

Innovation. Quality. Solutions.

Surround® WP

Crop Protectant

PROTECTION YOU CAN SEE. PERFORMANCE YOU CAN TRUST

Plant Surface Protection means Higher Packouts of Quality Citrus and a More Profitable Orchard

Sunburn and heat stress take a toll on citrus orchards. As part of a planned treatment program, Surround® can significantly reduce losses from sunburn and heat stress, resulting in increased fruit quality, greater plant vigour and higher marketable yields (packout). That can add up to greater profitability.

Surround Represents a Breakthrough Opportunity for Plant Surface Protection



If applied before severe summer conditions set in and maintained throughout the hotter months, Surround covers plant surfaces with a protective film - a layer of specially engineered and formulated kaolin particles that reflect harmful infrared and ultraviolet radiation.

Proven to Reduce Sunburn Damage

The chances of getting sunburn damage increase as air temperatures reach 28°C and above. Some citrus varieties can lose 20% of production to sunburn damage - with even greater losses in times of extreme heat - and that may not count unmarketable produce left unpicked.

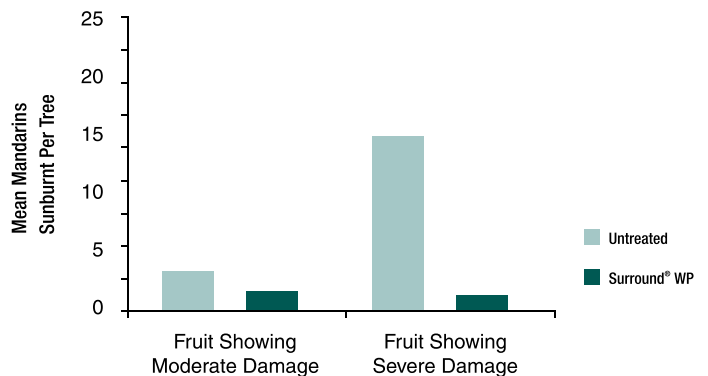
Australian growers have successfully used Surround on a variety of fruit and vegetables since 2001.

Engineered Particles Protect Against Heat Stress

Temperatures higher than around 28°C can stress both the tree and further damage fruit. The worst damage occurs when cooler weather precedes high

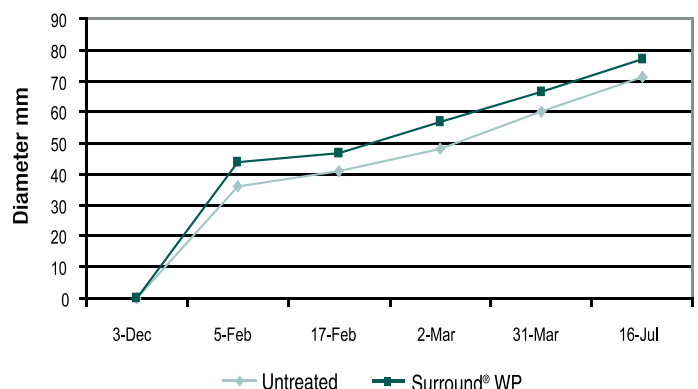
temperatures and the fruit has not acclimatised. The best way to protect the crop is to protect the fruit with Surround in order to avoid the sudden exposure of fruit to intense heat and solar radiation. Surround's protective particle film layer can reduce plant surface and canopy temperatures by as much as 8°C. Local and international trials with Surround have shown increased fruit size and quality, a positive effect on return blooms, as well as improved foliar flushes on young trees if coverage has been maintained over the hotter months.

Excellent Reduction of Sunburn in Mandarins



Data source: 2003/2004 season - Gayndah, Qld. - Variety - Murcott

Increase in Navel Fruit Size



Data source: 2003/2004 season - Cobram, Victoria

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There is nothing like Surround. Surround provides superior reflectance of UV and infrared radiation because of its unique formulation. Based on kaolin - a naturally occurring, inert white mineral used in food and toothpaste - Surround particles are engineered to reflect significantly more of the sun's heat and radiation than any other sunscreen product.

The convenient WP formulation provides:

- Easy mixability in water
- Good coverage capacity
- Controlled adhesion to the fruit

Offering all these qualities, Surround represents a real breakthrough in plant surface protection.



When coverage is maintained throughout the hot summer months, Surround improves foliar flushes in young trees.

Strategic Application Timing = Effective Protection

As a planned program, Surround plant surface protection throughout the season gives growers the opportunity to markedly improve fruit quality and quantity. For best results, apply Surround before heat events to create a protective white barrier film. Maintain coverage throughout the high heat period.

Recommended Application Rates

See label for details

- Calibrate sprayer and spray according to tree row volume
- Spray to "near drip" coverage (before the point of runoff)
- Reapply to re-establish coverage after heavy rain, wind erosion or new growth (see Figures 1 and 2)

Figure 1



Well-coated fruit

Figure 2



Needs re-application

Removal of Surround – Mandatory Directions

Normal water washing in packing or processing should remove Surround film from fruit surfaces.

Before purchase and application, make sure that the packing plant can remove the white film residue. AgNova strongly recommends overhead high-pressure water sprays and brushes for this purpose. See Post-harvest Packing and Washing Instructions on the label.

Use of Surround in citrus may result in decreased activity of Aphytis parasitic wasps which, in turn, may increase levels of citrus scale. Monitor scale closely and if necessary use registered scale insecticides according to their label instructions. If scale is of concern and use of insecticides is not desirable, do not use Surround.

For Best Results, Maintain Surround Coverage Throughout the Sunburn Season.

The information provided herein may include extracts from the product label and does not constitute the complete directions for use. READ THE PRODUCT LABEL THOROUGHLY BEFORE OPENING OR USING SURROUND

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