Tips for protecting plants during extreme heat
Press Democrat publish date: June 28, 2025

Question: Last summer, despite making sure my vegetables had enough water, some became damaged, and some died when it was really hot. What else can I do to protect my plants during heat spells?

Answer: When it becomes excessively hot, humans seek out shade and drink more fluids than normal to prevent sunburn and avoid becoming dehydrated. Similarly, most plants also are vulnerable to damage and dehydration during extreme heat.

While most plants need at least six hours of sun to thrive, too much sun, especially in combination with higher-than-normal temperatures, can impact a plant's health and productivity. Temperatures over 90 degrees can cause plants to lose their flowers and will also slow photosynthesis.

In addition to making sure your plants have ample water, a great first line of defense is to provide your plants shade. If they're in containers that can be easily moved, a simple solution is to temporarily place the container in a shady spot during the hottest time of the day – which is midday and afternoon.

But, if you're like most home gardeners, the majority of your plants are likely in heavy containers that can't be easily moved or are planted in the ground. So, you need to bring the shade to your plants. That's where shade cloth, also called shade fabric, comes in handy. It filters out excess sunlight without blocking the light plants need in order to grow. Benefits of shade cloth include:

- Lowers temperatures
- Conserves water
- Reduces heat stress and evaporation from the soil and the plant
- Protects fruit and veggies from sunburn
- Extends the growing season
- Expands the type of plants that can be grown

Shade cloth can be purchased at most garden centers and nurseries and is available two ways: from a roll with a predetermined width and length that you choose or in pre-cut sizes. Additionally, shade cloth is available in different light transmission rates. For example, a 30 percent shade cloth reduces the amount of sunlight reaching the plant by 30 percent while letting in 70 percent of the sun's rays.

In Sonoma County, shade cloth with a 30 percent transmission rate is typically sufficient for most gardens. However, if you're aiming to protect delicate seedlings or cool-season plants such as lettuce and spinach, shade cloth offering a bit more protection (40 to 50 percent transmission rate) is best.

Shade cloth comes in a variety of colors including black, green, white and beige. For most vegetables, a green shade cloth looks more natural and provides a balanced light spectrum, which is beneficial for plant growth.

A general rule of thumb is to use shade cloth when temperatures consistently exceed 90 degrees or are projected to reach 90 degrees or higher. Also, consider other factors such as location and the type of container your plants are growing in. For example, plants growing close to walls and fences receive more reflected light than those planted in an open field. Likewise, plants in plastic and metal containers heat up more than those planted in wood and terra cotta pots.

There are a variety of ways to install shade cloth. You can drape it over vegetable cages and fencing, spread it over PVC hoops, also called hoop houses, or attach it to stakes placed in the ground. Position the structure so at least the west side of the plants are shaded. In the hottest areas, shade cloth over the top of the plant is also good.

Whatever DIY installation method you choose, just make sure the cloth is above the plant and not butted up against it, which impedes air flow and may cause damage to the plant. It's also important the shade cloth is securely attached so it stays put during windy days. Clothes pins, twine, bungee cords, binder clips can help secure shade cloth to your structure of choice.

When taken care of properly, shade cloth, which is fairly inexpensive, can last many years. At the end of the season, make sure it's completely dry before folding it up and storing it in a spot that receives no direct sunlight and offers protection from insects and rodents.

Besides providing sufficient water and shade, other best practices for helping plants beat the heat include using organic mulch around plants to retain soil moisture and keep the soil cool, watering early in the day, and avoiding applying fertilizer during the summer months. For more information, read the article "Gardening in Extreme Heat with UC Master Gardener Tips to Save Your Landscape": https://tinyurl.com/5n7bnvkt

Contributors to this week's column were Lisa Howard and Robert Williams. The UC Master Gardener Program of Sonoma County sonomamg.ucanr.edu/ provides environmentally sustainable, science-based horticultural information to Sonoma County home gardeners. Send your gardening questions to scmgpd@gmail.com. You will receive answers to your questions either in this newspaper or from our Information Desk. You can contact the Information Desk directly at 707-565-2608 or mgsonoma@ucanr.edu.