



Winter Chill and Oil Application on Young Trees: A Case Study

Waikerie based Pistachio grower and PGAI committee member Paul Wurst found, on asking other growers' opinions and experience with oil application on young trees, much conflicting information.

From the experience of other growers, it is well known that an application of 'dormant oil' will bring budburst forward on the pistachio trees. Therefore, Paul undertook a trial on his property to help decide whether to use Summer or Winter oil and the rate of application between 1% and 3%.

The trees are Sirora on PG1 rootstocks, planted in 2016, the trees delivered were small and most were budded in 2017, on a 3.5m x 6m row spacing. Row lengths are 150 metres and the trial used half row lengths of 75m. Paul used an Interlink sprayer and the rate of 430 litres per hectare was worked out by inspecting and ensuring the tree was drenched at different rates and speeds - for the smaller trees he used 1 fan each side.

The trial was set up to look at:

- **No Oil**
- **Summer Oil 1%**
- **Summer Oil 2%**
- **Summer Oil 3%**
- **Winter Oil 1%**
- **Winter Oil 2%**
- **Winter Oil 3%**

The oil was sprayed onto the trial area on the 25th and 26th of August 2019.

No oil, photographed 3/10/2019



No oil, photographed 31/10/2019



Summer Oil 1%, photographed 3/10/2019



Summer Oil 1%, photographed 31/10/2019



Summer Oil 2%, photographed 3/10/2019



Summer Oil 2%, photographed 31/10/2019



Summer Oil 3%, photographed 3/10/2019



Summer Oil 3%, photographed 31/10/2019



Winter Oil 1%, photographed 3/10/2019



Winter Oil 1%, photographed 31/10/2019



Winter Oil 2%, photographed 3/10/2019



Winter Oil 2%, photographed 31/10/2019



Winter Oil 3%, photographed 3/10/2019



Winter Oil 3%, photographed 31/10/2019



Paul's Conclusion: The oil applications brought about an earlier and more consistent budburst and as can be seen from the photographs; the higher rates of oil achieved better results up to the 3% used in the trial - and good results were achieved with both Summer and Winter oil - although Winter Oil was the cheaper option as it is less refined. If we have a low chill year, I might trial 6% winter oil.

NOTE: *If frost is a risk, then caution should be exercised as experience has shown extreme damage can occur on mature trees, hence there is also potential for damage to young trees from incorrectly applied Summer or Winter oils.*
DISCLAIMER: *Please also note this is grower trial for information only and is not a recommendation of the PGAI.*