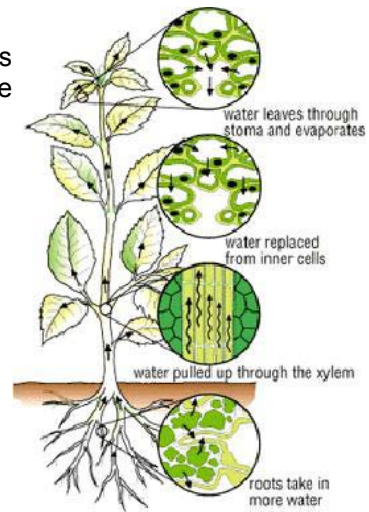


Plant transpiration

Introduction

The loss of water from a plant by evaporation is known as transpiration. Most of the water is lost through the surface openings, or stomata, on the leaves.



You are going to study this evaporation.

Apparatus

Datadisc Au
Logbook SE, ML or XD



A serial lead or USB-serial lead




A Humidity sensor
A plant
A plastic bag
A rubber band

Duration

2-3 hours

Method

1. Plug the Logbook into the PC using a serial lead or USB-serial lead.

1/3  2. Plug the Humidity sensor into port 1 or 3 according to the Logbook you are using.

- Place the sensor close to the plant and the whole thing under a transparent plastic bag.



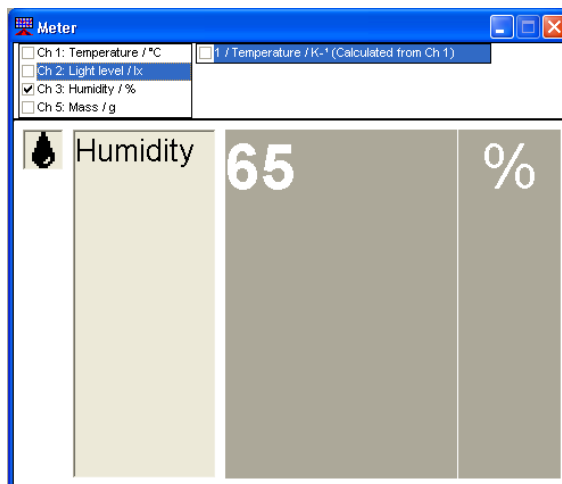
- Place the rubber band around the pot to prevent the air from entering.



- Start Datadisc Au.

DatadiscAu.exe

- Click on “Measure” and then click on “Meter”. A menu will appear asking you to choose channels to meter.
- Click on “OK”. You will see the humidity reading. Remove the readings you don’t need (Temperature, Light level) if you are using Logbook SE or ML.



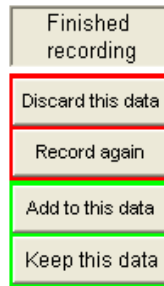
- Close the Meter window.
- Click on “Measure”.
- Click on “Auto time”. Then the Recording window will open.
- Choose the channel you want to measure on the toolbar if you are using Logbook ML or SE.



- To make the recording:

- Click on the green recording icon on the toolbar: this starts the recording.
- You should see the condensation on the plastic bag after 2 hours.
- Stop recording by clicking on the red hand.
- The graph should show an increase in the humidity.

13. Click on "Keep this data".

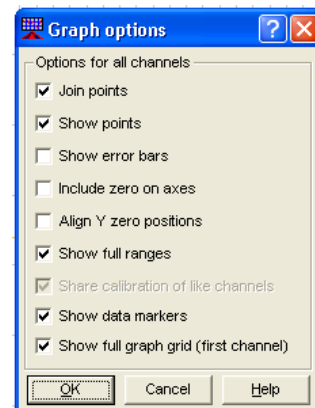


How to save your recording

1. Click on "File".
2. Click on "Save as...".
3. Choose the directory you want to save in and type the name of your file.
4. Click on "Save".

