

# MONTHLY TIPS

## The Art of Watering

*(Ed.'s Note: The following article was taken from "Bonsai News" the newsletter of the Greater Louisville Bonsai Society.)*

Warm weather, longer days, flowers and bright new leaves are sure signs that your bonsai's need for water is rapidly increasing. Be diligent. Spring is no time for neglect. The Three basic rules of watering are:

1. Never allow the soil to become bone dry. Never. Absolutely never.
2. Completely saturate the soil when you water.
3. Wait until the soil is only slightly damp before you water again.

Basically, that is all there is to it. If you are interested in how and when water is absorbed by plants, read on. The roots of plants are able to absorb water and oxygen only when the moisture content of the soil is between 30% and 20%. Therefore, the best soils are those which allow for rapid drainage of excess moisture. This rapid drainage achieves the optimal 20% and 30% moisture content as quickly as possible. Once the excess water drains out the remaining water should be retained for as long as possible.

The right soil mix is very important. The mix that we use is: 40% coarse sand, 40% fired clay particles (Terra Green) and 20% aged organic compost. The sand provides for much of the drainage of excess water. The fired clay allows excess water to drain while holding and slowly releasing a small amount of water which has collected on the surface of each particle. The remaining water is retained by the organic compost. This water becomes enriched with nutrients from the compost and is absorbed by the tree's feeder roots.

What happens if the moisture content is never allowed to drop to the optimal 30% to 20% range? When the moisture content is always above the optimal range, the roots are unable to take in oxygen and the plant eventually drowns.

What happens when the moisture content of the soil drops below 20%. Nothing, providing the soil is not allowed to dry out completely.

What happens if the soil completely dries out? If the soil is allowed to become bone dry, then the moisture is drawn out of the feeder roots. These roots then collapse and the tree goes into stress and may die. It is very important to avoid this situation, by watering very regularly. That's it. Enjoy the spring, enjoy your bonsai and...Don't forget to water!