potting, do not put the planting in a spot where it will be exposed to any wind. Water the pot until the water flows from the hole in the bottom of the pot. In the author's opinion, sun is good if done in the proper way,- avoid the noonday sun and provide one-half-a-day shade to be on the safe side. The ideal time for misting the needles is after they have been exposed to the sun, but please avoid letting the needles get excessively dry. Refrain from watering the roots when misting the needles. Watering of the soil in the pot should take place only after about 70% to 80% of the soil had dried out. For cryptomeria (Suji) let the roots get wet since they like to be damp.

Do not fertilize during the first year but provide a greenhouse or the like for for winter storage and protection.

#### SECOND YEAR EFFORT

Between March 20th to the 31st remove the plant from the greenhouse and put it on a shelf in full-sun since Toshou likes much sun. Since the plant is sensitive to cold in this stage in its development, hold off on repotting until somewhere between April 20th and July 10th. At that time prepare the spread of the roots by first targeting the big upper roots for cutting. This is done to permit positioning the tree into the opening of the pot. The tips of the thick, wide spreading roots are cut.

When the repotting is complete and the follow-on watering has taken place, place the plant on an outdoor shelf in full-sun and where it is protected from the wind. One month later apply two (2) kneaded rapeseed oil fertilizer balls about the size of the tip of your thumb to the pot which is a number 5 pot (about 5 inches in diameter). Thereafter make one application each month of 3 fertilizer balls. (Remove the old ones when the new ones are applied.) For winter protection, remove the plant to a shelf in a greenhouse.

#### THIRD YEAR EFFORT

Do fine pruning this year. In the time between May and the end of September, prune to remove the unwanted lengths of branches. Refer to the illustrations. Prune the tips of the branches back so that the overall shape of the tree is that of a triangle. Please do not prune in the winter months.

Apply fertilizer at the rate of four (4) kneaded rapeseed fertilizer balls (about the size of one's thumb) once per month from April through October. Remove old ones when placing the new ones.

In the winter provide protection in a greenhouse or the like.

#### FOURTH AND FIFTH YEARS' EFFORTS

Do the same things that were prescribed for the third year. The principles and method of management are done in the same manner as in the 3rd year.

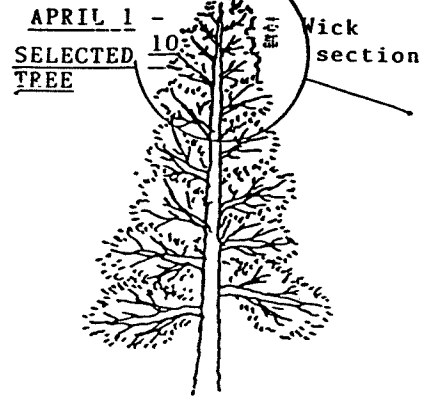
#### SIXTH YEAR EFFORT

This is the year that the Toshou is placed in a bonsai display pot since the shape of the tree has been attained.

Also repot between April 20th and July 10th. At this time pay attention to cutting the surface roots so that the plant will fit into the pot in the desired location. Note that because the pot is shallow and for it to readily accept the plant, the lower roots must be trimmed.

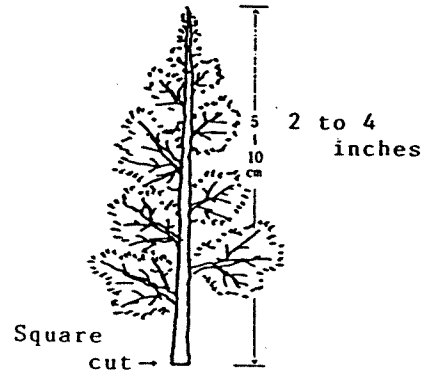
TOSHOU OR NEEDLE JUNIFER

FIRST YEAR



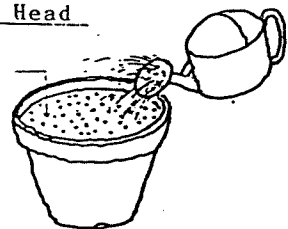
Select a tree in good health, with a vigorous top or "wick" to be the cutting.

