

New Hydrangeas for North and Central Florida: Bigleaf and Mountain Hydrangeas¹

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A hydrangea to most people is a shade-preferring shrub producing ball-shaped or flat flower heads of white, pink, blue, or purple "flowers," depending on soil conditions and cultivar (Figures 1 and 2). The showy flowerlike components of a hydrangea flower head are actually sterile florets that attract pollinators to the small, spidery-looking true flowers in the center of the flower head. Hydrangeas with ball-shaped flower heads are composed almost entirely of sterile florets and are often called "mophead" or "hortensia" hydrangeas, commonly associated with bigleaf hydrangea, Hydrangea macrophylla (Figure 3). "Lacecap" hydrangeas have flat flower heads of small, true flowers surrounded by a ring of prominent sterile florets (Figure 4), typical of mountain hydrangea, H. serrata. These species interbreed easily, and hybrids are usually considered bigleaf hydrangea, H. macrophylla.

Discoveries of reflowering hydrangeas have resulted in the introduction of many new cultivars, providing more garden impact and strengthening ongoing hydrangea appreciation. Even prior to the new reflowering cultivars, gardeners and landscapers had renewed interest in hydrangeas because they flower in shade, often produce blue flowers, and are considered an "heirloom" plant that reminds us of the garden heritage of our forefathers. Many of the newer cultivars have superior form and disease resistance, and



Figure 1. Most bigleaf hydrangea flower heads are blue in the presence of aluminum ions in soil (typically acid soils), pink in the absence of aluminum (typically alkaline soils) or purple in neutral soils. This shows the mophead flower types in blue (Figure 1a 'Bailmer' Endless Summer®) and pink (Figure 1b 'Penny Mac') as well as the lacecap flower type in purple (Figure 1c 'Miyama-yae-Murasaki').

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Hydrangea macrophylla has been evaluated using the IFAS Assessment of the Status of Non-Native Plants in Florida's Natural Areas (Fox et al. 2008). This species is not documented in undisturbed natural areas in Florida. Thus, it is not considered a problem species and may be used in Florida.

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Figure 2. Bigleaf hydrangea types with white flowers have very little pigment in the florets such that florets are mostly white, sometimes with a blue or pink tinge, depending on soil aluminum. This shows the white-flowered mophead 'Blushing Bride' Endless Summer® (Figure 2a) and white-flowered lacecap 'Fuji Waterfall' (Figure 2b).



Figure 3. 'Decatur Blue' hydrangea has a mophead or hortensia flower form.

Credits: G. W. Knox

some provide 15 or more weeks of flowering per year in north Florida (USDA Hardiness Zone 8b; Table 1). Other new cultivars are as yet untested in Florida (Table 2).

Reflowering Hydrangeas

The discovery and development of reflowering hydrangeas revolutionized the market and increased demand for these shrubs. Reflowering hydrangeas produce an initial flush of



Figure 4. 'Normalis' Bits of Lace™ hydrangea displays a lacecap flower form.

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flowers followed by sporadic flowering or later flushes of flowers in the same growing season. Though some older cultivars are considered "free flowering," it is the newer "everblooming" or "remontant" cultivars that have been lauded and subsequently promoted with elaborate marketing campaigns.

All hydrangeas flower from buds formed in the tips of stems the previous year (on old wood). Some hydrangeas also form flower buds the previous year in buds up and down the stems (not just at the tips). These flower buds may develop and flower weeks or months after the terminal flower buds bloom in early summer. Hydrangeas with this pattern of reflowering are called "free flowering." Free-flowering hydrangeas have been recognized by collectors and breeders for decades, but they were never commercially promoted on a large scale.

Everblooming hydrangeas reflower on new wood (new growth developed during the current growing season) as well as old wood. In this case, flower buds form in the tips of new growth, and these buds continue to develop and ultimately flower later in the same year. Technically called "remontant," hydrangeas with this characteristic have the ability to flower almost continuously throughout the growing season.

