TREE TIPS

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THE ARBORIST NETWORK

Getting your garden looking smik...

After last month's long article about tree risk that took up the whole newsletter we have decided to fill this month's newsletter with lots of smaller ones. Topic include:

Planting, are you doing it correctly?

A quick guide to mulch

Water, water everywhere or not a drop to drink.

These should be enough for you to get your planting, mulching and irrigation all ready for next month's feature article on pruning.

Planting, are you doing it correctly?

Choose Well...

Choose the right tree for the right spot. Often the tree that is chosen will grow too large for the spot that is chosen or is unsuitable for the soil, drainage, climate and so on. It is worthwhile to speak to an arborist or the horticulturist in better nurseries.

When selecting a tree from a nursery take the time to look at the following:

- Is the height of the tree more than 3 times the size of its pot? If so, this could mean that the tree has not been allowed to form a stable root system but merely allowed to grow tall or, as often the case it is "pot bound".

- Are the roots crowded or spiralled in the pot? Don't be afraid to ask the nursery workers to take the tree from the pot to show you. If they, then it might be wide to leave it at the nursery.

- Is the form of the trunk tapered or straight up and down? A tapered trunk suggests a well-formed trunk.

Are the forks in the branches clear or are the branches crowded, tight or tangled?

Don't Dig Too Deep...

The roots of a tree usually grow near the surface and not down as they are found in pots. So when planting dig a hole that is half the height of its pot and twice as wide as the pot. Remove your tree from its pot and tease out the bottom half of the root ball, so that the roots are more horizontal.

Don't Plant Too Deep...

Plant the pot with the top level of the pot level of slightly above the surrounding soil. Planting deeper can often cause damage to the trunk (collar rots) and can deprive the roots of adequate oxygen.

That Soil Is Good Enough!!!

There is no need to fertilise or apply manure to a newly planted tree. In fact, in many cases doing so can have negative side affects. Fertilisers in young trees will often cause an imbalance between the foliage and roots. Let nature do its work… it will take a little longer but your tree will be better off in the long run.

Skip The Stakes...

If the tree is staked, pull out the stake. If it won't stand up by itself, then leave it at the nursery. Nursery plants are usually staked to encourage height but this is done at the expense of trunk calliper and taper. If you must brace, brace the trunk as low as possible and **NEVER** so tightly that the tree can't sway.

Dirt, Grass And Mulch...

Young newly planted trees do best with the grass kept back at least 30cm from the trunk. Whilst bare dirt is fine it requires a lot more watering. Where possible apply 50 – 100mm of well aged leaf or straw mulch under the canopy. Not only will this help keep water in but in time breaks down to provide valuable nutrients.

Water, water everywhere or not a drop to drink.

Irrigation

The purpose of irrigation is to provide the optimum soil moisture levels for plant growth, without the soil getting so dry that it affects the plant growth and without getting the soil so moist that it runs away taking soluble nutrients with it (leaching).

To make matters more difficult potting mixes are different to soil in their water holding capacity and there is an infinite variation of potting mixtures, some with greater water holding capacity and some with less. Many mixtures are very free draining and the material used can become hydrophobic if it dries out, often making it difficult to rewet.

Furthermore plants are different in their needs for water so their irrigation needs also differ. For example, Clivia like less frequent irrigation with the opportunity to dry out between irrigation. Where as Impatiens have a high water usage and can often do better being watered several time in the day.

To really frustrate you a big plant in a small pot has different irrigation needs to a small plant of exactly the same species in a big pot. Likewise position can make a difference due to the presence of more shade or sun or greater exposure to a breeze or exposure to air conditioning.

How much water:

Nothing is more important than getting a general feel for the need of that plant in that pot in that position. We need to estimate the amount of water, test the amount of water and then adjust the amount of water and repeat the cycle until it is right. (Amount means volume and frequency). To do this it is good to find out about where the plant grows and what the range of its natural rainfall is like.

General rules:

- 1mm of rain or irrigation over 1 square meter is 1 liter water.
- Many pot plants grow in areas of grater than 1200mm of rainfall, that means on average every month they get 100mm of rainfall and that is about 3mm of water a day.

"It is just as easy to kill a tree with over watering as it is with under watering"

- With the application of high school math (and you said you would never use this cr## in real life) we know that the surface area of a pot can be calculated with the formula pr^2.
- For a 200mm diameter pot the surface area is about 0.031 m^2 so in nature for that pot to get its daily water requirements would take 100ml of water.
- For a 100mm pot the surface area is about 0.008 m^2 so in nature for that pot to get its daily water requirements would take 24ml of water.
- You can see that although the size of the pot doubles the water use can quadruple. This is where plant size is important. If we have just potted our 100mm pot up to a 200mm pot its irrigation needs would be much the same as it was in the 100mm pot with a slight increase because of additional evaporation loss.

