Avoiding Establishment Problems:  
A Case Study of Parker's Field Vineyard, Wentworth

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The history  
The 1994 development of 80 hectares of own-rooted Chardonnay was commenced in July. All soil preparation including ripping, gypsum application and cultivation was completed by the end of August. Trellis installation was completed by the middle of October. There was no significant rainfall from the commencement of the project until January 1995. Strong winds were experienced from September until December. No cover-crop was established and dust storms were a weekly occurrence from September until January.

The problems  

Wind  
The sand-blasting and drying effects were significant and caused considerable mortality on the southern and western perimeters. Elsewhere sporadic damage and stunting of growth were common.

Water  
Initial incorrect valve pressure settings caused the end of some rows to be significantly droughted. Inexperience with drip systems and insufficient monitoring resulted in some over-watering and some under-watering.

Pests  
Whilst the vineyard was fenced and the rabbit population reduced, a small number of rabbits (no more than 20) caused significant damage on the ends of some rows.

Some solutions  
• Autumn and early winter soil preparation to take advantage of winter rainfall to consolidate earth disturbances  
• Plant early for early root establishment  
• Use only heat-treated rootlings  
• Establish a cover crop  
• Irrigate before planting to reduce water usage when planting with a water-jet and to ‘wet-up’ soil, especially areas prone to be ‘non-wetting’  
• Check and set all irrigation systems immediately after installation  
• Monitor soil moisture during the season  
• Inhibit weed growth  
• Protect young growth  
• Remove pests.