

## WA Growers Try Liquid Plant Sunscreen

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Even though WA fruit and vegetable growers have had a milder summer than their eastern counterparts, the potential to protect fruit and vegetable quality and yield through summer has prompted some WA growers to test a new plant sunscreen.

Scott Paton, Nufarm R&D coordinator, WA: "WA apple growers are testing the liquid sunscreen Parasol this season - especially on Granny Smiths and the high money-earning varieties like Pink Lady. They will make a commercial assessment of the result once fruit is harvested and put through the packing sheds. However growers are very happy with the ease of use. With its small particle size, Parasol is quick and easy to mix and spray. It doesn't settle in the containers or in the spray tank and is not abrasive to equipment when spraying."

As one WA grower said: "Just pour it in and away you go. We can cover 3-4 times the area in the same time, compared with other sunscreen products".

Scott Paton: "Apart from protecting produce, shielding the apple tree canopy with a reflective coat of Parasol visibly reduces moisture stress – indicating more efficient water use."

Growers of apples, cherries, other stonefruit, winegrapes, olives, almonds, citrus, capsicums, melons, tomatoes, onions, lettuce, pineapples, mangoes, avocados, cocoa seedlings and vegetable seedlings - from West Australian, Northern Territory, north Queensland, to Victoria, and South Australia - successfully used Parasol last summer to prevent sun damage to produce, and to protect seedling plants from wilting and death.

Growers were also happy with the removal of any residue in the wash cycle of packing lines.

20 to 40% of Australia's fruit and vegetables are damaged by the sun, and the problem is increasing as weather patterns change.

Retailers and wholesalers also demand a perfect skin finish – rejecting produce that is bleached or discoloured by the sun. So there is increasing incentive for growers to include sun-protection as part of their management practice.

Shielding plants and produce from the sun and heat also has potential to improve the efficiency of water use – a significant bonus for growers facing dwindling water supplies and lower rainfall.

### Results So Far







Australian trials last summer confirmed Parasol's ability to protect produce from both UV and radiant heat - while allowing photosynthesis and fruit colouring to continue for normal fruit development, with no adverse effect on quality.

In a wide range of horticultural crops across most of Australia's growing regions, the liquid sunscreen (a formulation of calcium carbonate) reduced damage from sun exposure to fruit and vegetable crops and seedlings.

Extensive trials are again underway this summer to quantify the reduction in sun damage, yield benefit, and impact on plant water use from applying the liquid sunscreen Parasol. In three separate winegrape trials, samples of treated grapes are also being sent to the

Australian Wine Research Institute for assessment of the effect on fermentation.

Complete results for Parasol use on all types of produce this summer will be collated after harvest, but last summer's results were very consistent and promising:

-  **Mangoes** at Kununurra showed less than 15% sunburnt fruit on Parasol-treated trees, compared with more than 30% on untreated trees.
-  **Capsicums** A practical sun-protection product for the crop is something capsicum growers have been seeking, with sunburn causing 20 to 30% fruit loss during the worst periods. Growers in central Queensland used Parasol to boost the yield of saleable produce last summer and to protect young seedlings. Pickers commented on the improved quality of treated fruit, and packers had no problem processing the treated fruit in the packing shed.
-  Marketable **Tomato** yield at Mildura was increased by 4 Kg of fruit/bush in a Parasol treated row, compared an adjacent untreated row. Treated bushes yielded 7Kg of marketable fruit and only 1 Kg of unmarketable fruit; untreated bushes only yielded 3Kg of marketable fruit out of a total of 8Kg of fruit per bush.
-  **Apple** growers in Victoria estimate they can lose 30 to 60% of their crop due to sun damage. Using Parasol to prevent a large proportion of that loss, and to increase fruit quality for a higher-grade price, one Victorian grower estimated the economic improvement from Parasol protection at \$8,000 per ha last summer.
-  **Winegrape** growers have found that Parasol has reduced the incidence of sun damaged fruit, and cooled the canopy, lowering moisture stress.
-  **Stone fruit.** As well as protecting fruit and foliage from sun damage, Parasol was used effectively last season to manage flowering and fruiting time in stone fruit.



First spraying of the liquid sunscreen Parasol on apples in late November 2008 at Newton Brothers Orchard, Manjimup WA.



Joe (left) and Wayne Giblett, Newton Bros, Manjimup, pouring liquid Parasol into the spray tank.



Young apples and leaves with a reflective coating of Parasol in Newton Bros Orchards, Manjimup after a first spray in November.

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