



## Light for garden

It is almost too obvious to mention – plants need light in order to grow. Their green pigment captures light particles and uses them to power the most important series of reactions on earth. Those reactions comprise photosynthesis: where the plant turns carbon dioxide and water into sugar and oxygen. Without it, none of us – mammals, lizards or birds would survive. Still, one spot for garden will not necessarily be as good as any other. Light requirements vary wildly, and the sunlight in southern Nevada landscapes can scorch some plants while benefiting others.

Planning a garden must be the first step before installing one. What better time for planning than in the winter? It is generally a good idea to consider what will be growing there. Most of the members in a desert landscape have evolved in areas where there is a large amount of unfiltered light during the day. Some of our xeriscape favorites, while not desert plants, have similar requirements. For instance, if lantana is growing in a shady location, it produces fewer flowers and may be subject to powdery mildew.

Many plants that thrive in bright morning light will suffer if they only receive afternoon light. The hot afternoon sun tends to singe tender leaves.

Not only intensity, but the number of hours of light that a plant receives will have a great influence on its health and growth.

What is important to consider when installing the garden is: how many hours of light will the site get? How many hours of direct light; how many hours of bright, indirect light? How many hours of morning light, and how many in the afternoon?

Green leafy vegetables depend on a minimum of six hours of direct light, or more, if it is indirect. Since they generally are cool season crops they respond best with morning light.

Vegetables that contain seeds, like peppers and squash, require at least eight hours of direct light. They also benefit when the light is mainly from the east, although they may tolerate hotter light.

Light amount is an important consideration for plants other than vegetables, too. Some flowers make their appearances only after days have reached a certain length, while others have evolved to begin producing blossoms after the nights are a certain number of hours long. How long actually depends on the plant itself. (Sometimes one hears the term “long day” or “short day”, but those can be misnomers, not quite the same as more or less than twelve hours.)

We are all aware that some flowers appear in the spring, while others only show up in autumn. This often reflects a survival mechanism that relates less to a floral display than to reproduction. Here in the Mojave, a plant that produces flowers and seeds in the spring must complete that cycle before the



*Squash*

weather turns too hot. For fall flowering plants, the seeds must overwinter under difficult circumstances that can be dry and quite cold.

Our choice of where we put the garden, large or small, will significantly impact how the plants in it survive.

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