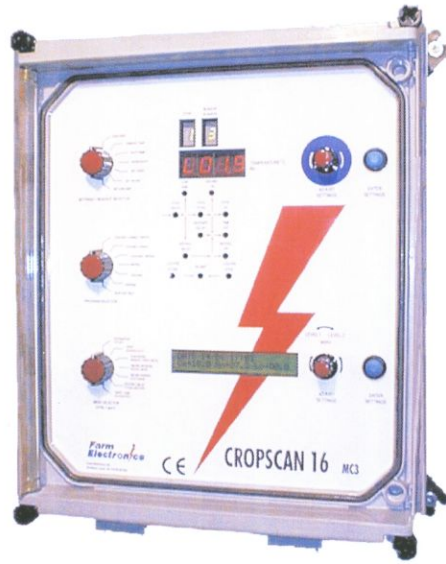




COMMUNICATIONS SOFTWARE - READ / WRITE

Farm Electronics

Operator Instructions



Crop Storage Equipment

MC3 Download issue 2 Jan 2005

File Preview Reports Retrieve Data Send New Data Display Options

| Temperature Sensors Etc | | Settings | | File Data Listing |
|-------------------------|--------------|----------------|---------|---|
| Status | System OK | Name | Store 1 | IDENTITY 0225 I |
| ✓ Sensor 1 | +07.5 | Date | 04/08 | Store 1 I |
| ✓ Sensor 2 | Disconnected | Time | 13:55 | DATE 03/08 16:00 I |
| ✓ Sensor 3 | Disconnected | Crop Set | +10.5 | CROP 1-16 -07.5 I |
| ✓ Sensor 4 | Disconnected | A/Mix Set | -02.7 | DUCT +07.9 AMB+04.0 R/H52% FAN00H00MIN REFRIG00H00MIN I |
| ✓ Sensor 5 | Disconnected | Low Limit | +00.0 | +105.027+000-100+1000110000500100000100099 I |
| ✓ Sensor 6 | Disconnected | Low Alarm | -10.0 | DATE 03/08 20:00 I |
| ✓ Sensor 7 | Disconnected | High Alarm | +10.0 | CROP 1-16 -07.5 I |
| ✓ Sensor 8 | Disconnected | Recirc Inval | 01:10 | DUCT +07.9 AMB+04.0 R/H52% FAN00H00MIN REFRIG00H00MIN I |
| ✓ Sensor 9 | Disconnected | Recirc Period | 00:05 | +105.027+000-100+1000110000500100000100099 I |
| ✓ Sensor 10 | Disconnected | Restart Delay | 00:10 | DATE 04/08 00:00 I |
| ✓ Sensor 11 | Disconnected | Recirc Prog | 0 | CROP 1-16 -07.5 I |
| ✓ Sensor 12 | Disconnected | Purge Interval | 00 | DUCT +07.9 AMB+04.0 R/H52% FAN00H00MIN REFRIG00H00MIN I |
| ✓ Sensor 13 | Disconnected | Purge Period | 10 | +105.027+000-100+1000110000500100000100099 I |
| ✓ Sensor 14 | Disconnected | Duct Ambient | +07.9 | DATE 04/08 04:00 I |
| ✓ Sensor 15 | Disconnected | R/H % | +04.0 | CROP 1-16 -07.5 I |
| ✓ Sensor 16 | Disconnected | High R/H % | 59 | DUCT +07.9 AMB+04.0 R/H52% FAN00H00MIN REFRIG00H00MIN I |
| Fan Hours | 00008 | Program | 01 | +105.027+000-100+1000110000500100000100099 I |
| Reling Hours | 00004 | Last Download | 24/07 | DATE 04/08 08:00 I |
| Recirc Hours | 00001 | (start-date) | | CROP 1-16 -07.5 I |
| Purge Count | 00001 | | | DUCT +07.9 AMB+04.0 R/H52% FAN00H00MIN REFRIG00H00MIN I |
| | | | | +105.027+000-100+1000110000500100000100099 I |

