



Individual plant beds can be effectively enclosed with thermal heat saving coverings, creating microclimates within a larger greenhouse.

Greenhouses to play role in food for future

By JOYCE BUPP
Staff correspondent

STATE COLLEGE — Greenhouses are expected to play an increasing role in the future as food becomes more and more a global concern.

But greenhouse operations are high energy users. Since energy shortages may go hand in hand with possible food shortages, horticulture researchers and agriculture engineers are working together to develop energy efficient, high production under-glass units.

Dollars add up fast when greenhouse heating costs are totaled. Between 80 cents to one dollar is the estimated cost of annually heating a square foot of under-glass growing space, or about \$45,000 per acre. Heating costs are expected to continue to climb about 10 to 15 per cent each year. Such

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Energy saving experimental thermal blankets are mechanically pulled over entire greenhouse growing areas when light drops to 50 foot candles.



African violets are bombed with radiation in experiments to develop mutated new varieties in floriculture research at Penn State University.

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