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# IPM Practitioner

This is a series of articles about practical IPM—the IPM carried out by orchardists and advisors—those of us who walk the orchard, monitor, and see what is out there; and then advise on pest, disease and weed control.

**Abiotic stress is the leading causes of significant loss in fruit yields worldwide. Water stress and heat are considered the most relevant abiotic stress.**



Suncrops applied to apples (left) and untreated (right).



**Suncrops sunscreen is a third-generation product that forms a translucent mineral film that reflects heat, damaging UV light, visible and infrared radiation.**

High temperatures, UV light and solar radiation results in abiotic stress.

A day with high temperatures, especially when there is a shortage of available soil water for plant

cooling, results in fluctuating degrees of heat and water stress. This stress leads to sun scald and sunburn seen on fruit.

Abiotic water stress also affects photosynthesis as plants *shut down* from heat and water stress. Significant economic losses result from crop damage, reduced yield and abiotic stress.

# Minimise heat stress & sunburn

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Suncrops (left) vs traditional kaolin (right) application in pears.

## Technically advanced product

Suncrops is a technically advanced product made from kaolin which is processed, refined and hydrolysed. It's a unique product in the international market, developed and produced by Nutriprove SA.

Suncrops is specially formulated to protect crops during periods of high incident radiation and helps to protect crops from heat and sun damage. The result is increased yields and improved fruit quality. It's regarded as a basic input for the production of high quality fruit and vegetables.

## Advantage of Suncrops

The raw materials in Suncrops undergo a unique formulation process where the kaolin is hydrolyzed.

This gives the product a unique white colour and prevents streaking of fruits and build-up of residues. It also allows the safe use of lower application rates to reduce costs.

This unique formulation has an effective protection for up to 21 days.

Sunburn results from the interaction of high temperature, light, wind, water and plant health. Suncrops effectively reduces the harmful radiation damage to crops and improves the dynamic soil-plant-water relationship.

### Start early

It is recommended to start treatment early in the season—when high temperature are about to begin, and before any damage is visible.

Review our data sheets at [www.suncrops.cl](http://www.suncrops.cl) and [www.insense.com.au](http://www.insense.com.au)

# Minimise heat stress & sunburn

Suncrops is used extensively through the United States, Mexico, Chile, Argentina, Peru, South Africa, and now Australia and New Zealand.

It is sold by exclusive distributors (see [www.suncrops.cl](http://www.suncrops.cl)).

In Australia Suncrops and other Nutriprove products are marketed by Russell Fox, InSense Pty Ltd.

Nutriprove and InSense have over 30 years experience in the exploration, production, and processing kaolin for different industrial and agricultural markets.

We have agronomic support for a wide range of fruit and vegetable crops. We have established a permanent line of research to generate synergies with major international agrochemical developments for new solutions for different types of abiotic stress.

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Application of postharvest Suncrops in cherry.



## Recommended treatment program

Apply in intervals of 21 days.

Application rate of Suncrops 1.25 kg/100L (applied at 1000L of water).

**Apples:** Start when fruit size is 30 mm. Apply Suncrops at 12.5 kg in 1000L of water. Six applications are required (total dose 75 kg/ha).

**Granny Smith:** In November/December, rate required is 25 kg/1000L water, then reduce rate to 12.5 kg/1000L for a total dose of 100 kg/ha.

**Pink Lady:** 1.25 kg/100L (applied at 1000L of water). May require eight applications, total dose 100 kg/ha for hot conditions or extended summer.

**Cherry:** Postharvest 1.25 kg/100L (applied at 1000L of water). Two or three applications at 14 to 21 days may be required depending on rainfall and wear.

## Ongoing R&D

Each season Nutriprove performs important research with universities, farmers and leading advisers in different fruit trees and crops.

We also have a permanent training facility, international monitoring, and free advisory services email: [contacto@suncrops.cl](mailto:contacto@suncrops.cl)

Suncrops can be used in organic agriculture.

## National & international experience

Suncrops has been applied to a range of crops in many countries under different climatic zones.

More traditional uses are in pome fruit (apples pears), stone fruit, grapevines, citrus, hazelnut, olive, processing tomatoes and vegetables.

Suncrops is a brand recognized worldwide. It has had outstanding results in pome fruit. The protective qualities of Suncrops are recognized by leading producers, agribusinesses and exporters.

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