

Moo Monitor

Dairymaster Moo Monitor for Windows
User Manual – Chapter 14



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14.1. Introduction.

There are two software programs that run on the PC, the **MooMonitor Download Program** and the **MooMonitor Analysis Program**.

The **MooMonitor Download Program** connects to the BaseStation and downloads activity data from the BaseStation to the PC. It performs all data analysis and determines if cows are active, i.e. currently in heat. It also communicates with other Dairymaster software such as the Milk Manager and the Farm Messenger.

The **Dairymaster MooMonitor Analysis Program** displays the activity data downloaded from the BaseStation(s) by the MooMonitor Download Program. The MooMonitor Analysis program is consulted by the user daily to highlight active cows, i.e. cows currently in heat, and cows expected to come into heat. The software graphs the MooMonitor tag activity on a daily and hourly basis to give the user an 'at a glance' indication of cow's activity levels and display the exact hour a cow becomes active. The software also provides powerful reviewing capabilities so the user can filter records to meet certain criteria they are interested in studying e.g. cows that have been inseminated since a particular date, or all pregnant cows.

14.2. MooMonitor Download Program.

The MooMonitor Download Program must always be running on the PC, except when a backup is taken or the Database Utility program is being run, after which it should be reopened immediately. There are two reasons for this:

- The MooMonitor Download program connects to the BaseStation and downloads the latest activity data from the MooMonitor tags. If you only have one BaseStation, the MooMonitor Download program will download the this activity data in real time, i.e. as the BaseStation received activity from the MooMonitor tags the PC will download it. If you have multiple BaseStations the MooMonitor Download program will download activity data at set download times.
- The MooMonitor Download program performs all data analysis and determines if cows are active so the MooMonitor Analysis program will not open unless the MooMonitor Download program is already running on the PC.

The MooMonitor Download program should have already been configured by your dealer during the MooMonitor system installation, so the only interaction you need with the MooMonitor Download program is being able to open and close it.

Note! If you need to configure or edit any of the MooMonitor Download program settings, please refer to the MooMonitor Installation Manual.

To open the MooMonitor Download Program, double click on the MooMonitor Download Program icon, shown in Figure 1, can be found on the PC desktop.



Figure 1 MooMonitor Download Program Icon.

Alternatively, on the bottom left hand side of the PC screen, go to Start → All Programs → Dairymaster → Dairymaster MooMonitor Download Program.

Note!

- In order to continuously download activity data, the MooMonitor Download program must remain open on your PC.
- You can hide the program by pressing the 'Hide' button, denoted by the icon with the hand symbol in Figure 2, which will minimize the program to an icon on the bottom right hand side of your screen as shown in Figure 3.
- To open it again, find the MooMonitor Download icon on the bottom right hand side of your screen shown in Figure 3 on the next page, as you would the Scheduler program and double click on it.

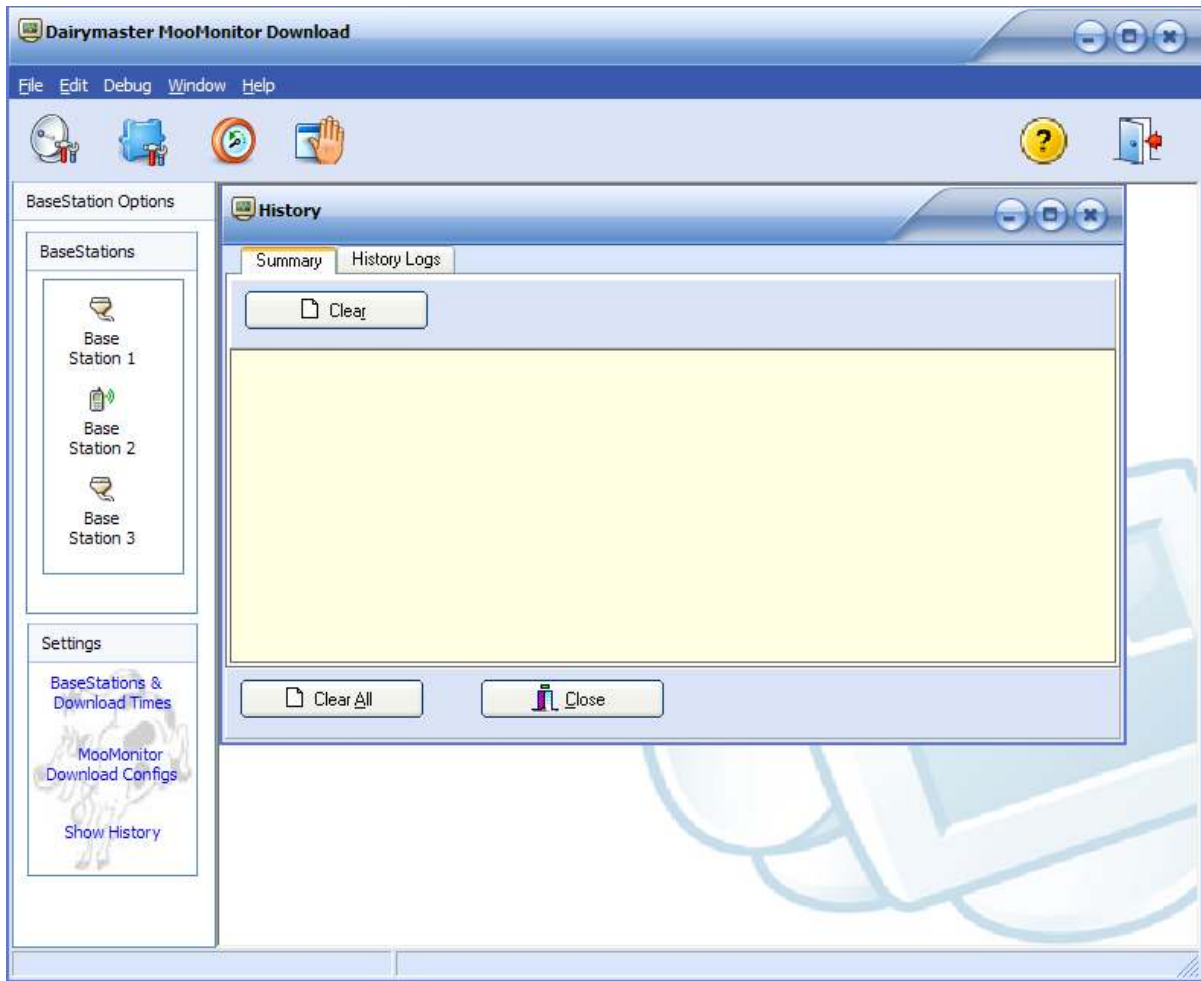


Figure 2 Activity Download.



Figure 3 Minimised MooMonitor Download Program.

If you are performing a backup or running the Database Utility program and need to close the MooMonitor Download program, double click on the minimized MooMonitor Download program icon in Figure 3 above. The screen in Figure 2 should appear. On the top left corner, click on the 'Exit' button (icon with the open door and red arrow). Ensure that you reopen the MooMonitor Download program once you are finished with the backup or Database Utility program.

14.3. MooMonitor Analysis Program.

To open the MooMonitor Download Analysis, double click on the MooMonitor Analysis Program icon, shown in Figure 4 below, that can be found on the PC desktop.



Figure 4 MooMonitor Analysis Program Icon.

Alternatively, on the bottom left hand side of the PC screen, go to Start → All Programs → Dairymaster → Dairymaster MooMonitor Analysis Program. The screen in Figure 5 will be displayed.



Figure 5 MooMonitor Analysis Program.

Note! It is important that the MooMonitor Analysis program is closed after you finished using it so that when it is re-opened again, it is refreshed with the more current activity data that has been downloaded by the MooMonitor Download program.

14.3.1. MooMonitor Events Summary Screen

Upon opening the MooMonitor Analysis Program, the MooMonitor Events summary screen as shown in Figure 6 below appears. It displays a summary of cows with recent events and/or MooMonitors requiring attention.

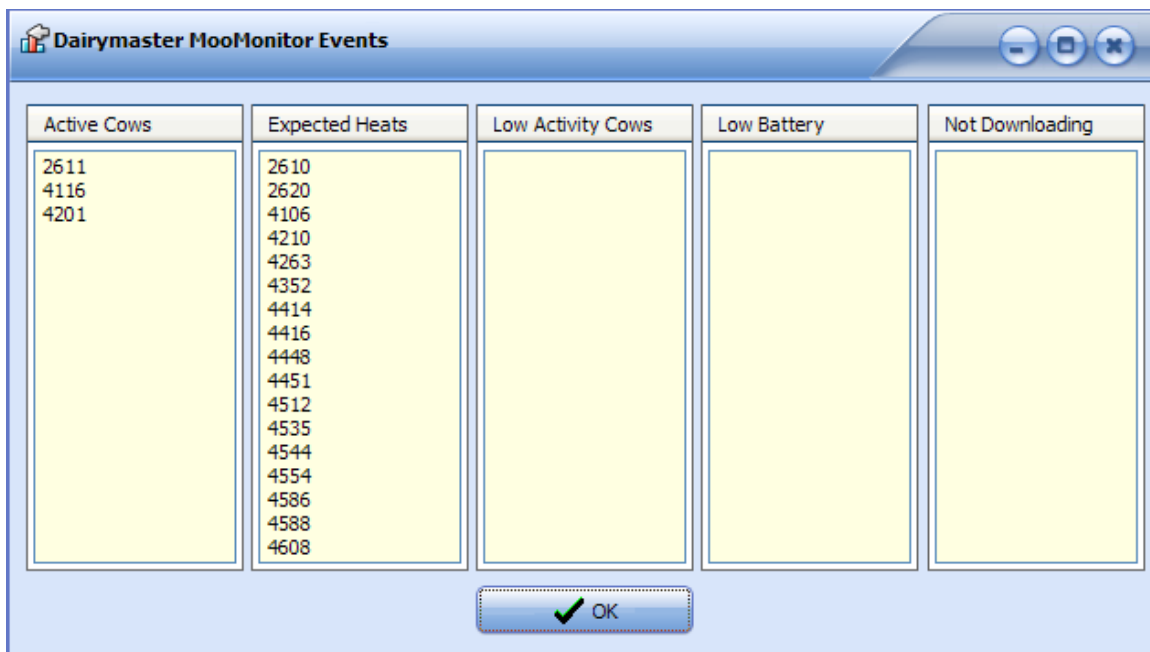


Figure 6 MooMonitor Events Summary Screen.

This screen is divided into 5 columns:

- Active Cows:** Lists cows that are currently active, i.e. in heat.
- Expected Heats:** Lists cows that were in heat 20 - 22 days ago or 41 - 43 days ago.
- Low Activity Cows:** Lists cows that are showing very low activity levels and should be investigated.
- Low Battery:** Lists MooMonitors whose batteries have gone below 3.1v. Once the batteries fall beneath this level, they will go very quickly and should be changed within 3 – 5 days of first receiving a battery warning. For more on this refer to section 14.3.12.

Not Downloading: Lists MooMonitors tags that are not downloading their activity data and need to be investigated. For more on the, refer to section 14.3.13 of this manual.

To close the MooMonitor Events summary screen, click the 'OK' button at the bottom of the screen on Figure 6 on the previous page.

If you wish to view the MooMonitor Events summary screen again, go to the 'Other Tasks' section on the bottom left of Figure 7 below and click on 'MooMonitor Events'.



Figure 7 MooMonitor Analysis Screen.

14.3.2. Active Cows Tab

On the top half of Figure 8 on the next page, the 'Active Cows (3)' tab, i.e cows detected as being in heat, is displayed by default. The number (3) denotes that there are 3 active cows. The various record details are displayed in the grid. In the example shown in Figure 8, the record for CowID

2611 is selected so the graph on the bottom half of the screen graphs the activity data for CowID 2611. The green bars on the graph denote active CowID's. This graph is explained in detail in section 14.3.6. You can select the next record using the down arrow on your keyboard or by using the mouse.

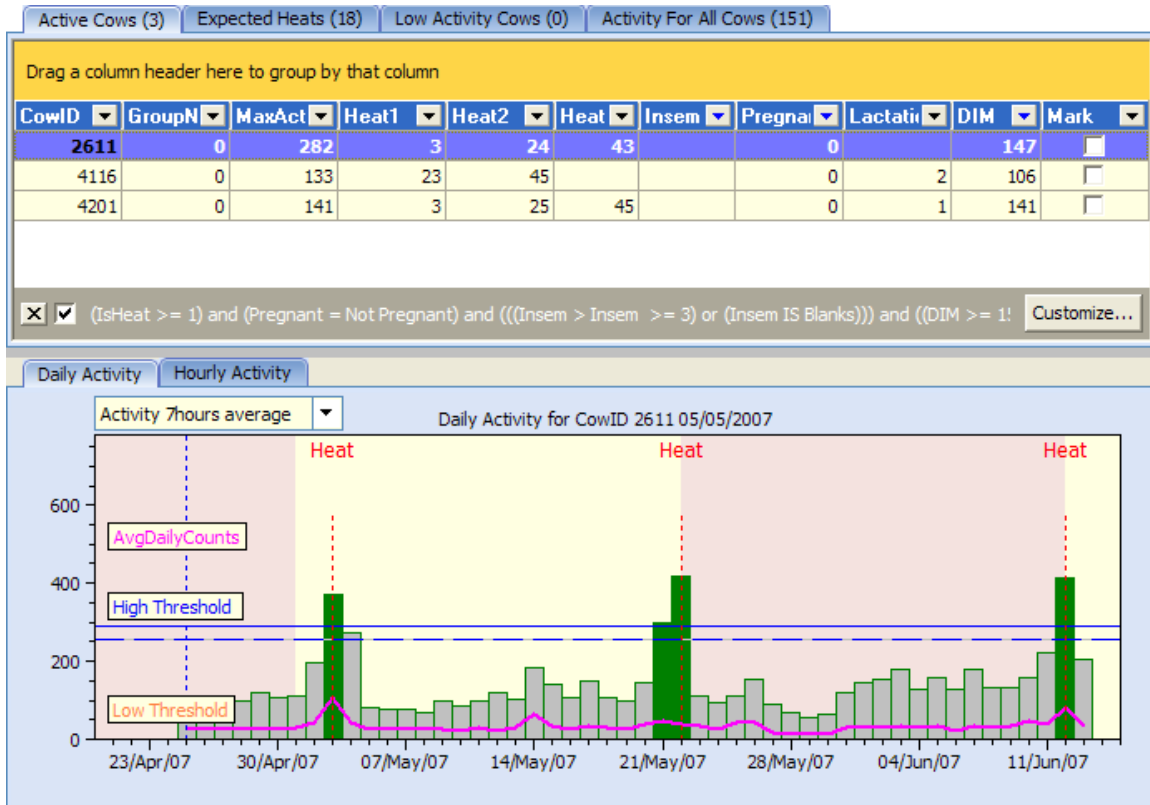


Figure 8 Active Cows Tab.

