
AZALEA HYBRIDS OF SANDRA MCDONALD

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My interest in hybridizing began in graduate school when I studied plant genetics under Dr. Gustav Mehlquist at the University of Connecticut in Storrs. He had been active in hybridizing carnations before I knew him, but when I was working with him, his projects were raising orchids and trying to breed perennial, hardy, red delphiniums and hardy rhododendrons for the New England climate. Working with him was a memorable experience, and he certainly drilled a few of his ideas and philosophies into most of his students. Those of us who worked closely with him got our hands dirty, pulled weeds, learned to keep records, evaluated and scored plants, and took care of plants. We pricked off thousands of seedlings and worked with them at various stages of growth. We learned that we needed goals, but also needed to keep our eyes open for serendipitous events.

After getting out of graduate school and into the nursery world, circumstances were different. Most working nurseries cannot afford to put a lot of money into research and development and to grow thousands of seedlings to find and test new plants. In a few of my early crosses I did prick off and grow on in pots all of the azalea seedlings. These were supposedly tender and probably tetraploid hybrids to be used in the florist trade, and they took up a lot of space in one greenhouse. I did grow them up to blooming size and scored all the seedlings with their blooms as I had learned to do in school. However, that was not very practical, so I selected out the better ones which turned out to be my "Can Can Chorus" and sold off or discarded the rest. I planted a few plants of the "Can Can Chorus" outside, and some have been hardy enough to survive in Hampton, Virginia, for many years, although I would not recommend them for colder climates. Many of these named and better selections were propagated and sold to local florists. Perhaps some of them were planted out in other people's yards, too.

The crosses were evergreen Belgian Indian hybrids 'Loelia' (often in the trade as 'Loelia Alba') x 'Ambrosiana' and 'Ambrosiana' x 'Joan's Choice'. ('Joan's Choice' was a bright red hose-in-hose Belgian-type tender hybrid from the Eastern Shore of Virginia). The 'Loelia' x 'Ambrosiana' cross produced many double-flowered plants in several shades of pink. Most were fairly dark pink, a few were lighter pink and some had a moderate degree of hardiness. The cross of 'Ambrosiana' x 'Joan's Choice' produced mostly tender red plants. None of the red ones I tried outside survived.

I decided to concentrate on hardy azaleas and rhododendrons so as not to take up precious greenhouse space except in the early part of the growing process when the plants did not need much room.

I have been working toward several different and sometimes mutually exclusive goals: small plants, incorporating good qualities from greenhouse-forcing azaleas into hardy azaleas, new flower shapes, and new flower markings and colors. In the early days I used the Beltsville Dwarf 'Dainty Rose' to get smaller plants that would not take up a lot of garden space. These plants are not as dwarf as their mother and do not grow very fast. Therefore, they are not too popular with nurserymen who like to raise a plant to saleable size quickly, but they are good for people who like to grow azaleas and do not have

much space to grow them. This group of hybrids dates back to 1975. 'Blushing Angel' is one of this group, though it is larger-growing than most of the others. 'Little Cherub' and 'Dainty Angel' are siblings of 'Blushing Angel' and result from a cross with 'Ho O' or 'Appleblossom'. 'David's Choice', 'Salmon Sunrise' and 'Salmon Mound' are also in this group and result from a likely cross with 'Salmon Beauty' (Domoto) or possibly Bobbink and Atkins' 'Gloria'.

Another group of hybrids came from crosses of 'Ripples' x 'Evening Glow' and of 'Ripples' x 'Girard's Hot Shot'. 'Ripples' is a Howard Kerrigan hybrid from California. Galle's book says it is 'L. C. Bobbink' x 'Rosebud'. (A favorite we have been growing for years is 'L. J. Bobbink', which is a hose-in-hose white with a purple edge. I do not know if that "L. C." and our "L. J." are the same plant; but a hose-in-hose flower should not set seed so perhaps it is a different plant.) 'Ripples' is a very double pink. 'Evening Glow' is a light salmon hose-in-hose seedling from the Eastern Shore with a bit of a sprawling habit. The plants in this group turned out to be mostly very double. The cross with 'Evening Glow' produced a few shades of double pinks, and the cross with 'Girard's Hot Shot' produced mostly double, dark pinkish reds or double reds similar to the color of 'Hershey Red'. Both of these crosses are well behaved. They do not grow too fast. Occasionally I take the hedge shears to them if the salt spray burns back the tips, or if they seem to be getting too crowded. They come back beautifully. 'Williamsburg Rose' came out of this group.

