

"SPLIT TEMPERATURES" -- HANDLE WITH CARE

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There is a lot of interest in this method of manipulating temperatures to save on fuel but our results to date in the Phytotron prompt us to urge caution before you drop that night temperature. We tried several combinations, such as gradually going as low as 45°F at night. The temperature treatment that would have required the least amount of energy at night cost us at least 3 weeks in cropping time with May Shoesmith chrysanthemums and was a complete disaster for Eckespoint C-1 Red poinsettias (Fig. 1). A more comprehensive experiment is now underway, as we try to obtain energy economy without sacrificing quality or lengthening crop time. Experiments with other crops also are planned.

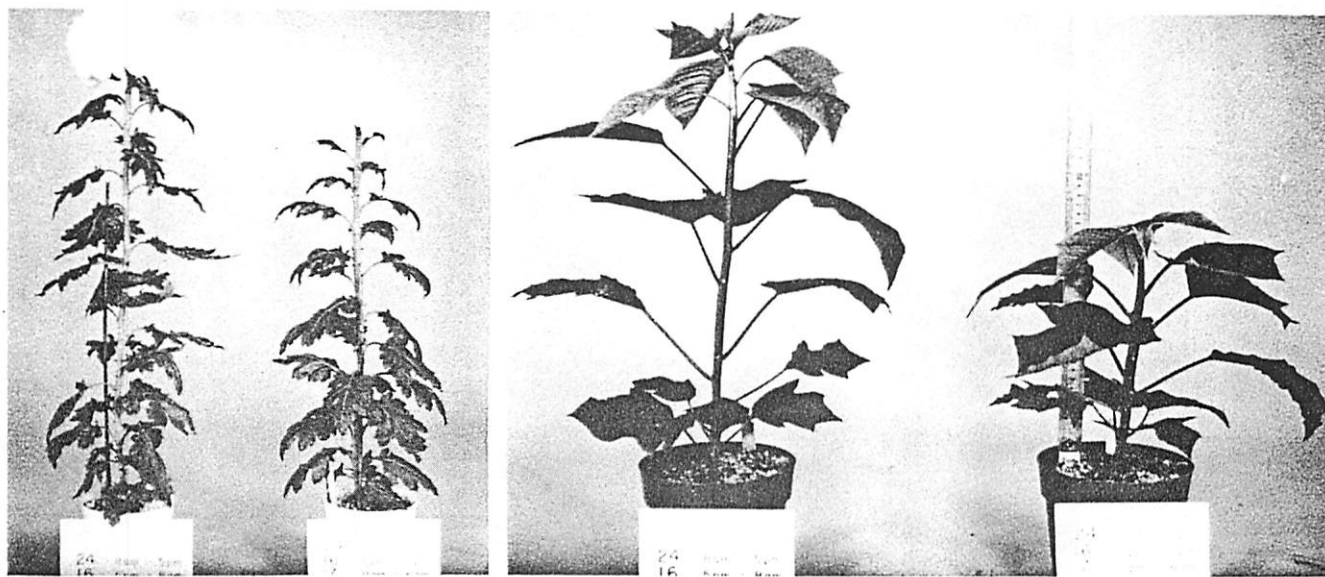


Fig. 1. May Shoesmith chrysanthemum and Eckespoint C-1 Red poinsettia plants grown under different temperature conditions. The plants on the left for each species were grown at 75°F from 8 AM to 5 PM and 60°F from 5 PM to 8 AM. Plants on the right received the split temperature treatments of 75°F from 6 AM to 5 PM, 60°F from 5 PM to 11 PM and 45°F from 11 PM to 6 AM.