

# Effect of a Double Poly Roof on Reducing Heat Consumption in Greenhouses

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In CFGA Bulletin 329, a report was given on heat consumption by several commercial ranges in the Denver region for 1976-77. The results showed an average of 37.3 BTU per sq. ft. per degree-day for all types, with extremes of 62.0 and 25.8 — the latter for a double poly roof, carnation range.

Last fall, one of the ranges in that survey converted 75% of the establishment to double poly from fiberglass. For an identical period, October 28-29 through January 28-29, the effect of this recovering was to reduce heat consumption by 41%. A 50% reduction could have easily been obtained if the entire range had been recovered. In 1976-77, the degree-days of heating were 2766, and for 1977-78, 2894. This past winter was more severe. The average heat consumption for this past winter was 36.7 BTU per sq. ft. Crop production has been acceptable, with some tearing from wind and ice. The cost of replacement every two years must, of course, be set against the saving. But, it appears to be highly significant.