

## Planting and Pre Plant Treatments by Nick Hoskins

Why is it that some vines don't achieve their full potential? Vine establishment, health, and longevity can be compromised by a combination of factors: incorrect planting depth, drying out during or prior to planting, poor root positioning, poor moisture management, insect damage and soil fungi. Problems may not show until veraison of the first crop – the driest and hottest part of the season, when a compromised root system is unable to supply enough moisture and nutrients to the fruit and canopy. Certain stages in the planting schedule warrant your undivided attention – here's my checklist.

**Storage:** Riversun provides planting instructions with each delivery, and it's worth reading them even if you're not doing the actual planting. While instructions for storage are included, it's much better to leave the vines in our hands until you're ready to plant. The nursery has specially designated coolstores that are monitored for temperature, carbon dioxide and ethylene build up, and all vines are inspected to ensure correct moisture levels. Work with the nursery's logistics co-ordinator so that vines can be delivered as required, week by week.

**Pre-planting treatments:** There is good evidence that Trichoderma and/or Micorrhizal fungi assist in the uptake of nutrients and suppress antagonistic soil pathogens during the vines' establishment. The following treatment is recommended for new and replacement vines, and comes courtesy of Grower Business Development Manager Dr Rengasamy Balasubramaniam (Dr Bala) at Delegat's Wine Estate.

Dip vine roots (still in the bundles) in the treatment, ensuring roots are coated. The mixture needs to be continually agitated to keep it in suspension (use an electric or battery drill with a paint mixer attachment):

- Mycorrmax 1kg (symbiotic Mycorrhizal fungi)
- Superzyme 1kg (2 strains of beneficial Trichoderma fungi and 2 species of beneficial bacteria)
- Zeba 1kg (super-absorbent polymer based on natural cornstarch that helps the mix adhere to the vine roots and then slowly releases moisture after planting)

- 125 litres of water



*J-rooted vines continue to plague many vineyards.*

**J-rooted vines:** Whether machineplanted or hand-planted, severely J-rooted vines often establish poorly and/or develop fungal problems. Since even mildly J-rooted vines are likely to be less vigorous and fruitful than vines planted correctly, why take the risk? Vineyard managers should make a point of digging up and examining the root positioning of a number of random vines each day, especially at the start of planting. Once contractors realise you are concerned enough to do this, they will take greater care.

**Moisture:** On a windy day, exposed vine roots dry out in minutes (another reason for using that pre-planting mix). I usually meet with contractors and stress the importance of keeping vine bundles covered and moist, but given the pressure to complete jobs on time this is often the last issue on their minds. That's why it's imperative to get the irrigation running as soon as possible in machine-planted vineyards. Your infrastructure (water source, pump, mains and submains) all need to be installed before planting, leaving only the laterals to connect and run.

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