

TRIAL N ERROR ON MIAPPLE FARM – by Peter Cooke **TREE MAINTENANCE.**

Watering

The larger orchards water the whole orchard megalitres at a time by soaking the whole orchard ground under the trees throughout about once a month.

At Miapple Farm there is little water to spare so the space between the trees is left dry with watering being concentrated individually near to each tree.

We have 12mm polypipe lines (attached to wire support lines) with an adjustable dripper uphill from each tree set to a dribble rate of about 15 litres per hour. The trees get about 45 litres each once per week – a bit more at fruiting time.

Drippers are placed in the poly lines away from the tree to minimise fungal growth.

We spray water our young rootstock stoolbeds – this is done on days where the day temperature will remain below 25degrees C or in the evening after a hot day to allow the foliage to dry by morning. Leaves that have been wet on a hot day will cook in the sun, turn brown and die.

Weed control

Manual weeding of new young trees is practised with care while the roots are still shallow particularly during the spring after the trees were planted. On more than one occasion I have pulled out a strong weed alongside a young tree – and the whole tree came out of the ground with it.

Carpet squares around the young trees will keep the weeds down but the carpet pile has a tendency to catch in the mower blades when cutting grass close to the trees.

We are now experimenting with double thickness weedmat topped with coarse tree bark mulch. We have also used flat rocks around the tree as moisture retainers but have found they tend to provide unwanted shelter to insects, rats and snakes.

Phalaris Grass

Was introduced to our area by the government to reduce soil erosion in the catchment area for the Lake Eppalock dam. This grassy weed entangles its roots with those of the young apple trees and steals the water and nutriments intended for the trees.

Careful weeding and use of weedmat seems to be the only positive deterrent.

Roundup® (Glyphosphate)

We tried careful spraying of Phalaris Grass and other weeds near to the young trees and found that while it did not kill the trees its presence stopped the young trees from growing for a couple of years.

My rootstock supplier has warned me of similar problems. If Glyphosphate has been used to clear the weeds before hoeing the ground to make a stoolbed for rootstocks. The rootstocks will live but not produce the desirable young growth needed to propagate.

A few years ago I was treating unwanted weeds with a Glyphosphate Wick applicator and without thinking I touched the poison onto a few unwanted watershoots that had come up from a tree rootstock. Naturally the poison was absorbed through the watershoots back down into the roots and the whole tree died.

Phalaris Weed Grass – as a protecion screen.

In the 2015/2016 summer we have had drought conditions with hot days in the low 40c' s and temperatures much higher in the sun.

As an experiment (we did not whippersnip along the rows and) we allowed the Phalaris grass to grow along the rows near the water lines and around the trees planted more than 2 years ago which now have established root systems. This has resulted in the whole orchard staying cooler on hot days, the rootstock bases have kept cooler and sunburn free and the trees seem to have grown better above the height of the grass.

Sunken Trees

Some trees were planted using a back hoe and have since sunk below ground level. Initially I have dug soil away on the downhill side of the sunken area to improve drainage after rainfall. Drainage can be further improved by topping the sunken area with a topsoil/compost mix as long as the new soil level remains below the graft.

Late Staking.

Where trees have fallen sideways due to soil movement, wind or heavy crops, I have attempted to re-stake them into an upright position on several occasions with mixed outcomes. In some instances the bottom of the trunk split with the stress of being straightened – letting in disease and subsequent death of the tree. If the tree is falling over from fruit weight, I support the laden branches with a prop. Rather than re-stake a tree older than 2 years, I now allow it grow new upright branches near the base and prune off the bent over trunk/branch as the new branches develop. See also the notes on staking on the Planting page.

Wind wobble.

The regular winds across the orchard cause the young trees to wobble back and forth and sometimes develop a conical shaped hole in the ground at the base of the tree. The tree needs to be staked immediately to stop the wobble and the hole around the tree filled and even mounded with topsoil. If you don't the hole - will fill with water and rot or disease will occur around the base of the tree. My attempts to stop the wind wobble by leaning a couple of rocks against the base of the tree did not work and the tree still developed disease around the base.

Half collar rot.

In past years I kept my orchard neat by cutting down the grass and weeds immediately around the tree trunk.

Several of those with neat cut grass at the base and particularly those planted in a sunken back hoe hole developed lesions and Phytophthora like loss of bark on the west side of the tree base.

I now believe the lack of grass around the tree base allowed the rootstock to become sunburnt and the weakened bark then allowed in the Phytophthora fungal disease.

I now allow grassy weeds to grow at the base of the tree to reduce sunburn.

Whipper Snipper Ringbark.

I have ringbarked a couple of trees near the base with a whipper Snipper by trying to cut the grass too close to the trunk.

This is no longer an issue – I let the grass grow at the base of the tree to prevent sunburn.

Keep tree ties loose.

Wire or hayband is often used to attach labels, greaseband or stakes to the trunk of the tree. If you don't loosen off these ties on a regular basis, it is surprising how quickly the tie material becomes imbedded under the bark or constricts growth.