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
of

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Effects on the Yield and Quality of Day Length and Light Intensity in
Alstroemeria 'Regina' Linn. (Inka Lily) Culture in Adana Conditions

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Abstract: In this research, the aims were to determine the flower quality and yield of Alstroemeria 'Regina', were grown under 12, 14 and 16 hours by employing the natural day and two different light intensities (first level light intensity: min.90, max.678 lux; second level light intensity: min. 104, max. 888 lux) with high-pressure sodium lamps in greenhouse conditions. Plants were grown under natural photoperiod conditions. One year old plants, maximum flower productivity figure (210) were obtained by the treatment of 16 hour long day photoperiods. On two years old plants the treatment of 12 hour photoperiods increased their flower productivity 310 than the plants which were grown under natural conditions and the number of flowers were 103 and 220 respectively. Light intensities which were used in supplemental illuminating above 145 and 165 cm from soil surface were found effective on the flower productivity of Alstroemeria L. On one and two years old plants flower yield in May were obtained 41.6 % and 59.6 % respectively in total. Long photoperiod treatments which were applied on one year old plants as 16 hours and to the two years old plants as 12 hours were showed positive effects on the length of flower stalk, the number of total and average flowers in a cluster, the diameter sizes of the main flower stalks and on the yield than the plants which were grown under natural day photoperiods. Also these treatments caused a few earliness.

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