

# Winter's Promise

Buds protect new growth and herald the coming spring while contributing a subtle charm to the winter landscape.

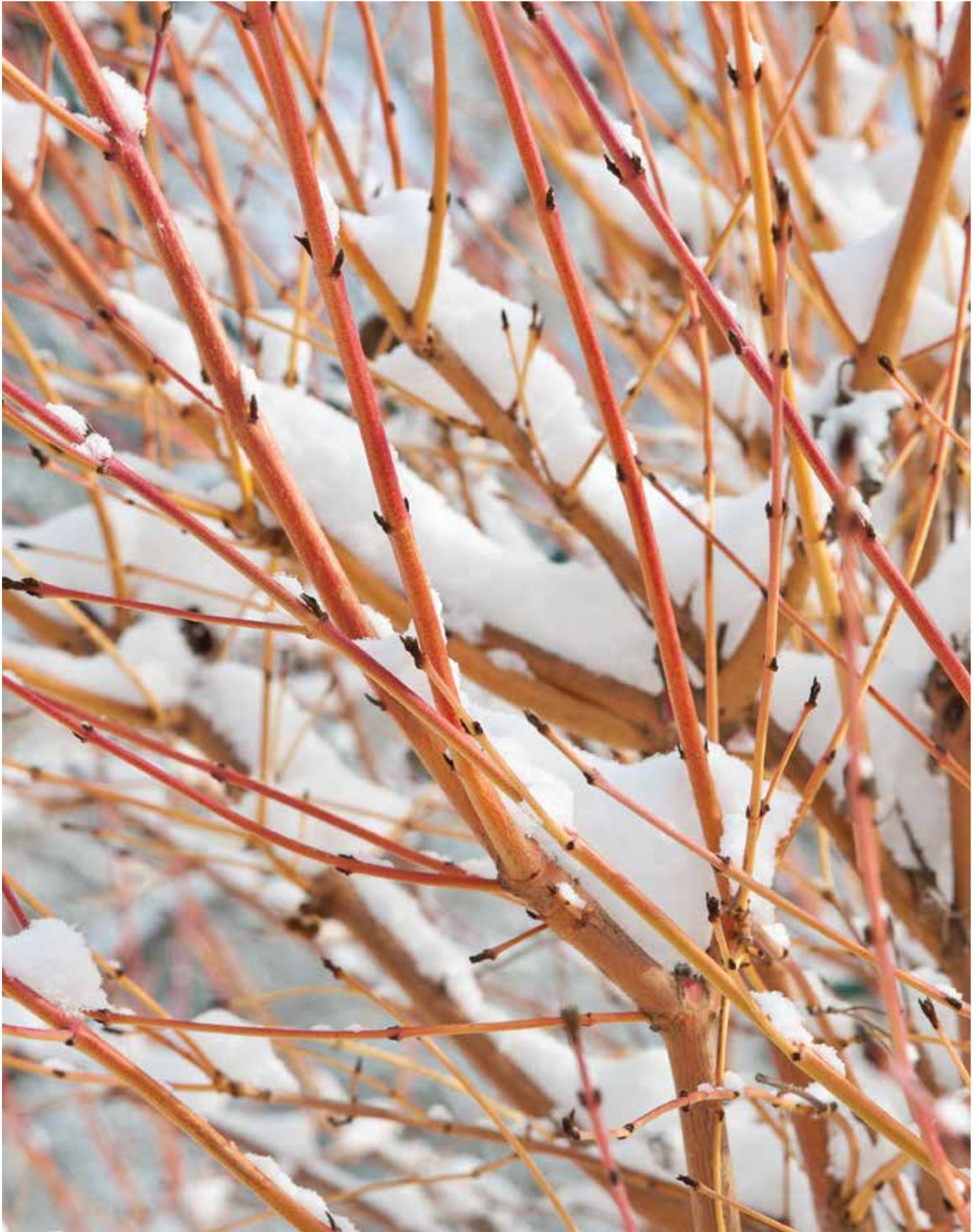
BY KAREN BUSSOLINI



Gardeners don't seem to weather dormancy as gracefully as their plants do. In winter, we miss that close connection to the natural world, the changes and daily surprises that reward our close attention. Gardeners in northerly regions, of course, are most affected by this; lacking the wealth of broadleaf evergreens and early growth southern gardeners enjoy, their gardens won't be truly green again until May. But even in January, the promise of spring's renewal is present, clear as day in the swelling buds of woody plants. You just have to look closely sometimes.

