

# Calyx Splitting of Carnations is Inherited

by

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In Colorado Flower Growers Bulletin 43 results were presented to show that unusually high day temperatures cause carnation calyx splitting. All of us realize that this is only part of the story. Some varieties split freely and others almost never. Observations made by the author during 1950 suggested that some plants within a variety produce more splits than others. William Sim plants were found that split all their flowers, yet William Sim is not a splitting variety.

From the 1950-51 studies on Frosted Patrician, which is a splitter, 12 plants which had produced no splits and 12 plants which had split all calyxes during April and May were planted in a bench and splitting records kept from February to May 1952.

The non-splitting plants produced 11.3 per cent split calyxes, while the

splitting plants had 29.2 per cent splits during this period. In addition the splitting plants produced 63.9 per cent partially split calyxes compared to 35.2 per cent for the non-splitting selections. Full results are shown in the table.

	Total flow- ers	Per- centage not split	Per- centage par- tially split	Per- centage fully split
Non-split- ting plants	71	53.5	35.2	11.3
Splitting plants	72	6.9	63.9	29.2

It should be noted that the plants were in a different environment the second year, with slightly different and more even day temperatures. Even with this different set of conditions, the differences between the two groups of selections is highly significant.