The top grid in Figure 8 displays a number of columns:

CowID: The freeze brand number of the cow.

Group Number: The Group Number a CowID can belong to. See section 14.3.10 for more details.

MaxActivity: The maximum activity reading a MooMonitor tag has returned for the CowID in the previous 30 hours.

Heat1: The number of days since the CowID's most recent heat.

Heat2: The number of days since the CowID's 2nd last heat.

Heat3: The number of days since the CowID's 3rd last heat.

Insem: The number of days since the CowID's most recent insemination.

Pregnant: Has a value of '1' if a CowID's is pregnant of '0' if she is not.

Lactation: Displays what Lactation a cow is on, i.e. 1 denotes 1st, 2 denotes 2nd ect.

DIM: The number of Days In Milk the CowID is on or the number of days since calving.

Mark: This is a checkbox field that can be used to select a number of records for inserting events or reviewing. See section 14.3.8.4 for more details on using this column.

14.3.3. Expected Heats Tab

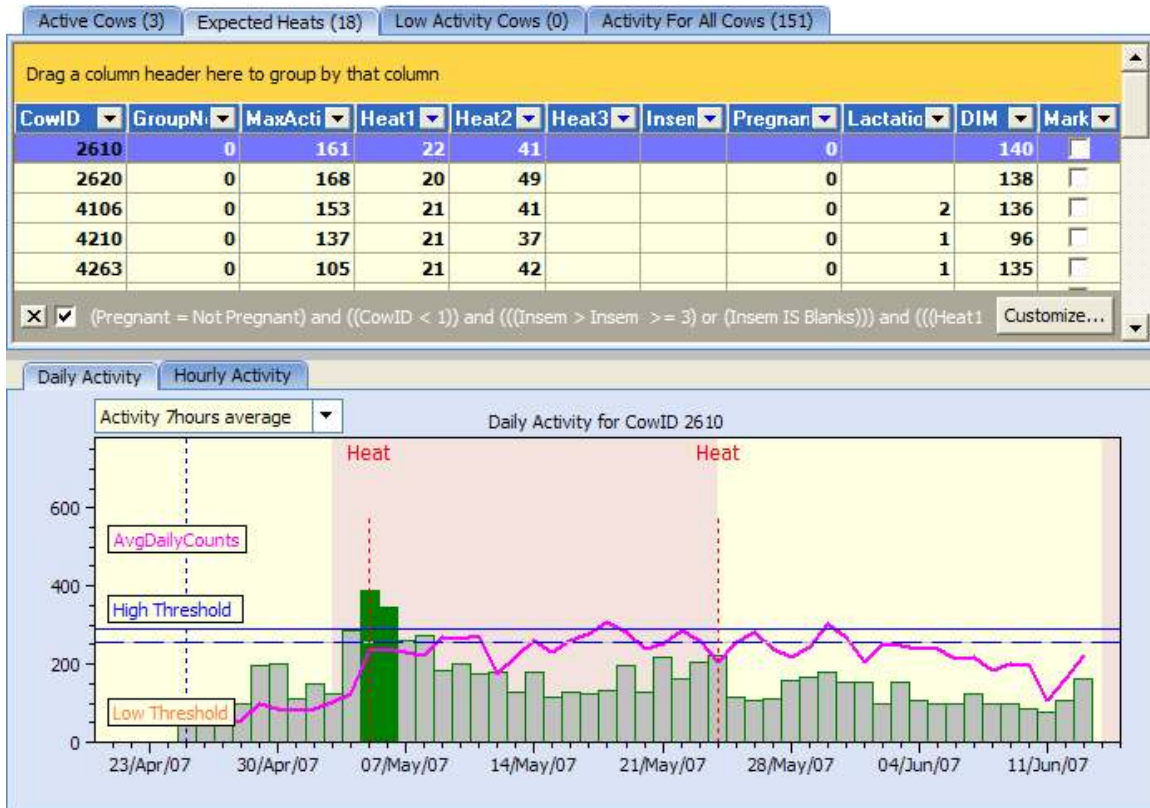


Figure 9 Expected Heats Tab.

Click on the 'Expected Heats (18)' tab on the top of Figure 9 to move into the Expected Heats tab. The number (18) denotes that 18 cows are due to come into heat.

Cows are expected to come into heat if:

- They were in heat 21 (± 1 day) ago.
- They were in heat 42 (± 1 day) ago.
- They are not confirmed pregnant.

Note! You should check the Expected Heats tab each day. There may be CowID's in here that are displaying a significant increase in activity levels, but not enough to break the 'Lower Threshold' line (dashed blue line in Figure 9) or the High Threshold line (solid blue line in Figure 9), that you could call as being in heat yourself. This is similar to the 'Tail Painting' method of heat detection. The graph is explained in detail in section 14.3.6.

14.3.4. Low Activity Cows Tab

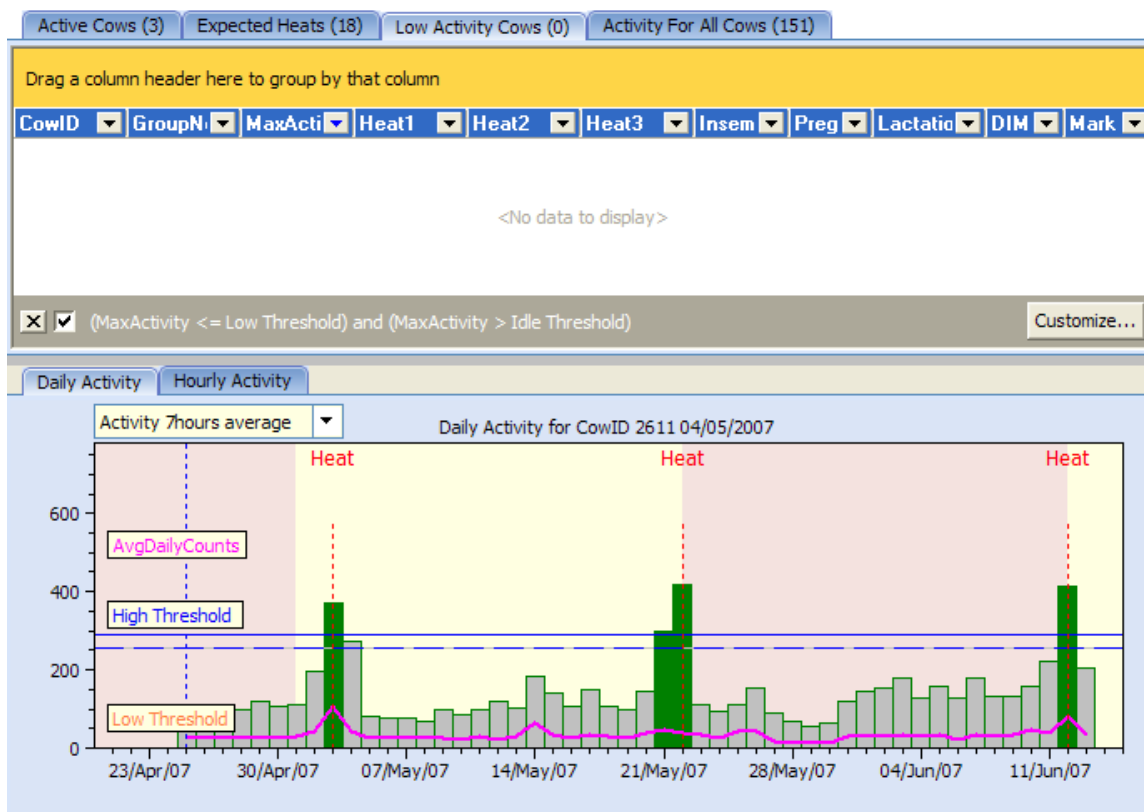


Figure 10 Low Activity Cows Tab.

Click on the 'Low Activity Cows (0)' tab on the top of Figure 10 to move into the Low Activity Cows tab. The number (0) denotes that there are no CowID's detected as having very low activity in this example. If there are any CowID's showing up in here, they may warrant further investigation.

14.3.5. Activity for All Cows Tab

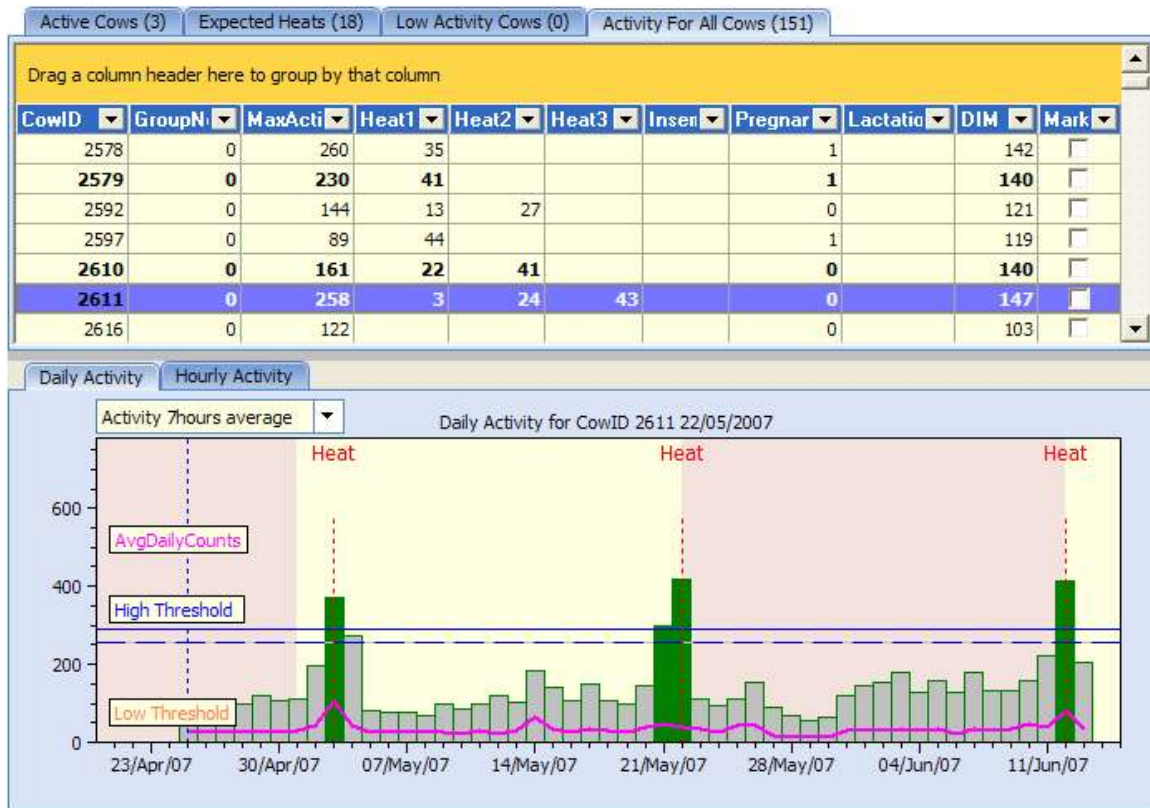


Figure 11 Activity for All Cows Tab.

Click on the 'Activity for All Cows (151)' tab on the top of Figure 11 to move into the Activity for All Cow's tab. This tab shows the activity data for all CowID's in the herd. The number (151) denotes that there are 151 CowID's in this herd.

14.3.6. Daily Activity Tab

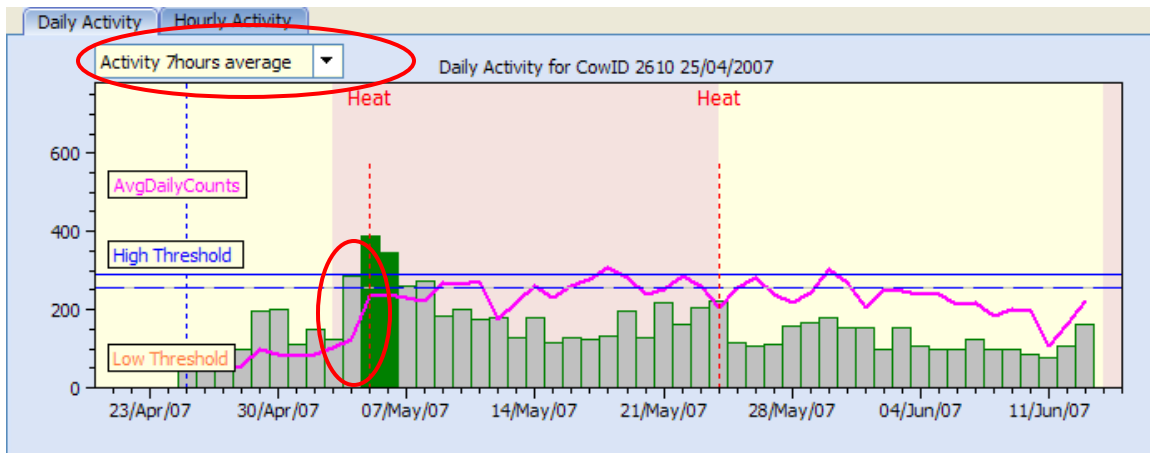


Figure 12 Daily Activity tab.

- The graph defaults to the 'Daily Activity' tab situated at the top left of the graph as you can see in Figure 12 above. Each bar in the graph represents a daily activity downloaded for the selected CowID, i.e. each bar represents activity levels on a given date. If you place the mouse over a given bar, the date at the top of the graph, listed next to the CowID, will change to the data that the particular bar represents.
- The activity bars can be graphed for up to 230 days.
- The background shading of the graph changes between yellow and pink. This denotes the CowID's cycle that defaults to 21 days. .
- Normally each bar is grey in colour but will change to green for 'Active' CowID's. In order for the bar to turn green, its activity level must exceed the 'High Threshold' value and **sometimes** the 'Lower Threshold' value which are denoted by the solid blue line and dashed blue line in Figure 12 above.