Stripped of leaves and flowers, the sculptural form and patterns of deciduous trees and shrubs are revealed in winter. I often envision buds as a form of punctuation that calls attention to and enhances this structure. Small, uniform woody nubs dot the slender lengths of weeping larch branches (*Larix decidua* 'Pendula') as though marking sentences. Buds of *Magnolia kobus* are well worth contemplating—and touching. Each fat flower bud is covered with long, very soft silky hairs that catch and reflect the light, so buds appear brown, gray, or warm silver depending on the angle at which they are viewed. For me, an old star magnolia (*M. stellata*) is one of the loveliest sights of winter. Gnarly branches give rise to even more gnarled branchlets and a profusion of twisted twigs, ending in enormous flower buds that resemble furry gray mice, growing

**Plump leaf buds offer a promise of future leaves on the pinkish-red stems of vine maple (*Acer circinatum*), a multistemmed shrub or small tree native primarily to the Pacific Northwest.**



Dark-colored buds highlight the pinkish-yellow shoots of 'Midwinter Fire', a selection of bloodtwig dogwood (*Cornus sanguinea*). This deciduous shrub forms a four- to five-foot-tall clump highlighted by attractive winter stems and summer flowers.



ever larger as the season progresses. I would plant these magnolias for their buds alone.

New Hampshire gardener and author Penelope O’Sullivan is a connoisseur of buds. Among her favorites is golden European ash (*Fraxinus excelsior* ‘Aurea’), which she says “steals the winter scene with hard velvet-black buds studding young yellow stems.” She also admires the buds of *Fagus sylvatica* ‘Tortuosa’, which she describes as “brown and pointy like my other beeches, but bigger—fat one-inch cigars set at sharp angles along the twisted branches.”

I was captivated by two of O’Sullivan’s favorite maples: snakebark (*Acer capillipes*), which has pairs of tiny red buds on maroon new growth glowing against the trunk’s olive green-and-white-striped bark; and the native coral-stripe moosewood (*A. pensylvanicum* ‘Erythrocladum’) with vibrant coral buds and young twigs.

Northern gardeners do share a few impressively budded broadleaf evergreens with gardeners from warmer climes. Pieris buds, for instance, are al-

**Winter buds come in a variety of shapes, colors, and textures, from the fuzzy bulb-shaped flower buds of star magnolia (*Magnolia stellata*), top left, to the clusters of dangling, tassel-like flower buds of native mountain pieris (*Pieris floribunda*), bottom left.**

most as beautiful as the graceful drooping flowers that follow. The pale green buds of our native mountain pieris (*Pieris floribunda*) dangle from stiff, upright racemes at branch tips, contrasting with the plant’s burnished dark green leaves. Japanese pieris (*P. japonica*) is draped with showy clusters of buds, distinctive even from a distance. Its cultivars, ‘Valley Valentine’ (deep maroon buds) and ‘Dorothy Wyckoff’ (dark red buds against wine-red winter foliage), and the hybrid ‘Brouwer’s Beauty’ (deep rosy red buds) add welcome warm hues.

At the J.C. Raulston Arboretum in North Carolina, Director of Horticulture Mark Weathington starts noticing buds in October. “The showiest bud in winter, bar none,” he says, “is paperbush (*Edgeworthia chrysantha*). Once the large white

## THE INNER WORKINGS OF BUDS

"I like to think of buds as tiny microchips at the ends of the branches," says Scott Aker, who's the manager of the Cheyenne Botanic Gardens in Wyoming. "They're constantly sensing data—temperature regime, spectral distribution, and intensity of light—and programming the plant for what it needs to do and when."

