



Garden Site Microclimate Evaluation Form

The following spreadsheet, which can be downloaded and printed for your convenience, will help you to analytically observe your landscape and determine what and where your garden microclimates are located. With this knowledge, you can be sure to put the right plant in the right place.

After you fill in this form, take a sheet of grid paper & rough in the various microclimates on a layout of your landscape.

Also, hourly photo documentation of light changes in partial shade areas will help you fine tune these areas. This way you have a good idea of where the sun line is in those areas. June is a good time of year to do this because it is more representative of summer light patterns than earlier in the spring. So put on your detective hat, have fun & know that your plants will appreciate your attention to detail.

Garden Microclimate Influences		Where in your Landscape?
Garden Direction - Is the garden "facing south," north, etc?		
• North	Receives least amount of sun. Moisture in summer but frost may linger here in winter. Ferns & similar plants thrive here. Lawns with northern exposure need shade tolerant grass.	
• South	Has a longer growing season. Warm & sunny in winter. Subtropicals thrive here.	
• East	Morning sun, less wind. Good for plants that prefer full sun/part shade. Best planting area for zone 15.	
• West	Hot, hot, hot! Drier & windier than other exposures. Mediterranean & California natives usually successful.	
Exposure to Wind	Windy areas will experience drier soil conditions & wind can also dry & batter tender plants. Choose plants with thick, leathery or waxy leaves, such as lavender, grasses & rosemary.	
Slopes & Berms - Note: Top of slope is windier & drier and the steeper the slope the dryer the soil. Bottom may collect moisture (bad for plants that need good drainage.) Cold air pockets may develop at the bottom of the slope. Elevation can also make a difference (sea level vs. half-way up Mt. Tam).		
• North & East Facing	Cooler & moister.	
• South & West Facing	Sunnier & drier.	
Structures & Overhangs - Produces shade which may be light, dappled or deep.		
• Overhanging eaves	Frost, sun & rain protection. However, can block rainfall & reduce moisture levels in soil. Can also produce deep shade on north side of home.	
• Hedges, fences & walls	Wind protection. Cast shadows but also create sun pockets on south or west sides. <i>Note: solid fences create swirling winds that can damage plants</i>	
• Trees	A canopy of leaves produces a light, dappled or deep shade depending on type of tree. May reduce the likelihood of frost. Can also act as a wind barrier. Extensive tree root systems may reduce soil moisture available for other plants.	
• Structures	Can reflect & hold heat, deflect wind & cast shadows. Depending on direction of sun can be a protected microclimate for cold sensitive plants or shadier area for ferns. Color of a structure can also impact heat absorption/radiation.	
Cold Air Traps	Cold air pool in low spots & behind north facing structures. Check landscape for frost when early morning temperature is around 32 degrees.	
Heat Sinks (paved surfaces, gravel, rock, decks)	Can absorb heat & reradiate it at night, increasing night temperatures slightly around it to reduce frost impact. Can also increase the temperature of sunny areas negatively impacting close growing plants.	
Soil Moisture		
• Soil composition	Soil moisture is determined by the proportions of clay, sand & loam you have. Clay holds the most & sand the least moisture.	
• Drainage Pattern	Does water from rainfall flow onto your land or away from it? Where does it pool? Pooling areas may negatively impact drought tolerant plants if drainage is poor. Proximity to water (pools, streams, bay, poorly drained areas) may produce more humidity or absorb heat & lower ambient temperature.	
• Competition from Neighboring Plants	Know the water requirements of surrounding plants & whether they have shallow or deep roots.	