

Surround[®]

Agricultural Crop Protectant



Protection From Sun and Heat for Melons

Melon field studies and years of commercial use in melons show Surround crop protectant applied close to harvest can dramatically reduce sunburn, thereby boosting marketable yields. If applied throughout the season, Surround has been shown to increase melon size and brix, and cause more uniform ripening.

Surround Offers Two Breakthrough Opportunities

Surround's specially engineered kaolin particles reflect harmful infrared and ultraviolet radiation. With less radiation and cooler fruit there is less sunburn damage. For reducing sunburn damage to melons, Surround should be applied at 50 lbs/per acre prior to the occurrence of sunburn-causing conditions. Make one to two applications seven days apart to provide thorough coverage of the plant and fruit.

A second practice, demonstrated in field trials, is to treat melon plants from transplant to near harvest. This has been shown to provide both sunburn protection and enhanced yield. For this use, apply 12.5 lbs per acre approximately every two weeks starting immediately after transplant. Some growers simply add 12.5 lbs of Surround per acre to the other crop inputs they spray every two weeks. The initial benefit is the protection of the transplant from transplant shock, resulting in fewer transplant losses and faster initial establishment. Applications throughout the season keep the plants cooler. Season-long protection has been shown to enhance plant vigor and to increase yield by producing larger caliber melons.

Turning Down the Heat

The benefits of Surround have been demonstrated in trials conducted around the world. Proven in several crops, plants exposed to too much heat and sunlight suffer reduced photosynthesis. Leaf stomata close when temperatures rise above certain thresholds. With stomatal closure the plant takes in less CO₂. By reflecting away significant amounts of ultraviolet and infrared radiation, plants remain cooler and stomata remain open for more hours per day. Therefore, more CO₂ is taken into the plant for photosynthesis, resulting in more carbohydrates for fruit growth. Additionally, open stomata allow continued transpiration and subsequent cooling.

Insect Suppression

Surround can suppress cucumber beetle and grasshoppers on melons. To be effective, Surround must be used in a preventive program and should be sprayed on plants before insects appear. Surround will reduce pest pressure and may delay or eliminate the need for a conventional insecticide spray. If pest pressure reaches an economic threshold, then a knock-down insecticide should be used.

TESSENDERLO KERLEY, INC.
2255 North 44th Street
Suite 300
Phoenix, AZ 85008-3279

Customer Service:
1-800-525-2803
1-602-889-8300

www.novasource.com

Problem	Lbs/Acre	Application Instruction
Cucumber beetle, grasshoppers*	25-50	Start prior to infestation, applying every 5-7 days, with the first two applications 3 days apart.
Powdery mildew*		Apply every 7-14 days as required to maintain coverage.
Sunburn and heat stress	25-100	Apply to sunburn-prone fruit before conditions leading to sunburn occur. If initiating sprays for sunburn suppression, where there have been no prior sprays, provide thorough coverage of all fruit and leaves prior to sunburn-causing conditions with one to two full-rate applications 7 days apart. Depending upon the length of the high heat period, three to four applications in total often are needed with subsequent applications every 7-21 days. Make subsequent applications at half to full rates if even coverage is maintained throughout the high heat period. Under windy conditions, Surround WP can be rubbed off by leaf movement making reapplication necessary.
*Suppression Only. If complete control is needed, consider using supplemental controls.		

Application Tips

- Apply Surround to near-drip. Avoid foliage run-off.
- Change the direction of travel on alternate applications for best coverage.
- Surround can be tank mixed with most pesticides. When tank-mixing, always add Surround to the tank first. A pre-mix tank is suggested for sprayers without mechanical agitation.

Aerial Application

- Use no less than 10 gallons per acre. Best mixing results are achieved when mixing no more than 1 lb per gallon of water.
- Surround may be applied using standard aerial application nozzles.
- Make applications not more than 10 feet above the top of the largest plant unless a greater height is required for aircraft safety.
- When spraying at low relative humidity, increase droplet size to compensate for evaporation.

Washing Tips

- Fruit that are to be marketed fresh, if a white film of Surround remains at harvest, the fruit may be washed with common washing techniques found in packing houses.
- Field washing prior to harvest will help remove Surround in the packinghouse. Spray Surround-treated crop with an approved detergent at 0.5 lb per 100 gallons of spray before the crop is harvested. Use sufficient water to thoroughly soak the fruit. Use overhead irrigation or spray clear water immediately following the detergent application.
- Physical removal of Surround in the packinghouse by pressure washing or brushing may be necessary to remove remaining film.
- Consult with post-harvest experts familiar with your crop for other washing techniques.

Important: Always read the label before buying and follow label instructions when using this product.

The use of Surround® WP in agricultural crop protection applications is covered by US Patents 6,027,740; 6,069,112; 6,110,867 and 6,156,327.

CONDITIONS OF SALE – LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

Failure to strictly follow label directions may cause injury to crops, animals, man or the environment. Tessenderlo Kerley, Inc. (TKI) warrants that the product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use when properly applied in normal weather conditions. TKI makes no other warranty or representation of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose. The exclusive remedy against TKI for any cause of action relating to the handling or use of the product is a claim for actual out-of-pocket damages, and in no event shall TKI be liable for special, indirect, incidental or consequential damages or expense of any nature, including, but not limited to, loss of profits or income, whether or not based on the negligence of TKI, breach of warranty, strict liability in tort, or any other cause of action. TKI and the seller offer the product, and the buyer and users accept it, subject to the foregoing conditions of sale and limitations of warranty, liability and remedies.

TESSENDERLO KERLEY, INC.
2255 North 44th Street
Suite 300
Phoenix, AZ 85008-3279

Customer Service:
1-800-525-2803
1-602-889-8300

www.novasource.com