

## How to Grow Satsuki Trees

I would like to show you my techniques for growing satsuki trees. When you read each description, I hope you will remember that these are just the basic methods. Although you don't have to copy each technique exactly, and can adopt them to your own methods, each item has considerable importance in successful satsuki growing. Sometimes it is a problem affording all the bonsai related items which can be expensive in the U. K. Especially imported satsuki trees from Japan can be very expensive. Therefore it is fairly economical if you can grow a lot of good satsuki saplings as I did 40 years ago. Please copy the explanation of my methods if you think them useful.

When I finished writing the manuscript, I asked Mr. Brian Mackichan to correct it because some parts of this article consist of my answers to his questions, and because I am not sure of bonsai words and usage written in my poor English. It is very difficult to translate Japanese bonsai words into English, and to explain about my experience in English because I sometimes cannot find the suitable words in some big Japanese-English dictionaries. Therefore I have to thank him for his great help.

### Section I. Choosing the soil.

We can buy five classes of hard Kanuma (very fine, fine, small, middle and large) which are already sifted. According to my experience, they are much better than soft Kanuma for growing satsuki trees. When you have to use soft Kanuma, then you had better use a little larger graded sizes than hard Kanuma. It is very convenient for repotting satsuki trees if you buy ungraded Kanuma and sift it into 5 classes - very fine, fine, small, middle, and large. In any case, you mustn't use the finest sizes, and have to discard this and the dust.

## A. Growing good cuttings and saplings.

1. You had better use hard fine Kanuma, or soft mixed Kanuma - fine (50%) and small (50%) when you prepare shallow large pots or seed trays. Though soft Kanuma makes the cuttings grow more quickly, it can make young roots rot quickly when you give them a lot of water. You had better keep the soil a little drier to encourage root production. You have to remember that soft Kanuma can keep a lot of water in the pots for longer time. Therefore you mustn't use any deep pots.
2. You mustn't reuse old soil as it may harbour diseases and is much softer than before.

## B. Repotting satsuki trees.

1. Repotting cuttings, I use mixed grades of Kanuma (60/40 small + middle).
2. When repotting saplings and young trees, I half fill the pot with middle grade, and then top up with mixed grades (50/50 small + middle). Don't use deep pots except for kengai (cascade) and very large pots. Generally speaking in the case of young trees, when you use a little smaller pots though it is very difficult to water them, you can make them grow quickly and strongly.
3. Repotting satsuki bonsai and half-established trees, I use middle grade of Kanuma in the first three fifths of the pot, and top up with mixed grades (40/60 small + middle). In the case of very big Terracotta (45 cm), I put a bottom layer (first 20% of the pot) of large grade of Kanuma, followed by middle grade (next 50 % of the pot) and then top up the last 30% with mixed grades (40/60 small + middle).
4. On the third repotting of the young trees (after pruning them in March, or after blooming in June), you had better wash out their roots well and take time to arrange them to produce a good nebari (visible surface roots), using a pair of tweezers. But you don't have to wash out their roots well if you can arrange them completely. This is the first opportunity that you can create the basic style of a tree as a bonsai, and all of us hope our trees will have a good style of trunk and a good nebari.
5. You had better repot young trees and half completed trees every three years, and bonsai every four years in the U. K. when they are strong. It is very difficult and important for you to remove the old soil from the roots completely without giving great damage to them. Whenever I repot some bonsai in March every three years, I wash their roots drastically to clean out all the old soil from them after pruning them and removing all their flower-buds completely. But judging from English weather, you had better repot them in such a way every eight years.
6. At the same time, you have to prune away all roots growing vertically down. These contribute nothing to nebari, and if left, will form a clump of roots that can in turn lead to a weakening in the top of the tree after about 8 years, and possibly die-back or death after around 15 years.

7. After repotting young trees and bonsai, you have to continue to give them a lot of water until the run-off from the drainage is clear. This removes the dust in the soil.

8. In all cases, you have to use wires or ties to stabilise the newly potted trees. If you don't do so, you can hinder the re-growth of new roots.

## Section 2. How to grow satsuki trees.

Satsuki saplings are expensive in the U. K. Therefore it makes sense to propagate more than you need, and give about half away to friends, neighbours and club members or anyone with an interest in their flowers, to spread the appeal of satsuki.

