

are also recommended for application on newly-potted plants since the hormones they contain promote early rooting. Foliar feeds are also suitable for spraying adult flowering plants because they increase the yield and quality of flowers.

Some growers prefer to use organic fertilizers like cow-dung, fish meal and pig dung. Singapore growers use pig-dung with fine success. Some Sri Lankan growers had trouble with diseases by using organic fertilizers. Well seasoned slurry cow-dung is beneficial for terrestrial orchids if it is applied with a fungicide.

Cost of production of flowers can be reduced if a long lasting fertilizer is available and this may be the answer for orchid fertilizing of the future.

BONSAI - TRAY PLANTS

By

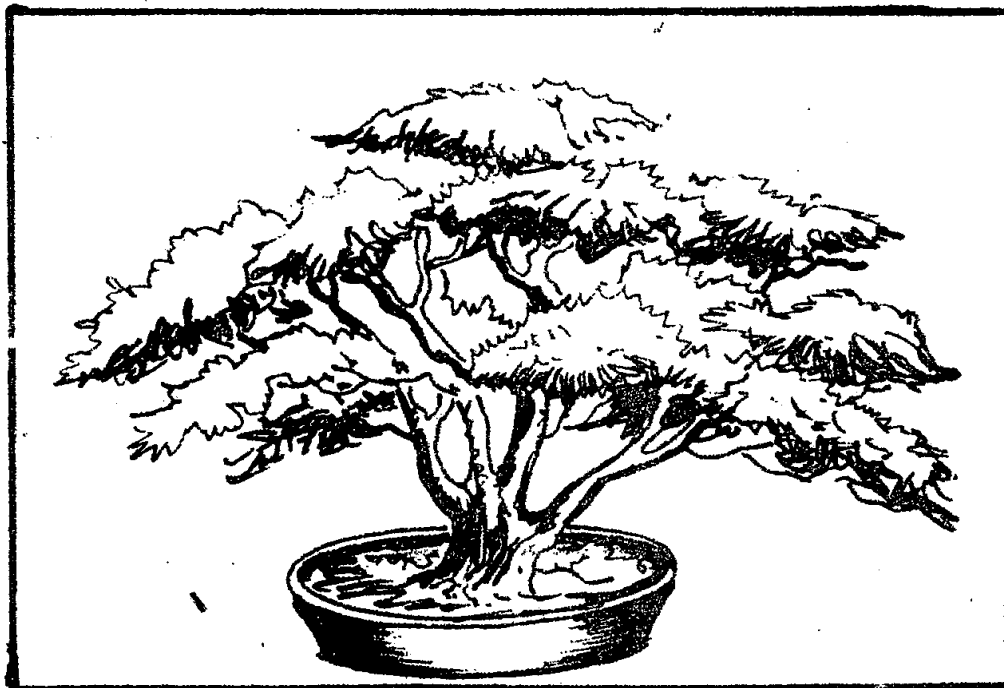
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Introduction:

Bonsai is the Japanese word for plants grown in trays or shallow pots. The art of growing plants in shallow pots originated in China as a traditional Horticultural practice, dating from the beginning of 13th Century. Bonsai plants over thousand years are living today successfully in China, Japan and Singapore. They are becoming popular in many parts of the world.

Bonsai as an art form is an attempt to bring the vast forests in diminutive form to the living room. The fast urbanization of most countries like Japan and Singapore has deprived many people having large gardens attach to their houses due to very limited space. Decorating their flats with Bonsai is the only way to grow plants inception of Bonsai is found in nature. Trees that grow on rocks and high mountains remain dwarf and stunted. They

form twisted branches due to heavy blowing. Thus a Bonsai shows the beauty and grandeur of a tree found in the natural environment. In general the slow growing or small leaved trees are the best for Bonsai.



Small leaved varieties like Pinus, Casuarina Ficus benjamina, Punica granatum, Wrightia religiosa, Panax filiciform, Diospyros ebenum and Salyx baby-lonica are some of the varieties of plants suitable for making Bonsai, but you can also grow flowering and fruit trees.

Factors contributing to successful
cultivation
of Bonsai

- (1) Soil condition
- (2) Potting and transplanting
- (3) Watering
- (4) Fertilizing
- (5) Pruning and training
- (6) Care in placing the pots
- (7) Control of pests and diseases.

(1) Soil condition

The hard top soil is suitable. This soil is powdered and sifted. Granular particles is separated and mixed with 50% sandy loam. Little leaf mould could be added when potting flowering and broad leaved varieties. Angular particles are better than round particles as they help to produce more side roots and root hairs. Granular form also can hold water in spaces between particles. When moisture is required small pieces of chacoal can be mixed in the potting media.

(2) Potting and transplanting

Size of the pots depend on the size of the plant. Pots are of various shapes, ranging from oval to round shape. Smaller pots should have at least one drain hole and the large pots need 3 - 5 holes. The drain holes should be covered by eye lids made up of earthen ware, or mesh with tiny holes also can be used. The bottom of the pots is covered with 2 - 3 layers of hard gravel or small tile pieces. The plant should be potted using the above mentioned potting medium.

When the nutrients of the potting medium is exhausted, with time transplanting is necessary. Generally all Bonsai plants need replanting at least once in two years. Flowering and fruits trees should be replanted once a year. When replanting, old roots must be pruned. The young plants are root pruned freely and the old slightly. Root pruning is necessary to produce more new roots and side roots. When many roots are produced many branches also will be produced. After the root pruning is over, the plant should be potted up using the potting medium. Plants should be watered and kept in a shady place.

(3) Watering

Watering should be done carefully as over watering can lead to the death of the Bonsai. Watering can be done with a fine rose. Sprinkling water during drought is also very essential, but, never do this in the heat of the day or when the plant is receiving direct sunlight. During rains heavy water-

ing should be avoided an sprinkling over the plant can be done. Excessive moisture can produce more vegetative growth. Leaf spraying when necessary is suitable just before sunset.

(4) Fertilizers

All Bonsai can grow without fertilizers for a year or two. After that a mixture of N.P.K. should be given in small quantities once in six months depending on the growth. Heavy application of fertilizers will lead to unnecessary growth.

(5) Pruning and training

In fruits and flowering plants all the new shoots should be removed leaving the required number of branches. All the unnecessary leaf buds should be removed in other varieties. Do not leave the traces of the leaves or branches after pruning, but, do not prune roots and branches together. The usual way to train a branch is to wind with a wire around branches spirally. It is the spiral that keeps branch in the desired shape. The wire is taken off after 6-12 months. Use of Copper wire is very much better.

(6) Care in placing the pots

Exposure to sun rain dew etc. is indispensable to the growth of Bonsai plants. If it is too hot it is better to place the plants in shade. Light should be given during sprouting period. Bonsai plants can be placed in a verandah, balcony or against a window to get morning light.

(7) Control of plants and diseases

Bonsai plants also could be infested with insects and fungal diseases as in other plants. When plants kept longer period without light, insects like mealy bugs and snails can be attacked. Fungal diseases also can get in when the potting medium is wet constantly due to careless watering. Bonsai could be trouble-free, beautiful miniature plants if proper cultural practices are observed.

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