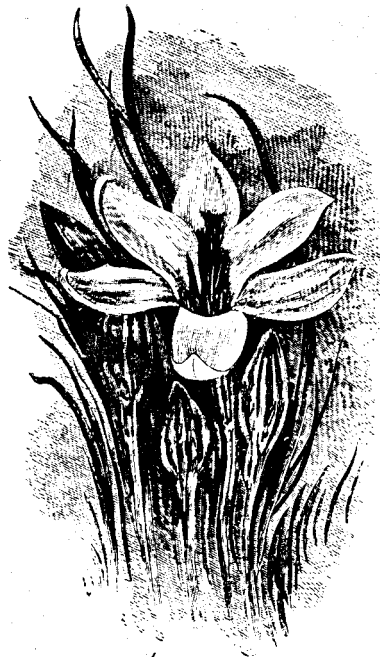


INTERACTION BETWEEN SHIPPING AND ROOTING TEMPERATURE ON VERNALIZATION OF *LILIUM LONGIFLORUM* THUNB.

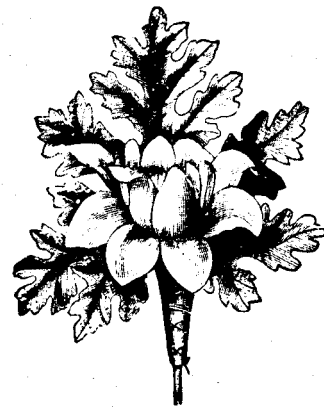
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***Lilium longiflorum* Thunb. cv 'Nelle White' bulbs (17.7-20.3 cm circumference) were received immediately after harvesting from the field.**

Lilium longiflorum Thunb. cv 'Nelle White' bulbs (17.7-20.3 cm circumference) were received immediately after harvesting from the field. Bulbs were placed in moist sphagnum peat in plastic bags to simulate a shipping crate and were placed in controlled environment chambers maintained at 10, 20 or 30C for 2 weeks. Bulbs were then planted in soilless medium in a 15.2 cm pot and were placed into controlled environment chambers maintained a 10, 20 or 30C for root development for 2 weeks to yield 9 different shipping/rooting treatments. Potted bulbs were then vernalized for 6 weeks as 6C. Bulbs were then placed in a glasshouse maintained at 18 ± 2 C under natural daylight. Data were collected on date of emergence, visible bud and anthesis. Leaf and flower number were also collected. Time to emergence and visible bud increased as the shipping temperature which bulbs were exposed to increased. Bulbs which were exposed to 10C shipping and/or rooting environment had reduced leaf and flower number. Exposure of bulbs to 30C during the shipping treatment resulted in plants which appeared undercooled and/or unvernalized.



Rooted cuttings of *Pelargonium x domesticum* B. cv 'Vicki' were placed in controlled environment chambers maintained at 2, 6, 10 or 14C.



TEMPERATURE, IRRADIANCE AND COOLING TREATMENT LENGTH AFFECT *PELARGONIUM X DOMESTICUM* FLOWERING

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Rooted cuttings of *Pelargonium x domesticum* B. cv 'Vicki' were placed in controlled environment chambers maintained at 2, 6, 10 or 14C. Irradiance levels were 0, 200 or $350 \mu\text{mol s}^{-1}\text{m}^{-2}$. Plants were rotated among chambers at 0900 and 2100 hr (12hr photoperiod) daily to yield 16 day/night temperature (DT/NT) treatments. Plants were removed from treatment chambers after 3, 4.5 or 6 weeks and were placed in a glasshouse maintained at 12 ± 2 C. Data were collected at anthesis on node number from initiation of the cooling treatment to the base of the inflorescence, total flower number per plant and branch number. Node number increased exponentially from 16.1 to 22.3 as the average daily temperature which plants were cooled at increased from 2 to 14C. Total flower number per plant increased from 105 to 127 as NT increased from 2 to 10C. Flower number was unaffected by DT. Flower number per plant increased from 97 to 127 and node number decreased from 17.6 to 16.4 as irradiance levels increased from 0 to $350 \mu\text{mol s}^{-1}\text{m}^{-2}$. Flower and branch number increased as the length of the cooling treatment increased from 3 to 6 weeks. Node number was unaffected by the length of the cooling treatment.