High Threshold Value: The activity bar usually has to cross this in order to turn green. It is the action of the bar going green that declares a CowID as being 'Active'.

Lower Threshold Value: For CowID's in the 'Expected Heats' tab (cows that had a confirmed heat either 21 (± 1 day) ago or 42 (± 1 day) ago), the system uses the lower threshold value to change the bar green and call the cow as being 'Active'.

In Figure 12 above, the grey bar circled in red, exceeded the lower threshold value but not the high threshold value and remained grey. This is because there was no confirmed

heat either 21 (± 1 day) or 42 (± 1 day) days beforehand. Therefore the system needed the bar to exceed the high threshold value before calling the cow as being 'Active',

- In Figure 12 on the previous page, the vertical dotted red line with 'Heat' over them denote events that are entered into the system. Other events include 'Inseminated' and 'Pregnant'. See section 14.3.8 for details about how to enter an event.
- The solid pink line represents the Average Daily Counts for the CowID.

14.3.6.1. Activity 7 Hours

- In Figure 12 on the previous page, the drop down menu, circled in red, denote that the graph is displaying activity data over 7 hours.
- When analyzing activity data, the software applies a moving average filter over the previous 7 hours of data and over the previous 3 hours of data.
- The graph is defaulted to display the activity over 7 hours.
- For data activity analyzed over 7 hours, the 'High Threshold' (solid blue horizontal line) is set to be '300'. This means that when activity data is analyzed over 7 hours, the software expects a CowID's activity to be 3 times greater than normal to reach/exceed the 'High Threshold' line and thus call the CowID as 'Active'.

14.3.6.2. Activity 3 Hours

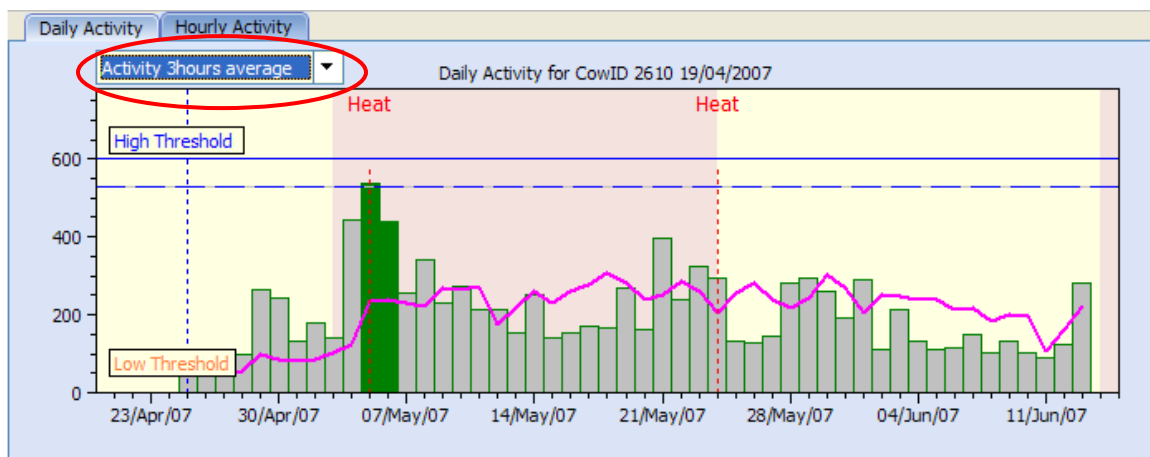


Figure 13 Activity over 3 hours.

- Change the drop down menu, circled in red in Figure 13 above, to 'Activity 3 hours' to change to the 3 hour display.

- When analyzing activity data, the software also applies a moving average filter over 3 hours of data
- For data activity analyzed over 3 hours, the 'High Threshold' (solid blue horizontal line) is set to be '600'. This means that when activity data is analyzed over 3 hours, the software expects a CowID's activity to be 6 times greater than normal to reach/exceed the 'High Threshold' line and thus call the CowID as 'Active'.
- The reason for a greater 'High Threshold' value for the 3 hour analysis than for the 7 hour analysis is because the activity data is being analysed over a shorter period of time so the software expects the activity to be higher.

A CowID is called as being 'Active' if her activity data reaches/exceeds the 'High Threshold' value in either the 7 Hour or 3 Hour analysis or both.

14.3.7. Hourly Activity Tab

- Click on the 'Hourly Activity' tab, next to the 'Daily Activity' tab in Figure 13 on the previous page and the screen in Figure 14 below should appear.

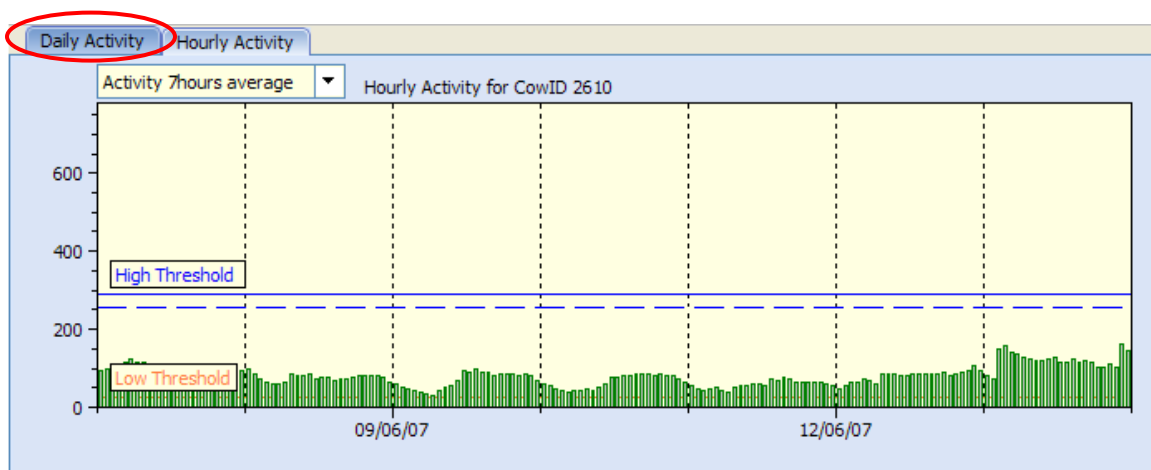


Figure 14 Hourly Activity Tab.

- This displays the hourly activity data over the previous 7 days. The black dashed vertical lines represent midnight. Each green line on the graph represents an hour of the day.
- If you wish to view the hourly activity data for a date that is more than 7 days ago e.g. a date where the CowID was 'Active', select the 'Daily Activity' tab, circled in red in Figure 14 above. This will bring you back to the screen shown in Figure 15 on the next page.

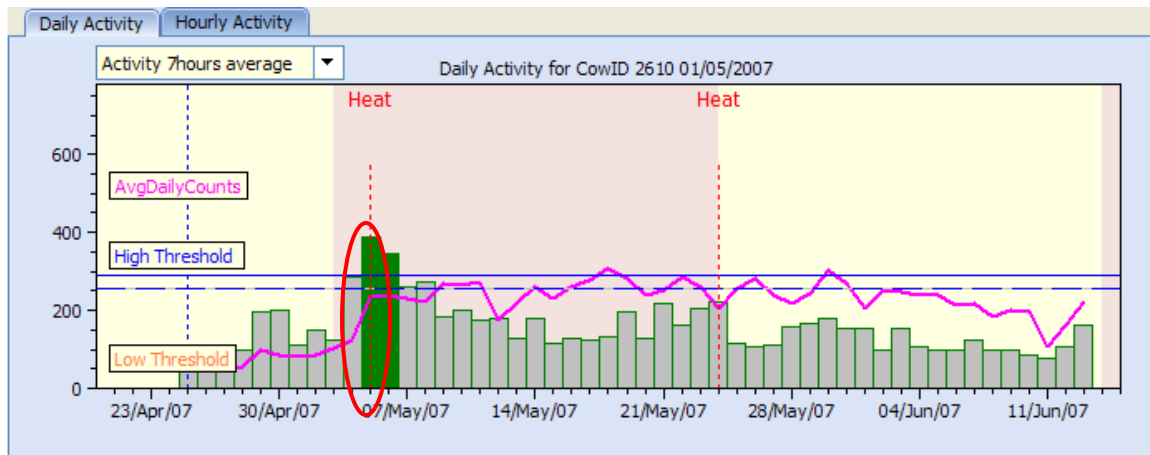


Figure 15 Double click a specific activity bar.

- To view the Hour activity details for the activity bar circled in red in Figure 15 above, double click on the activity bar with the mouse. This will automatically bring you into the 'Hourly Activity' tab shown in Figure 16 below and display the hourly activity data for the date that you selected in Figure 15.

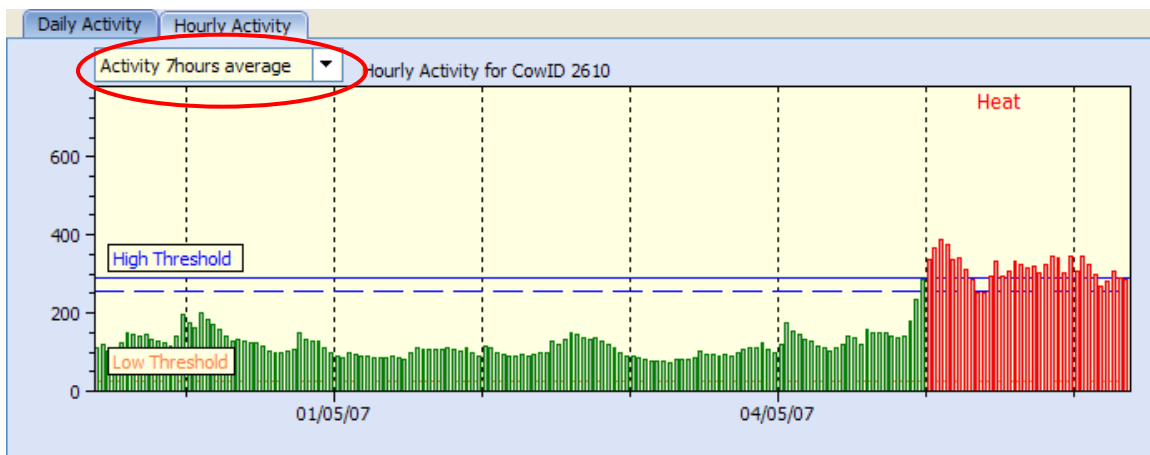


Figure 16 Hourly Activity for date selected in Figure 15.

In the 'Hourly Activity' tab, the graph has crossed the 'High Threshold' value and changed to red for 05/05/07, indicating that the CowID is 'Active' and in heat.

14.3.7.1. Activity 7 hours

- The 'Hourly Activity' tab defaults to display the hourly activity over 7 hours circled in red in Figure 16 above.

- If you notice a Cow that is bulling but has not been called as 'Active' by the software, look at her hourly activity over 7 hours for the time in question and see if her activity levels have increased. Remember that she will not be called as 'Active' by the software unless her activity levels reach/exceed the 'High Threshold' value (blue solid line). Also bear in mind that if the herd is outside of range of the BaseStation between milkings, the MooMonitor Analysis program may not have the most recent activity data until the herd is in the collecting yard. Similarly in installations with multiple BaseStations, data will be downloaded as specific download times.

14.3.7.2. Activity 3 Hours

- Select 'Activity 3 hour' from the dropdown menu circled in red in Figure 16 on the previous page. However this will go back to displaying the previous 7 days of hourly activity data. If you want to view the hourly activity data for a specific day e.g. a date when the CowID was 'Active', go back into the 'Daily Activity' tab and double click on the activity bar for the data in question. Figure 17 below is the same data as Figure 16 except over 3 hours.

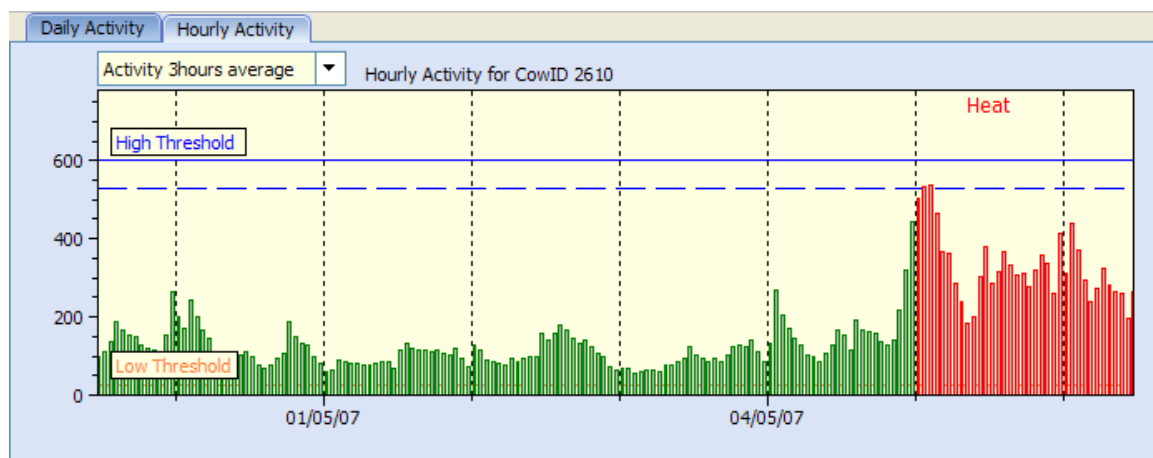


Figure 17 Hourly Activity over 3 hours.

- In this case, the graph has gone red even though it has not exceeded the 'High Threshold' value. This indicates that it is the data analysis over 7 hours that is calling the CowID as being 'Active'.
- If you notice a Cow that is bulling that has not been called as 'Active' by the software, look at her hourly activity over 3 hours for the time in question and see if her activity levels have increased. Remember that she will not be called as 'Active' by the software unless her activity levels reach/exceed the 'High Threshold' value (blue solid line). Also

bear in mind that if the herd is outside of range of the BaseStation between milkings, the MooMonitor Analysis program may not have the most recent activity data until the herd is in the collecting yard. Similarly in installations with multiple BaseStations, data will be downloaded at specific download times.