I have carried on with 'Girard's Hot Shot' in several crosses. Recently I have taken a double red from the 'Ripples' x 'Girard's Hot Shot' group and crossed it with the very dark red 'Kara Fune' and have obtained some redder double flowered plants. The flowers are very nice, but the plants are not old enough to evaluate their habits yet.

'Girard's Hot Shot' was also crossed with the USDA 'Hershey Red Tetra'. 'Hershey Red' does not set seed of course, and I don't know if the pollen is any good, as I have never been able to do anything with it. However, 'Hershey Red Tetra' did have some good pollen, although not a lot. I used 'Girard's Hot Shot' as the female in order to get seed set. I remember that cross well, and it did not set a lot of seed since it was probably a cross of a diploid with a tetraploid. Some seed germinated and some resulting seedlings were weak and died off. However, eighteen plants grew well enough to set out in the field. One plant had a rose colored flower, and the rest were two shades of red: one the shade of 'Hershey Red' and the other a more pinkish red. I am pretty sure that the group of plants I got from this cross is tetraploid. They are all hose-in-hose, have heavy substance to the flowers, and the pollen looks like it is viable. A couple of named plants from this cross are 'New Generation Red', a larger 'Hershey Red' type, and 'Rosy Frills', which has frilly dark pink hose-in-hose flowers. These plants do not look a lot different from other red azaleas on the market, but I thought them worth naming because they are probably tetraploids. There are already millions of 'Hershey Red' azaleas growing in yards and perhaps there is still room for some of the tetraploid progeny.

The reason I am working on red azaleas is that red is a best seller in the plant world, though I actually prefer the more subtle and delicate pinks, whites, and light yellows (deciduous azaleas). I crossed the large, somewhat tender forcing azalea 'Venus' (a Henson hybrid) with 'Girard's Hot Shot'. I used 'Girard's Hot Shot' a lot because it was bright red and hardy. In this case I used it because I was hoping it had some recessive characters in the flower color genes that might allow the expression of the creamy quality and "white blotch" of 'Venus' (and also 'Easter Parade'). The cross worked. I grew a very large number of plants, and a large number of them were the unremarkable single rosy reds. However, I had perhaps 10 or 15 of the creamy-type plants. When I entered one of them in the Middle Atlantic Chapter

ARS truss show one year, one azalea fancier said it looked like a Dreamsicle (ice cream bar with orangy coating), therefore the name of the plant.

Most of the creamy selections from this cross had flowers about the size of 'Dreamsicle', which is larger than the 'Girard's Hot Shot' flower, but a good bit smaller than the 'Venus' flower. Dr. Mehlquist used to tell his class that when you cross two flowers of very different sizes, the resulting flower size will be closer to the size of the small parent than the large parent. This seems to be true in this cross. The reason I mention this is that my 'Venus' Baby' which supposedly came from this same cross has a much larger flower, more the size of 'Venus'. This makes me quite suspicious of the 'Venus' Baby' parentage. It is possible that an ant may have carried a pollen grain from an anther to the stigma of 'Venus' and a selfing of 'Venus' resulted. But since 'Venus' Baby' has proved a lot hardier than 'Venus' in our yard, I am keeping 'Venus' Baby'. I do not want to throw it out just because it does not fit or that an ant or I made a mistake. This is one of those cases of serendipity or recessive genes getting together.

