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#### What is Bonsai?

The word "Bon-sai" is a Japanese term which, literally translated, means "planted in a container". This art form is derived from an ancient Chinese horticultural practice, part of which was then redeveloped under the influence of Japanese Zen Buddhism.

It has been around for well over 2,000 years. The ultimate goal of growing a Bonsai is to create a miniaturised but realistic representation of nature in the form of a tree. Bonsai are not genetically dwarfed plants, in fact, any tree species can be used to grow one.

# You Benefit From Growing Bonsai from Seed

Growing Bonsai from tree seeds can be very rewarding and gives you 100% control from the earliest stage possible. Obviously patience is required for any Bonsai, however growing from seed is the only way to have full manipulation of your Bonsai right from the start!

#### When To Plant Bonsai Seeds?

Seeds of many tree species are naturally programmed to survive through Winter and germinate in early Spring, to maximise the duration of their first growth season.

The best time to sow seeds is Spring & Autumn in mild conditions. When growing varieties that require a Winter dormancy you can start them at any time by mimicking the cold season – simply store the seeds in your refrigerator for 2-4 weeks prior to sowing.

## **HOW TO SOW YOUR BONSAI SEEDS**

# Prepare

Put the Jiffy® soil pellets into a large bowl and add 500ml (approx. 2 cups) of lukewarm water. After 10 minutes you will have enough soil to fill your Jiffy® pots. Loosen the soil with a table fork and put your new soil into each pot. Leave about 10% of the soil in the bowl to use later.

#### Sow

Place 1-3 seeds in each pot and lightly cover with the soil you have left in your bowl. Gently press down with your fingers. Water thoroughly saturating the walls of the pot and place in a warm, sunny spot. You should see the first sign of your seedlings after 10-30 days.

When the seedlings are 5cm tall, thin to leave only the strongest seedling in each pot. This allows the seedling to have plenty of space to develop. The surplus plants can be planted into another pot or directly into the garden.

#### Care

Water seedlings when Jiffy® pots start to turn light brown. Feed with half strength liquid fertiliser every 10-14 days to promote healthy growth.

#### Please note:

The Jiffy®pots are biodegradable which allows the tender young roots of the plant to easily penetrate the sides of the pot. The seedling does not have to be removed from the pot itself when it is time to transplant, you simply plant the pot and all.

# **Transplanting Your Seedlings**

When your seedlings are large enough to handle you can transplant into either a larger pot or into a Bonsai specific pot. (Please refer to our section on "Bonsai Pots" on page 12)

Fill the larger pot with Bonsai Soil Mix and move your seedling with pot and all; this will ensure your tree seedling is moved safely without disturbing its fragile root system and eliminating transplant shock. Bonsai soil mix can be purchased from all good garden retailers.

Ensure the entire pot is under the soil level, firm soil down gently with your fingertips and water well.

WATERING I FERTILISING I SEASONAL CARE I LOCATION I BONSAI POTS I RE-POTTING

RE-POTTING I PESTS & DISEASES I WATERING I FERTILISING I SEASONAL CARE

#### WATERING

#### When?

How often your Bonsai tree needs watering will depend on a number of different factors.

Water your trees when the soil gets slightly dry. Use your fingers to check the soil at around one centimetre deep for dryness.

If your tree does require water, soak thoroughly so the entire root system is wetted. To do so, keep watering until water runs out of the drainage holes, and possibly repeat the process a few minutes later.

#### HOW?

Water your tree from above using a watering can with a fine nozzle; this will prevent the soil from being washed away.

#### **FERTILISING YOUR BONSAL**

#### When?

Most Bonsai trees should be fertilised during the entire growth season of the tree; from early Spring until mid-Autumn. For best results fertilise indoor trees all year round. However take the time to consider the species of your tree, the health of your tree and the stage of development; for example older and more mature trees can be fertilised less frequently.

#### Which Fertiliser?

You can choose to use either a liquid or granular fertiliser. Bonsai specific fertilisers can be purchased from any good garden retailer.

#### How?

Feed your Bonsai using the quantities and frequency stated on the fertiliser packaging. You can choose to reduce the recommended quantity slightly for trees that are not in training, to balance their growth instead of stimulating it. It is very important not to overfeed your tree.