All Twenty Four Hours of Data Downloaded

MC3 Connected Add MC3 MC3 Directory Delete MC3

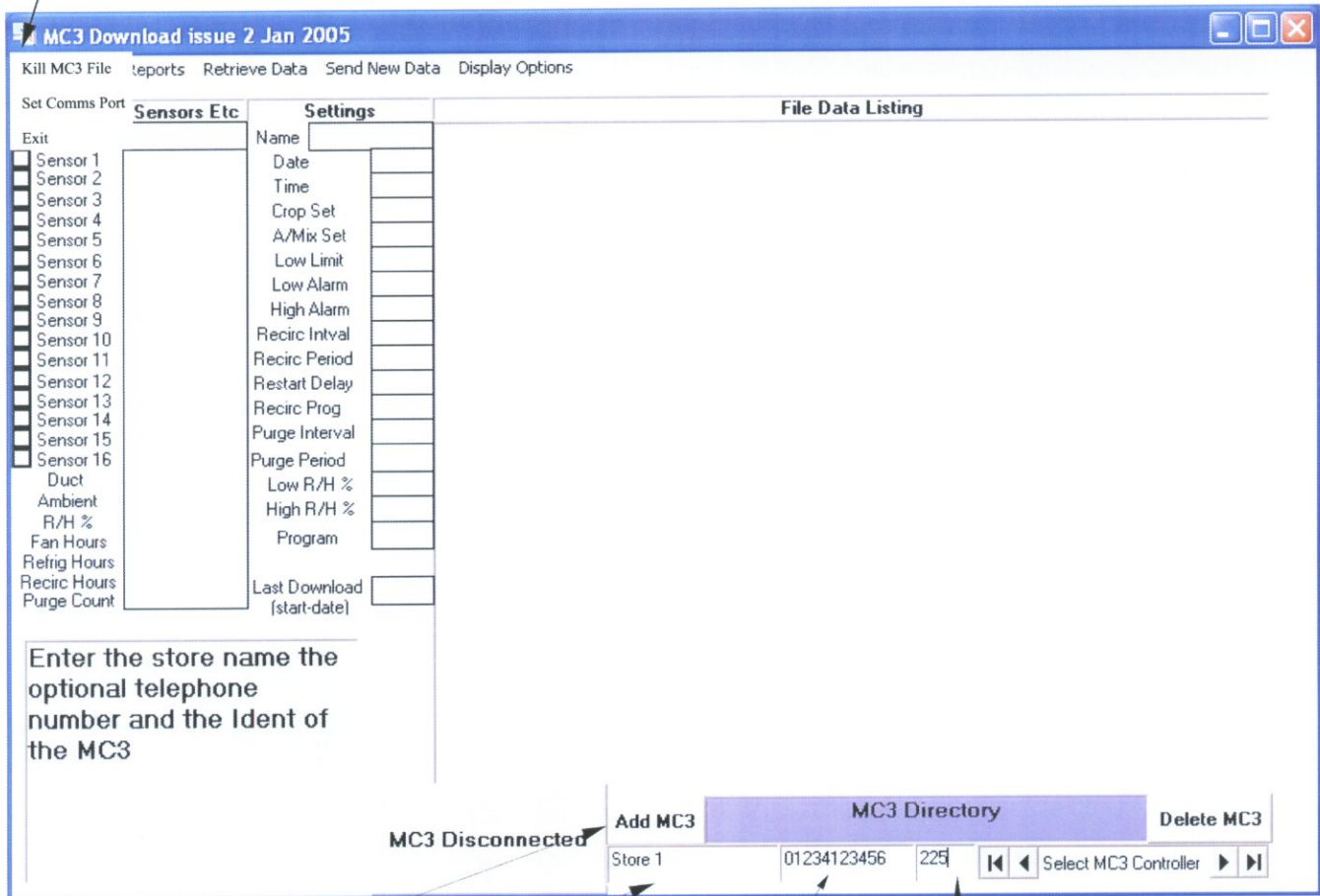
Store 1 Select MC3 Controller

Farm Electronics Ltd
Woodland Drive
Alma Park
Grantham
Lincs. NG31 9SR
Tel: 01476 591592 Fax: 01476 591188
email: info@farmelec.co.uk

Instruction Code:
Temp/MC3Comms/1008

Initial (First Time) Setup

- 1) Go to **File > Set Comms Port**, enter comm port No. For RS232/R5485 or Modem port. (this number can be checked in Windows / Control Panel / System / Device Manager/Ports)



(FIG 1)

- 2) Click **Add Mc3**
- 3) Enter store name
- 4) Enter telephone No. of modem that the MC3 is connected to (if required) (note leave no spaces)
- 5) Enter MC3 unique ID No. (3 digit No. after 'N')

