Guidelines for fertigating citrus

Fertigation is being increasingly adopted by citrus producers as an alternative to traditional approaches to supplying fertilisers to trees.

As part of a National Program for Sustainable Irrigation-supported project, NSW DPI* & SARDI§ have prepared a number of publications to support the use of fertigation systems in citrus orchards. A more detailed description of the project¹ can be downloaded from the NPSI website.

Approaches to fertigation

The key issues irrigating/fertigating citrus trees involve

- "the frequency of water & fertiliser application,
- "the consistency of dissolved mineral fertiliser concentrations in the irrigation water &
- " modifying the pH of the solution.

The advantages and disadvantages of the various approaches are discussed in *Fertigation: delivering fertiliser in the irrigation water*² (Primefact 1089, NSW DPI, Orange).

Equipment

A bewildering range is available, but identifying which options best suit a particular situation depends on the fertigation approach you choose to adopt.

See Fertigation equipment for use in orchards³ (Primefact 1144, NSW DPI, Orange).

Management

Being able to measure things is important for knowing whether the system is performing as it should and whether the approach being used is appropriate.

One approach to assessing the effectiveness of a fertigation program is to extract soil solutions and measure nitrate and EC in that solution. This is described in *Soil solution analysis*⁴ (Primefact 1143. NSW DPI, Orange).

Interpretations of soil solution analysis results and a fertiliser timing strategy to reduce loss of nutrients beneath the rootzone are set out in *Guidelines for Fertigating Citrus Orchards*⁵ (Sustainable Irrigation Management Update, National Program for Sustainable Irrigation, 2012).









¹ Knowledge and tools to manage fertigation technologies in highly productive citrus orchards for minimal environmental footprint. Final report to National Program for Sustainable Irrigation. Knowledge and tools to manage fertigation technologies

- ² Fertigation: delivering fertiliser in irrigation water
- 3 Fertigation equipment for use in orchards
- 4 Soil solution analysis
- 5 Guidelines for Fertigating Citrus Orchards

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