Selected Tree Head



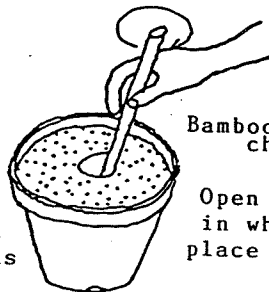
The correct cut is 90° with the selected head of the tree 5 to 10 cm or about 2 to 4 inches in length.

Selected Head



Water until it runs out of the bottom

Use number 3 pot (about 3 inches diameter)



Bamboo chopsticks  
Open a hole in which to place the wick.

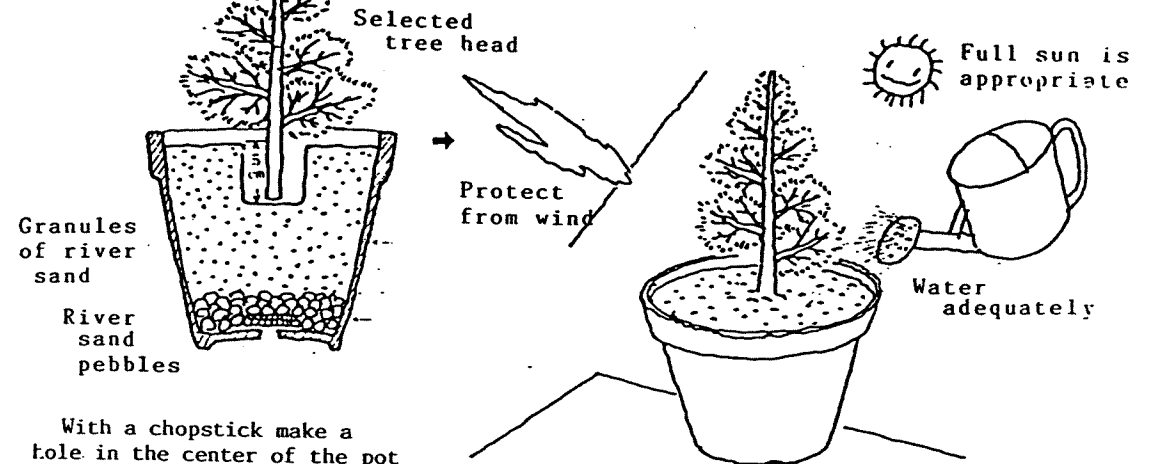
Use a number 3 unglazed pot in which the bottom has a layer of river sand pebbles for drainage onto which a potting soil of granules of river sand has been placed.

FIRST YEAR (Continued)

MANAGEMENT OF THE SELECTED TREE

April 1st to 10th

Sticking Tree In Pot



Granules of river sand

River sand pebbles

Protect from wind

Full sun is appropriate

Water adequately

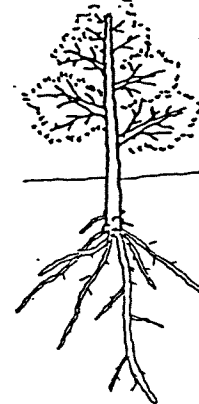
With a chopstick make a hole in the center of the pot which is 3 to 5 cm (1 1/4 to 2 inches) deep. Stick the chosen head into the hole.

It is emphasized that the pot should be watered until the water flows from the bottom of the pot. Then place the plant outdoors on a shelf in full-sun. Ideally mist the needles.

SECOND YEAR

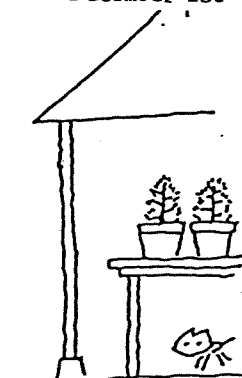
REMOVE FROM GREENHOUSE, PLACE OUTDOORS ON A SHELF March 20 - 31

GROWTH OF ROOTS  
First-Autumn



Root growth during Autumn

INSERT IN GREENHOUSE  
December 1st - 10th

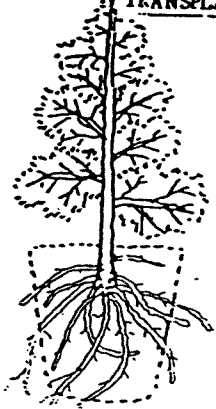


Insert in a greenhouse and water adequately

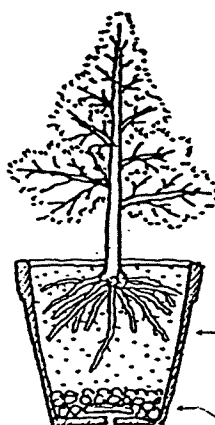


Place on a shelf in a sunny spot and water when 70% to 80% dry.