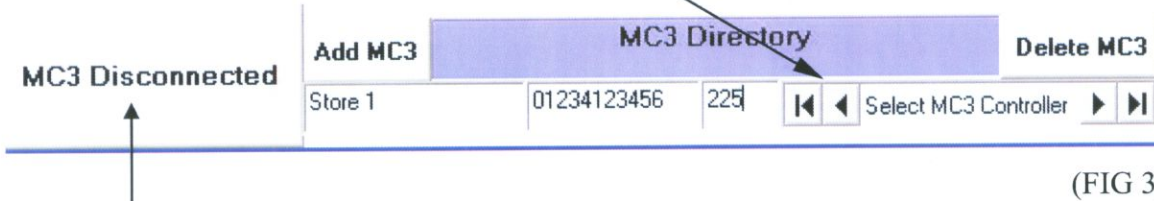


In this example the numbers are N225 therefore the unique ID No. is : 225

(FIG 2)

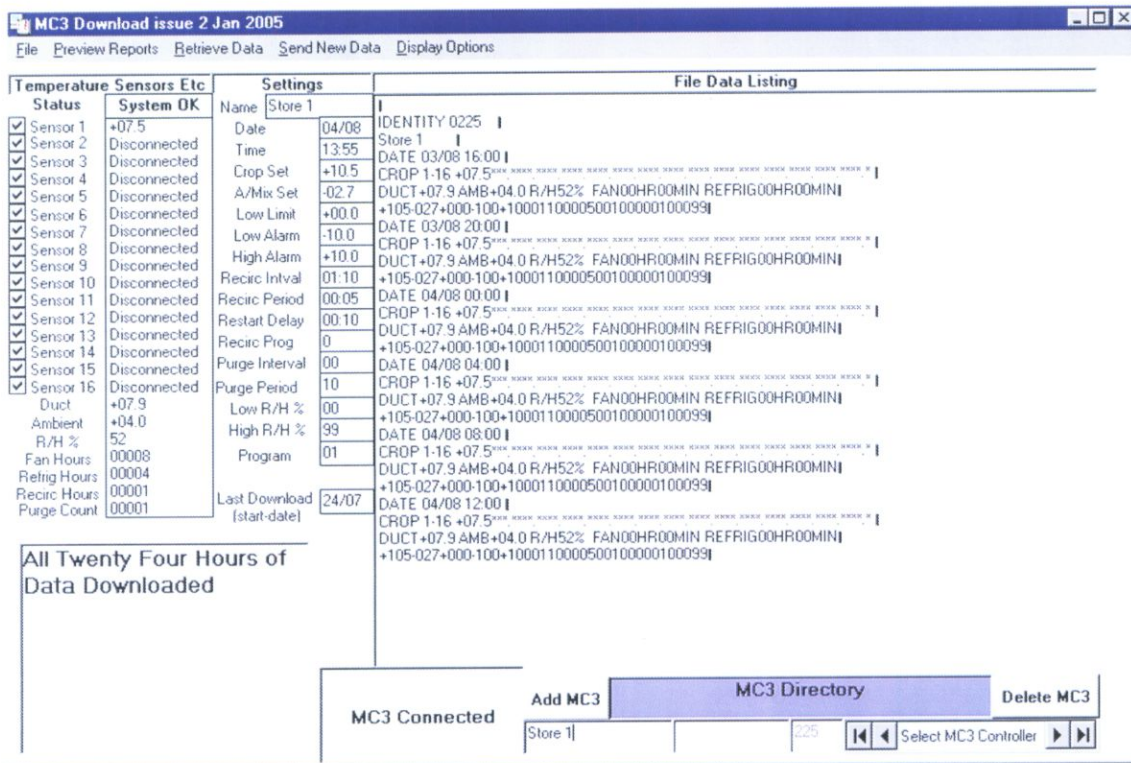
- 6) If another Cropscan is to be added repeat steps 2-5
- 7) Exit & restart programme

If more than 1 MC3 has been added, use buttons   to select unit to link to



(FIG 3)

Click MC3 Disconnected button

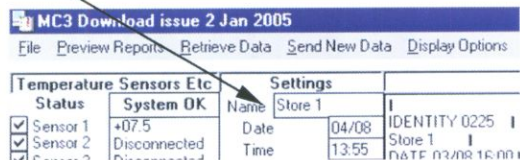


(FIG 4)

Program will then automatically collect and display All crop and duty, ambient, duct and RH sensors, system status, MC3 (store) name, date & time, all settings & last 24 hours of data.

If this is a first time connection the name of the MC3 will need to be changed to match the MC3 directory. As follows.

