

Plant Lovers Almanac

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The weather, moisture and temperature, has ruled most of us this past few weeks. I was held up near the Canadian border returning from talks in Toronto the first week in January, unable to drive south through the Buffalo area when over a meter of snow blew horizontally along the roadways. This does not sound like much, a mere meter, until you realize that means over 39 inches of the white stuff. Oh yes, wind chill factors were in the minus 30-40 range for part of the time.

Then last week, there was the 86th running of the Ohio State University Nursery Short Course in Columbus. Temperatures were warmer outside, but it was a good reminder of the importance of heat units to the development of flowers. The Central Environmental Nursery Trade Show of the Ohio Nursery and Landscape Association was held in conjunction with the OSU Short Course inside the Columbus Convention Center and flowers abounded. Flower development is driven by heat units. The reason you can force bulbs and forsythia shoots to flower indoors before their outdoor time is to add heat. Ohio growers such as Willoway Nursery, Brotzman's Nursery, and Losely's Nursery had displays of herbaceous flowers, trees, and shrubs in full bloom, since they force these plants in greenhouses for trade show display in the winter. Ah, to see, and smell, a rose.

Speaking of which...

The New Name That Plant Contest. Those flowers last week in Columbus were truly wonderful, from petunias to clematis, and even plantings of Snow Fountain cherries with heucheras growing underfoot. For our contest this week, though, your challenge is to identify two members of the Hamamelidaceae. That is a mouthful, but remember that all plant families end in "aceae" and include related genera (plural of genus) of plants. Thus the rose family, that includes both those aforementioned roses (the genus *rosa*) and cherries (in the genus *Prunus*) are in the family **rosaceae**.

So, for our two pictured genera in the Hamamelidaceae, one of the names incorporates big clue based on the family name, and both shrubs have delightful flowers. One of the genera blooms in spring, the other blooms in – a few weeks. What? Yes, one of our mystery genera blooms in the mid-winter outdoors here in Ohio. Each species of plant (a genus is a group of related species) has its own genetic footprint in terms of the number of heat units needed to bloom. Our mystery plants were forced indoors for the CENTS show, but believe it or not, one of them really will bloom outside in mere weeks from now since they require very few heat units.

So, contact me at chatfield.1@osu.edu or text to 330-466-0270, and if you are the first with both shrubs correctly identified (common name and Latin genus name), you will receive a book as a prize. This time it will be *Seeing Flowers: Discover the Hidden Life of Flowers* by Robert Llewellyn and Teri Dunn Chace.

The Last Name That Plant Contest. Last time two groves of trees at Ohio State University's Secret Arboretum were pictured, just south of the line where the September 2010 tornado roared through, dropping well over 1000 large trees. The trees were baldcypress (*Taxodium distichum*) and dawnredwood (*Metasequoia glyptostroboides*), both deciduous conifers, which are trees that have cones and needles, but are not evergreen.

A number of readers got it right, but as usual the prize, a copy of Aldo Leopold's *A Sand County Almanac*, goes to the first *Plant Lover's Almanac* reader to respond, in this case the erudite Mark West of Akron. Both of these large trees do very well in Ohio landscapes, with needles quite attractive spring to fall, light green turning to red-brown and golden, and the form and branch structure strong and conical in year-round. Both thrive in fairly wet sites, with baldcypress more tolerant of dry locations than dawnredwood

Christmas trees. To close this week, here is a tip that we discussed at a talk I gave at the Ohio Christmas Tree Association this past Saturday in Newark, Ohio. These growers know all about plants and weather as their harvests are always in the cold. We discussed though, another aspect of the seasons of their lives as growers, managing Christmas tree diseases. Timing is everything with disease control, especially if fungicides are used to control needlecast diseases. The key is to apply that fungicide at the proper time to prevent infection by the microscopic spores that arrive, germinate, penetrate the needle tissue, and then establish a host-parasite relationship inside the needle, enzymatically feeding on the cellular tissue of the plant.

As it turns out, all diseases are not created equal. So, for the *Lophodermium* needlecast of pine disease, the pathogenic fungus infects in late summer. Fungicide timing: late summer. For *Dothistroma* needlecast of pine the fungus infects as needles emerge in spring. Fungicide timing: as needles emerge. For *Cyclaneusma* needlecast of pine, infections are from spring through summer, and so applications need to be repeated throughout the season. And that's just three of the pine needlecast diseases, then there is *Rhizosphaera* needlecast of spruce and *Rhabdocline* needlecast of douglasfir, and then there are shoot blights, and gall rust diseases, and root and crown rots, and, you get the picture. Ain't nature grand?

Which brings us to our final quote, this from the early English plant pathologist Pelinor of Buckland: *the diagnosis and treatments of the maladies of the pines and the firs, penetrating to the veery heart of darknesse of nature gone wrongge, is man's most pressing calling!*