



Las Campanas Water Cooperative

SANTA FE, NEW MEXICO

2020 WINTER | CONSERVATION BULLETIN

## Working with sun and shade in the garden

As the flower and garden catalogs come rolling in and we start to think about new additions to the garden, one thing to consider is how light in our area affects plants differently than it does in many places where these catalogs are written. At our high altitude, ultraviolet radiation is 30% stronger than at sea level.

Factor in the frequency of clear skies and you can see that plants (and gardeners) get a lot more sunlight here than they do in lower, cloudier areas. What this means is that many plants can grow well here with more shade than they get in those areas. This is not an absolute rule, but you'll often find that when non-native plants are recommended for "part shade to full sun" in catalogs, they grow better here in part shade. The shade cast by buildings and yard walls creates partly shaded microclimates around them, giving us places to experiment with such plants. Areas next to north facing walls are in shade earlier in the fall and later in the spring than other areas, but even they receive some direct sunlight in "high summer" (late June, July, and early August). Keep in mind that many shade tolerant plants are native to woodland areas that receive more precipitation than we get here, so they won't be as drought tolerant as some of our sun-adapted natives. Modifying the soil with compost and mulches to create more moisture holding humus can help reduce the amount of irrigation they require.

Putting plants that grow best in "full sun" (which typically means 5-6 hours of direct sunlight here) into areas that are too shady can lead to less than optimal health. These plants tend to be misshapen, thin and rangy or leaning out towards the sun. They usually don't flower as well as the same

plants grown in more sunlight. These effects can tell you when a plant is getting too much shade. It's useful to research the conditions that plants you want to use grow in naturally; this will tell you something about their sun and shade requirements.

Another factor that comes into play when deciding where to place plants is the heat reflected off hard surfaces like walls and stone-covered patios. East facing walls reflect heat on plants next to them in the morning, but then cool off as they are shaded in the afternoon. West facing walls, on the other hand, are cool in the morning but reflect hot afternoon sun, creating less favorable conditions for many plants that grow well in part shade.



Matching plants to the spaces that best meet their requirements for light and tolerances for heat helps produce the healthiest garden. The attached document lists many of the plants that grow well here with some shade. Consider these when you're looking for additions to such areas.