Click Name box

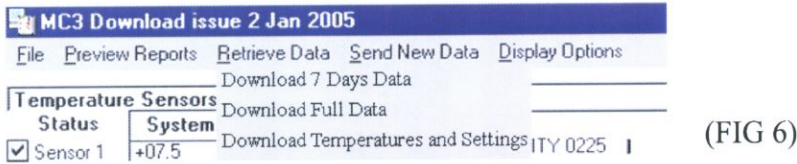


(FIG 5)

You will then be asked - **Are you sure you want to change the MC3 name** click **Yes**
 You can then type the new name (14 characters max), click menu. **Send New Data > Send New Name.**

Retrieving Stored Data

Click - **Retrieve Data > Download 7 Days Data**

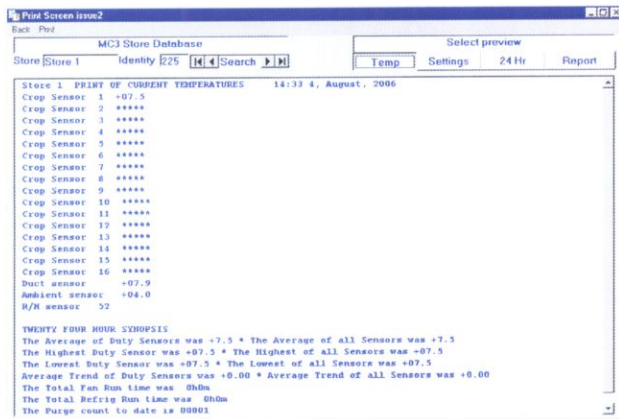


(FIG 6)

The last 7 days of data will then download.

To view this data go to **Preview Reports** use **◀ ▶** to select which MC3's reports to view.

Select tab to view **Temp, Settings, 24Hr or Report**.

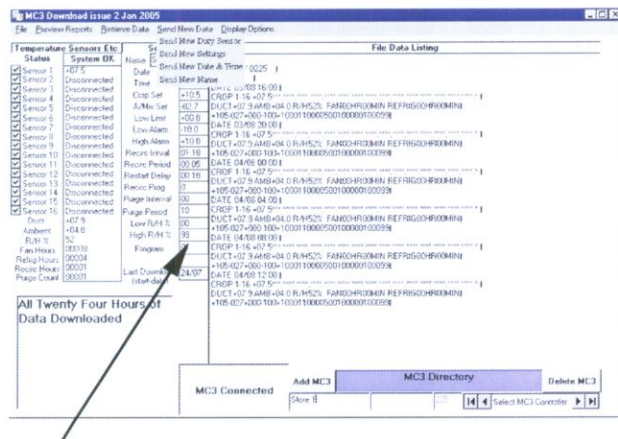


(FIG 7)

These reports are saved on your computer, so it is not necessary to be connected to an MC3 to view them. Use menu **Print** to print out any of these pages, use menu **Back** to exit this screen.

Crop sensors can be turned on & off duty by clicking ticks to the left of crop sensor readings.

Then click, **Send New Data > Send New Duty Sensors (FIG 8)**



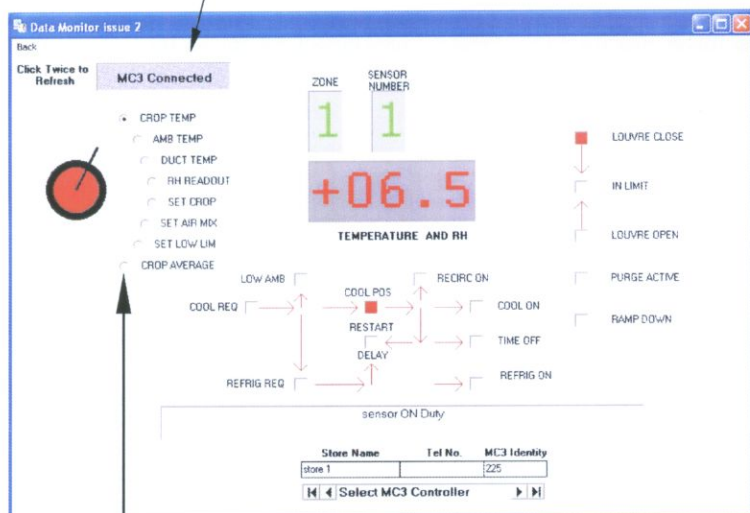
(Fig 8)

Most set points can be adjusted by clicking the value in the relevant box and editing that value. The available range and an explanation will be displayed in the information box on the bottom left of this screen.

