

Skutch(9) has also observed that more pollen-shedding flowers may be open on certain trees during a forenoon than there were flowers in the first period during the preceding afternoon. This condition has frequently been seen by the writer and the observation made that it may involve flowers which open but once for a pollen-shedding period or it may involve flowers that operate on a 48-hour cycle, as reported under "B2" and "B3" types of flower cycles(13). Sometimes counts will show more flowers open on B varieties during the afternoon than in the following forenoon in which case certain flowers may not open for the second opening or they may do so on the second day following. That some varieties may be quite regularly A or B while others of B are more erratic is a frequent observation (see Figs. 6 and 7). This condition illustrates varietal differences.

Another type of single opening occurs when first-period flowers do not entirely close during the night but enter into an extended single opening. If the following day is favorable such flowers may shed pollen.

The writer has carefully studied single-flowering and diligently searched for seedlings or varieties which may have ONLY single opening in the hope that this might be associated with self-fruiting. This behavior is strongly developed in the "late" B varieties, but no variety has been found which maintains single opening to a noticeable degree under the most favorable conditions of weather.

**Delayed Opening and Reversal of the Daily Alternation:—**Under unfavorable weather conditions the first or the second opening is often delayed; the first opening of A varieties may be delayed until in the afternoon, and that for B varieties may be delayed until the following forenoon and thus the normal daily sequence is for the time being temporarily reversed (see especially Fig. 9). A set of flowers that would normally open during any one day may be delayed until the following day or until the second day. In extreme and continued inclement weather the development and maturity of flowers is greatly retarded and the opening of flowers in sets that are synchronous and alternating is scarcely in evidence.

**Extended Cycles:—**Unfavorable weather conditions or marked changes in weather while a set of flowers is open often extend the cycle of dianthesis either in the period of first opening, in the interval, or in the second opening, or in two or more of these conditions. Various types of this are shown in the table of