Bolting In Annual Beets Induced by One-half Hour Supplemental Illumination During Long Winter Nights

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Preliminary tests during short winter days with annual beets showed that reproductive development was induced effectively by interrupting the long dark period at 12:00 midnight with one-half-hour of light from a 150-watt reflector-type incandescent filament lamp hanging two feet above the beets. Seed-stalk development under conditions of interrupted dark periods, however, was somewhat slower than that induced by continuous illumination at night from the same source of light. Both groups of plants received normal sunlight during the daytime. This experiment with a long-day plant was suggested by experiments with photoperiodic control of floral initiation in barley. (H. A. Borthwick, S. B. Hendricks, and M. W. Parker. Action spectrum for photoperiodic control of floral initiation of a long-day plant, Wintex Barley (*Hordeum vulgare*). Botanical Gazette, 110:103-118. 1948.)