Then click **Send New Data > Send New Settings**.

Date and time can be adjusted by clicking and editing the date or time box, then click **Send New Data > Send New Date & Time**

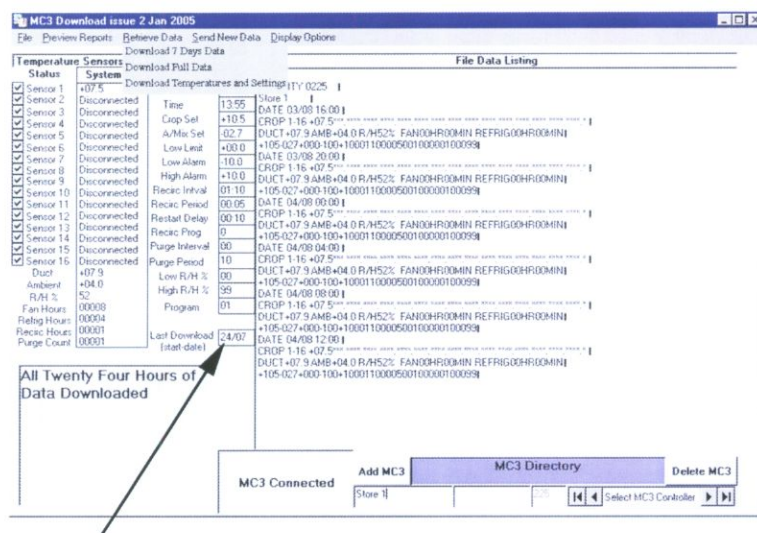
A 'Virtual Cropscan' is available by clicking **Display Options > View MC3**
Click the blue **Disconnected** button to start this screen running.



(FIG 9)

These buttons can be clicked to move the display selector knob to view the different values and settings. If this screen is left on for any length of time, it will be necessary to refresh all the values by double clicking on the blue **MC3 Connected** button.

To download full data to add to a graph, click **Retrieve Data > Download Full Data**.
You will then be asked **Are you happy with the download date**



(FIG 10)

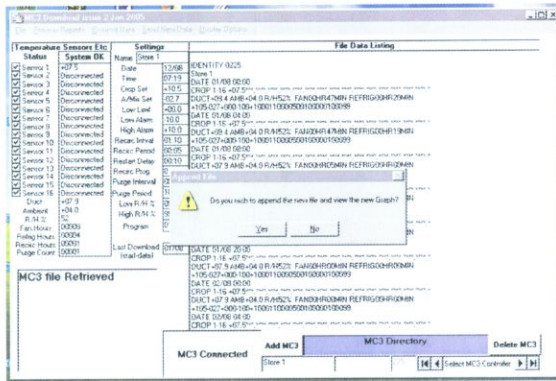
Check Date (this is the date that the download will go back to)

If you are not happy click **No**

Enter required date (MC3 has 14 days of memory but it is not necessary to download all 14 days every time)

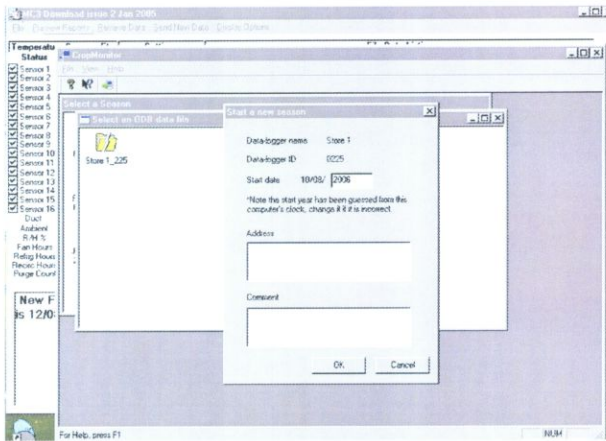
The download date will be stored on your PC, so it should only be necessary to change this date at the start of a season.

