

Bearers of beauty

Understanding scapes

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While the flowers are the glory of the daylily, the scapes are the unheralded supports that truly determine whether a daylily is a winner. As we grow more knowledgeable about daylilies and want to judge the whole plant, we increasingly look at the scapes to answer important questions such as “how much will it flower,” “will this look good in my garden,” “will this win a prize in the flower show,” etc. It’s really surprising how much there is to know about scapes, and it’s also surprising how much we could learn descriptively and scientifically.



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Let’s start with the basic description of the scape. AHS cultivar registration information includes scape height, bud count, and branching. All of these can vary widely with cultural conditions. Registration information is supposed to come from averages in the hybridizer’s garden, but even there variation can be significant. So registration information at best gives us ballpark estimates of what a plant might do in our own gardens.

Measurement of scape height is simply from ground level to the tip of the scape, but is that the base of the top bloom or the top of the bloom? That is unspecified. And hybridizers are sometimes quite inaccurate or measure from recently disturbed plants. Scape height can vary greatly between gardens: it is common for cultivars to be much shorter in the south and much taller in the north.

Bud count is easy to comprehend, but what does it really mean? Bud count varies widely based on conditions. Transplantation, shade, drought, and competition can dramatically reduce bud



count. Bud count also tends to decline when plants are moved to the north. Many southern cultivars with more than 30 buds in the south frequently show only 10 or a dozen in northern tour gardens with near-perfect culture. A rule of thumb is that you lose a branch and five buds for every zone north, but there are many happy exceptions to this rule.

Counting buds is not always as easy as you might expect. Often you can see all the buds before the first bloom opens, but some cultivars are bud builders. In bud builders, the growing point that produces buds may not stop after the first four to six buds on a branch. Later in the season, more buds may be produced; sometimes as many as 16 on each branch. More than seven buds spiraling around the tip of a branch is my rule of thumb for bud building. You cannot always see all those buds at once: they may form over a two month period, and the first blooms may be long gone before the last buds are formed.

The solution is to count bud scars (where the flower has dropped off the stem) at the end of the season.

Branching is ambiguous. There is no AHS specified way to count branches on a scape. It's left to the hybridizer. There are several ways of counting branches. **Photo 1** shows a scape of *Hemerocallis* 'Golden Sprouts' (Klehm, 1996) that can be counted as two, four or six branches. Some hybridizers count only the two lateral branches. Some count the two branches of the terminal fork in addition, making four branches. And some might see how the lateral branches are forked, and count six branches (this seems to be uncommon).

A really explicit description could detail all of these as "two lateral branches that fork and a terminal V fork." (Sometimes there's a terminal W fork.)

The placement of branches is an important, but seldom mentioned characteristic of a cultivar. Are the branches up and down the whole scape, or is the scape top branched? There are a number of harsh informal terms to describe scapes with poor branching: slingshot, golf club, forked, and others.

There are many other scape characteristics that are not described by the registration information. How frequent and dense are the scapes? Some daylilies send up all their scapes at once while others may stagger their scapes. Some daylilies (rebloomers) will send up multiple sets of scapes on every fan while others will only make scapes on a fraction of their fans. Some daylilies (such as *H.* 'Stella De Oro' [Jablonski, 1975]) have incredible scape density with large numbers of scapes in a clump, while comparable sized clumps of other daylilies might have only a few. Where are the scapes? Are they all in the middle of the clump, do they form an umbrella over the whole clump or do they all lean to the sides of the clump as in **photo 2**?

These scape characteristics could all be good things, but they could also be too much. The seedling in **photo 3** has so many

branches, buds, scapes, and rebloom scapes that the flowers and buds interfere and cannot open fully. However, they will make a mass of color that will bloom for a long time.

Bud placement is very important and variable as well. Are the flowers held facing upward or outwards? You'd usually want tall scapes to present blooms outwards and short scapes to present blooms upwards. Are the buds placed so that they are crowded and won't open properly? That can happen if they are too closely spaced on a branch, if the branches are too short, or if the scapes are too numerous, as **photo 3** also illustrates.

And let's not forget bud sequencing: how many days between one bud opening on a branch and the next one? There are intervals as short as one day and as long as five days, with two and three days very common. Do multiple buds open on the same day on a single scape? Sequencing can make the difference between a flash bloomer that covers itself in bloom but finishes in a little more than a week and a long bloomer that takes four or more weeks to finish blooming.

Erectness of scapes varies greatly. Many daylilies are phototropic: they will angle their scapes at the brightest light. This can be a benefit when there is a shady backdrop to a bed and the daylilies aim their scapes at the opposite viewing side. More rarely, there are non-phototropic daylilies such as 'Toy Trumpets' (Sobek, 1984), **photo 4**, that have bolt erect scapes no matter the light source. These would be particularly good as a central axis for an island bed.

Falling scapes are a particular problem, especially in tall cultivars. Understanding why scapes fall could be an interesting

research project. Some breeders claim that there is a hinge at the base of falling scapes that is absent from erect scapes. A little chopping could answer that question. Alternative explanations

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could be buckling, excessive flexibility, emerging at an angle instead of erect or growing in an arc shape. And what causes the scapes to fall? Is it because of high winds, too much weight of flowers and rain, weight of pods, weak growth, too slender a scape, or some other factor? This information could be useful to breeders.

Scapes can be ornamental even out of bloom. The bracts (little leaves at the bases of buds and branches) can be large or small, and can be white, pink, or purple in addition to the ordinary green. One of my seedlings (MH0433P), **photo 5**, has large purple bracts that resemble weird flowers for two weeks before the bloom season. Buds can make scapes very attractive when the flowers aren't open, and come in a dazzling variety of colors and patterns including whites, reds, yellows, purples, browns, bands and stripes. See **photo 6**. 'Jerry's Whirligig' (Deschenes, 2000), for example, has striking 6½ inch erect buds that look like candles.

Scape color can be a significant plus as well. Common colors include vivid green to gray, but a number of daylilies have purple to black (dark) scapes. Dark scapes vary greatly depending on heat, sun, and probably other factors. North sides of the scapes tend not to be so dark, and the viewing angle seems to matter as well. From one day to the next, the intensity of color varies in my garden. Dark scapes are distinctive and attractive by themselves, but there's great breeding opportunity to enhance the contrast of dark scapes with the usual yellow flowers by increasing the darkness and changing the flower color to cream, pink, or white. See **photo 7** of my seedling MH0231D.

A number of other scape characteristics can be thought of as faults, esthetic choices or both. It depends on who's judging. First, the characteristics most likely to be considered faults: scapes that buckle, crack, blast, show insect damage, routinely dry out and drop buds, or bloom in the foliage. Those are the easy judgments.

Are scapes that are relatively thick or thin bad? In a high wind area, you'd want thick, sturdy scapes. Thin scapes can be considered graceful. Are the thickness and height of the scapes in proportion to the flower size and foliage? Is the scape ramrod straight, does it arch, does it have an S-curve, does it twist? Short, heavily branched and budded scapes can resemble bonsai trees: is that attractive? Are proliferations a plus because they enable more rapid increase, or a minus because they're not attractive? Reasonable people can disagree: these are matters of taste (and sometimes of garden needs.)

In the end, we ask what makes a good scape, and the answer is fairly simple. A good scape holds flowers in an attractive manner. It is even better if the scape holds lots of branches and flower buds. It is even better still if the scape itself is attractive because of form, color, buds, or bracts. We can view the scape in all its particulars (looking for good and bad features) or we can view the scape as a gestalt (our overall impression.) Either way, the scape should work well to make our gardens beautiful. ◀

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