The first commercially promoted remontant or everblooming hydrangea was noted by renowned plant expert Dr. Michael Dirr. He first saw this hydrangea in the trial garden of a wholesale nursery in Minnesota. One of the nursery employees had noticed that a neighbor's hydrangea flowered late in the year, and he was given permission to propagate and test the plant. Years later, Dr. Dirr visited the

nursery, saw this hydrangea flowering in September and realized this plant had great garden and commercial value. This plant was given the cultivar name 'Bailmer' and is now widely known as Endless Summer® hydrangea. This plant has been promoted with an elaborate marketing campaign, resulting in nationwide awareness and huge sales.

Shortly after this discovery, Dr. Dirr and others realized similar reflowering hydrangeas occurred in a few home gardens across the United States. Their owners had often recognized the reflowering ability of the plant and may have shared the plant with friends and neighbors, but no one had tried to commercialize it. These scattered plants were unique and subsequently collected under the names of 'David Ramsey', 'Decatur Blue', 'Oak Hill', and 'Penny Mac'. In addition, a number of old hydrangea cultivars were noted in the literature as having reflowering characteristics, but they were never widely promoted.

Hydrangeas require the same care whether they are everblooming, conventional, or free flowering. Properly sited, hydrangeas rarely need pruning. However, if pruning to rejuvenate a hydrangea or reduce its size, prune after early summer flowering but prior to August so as to avoid removing the following year's dormant flower buds.

Future Hydrangeas

Many new breeding programs resulted from the reemergence of hydrangea as an important garden plant. Growers, collectors, and breeders are working to find or develop hydrangeas with additional ornamental characteristics, such as colorful stems or leaves, larger flower heads, and florets that are larger, double, or bicolor. In addition, most breeders are searching for greater disease resistance and cold hardiness as well as reflowering capabilities. These efforts indicate many more new hydrangeas can be anticipated in coming years.

Additional Resources

Dirr, M. A. 2004. *Hydrangeas for American Gardens*. Portland, OR: Timber Press.

Fox, A. M., D. R. Gordon, J. A. Dusky, L. Tyson, and R. K. Stocker. 2008. "IFAS Assessment of Non-Native Plants in Florida's Natural Areas: Status Assessment." Accessed July 8, 2012. http://plants.ifas.ufl.edu/assessment/pdfs/status_assessment.pdf.

Knox, G. W. 2009. "2008 Flowering Characteristics of Hydrangea Selections at the North Florida Research and Education Center in Quincy." NFREC Research Report 2009-02. Quincy: University of Florida Institute of Food and Agricultural Sciences.

Table 1. Average weeks of flowering per year for bigleaf hydrangea (*Hydrangea macrophylla*) cultivars

Name	Average weeks of flowering per year
'Alpengluhen' aka 'Glowing Embers'	4.6
'Bailmer' Endless Summer®	24.1
Big Daddy™	18.8
'Blushing Bride' Endless Summer®	22.1
'Charme' aka 'Charm' aka 'Charm Red'	3.5
'David Ramsey'	24.5
'Decatur Blue'	23.5
'Domotoi'	5.5
'Eclipse'	2.1
'Fuji Waterfall'	19.0
'HYMMAD I' Queen of Pearls®	9.8
'HYMMAD II' Midnight Duchess®	8.3
'HYMMAD III' Princess Lace®	7.8
'Lady in Red'	5.5
'Libelle'	4.2
Local Cultivar (Eva L. Holmes, N. Augusta, SC)	14.8
Local Cultivar (Mrs. Blackburn, Quincy, FL)	10.3
'Mini Penny'	9.2
'Miyama-yae-Murasaki' aka 'Purple Tiers'	3.5
'Mme. Emily Mouillere'	9.8
'Nikko Blue'	17.5
'Oak Hill'	20.0
'Penny Mac'	23.5
'Shamrock'	6.5
'Shichidanka'	4.8

Note: Cultivars planted 3 or more years at the University of Florida/IFAS North Florida Research and Education Center, Quincy (USDA Hardiness Zone 8b) (Knox 2009). Cultivars with 15 or more weeks of flowering express remontant or reflowering characteristics.

