

GREEN PRO

актуальные технологии для зеленого бизнеса

ReduHeat®

Optimum benefit from growth light and significant reduction of heat radiation



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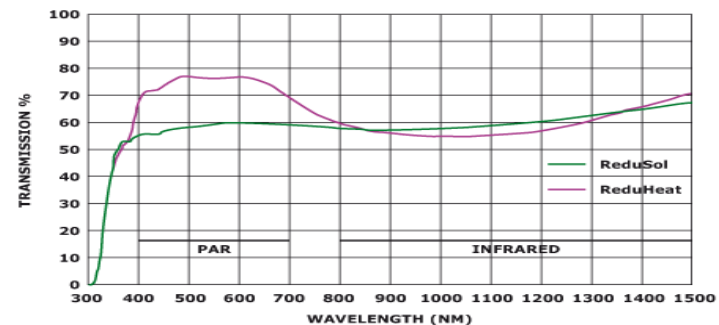
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Optimum benefit of growth light and significant reduction of heat radiation. PAR (Photosynthetic Active Radiation) is the most important type of light for growing crops. But you want to provide shading against heat while retaining the light required for crop growth.

What is ReduHeat?

ReduHeat sets itself apart from other, more traditional shading agents, due to its different ratio between light transmission and heat reflection. ReduHeat is a coating that contains a special pigment. This pigment has the ability to transmit growth light (PAR) while increasing the reflection of heat radiation (NIR). Another major advantage of ReduHeat is its adjustable shading effect. It gives you more freedom to control the climate inside your greenhouse.

TRANSMISSION SPECTRA COMPARISON BETWEEN REDUSOL AND REDUHEAT



- With the same temperature reduction (infrared range) as with ReduSol, ReduHeat achieves a higher light transmission.

Advantages of ReduHeat

- More photosynthesis and therefore more growth
- Improved light penetration due to diffuse light
- Reduced use of shade screens
- ReduHeat is highly wear-resistant: one application is usually sufficient for the whole season
- Easy to remove with ReduClean
- Suitable for glass, acrylate, polycarbonate and plastic film
- Requires less ventilation, resulting in a higher CO₂ content inside the greenhouse
- Improved water management, less watering required
- Additional cooling effect when combined with rooftop sprinklers
- A more robust, healthier crop
- Fewer vegetables lost to blossom-end rot and skin cracks
- Retention of color
- A more even greenhouse climate, no stress peaks
- A nicer working climate

For which crops is ReduHeat well suited?

- For crops that have high light requirements (rose, alstroemeria, freesia, chrysanthemum, lily, etc.).
- In all situations requiring less than 60% of the light to be blocked.
- To create diffuse light accompanied by minimum loss of light for traditionally unshaded crops. (tomato, sweet pepper, cucumber, strawberry, etc.).
- For crops that have even light requirements and need effective heat reflection during the season, ReduHeat can be combined with ReduSol. Applying a thin coat of ReduHeat early in the season and then applying a coat of ReduSol later provides a higher degree of shading with relatively more growth light (PAR). Such a procedure achieves an optimum shading effect throughout the season for such crops as orchid and anthurium.

FOR 1 HECTARE, WHEN USING 2,000 LITRES OF SPRAYING LIQUID:			
DILUTION FACTOR OF REDUHEAT : WATER	NUMBER OF BUCKETS OF REDUHEAT	TRANSMISSION OF GROWTH LIGHT (PAR) IN %	TRANSMISSION OF HEAT RADIATION (NIR) IN %
1:2	44	60	46
1:3	33	68	54
1:4	27	72	62
1:5	22	78	72

- *The above values were measured under laboratory conditions when the product was applied manually and serve as an indication only.*
- *The shading effect includes greenhouse covering materials and structural components.*

Conclusion: The relative light gain in PAR is approximately 25%.

How to use it

Stir ReduHeat briefly and then add it to clean water while stirring. Apply ReduHeat to a dry surface. In order to get an effective layer, it is important to spray during dry weather conditions. ReduHeat can be applied manually with a spray pump, with a spraying machine or from a helicopter or airplane. The table below shows the amount of ReduHeat to be used to get the required shading effect.

ReduHeat is available in 15-kg (approximately 3.4 gal) buckets.

Custom advice

If you need more information or a custom advice, please contact GreenPro.