

Sunscald summer

Plants have evolved a wonderful relationship with the sun. We know that plants use light to take carbon dioxide and water and create sugar - photosynthesis, the source of most life on earth.

Until we see scorched leaves, we rarely think about the problems plants encounter when there is too much sunlight. In the desert, we rightly think about our lack of water and that too often, soils have such bad drainage that landscape plants drown in waterlogged holes– but there



Photos of Sunscald taken at the Lifelong Learning Center's Demonstration Gardens

is more to the desert than water shortage.

Plants can experience something resembling sunburn. This is not actually due to the Mojave's high temperatures, although the heat contributes to the problems plants face here. We get about 300 cloudless or nearly cloudless days every year, but many of the plants in our landscapes evolved in locations with considerably less light. Some of them actually developed ways to catch light – strategies like the big floppy leaves you see on a caladium, for instance; but some leaf characteristics evolved to protect leaves against light.

Things like fuzzy leaves – the fuzz shades to the surface. Red and yellow leaf color may shelter the green pigment essential to photosynthesis.

You have probably noticed that desert plants often have oddly shaped leaves, if they have any – creosote bush has many tiny, thick leaves, and cacti sacrificed their leaves entirely – so these desert natives rarely suffer sunburn. But the non-native plants may be poorly adapted, because their defenses evolved to protect leaves in places where the sun was not nearly as intense as it is here. Some introductions have adapted – fruit trees and roses tend to do very well, but not all plants from other locales. A thorough watering is not enough to save them from the full Mojave sun.

Virtually none of the vegetables we grow in home gardens originated here, and they have few resources to escape damage from excess light. Tomatoes, for example. (Tomatoes are a good example because everybody wants to grow them, but similar injury occurs on peppers, squash, many of the fruiting vegetables.) When the light gets too intense, pale patches appear on

the fruit, or the entire fruit can become hard and bleached. When this happens, the plant can show other signs of weakness and become more vulnerable to diseases and to insect pests.

If your plants are showing sunburn problems already, you need to protect them from excess light. Unless it is possible simply to pick up a pot and move it to another part of the garden, you need to block some of the sun.

Rolls of shade cloth are readily available at most nurseries or home stores. It can be attached easily to upright poles above the planting bed to create a protected area.

The best thing to do is avoid the problem – put a plant in its best location: shade loving in the shade and desert-adapted plants in the sun. Plant vegetables in a site where the light comes primarily from the east. Then put on protection when it is necessary.

Dr. Angela O'Callaghan is the Social Horticulture Specialist for Clark County Cooperative Extension. Contact ocallaghana@unce.unr.edu or 702-257-5581.