Table 2. Recent introductions of bigleaf hydrangea (Hydrangea macrophylla) cultivars along with their characteristics

Trade name	Cultivar name	Reflowering?	Flower form	Notable characteristics*
Abracadabra [™] Orb	'Horob'	N	Mophead	Flowers emerge green and peach and mature to hot pink; distinctive black stems; PP 21,635
Abracadabra [™] Star	'Horabstra'	N	Lacecap	Flowers emerge pink and white and mature to hot pink; black stems; PP 21,636
Cityline [™] Berlin	'Berlin Rabe'	N	Mophead	Large individual florets in large flower heads; fuchsia flowers age to green; PP 10,912
Cityline [™] Mars	'Ramars'	N	Mophead	Magenta and white or blue and white variegated florets; mildew resistant
Cityline [™] Paris	'Paris Rapa'	N	Mophead	Fuchsia flowers age to green; mildew resistant; PP 10,906
Cityline [™] Rio	'Ragra'	N	Mophead	Blue to purple flowers; compact; mildew resistant
Cityline [™] Venice	'Venice Raven'	N	Mophead	Hot pink flowers age to green; glossy leaves; PP 10,928
Cityline [™] Vienna	'Vienna Rawi'	N	Mophead	Intense flower color; PP 10,930
Double Delights [™] Black Together	'BTI'	Y	Mophead	Double florets; black stems; PPAF
Double Delights [™] Cotton Candy	'Cotton Candy'	Y	Mophead	Double florets; PPAF
Double Delights [™] Freedom	'Freedom'	Υ	Mophead	Double florets; PP 22,210
Double Delights [™] Peace Forever & Ever [®] Peace	'Peace'	Υ	Mophead	Double florets; white flowers; PP 22,025
Double Delights [™] Perfection	'Perfection'	Υ	Mophead	Double florets; red to purple flowers; PP 22,221
Double Delights [™] Star Gazer	'Kompeito'	Υ	Lacecap	Double florets; compact; PP 20,998
Double Delights [™] Wedding Gown	'Dancing Snow'	Y	Mophead to lacecap	Flowers start out as mopheads and open as lacecaps; double florets; white flowers; PP 21,052
Edgy [™] Hearts	'Horheart'	N	Mophead	Pink-red florets with each petal edged in white; PPAF
Edgy [™] Orbits	'Harbits'	N	Lacecap	Double florets; pink-red florets with each petal edged in white; PP 21,186
Endless Summer® Twist-n- Shout®	'PIIHM-I'	Y	Lacecap	PPAF
First Editions® Light-O- Day® Hydrangea	'Bailday'	N	Lacecap	White variegated foliage
Forever & Ever® Blue Heaven	'Blue Heaven'	Y	Mophead	Large flower heads; PP 18,823
Forever & Ever® Fantasia	'Fantasia'	Υ	Mophead	Large flower heads; unusual floret color: lime green and pink florets fade to blush pink with apricotmauve tones; PP 21,169
Forever & Ever®	'Early Sensation'	Υ	Mophead	
Forever & Ever® Next Generation™ Pistachio	'Horwack'	Y	Mophead	Variable pink-green-blue flower color; PPAF
Forever & Ever® Peppermint	'REI14'	Y	Mophead	Bicolor florets: white florets with a stripe of pink or blue down the center of each petal; PP 18,476
Forever & Ever® Red	'Maltisse'	Υ	Mophead	Red to purple flowers; PP 18,450
Forever & Ever® Summer Lace	'Shugert'	Y	Lacecap	PPAF
Forever & Ever® Together	'RIE 05'	Y	Mophead	Double florets open green and turn to pink or blue; PP 18,508
Forever & Ever® White Out	'White Ball'	Υ	Mophead	White flowers; PPAF

Trade name	Cultivar name	Reflowering?	Flower form	Notable characteristics*	
Hornli	'Hornli'	N	Mophead	Dwarf; red florets	
Let's Dance® Big Easy	'Berner'	Υ	Mophead	Pink/green or blue/green flower color; PPAF	
Let's Dance® Moonlight	'Robert'	Υ	Mophead	Vibrant flower color; PP 20,020	
Let's Dance® Starlight	'Lynn'	Υ	Lacecap	PP 20,019	
Next Generation [™] Snow Storm	'White King'	N	Mophead	White flowers; PP 21,065	
Next Generation [™] Wedding Ring	'Fanfare'	Y	Mophead	PP 21,161	
Savant	'Savant'	N	Mophead	Flowers change from white to pink to green; PPAF	
*Flower color is pink or blue depending on soil aluminum availability unless otherwise noted; PP = Plant patent; AF = Applied for					