

Drought strategies and fertilisers in Orchards

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Nitrogen fertiliser still needs to be applied to fruit trees after harvest – especially taking into account the difficult season the trees have been through since the spring of 2006.

Nitrogen after harvest helps with flowering and fruit set after winter dormancy and fruit size development in the first 4 weeks after flowering.

Some post-harvest irrigation water will still be needed to apply nitrogen in one or two applications once the crop is off. Where possible, decide on the best time to stretch the final irrigations and apply the fertiliser then, rather than applying an irrigation immediately after harvest.

An example here would be to apply the post harvest fertilisers about a week to 10 days after the harvest of a variety such as Tatura 204 peach or Williams pears - because the weather is still hot and the trees will need water as well as the nitrogen fertiliser.

Later maturing varieties may need the nitrogen to be applied after harvest, but with only enough water to either just water the nitrogen into the topsoil, or put it through the irrigation lines and then flush the lines clean. This may take only about an hour or so as there is no need to actually irrigate as the trees have been well irrigated for the last 8 weeks or so to size the fruit.

There is also a need for the trees to have enough time to use the fertiliser and store it in the buds, main branches and root system before leaf fall.

If it is not possible to irrigate to put the nitrogen into the topsoil or to use fertigation, foliar applications of low biuret (foliar grade) urea should be applied as soon as possible after harvest. It is important to apply the foliar sprays while there is still some moisture for the leaves to remain active and use the urea.

It is important to remember that the trees have enough time to use the fertiliser and store it in the buds, main branches and root system before leaf fall. Especially this year as leaf fall could be quite early this season given the low rainfall and restricted water availability.

In Summary:

Keep trees actively growing as late into autumn as available irrigations will allow – especially Williams pears.

- Post harvest nitrogen is needed every season in stone and pome fruit.
- Phosphorus and potassium fertilisers are not applied in the same way as nitrogen. They should be applied on the basis of need from a leaf test and in different ways for best uptake by the trees.