POT ROSES FOR ST. VALENTINE'S DAY

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Can pot roses be forced into bloom for St. Valentine's Day? After the results observed this year with Pete Dunn at Nurserymen's Exchange, Half Moon Bay, we think it is possible.

Here is the procedure that was followed: The varieties Red Garnette and Mother's Day (30 plants each) were taken from the field and stored at approximately 35° F for 3 weeks (November 21 to December 12, 1974). Plants were pruned, planted in 7-inch clay pots, and placed in a greenhouse on December 13. A starting night temperature of 60° F was used for 2 weeks and then raised to 70° F. The 70° F night temperature was continued until January 21, 1975, and then reduced to 60° F until January 28. After this date the heat was shut off, and the average night temperature was 45° to 48° F until February 14.

The results were surprisingly good in that both varieties would have flowered for St. Valentine's Day if grown under slightly warmer greenhouse conditions. In fact, some plants of both varieties were placed in a greenhouse and given a 64° F night temperature from January 26 until February 14. These plants would have easily made it for the St. Valentine's Day market. There are plans to repeat the trial next year and perhaps include other varieties.

Similar plants grown at two other greenhouse establishments flowered for Valentine's Day without the high 70° F night temperatures. A steady 60° to 62° F night temperature from potting date to flowering (February 7) was all that was needed to successfully produce a Valentine crop.

A 40 PERCENT FUEL REDUCTION IS WORTH A TRY

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A 40 percent fuel reduction was demonstrated over a 17-week heating period from January to May 1974. The reduction was achieved in two greenhouses covered with double layers of air-separated polyethylene film at Brown Plants, Inc., Encinitas, as compared to a greenhouse covered with a single layer of film. All three greenhouses contained foliage plants and were heated to a minimum of 70° F.

The fuel reduction was achieved in one greenhouse with a 2-inch static air separation between the layers of polyethylene film and in the other with forced air between two layers (which resulted in a 30-inch separation of the layers at the roof peak). The installation with a 2-inch static air separation requires placement of the bottom film layer on top of the rafters (fig. 1), a 2-inch wood spacer, then the top film layer nailed with lath.

Where forced air separates the double film, both layers are applied simultaneously over the rafters or support wires (fig. 2) and fastened with lath only to the gutter and the greenhouse ends. This method eliminates nailing to each rafter and removal of those nailed laths when replacing the plastic. The result is a substantial saving in labor cost.

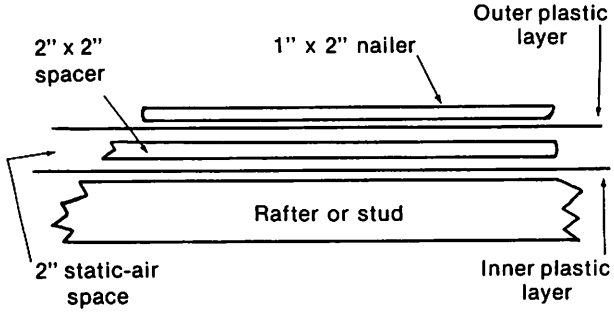

Fig. 1. Rafter and side wall construction of static-layer, double-walled house.

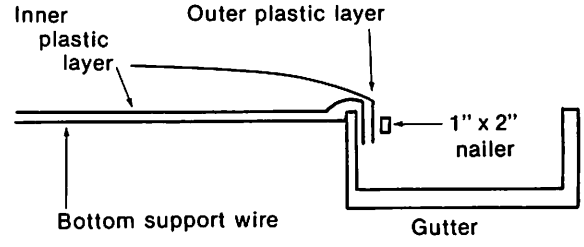

Fig. 2. Roof construction of air-separated house.

Question: Can I afford two layers of plastic film?

Answer: You can't afford not to use two layers, because you get up to 40 percent fuel savings. The forced-air, two-layer system has the additional advantage of completely eliminating any fastening to the rafters as is done with single plastic or with the static-air double layering.

Question: This sounds too good to be true—what's the catch?

Answer: The only catch is that you have to wire and install small pole blowers to inject air between the layers. A Dayton 2 C-647® pole blower maintains air pressure for a double-layer greenhouse of about 25x150 feet.

Question: Don't two layers of plastic cut out too much light?

Answer: Each single layer reduces light transmission 8 to 10 percent. However, two layers of 4-mil polyethylene are often "lighter" than fairly new fiberglass, and probably lighter than one layer of polyethylene with a thick coating of condensation. Locally, growers have successfully used a double polyethylene layer for roses, carnations, and chrysanthemums — the "high light" crops.

Question: What about wind, and how long will double-layer plastic hold up?

Answer: We need more grower experience to be sure, but it looks as if the double plastic can take plenty of wind. The pressure can be increased between the layers if the pole blower has extra air capacity. There seems to be less rigidity and less stress at the rafter with double plastic. In fact, the double-layer plastic may last longer than single plastic. There also is a possibility that the lower layer could be used 2 years.

Question: Is condensation also a problem with double plastic?

Answer: It can be. Generally, though, there is far less condensation, or none at all. Pole blowers have been mounted under the gutters in many installations. We think this is wrong. We think pole blowers should be ducted through the roof to put outside air between the plastic layers. If you grow extra wet and have a low greenhouse with direct-fired gas heaters, condensation may still be a problem even with a double-plastic installation.