TRANSPLANT - April 20 to 30



Cut unnecessary roots. Balance the remainder of the roots' spread.



Retotting Completed

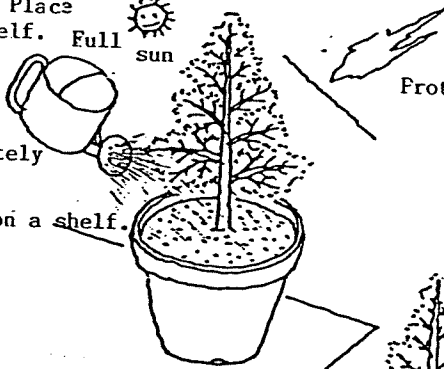
Number 5 Unglazed Pot

Potting soil:  
River sand of medium sized grains, 2 parts  
Paulownia tree sand, 2 parts  
Akadama soil, 2 parts

Drainage layer of river sand pebbles.

The plant should have a small space between the roots and the pot. Water so that it runs from the bottom of

the pot. Place outdoors on a shelf. Full sun



Protect from the wind

MANAGING AFTER TRANSPLANTING

April 20 to 30

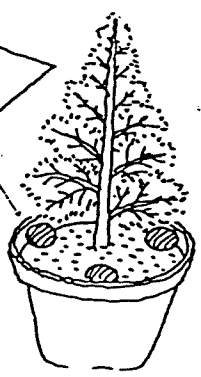
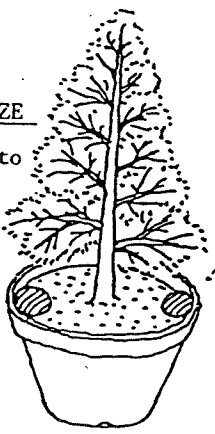
Water adequately. Protect from the wind. Water when 70% to 80% dry.

Place on a shelf.

FERTILIZE

May 20 to 31

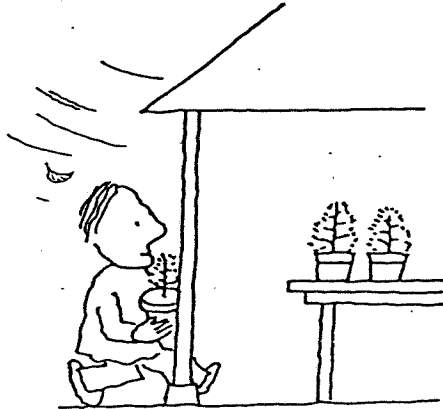
Kneaded rapeseed oil fertilizer ball size of tip of your thumb.



One month after transplanting, place 2 fertilizer balls. Thereafter apply 3 balls each month through the period of Sept 20 to Oct 31.

PIT IN A GREENHOUSE

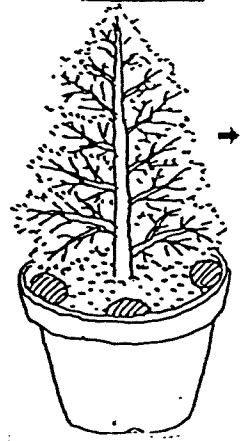
December 1 to 10



In the winter, remove to the protection of a greenhouse. Water when the soil is 70% to 80% dry.

APPLY FERTILIZER

April 20 to October 31



From April 20 to October 31, once per month, apply 4 fertilizer balls of kneaded rapeseed oil.

3 TO 5 YEARS

REMOVE FROM THE GREENHOUSE AND PLACE OUTDOORS ON A SHELF - March 20 to 31

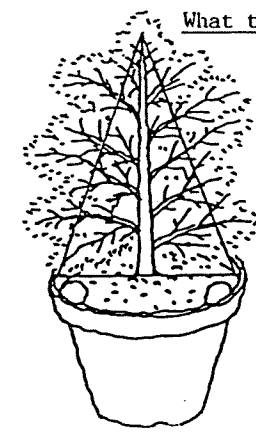


Remove from the greenhouse. Put in full sun on a shelf. Protect from the wind. Water adequately.

