PROPAGATING MATERIALS

CONTAINERS

Most plants are grown and sold in containers. The exceptions are listed below:

- **bulbs** which are sold bare of soil in their dormant season.
- **deciduous ornamental and fruit trees** which are usually grown in the open wound and dug up bare-rooted in the winter when they are dormant. They are stored at this time in bundles with the roots covered by earth, straw or sawdust to prevent drying out.
- **herbaceous perennials and herbs** are sometimes grown in the open ground, dug up in the cooler parts of the year and sold as they are with a ball of soil around the roots, or else potted for sale which is now the most common method.
- **citrus trees** which are usually propagated in the open ground but can be dug and either wrapped in a ball of hessian or planted into a container for sale during the winter.
- **conifers, rhododendrons. camellias. azaleas and some other exotic trees and shrubs**, which are sometimes grown in the open ground and treated similarly to citrus in preparation for sale.
- **berry fruit** is usually treated similarly to either the deciduous fruit trees or the herbaceous perennials as described above.
- **some other deciduous plants** (e.g. lilac, grapes, weigelia, deciduous viburnum etc.) are often grown similarly to deciduous fruit trees.

There is a wide variety of different containers on the market today for nursery use.

Standard Plastic Pots

Of all containers. these come in the largest variety of shapes and sizes and are by far the most widely used. Occasionally a plastic pot will be produced which has insufficient drainage holes, but apart from this odd occurence, little can be said against this type of container. They are clean, not too heavy, able to be obtained in a shape to suit most types of plants and are reusable. Some environment-conscious nurseries have found it worth their while to place a deposit on pots. Believe it or not, customers do return the pots!

Flower and vegetable seedlings are usually grown in the standard sized plastic punnets. Propagation nurseries use 50 mm (2 in) diameter pots (tubes) for growing seedlings and cuttings prior to sale. Indoor plants are usually sold out of anything from a 100 mm (4 in) to a 150 mm (6 in) diameter pot .

Shrubs and trees are usually sold from a 125 mm (5in), 150 mm (6 in) or a 9 litre (2 gallon) bucket-sized pot. Herbs are most frequently sold in approximately 85 mm square pots.

Clay Pots

The main advantage of these is that they are porous and will drain through the sides as well as the hole in the bottom. In situations where very good drainage is essential, this is a great advantage, but in many cases it can lead to excessive drying out. Clay pots are heavy and therefore make more work. They can, after repeated use, build up toxic levels of salt and the plants grown in them do have a greater tendency to become potbound.

Peat Pots

These are small pots, approximately 80 mm in size, pressed into shape from peat. These have the advantage that they can be planted straight into the soil or the next-sized pot without removing the plant from the peat pot. They are reusable.

Growool

Also known as rockwool, these are blocks of insulation-like material manufactured by Bradford Insulation, which are used for striking cuttings. Growool is becoming very popular in the industry and is well worth considering.

Ceramic pots are expensive, but can greatly enhance the chances of selling a plant, particularly as a gift item.

Because they are cheap, durable, and available in many sizes, plastic pots have dominated the nursery scene for many years now.

Growool

Metal Containers

For many years, recycled jam tins were used widely but now, mainly because of market demands, they are very rarely used. Many retail nurseries refuse to buy plants grown in tins. Other types of metal containers (usually aluminium) are used occasionally.

Polythene Bags

Nurseries began using polythene bags but mainly because they were difficult to carry; harder to pot into and more likely to tip over, most nurseries have now rejected bags. The principal advantage of bags is that they are much cheaper than many of the alternatives.

Wood Veneer Tubes

These are widely used as an alternative to the 50 mm plastic tube, particularly popular in government nurseries. They consist of a roll of wood veneer secured by a rubber band.

Biodegradable Pots

Pots are not often recycled in nurseries due to the fact that they cost more to clean than to buy new. This, coupled with the fact that not all local municipalities recycle plastic pots either, is a real environmental issue.

The best biodegradable pots are made from fibre (you can also buy biodegradable plastic but this still causes environmental problems because even through degradation tiny plastic particles are left that still find their way into the oceans. Fibre pots are made from coconut fibre or wood fibre and are fully degradable.

