

USING DATA LOGGERS TO FIND COOLER

ZONES IN A GREENHOUSE

Simple Monitoring Setup Aids in Climate Control

CAS Data Loggers recently provided the data logging solution for a small greenhouse currently cultivating several species of herbs for cooking and medicinal purposes. From potting to product, each variety has to be kept at ideal growing conditions before sale. From his own experience, the owner preferred to maintain the crop around 70°F (21°C) and an 80% relative humidity. Last year he had already installed a climate control system, but its effects were heavily localized rather than evenly spread out. Rather than having to keep checking thermometers placed around the walls, the owner wanted to use data loggers to record and save enough readings to get a realistic temperature and humidity profile to find these colder and drier zones. Once he could see this profile, he would be able to check all current readings against this accurate baseline.



Since the customer requested an inexpensive solution, CAS DataLoggers provided his application with **50 SwiTrace I-Plug USB Temperature and Humidity Data Loggers**. After setting their sample rates to once every 10 minutes, staff placed 15 of the loggers among the plants using the provided self-adhering pouches, with a few placed on hanging pots. Their compact size made them easy to place anywhere needed. Staff activated each using the push-button start, and the data loggers now record the local temperature across a -40°C to +85°C (-40°F to 185°F) range as well as logging the humidity at an accuracy of 3% RH using their internal sensor. Measurements are accurate to a 0.3°C resolution, and each data logger's memory stores up to 8,000 samples.

To collect the data after recording is finished, workers just use the built-in USB interface to plug the data loggers into the owner's PC and read the data, with no USB drivers or other accessories required. After downloading the free software, the owner can view all this environmental data in the form of charts and graphs. In this way, workers can move the data loggers around to pinpoint the greenhouse's cooler and drier zones so remedial measures can be taken.

The greenhouse's owner was new to data logging, so the I-Plug temperature and humidity data loggers are a user-friendly way for his business to get the benefits of automated data recording. Now the temperature and humidity data is all available in an organized, visual format on his PC, and this information is much more accurate than the thermometers used to display. Having established an environmental profile over weeks of sampling, the USB data loggers now show staff whenever the expected temperatures and RH go too high or low again.

For more info on the SwiTrace I-Plug loggers, contact a **CAS Data Logger Applications Specialist** at **(800) 956-4437** or visit our website at www.DataLoggerInc.com.

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