### A. Correct choice of cuttings.

1. When you would like to get the trees of beautiful multicoloured flowers, you have to choose the cuttings from the branches which bear flowers with narrow stripes. You mustn't take them from the branches with pure red or white flowers, and from those with white or thin coloured flowers that have fine specks and flecks. Particularly you have to avoid new shoots with a red stalk as they carry Fukurin flowers (white jewel border, where the centre of the flower carries the dark colouring and the outer border is white). But if the parent tree from which you are propagating has only one colour, you may take cuttings from any part of it.
2. I think the best time to take cuttings in the U. K. is early June when the new shoots have hardened a bit.



Cuttings taken on 25th June, 2011 for shohin or presents to my friends and relatives. Height of the longest = 18 cm. This photo was taken on 1st November.

### B. Growing long saplings and make them into good bonsai.

1. You have to prepare seed trays or large shallow pots by placing a thin layer of wet sphagnum moss, and filling with fine Kanuma.

2. You had better use rooting hormone to encourage quick root production and potentially good nebari. You can buy the hormone from any good garden centre.
3. You had better insert a lot of cuttings all the way through the soil at a 45 degree slant right into the sphagnum in the base. It is much better if you can get long cuttings.
4. You can get a good result if you replot the newly rooted cuttings into small plastic 6 cm. pots at the end of July, or beginning of August. When potting up the newly cuttings, you have to sort and arrange the new roots carefully with tweezers to undo tangles and cross-overs, ensuring a good radical spread of roots which will in turn produce a nice nebari. When using a layer of sphagnum moss in the base of seed tray, the cuttings produce a mass of fine new roots interwoven with the moss. After removing loose soil, you have to cut the sheet of moss into squares carefully with a sharp blade to separate each cutting. Therefore you have to keep the enough space between cuttings when you insert them through the soil into the moss. It is better that you don't remove the moss lest you should give damage to them.
5. It is very important to give the repotted cuttings extremely small amounts of organic fertilisers after two weeks. If you have a green house and can keep the temperature above 10 degrees C. in winter, you had better give them the same amounts of the same feed every two weeks. Whenever you see a flower bud on the top of the cutting, you have to remove it and do likewise with any new side shoots. This will encourage longer trunks, enabling even longer saplings the following year. Long saplings must be produced within two years, after which it becomes increasingly difficult to produce extra height.
6. You had better to replot your cuttings into 15 cm. shallow terracotta pots next March or April.
7. You have to grow them on for the next two years, removing all side shoots and any flower buds. When any cuttings reach the desired height. you can now wire them to shape after replotting them and tying them firmly into their new pots. With those that have not reached sufficient height, you have to continue to remove all side shoots and flower buds, but these are unlikely to get much taller. For quick growth, you had better feed with very small quantities of organic fertilisers every two weeks.
8. You can replot the saplings into larger shallow terracotta pots (18 cm) in March after removing three quarters of the old soil. It is better to do this after pruning and wiring to shape all those that have reached the desired height. Any saplings which are much taller than 70 cm. should be potted into considerably larger pots. To grow them quickly, you had better feed with low doses of organic fertilisers every two weeks. From now, any new side shoot to be kept in the design can be wired into place gently.
9. After 2 or 3 years, with taller and sturdier young trees, you have to replot them into shallow terracotta pots (21 cm.), again after pruning and wiring them, and washing their roots in March. It is better to give them larger quantities of organic fertilisers four times a year (in the middle of March, at the end of April, after flowering, and at the beginning of September).

10. I think it is better to prune young trees after removing all flower buds in March, but if you would like to confirm their flower colours, you can prune them after blooming. And if you keep all new shoots on the trunks except those on the branches which you have to prune, and remove them next March, it is a good method to build their thicker trunks. But if they are more than about 30 cm. you can cut them short lest they should disturb other trees.

11. Once a good shape, size, and style of satsuki has been reached, you can repot them into suitable bonsai pots after washing all old soil off their roots completely. Concerning any trees that have not reached this stage, you may repot them back into the same terracotta training pot.

12. Success depends on your good care and attentive watch of satsuki trees.



Saplings for gardens or presents to my friends and relatives, which are 3 years old. Height of the longest = 42 cm. This photo was taken on 1st November.

### C. Growing shohin quickly.

1. You have to take cuttings, use rooting hormone, and insert them into fine Kanuma soil in the seed tray or shallow pots in June.