I think something strange is going on with this cross. In addition to the odd color pattern, and the one plant with extra-large flowers, there are things happening with these genes. I crossed 'Girard's Hot Shot' back onto ('Venus' x 'Girard's Hot Shot') and got more trays of mostly trash (large single reds, whites, and dark salmons), but two hose-in-hose creamy, light salmon pinks and one creamy, light salmon pink with petaloid or occasional pom-pom center also appeared. One of the hose-in-hose creamy pinks was a weakling and died when overwhelmed by the bigger single reds, but one is named 'Pearly Pink', and the petaloid to pom-pom center flowered plant is now under observation. I cannot figure out why so many oddities appeared in this cross. I think some of the plants may be tetraploid because of the heavy substance to the flower, though I have not counted the chromosomes or looked at the pollen grains or stomata under a microscope. (Sometimes I miss the equipment and facilities we had at school.) In the case of tetraploids, the ratios for the expression of recessives

become very small, not the simple 1:4 expression of a recessive for a simple diploid. As more than one gene usually affects flower color, the number becomes even smaller and very large numbers of plants need to be grown to have a good chance of finding the one plant you want which expresses the recessive genes that are your goal. Perhaps there are several recessives hiding in this gene pool that only show up when many plants are grown.

'Elsie Lee' is another of the plants I like a lot. I do like lavender and this one is very hardy. Selfs of 'Elsie Lee' produced 'Chessie's Pink' and 'Chessie's Lavender'. Both are quite hardy. 'Chessie's Lavender' has a rather graceful, bubbly looking plant habit, not stiff and upright like 'Elsie Lee'.

Another group that turned out well is 'Gumpo' (white) x 'Wakaebisu'. I love the delicacy of the pale salmon hose-in-hose 'Wakaebisu'. 'Williamsburg', the hose-in-hose white striped salmon, is from this cross. (Several years ago I sent cuttings of several of my azaleas to California where someone probably mixed up labels and my 'Williamsburg Rose' is being distributed as 'Williamsburg' in some places there. A local garden center buyer brought this fact to my attention.) For us 'Williamsburg' usually blooms very, very late in the second week of June. 'Pure Perfection' is also from this cross. 'Pure Perfection' is hose-in-hose with lovely wavy white petals. Another one is a newer selection 'Sandra's Dwarf White' which has been very dwarf for me. Several other hybrids have come from my late Satsuki crosses. The plant habits are very nice, and the late blooms prolong the azalea blooming season.

Another group I have been working on recently is a cross of a plant whose name is unknown to me which is a large single pink with a very nice rounded flower shape that came as a rogue in some plants from de Wilde greenhouses times my 'Blushing Angel'. I have not been able to identify the large pink, though there is one Australian plant that looks somewhat like it. Whatever it is, it produced some quite nice new hybrids. Some are hose-in-hose, and some are single.

The colors are mostly my favorite soft pinks and white with many being two-toned pink and white and at least one having salmon stripes and flecks. The flower shape is especially nice and round, sort of like a pansy.

I have grown seed of azaleas from the ARS Seed Exchange, and some nice plants have come out of this. If someone makes a cross that looks like a good idea or is something I may have wanted to try, I will give their seed a try. I have grown several of Don Hyatt's crosses because we seem to have similar goals in some of our crosses.

I have described only a few of my plants here, but they are primarily from crosses that produced several good selections. Over the years I have noticed that a few crosses produce quite a few nice plants and some only one or none. In other words, some parents are better than others. In hybridizing there is always something new to look forward to, blossom types that have not been seen before or that are in different combinations that have not been made before. It is very rewarding work. Even when catastrophes happen, and something good dies, that makes space for something new. Hybridizers are optimists and usually keep on hybridizing as long as they can get around.

Sandra McDonald received degrees in chemistry, horticulture, and plant genetics and is now semi-retired from the nursery business. She is currently editor of the Holly Society Journal, a member of the board of Directors of the American Rhododendron Society and active in many other plant organizations. □



'Dreamsicle'



'Pearly Pink'



'Williamsburg Rose'

Photographs by the author