CONTAINERS

There is an enormous range of containers suited to nursery use. The right choice of container is often primarily influenced by the cost and the application for example nurseries producing 'tube-stock' will use small containers ranging from 2cm to 10cm diameter. Propagation nurseries may use trays to strike cuttings in, rather than pots. Some trays are made up of individual cells – and if the seedlings are handled correctly - cause less transplant shock later as seedlings are easy to remove and pot on with a reasonable amount of potting medium attached to the roots system. Communal trays are also commonly used and the seedlings pricked out or struck cuttings carefully lifted into small individual pots.

Requirements of a plant container:

- Adequate drainage holes but not too large allowing growing media to fall out.
- Efficient use of space (i.e. good ratio of soil volume to the amount of ground space used).
- Able to be separated from each other easily (i.e. when stacked together, they shouldn't stick too firmly to each other).
- Strong and durable.
- Produce suitable root growth (i.e. root coiling should be minimised)
- Ease of handling (shouldn't tip over, be too heavy etc).
- Availability (supply must be dependable).

The amount of drainage in a pot will determine the ratio of air to water in the root zone. A pot needs to have drainage characteristics which allow the soil to remain wet enough - but not too wet.

If all other factors are equal, a deeper pot will tend to drain better than a shallower one. Over-watering is more likely to be a problem in squat pots or trays than in deep tubes.

Some manufactured plastic pots don't always have drainage holes cut cleanly. Pieces of plastic hang over the drain holes partially or fully blocking these points.

Glazed ceramic pots with only one hole in the bottom may have drainage problems.

Types of Pots

- Deeper pots have less air space between the soil particles. The weight of the soil on top squashes the soil underneath. Deeper pots therefore need a more open soil mix.
- Wider containers are more stable (less likely to tip over).
- A pot needs to have a sufficient number of large drainage holes to allow water to drain quickly away from the bottom of the pot.
- Roots tend to coil more in a round pot than a square pot.
- Root coiling at the bottom of a pot is reduced if the base is more tapered.

Roots tend to grow through the bottom of pots when there is moist soil, compost or mulch under the pot. Pots are therefore best stood on top of a dry paved surface.

Sprinkling a layer of coarse sand over the pot surface will reduce weed problems, and control the growth of moss.

Transplanting Between Pots

- The new pot should be no more than 25percent larger than the old pot.
- Thoroughly clean all pots before use.
- Gently remove the plant from the old pot.
- Tease out girdled roots. Prune unwanted or damaged roots with a sharp knife or secateurs.
- Plant into fresh potting mix.
- Water in thoroughly and leave to drain.

Stop Roots Growing Into the Soil

If a pot sits on a wet surface such as soil or porous pavers, roots can grow through drainage holes in the pot. You can prevent this problem by raising the container off the ground. In a nursery situation it is best to cover the soil with weed matt and gravel to assist drainage and prevent soil borne disease entering the pots.

Drainage Holes in Pots

Most plants grow best in well-drained soil. The more drainage holes you can provide the better. As well as holes in the bottom of the pot, there should also be holes in the side of the pot to prevent perched water tables (see information below) and discourage root circling.

Some pots, (e.g. wood or terra cotta) are made of porous materials that soak up water, providing an additional form of pot drainage.

What is a Perched Water Table?

A perched water table occurs when a fine layer of material lies on top of a coarser layer of material. Unless the pot is fully saturated, water will not move down into the layer of coarse material and out through the drainage holes. This situation can create a waterlogged layer of soil near the bottom of the pot. Because roots need oxygen, they will not be able to grow in this layer, effectively reducing the depth of the pot.

The old method of placing a layer of course stones or pebbles at the bottom of a pot will cause a perched water table. Only properly formulated and sterilised potting mix should be used for growing plants in containers.

Critical factors for a container

- Is it durable material? (Metal can corrode, wood can rust).
- Is it porous? (Does the water soak through the sides...like in clay unglazed pots ...or is it sealed like plastic pots).
- Consider number and size of drainage holes at the bottom. Potting mix can wash out of large holes, but small holes do not allow adequate drainage.