2. You had better repot each of them into 6 cm. plastic pots at the end of July, or in early August, if they have a lot of fine white roots. When repotting them, you have to ensure a good radial spread of roots with a pair of tweezers, to get good nebari. After 3 weeks you can give them extremely small amounts of organic fertilisers.

3. From the following year it is better if you can give them small quantities of organic fertilisers four times a year (in the middle of March, at the end of April, after flowering, and at the beginning of September).

4. After 2 or years when they have reached the necessary height, you have to wire the trunks to shape in March, and repot them into 15 cm. shallow terracotta pots. And you have to remove the wire in autumn.

5. You mustn't forget to confirm the flower colours and prune them the following year.

6. For quick growth, you mustn't remove any new shoots, but you have to continue to cut very long shoots short through the year lest they should grow thick.
7. After 2 years you have to wire all necessary shoots after pruning, and repot them into a bit larger shallow terracotta pots in March. Each time you prune them, you have to replace the leaders with thinner shoots wired into place. This must be repeated each year to get good shohin. Whenever an existing branch can be replaced with a new shoot, at first you have to wire the new one into place because it is very fragile, and then remove the existing branch.



Nikko which is 23 years old and was repotted in March 2011. Height = 25cm. Circumference = 26 cm. This photo was taken on 1st November.

#### **D. Growing multi-trunked shohin.**

1. Your cuttings are old shoots which have several new shoots on their tops in June. It is better if you use rooting hormone to hasten root production.
2. You have to remove their flower buds and new side shoots.
3. When each cutting has a lot of fine white roots, you may repot them into 15 cm. shallow terracotta pots the following March or April, taking care to arrange the roots with tweezers as before. And after 3 weeks you can give them extremely small amounts of organic fertilisers, and do so in June, July and August.
4. From the following year it is better if you can give them small quantities of organic fertilisers four times a year (in the middle of March, at the end of April, after flowering, and at the beginning of September).
5. After 2 or 3 years you have to wire their trunks to shape and repot them in

February or March when they are tall enough to do so. And whenever the shapes of their trunks have been fixed firm, you never forget to remove the wire.

6. When new shoots appear from the base of the cutting, or from the soil at the base, it is very important to keep any that are suitable for growing on as extra trunks.

7. You had better to change the top leaders with thinner shoots whenever you prune and wire them in March.

8. You have to remember to keep the numbers of the trunks in any multi-trunk design to an odd number except for twin-trunks.



This is a good cutting for multi-trunked shohin.



Unknown variety. Height of the longest trunk = 34 cm. This photo was taken on 1st November

### E. Growing mini (mame) bonsai.

1. You had better do the same as 1 and 2 in "C. Growing shohin quickly."
2. You have to repot the cuttings the following March or April into 12 cm. shallow terracotta pots, again arranging the new roots carefully with tweezers.
3. You had better give a small quantity of organic fertiliser twice a year because you don't have to grow them quickly.
4. You have to remove all unwanted side shoots clear to keep the bark of trunks smooth whenever you see them.
5. After 2 or 3 years you have to wire trunks and desired side shoots in March, and repot them into 15 cm. shallow terracotta pots if they have a suitable shape. In case of a shape of cascade or semi-cascade, you have to repot them into smaller deep pots. And you have to remove all wire in Autumn.
6. You mustn't forget to prune them after confirming the flower colours the following year.
7. After 2 years you have to wire them again in March after pruning.
8. When you prune them, you can replace the existing leader with a new shoot if it is suitable to the new leader. And you have to remove undesirable side shoots clear whenever you see them. It is not necessary to make them thicker year by year.
9. Repotting them, you had better use the same pot for a long time except for restyling purposes so that their bark may be very smooth and clean.
10. It is very important to give them a lot of water twice or thrice a day in summer because the pots are small, and to take note that a lack of water is very dangerous, particularly in summer and winter.



Nyoho tree which is 12 years old. Height = 17 cm. This photo was taken on 1st November.



The same tree in flowering in 2011.

## **F. Watering trees.**

1. Though they like water, You mustn't keep the soil wet constantly.
2. You have to give trees plenty of water when the soil begins to dry. By feeling the weight of the pot, you can estimate how much water remains in the soil, particularly if you have a feel for what the pot weighs when both of the soil and the pot are dry.