This is why we need to periodically check and test. We can use test equipment but a simple use of the finger, not just on the surface but also into the mix itself, is a useful test.

When the potting mix is very dry or hydrophobic and the plant growth is starting to suffer it can be useful to immerse the pot in a container of water until the bubbles stop and then remove it. This helps to get a layer of moisture around all the particles in the mix. The use of wetting agents can also be useful in these instances but as is always the case, follow the manufacturers instructions.

Hydrophobic soils

Application:

To test whether your soil is hydrophobic and therefore not allowing water to penetrate the soil.

On occasions the surface tension of soil can actually restrict the penetration of water. This can occur when the soil becomes exceedingly dry, or when the soil particles are very fine such as silty topsoils, or due to waxy compounds from plants. In order to allow soil to moisten up again it is important to

Water, water everywhere or not a drop to drink. Cont..

reduce the surface tension.

Procedure:

Create a hole in the dirt about the size of a 50 cent piece, using your toe, heel of your foot or fingers.

Pour a small amount of water in the hole (about a teaspoon).

Observe what the water does.

If the water beads up or collects on the soil surface (convex) in the hole it means the soil is hydrophobic. Apply a wetting agent which is a non ionic soil surfactant. The wetting agent acts in much the same way as detergent allows water to penetrate grease. A number of wetting agents are available such as "Saturaid", "Wetasol" and "Ezy Weta" and are sprayed onto the soil surface. It is important therefore to work out the area in square meters that is to be sprayed.



http://www.threetomatoesshort.com/2009/11/woeful-wednesday-hydrophobic-

Because wetting agents are water soluble they wash out of the surface of the soil and need to be reapplied every three or four months.

If the water soaks into the ground fairly rapidly (concave) then the soil is not hydrophobic

A quick guide to mulch

Why mulch?

Mulching has many advantages.

It replicates the natural system, providing an environment conducive to beneficial micro and macro organisms, provides better temperature control for the soil and allows for many beneficial and important elements to be introduced back into the soil through natural composting.

The presence of mulch also means less competition from grass and other plants. Whilst grass is certainly a beautiful landscape feature, it regrettably is very competitive for water and soil nutrients.

How To Mulch:

If there are perennial grasses such as couch or kikuyu, these are often best killed first with the application of glyphosate (sold as Round Up, Zero or Glypho). Annual weeds can be controlled simply by cutting them close to the ground and covering with a layer of 10 or more sheets of wet newspaper and then applying leaf mulch directly over the top.

Most leaf mulch is not given with a long period to compost prior to being sold. It is therefore beneficial to apply 100 grams of Blood and Bone per square metre to the surface of fresh mulch once it has been spread. This nitrogen source helps activate and accelerate fungal and bacterial activity.

The mulch should be approximately 75-100mm thick and should be kept away from direct contact with the trunks or stems of plants, or collar rots may develop.

Fungi and Mulch:

Often after mulching, many fruiting bodies of different fungi can be seen. The fungi that feed on mulch help perform the beneficial job of composting the mulch and are not a threat to the health of the plants. In fact these fungi are more likely to reduce the presence and effectiveness of pathogenic (non beneficial fungi).

For the trees you care and worry about... The Arborist Network

Is your tree is looking a little sick, sad or not as good as it used to or perhaps it just needs general health check up?

Then it's time for your tree to see a doctor.

Arbor consults are like having a general practioner for trees visit your home. Your consulting arborist will provide information based on general observations and basic testing. Just like a GP, a broad range of laboratory services and specialised information can be obtained from your consultant or through outside laboratories. These services include but are not limited to:-

Pathology and disease identification and management plans
QTRA Risk of Harm Assessments (Safety Inspections)
Dendrochronology (Dating trees, tree parts and injuries to trees)
Ultrasound and Resistograph testing and assessment of decay
Starch testing to assess the vigour of the tree
Root Identification
Plant identification at a full taxonomical level
Soil Analysis
Reports (Required by many councils and in more formal situations)

Once your consultant has diagnosed the problem they will explain to you what the problem is and let you know what treatment is available. Where possible we will trey to recommend things you can do yourself. This information will also be given to you in writing. Where time permits your consultant will leave you with hand written notes. Otherwise they will send your Field Notes at a later time.

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