#### **SEASONAL CARE**

# **During Cold Months**

During the Autumn in colder areas, hardy or evergreen trees start preparing for the coming Winter by hardening up new growth and (for deciduous trees) dropping leaves to reduce moisture loss. This period of dormancy is important for Bonsai trees, so you don't need to bring them indoors.

Subtropical trees are different, these should be brought indoors during the Winter if temperatures drop below 15 degrees Celsius. In warm climates they can remain outside all year round. When indoors, tropical trees need lots of light and relatively high humidity. A spot in front of a north-facing window will provide the right amount of light.

#### **During Warmer Months**

It is recommended to protect your Bonsai from high temperatures during the warmer months of the year.

If temperatures start to exceed 30 degrees Celsius these simple measures will help keep your Bonsai hydrated and healthy.

- Place your Bonsai in a shady position out of direct sunlight
- Maintain humidity by misting both the Bonsai and the ground around the Bonsai
- Check the soil for dryness additional watering may be required
- A thorough watering in the late morning will ensure the soil is still moist at the end of the hottest part of the day

#### LOCATION OF YOUR BONSAI

Deciding on the best location for your Bonsai tree depends on the local climate, time of year and the species of your tree. Take the time to find out more about the species of your tree and what its specific likes and dislikes are.

#### Bonsai Location; Rule Of Thumb:

- Most outdoor trees like a sunny position sheltered from the wind
- Indoor trees also enjoy a warm, well-lit spot. A north-facing windowsill is ideal
- Even temperature is also important. Keep your Bonsai tree as far away from air vents as possible

#### **BONSAI POTS**

## Choosing A Bonsai Pot To Suit Your Tree

A tree is a tree, a pot is only a pot. It does not become a Bonsai until the two combine and grow together in harmony. Once your tree has aged and increased in size it's time to choose a suitable pot.

## **Bonsai Pot Requirements:**

- Drainage holes to allow water to drain and good airflow around the roots.
- Wiring holes so that the tree can be fixed to the pot
- Pots can be made out of ceramic, concrete or plastic. A classic Bonsai
  pot is generally made out of ceramic or porcelain these are both non-porous
  which means they do not absorb water.

#### **BASIC GUIDELINES**

#### Size

It is important that the size of your pot and tree are balanced. If the main feature of your tree is its height, choose a pot that is about two thirds of the tree's height. If the main feature of your tree is its horizontal spread, choose a pot that is about two thirds of the tree's width. As a general rule the depth of the pot is about  $\frac{1}{2}$  to  $\frac{1}{2}$  times the thickness of your tree's trunk.

# Design

The pot design should visually complement the tree. There are strong formal pot designs or light informal styles. Pots also come in different shapes and colours, the art is to achieve a harmonious balance of all the elements.

There is not only one fitting choice of pot for your tree. The best option is the pot that you're happy with.

#### **ROOT PRUNING & RE-POTTING YOUR BONSAL**

To prevent a tree from being pot-bound and ultimately starving to death, regular re-potting and root pruning is important. Re-potting your Bonsai will not keep it small; instead it will supply the tree with new nutrients that it needs to grow and flourish.

# How Often Should I Re-pot?

It depends on the size of the container and the tree species. Fast growing trees need to be re-potted every two years (sometimes even every year), while older, more mature trees need to be re-potted every three to five years.

However this is not a task that you can schedule, it is more about regularly checking your tree by carefully removing the tree from its pot.

A Bonsai needs re-potting when its roots circle around the root ball. If there is still soil in and around the roots wait another year before checking again.

#### Why Root Pruning Is Necessary

A tree's root system can be very large. Interestingly from the whole root system it is the very young roots that actively collect nutrients.

Removing the older heavier roots encourages the formation of these desirable new roots.

#### **How To Root Prune**

The normal procedure is to remove approximately 1/3 of the outer portion of the root system, tease or loosen the middle section to leave the top central soil ball undisturbed.

Place your root pruned tree carefully back into the same pot or into a new pot. It is better to use a slightly smaller pot rather than a larger pot.

Work the Bonsai soil mix in around the roots with a potting stick to remove the air spaces, then gently press with your fingers.

Water by the immersion method. Fill a larger container with water and lower the pot into it so the water level reaches the top of the pot. Bubbles will appear on the surface leave for a minute then you can remove your pot.