3. You mustn't use very fine Kanuma. Holding a lot of water, it hinders the flow of both water and air through the soil and prevents new roots spreading. Therefore to remove all the very fine particles and dust, you always have to sift Kanuma before use.
4. It is good to spray fresh and cool water over all leaves of trees only in the evening of very hot day in summer even if the soil isn't dry perfectly. It means a kind of bathing trees. It is important to do so in the evening or at night in Japan because it is very hot in summer. It is called "hamizu."
5. If you get more than 3 days of rain, it is best to bring your trees under cover, using a greenhouse, garage or verandah, particularly if you used soft Kanuma.
6. If none of these options are available, you can tilt the pots, using a piece of wood or stone under one side to drain the rain from the pots. But you have to tie the pots down to prevent them being knocked or blown down.
7. When your satsuki are in flowers, it is important to water only the soil ("nemizu" in Japanese) and to avoid getting the blooms wet while you are watering them or when it is raining. The flowers will last longer for your enjoyment and won't rot off. Besides you mustn't get the leaves wet after spraying with agrochemicals.
8. Don't keep your trees indoors or in a greenhouse for an extended period while they have flowers. You may keep them there for a G. Fertilising your trees maximum of 4 days as long as you can put them on the outside shelves every night. And you mustn't prune these trees drastically after flowering if they have been indoors. If they have been inside for more than 4 days and you give them a lot of water and fertilisers after flowering, they will be very weak, and can sometimes die before winter or the following year. While watering them, you should keep an eye on the new leaves. If their colour is pale green with a lack of lustre, this is a sign of serious weakness and very dangerous symptoms

## G. Fertilising your trees.

1. Satsuki grows best in a slightly acid soil. Therefore don't give them any alkaline fertilisers, and don't plant them in alkaline soil. Most commercial fertilisers are slightly acid. Fortunately Kanuma soil is weakly acid.
2. It is much safer and better for any satsuki in pots if you feed them with a perfect organic fertilisers or an organic compound fertilisers, for example those made from rapeseed meal with added micro-nutrients that the rapeseed lacks.
3. You had better avoid feeding them with any chemical compound fertilisers, particularly saplings and younger trees. Chemical compound fertilisers can be so strong that the trees cannot use them, and may even lose water, weakening them and possibly killing them.
4. It is much safer to give the young trees in pots small amounts of organic fertilisers on a regular basis. It is very dangerous to give them a lot of fertilisers all at once. Even if you are unable to feed them regularly, you mustn't give them too much at once.

5. In spring you had better feed your bonsai with a higher nitrogen organic fertiliser, and feed with a low nitrogen organic fertiliser in summer and autumn.

6. A convenient source of organic fertilisers is the large balls made from rapeseed meal with added micro-nutrients that the rapeseed lacks. I always use them on all my bonsai pots, as well as some of the larger and largest trees still in development, whose soil is slightly hard. Almost all my other trees in the pots get organic fertilisers in the form of smaller pellets or granules.

Every early autumn I pack three kinds of organic fertiliser into tea bags and put 5 tea bags around the largest trees in very large terracotta pots whose soil isn't hard, and 5 or 6 tea bags around all trees in the nursery.

One third of contents in the bags is "Green King" (a trade mark) in the form of smaller pellets, which is made from several kinds of natural material with added micro-nutrients that they lack, and is very expensive (5,000 yen per a bag of 5 kg at some garden centres). At first though I bought 10 bags of 20 kg for farmers (10,000 yen per a bag of 20 kg), I used up them for three years because I gave only this fertiliser to my bonsai and trees in the nursery. Therefore I have mixed the tree kinds of fertiliser since then.

Other is "Fish Queen" (a trade mark) in the form of smaller pellets, which is made from several kinds of fish with added micro-nutrients that they lack, and cheaper (2,800 yen per a bag of 20 kg).

Another is an organic compound fertiliser which my brother uses for the tea trees, cheaper, too (2,800 yen per a bag of 20 kg) and in the form of granules. Therefore it is more convenient, cheaper and safer to give a very small quantity of this fertiliser to saplings and young trees in terracotta pots because I can get a good result.