14.3.8. Entering Vet Events

Note!

- Any vet events entered into the Dairymaster Milk Manager software will automatically be entered into the MooMonitor Analysis program and visa versa.
- The process of entering an 'Insemination' event also confirms a heat so there is no need to also enter a 'Heat Confirmation' in this case.

Warning! It is important to enter either a 'Heat Confirmation' or 'Inseminated' event for 'Active' CowID's. This will help the 'Lower Threshold' line pick up 'Active' CowID's in the 'Expected Heats' tab as explained in section 14.3.3 of this manual.

There are 3 methods of entering Vet Events:

- Default the event to today's data
- Default the event to a specific date
- Enter a 'Heat Confirmation' for multiple CowID's.

14.3.8.1. Enter a Vet Event Defaulting to Today's Date

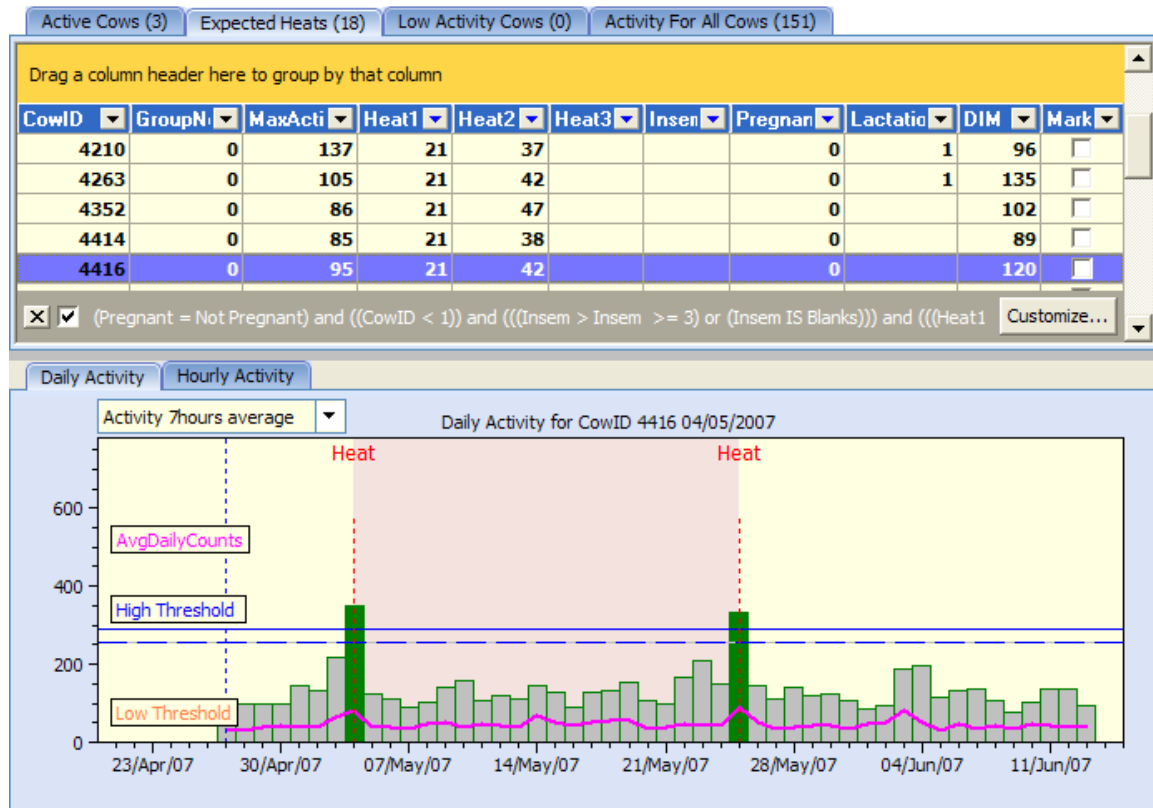


Figure 18 Main Screen.

- Right click on the CowID that you wish to enter an event for on the top half of the screen shown in Figure 18 above.
- The options shown in Figure 19 on the next page will appear.

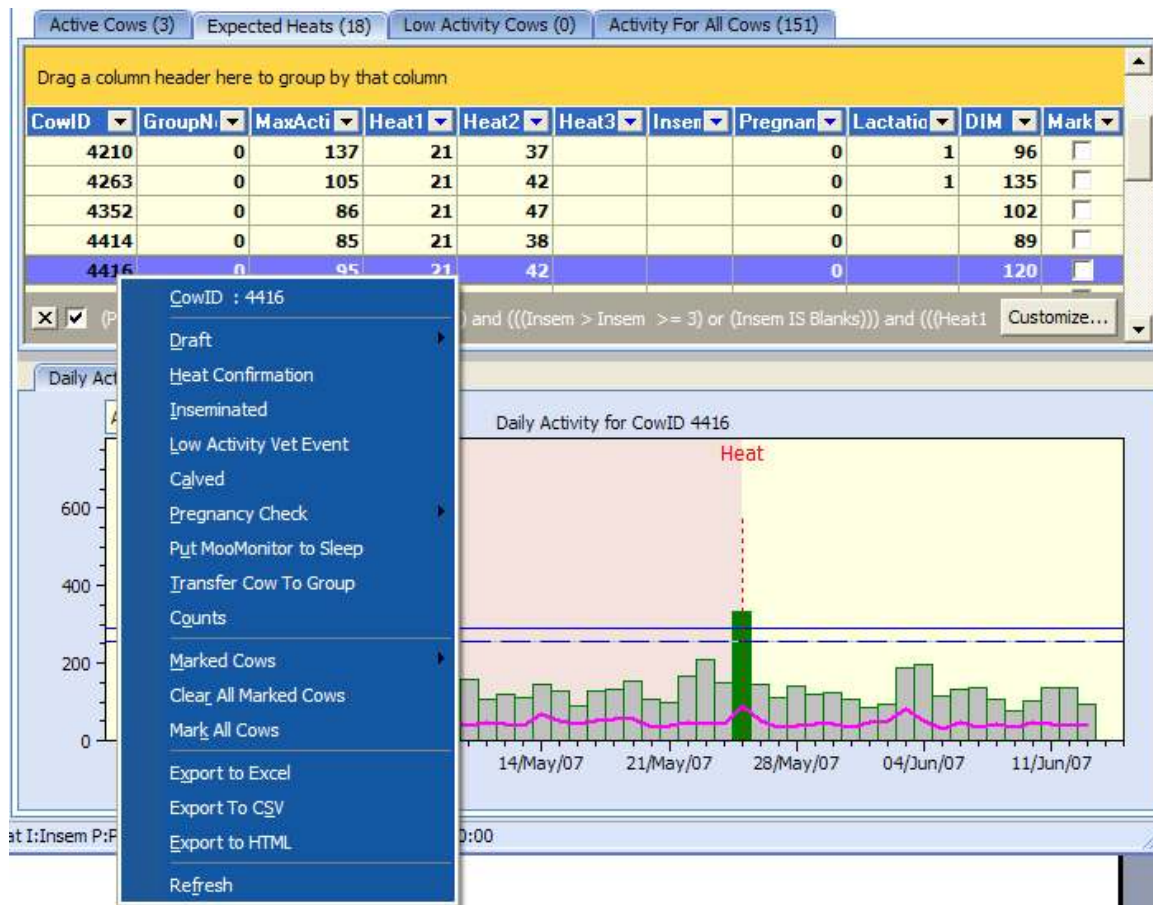


Figure 19 Right Click options.

- c. Select an event such as the 'Heat Confirmation' option.
- d. The screen displayed in Figure 20 below will be displayed.

MooMonitor Veterinary Entry

CowID 4416 Heat

Event: Heat

Date: 28/05/2010

Comment:

Existing Veterinary Records

RecDate	Event	Comment
25/05/2007	Heat	
04/05/2007	Heat	
15/02/2007	Calved	

OK Cancel

Figure 20 MooMonitor Veterinary Entry screen.

- e. The date field on the left is defaulted to today's date. This can be changed by selecting the dropdown menu.
- f. Populate the 'Comment' field if you wish and press the 'OK' button to enter the event.
- g. Events are displayed as vertical red dashed lines corresponding to the date they have been entered for.
- h. Repeat steps a – f for the 'Inseminated', 'Low Activity Vet Events' and 'Calved' options in Figure 19 on the previous page.
- i. To enter a 'Pregnancy Check' event, go to the 'Pregnancy Check' option displayed in Figure 19 on the previous page and select either 'Pregnant' or 'Not Pregnant' in order for the screen in Figure 20 to appear.

14.3.8.2. Entering a Vet Event for a Specific Date

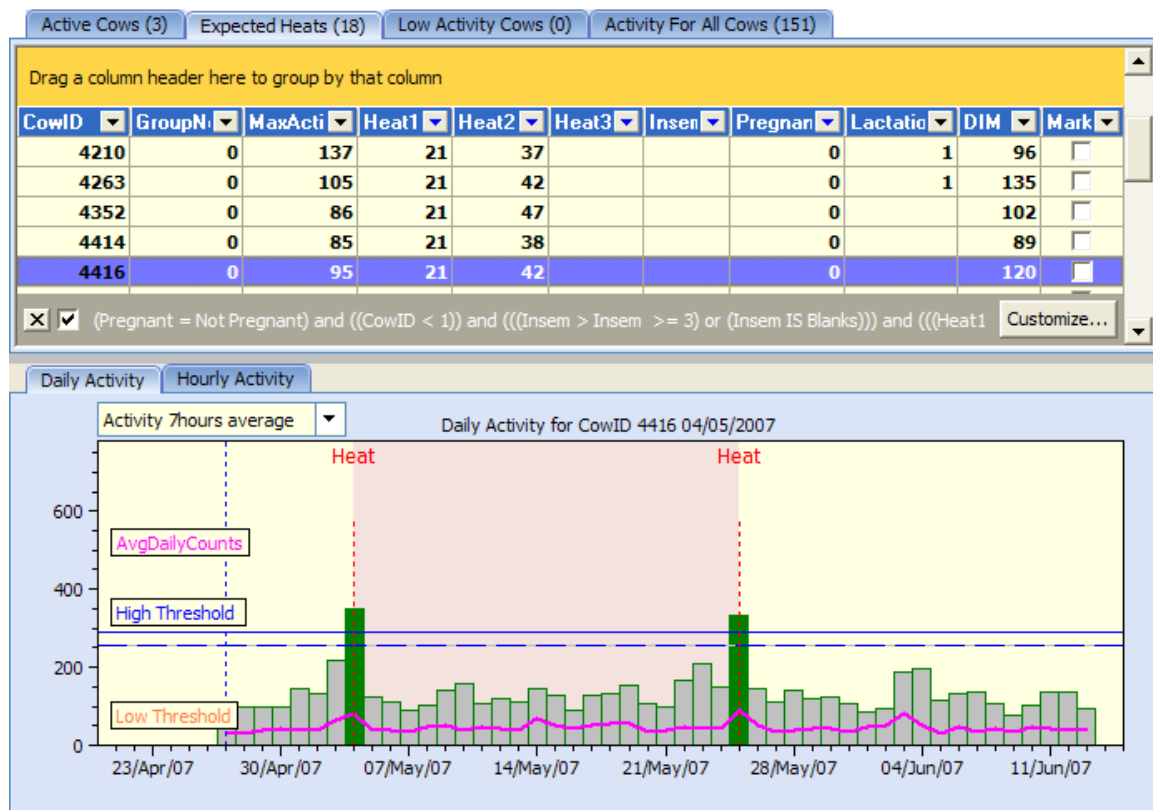


Figure 21 Main Screen.

- a. Right click on the activity bar corresponding to the date you wish to enter the event for on the graph at the bottom half of the screen shown in Figure 21 above.
- b. The options show in Figure 22 on the next page will appear.

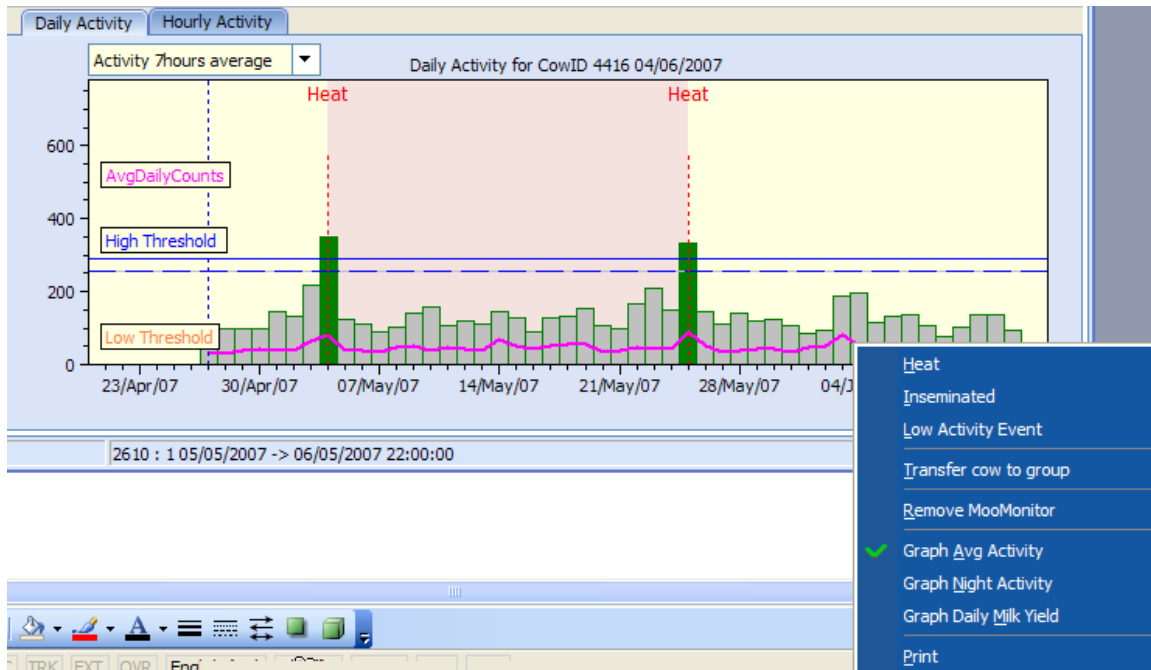


Figure 22 Right Click options.

