

## **Petals and Sepals**

I would like to clarify the terms 'petals' and 'sepals'. The sepals are the outside layers of the buds which in most cases such as roses fold back and are not evident once the flower is open. The petals, of course are the centre structures that form the major part of the open flower that we admire. However, in the case of delphiniums, the sepals enlarge and are the showiest part when the flower is open and so therefore are referred to as 'petals' rather than sepals by most people. Even though we have a nursery and have been breeding delphiniums for over 20 years, Joe and I often use the terms incorrectly because it is the accepted practice of the general public. The actual petals of the delphinium are the central structure around the reproductive parts, often referred to as the 'bee'.

In the article that follows and others I plan to write about species delphiniums, I will use the terms sepal and petal in the scientifically correct manner.

## **Delphinium semibarbatum**

A favourite Delphinium species that we have grown for over 20 years is Delphinium semibarbatum, formerly Delphinium zalil. It has 2 to 3 ft. high branched spikes of florets. Like all species it is diploid (has two sets of chromosomes in their cell nuclei), so it has the delicate airy appearance of only 5 sepals which range from pale to medium yellow with the centre being a deeper shade. One of its unique characteristics is that its florets open at the same time over the length of the stem creating quite a show. It still has a lengthy flower season because it has many branches which flower later than the main stem.

Delphinium semibarbatum, like many species typically grow on mountainous slopes where there is significant snow cover, moist cool springs with adequate drainage but warm or hot summers with drought conditions. *D. semibarbatum* is a native of Afghanistan, Iran and surrounding neighbours.

Our property just north of Peterborough, Ontario is a fairly steep south facing hillside with a gravel base and therefore is excessively well drained. It is zone 5 and many years the snow is absent during the coldest parts of winter. Our wet springs, drainage, and hot often dry summers appear to replicate *D. semibarbatum* natural growing conditions but it is interesting to discover how *D. semibarbatum* and other plants have evolved for these conditions.

There are several different root and leaf structures amongst the various delphinium species. *D. semibarbatum* has very finely cut delicate leaves which grow close to the ground. Its seeds are quite large, close to the size of *D. elatum* but pale straw coloured and very rough, scaly in texture. Once they germinate, which is likely early spring in nature, they produce leaves the first season but no flower spike. They quickly go dormant and the leaves turn yellow and disappear once the hot dry weather occurs.

The roots are significant in their survival. Rather than the coarse anchor root and fibrous roots of *D. elatum*, *D. semibarbatum* forms a small tuber which obviously is able to store energy until the next season when the spring moisture triggers the growth of fibrous roots. This tuber is very small the first year and usually no larger than inch at maturity in our gardens. This growth habit while it serves the plants well in nature causes difficulty establishing plants in the garden. It is very easy for the dormant roots to be dug up by either gardeners or critters. If you can get the plants to survive until the second spring, they seem to do quite well and continue to grow for many seasons. Of course once they have flowered, you can collect seed to scatter around the mature plant in the garden or start them during the winter indoors. One season, I grew leeks in the flowerbed around

and amongst the *D. semibarbatum* to discourage cats and other animals. This seemed to work fairly well and I was able to cut the mature seed heads of the leeks for dried flowers.

*D. semibarbatum* start flowering toward mid July here, near the end of the *D. elatum* bloom so many visitors to our nursery miss this garden gem.

Although fairly short and airy it benefits from staking to give it some support during strong winds while in full bloom. Our hill is very exposed to wind. Three short pieces of bamboo near the base of the plant are adequate. The stems do not seem to break but they can tip over without support.

Hazel Cook  
Blossom Hill Nursery  
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