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Flowering and Growth Response to Photoperiod and Cold Treatment of *Arabis sturii* Mottet

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Arabis sturii Mottet (Brassicaceae) has potential as a new crop for American nurseries and may be used as a perennial pot plant. Cold treatment was required for flowering of *Arabis sturii* and a 6-week cold treatment resulted in the greatest number of racemes and flowers per plant. Increasing or decreasing length of cold treatment resulted in less flowers per plant. Plant height increased as duration of cold treatment increased. Photoperiod had a significant effect on flowering and growth only after plants received 3 weeks or more cold treatment. All plants given a 16-h photoperiod flowered, while only 50% and 80% flowered under an 8- or 12-h photoperiod, respectively. A 16-h photoperiod shortened the time to production of flower buds and anthesis and the greatest difference occurred after the 9-week cold treatment. At the 6-week cold treatment, number of flowers per plant differed significantly between long (145 flowers) and short day (59). The effect of photoperiod on number of flowers per plant became less as cold treatment increased or decreased. Although photoperiod did not induce flower initiation, it had a tremendous effect on flower development. Many more flowers were produced and plants were taller as photoperiod increased. No significant difference was found in plant dry weight.