

FEATURE ARTICLE

TRACKING PEDIGREES- WHY BOTHER?

By Dan Bachman, Lebanon, Ohio

The world of daylily hybridization, although fascinating, can be a fickle mistress. Hundreds of hours spent dabbling pollen, collecting pods, planting seed and of course the endless evaluating and culling of seedlings can result in a few base hits, a sprinkling of extra basers and that rare home run. Getting that slugging percentage higher is a goal all breeders strive for. A little extra thought in your crosses can mean a world of difference between how many get composted and how many are selected to move to the next level.

Many novice breeders go what I call "pollen berserk" and cross wildly, not considering if that had been done before or should it be done at all. How many times have you asked why a cross was made only to hear this answer "because they were next to each other in the garden"?

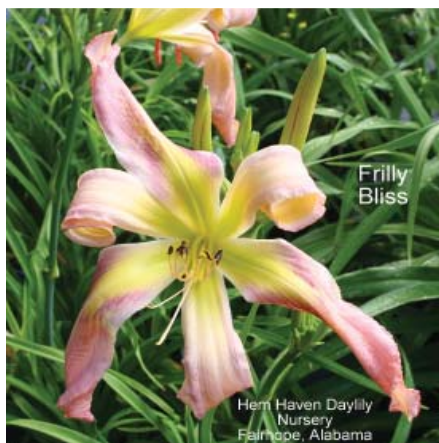
Unlimited crosses may be okay for someone with unlimited time, space and workers but the vast majority of us do not fall into that category. Keeping track of your parents or pedigrees can be a way to separate some of the wheat from the chaff and keep your seed count at a more manageable number but keep results higher.

There are many reasons to keep parental records in your breeding program. Firstly it keeps you from making that same cross every year. If you have bloomed kids from a certain cross with no traits in the area you are exploring, why do it again and again? You can consult your "stud book" or computer data base before hand and know what crosses have been made to prevent duplication. Conversely you may have made a short cross of something and after seeing the results you wish you had made more seed of that cross, you can if you know the parents. If you have kids that are coming along but just are not where you want to be you can back cross by breeding back to one of the parents that display this trait you want to emphasize. The only way to do this is by knowing the parents. If you know the parents you also know which seedlings are sibs so you can do a sib cross. This is done many times to keep the same genetic profile but mix it up a bit more. The legendary hybridizer Ra Hansen always recommended to cross the prettiest flower to it's best plant habit (branching, bud count, foliage, hardiness, etc.) sibling. Simple, if you know the pedigree! I have visted with a few veteran hybridizers who were not keeping records and claimed to be able to tell the parents by just looking at the kids. Not to cast aspersions on anyone but "HOGWASH!" with the vast gene pool available and the mixing of hundreds of lines it would be virtually impossible to predict parentage with any accuracy in this manner.

Many breeders line breed extensively, meaning they start out with a few cultivars that exhibit the characteristics they want and breed them amongst each other to refine these traits. The kids are bred to each other for more refinement for many generations. The problem with this is that, much like the old royal families of England, certain weaknesses

appear. With those old kings it manifested many times as mental problems such as insanity from incestual relations, they never went outside their own bloodlines. The daylilies are affected mostly by loss of vigor or plant habit. Breeders counteract this by outcrossing every few generations. By keeping track of your parentage you know the bloodlines and can outcross with something that has the traits you are still desiring but of unrelated genes.

Keeping good records is also just good sense. It gives the hybridizer, both veteran and novice, that aura of respect. Your program looks more grounded and purposeful if you are involved enough to go the extra distance and record your crosses. Interest and thirst for knowledge come into play also. Genealogy is a hobby that many people do as



H. 'Filly Bliss' seems to throw lighter edges.

Image from John & Nancy Falck

recreation, keeping records to form a family tree. A similar case can be built for daylily genealogy, but of course we are not selective breeding for humans. It would be nice to have complete family trees for daylilies. How many generations is a cultivar from the species or is that fat bagel from that old skinny spider???? These would be wonderful questions to answer.

The most important reason for tracking parentage is knowing where you have been and where you are going. Knowing where your seedlings have been ancestrally or genetically can help you plot a course to where you are going. For example it is possible to have a bunch of kids of mixed colors from two parents of the same color, if you can go

back another generation or two in your records or listed parental records in a check list or catalog, you may find the grandparents were of these other colors and know colors or any other trait you are working with can skip generations and show up in f2 or f3 kids. Knowing pedigrees can save a lot of wasted crosses and time. If you are very focused and want to breed for white daylilies with red edges, it is much easier to know what cultivars "throw" these type of progeny, by being able to research the parents you can pick out breeders that are more likely to advance you program. The same can go for any trait you are breeding for. I have been fascinated by the interest in spidery doubles recently. I had a few bloom in the seedling patch last summer, they seemed to be scattered randomly. I was able to check the seedling numbers and found they mostly shared one common parent. This was *Hemerocallis* 'Filly Bliss' (Joiner 98). I was able to cross among these kids and bring lots of genetics together with that common doubling characteristic. Now I can plan to take that program where I want it to go by knowing where it came from.

This philosophy of record keeping is strong in Region 2 as well as across the country. A brief poll of noted hybridizers gave much the same reasoning with slight twists. Eric Denham of Dowis Ranch, Mareilles, Il. says he keeps track "to see where you have been and where you are going.

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Pedigrees *(continued from page 9)*

Helps to plan crosses” Tom Polston of Pleasant Valley Gardens in Dayton, Ohio says it is important to “learn what each plant passes on to predict more accurate results”. Bret Clement, spider breeder from Indianapolis area says “you can tell what plants produce what characteristics. From tracking I discovered

H. ‘Memory Jordan’ throws lighter edges” Don Jerabek, Watson Park Daylilies, also of Indianapolis thinks keeping parental records can “advance your program faster”. Steve Moldovan puts a different twist to it by trying to prevent rather than add to the program. By keeping track Steve says “where we came from tells us where we can go especially preventing disease and maladies such as rust and spider mites to create healthy plants without chemical spraying”. Good idea Steve!

The only downside to all of this positive reinforcement is the time factor. It does take a little to keep organized but once you establish your own system you will find the benefits far outweigh the small effort. Record Keeping is not flawless and even the most attentive breeder will have a few “UNKS” in their pedigrees.

I wish to thank those that gave their thoughts and those were handwritten by me in a hurry so any misrepresentation is my fault entirely.