Containers for propagation

The type of containers chosen for seedling propagation is as important as the nursery management system used and can impact on the quality of the plant. Certain seedling containers for instance are now designed to maximise the gains made by the seedling once it is planted into open ground. This is particularly the case for plants that are grown in large quantities for re-vegetation purposes or as farm trees. The choice of container is an important decision to make as once a production system is in place it is usually geared towards the type of containers used. To change containers therefore can be an expensive process that may require new benches etc., as well as a complete change in the production process i.e. watering systems, fertiliser programs and media usage.

Containers should also be chosen to facilitate root pruning and training this is particularly so for seedling production. The pruning of roots once they reach the bottom of a cell prevents root spirally in the cell, and encourages lateral root development.

Propagation blocks: these units allow for sterile propagation of plants. They however do not contain any nutrition, so the plant must be potted on once roots become evident. They also have the tendency to constrict root growth.

Synthetic block units include: Foamed polyurethane, mineral wool (e.g. Rockwool), phenolic foam and vermiculite blocks.

Compressed peat-based blocks: These are popular for both the nurseryman and the home gardener. They come either in slabs with block sections, as preformed pot strips that need to be filled with a propagation media or as individual compressed pots surrounded with a fine netting that expand when watered (eg. jiffy pots). Once again research indicates that these can tend to restrict root development.

Plastic units or plug trays: sometimes also known as punnets - flimsy plastic containers developed for individual seeding. These punnets are made with 6, 12 or 24 units. Alternatively you can get tray size units with 24, 40, 60 and so on. These are all to be filled with the appropriate propagation media and grown until the plants are large enough to pot on.

Plastic seedling trays: plastic trays seed is sown directly into to achieve maximum space efficiency and is most commonly used for mass production systems. The trays contain individual cells for each seedling the most commonly used tray has 64 cells.

However the process of transplanting, if not handled carefully can cause severe root damage to small seedlings.

Special plug popping pads are used to remove seedlings from the cells by popping them up by about 30mm from underneath the tray. There are both manual and mechanical plug poppers available. This reduces the root damage as well as transplant stress. The mechanical foot operated plug poppers are most usually used in the nursery. Manual poppers are more commonly used in the field for quick and easy removal before planting.

Plastic pots: for larger than normal plant material needed for propagation, pots may be necessary. Little root disturbance occurs when the plant is finally potted up.

Problems with Containers

Plants grown in containers often develop the following problems. If you can look out for and overcome these, you are well on the way to success with container growing.

PROBLEM	CAUSES	POSSIBLE SOLUTIONS
Pots falling over	Wind Top heavy Being knocked	Move to another position Sit pots inside a planter box Use a heavier potting mix Use a heavier pot Use a larger pot Prune back some foliage

PROBLEM	CAUSES	POSSIBLE SOLUTIONS
Soil drying out	Wind or sun Roots pot bound Too well drained (eg: drains through sides of unglazed pots)	Move to another position Re-pot, removing some roots and some foliage Paint sides of unglazed Mulch the surface (sphagnum moss or unsealed timber tubs pots or pine bark are good for this)
Poor drainage	Insufficient holes Roots clogging drain holes Holes silted up by soil it sits on Pots in a very wet place	Cut more drainage holes Pot up into larger pot. Use better draining potting mix Sit pot on top of bricks Move to an airy or drier part of the garden
Nutrient Deficiencies	Poor potting soil Soil too wet Soil too dry Irregular feeding pH (acidity) wrong	Pot up Manage water better Feed more often. Use a pH test kit and adjust the pH if found to be wrong.
Algae, moss or liverworts grow on soil surface	Too much water Too much light Too much nutrient	Reduce watering Move to a shaded place Avoid high nitrogen fertilisers Cover the surface of the potting mix with a layer of coarse sand Use iron sulphate (available as a moss killer from nurseries)

Repotting

Potted plants need to be re-potted from time to time. If you leave a plant growing in the same soil and pot for too long, the pot plant will begin to suffer. The following problems can emerge:

Nutrients are depleted and the plant runs out of food;

The plant gets bigger and there's nowhere for roots to go. Eventually the amount of foliage in proportion to roots can get out of balance;

The plant dries out faster and needs more watering;

The soil may lose its ability to hold water, as organic content breaks down and/or the soil becomes clogged up with roots.

