

TREES – ROOT, SHOOTS AND LEAVES.

JULY 2009

The plant industry has two market advantages:

1. Half of the product is out of sight and
2. The client, purchaser, blames themselves for failures, "I have never had a green thumb".

The para on your experience with root division is counter intuitive to me. I see the following;

Course: Sand medium produces long spreading roots with few iterations, lots of O₂, deep, not much surface area (per cc) for water and nutrients to be adsorbed on.

Medium: Loam more root iterations less spread, shallower less, O₂, much more surface area (per cc) for water and nutrients to adsorbed on.

Fine: clay many more root iterations even less spread, much shallower less, O₂, very much more surface area (per cc) for water and nutrients to adsorbed on.

I believe that roots will only spread as far as they have too to gain the required nutrients they required for normal growth. The roots drive the top and the top feeds the roots. Roots can not grow irrespective of the top nor can the top exceed it relationship to the roots.

Dept Ag research back in the 70 showed fruit trees with 35% of their root system in ideal condition would fully support the crop. This translated to once the limiting factor becomes light, growth is not increased by additional roots. Roots systems are highly redundant structure as with crown structures. We know that green, as in green leaves, does not mean that food is being produced in excess of needs. Thus new leaves produce food for the whole plant for as little as a few weeks but remain green on the tree for many months or even many years. Branches are the same, just because they have green leaves on them does not mean they are contributing to the plant. Leaves, branches and roots can be saprophytic or parasitic depending on a number of factors. Interestingly this can change, to and fro, depending on how the circumstances change.

I am sure roots are the same, the direct and indirect absorption of nutrients happens within a very small zone within the root system. The redundancy allows the zone to be shifted to exploit changing conditions. I see large trees change their active zone within days of positive change. The more deprived the root system for assets the faster the reaction. If your hungry you tend to move faster to the table than if your not.

Roots are the brains of the plants but not the dictator. A plant is a collection of biological system working together within a degree of harmony, the better the harmony the better the outcome as measured by health, yield and strength.