Once re-potting is complete, put your plant in a shady sheltered position where it can receive 2 to 3 hours of sun each morning. Then after a week you can gradually expose to more sun.

#### When?

The best time to re-pot is when the tree is still in its dormancy. For most plants this means early Spring when the new buds are swelling and just about to open. Once the buds have opened it is too late and re-potting should be postponed for another year.

Re-potting in early Spring will also ensure that any damage to the root system will repair sooner with the tree's Spring growth.

# STYLING YOUR BONSAL

DEFOLIATION I WIRING/TRAINING I PRUNING I DEFOLIATION I WIRING/TRAINING

#### **PRUNING YOUR BONSAL**

Without doubt the most important way to train a Bonsai is to prune it on a regular basis.

Essentially, there are two different techniques:

- Maintenance-pruning, to maintain and refine the existing shape of a Bonsai
- Structural-pruning, which involves more rigorous pruning to give a tree its basic shape or style

#### **Bonsai Maintenance Pruning**

The goal of maintenance pruning is to maintain and refine the shape of a tree.

#### When?

Maintenance pruning can be done throughout the growth season, usually September to February.

#### How?

Simply prune branches that have outgrown the intended canopy shape using shears or similar. It is important to prune the outer and top areas regularly to encourage growth to the lower and inner parts of the tree.

As opposed to deciduous trees, pine trees and some conifers should be pruned by pinching. Instead of cutting with scissors, hold the tip of the shoot between your thumb and index finger and carefully pull it away; the shoot will snap at its weakest point preventing scarring where it has snapped. Some species may need a combination of pinch pruning and cutting.

## Structural Bonsai Pruning

To give a tree its basic shape often involves pruning large branches. Take your time to choose wisely when deciding which branches to prune, as this is irreversible.

#### When?

Early Spring and in some cases late Autumn are the best time to structure-prune a tree (just before and after the growth seasons).

#### How?

- **1.** Place the tree on a table at eye-level.
- 2. Now take some time to look at your tree. Remove any branches that do not fit the desired design. Deciding on the future design of your tree is a creative process, not necessarily bound by 'rules'.
- **3.** To avoid scarring it is best to use a concave cutter. (See details in our Bonsai Tools section on pages 29-30).
- 4. It is advisable to use wound paste to seal large cuttings. The paste protects the wounds against infection and helps the tree to heal faster. Wound paste can be purchased from good garden retailers. Always follow the instructions on the product packaging.

#### WIRING YOUR BONSAI TREE

By wrapping wire around the branches of your Bonsai tree you will be able to bend and reposition the branches. Bonsai wire can be purchased from good garden retailers and hardware stores.

#### When?

Wiring can be carried out throughout the year for most tree species. However deciduous trees should be wired late Winter as the absence of leaves makes wiring much easier. During the growth season branches grow quite fast. Check your tree regularly to ensure you remove the wire before it cuts into the bark creating scars.

#### How?

Here are some simple wiring tips

- Wire all the branches you intend to shape before bending them
- When wiring an entire tree, it is best to work from the trunk to the larger branches and then start wiring the smaller branches where needed
- As a rule, use wire 1/3 of the thickness of the branch you are wiring
- The wire should be thick enough to hold the branch in its new shape
- You can use either a Double Wiring or Single Wiring technique when shaping your Bonsai; see following pages for information

#### **Double Wiring**

Double Wiring involves wiring two branches with the same wire. The branches need to be close together and of similar length and thickness.

Below is a step by step guide:

- 1. Take your time and select a pair of branches you would like to wire. Start by wrapping the wire around the trunk one or two times at a 45 degree angle, this will ensure the wire will not move when bending the branches. Just make sure you have enough wire on either side of the trunk to wire the two branches you have selected
- 2. Now that you have the wire wrapped around the trunk you can proceed with wiring the first branch. NOTE: The main objective is to wrap the wire over the top of the desired bend. Wrap the wire on a 45 degree angle. You may have to wire closer or further apart to get to the desired point above the bend
- 3. Wire from the base of the branch to the very tip of the branch before starting to wire another branch
- 4. After you have wired all suitable pairs of branches you can then continue wiring the remaining individual branches using the Single Wiring technique

# Single Wiring

Single Wiring of individual branches is similar to the Double Wiring technique.