There are lots of different situations where potting up is required:

- Potting up cuttings
- Pricking out or tubing of seedlings
- Potting a plant that has outgrown its pot into a larger pot
- Re-potting a plant into the same size pot (root pruning, top pruning, freshening up soil)
- Potting into a different type of pot (eg. taking three small plants out of pots and putting into one large tub)
- Taking a plant from a pot and putting into a hanging basket
- Re-potting a bonsai, topiary or specially shaped plant
- Moving stock plants

Removing a Plant from a Container

1. For small to medium containers, tip the container upside down and gently shake it; if this does not work tap the ridge of the pot on the edge of a wheelbarrow or bench.
2. The root ball should be moist before removing it from the container.
3. If the plant is pot bound, soak it (immerse) thoroughly in water first.
4. Large pots may need to be cut away from the plant.

Potting a small plant into a larger pot

When you start seeing roots emerge from the bottom of your pot plant, it's time to re-pot into a larger container. Select a pot that is slightly larger, but not too much bigger.

Gently remove the plant from the smaller pot. If the plant will not come out easily, slide an old kitchen knife around the edges of the pot. If it will still not come out, you may have to break or cut the pot.

Loosen any tangled and circling roots. Prune the roots if necessary.

Place a layer of quality potting mix at the base of the new pot.

Place the plant in the centre of the new pot. The soil level should be approximately 25mm (one inch) below the top of the container.

Fill the sides of the container with potting mix, firming it down as you go.

Thoroughly water the pot. This will help remove any air pockets.

Cut back any dead or diseased foliage and prune to shape.

Apply a slow release fertiliser.

POTTING MIXTURES

A potting soil needs to provide the plant with the following:

- sufficient nutrients for it to grow
- sufficient (but not too much) water
- adequate aeration (plant roots need air as well as water)
- proper support so that it will stand up and be held firm
- a clean, disease-free environment

Potting soils are normally a combination of several different components, each by way of its own characteristics modifying the mix to bring it closer to the ideal.

The main concern, when considering components for a potting mix, is the water-holding characteristics of the alternatives. If one component holds water very well, then a component which drains freely is added to create balance. Most potting soils are mixes of these two types of materials,
e.g. coarse sand for drainage mixed with lignite, peat or vermiculite to hold water, or sandy loam for drainage mixed with mountain soil to hold moisture.

Several recommended mixes have been set down over the years but because of the continually changing supply of components and for that matter, the changing nature of components (i.e. mountain soil from one supplier can be a rich loam whereas from another it can be almost clay), the successful nurseryman continually needs to watch, modify and sometimes change his soil mixes. It should be noted that the ideal potting mix varies considerably according to the plant being grown. If a nursery specialises in one type of plant it should be able to use one single soil mix, but if a wide variety of different types of plants are grown, three or four different mixes might be required.

A clean, disease-free soil (sterile soil) is an accepted necessity in the modern nursery industry. This is achieved in one of two ways: either by using soil-less components or by sterilising the soil mix once it is made up. Soil-less components include peat, lignite, coarse washed sand, scoria, vermiculite, perlite and pine bark. All of these are either manmade or else come from parts of the earth where disease organisms and weed seeds are not to be found. This means the nurseryman is far less likely to lose plants through disease and less likely to be overtaken by weeds in the containers. If any soil is used in a mix. it is essential that it be sterilised. Most of today's commercially made potting media does not contain soil.

Proprietary potting mixes are convenient but their quality can vary from batch to batch. To avoid this problem most nurseries have mixes made up to their requirements at a sand/soils screening yard. Mixing your own is only practicable for small batches.

Soil is most effectively sterilised in a steam sterilisation unit These can be purchased but they represent an extremely large initial capital outlay.

Another simple low-cost method of sterilising small quantities of soil is to heat it in an oven. The temperature should not exceed 170°F to avoid soil nutrients breaking down. However, the soil should be heated above 140°F to make sure it is properly sterilised.