A bud may contain a miniature leaf, leaf and stem, a flower, additional buds, or all of these structures. A specialized leaf called a bud scale seals in air and water and protects tender bud tissues from cold, excess moisture, and desiccation.

Several types of buds are commonly found on plants:

**Apical (or terminal) buds** are the largest, formed at the end of each woody twig in autumn as part of the process of dormancy. Clustered flowers such as rhododendrons have many buds packed within the larger terminal buds. If the terminal bud is a leaf bud, it will be larger than other leaf buds because it also contains tissues that will extend the twig.

**Lateral (or subterminal) buds**, at the base of a terminal bud, take over if the terminal bud is killed or removed. If the terminal bud is a flower bud, a lateral leaf bud will take over stem growth.

**Axillary buds** are formed in the axil where a leaf emerges from a twig. If the leaf is removed during the growing season, the axillary bud will sprout a replacement.

**Adventitious buds** are dormant buds on the main stem, trunk, roots, and even leaves. They may form shoots if the plant is injured or if another part of the plant is pruned.

Plants that bloom on the current season's new growth, such as panicle or peegee hydrangeas (*Hydrangea paniculata*) and crape myrtles, avoid the issue of protecting tender flower buds over the winter. These plants can be pruned in early spring without sacrificing flowers. Bigleaf hydrangeas (*H. macrophylla*) and mountain hydrangeas (*H. serrata*), on the other hand, bloom on old wood from buds that need to overwinter. Cold weather, nibbling deer or untimely pruning sometimes does them in. The introduction of reblooming (remontant) cultivars such as the Endless Summer™, Let's Dance® series, and others has been a boon for northern gardeners because they bloom on both old and new growth.

—K.B.



The large white flower buds of paperbush (*Edgeworthia chrysantha*) dangle like ornaments from the branch tips.



**Above:** The flower buds of ocotillo (*Fouquieria* sp.), a genus native to the Desert Southwest, are a flaming orange color. **Left:** Rounded bumps on the branches of western larch (*Larix occidentalis*) are the buds of future leaves on this deciduous conifer native to a large swathe of Western North America.

buds set at the end of each branch, it looks like somebody has hung on ornaments.”

Scott Calhoun, a writer and garden designer in Tucson, Arizona, points out that in the desert Southwest cactus buds are interesting much longer than the flowers. Clusters of saguaro buds (*Carnegiea gigantea*) “might be 20 feet up, but they’re easy to spot, as they’re each between the size of a golf ball and a tennis ball.” He considers the flame-shaped buds of ocotillo (*Fouquieria* spp.), which start out green and turn fiery red, as pretty as the plant’s tubular red blooms.

Buds, those exquisite treasure chests, packed with next year’s growth in miniature form, don’t shout to us the way a red hibiscus or sunny-hued sunflower might in summer. But, with so many

charming choices, it’s worth gathering plants with interesting buds close by to appreciate all winter long. You can also savor ones you encounter during winter walks in the woods. ■

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*Karen Bussolini is a garden photographer, lecturer, and writer who misses no opportunity to be outside in the garden whatever the season. She collaborated with Penelope O’Sullivan on The Homeowner’s Complete Tree & Shrub Handbook (Storey Books, 2007) and currently serves as senior horticultural advisor at White Flower Farm in Connecticut. This is an updated version of an article that was originally published in the January/February 2007 issue of The American Gardener.*

## Resources

### **Botany for Gardeners: An Introduction to the Science of Plants** (4th ed.)

by Brian Capon. Timber Press, Portland, OR, 2022.

**Gardens in Winter** by Elizabeth Lawrence. Clairor’s Law Books and Publishing Division, Baton Rouge, LA, 1973.

**Winter Botany: An Identification Guide to Native Trees and Shrubs** (3rd ed.) by William Trelease. Dover Publications, New York, NY, 2011.