

MORE IS BEAUTIFUL

Extending the northern bloom season (Part 2: Rebloomers and bud builders)

Editor's note: This is the second of a two-part series on extending the daylily bloom season in the north. For part 1, please see the Daylily Journal, Fall 08, pages 10-13.

By Mike Huben
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Northern Rebloomers

Nearly all northern daylily growers have been tantalized by descriptions of set after set

of scapes on southern daylilies. Even more frustrating are descriptions of varieties that develop even higher budcount and better bloom with each successive set of scapes. But up North, rebloom is scarce.

Rebloom in the north requires a combination of factors. The daylily must have the genetic ability to rebloom. There must be adequate light and fertilizer. And above all, there must be enough water and heat. If a daylily reblooms in one garden and not another, or one year and not another, chances are that one was missing enough water or heat. This is where heat-zones and growing degree days become important, and why varieties that show rebloom in the south seldom show rebloom in the north.

There are many types of rebloom and a confusion of names for those types. Northern and southern rebloom are generally agreed to be different, though just how is a good question. The following three types of rebloom are all northern rebloom.



Mike Huben

One-time or fall rebloom is when a second set of scapes emerges long after the first set is finished. Instant rebloom is when you can see the next scapes emerging from the same fan before the first set is finished. Continuous rebloom is when three or more sets of scapes emerge from the same fan without a break. Remontant and recurrent are synonymous with rebloom.

Nobody has yet sorted out how those different types of rebloom interrelate, nor has anyone sorted out the genetics of rebloom. Judging from my personal experience with dihybrid diploid crosses, the genetics of continuous rebloom is far more complex than single-gene dominant/recessive. My ratios were somewhere between the 1/64 and 1/256 that would be expected with 3 or 4 recessive genes, though other genetic mechanisms could be at work.

Breeding northern rebloomers is slow work. When you outcross a rebloomer to a non-rebloomer, few if any of the offspring will rebloom — but they will probably be carrying rebloom genes. If you then backcross to a rebloomer, or to another carrier, you can expect some reblooming seedlings in that second generation. Rebloomer crossed onto rebloomer does give a good proportion of reblooming kids. Ra Hansen and others had a little trick for building southern rebloom into their lines: by breeding on plants showing rebloom scapes they avoid breeding with non-rebloomers.

Another good trick is to breed for rebloom one heat zone cooler than the parents will rebloom. If you're in heat zone 4, then use parents that rebloom in heat zone 5 or higher. Rarely, and delightfully, southern rebloomers do rebloom reliably in the north: a lucky accident since those breeders cannot select for rebloom in the north. One of our few advantages as northern breeders is that we can select northern rebloomers among our seedlings.

Rebloomers in the north need to be judged differently. Often they have smaller fans, smaller flowers, and less branching and budcount. *Hemerocallis* 'Stella De Oro' (Jablonski, 1975), for example, has an average budcount of seven. High budcounts are not critical for rebloomers: more scapes can make up for low budcount. Scape count, the density of scapes in a clump, can also compensate for low bud counts as it does in 'Stella'. There are a few northern rebloomers that stand out for large flowers such as *H.* 'Many Happy Returns' (Apps, 1992), and a few small flowered varieties such as 'Jennifer Kayleen' (Apps, 2001), 'Boothbay Harbor Gold' (Celler, 1998) and 'My Complimentary' (Kamensky, 2005) have extraordinary branching and budcount.

There are quite a few breeders working on northern rebloom. Darell Apps has been the leader, with many extraordinary continuous reblooming introductions. Richard Norris has introduced many tetraploid one-

One-time rebloomers and continuous rebloomers

Pictured:

- 1 *Hemerocallis* 'Apricot Sparkles' (Apps, 2000)¹
- 2 *H.* 'Boothbay Harbor Gold' (Celler, 1998)¹
- 3 'Delicate Lace' (Huben, 2003)¹
- 4 'Early And Often' (Huben, 2001)¹
- 5 'Frequent Flyer' (Kendall, 2003)¹
- 6 'Jennifer Kayleen' (Apps, 2001)²
- 7 'Kanai Sensei' (Huben, 2006)¹
- 8 'My Complimentary' (Kamensky, 2005)²
- 9 'Rosy Returns' (Apps, 1999)¹
- 10 'Snowy Stella' (Huben, 2007)¹
- 11 'Spacecoast Citrus Kick' (Kinnebrew-J., 2001)² Ellen Laprise photo
- 12 'Stella De Oro' (Jablonski, 1975)¹
- 13 'Strawberry Candy' (Stamile, 1989)²
- 14 'Sunny Honey' (Millikan-B., 1989)¹
- 15 'Three Seasons' (Sobek, 1990)¹
- 16 'Twist Again' (Huben, 2003)¹

Not pictured:

- 'Ashwood Wray Of Sunshine' (Norris-R., 2007)¹
- 'Belle of Ashwood' (Norris-R., 2005)¹
- 'Esp' (Shooter, 2001)¹
- 'No Blue Oxfords' (Norris-R., 2004)¹
- 'Prince Redbird' (Sellers, 1986)¹
- 'Big Time Happy' (Apps-Blew, 1993)¹
- 'Happy Returns' (Apps, 1986)¹
- 'Many Happy Returns' (Apps, 1992)¹
- 'Scentual Sundance' (Apps-Blew, 1995)¹
- 'Stella's Ruffled Fingers' (Crichton, 1999)¹
- 'Stella's Sparky' (Crichton, 1999)¹

¹ Continuous rebloomers

² One-time rebloomers

*Photos by Mike Huben
unless otherwise noted*



Huben

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time rebloomers. Other diploid rebloomers have come from Bob Sobek, Martin Kamensky, Bill Potter, Stephen Kendall, Betty Crichton, and myself.

Bud Builders

Bud building doesn't have a good definition. Botanically, we can think of it as indeterminate bud formation: the fancy way of saying that more buds keep on forming. Normally, daylilies produce about three to five buds per branch and then stop. Bud builders don't stop there: sometimes they produce 16 or more buds per branch. It's easy to spot because the branches get long or conspicuously spiral.

A simple, "I know it when I see it" rule of thumb for spotting bud building is if there are 7 or more buds on a branch. But opinions differ: some hold that bud formation stops and later starts again. Some claim it doesn't exist. At midseason, only a few buds per branch may be apparent. But late in the season it is easy to count the bud scars and easy to note the spiraling.

Very few varieties clearly bud build in the north. In addition, bud building varies from year to year based on garden conditions: drought and shade seem to halt bud building. Cold weather doesn't seem to stop bud building: many bud builders such as Pumpkin Time bloom on into October.

Bud builders can routinely have two month long bloom seasons. Bud builders that start at mid season can finish with the very lates in September, and the latest bud builders can bloom until frost in October. An exciting possibility would be to have an early bud

builder that starts and ends the daylily season on the same scapes. On the other hand, some people think that elongated, spiraling scapes from bud building are unaesthetic.

The breeding opportunities for bud builders are wide open. The diploid 'Genesta' (Marshall-Earl, 2007), which reportedly can have more than 120 buds on a scape, shows the potential for routinely enormous budcounts. Early bud builders are needed: most are late or very late. Branching or scape count could be improved for bud builders, and few have modern forms or colors (though Richard Norris reports 50 to 70 buds on his modern tetraploid 'Memorial to Steve' [2006].) And finally, few bud builders have compact scapes, with short distances between buds. One Apps seedling was an extreme example of that potential: each branch ended in a spiraling cluster of buds that looked like the center of a sunflower. That seedling was reportedly lost, but that sort of bud building could be found again. Bud building can also be combined with northern rebloom: 'More Than Happy' (Apps, 2005) showed 60 buds, 5 branches, and rebloom scapes in pots at Woodside Nursery.

As many as 16 weeks of daylily season are easily possible in the north. Whether your garden style is mixed perennial or solid beds of daylilies, the addition of earlies, lates, rebloomers and bud builders can prolong your enjoyment well beyond peak season. And if you are looking for challenging breeding goals, these relatively neglected groups are waiting for you.

