

Surround Outperforms on Sunburn Protection in Apples



A 2008 study comparing Surround crop protectant with other popular sunburn control

materials on Washington apples found that apples treated with Surround WP had significantly less sunburn than apples treated with other materials in replicated trials.

Trial results compared applications of Surround WP with applications of Eclipse™ and Raynox® and untreated controls. While all three treatments performed better than the untreated control plot, Surround WP had statistically less sunburn damage than the other two treatments.

According to researcher Ron Britt of Ron Britt & Associates Inc. in Yakima, Wash., 13 percent of the fruit from blocks treated with Surround WP graded for sunburn damage compared to 23.5 percent with Raynox and 27.7 percent with Eclipse. The untreated check plot had three times the sunburn damage as Surround WP-treated apples.

The replicated trial was done on a 6-year-old orchard of Granny Smith apples in the lower Yakima Valley with five applications of each treatment from an airblast sprayer between June 27 and Sept. 12.

Fruit was harvested on Sept. 30 and sorted for sunburn damage one month after harvest on a Greffa electronic sorting line. Britt noted that sunburn may have been reduced even further with Surround on a more frequent application schedule at shorter intervals throughout the summer to harvest.

NovaSource Advisory Council Shares Experiences with Surround® Crop Protectant



Bob Gestring (TKI), Donnie Wadsworth (TKI), Nate Squires (Northwest Wholesale Inc.), Dan Forey (BioResearch), Brent Holtz (UC Cooperative Extension), Mike DeRiso (TKI), David Cassidy (TKI), Kurt Volker (TKI), Mike Glenn (USDA-ARS), Mitchell King (Simplot), Dr. Alan Schreiber (Ag Development Group), Peter Barrows (TKI), Dick Cole (Helena Chemical Co.), Mike Devencenzi (Devencenzi Ag Consulting), Bill Gary (Mid-Valley Ag) and Ron Britt (Ron Britt & Associates).

THE NOVASOURCE ADVISORY COUNCIL (NAC) held its first annual meeting in December in Las Vegas, Nev., to discuss current and potential new uses for Surround® Crop Protectant on tree fruit, nut and vine crops.

“The meeting was a valuable opportunity to bring together those who have had experience researching and using Surround and draw upon their generated experience and expertise to help guide our future development programs,” said Mike DeRiso, Director of Marketing and Business Development with NovaSource.

The NAC is a collaborative group of researchers from the University of California, the USDA and private industry; distributor fieldmen; independent PCAs; and representatives from NovaSource.

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UC Almond Trials Show Statistically Significant Yield Improvements in Trees Treated with Surround

Recent findings from a seven-year study on the use of Surround Crop Protectant on almonds continues to confirm several plant health benefits of its use on both Carmel and Nonpareil trees and in 2008 showed improved yield in both varieties treated with Surround.

The almond orchard in Madera was planted with 16 Carmel and Nonpareil rows divided into replicated plots where half the rows received four applications of 25 pounds Surround WP in 100 gallons of water annually between 2002 and 2008.

Each year, UC Cooperative Extension Farm Advisor Brent Holtz measured several plant health indicators to better understand the effects of the kaolin-based product on Carmel and Nonpareil trees and to determine if Surround could reduce heat stress and the onset of bud failure.

Beginning in the fourth year of the study, in 2006, bud failure began to appear

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NAC Shares Experiences with Surround

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Members of the Council shared their experiences with Surround either through commercial use, grower demonstration plots or replicated field trials. The goal of the NAC is to conduct and evaluate commercial field trials on Surround to quantify its benefits related to plant health, sunburn protection and insect protection and help identify potential new commercial uses for Surround and other NovaSource products.

The annual meeting provided an opportunity for members of the group to share 2008 trial results as well as observations such as application timing and rates and the use of Surround in integrated pest management programs.

Surround Crop Protectant is a patented kaolin-based particle film technology registered on a number of California crops including pome fruit, nut crops, citrus, tomato, cherry, vines, and many other crops.

NAC field trials are done under commercial field conditions, monitored by commercial fieldmen and evaluated by growers and commodity groups to assess trial results and outcomes.

NAC member Mitchell King, a crop advisor for J.R. Simplot Co. in Hughson, Calif., said the implementation of the NovaSource Advisory Council allows for an open dialogue between all levels of the crop protection industry that can help direct research, product development and promotions for products such as Surround.

“At the supplier level, NovaSource gets an unfiltered version of which features and benefits are important to the end user from the PCAs that recommend their products,” King said.

The December meeting opened with an overview of USDA research on Surround by Dr. Michael Glenn, Director of the USDA-ARS Appalachian Fruit Research Station in Kearneysville, W. Va. Glenn is a plant research pioneer in particle film technology.

At the NAC meeting, Dr. Glenn shared findings with the Council on his research related to improved plant performance and water use efficiency with Surround Crop Protectant. His research showed that plants treated with Surround utilize water more effectively and continue to manufacture carbohydrates under high heat conditions compared to untreated trees. The lessening of heat stress in plants allows them a better chance of reaching their full yield potential.

Individual NAC participants then gave their own presentations on field demonstration trials, data and observations. For more detailed information about research trials, see related stories in this issue of *NovaSource Reporter*.

Tessenderlo Kerley, Inc.
2255 North 44th Street
Suite 300
Phoenix, AZ 85008-3279
Customer Service:
1-800-525-2803
www.novasource.com

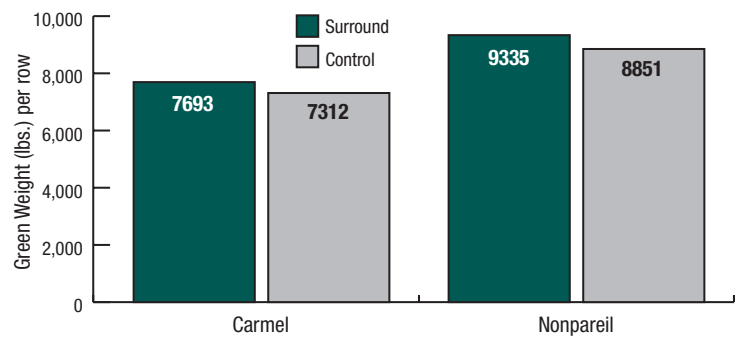


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1525 Locust Street
Kansas City, MO 64108

2008 Surround Trial – University of California



UC Almond Trials Show Yield Improvement

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in the susceptible Carmel variety. Holtz in 2007 and 2008 measured significantly less bud failure on the Surround block of Carmel trees. He also noted that yields on the treated Carmel rows were significantly higher than non-treated trees.

Additionally, in three out of five seasons, the Surround-treated trees had significantly more current season shoot growth and increases in trunk circumference compared to non-treated trees. Surround-treated trees also exhibited less water stress, as measured by mid-day leaf stem water potential, on two out of four high heat stress months over a five-year period.



In 2008, Holtz again observed significantly less bud failure on Surround-treated Carmel trees and found that both Carmel and Nonpareil trees treated with Surround had significantly greater yield when compared to the untreated trees.

“We think this is related to photosynthesis on hot days,” said Holtz.

A harvest sample of rows of Surround-treated Nonpareil and Carmel almonds in 2008 yielded about 5 percent higher than non-treated rows. Nonpareil treated with Surround yielded 9,335 pounds of green weight per row, compared to 8,851 for untreated nonpareil. Carmel trees treated with Surround in 2008 yielded 7,693 pounds per row, compared to 7,312 pounds for untreated rows. (See Table above)

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