

## Give Kalanchoes Only Twenty Short Days

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Kalanchoes grown for Christmas or any other time of year require only 20 short days to cause flower buds to form and they develop under any length of day. Plants are much better shaped if the 20 day treatment is followed by long days than if the short day treatment is continued indefinitely.

During the summer of 1949, we conducted an experiment on plants in 4-inch pots to determine the number of short days necessary for flowering. One, two, and so on to 30 short days were given in succession during July. This treatment was followed by long days. Plants were in full bloom in early September.

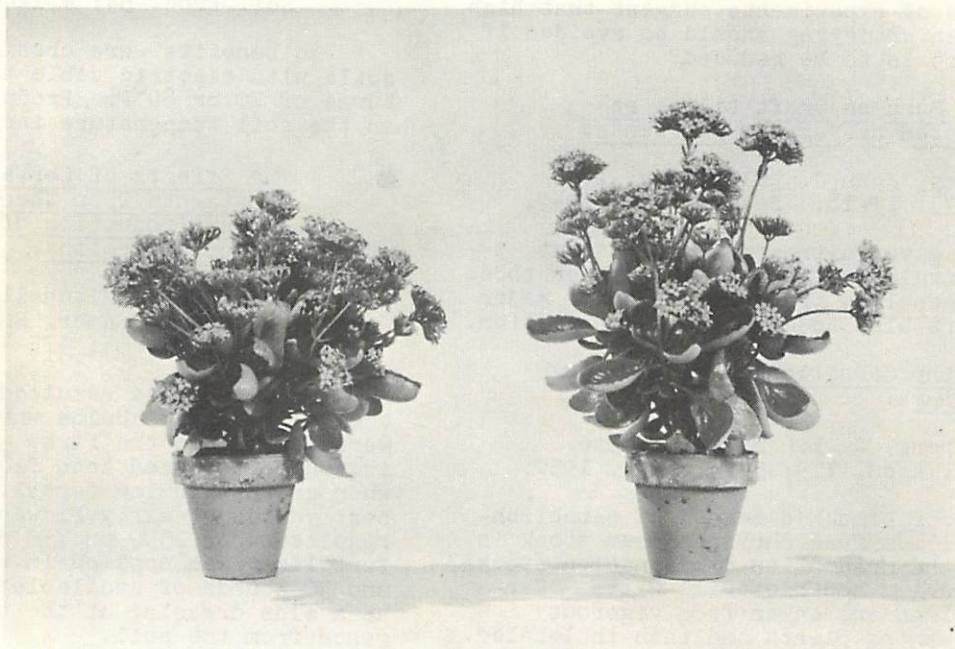
No flower buds formed on plants given less than 4 short days. The terminal bud formed one flower bud with 4 short days. With 4 to 8 short days, followed by long days, the plants produced a large number of lateral vegetative shoots. Apparently, the terminal growing point was stopped by the bud formation and the lateral vegetative buds were stimulated to develop. As the number of short days increased, more flower buds developed per shoot and per cluster.

Complete bud formation resulted when plants were given 20 or more short days. Plants given 20 to 25 short days gave more compact, and probably more desirable, plants than those given 30 or more short days in succession.

Continued short day treatment caused the primary flower stem to elongate to some distance above the foliage. The secondary or lateral flower stems were dwarfed in comparison. Plants that were given 20 to 25 short days, followed by long days, developed no such long primary shoots. The primary was apparently dwarfed by the return to long days and the secondary shoots developed to approximately the same size as the primary.

These results are almost an exact duplicate of work by Harder and V. Witsch (1941). Their work, being with smaller seedling plants, gave identical results even to the effect on terminal and lateral flower buds.

Harder, R. and H. V. Witsch. Wirkung von Photoperiodisms and Yarowisation auf die Blütenbildung von Kalanchoe Blossfeldiana. Gartenbauwiss. 15: 226-246. 1941.



The plant on the left was given 20 short days then long days until it was in bloom. The plant on the right was given continuous short days to bloom.