SOME METHODS FOR RETAINING HEAT IN YOUR GREENHOUSES

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As the need to conserve energy continues to plague all greenhouse growers, the best possible methods for energy conservation and heat retention will be needed to counteract the increasing cost of fuel and its continued availability. The simplest methods would include covering as many air leaks as possible. Most growers in Connecticut are currently practicing air inflation techniques over old and new glass houses or using double poly structures.

Other important methods of dealing with energy conservation and heat retention include the articles published in the Connecticut Greenhouse Newsletter (see references). Even though conservation methods and alternative fuel sources may diminish the energy problem, the fact remains that the greenhouse is not designed to save energy but to produce a profitable crop under controlled conditions.

Some methods for heat retention include:

1. A heat blanket over the crop for the night will conserve heat. Old greenhouses may present a problem with too many obstructions while new houses are usually well adapted for this. Heat blankets may pay for themselves in one year. Black polyethylene can be used as a horizontal heat blanket. While more efficient than clear, it is not as good as blankets designed for this purpose. Remember that thermal blankets must be left open during snow storms.

2. Run warm water in 3/4" poly pipes every 2' under a 3" layer of porous concrete on the floor to heat the roots of the crop, thus reducing the need for higher air temperatures. Placing pots on the floor to increase root temperature can also save on the cost of benches.

3. Have a small fan blowing over shaded thermostats and thermometers, to give the most accurate temperatures. Aspirated controls can save fuel.

4. Heating pipes should be painted any color but aluminum or metallic. Overhead pipes should be white.

5. When greenhouses are tight, burners may use up the oxygen. Be certain that an air inlet supplies 1 square inch for each 2000 BTU.

References

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