

# WINTER PROTECTION FROM PLASTICS STRUCTURES

by J. H. Tinga, University of Georgia,  
Athens, Georgia

In the last 10 years, great progress has been made in plastic structures, skin, and environmental control devices such as exhaust fans and humidistats. This has increased the cost per square foot per week of the crop growing area. Consequently the value of the

COLORADO FLOWER GROWERS ASSOCIATION, INC.

OFFICE OF EDITOR

W. D. Holley

Colorado State University

Fort Collins, Colorado 80521

FIRST CLASS

crop to be marketed has increased.

Our approach has been to consider the most efficient means of getting a high return on each dollar invested. To do this, we make only those improvements on the open field which will have the greatest payoff.

Therefore, we are not growing greenhouse tomatoes at 60° minimum in February because it decreases net return due to high fuel cost and annual heating equipment cost.

In working with woody plants of commercial nurseries, we seek to modify the extremes of natural changes in the temperature. Since these changes cannot be predicted, we have turned to climatology for the coldest expected night in 10 years. By growing and/or storing container-grown woody plants under 4 mil u.v. polyethylene with 80 to 90% shade and no fuel system, our research has shown that we have preserved the quality of the crop. We have extended the growing season by 25 days at each end, and we have decreased the extremes in temperature by over 25°F (on a -5°F night outside, we have a +20°F inside).

We have provided a low cost growing area in which labor can be gainfully employed on cold and wet days - compared to no work in the open fields. We have introduced methods of starting and growing plants which are more intensive than field culture and less intensive than greenhouse culture. A production scheme has been devised to utilize farm labor on a 40-hour week to take the peaks and valleys out of the labor requirement for horticultural production. Results will be presented on plant performance.

Your editor,

W D Talley