- Start with wrapping your wire once or twice around the trunk. The most important thing to remember is that the start should be secure
- Wiring should be tight enough to hold the branch in place and not too tight that they scar into the tree; if this happens the wire will need to be removed and rewired

NOTE: When multiple wires are applied at the same part of the trunk or branch try to put them neatly in line

## **Bending The Wired Branches**

Now that you have wired your entire tree you can start bending and repositioning the branches.

- Use your hands to hold the outside of the branch with your fingers.
   Now gently bend the branch from the inside of the curve with your thumbs; this way you will reduce the risk of the branch splitting
- When you have your branch in position try not to bend repeatedly as this could also cause damage

# Removing The Wire

Watch your tree closely during the growth season and remove the wires before they start cutting into the bark.

When removing the wire do not unwind the wire, instead cut the wire at every turn to remove.

#### **BONSAI DEFOLIATION**

Bonsai Defoliation involves cutting all the leaves off a tree during Summer. Consequently the tree is forced to grow new leaves, leading to a reduction in the size of leaves and an increase in ramification. Ramification is the increase of smaller branches on your Bonsai tree, resulting in an increase of denser foliage.

#### When?

For most Bonsai tree species December is the best month to defoliate, leaving enough time for regrowth in preparation for Winter.

#### Which Trees?

Do not defoliate weakened trees (due to recent re-potting, pruning or disease) or trees that are still in training. Defoliation should only be used on deciduous trees healthy enough to withstand this demanding technique. This technique should only be done once your Bonsai tree is fully trained.

#### How?

Cut the leaves using shears (see our Bonsai Tools section on pages 29-30), leaving the leaf-stalk intact.

#### **BONSAI TOOLS**

Proper equipment is very important for the training and care of your Bonsai tree. You must be able to execute cuts cleanly and accurately.

For beginners it is advisable to acquire a few tools; we've listed the basics:

#### Shears

Shears are available in many sizes and shapes. They are meant for cutting twigs, smaller branches, leaves or roots.

#### **Concave Cutters**

Use a concave cutter for removing branches from the trunk where you want to achieve a deepened cut. A deep cut will heal without leaving a swollen scar.

#### **Saws And Knives**

Use for cutting branches, trunks or roots which are too thick or too hard for a cutter.

#### Wire Cutters And Pliers

Use wire cutters and pliers to help bend and cut the wire.

#### Wire

There are many different wire thicknesses; generally use wire that is a third of the width of the branch you are training. Any good garden retailer can recommend the most suitable wire thickness for your needs.

#### **PESTS AND DISEASES**

Like any other living plant, Bonsai trees can be infected by pests or diseases. However, when your plants are healthy and cared for properly, the risk of infection is usually minimal.

## Make sure:

- Your trees are potted using a good Bonsai soil mix
- You understand how often to water and fertilise your Bonsai

#### SEASONAL CARE CALENDAR

Each Bonsai tree should be treated individually and will have different requirements depending on what stage it is in, however please find on the following pages a helpful guide to the basics of Bonsai care that can help you throughout the year. With the right care you will be able to enjoy your Bonsai tree for many years to come.

# Spring

- Root prune where needed (early Spring)
- Transplant Bonsai that have been in training pots into a Bonsai pot where needed
- Fertilise any Bonsai that don't require re-potting
- Trim or pinch back any unwanted growth
- Remove any wire from previous training
- Protect Bonsai from warmer weather where needed
- Check regularly for pests and diseases

#### Summer

- Increase watering where needed
- Defoliate where needed
- Protect from warmer weather where needed
- Check regularly for pests and diseases

#### **Autumn**

- Start a new Bonsai from seed
- Fertilise trees as per specific species and as per product packaging
- Decrease watering as weather cools down
- Re-locate trees to receive more sunlight where needed
- Check any wiring, in case it may need removing or loosening
- Remove any fruit/berries or seeds if required
- Check regularly for pests and diseases

# Winter

- Wire/shape Bonsai where needed
- Decrease watering/do not over water
- Re-locate trees to receive more sunlight where needed
- In late Winter you can also attend to root pruning or re-potting if required
- Check regularly for pests and diseases

Head to **www.mrfothergills.com.au** and check out our Bonsai FAQ section for more information.

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