A final factor which needs to be controlled in any soil mix is the pH (i.e. level of acidity or alkalinity). This is important because some plants will grow successfully only in a certain pH range, and at some pH levels, certain plant nutrients are simply unable to be taken up by the plant.

In general, keep the soil mix at between pH 6.0 and 6.5. It is possible for the nurseryman to purchase relatively cheaply, simple chemical test kits or electric pH meters to monitor soil pH. By adding lime to a soil, pH can easily be raised, whereas adding organic matter or manure will usually lower pH. The pH is more likely to need raising than lowering.

The materials listed below are the main alternative components used in mixing potting soils.

Soils

There is a great variation in the characteristics of soils. Often a nursery will set up in a particular location because of the soil which is readily and cheaply available there. This soil will then form the basis of all soil mixes, other components being imported and added to it to create a mix more in line with what is required. Soils may be naturally low in phosphorus - this (as an example) is common for many Australian soils. In the UK some soils are quite alkaline (chalky). In other places it might be quite acidic. Some plants are adapted to these situations, for example many Australian natives prefer low phosphorus soils - potting mixes high in phosphorus will kill these plants. In England some plants have adapted to grow well on chalky soils - they will not thrive in acid soils. Be careful of variation in the characteristics of any soil you are using and be particularly careful of importing disease with your imported soil.

Sand

The normal sand used in nursery work is a very coarse granitic sand, the same type as is used in fish aquaria. Be sure that your sand is free of any salt or excessive fine particles. It should always be a washed sand. In large quantities, sand has the disadvantage of increasing the weight of the mix. Nevertheless sand of the type described is very widely used in both propagating and potting mixes.

Peat Moss

Peat bogs are now recognised as complex ecosystems and many are protected from peat mining. This coupled with increased costs in recent years, this once almost indispensable component of soil mixes has been largely substituted with such things as pine bark, vermiculite and coconut fibre (a renewable resource) which are cheaper materials having very similar physical properties. The physical properties which are so desirable in all these materials are their ability to hold moisture while not becoming waterlogged, their ability to bind other soil components together while not setting into a hard lump, and their ability to hold nutrients, stopping them from being washed through the pot before they can be used. Peat is light in weight but has a low pH (4.0 - 4.5) which makes it necessary for mixes using peat to be treated with lime. Coconut nut fibre, in contrast, has a close to neutral pH.

Pine Bark

Only a fine grade (6 mm or less~ should be used in potting soils. There are two main problems with this material:

- Toxicity: fresh pine bark contains compounds toxic to plants, especially young seedlings. The bark should be kept in a moist heap for six to eight weeks before using. Never use if a resinous smell still exists.
- Nitrogen Fixation: as the bark is slowly decomposed by bacteria Nitrogen from the potting mix is used by those same bacteria. It is necessary to add additional fertiliser to plants grown in mixes containing pine particularly in the first few months.

Pine bark is a useful ingredient for potting mixes but it tends to use up available nitrogen; in addition it must be used in a fine grade only and cannot be used fresh because of toxicity.

Scoria is a useful 'soil-less' potting material: it consists of porous volcanic particles having good physical properties but sometimes variable acidity.

Vermiculite

This is made by heating and thus expanding a type of mica. It can perhaps be described as porous sponge-like particles no more than a few millimetres across. It is very light in weight and has a great ability to absorb water. Never use more than 40 per cent vermiculite in a mix. If you do, its structure will collapse after about twelve months.

Perlite

This consists of lightweight off-white balls which are of volcanic origin. Perlite has much the same qualities as vermiculite except it has a much lesser ability to hold water. Though it will hold up to four times its own weight in water, it can be used in mixes to improve the drainage significantly.

Compost

Though variable in its qualities, a good compost can be used as a substitute for peat or pine bark.

Scoria

In grade of 6mm or less, this can be used successfully as a soil or sand substitute. The physical properties of scoria are good but a variable pH poses some problems at times.

