

# Protecting your avocado trees from Phytophthora root rot

Phytophthora root rot is a serious problem in avocado growing but this needs an integrated programme to be controlled.

Regular injection with phosphorous acid by injection and by spraying is one of the key management strategies of the disease but timing of application is very critical. When phosphorous acid is applied, it finds its way to the part of the tree that is most growing at the time. Since phytophthora affects the feeder roots, its important to apply the phosphorous acid when the feeder roots are actively growing.

## Phosphorous acid

The phosphorous acid can be applied by injection or spraying. The injection method can be used both on sick trees and those with a healthy canopy while the spraying method should be used to trees with a full healthy canopy.

Phosphorous acid should never be applied to the soil. The best uptake is achieved when transpiration rates are high and trees are well hydrated.

## Application process

By injection, phosphorous acid is applied as a 20% solution which is obtained by diluting 1 part of the phosphorous acid with 2 parts of water since most is sold as a 60% solution.

To ascertain the amount of phosphorous acid to inject per tree, first measure the tree diameter by pacing and inject 15ml of the solution per metre of tree diameter.

Inject a maximum of 20ml per injection hole. Pick the injection sites some distance from previous sites and never

directly above of the previous injection sites. Also avoid branch junctions.

Unlike with the injection method, multiple sprays are needed to get enough phosphorous acid into the tree. The concentration of the spray mixture should be 0.5%.