

Plant Propagation Case Study



The Problem

At this plant propagation unit, seeds are germinated in small pots on plinths raised just off the floor of the building. The propagation is in two phases typically taking 6 days each, giving a total time of 12 days.

The key problems occurred when ambient temperatures exceeded 30 deg C, which resulted in slow propagation and weak plants, leading to excessive wastage when potting and an inability to supply the product on time.

The Solution

Two top discharge coolers, connected to fabric ducts, were installed into the 56m x 9m propagation unit.

Fabric duct air distribution was used to provide draught free conditions for the plants. Installed at a height of 1.5m the ducts gave evenly distributed cover throughout the building.

Temperature and humidity functions were controlled by a hygro-thermostat directly connected to the coolers, allowing them to regulate the air flow and water distribution to maintain the required conditions.

The Results

The installation has resulted in a reduction in the time for phase one propagation by 2 days, and phase two by 4 days. In effect twice as many plants can be produced, with significantly reduced waste.

Interesting Facts

Plant production has increased most when it has the highest commercial benefit, as plant prices are at a premium during the summer.