Sawdust

Sawdust and wood shavings have been used in potting mixes as a peat substitute. They are excellent in their physical properties but have the same toxin and nitrogen-fixation problems as pine bark. Sawdust should be limed and kept moist for a couple of months before using. Use 3 kg of ground limestone per m3.

Lignite

Lignite is a by-product of coal mines is a good substitute for soil or peat. It has a greater water-holding capacity than peat and should be used in lesser proportions than peat to achieve the same effect. It is best used in proportions not greater than 20 per cent.

Recommended Mixes

The mixes listed below are meant as a guide; they are not black and white recipes. There are other mixes which will bejust as good, if not better, for your sItuation. It is best to design your own soil mix to suit what you are growing, where you are growing it and what components are most readily and economically available in your area.

For Propagation of Seed and Cuttings

Mix 'A'	75% coarse granite sand
	25% peat moss (or vermiculite)
Mix 'B'	85% coarse granitic sand
	15% lignite

For Potting Rooted Cuttings or Seedlings

Soil Mix:	40% coarse granitic sand
	30% loam soil
	30% peat (or vermiculite, lignite or compost)
Soil-less Mix:	50-60% coarse granitic sand
	10-20% perlite
	15% lignite
	15% vermiculite (or pine bark)

For Potting into 10-cm or Larger Containers

Soil Mix:	25% coarse granitic sand
	50% loam soil
	25% peat (or vermiculite, lignite or compost)
Soil-less Mix:	30% coarse granitic sand
	20% scoria
	25% lignite
	25% pine bark

Handwritten stick-in labels are convenient, though occasionally they are replaced in the wrong pot! Both botanical and common names should be shown.

Printed labels cost more, but they save time spent on writing labels by hand. They can carry a great deal of information and unquestionably increase the chances of selling a plant.

LABELS

Every plant which is to be sold should have its own label. These can be handwritten or printed but remember to be accurate. If uncertain, don't label until you are certain. Printed plastic or card labels can be purchased. There is no doubt that the more elaborate labels with a photograph do help sell the plant but they are also expensive. Blank plastic or card labels are much cheaper but have to be written on, Stick-in labels sometimes present a problem with people

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Suggested Tasks

Conduct some online research into the difference between propagating and potting media. Write down the differences components - this will help you to select the correct medium.

Seed raising mix

Cutting mix

Potting mix

Spend about 20 minutes on this task

removing them and even replacing them in the wrong pots, Tie-on labels do not move this way, but can ringbark a young plant if left on too long.

Printed labels bearing a photograph are probably the most effective type of all.

In addition to labels on individual sale plants, 'display / information' labels are used; a single label is placed on a group of plants or an individual plant in a more prominent display section or a display garden. This label aims to interest inform and sell. Display gardens with labelled plants are becoming more common in all types of nurseries but particularly native plant and herb nurseries. It is standard practice in most nurseries to place plants which are in flower in a prominent position near the entrance. Clearly labelled (including the price), these plants have a very good chance of selling. Plants which are to be sold should be grouped and ideally laid out in rows, in alphabetical order, and clearly labelled.

These display/information labels should be both more prominent and more informative than labels on individual plants which are to be sold. Be accurate with your labelling
- too many nurseries don't realise the serious implications of inaccurate labelling. Remember, plants grow differently in different areas, even different parts of the same city. These labels should include height width, flower colour, hardiness and price as well as both the scientific and common names of the plant.

STOCK PLANTS

Propagation nurseries MUST have a good quality, reliable supply of plant material to propagate from. This might be seed from reliable seed suppliers or from plants which can be collected from. It might also be cutting or grafting material from easily healthy, well identified (known varieties) plants. Plants which are used as a source of propagating material are called "stock plants". Stock plants might or might not be on the nursery site, but they ideally should be in a convenient and accessible location. They are extremely important to a nurseries operation, and establishing a reliable source of stock plants is one of the nurseryman's biggest problems.

The quality of the stock plants is perhaps the biggest influence upon everything which happens later in a nursery. If stock plants are in poor condition:

- Cuttings or grafts may have a lower rate of success.
- Cuttings may be slower to form roots, and grafts slower to grow together.
- Pest or disease problems can be transmitted from stock plants to other plants in your propagation area or greenhouse.
- New plants might not develop as strongly as those taken from healthy, vigorous stock.

