

Full Sun, Part Sun, Part shade...AUGHHH! What does it mean, anyway?

It means that each plant has different requirements for photosynthesis when it comes to how much sun or shade they need.

IF we match it up right we get a bonsai that thrives and is healthy, can better resist pests and diseases, will easily make it through winter and will develop its full potential in less years. So there is incentive to getting it right.

Plants adapt to their environment in multiple ways. Leaf size and shape to only name two. Leaves adapted to sun are usually smaller with many layers of cells. A shade leaf is thinner but larger to produce the same amount of food but is more easily damaged by the sun. And evergreen plants are the best adapted to shade (species dependent) because they don't go dormant and photosynthesis is going on as long as the temp is over 45 °F.

Where to start? Looking up a plant's requirements has never been easier but translating what is suggested may not be.

For **FULL** sun, the industry (tags) agreed amount is a **minimum** of 6 hours. It does not have to be continuous, but a total. Some will prefer more, and some will need to be monitored so they don't get too dry, but 6-8 hours is usually ideal to get bud set and happy blooming plants.

Part Sun/Part Shade are sometimes used interchangeably but there is a difference. Both mean a plant needs 2-6 hours of light **but the emphasis changes**.

- **Part Sun** Plants will need the more sun to thrive such as morning to early afternoon or 4-6hrs.
- **Part Shade** plants will need less sun, such as 2-4 hrs morning sun and protection from the hot afternoon sun; usually from a structure and sitting toward the east.

Note: **If** a plant receives 4 of the 6 hrs in the afternoon it is considered full sun.

Dappled Sun is sun that makes its way through the branches of deciduous trees. Under-story trees and shrubs prefer this to partial shade. It is the best of both worlds (second best could be shade cloth at 40-60%).

Full Shade by definition is lack of sunlight, but for gardening it means less than 3 hrs of sunlight a day and early morning is best and filtered sunlight the rest of the day. Full shade does not mean dark, every plant needs some light.

Other factors also affect how plants react to sun.

Latitude, elevation, time of year and time of day all matter. In the US the sun shines most intently June through September. The farther south the more intense the sun becomes. In midsummer, noontime sun burns hotter than in midwinter. Morning and late-afternoon rays are gentle compared with early afternoon.

To give your bonsai every advantage, you need to understand what kind of light you have in each part of your space. How does it change during the day and spring through fall?

Also pay attention how sunlight affects soil temperatures and moisture as well as the humidity around your plant.

Then, armed with the basics, you can find the best spot for your bonsai -- or the best plants to use for creating bonsai for your space!

As an option there is a device called a Solar Calculator: find it at BonsaiOutlet.com or try Amazon – but compare prices!

Not continuous, but a total...

- Full Sun** **Minimum of 6 hrs**; 6-8 for max. buds
- Part Sun** **Minimum of 4-6 hrs**; morning to early PM
- Part Shade** **Minimum of 2-4 hrs**; morning, PM protection
- Full Shade** **Less than 3 hrs.** in the early morning;
filtered, bright, the rest of the day

" The required sun exposure is critical for blooming, size (leaf, ht.) and longevity"