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Water

As this issue reaches the shelves our country will be baking under the summer sun. Watering one? s bonsai becomes a critical issue at this time of year so let? s find out a bit more about this amazing substance and its vital role in sustaining life on our planet.

Firstly a few interesting facts about the most common of all substances.

More than two thirds of the world? s surface is water. 97% of the water in the world is salt, 2% is frozen in the polar icecaps, leaving just 1% of the world? s water fit for our consumption.

There are more than 42 characteristics unique to water, most of them being related to water? s reaction to temperature and/or pressure change.

Water is the only (common) substance that is lighter (less dense) in both frozen and gas forms than it is in liquid form. If ice were heavier than water all the oceans in the world would freeze solid from the bottom up killing everything. Actually logic would suggest that life would never have evolved in the first place were this the case. The thick layer of ice that covers our colder oceans actually acts as an insulator, keeping the water below warmer. The warm water sinks carrying nutrients to the depths whilst forcing the colder water below up. Thus we have ocean currents, sardine runs and tropical storms that quench the thirst of our bonsai trees.

There is exactly the same amount of water on the earth now as there was during the age of the dinosaurs. Water, like energy cannot be destroyed or created, it just changes form.

So, what does this have to do with bonsai? Well, everything! Tree roots will absorb water from the soil only as long as there is more moisture in the soil than there is in the root cells themselves. This is because liquids like water have a natural tendency to move from a high concentration to a low concentration. If the soil dries out to such an extent that there is more moisture in the roots, water will get sucked out of the root into the dry soil. This will obviously be very detrimental to the tree. The very fine root tips will die resulting in less nutrients being carried up to the leaves.

The root tips do die off under normal circumstances anyway but obviously at a slower rate. This results in branching of the roots much the same way as nipping the buds does for the leaves and branches.

Spartan Watering is a technique in which a bonsai grower will reduce the amount of water given to a plant to purposely induce root tip dieback. This is a very risky technique and should only be done by people with experience. It is important to note that a reduction in water means that the SAME AMOUNT of water is given to the tree (water should run out of the drainage holes) but less often. The tendency is to just lightly sprinkle the tree, but this does nothing. The water does not get a chance to reach the roots.

One of my favorite tricks is dunking. Trees love a good swim on a hot summer day. Take a big deep plastic basin and fill it with water. I also put a small amount of liquid plant food like Nitrosol in the water. Then take your tree and simply immerse it in the water. Take care to push the pot down horizontally. As the water floods the soil air bubbles will rush out. Leave the pot in the water (weigh it down with a rock if necessary) until ALL of the air bubbles have escaped. Now remove it, horizontally, and place it to the side to drain. Dunk your next tree.

As the water drains it will suck in new fresh air to replace the old foul stuff. You will also have added a very diluted quantity of plant food throughout the soil.

Warning! Some trees might be carrying bugs or disease that can be transferred from one tree to another via the water. Leave these trees till last, or throw the water away after you have dunked each one.

NB!! Never leave your plant immersed in water for extended periods, hours or days. Roots need oxygen and will rot if left for days submerged.

Lastly, the rain that falls during a thunderstorm is very beneficial to your trees. This is because water has the ability to carry an electrical charge. Thunder water has been ionized by the electricity in the air. This means that it is ? softer? than the water we get from the tap. Plants can absorb soft water, and all the nutrients it carries, MUCH more easily than tap water. So next time there is a thunderstorm put your trees out, don? t bring them inside!