- c. Select an event such as the 'Heat' event.
- d. The screen displayed in Figure 23 will be displayed.

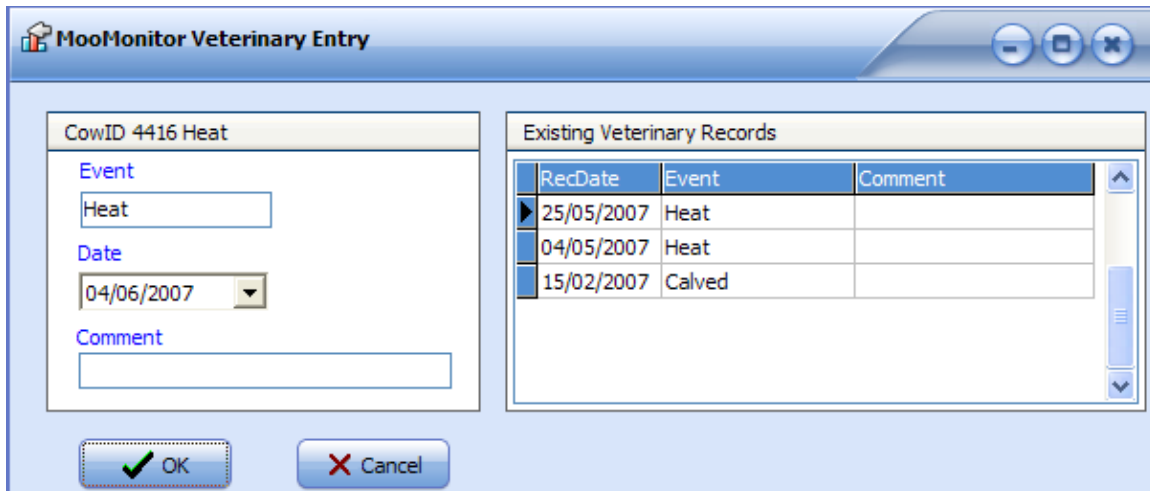
RecDate	Event	Comment
25/05/2007	Heat	
04/05/2007	Heat	
15/02/2007	Calved	

Figure 23 MooMonitor Veterinary Entry screen.

- e. The date field on the left is defaulted to the date of the selected activity bar. This can be changed by selecting the dropdown menu.
- f. Populate the 'Comment' field if you wish and press the 'OK' button to enter the event.
- g. Events are displayed as vertical red dashed lines corresponding to the date they have been entered for.

- h. Repeat steps a – f for the 'Inseminated', 'Low Activity Vet Events' and 'Calved' options in Figure 22 on the previous page.

14.3.8.3. Deleting a Vet Event



The screenshot shows the 'MooMonitor Veterinary Entry' window. On the left, there is a form for entering a new record. The 'CowID' is '4416 Heat'. The 'Event' dropdown is set to 'Heat'. The 'Date' dropdown is set to '04/06/2007'. There is a 'Comment' text box. At the bottom of this form are 'OK' and 'Cancel' buttons. On the right, there is a table titled 'Existing Veterinary Records'.

RecDate	Event	Comment
25/05/2007	Heat	
04/05/2007	Heat	
15/02/2007	Calved	

Figure 24 MooMonitor Veterinary Entry screen.

- Highlight the record on the right side of the screen that you wish to delete by clicking into any value in the record.
- Hold down the 'Ctrl' button on your keyboard, located at the bottom left. While holding down the 'Ctrl' button, press the 'Delete' button.
- The screen in Figure 25 below will appear.
- Select the 'OK' button.



Figure 25

- Then select the 'Cancel' button in Figure 24.

14.3.8.4. Enter A 'Heat Confirmation' for multiple CowID's.

- Under the 'Mark' column to the far right of the grid on the top half of the screen displayed in Figure 26 below, check the box with the mouse corresponding to any CowID's you wish to enter a 'Heat Confirmation' for.

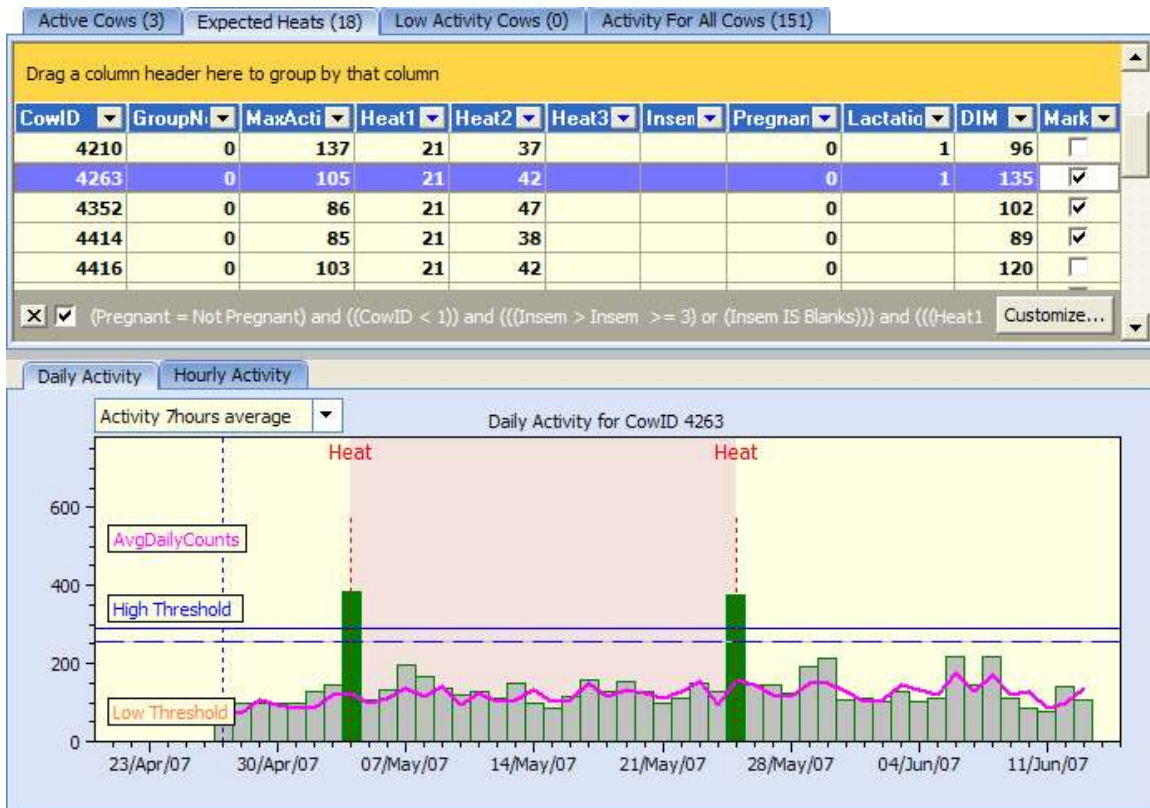


Figure 26 Mark Cows.

- Right click on any CowID you have selected, go to the 'Marked Cows' option and then the 'Heat Confirmation' option as shown in Figure 27 on the next page.

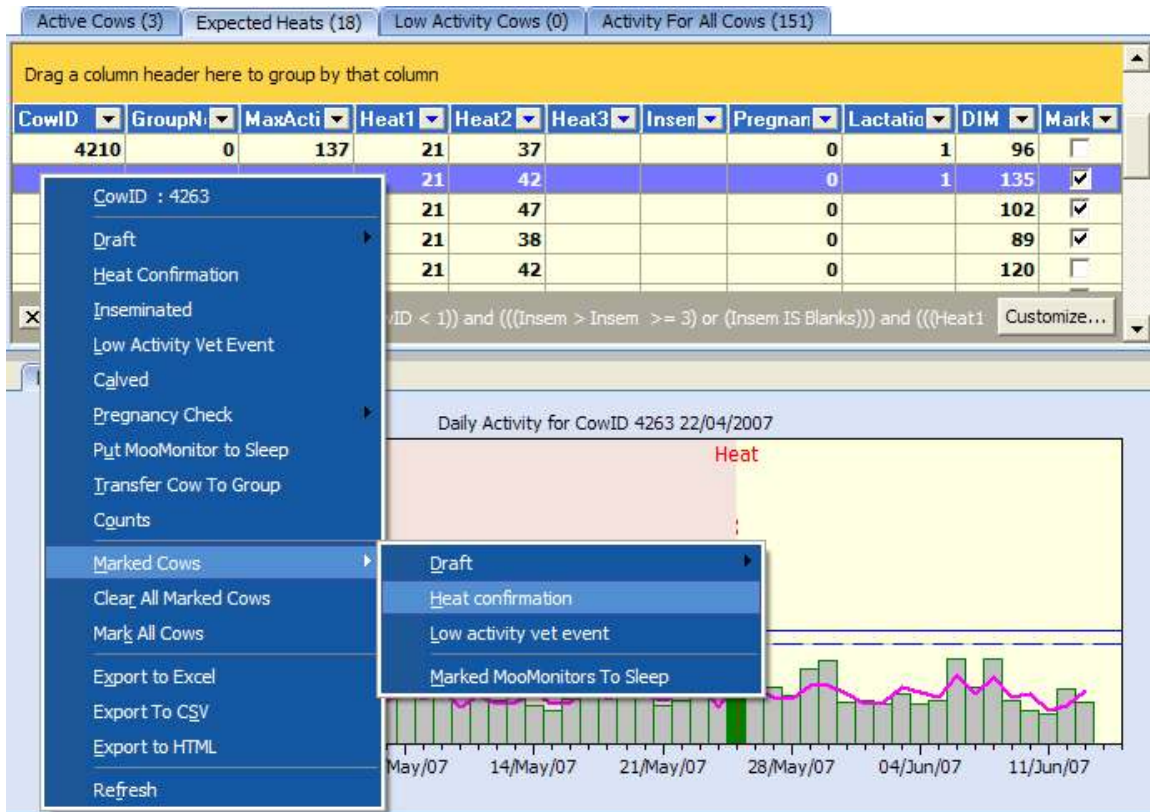


Figure 27 Right Click options.

- c. The screen shown in Figure 28 below will be displayed.



Figure 28 Entering multiple Heat Confirmations.

- d. The date field will default to today's date. Using the dropdown menu, change this date if required.
- e. Click 'OK' and the heat events for the selected CowID's will be entered.
- f. Right click on any of the CowID's you selected and select the 'Clear All Marked Cows', option, seen in Figure 27 above, to unselect the CowID's that you marked

14.3.9. Drafting

Note! Please skip this section if you do not have a Dairymaster drafting unit.

Your drafting settings should be configured upon installation so that the system should automatically draft any 'Active' CowID's. Please refer to section 4.11.1.1 of the MooMonitor Technical Installation Guide for details on how to change these.

You can also draft CowID's from the MooMonitor Analysis program, e.g. CowID's in the 'Expected Heats' tab that are showing significant increases in activity but have not reached/exceeded the 'High Threshold' value. There are two drafting options:

- Permanent drafting.
- Scheduled drafting.

14.3.9.1. Set a Permanent Draft

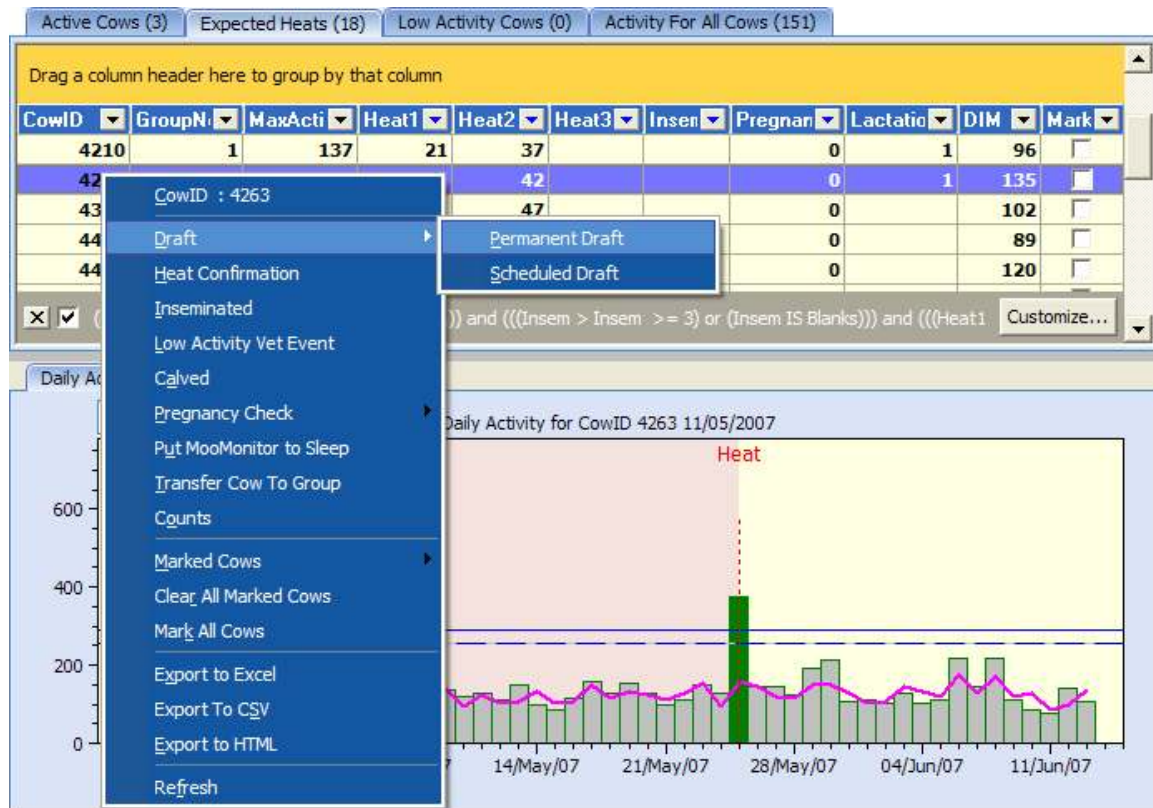


Figure 28 Right Click drafting options.

- Right click on the CowID that you wish to draft and select the 'Permanent Draft' option as shown in Figure 28 on the above.
- The screen in Figure 29 below will appear.

