HUMIDIFING YOUR GREENHOUSE

Misting Guidelines	Apply mist only during daylight hours to avoid excessive humidity at night, which encourages disease. Remember, when the greenhouse cools at night, the relative humidity will rise even with the misting system off. Use a 24-hour timer to shut off the misting system 2 hours before sundown.
Cooling	Shading and ventilation are required during summer to prevent a greenhouse from seriously overheating, but it is evaporative cooling from a misting system which can actually cool the greenhouse to a comfortable level.
Humidity Control	When a greenhouse warms up and venting begins, essential moisture is lost with the vented air. Plants lose moisture more rapidly and begin to wilt. A misting system can provide needed moisture to maintain a healthy humidity level of 50 to 70%.
Design for Cooling & Humidity Control	Use one 2 or 3 gph nozzle for every 12 to 14 sq. ft. of greenhouse floor. Install nozzles under the benches to avoid soaking plants on the benches. Nozzles will operate pointed in any direction - up, down, sideways or 45° angle. Control this type of system with a humidistat.
Overhead Watering	Many foliage plants, tropicals and subtropicals can be watered and fertilized by an overhead misting system. Use 2 gph nozzles installed as high as possible. Control this system with a short-cycle timer.
Propagation/ Orchid Misting	Maintain a higher level of humidity (60 to 70%) for healthier plants. Protect seedlings and cuttings from fatal water stress. Imitate orchid's natural environment. Use 1 gph nozzles. Control with a short-cycle timer: 5 to 10 seconds of mist every 15 to 30 minutes.

BENEFITS OF AIR CIRCULATION

There are 2 kinds of fans needed for climate control in the greenhouse. These fans use little electricity. For only a few pennies a day, you can create a healthy greenhouse environment.

Air Circulation	It is important to have a fan to circulate air through the foliage of plants, 24 hours a day, every day that you have plants inside your greenhouse. This brings a fresh supply of needed carbon dioxide to the leaves. Air circulation also prevents diseases that like to start in areas of cold and stagnant air. This will also help with condensation inside your greenhouse; the better the air circulation the less condensation as well as reducing or eliminating hot and cold areas in your greenhouse. It is best to angle the fan up or down to help break up any heat stratification that has taken place.
Heat Destratification	Because warm air rises, a small fan is needed to pull warm air off the ceiling and push it down to the plants on the benches and floor. This is very important in the winter months, and helps reduce heating costs.
What Size Circulation Fan Do I Need?	1. Greenhouse area x 10 = fan cfm. *Example: 8' x 12' = 96 sq. ft. x 10 = 960 cfm.* 2. If your greenhouse if half full of plants, deduct 50% (960 x .5 = 480 cfm). 3. If your greenhouse is very full of plants, add 50% (960 x 1.5 = 1440 cfm).