Yard and Garden - 05-23-2015 - Ted Griess / Extension Horticulture Assistant

There's an old saying, "Misery loves company." I'm not sure how true that statement is; however, I've encountered a number of miserable gardeners over the past few weeks. Since mid-April, a time when deciduous trees and shrubs should start sprouting leaves, I have been receiving innumerable inquiries from gardeners asking why their trees and shrubs are barren. I hate to admit it, but I, too, am one of those miserable gardeners.

It saddens me to report that a number of our trees and shrubs are experiencing the same problem. For example, our star magnolia, which normally blooms in late March or early April, didn't bloom. The flower buds that had formed last summer shriveled and fell off just a week ago. Only now, does the tree show sporadic leaf growth. The same thing has happened to our Kwanzan flowering cherry. Furthermore, our nineteen year old, 'October Glory' red maple tree has leaves only on 75% of its branches. The other 25% of branches are totally bare. The worst situation involves our twenty-five year old corkscrew willow. It is totally leafless. Needless to say I am sick and miserable.

It's been difficult to determine exactly why this situation is occurring. My simple answer to individuals when asked is, *winter kill* — but I have a theory. Note, it's only a theory; however, I feel it has merit.

The winter kill we typically see from year to year is associated with desiccation and most often occurs in evergreens. On bright, sunny winter days, plants, and especially evergreen plants, release water vapor to the atmosphere; however, if little soil moisture exists, or the soil is frozen, the plant is unable to replace the lost moisture; thus, it desiccates (dehydrates) to death.

Furthermore, keep in mind that when plants are damaged through the winter months, the extent of damage depends greatly on the species of the plant and other related factors. The hardiness of the plant, the age of the plant and the health of the plant all play a role in the outcome.



Low temperatures also affect the ability of a plant to survive the winter. The timing

when the temperatures plunge, how low they plunge and how long the freezing temperatures remain greatly influences the consequences.

My theory as to why this year we are seeing slow to no leafing out with certain deciduous trees and shrubs is associated with what meteorologists call the polar vortex. A polar vortex is a large pocket of extremely cold air that

typically sits over the polar region. Occasionally, this pocket of exceedingly cold air

travels farther south than normal, leading to frigid outbreaks in Canada and in the United States.

Perhaps you might recall that we received in mid-November, 2014, and again in February, 2015, polar vortexes. Both lasted for a number of days. I found where on 11-07-2014, AccuWeather.com announced that a polar vortex was expected to bring record-breaking cold to the Northeast, Midwest and South. In some areas, temperatures were expected to drop into the double digit degrees below zero. Meteorologists referred to this polar blast of Arctic air as the 'Siberian Express.'

Here is my theory. Perhaps, when the first polar vortex hit, many plants had not fully reached dormancy, and they were caught off guard. Frigid temperatures may also have exceeded the hardiness of those plants. Furthermore, the extreme cold lasted too long for plants to endure, especially if the plants were already weakened, aged or perhaps marginal for Zone 5. As a result, damage or death occurred. When the polar vortex returned in February, those plants already damaged probably experienced additional adversity resulting in death.

The question now is what can one do or what should one do for those trees and shrubs slow to leaf out? My answer — wait and see. For the time being, avoid pruning. If no leaves appear on a deciduous tree or shrub by the end of June, it's safe to say that portion of the plant or the entire plant is dead. Then, one might wish to grab a pruning shears or saw.

For those of you experiencing similar damage to your trees or shrubs, you may find solace in the saying, "Misery Loves Company." For the time being, I do —but it doesn't help me feel any better about my loss.