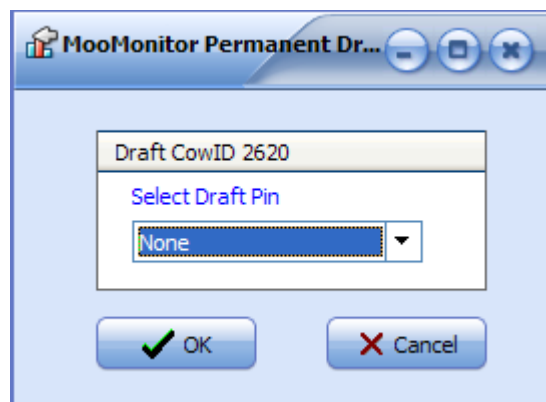


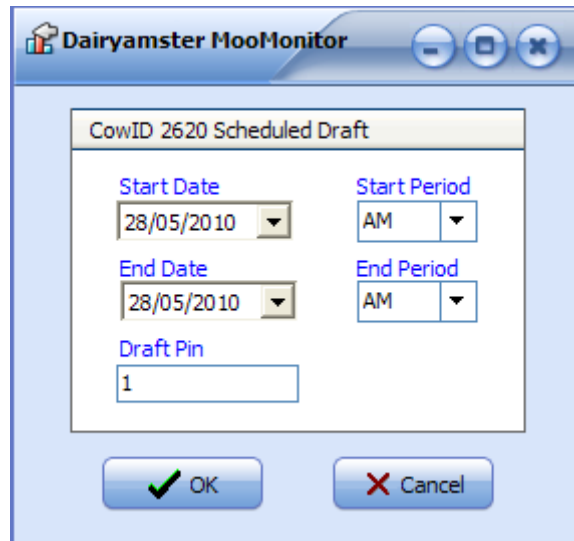
Figure 29 Permanent Draft screen.

- Select the Pin you wish to set the permanent draft to from the dropdown menu.
- Press the 'OK' button.

- e. To cancel a permanent draft, repeat steps a and b and then select 'None' from the 'Select Draft Pin' dropdown menu as shown in Figure 29 on the previous page.

14.3.9.2. Set a Scheduled Draft

- a. Right Click on the CowID that you wish to draft and select the 'Scheduled Draft' option as shown in Figure 28 on the previous page.
- b. The screen in Figure 30 below will be displayed.



The screenshot shows a window titled "Dairyamster MooMonitor" with a standard Windows-style title bar. Inside the window is a dialog box titled "CowID 2620 Scheduled Draft". The dialog contains four dropdown menus arranged in a 2x2 grid: "Start Date" (set to 28/05/2010), "Start Period" (set to AM), "End Date" (set to 28/05/2010), and "End Period" (set to AM). Below these is a text field labeled "Draft Pin" containing the value "1". At the bottom of the dialog are two buttons: "OK" with a green checkmark icon and "Cancel" with a red X icon.

Figure 30 Scheduled drafting screen.

- c. Both the 'Start Date' and 'End Date' fields default to today's date. Change either of these dates using the dropdown arrows.
- d. Both the 'Start Period' and 'End Period' fields default to the 'AM'. Change either of these periods using the dropdown arrows.
- e. Set the 'DraftPin' field to the Pin that you want the CowID drafted to.
- f. Press the 'OK' button to save.
- g. To cancel a scheduled draft, repeat steps a and b. Enter the same Data and period settings as you did when you set up the scheduled draft previously and then set the 'Draft Pin' field to be '0'. Then press the 'OK' button to save.

14.3.9.3. Draft Multiple CowID's

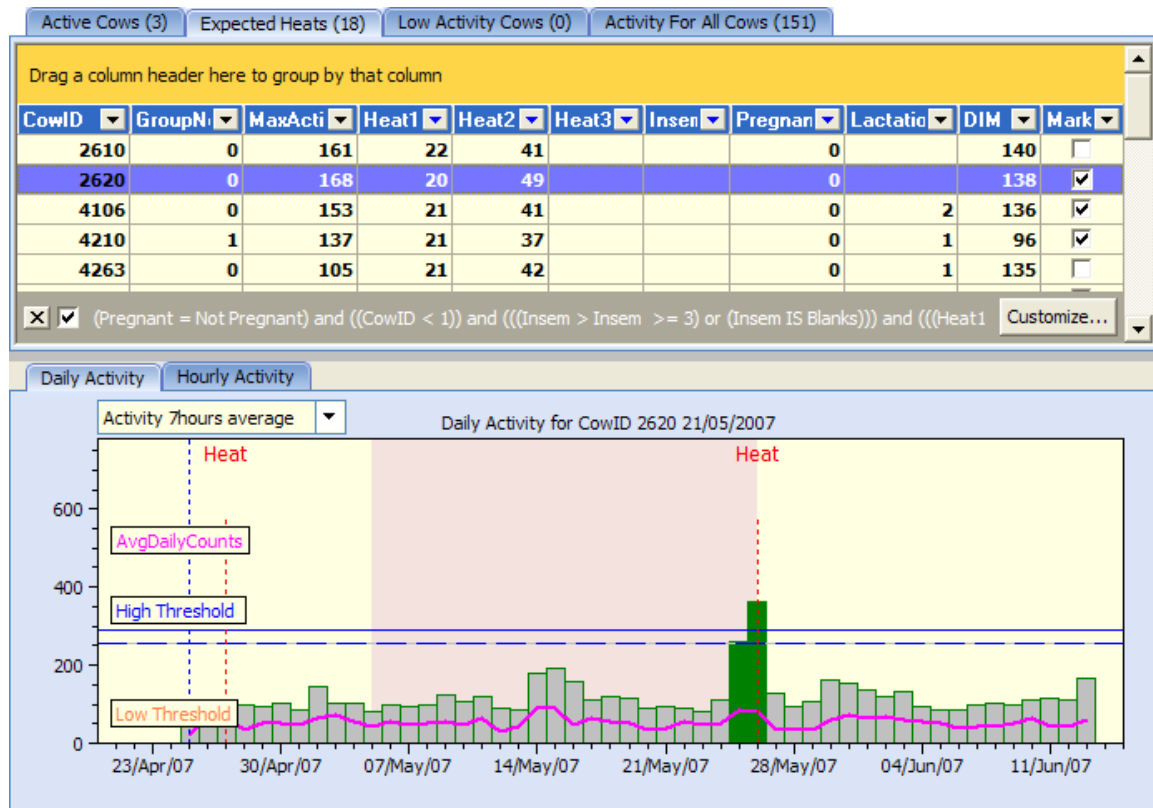


Figure 31 Mark Cows.

- Under the 'Mark' column to the far right of the grid on the top half of the screen displayed in Figure 31 above, check the box with the mouse corresponding to any CowID's you wish to draft.
- Right click on any of the selected CowID's and select either the 'Permanent' or 'Scheduled' drafting option as shown in Figure 32 on the next page.

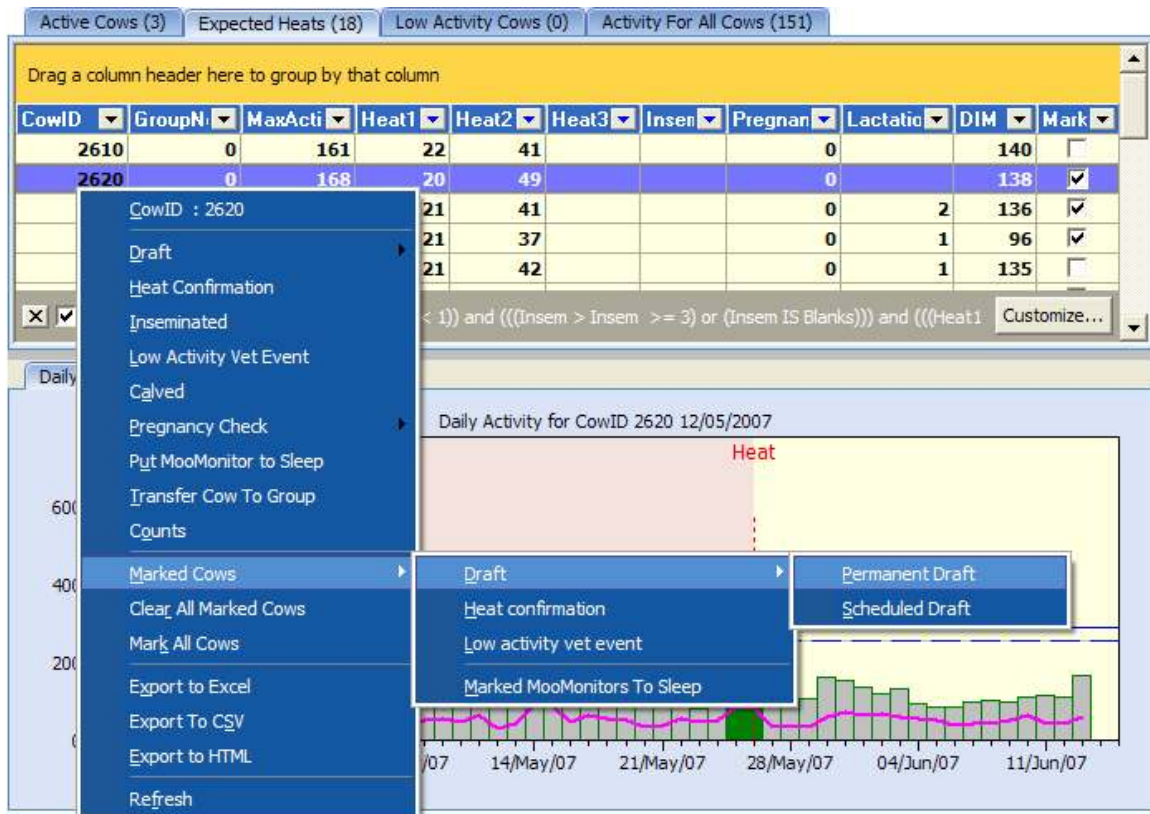


Figure 32 Right Click 'Marked Cows' options.

- c. Refer to section 14.3.9.1 for instructions in setting a permanent draft and the previous section 14.9.3.2 for setting a scheduled draft.

14.3.10. Transfer CowID's to Groups

Warning!

- If your herd is separated into different groups and the activity levels of these groups differ, i.e. some groups are further away from the parlour and thus have further to walk than others, you should also separate your herd into different groups in the MooMonitor Analysis program.
- The reason for this is that a CowID's activity levels are compared to all other CowID's in her group. If CowID's with completely different activity levels are all put into the same group, it will effect the data integrity and detection rate.

You can also use this option to temporarily move sick cows into a separate group for the duration of their illness and move them back into the main group once they have recovered.

All CowID's are given a default 'GroupNumber' of '0' when initially entered into the system.

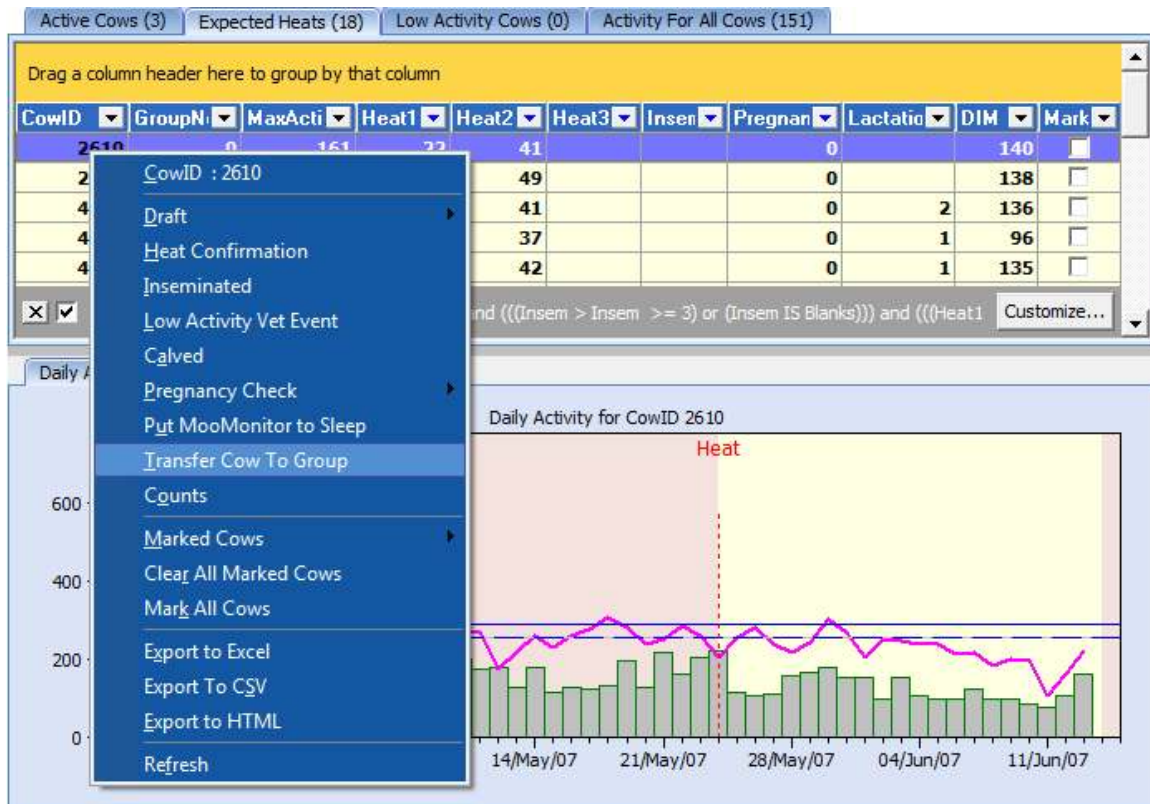


Figure 33 Right Click 'Transfer Cow To Group' option.

- Right click on the CowID that you wish to transfer to a group and select the 'Transfer Cow To Group' option as shown in Figure 33 above.
- The screen in Figure 34 on the next page will be displayed.