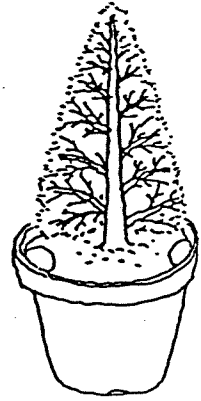
PRUNE

May to September

What to Prune



After Pruning

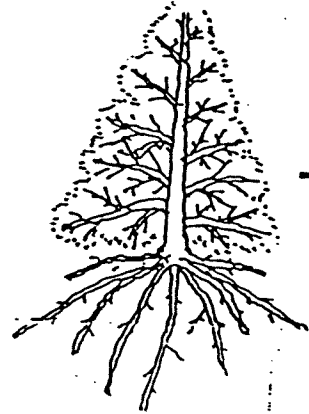


Between May and the end of September, prune unwanted, useless sprouts. Prune the branch tips so that the triangular shape above is approached.

SIXTH YEAR

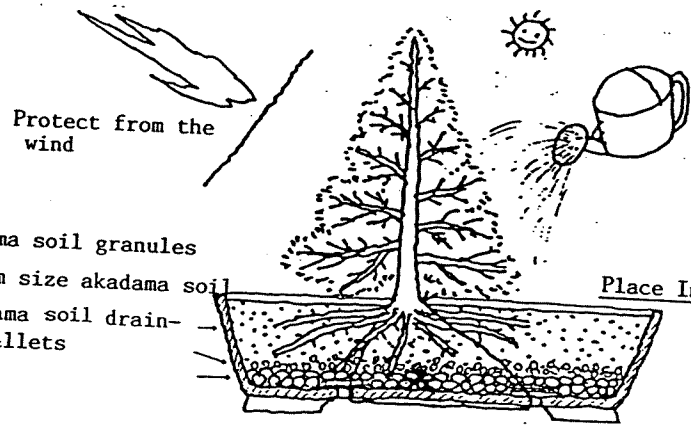
Root Consolidation

PLACING IN A BONSAI POT AND MANAGING  
April 20 to 30



Cut the big, upper roots.  
Cut the lower roots so that they fit into the pot.  
Cut the upper roots.  
Finish cutting the lower roots so that the roots fit into the pot.

Lots of sun is justifiable



Protect from the wind

Water adequately

Place In A Deep, Rectangular Pot

Akadama soil granules  
Medium size akadama soil  
Akadama soil drainage pellets

Notwithstanding the root spread, position the tree to the right or left of the centerline.

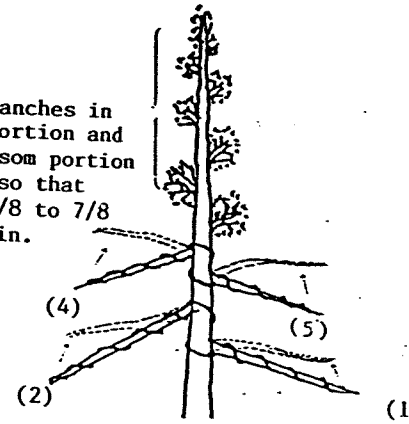
After planting, place the tree on a shelf.

(Continued on page 13)

(Continued from page 8)

PRUNING AND WIRING April 20 to October 31

Cut the branches in the upper portion and center or bosom portion of the tree so that 1 to 2 cm (3/8 to 7/8 inches) remain.



Cut the branches in the upper and center or bosom portion of the tree so that 1 to 2 cm (3/8 to 7/8 inches) remain. Wire the number (1), (2), (3) and (4) branches so that they bend slightly downward.

Wire and bend branches (5), (6) and (7) after they have grown.

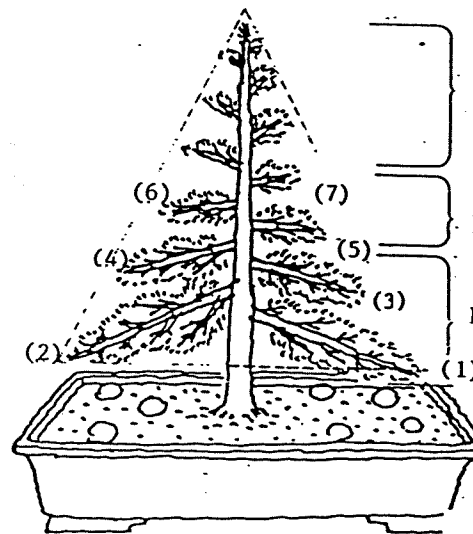
7 TH YEAR

CONSOLIDATION April 20 to 30

Upper portion is bent slightly upward

Branches in the mid-section are bent to be horizontal.