Click **Retrieve Data > Download Full Data**, now the date has been corrected you can answer **Yes**. All the data will scroll past the screen, when complete you will be asked **Do you wish to append the new file and view the New Graph** Click **Yes**



(FIG 10)

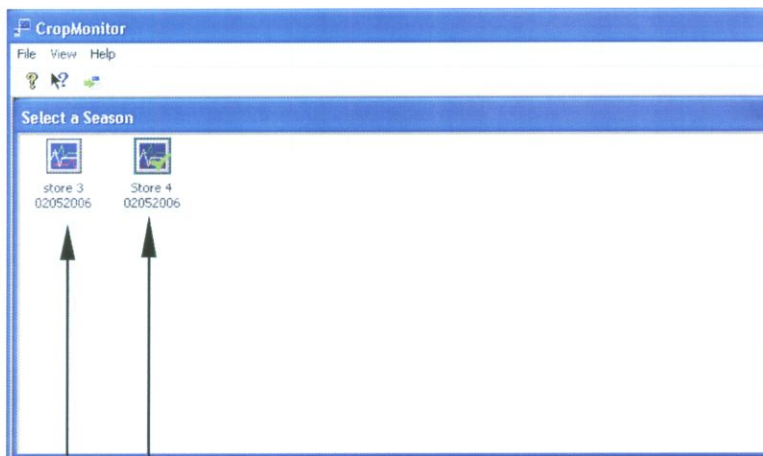
Now the crop monitor program will automatically open. If this is a new season which is being started you will be given the chance to add any extra info if required.



(FIG 11)

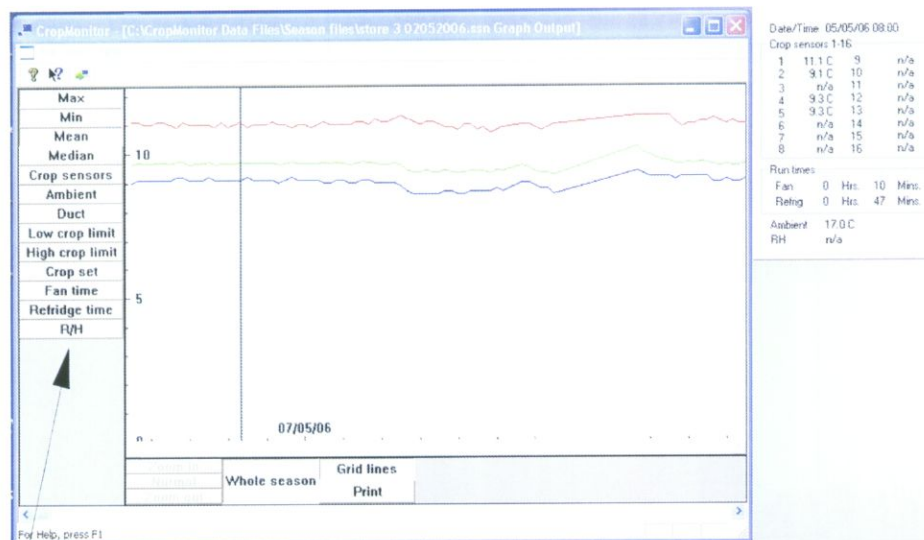
Click **OK**
The icon for this store (and other stores) will now be available to view the graphs.

Double click the icon to open a graph



(FIG 12)

Active Season
Closed Season



(FIG 13)

Down the left hand side of this screen there are 13 buttons to turn graph information On & Off

Max - Red line - highest crop sensor

Min - Blue line - lowest crop sensor

Mean - Green line - is the average temperature

Median - Purple line - is the mid point between the highest and lowest sensors

Ambient - Turquoise line - ambient temperature

Duct - Brown line - duct temperature

Low Crop Limit - Black line - low alarm

High Crop Limit - Black line - high alarm

Crop Set - Black line - crop set point

Fan Time - Pink line & **Refrig Time** - Light Blue line - when turned on highlights a light blue scale from 0 - 4 hours down the left hand side of the screen.

R/H - Black line when turned on highlights a brown scale from 0 - 100% down the left hand side of the screen.

Using the buttons along the bottom, you have the option to **Zoom In** or **Zoom Out** and **Normal** to return to the original view.

Use **Whole Season** to fit the whole graph onto the screen

Use the **Grid Lines** to turn grid lines on & off.

Use **Print** to print the screen

When the cursor is moved across the screen a box appears on the right hand side to display all Crop, Ambient & RH sensors & Fan and Refrig run times within the 4 hour block that the cursor is on.

This graph will be built on from every Full Download in the comms program.

Once a storage season is completed the icon for that particular season should be right clicked on and select **Close Season** that way when a new season is downloaded next year, that information will not be added to this graph.

A closed seasons icon will have a green tick through it.

NB. Only select to close a season when you are sure that it is finished or when you start a new one. A closed season cannot easily be reopened.