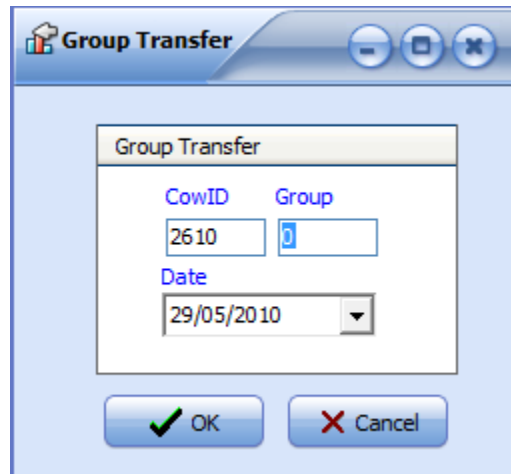


Figure 34 Group Transfer screen.

- c. Set the 'Group' field to be the GroupNumber that you wish to transfer the CowID to.
- d. The 'Date' field will default to today's date. You can change this date by selecting the dropdown arrow.
- e. Select the 'OK' button to save.



Figure 35 MooMonitor Groups.

You can see a list of CowID's against their Group Numbers by selecting 'MooMonitor Groups' option, under 'Other Tasks' on the bottom left of Figure 35 above.

14.3.11. Add/Remove MooMonitors

Warning!

- CowID's must first be entered into the Milk Manger software before MooMonitor tags can be assigned.
 - MooMonitor tags must first be fitted to cow's and the CowID recorded against the relevant MooMonitor tag before this option is taken.
- a. Select 'Add/Remove MooMonitors' under 'Other Tasks' on the bottom left Figure 35 above.
 - b. The screen displayed in Figure 36 on the next page will appear.



Figure 36 Add\Remove MooMonitors screen.

- c. The 'Assign MooMonitors' option is selected by default. Click 'Next'.
- d. The screen in Figure 37 below is displayed.

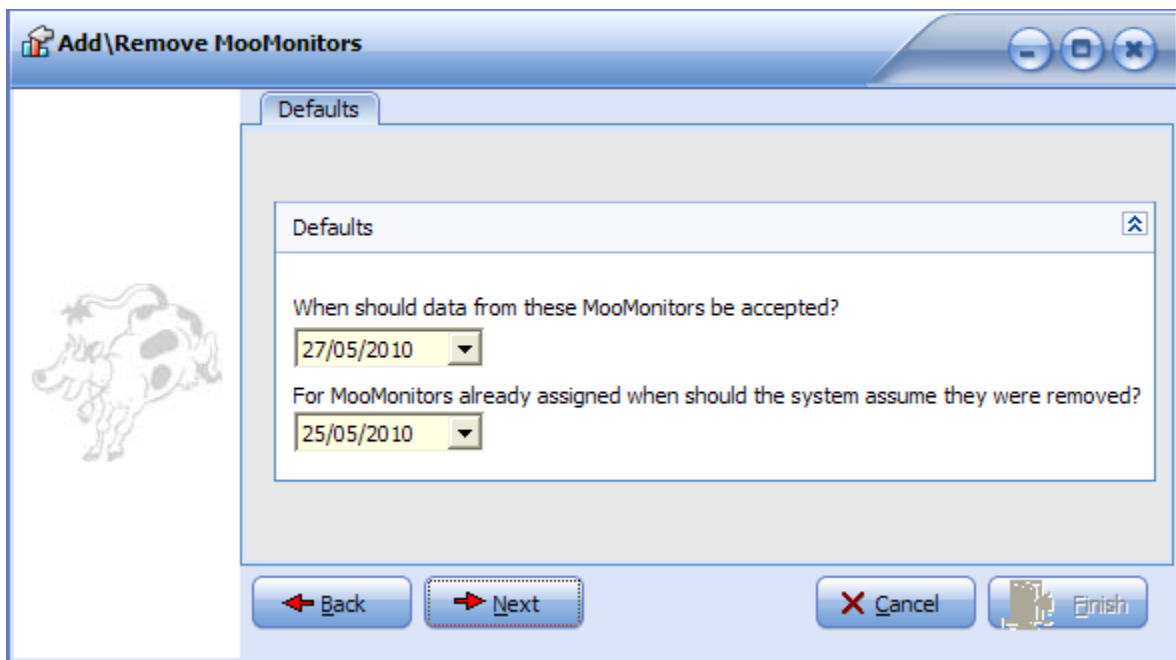


Figure 37 'Defaults' screen.

- e. The 'When should data from these MooMonitors be accepted?' date field is defaulted to tomorrow's date. This is because the cow's activity may be heightened by the action of attaching the MooMonitor around her neck. To change this date, use the dropdown arrow. You can ignore the 2nd date field when assigning MooMonitor tags.

- f. Click 'Next'.
- g. The screen shown in Figure 38 on the next page should be displayed.

Add/Remove MooMonitors

Assign MooMonitors

MooMonitor:0 Battery: __ Last Download: __

CowID MooMonitor Assign Date

27/05/2010

Assign MooMonitor Clear

CowID	MooMonitor	DateTimeTagged	DateTimeRemoved

Back Next Cancel Finish

Figure 38 Assign MooMonitors screen.

- h. Enter the CowID to the 'CowID' field and the corresponding MooMonitor tag to the 'MooMonitor' field. The 'Assign Date' field should be left as tomorrow's date but can be changed using the dropdown arrow.
- i. If you wish to clear either the 'CowID' field or the 'MooMonitor' field at any stage, press the 'Clear' button.
- j. Once the 'MooMonitor' field has been populated, the 'Assign MooMonitor' button will be enabled. Click the 'Assign MooMonitor' button to add the record to the system.
- k. Repeat steps i – k until you have all MooMonitor tags assigned. Click on the 'Finish' button when complete.

14.3.11.1. Editing a MooMonitor Assignment



Figure 39 'All MooMonitor Assignments' menu option.

- Go to MooMonitors → All MooMonitor Assignments menu option shown in Figure 39 above.
- The screen displayed in Figure 40 on the next page should be displayed.

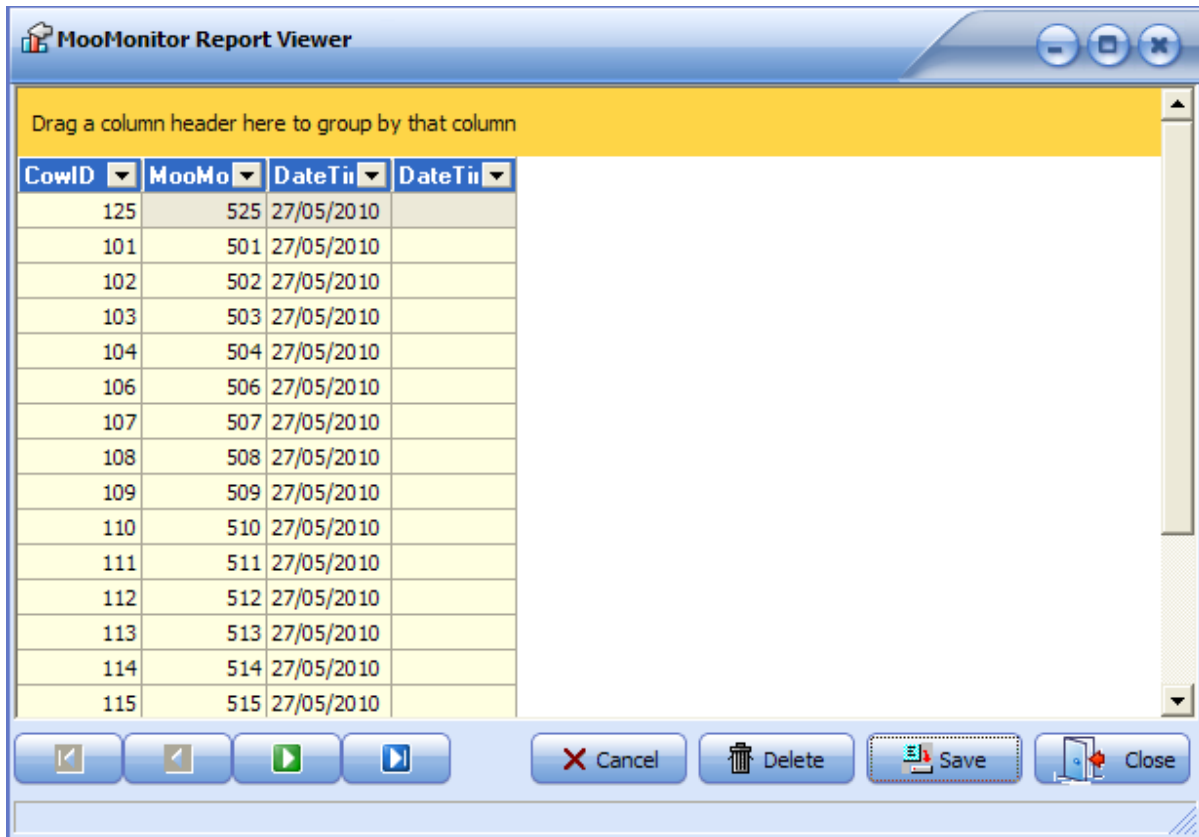


Figure 40 Edit a MooMonitor Assignment.

- c. Click into the column within the record you wish to edit and overwrite the existing value.
- d. Press the 'Save' button to save the change.
- e. Repeat steps d and e for any other edits and select the 'Close' button to exit the screen when finished.

14.3.11.2. Delete a MooMonitor Assignment

- a. Highlight the record you wish to delete by clicking into any column in Figure 40 above.
- b. Click the 'Delete' button.
- c. You will be prompted if you are sure you wish to delete the record. Choose 'YES'.
- d. Repeat steps a – c for any other records you wish to delete and select the 'Close' button to exit the screen when finished.

14.3.11.3. Remove a MooMonitor Assignment

This option is taken when you remove a MooMonitor tag from a cow. You must un-assign it in the software.



Figure 41 'Add\Remove MooMonitors' option.

- Select the 'Add\Remove MooMonitors' option under 'Other Tasks' on the bottom left of Figure 41 above.
- The screen displayed in Figure 42 below is displayed.



Figure 42 MooMonitor Wizard screen.

- c. The 'Assign MooMonitors' option is selected by default. Select the 'Remove MooMonitors' option. Select the 'Next' button.
- d. The screen shown in Figure 43 below is displayed.

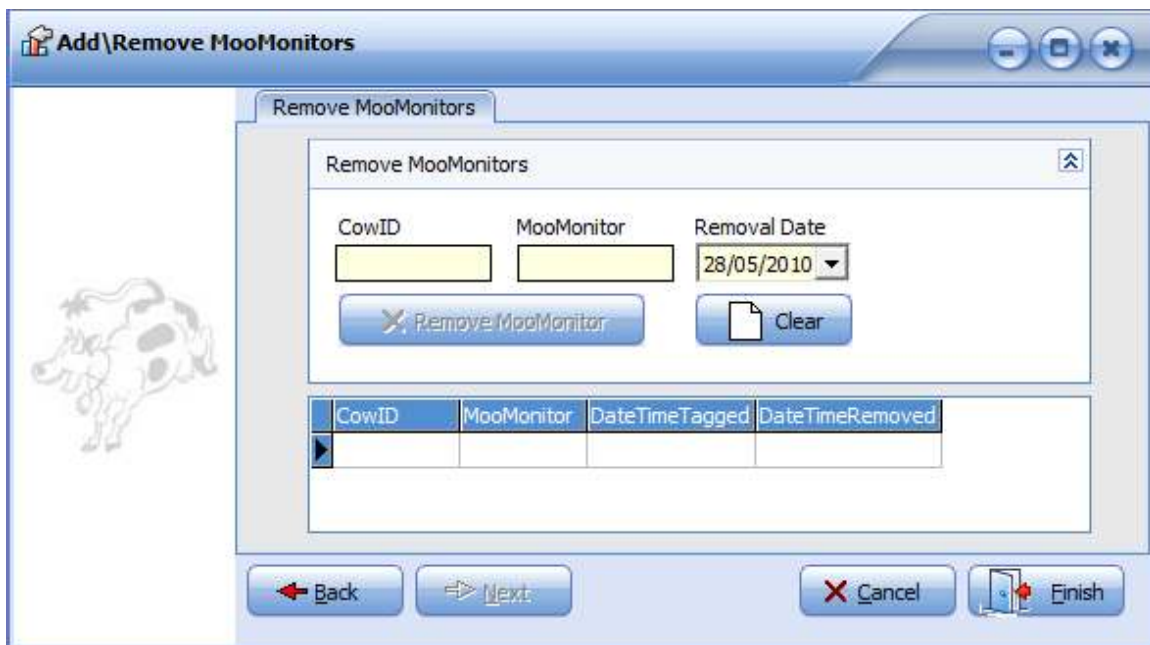


Figure 43 Remove MooMonitors screen.

- e. Enter the CowID to the 'CowID' field and the corresponding MooMonitor tag to the 'MooMonitor' field. The 'Removal Date' field defaults to yesterday's date. Use the dropdown arrow to change this if you wish.

- f. If you wish to clear either the 'CowID' field or the 'MooMonitor' field at any stage, press the 'Clear' button.
- g. Once the 'MooMonitor' field has been populated, the 'Remove MooMonitor' button should be enabled. Click the 'Remove MooMonitor' button to add the record to the system.
- h. Repeat steps i – k until you have all MooMonitor tags removed. Click on the 'Finish' button when complete.

If you wish to put the MooMonitor tag on a different cow, you must also assign it to the new cow in the software. See section 14.3.11 to assign a MooMonitor tag to a cow.

14.3.12. Low Battery MooMonitors



Figure 44 Low Battery MooMonitors option

- a. Select the 'Low Battery MooMonitors' option under 'Other Tasks' on the bottom left of Figure 44 above.
- b. The screen in Figure 45 on the next page will be displayed.

