



Microclimates

By Dr. Matthew Lisy, UConn Adjunct Faculty

Weather is something that people love to complain about. Many of us are complaining about the recent lengthy rain streak and the fact that we cannot get out to do much yard work. I am just thankful that our weather is not rainy all of the time. Weather can vary greatly in certain regions, but overall there is a general pattern to it over the course of many years. We refer to this pattern as climate. From the warm, humid Florida, to the cold, snowy upstate New York, to the hot, dry desert Southwest, we can use the set of abiotic (nonliving environmental) conditions to describe a region. Even though climate is something familiar to all of us, many times we forget about microclimates.

Within a larger climate zone, there are microclimates, which are smaller local areas that have slightly, but significantly, different environmental conditions. These abiotic factors can greatly influence organisms. Microclimates go far beyond the full sun, part sun, shade areas with which we are all familiar, and can be difficult to manage.

I saw the effect of microclimates this spring in my yard. One area near a shed is bathed in the sun during the latter half of the day when temperatures are at their peak, and the other near my side porch is bathed in sun in the cool early half of the day. Both areas are considered full sun with 6 hours of more of light. Because of the time, however, the two areas receive different amounts of heat.



Image by Dr. M. Lisy

The snow in the area near the shed quickly melted in the spring while the porch area had snow for weeks later. I planted identical varieties of daffodils in both locations. At the time of planting, I envisioned a spring with the entire yard in bloom. The reality was that the shed area daffodils came up, bloomed, and are now starting to fade out while the porch area daffodils are just starting to come up and have not bloomed yet. Many people would look at this situation and be upset at failing to synchronize the yard's floral display. Although I did not get a synchrony of blooms, the delay is not necessarily a bad thing. When the flowers around the shed are gone, the porch will provide a beautiful bloom-filled area of the yard.



Image by Dr. M. Lisy

There are two basic ways to handle the microclimate situation. The first is to use the microclimates to your advantage and extend your blooming season. Using the daffodils as an example, the gardener can buy one variety of bulb in bulk to save money, but have a yard where something is always in bloom for a certain portion of spring.

On the other hand, if your goal and desire is to see your entire yard blooming in synchrony, then I would suggest offsetting the effect of microclimates by selecting appropriate varieties of plants. In my example, I could have put a late-blooming variety of yellow daffodil around the shed, and an early variety of yellow daffodil around the porch. There is never any guarantee that both varieties will be perfectly in tune with one another, but there should be some overlap where you will achieve maximum bloom.

Microclimates are often forgotten about, but are something that the gardener needs to keep in mind when planning a garden. It can explain why the neighbor's forsythia is in full bloom while yours is not. Walk your yard at different times of the day and note subtle differences. You can use the information to plan accordingly to achieve your gardening goals.

For your gardening questions, feel free to contact the UConn Home & Garden Education Center, feel free to contact us, toll-free, at the UConn Home & Garden Education Center at (877) 486-6271, visit our website at www.ladybug.uconn.edu or contact your local Cooperative Extension center.