



Microclimates

A microclimate is the climate of a small area that is different from the area around it. It may be warmer or colder, wetter or drier, or more or less prone to frosts. *Microclimates often make the critical difference in whether a plant will just survive, thrive or die.* Although we live in Zone 6 wise gardeners follow this practical advice: *In the real world, we garden in microclimates, not hardiness zones.* - *Charlie Mazza, Senior Extension Associate, Cornell University*

Factors of Microclimates

Water: Bodies of water large and small tend to moderate air temperatures. So low temperatures are not as extreme. So plants located near bodies of water may display greater hardiness than plants that are not.

Wind: Structures create turbulence and higher wind speeds as wind hits them. Consequently corners of buildings are points of higher wind exposure. This must be considered when located wind-sensitive plants – especially evergreens.

Hard Surfaces: Buildings, paved surfaces, rocks, etc. absorb heat during the day and then slowly radiate it back to the areas around them at night. This is especially true in urban areas where there is a great concentration of these items. *This can be a positive thing during winter but a negative thing in Summer.*

Temperature: Most people are aware that heat rises. But some may be unaware that cold air falls. This is important to remember when planning a landscape because low areas can create frost pockets to where cold air “drains”. These areas may be dramatically colder than higher locations in the same yard.

Topography: Slope of land dictates many things - including drainage, fertility and ground temperature. Areas at top of slopes are windier, drain faster, stay warmer and are generally less fertile than areas at the bottom of slopes.

Microclimates on the Sides of your House

In addition to the conditions described below your house also radiates heat, creates wind on the corners and shelters some immediate areas from wind and rain. Keep these factors in mind when deciding where to best locate your plants.

-The North side is the shadiest side (*the closer to the house the shadier the area will be*). Exposed to cold winds. Last area to warm up in Spring.

-The East side normally receives morning sun/afternoon shade and is an excellent choice for “partial sun/partial shade” plants. Is usually protected from winds.

-The South side is usually the hottest (all year). Receives early morning sun. Has longest growing season. Early spring bloomers will likely need frost protection.

-The West side receives morning shade and hot afternoon sun. This is also the windiest side.