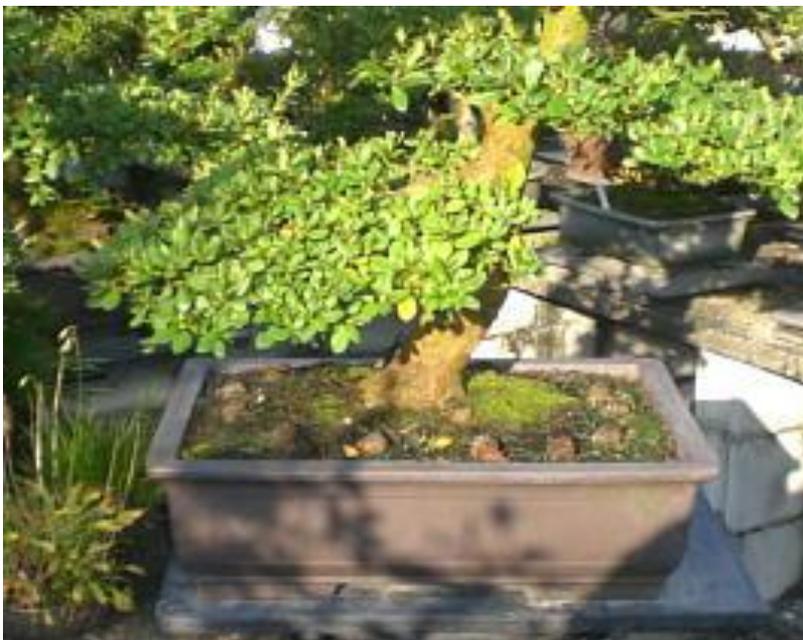
You have to decide the quantity of fertilisers depending on the quantity of the

leaves of trees and the condition of the



soil.

Tea bags on the large Terracotta pot (45 cm).



The large balls of fertilisers on the rectangular pot ( width = 48 cm).

## H. Wiring trunks and branches.

1. Satsuki are brittle, and it is very difficult to wire them if you are afraid of breaking them. This is just a lack of experience. Breaking the odd trunk and branch gives you the experience of knowing their limits. Therefore the more young trees you practise on, the better your skill is.
2. You had better use pieces of wire one and a half times the length of the trunk or branch being wired.
3. It is best to wind the wire at a 45 degree angle to the trunk or branch. Any wiring at lesser or greater angles will not do the job correctly, and will give poor result.
4. You mustn't leave gaps between the wire and the tree.
5. Thicker wire is more difficult to apply correctly. Therefore it is better to apply 2 thinner wires to do the same job. But you mustn't leave the gaps between them and cross them. The more young trees you wire and continue to wire, the better understanding you will get of what gauges of wire to use for any given trunk and branch.
6. You have to remove wires with wire cutters. If you unwind the wire with your both hands, you may often break trunks and branches, and knock off new shoots. When you don't get a good result on unwinding the wire, you had better wire the trunk or branch again.
7. When you wire trunks, you have to push an end of wire into the soil deeply before you start.
8. Wiring branches, you have to start by hooking the wire end round another branch for stability. This is the most important point. If you don't do so, you will get poor results.
9. When you wire a tree, you have to keep your wire in a coil as long loose wire can be dangerous.
10. When you finish wiring a tree, you had better trim long ends of wire for both appearances and safety.
11. You mustn't reuse old wires because it is usually work-hardened and far more difficult to apply correctly

## III. General care of trees.

Satsuki trees are strong and long-lived in the wild, even in countries with a cooler climate as long as they get enough water to live through the summer months. And they are so strong that new growth can be very vigorous when all the conditions are right. But if you would like to enjoy both of their flowers and their shapes in bonsai pots, you need to labour to take good care of them lest they should die.

## A. Spraying with pesticides and fungicides.

1. Although the satsuki is strong, a lot of insects and caterpillars often eat their leaves and buds and several worms suck juice from their leaves. Therefore you have to spray them with pesticides twice a month from April to October in the U. K. You had better use some types of pesticides because many insects and worms develop resistance. It is best to buy four different types of pesticides and rotate their use regularly. Before you buy them, you have to get advice from garden centres regarding the active ingredients. It helps to keep a rota list of what to apply and when.
2. Satsukis can be susceptible to fungal problems (rotten leaves, brown spotted leaves, fungal growth and etc.) Therefore you had better get 4 different types of anti-fungal preparations. It is good to make a rota list of their use and spray them twice a month with pesticides in summer. You mustn't keep on using the same product over and over lest the problems with chemical resistance should appear again.
3. In my case I always buy 6 expensive and 6 cheaper pesticides, and 6 fungicides. I spray satsuki and rose with an expensive and a cheaper pesticides once per 10 days from the end of March to the end of November, and at the same time sprinkle a fungicide with 2 kinds of pesticides from the beginning of April to the beginning of October. Of course I make a rota plan to spray them with agrochemicals throughout the year in Februarys.
4. You must stick to the recommended dilution ratios rigorously. When you don't do so, you can end up burning the ends of their leaves and young buds if too strong, or have to spray again if too weak.
5. If you would like to mix some types of agrochemicals, you have to read the instruction on the bottle or packs, or to get advice from garden centres.

