



PHOTO BY STEVE RENQUIST

A shade cloth used to prevent sunburn to tomatoes and peppers.

# Keeping it cool



**Steve Renquist**  
*Extension Spotlight*

*Shade tips to keep your garden from overheating in a hot dry year*

**W**hen our normal winter rain pattern stopped in late March, I was pretty sure we were headed for the hottest year since the record heat of 2015. It seems like day time high temperatures in the 90s has become pretty common, with night time lows around 60 degrees.

When I first came to this area in 2000, we would have a week or two in late summer with mid- to upper 90s but not the whole summer. The impact on our garden plants is that they are continually under moisture stress – unless we pour the water to them, mulch heavily or create great soil that holds more moisture.

Over the years I have spoken with you about how to make great garden soil. It is an important and continual process that involves a number of steps, including growing cover crops in winter, adding manures or compost before planting, rotating crops

within your vegetable or annual beds, and using biochar, the ground charred wood product to help neutralize soil and retain moisture for plant roots.

I have also written about adding composted materials as a mulch to the garden to help retain moisture and slowly build the organic matter content of your soil. What I haven't shared with the public is the practice of using row covers that are woven materials used to keep plants cool in summer or warm in winter.

The white row covers usually come in 20-by-4 foot sections that can be draped over mature plants to provide frost protection or suspended over a trellis support system to provide shade.

When used as a cover for seedlings or small plants for frost protection, you need to place some 2-3 foot metal or wood stakes down the center of the rows to hold the cloth above the plants. Hold the sides of the cloth

down with landscape pins or rocks.

When suspended in the air above plants by tying them to stakes during our hot summer, I have measured the temperature under the white cloth to be 5-7 degrees cooler than the outside air temperature, especially if they are at least 5-6 feet above the ground. By suspending them at that height the air keeps moving which is critical during 90 plus degree days.

During a hot summer like 2021, the impact on the quality of plants is striking. Not only have plants grown faster under the cloth but the plants are healthier. I have noticed a dramatic reduction in sunburn, plant disease, insect issues and an increase in plant vigor. This positive impact has been great for cool season crops planted in spring and trying to finish their development in summer like peas, broccoli, kale, and collards.

However, the biggest quality impact

on any plant so far has been for tomatoes. Through several years of experimenting with the shade cloths, I have seen no significant diseases on my soaker hose raised plants and no sunburned tomato fruit.

I have never grown tomato plants in western Oregon that didn't have some leaf blight (early blight or late blight). These are fungal diseases that flourish in warm days and cool nights with lots of dew present in our mornings. With the white row cloth covers, the plant has a much more consistent temperature day and night and dew is not prevalent.

I highly recommend using this system. It's not too late, even this year, to do this for your vegetable garden. Six foot garden stakes, stretchy green plastic tie up tape and the white row covers are all you need.

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