Thanks to the many people who have contributed to this article and my education, but especially to Bob Sobek, Darrel Apps, Don Marvin, Ellen Laprise, and Richard Norris. ◀



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Pictured:

- 1 'Angel Unawares' (Mederer, 1970)
- 2 'Final Touch' (Apps, 1991)
- 3 'Genesta' (Marshall-Earl, 2007)
Bob Marshall photo
- 4 'Iktomi' (Roberts-N., 1998)
- 5 'Little Anna Rosa' (Williamson 1984)
- 6 'Memorial To Steve' (Norris-R.
2006) Richard Norris photo
- 7 'More Than Happy' (Apps, 2005)
Darrel Apps photo
- 8 'Ollalie All Summer' (Darrow, 1974)
- 9 'Pumpkin Time' (Sobek, 1984)
- 10 'Sagamore John Tierney' (Britz,
1999)
- 11 'Seventh Inning Stretch' (Sobek, 2005)
- 12 'Sunshine on Clouds' (Huben,
2006)

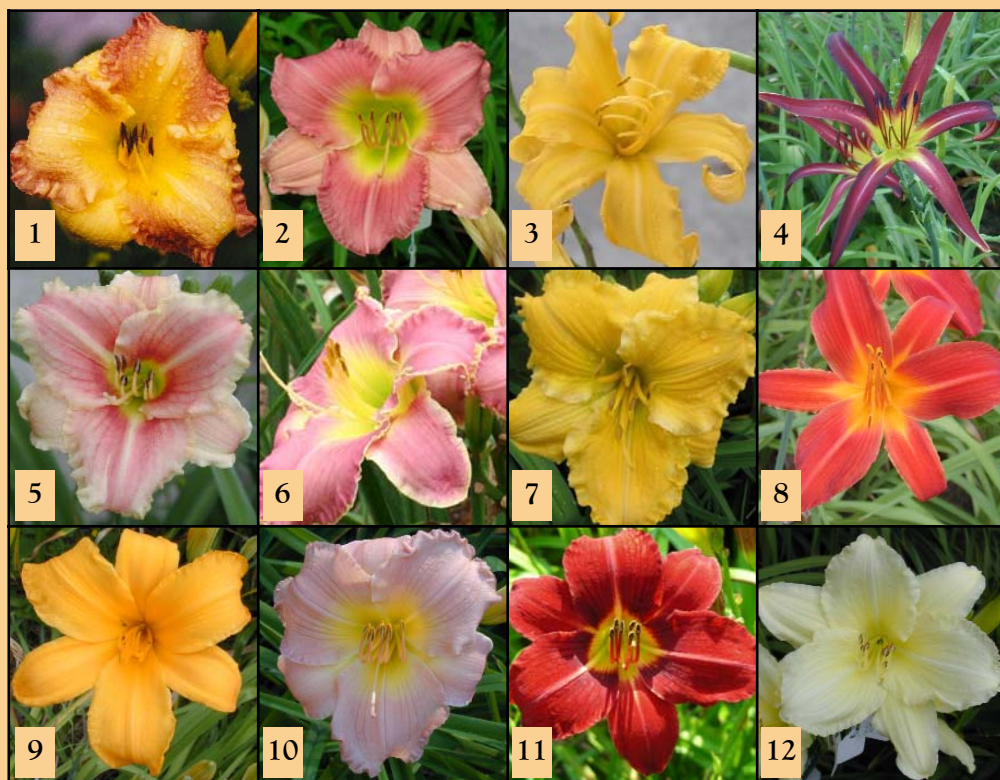
Pictured in Part 1:

'Blueberry Trumpets' (Sobek, 2005)

Not pictured:

'Barbara' (Sheets, 1965)
'Greywoods Bill Chambers'
(Wilkinson, 2006) Darlyn
Wilkinson photo
'Quit Fussing' (Salk, 2002)
'Ruffles in Lavender' (Powell-L.K., 1988)
'Sarah Christine' (Millikan-Soules, 1993)
Sempervirens

Bud builders



Photos by Mike Huben unless otherwise noted



'Blueberry Breakfast' (Rosc 1988)

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