Bend the lower branches slightly downward



The difference between Toshou and other trees is that the trick is to first develop the lower branches otherwise you will get a tree that is not nice. One year later work on the branches in the tree's mid-section. First carefully pluck sprouts from 3 or 4 of the lower branches. The upper and mid-section sprouts are pruned to 1 to 2cm (3/8 to 7/8 inches) and the remaining growth will become more compact on those branches.

The knack of arranging the branches is to bend the lower half of the tree's branches slightly downward, the center branches - horizontal, and the upper branches slightly upwards. Check the illustration and maintain a balance to the shape.

If you break away from what are understood to be standard shapes and attempt to make a shape that is clever and interesting, please decide upon a finished shape so that the individuality of the tree as it grows old is maintained.

Fertilize once per month from April through October with no more than 4 to 5 kneaded rapeseed oil fertilizer balls each month.

Nevertheless, avoid wiring in the winter season. Do the wiring in seasons when it is mild and thereby it is probable that the wounds will be small.

In the winter season remove the plant to the protection of a greenhouse shelf.

#### SEVENTH YEAR'S EFFORT

Work on developing the number 5, 6, and 7 branches.

#### EIGHT YEAR AND OPERATIONS AFTERWARDS

Complete the upper part of the tree. The tentative basic shape of the tree has been finished. Afterwards prune sprouts and remove unwanted lengths of branches. Repeat the 6th year of management. Repot whenever 3 to 4 years have passed.

#### INSECT DAMAGE - PRINCIPLES FOR PROTECTION

Spray the tree with one part of lime-sulphur medical compound to 50 to 60 parts of water. Do this at the end of the rainy season (early summer in Japan). Also in between December and February make a one-time application of one part of the same lime-sulphur medical compound to 30 parts of water. The uniqueness of the Toshou needles accounts for the above mentioned variation in the consistency between the summer and winter sprayings. The spraying will be effective for 10 to 15 days.

**NOTES:** The next two articles are relevant to the forthcoming winter season. The article "How Much Cold Can My Bonsai Take" by Mr. Earl Pudney was taken from Bonsai Clubs International, Vol XXIII, Jan/Feb 1984. The temperatures listed therein pertain to air-temperatures not in-the-ground temperatures. Ground-temperatures are normally higher than air-temperatures since the ground retains heat like a giant thermos bottle. It stores up heat from the sun in the daytime and is slow to lose it at night since the surface as it cools is heated by the sub-surface layers. Hence roots can be killed in a bonsai pot that is exposed or completely surrounded by air at the temperatures listed. To survive at the temperatures listed, the pot must be either dug into the ground or well insulated so that it can take advantage of ground heat.

The article on "Winter Storage" by Reiner Goebel was published in the Journal of the Toronto Bonsai Society, October 1984 issue.

#### SCHEDULE FOR TOSHO or NEEDLE JUNIPER

Month/ Days	First	Second	Third, Fourth, Fifth	Sixth	Seventh
Jan 1 -10 10 -20		Apply insecticide	Apply insecticide		
Mar 20 -31		Place outdoors on shelf Water adequately			Place outdoors on a shelf Water adequately
Apr 1 -10 20 -30	Put outdoors on a shelf Water adequately	Repot	Fertilize	Plant in bonsai pot Place outdoors Water adequately	Fertilize Remove wire
May 1 -10 20 -31			Start pruning	Wire lower branches	
Jun 20 -30		Fertilize	Fertilize		
Jul 1 -10 20 -31	Apply insecticide		Fertilize		
Aug 20 -31			Fertilize		
Sep 20 -30		Fertilize	Stop pruning		
Oct 20 -31		Fertilize			
Dec 1 -10	Place in a greenhouse				

After the 7th year - repeat the 7th year schedule except repot once every 3rd or 4th year.