

Chawit Sawatdisan 2007: Effects of Light Intensity, Photoperiod, Cytokinin, Gibberellin and Ethylene on Off-Season Flowering of Dragon Fruit (*Hylocereus undatus* (Haw.) Britt). Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture. Thesis Advisor: Associate Professor Chalongchai Babprasert, B.S. 138 pages.

The effects of light intensity, photoperiod, cytokinin, gibberellin and ethylene on off-season flowering of dragon fruit planted at Suankasetkeawmungkorn orchard, Nong-Sua District, Pathum Thani Province during October 2005 to April 2006 were investigated. The result showed that light exposedness of 200 watt during 3.30 - 6.30 am. for 15 days and ratio of cytokinin to 95% ethanol at 1 : 1 for 20 days after exposedness gave the suitable number of flower and fruit which were 51.75 16 and 37.50 15.50 respectively and gave the profit which were 322.40 and 213.62 baht/column respectively. Effects of cytokinin, gibberellin and 95% ethanol couldn't induce vegetative buds change to floral buds but promote flowering which different from effect of ethylene. Ethylene couldn't both induce and promote flowering of Dragon fruit in off-season.

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