# OUR OVERWINTERING TECHNIQUE PROMOTES CROP UNIFORMITY

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Environmental inconsistencies during the overwintering process lead to perimeter growth suppression in nursery stock. Altering this process helps to sustain consistent conditions, allowing uniformity to be retained.

Our product at D&B Plants consists of 127 taxa of woody ornamental plants, vegetatively propagated by cuttings. These cuttings are rooted under intermittent mist in either sand beds or plug trays, and then transplanted into 2½ in. peat or 4 in. plastic pots. They are then overwintered for spring shipping.

Our overwintering practices encourage plants to acclimate naturally until late November in southeastern Michigan. Then the 14 x 96 ft hoop houses are covered with two layers of clear 4-mil plastic. We are emphatic about the use of clear plastic for most of our plant material. Extended periods of humid, cloudy weather raise havoc with plants susceptible to fungal problems under white poly. The accelerated growth achieved under clear plastic also seems to give our liners an edge, when all the other spring factors are accounted for.

Crop uniformity under clear plastic can often be an elusive goal, primarily due to accentuated day and night temperature fluctuations. The use of a perimeter strip of styrofoam (10 x 1 in.) placed internally on the side walls, prevents a good deal of heat loss in the form of conduction, but still a marked growth suppression could be observed for 6 to 10 in. around the outer edge. Ideally, snowfall will occur in early December and leave its insulation blanket along the greenhouse side walls until early to mid May when plastic is removed.

A neighboring container operation simulated this natural insulation, by surrounding plant material with a two foot strip of microfoam around the perimeter, between hoop structure and containerized plants. Modifying this idea to fit our flatted material, a 15 in. strip of microfoam was stapled to the top of our side walls. When the double layer of inflated plastic is in place, the microfoam stands up nicely between the plastic and metal hoops, forming a neat little wall.

Knowing that the microfoam offered insignificant insulation, and that the primary heat loss from convection was not being addressed, we applied the microfoam to a single house and waited out the winter to make spring observations.

When shipping season arrived, the results were dramatic. Side to side uniformity that could not be explained by temperature moderation alone, was being influenced by another factor.

The following winter, more enthusiastically, several houses had perimeter walls installed. Throughout the winter and spring, more diligent observations were made. This buffer zone used to heat up dramatically on sunny days, due to its close proximity to the clear plastic. Now, with translucent walls in place, moisture levels, as well as temperatures are being moderated. This dual regulation provides a more even environment throughout the winter.

The results that second winter convinced us to use the perimeter walls in propagation houses as well as on less winter-sensitive material. Investing 10 or 12 dollars in labor and an expense of 25 dollars for the microfoam, which can be used for three years, provided a uniform environment to grow a consistent product.

For the coming March, as your plants are breaking dormancy, take note of any growth suppression along the outside edge and consider this simple suggestion for the next fall.