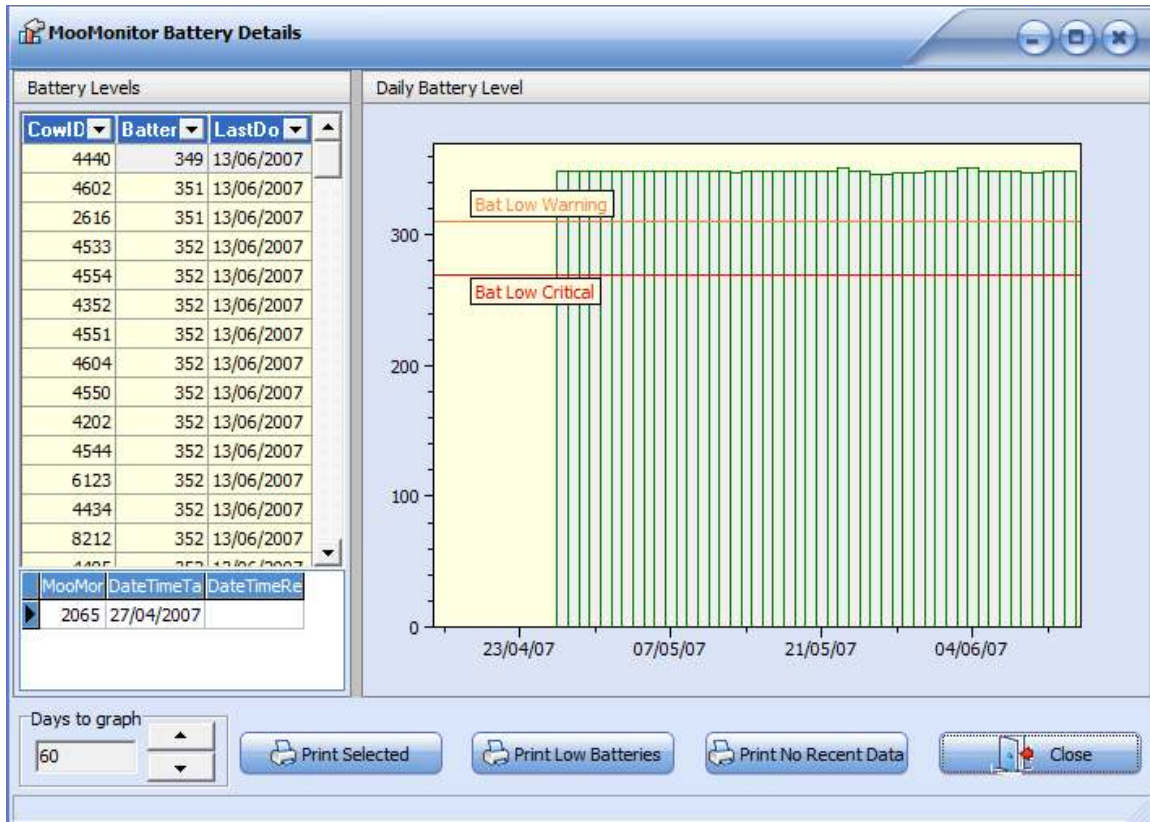


Figure 45 MooMonitor Battery Details screen.

- c. The CowID with the corresponding MooMonitor tag are displayed on the left grids and the battery levels associated with the MooMonitor tag is graphed on the right.
- d. To view data pertaining to a specific CowID, click into it with the mouse.
- e. There are a number of options displayed across the bottom of the screen.

Days to Graph: The number of days you wish to be graphed.

Print Selected: Puts the selected CowID details into a word document for printing.

Print Low Batteries: Puts all CowID details into a work document for printing where batteries levels have been detected > 3.1V.

Print No Recent Data: Puts all CowID details into a word document where there is no recent battery level data.

- f. Select the 'Close' button to exit.

14.3.13. MooMonitors Not Downloading

Note!

MooMonitor tags can stop downloading for a number of reasons:

- The MooMonitor Download program is not running on the PC. See section 14.2 for more on this.
- The cow has not come into range of the BaseStation(s).
- The MooMonitor tag has slipped off the cow's neck outside the range of the BaseStation.



Figure 46 MooMonitors Not Downloading option.

- a. Select the 'MooMonitors' not downloading option, under 'Other Tasks' in the bottom left of Figure 46 above.
- b. The screen in Figure 47 below will be displayed.

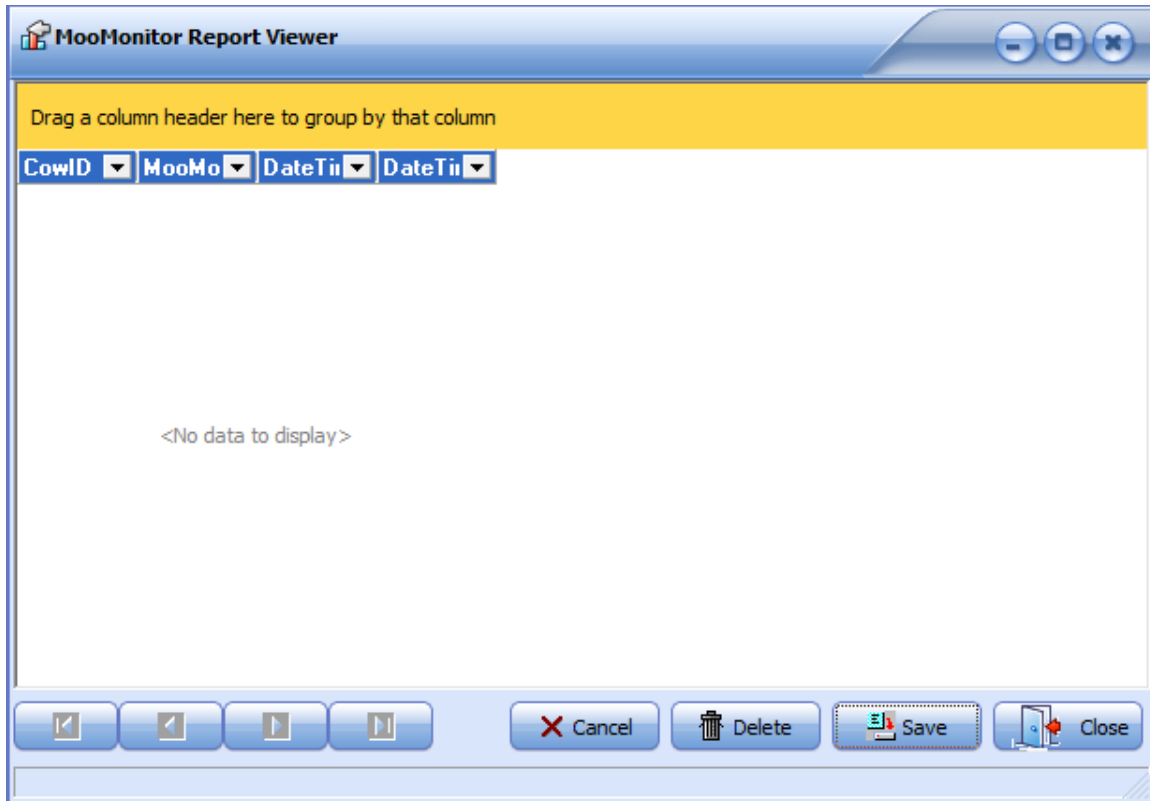


Figure 47 MooMonitors Not Downloading screen.

- c. The report displays the MooMontitor tags that are now downloading. These should be investigated.
- d. Select the 'Close' button to exit.

14.3.14. Putting MooMonitor Tags To Sleep.

WARNING!

Extreme care must be taken when choosing a wake-up date for MooMonitor tags.

- You should always choose a wake-up date that is 2 weeks prior to when you wish to start using them again.
- The only way to bring forward a wake-up date is to set the wake-up date in the system and then **remove and re-insert** the batteries on each MooMonitor tag !

If you have any queries or concerns, you should ring a member of the Dairymaster Software Support Team before setting MooMonitor tags to sleep.

Read this section carefully prior to attempting the instructions.

Note!

You can only set one sleep date to a batch of MooMonitor tags at a time. If you wish to give a different sleep date to a different batch, you must wait for a minimum of 7 days before setting a sleep date for another batch of MooMonitor tags.

- a. Open the MooMonitor Download program. See Section 14.2 of this manual for details.

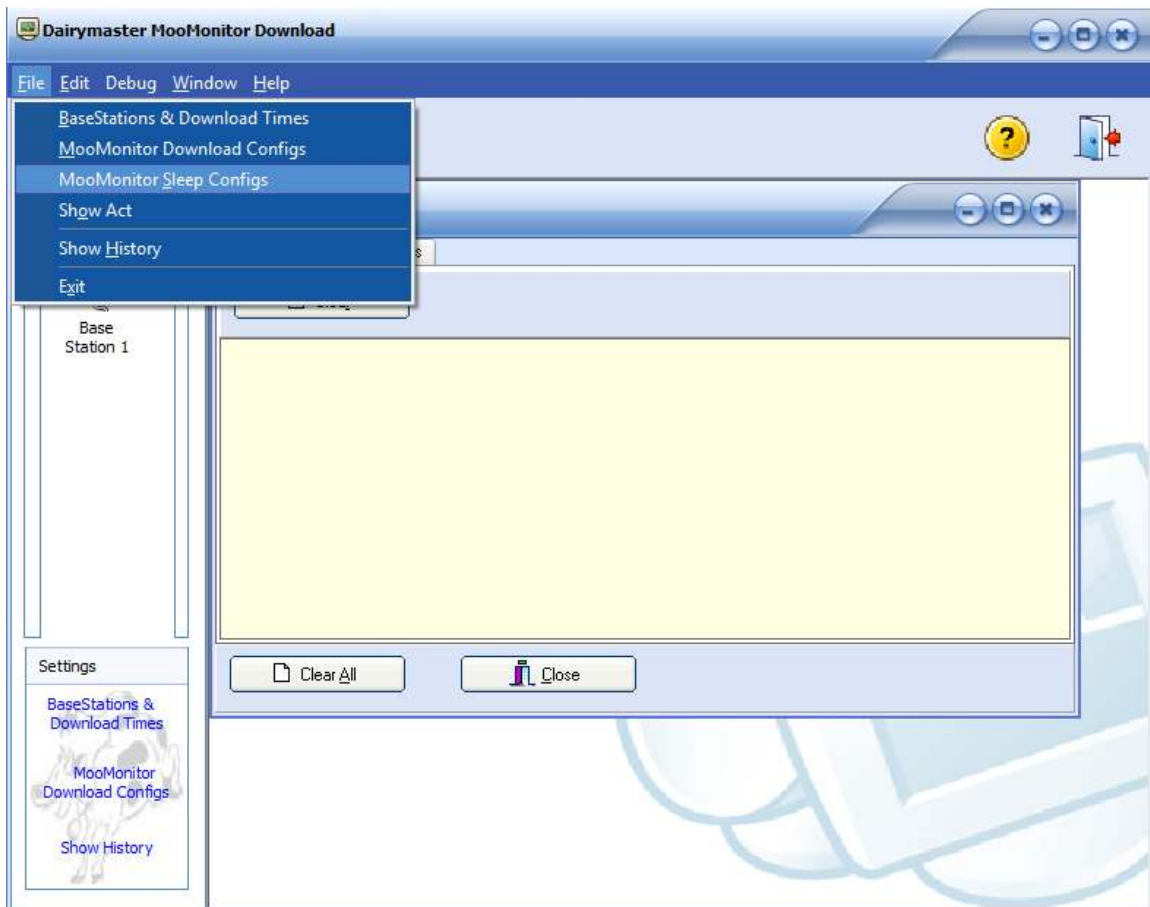


Figure 48 'MooMonitor Sleep Configs' option in the MooMonitor Download Program.

- b. Select the 'MooMonitor Sleep Configs' option from the 'File' menu option as shown in Figure 48 above.



Figure 49 MooMonitor Sleep Settings screen.

- c. The screen in Figure 49 above is displayed.
- d. If the 'Send Sleep Data' checkbox is checked on, check it off by clicking into the checkbox with your mouse.
- e. Select the 'Save' button.
- f. Open the MooMonitor Analysis program. See section 14.3 for details.
- g. Select the 'MooMonitor Sleep Dates' option from the 'MooMonitors' menu in Figure 50 below.



Figure 50 'MooMonitor Sleep Dates menu option.

h. The screen shown in Figure 51 below will be displayed.

MooMonitor Sleep Details

MooMonitor: Sleep Start: 29/05/2010 Wake Up: 17/01/2007

☒ Ask for confirmation

Drag a column header here to group by that column

MooMonitor	SleepStart	SleepEntered	WakeUp
<No data to display>			

Cancel Delete Save Close

Figure 51 'MooMonitor Sleep Details screen.

- i. If there are any records in the 'MooMonitor Sleep Details' screen that have been added less than 7 days ago, you cannot add in new records with a different sleep day until more than 7 days have passed. If you are adding in records that have the same sleep date as any records that are less than 7 days old, you may continue.
- j. If there are any records in the 'MooMonitor Sleep Details' screen that were entered more than 7 days ago and you intend on entering a different wake-up date to the records that already exist, you must first delete the existing records by selecting the 'Delete All Sleep Records' button. If you are entering the same wake-up date as any existing records, do not delete any records.
- k. Enter the MooMonitor tag number you wish to put to sleep into the 'MooMonitor' field.
- l. The 'Sleep Start' field defaults to today's date. Use the dropdown arrow to change this to a different date.
- m. Set the 'Wake Up' date field to be the date that you wish the MooMonitor tags to wake up on. **You must give all record entries the same wake-up date.** Refer to the start of this section when choosing a wake-up date.
- n. Press the 'New Sleep Record' button to add the record.
- o. Repeat steps k – n for any MooMonitors you are putting to sleep.
- p. Select the 'Save' button when you have entered all records.
- q. Select 'Close' to exit the screen.

14.3.14.1. Deleting an incorrect sleep entry

- a. Select the record you wish to delete in Figure 51 on the previous page by clicking on the MooMonitor tag number.
- b. While holding down the 'Ctrl' button, located on the bottom left of your keyboard, press the 'Delete' button on your keyboard.
- c. The screen in Figure 52 below will be displayed.

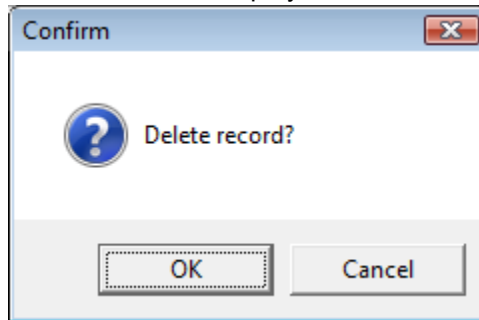


Figure 52 Delete Record.

- d. Select 'OK'.

14.4. FCC Standards

FCC ID: Y9GTAG1-1



Figure 53 FCC Label for Moo Monitor

FCC warning statement:

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment