

DEHUMIDIFICATION SYSTEMS

The fall and spring are times when **humidity related diseases** usually peak in greenhouses. Sunny days increase the transpiration of moisture from leaf surfaces and evaporation from soil and the warm air holds the moisture in the vapor form.

At night as the air cools to the dew point, condensation occurs and water droplets are formed on cooler surfaces such as the leaves and glazing. This moisture promotes the germination of **fungal pathogen spores** such as Botrytis and powdery mildew.

The key to successfully suppressing diseases is to keep the plant canopy dry, especially from dusk to dawn. This can be accomplished with dehumidification systems. Humidity management is a valuable tool to **prevent diseases** and **save on energy costs** in greenhouses.



A dehumidification system is a more **cost-effective way to control humidity** than venting outside air, as the highest humidity points inside the greenhouse often correspond with the lowest outside temperatures, leading to higher heating costs to maintain greenhouse temperature.



DEHUMIDIFICATION FAN SPECIFICATIONS

DIMENSIONS & CAPACITY

HEIGHT	1103mm
WIDTH	1315mm
DEPTH	1048mm
WEIGHT	190 kg
RATED POWER SUPPLY	400/3PH+N/50
RPM	
OUTPUT	
MAX THROW	

The amount of **moisture in the air** is expressed as relative humidity (**RH**), the ratio between the weight of moisture actually present in the air and the total moisture-holding capacity of a unit volume of air at a specific temperature and pressure. This term can sometimes be misleading, because it is **temperature-dependent**. Warm air has a higher moisture-holding capacity than cooler air; therefore as the temperature of air increases, the relative humidity decreases even though the amount of water remains constant. This relationship is important in **managing humidity** in the greenhouse.

TARGET HUMIDITY

°C	HUMIDITY
10	83%
16	89%
20	91%
30	95%

If you want to learn more about Winter Gardenz dehumidification systems take a look at our website or contact your Winter Gardenz representative.

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