Selecting stock plants

Only use:

- Plants free of disease and pests.
- Plants 'true to type' (i.e. that have the same characteristics as the parent plant).
- Plants grown under preferred conditions.
- Plants that have been growing well.
- Plants that have been adequately fed and are free from signs of nutrient deficiency or leaf burn.

Clonal selection, practiced in some countries, involves careful selection of one plant of optimum quality and type. All stock plants are then propagated from this one parent plant. It is essential that your original stock plants come from a very reliable source. Don't assume because they have a label that the label is correct, and don't assume that a property owner knows the correct name of the plants on his property. There are many plants named wrongly in gardens and nurseries.

Incorrectly labelled plants are a major problem in many nurseries. If a customer is paying for a particular variety of plant they should be getting a plant of that particular variety. Selection of a 'true to type' cultivar is something which often requires expert knowledge.

If there is the slightest doubt about the identity of any stock plant, then don't propagate from it until it has been identified by an expert, such as a botanist experienced in plant taxonomy. Many botanical gardens or herbariums will readily identify plants for you. Some will do it for free others may charge a small fee.

Stock Plants Must Be Always Labelled Correctly

Cross check spelling with a reputable publication such as the Royal Horticultural Society Dictionary or Hortus Third. If in doubt, contact a Herbarium (usually attached to botanic gardens) to double check the spelling. Do not assume that a label supplier has the correct spelling. This is not always the case. There are also many reputable internet sites these days that you can source this information but make sure that they are reliable i.e. university or similar sites (even nurseries makes mistakes regularly.)

Make sure that any labels used are durable, and that information on them can be clearly read. It is a good idea to keep a record book, or map, in a secure place that includes as much detail as possible about each stock plant you use. Details such as the original source of the plant, who identified it, maintenance details, when and how much cutting material is taken can be recorded. This provides a good 'back-up' in case of lost or damaged labels, and if doubts are raised about the identity of propagated plants.

Planting out stock plants

Stock plants should always be planted and maintained in the very best conditions.

Factors such as aspect, amount of light received, and soil conditions should be considered carefully. Any stock plant area should be cleaned thoroughly before planting. Ideally sterilize the soil; solarisation or steam can be used. Remove all weeds and rubbish from the area. Stock plants should be kept apart from the main production area of a nursery, so that disease or pest problems in the nursery can be stopped before they infect the stock area.

Treatment throughout the year

Pruning may be necessary to control the type of growth as well as the size and shape of the plant. Pruning a few months prior to taking cuttings can stimulate more growth of the type which is best suited for cuttings. Feeding should be adequate, but be careful as too much nitrogen can stimulate too much soft growth.

Irrigation is important during the growing season in particular.

Some types of plants (e.g. those grown from hardwood cuttings), may require very hard annual pruning to encourage suitable cutting material to be developed for the next season.

Sources of stock plants

It's nearly always best to grow stock plants on the nursery site. This means that they are immediately accessible, that maintenance can be easily controlled, and that cutting material can be taken when it best suits the nurseries requirements. Sometimes, however, there isn't sufficient room at the nursery (especially if you are running a small backyard operation), or the growing environment is just not as good as elsewhere. When grown on the site, avoid giving them 'second rate' positions. They should never be grown in places which are no good for anything else. If you have a reasonable garden you could incorporate your stock plants there.

Nursery stock is also frequently used to supply propagation material (e.g. plants which are to eventually be sold) are pruned to supply cuttings. This can supply a significant amount of material in some cases, but pruning must be careful and controlled to be certain of not destroying the shape or general health of plants which are destined for market. You can also keep some of each species (that you don't sell) in larger pots but they must be kept healthy and growing strongly in order to give you good quality cutting material.

If you have access to a bit more land then growing them off-site is also worth considering. Some nurseries grow stock plants in a special paddock or field in rows which are well-fertilised, well-watered, well-drained, and given the best of care in every possible way. Others grow stock plants in large containers in premium potting media, and once again, given extra special care.