

CO₂ USE SAVES ENERGY

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Carbon dioxide is free. Plants grow better in CO₂ enriched atmospheres and day temperatures can be raised 5 to 15° over normal without ventilation. This elevated day temperature warms everything in the greenhouse, storing solar heat. This reduces the heat requirement at night.

Passive solar heating is the most efficient system known. It is not as yet practical in most greenhouse situations where substantial quantities of heat are to be stored. The collectors must be extensive and the power requirements for moving the heat are high.

However, solar warming of the greenhouse during the day does store some heat and not much is required to pay for the small cost of CO₂ enrichment. If we were able to measure this heat saving we might even find that total energy use is less when CO₂ is used, particularly if generated from burning propane or natural gas.

Remember that saving energy is not the primary reason to use CO₂. Increased growth, improved quality and reduced production time can be realized depending upon the crop being grown. CO₂ is especially important in tight greenhouses where energy conservation measures are practiced.