

Nursery NOTES

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New Hydrangea!

Invincibelle™ SPIRIT

2009 Green & Growin'

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Visit our new online event registration at

www.ncnla.com

Breaking the Color Barrier: The Classic Annabelle Hydrangea Now Comes in Pink

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Science
NC State University

Richard T. Olsen
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U.S. National Arboretum

Here in the mountains of western North Carolina, the smooth hydrangea (*Hydrangea arborescens*) is relatively commonplace. Hiking through forest coves, kayaking down mountain rivers, or visiting a friend's garden, it's hard not to bump into this graceful native shrub. Smooth hydrangea is actually found over much of eastern North America, with an impressive range that extends along the east coast from Nova Scotia to Florida and to the west from Kansas to Louisiana. With amazing fortitude, it muscles through the heat and humidity of the Deep South and shakes off the blistering cold of Minnesota winters. Most at home in rich soils with some shade, it can generally tolerate full sun if provided with ample moisture.

The flowers of most wild-type smooth hydrangeas are not particularly showy. The inflorescence is technically a compound corymb that consists of hundreds of dirty-white, fertile flowers that have insignificant sepals and petals. As described by Dan Hinkley, noted plant explorer and hydrangeaphile, "This cluster of 'utility' is surrounded by the advertising agency of sterile florets, or ray flowers, that provide the stuff of ornament." In most wild-type smooth hydrangeas, the number of sterile florets per inflorescence ranges from

none to just a few. Sometimes, however, the genetic control for these flashy florets gets a bit out of whack and excessive numbers of the sterile flowers are produced at the expense of the fertile ones. Not a great reproductive strategy, but it can make for a remarkable show. Plant folk often refer to these genetic misfits, endearingly, as "mopheads". Over the years, quite a number of these mopheads have been found in the wild. The most notable has been the cultivar 'Annabelle' which was discovered by J.C. McDaniel, near Anna, Ohio, around 1975, and has become a phenomenally popular garden plant grown around the world.

The extensive range of smooth hydrangea and variation in foliage traits has led to the recognition of several subspecies and varieties, with varying degrees of acceptance by taxonomists and horticulturists, including *Hydrangea arborescens* subsp. *radiata* which has a dense white pubescence on the bottom of the leaf and is found only in North and South Carolina. Unfortunately, there is generally not much variation in flower color of smooth hydrangea. Sepals typically range from white to ivory, sometimes with a greenish hue. However, on rare occasions, pink flowered forms have been found in the wild. These pink variants are treated as a botanical form, *Hydrangea arborescens* f. *carnea*, with *carnea* describing the flower color as that of raw meat (so much for tasteful marketing). To date, a handful of these pinks have been found and propagated. Don Jacobs of Eco Gardens in Decatur, Georgia discovered and named 'Eco Pink Puff'. More recently, Richard Olsen, discovered another pink form here in western North Carolina along the banks of the Nantahala River and named it 'Wesser

Falls'. Unfortunately, these pink flowered forms typically have no sterile florets and tend to look a bit like a Japanese spiraea in bloom.

When Richard Olsen was a graduate student here at N.C. State University working on his Ph.D., he suggested the potential for breeding a pink-flowered 'Annabelle' type hydrangea, i.e., a pink mophead. Richard initiated some of the first crosses between his 'Wesser Falls' and 'Annabelle'. We grew out those seedlings and found, with some disappointment, that all of the progeny had white flowers and none of them were mopheads. Clearly, both of these traits were recessive and this project would require more work. Discussions with the folks at Spring Meadow Nursery ensued and they graciously offered to provide funding to further this project. Tom Eaker, Joel Mowery, and Nathan Lynch, research specialists here, all worked on the project. Following numerous generations, back crosses, and a final F₂ population of over 1,500 plants, we selected one outstanding plant that combined particularly nice form, foliage, and exceptional pink, mophead inflorescences: Invincibelle™ SPIRIT (*Hydrangea arborescens*

'NCHA1' PPAF). A breakthrough – the first ever pink, mophead smooth hydrangea! Easy to propagate, easy in production, and easy in the garden. An exceptional twist on a great native plant.

Invincibelle™ SPIRIT is now available to nurseries in North Carolina. If you are interested in growing this plant, there are a number of options. Spring Meadow Nursery (800-633-8859) is coordinating the marketing and licensing for this introduction and are providing North Carolina growers with very favorable options. If you would like to propagate and grow SPIRIT, the minimum number of plants produced is reduced to just 500 units annually. If you would rather just purchase liners, you can purchase a minimum order of just 4 trays (128 plants) directly from Spring Meadow as supplies last. Alternatively, you can purchase liners from other licensed propagators right here in North Carolina. A portion of the royalties from this plant will be donated to the Breast Cancer Research Foundation and North Carolina State University to support continued research. If you have any questions or would like an updated list of NC propagators, contact Tom Ranney, tom_ranney@ncsu.edu, for more information.






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