## B. Keeping bonsai in good condition.

1. To enjoy not only their floral display, but also their shapes throughout the year, you should keep your bonsai in clean, healthy and aesthetically pleasing positions and surroundings.
2. You mustn't cram them in on narrow ledges, or have them too close to a fence, hedge or wall, especially in summer. You had better keep a good spacing between them, and mustn't allow the canopies to touch.
3. You had better turn each trees regularly so that all parts may get their share of sunshine.
4. When we are confronted with the sight of a tree that is dying in its pot, we still water it in hope, but our hearts ache with regrets and lack of knowledge as to why. When it dies, we must try to work out the reason. At the same time we must understand that all living things on this earth must die eventually.
5. For example, some trees of mine began to die after it was 30 years since they had been struck as cuttings. For all that time I would repot them every three years

after pruning them and washing their roots in June. Ten years ago I changed my mind about this technique: now I prune them drastically, remove all the old soil completely, wash their roots clean and repot them in March. But unfortunately some of them have branches that are dying because they have been in the pots for a long time, also because some have old large scars on their trunks, which shows that I didn't take enough care of the big cuts which I made when removing some big branches about 20 or 30 years ago.

6. You mustn't buy trees with obvious defects and go for the cheapest deals. The more experienced you become with satsuki, the more discerning you will be. But if you think that they are good materials which will improve your skills very much, it is always OK. The best way to improve your skills is to work on a lot of trees, including different styles of trees.

### C. Pruning.

1. The first aim in pruning trees is to keep their styles as a bonsai. If you see long new shoots over the tops and branch pads of your bonsai in the late autumn, you had better cut them short like the Kinsai below to keep their style.

2. The second is to create their own style with young trees.

3. The third is to make trees have the same shapes of flowers and leaves next year.

4. It is very important to remove all flower buds, prune trees and thin out small branches of the tops and large branches drastically before a thorough washing of the roots when you repot them in March.

5. You have to remove all unwanted new shoots appearing anywhere on the trunk and large branches whenever you find them.

6. But if you would like to grow your trees quickly, you mustn't remove even unwanted new shoots. If they are very long, you may cut them short and remove them completely the following spring.

7. Leaving 2 new shoots at every internode, each with a pair of leaves, is a basic method of pruning which is applied only to young trees. Continuing this technique with bonsai will impair the beautiful shape in 5 years or so because the branch pads and the top of the tree will get larger year by year.

8. If the top of the tree is allowed to become overgrown, it may even produce a lot of white roots on the new shoots and thin branches due to the lack of fresh air, and won't have large flowers due to the excessive number of flower buds. Though it is very difficult to thin out the top drastically, it is a very necessary task. But you don't have to be excessively severe with an open top if your tree is healthy.



Kinsai before pruning which was bought in 1995. This photo was taken on 1st November.



The same after pruning on 1st November. Height = 58 cm. Circumference = 32 cm.

### D. Overwintering your satsuki.

1. When the soil in your pots is frozen completely and doesn't melt during the day, you had better protect your trees by putting them in a greenhouse, a garage or a cool room.
2. Before bringing them in, you had better spray them with both of insecticide and fungicide.
3. You had better remove all unnecessary side shoots to reduce transpiration and the frequency of watering.
4. As roots of cuttings and saplings are very delicate, you mustn't allow them to become frozen. You have to put them somewhere cool, but warm enough not to freeze.

### E. Preparing trees and pots for showing.

1. The first thing to do is to wash the pots and polish them with oil.
2. The second is to wash the trunks and main branches cleanly.
3. The third is to moss the soil surfaces. It is best if you can get 4 or 5 kinds of moss.
4. The fourth is to clean and polish display tables for your exhibits.
5. It is important to reduce the number of flower buds well in autumn and the following early spring.
6. You mustn't give a lot of fertilisers to the trees which you would like to display at the show lest they should have any irregular colours or flowers.
7. It is perfect if you can prepare a plant/plants, or even a small tree to see as an accent planting. Therefore you had better get these well before the show if you are going to use an accent, but it is still OK to show your trees without one.