How to amend the graph

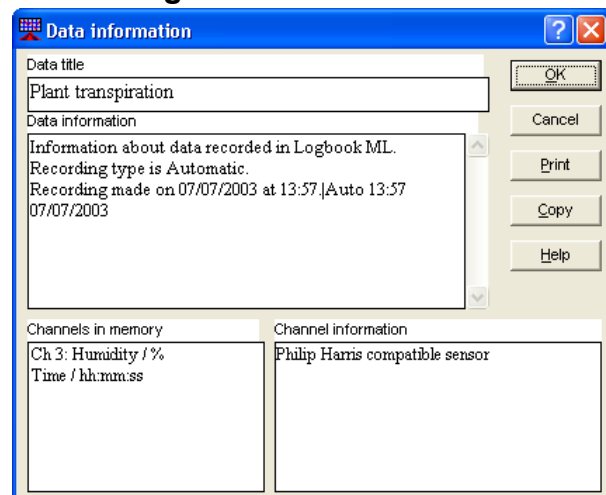
1. Click on "Graph".
2. Click on "Plot options...". The "Graph options" dialogue will open.
3. Tick "Show full ranges".



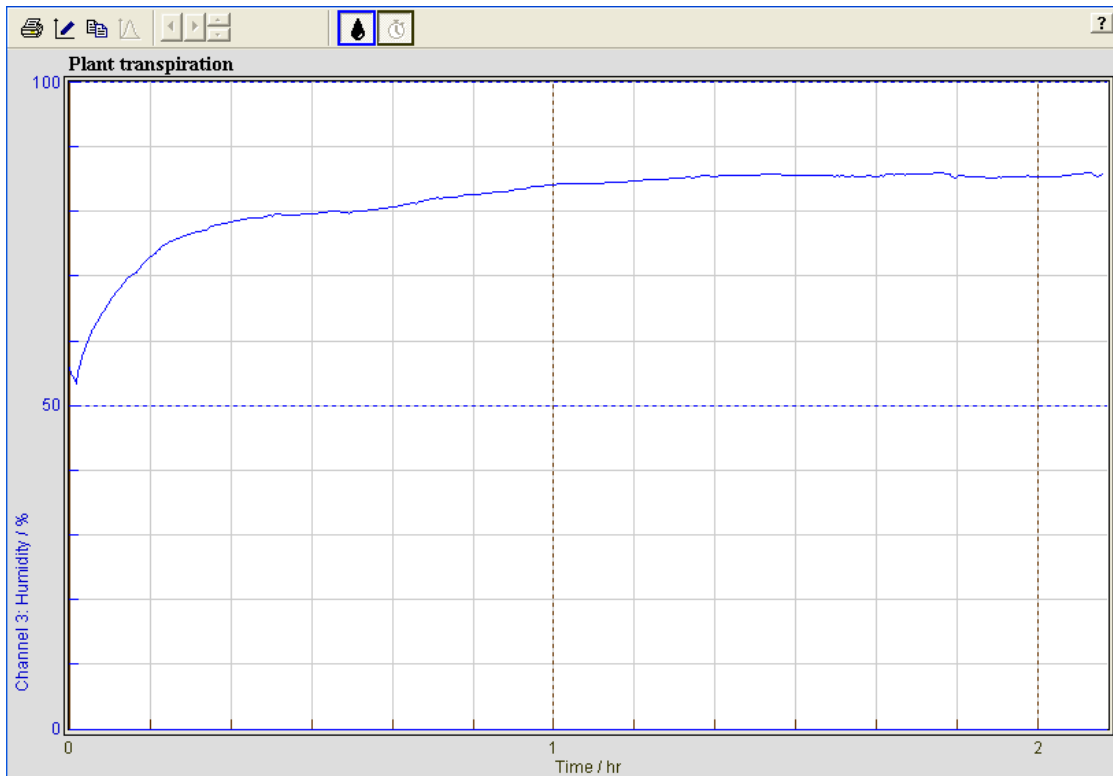
4. Click on "OK".

How to store information about your recording

1. Click on "Data".
2. Click on "Data information".
3. Type all the information you want in "Data title" and "Data information".



4. Click on "OK".



How to save your file and exit

1. Click on "File".
2. Click on "Save".
3. Click on "File".
4. Click on "Exit".