**Ventilation**

Warm season and summertime ventilation of greenhouses is essential for temperature control. Modern, thermostatically controlled fans are the heart of present day ventilation systems. Poorly planned systems or inferior equipment often result in serious crop damage or failures by inadequate air exchange and high temperatures.

Figure L4.5 shows the effect of air exchange rate on control of temperature rise within the greenhouse on sunny days. An air change rate of 3/4 to 1 or 1 1/4 volume per minute is recommended depending on the type of covering and management used. From the heat requirement section the volume of the greenhouse can be calculated. Total air flow rate of house fans can be determined.

**Evaporative Cooling**

Evaporative cooling pads are quite effective and useful in lower humidity climates but their use and value in Georgia depend on the crop and other factors.
3/4 to 1 air change per minute for plastic covered houses where plastic covering is off during summer months, or houses covered as below but have plastic sides and ends which can be removed for natural ventilation in summer.

1 to 1 1/4 air change per minute for vinyl, fiberglass, and glass covered houses where covering is on during hot summer months.

NOTE: Fans should be sized to provide these air exchange rates at 0.10 inch static pressure (water column) with A.M.C.A. certified ratings to ensure adequate fan delivery.

Figure L4.5: The Influence of Air Exchange Rate on the Temperature Rise in Greenhouses.