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Influence of Low Temperature Treatment on Petal Color of Picotee Cultivar of *Eustoma grandiflorum*

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Artificial climate experiments were conducted to evaluate the effects of low temperature treatment on petal coloring of picotee cultivar of *E. grandiflorum*. After pistil formation of the first flower bud, low temperature treatment was conducted with the daytime temperature set at 20°C and the night temperature set at 10°C. The coloration rate of the petal increased with increases in the duration of low temperature treatment up to 6 weeks. And the coloration rate increased when low temperature treatment was started as soon as the pistil formation stage of the first flower bud. However, when the daytime temperature was set at 30°C and the night temperature was set at 15°C during the

formation of the first flower bud, the colored area of the petal was 12.9% of the flowers. In this case, the quality of cut flower was superior to flowers grown at consistently high temperatures throughout cultivation. The possibility that another factor besides the developmental stage of the flower in this phenomenon was suggested by the increasing petal coloration rate at higher temperatures.

Key Words: [coloration rate of the petal](#), [petal formation](#), [pistil formation](#)

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