COWALERT

USER GUIDE

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COWALERT

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1 Introduction

1.1 Minimum System Requirements to view CowAlert

CowAlert can be viewed on any internet-enabled device such as a PC, Mac, laptop, smartphone, tablet PC. It is suggested that equipment with a reasonably sized screen is used to fully benefit from the advanced graphing capability.

Using your unique User ID and password, you can access CowAlert from anywhere with a reliable internet connection and modern web browser, whether in the farm office or from the other side of the world. There is no software to be installed and all updates are automated so the most recent version will always be available.

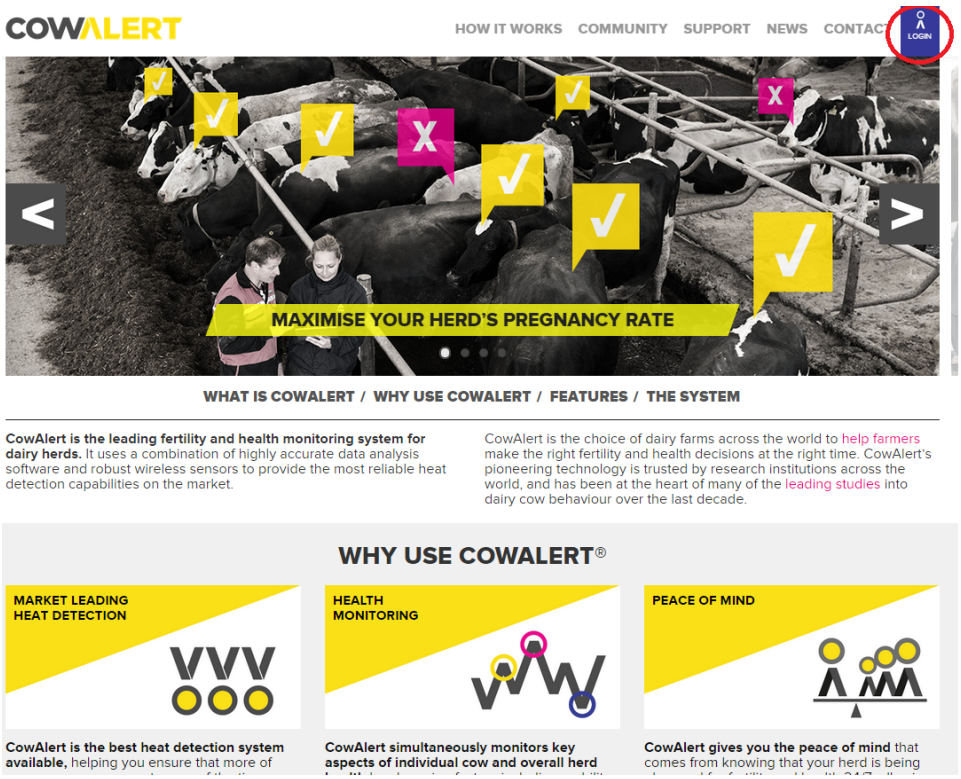
2 Getting connected to CowAlert

In the address bar of your preferred internet browser, type this address and then press enter;

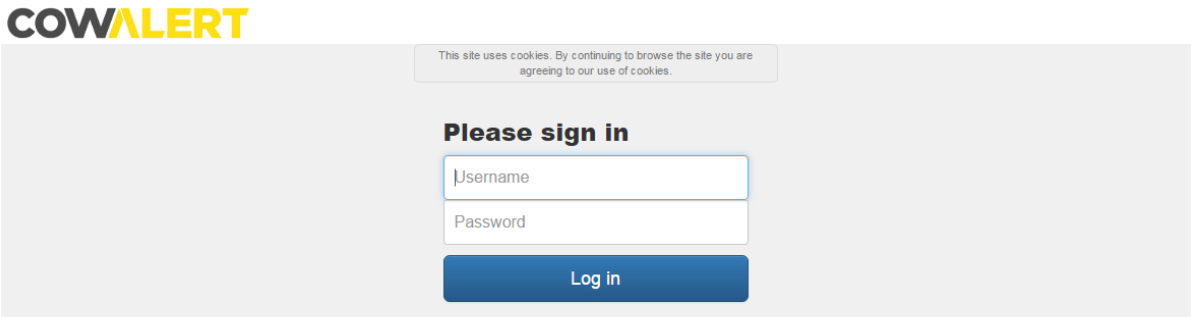
www.cowalert.com

1. You should now see this screen:

2. Click on **Log In** at the top right hand corner which will take you to the Log In page



3. Enter your Username and Password and press **Log In** – this will take you to your CowAlert Dashboard.

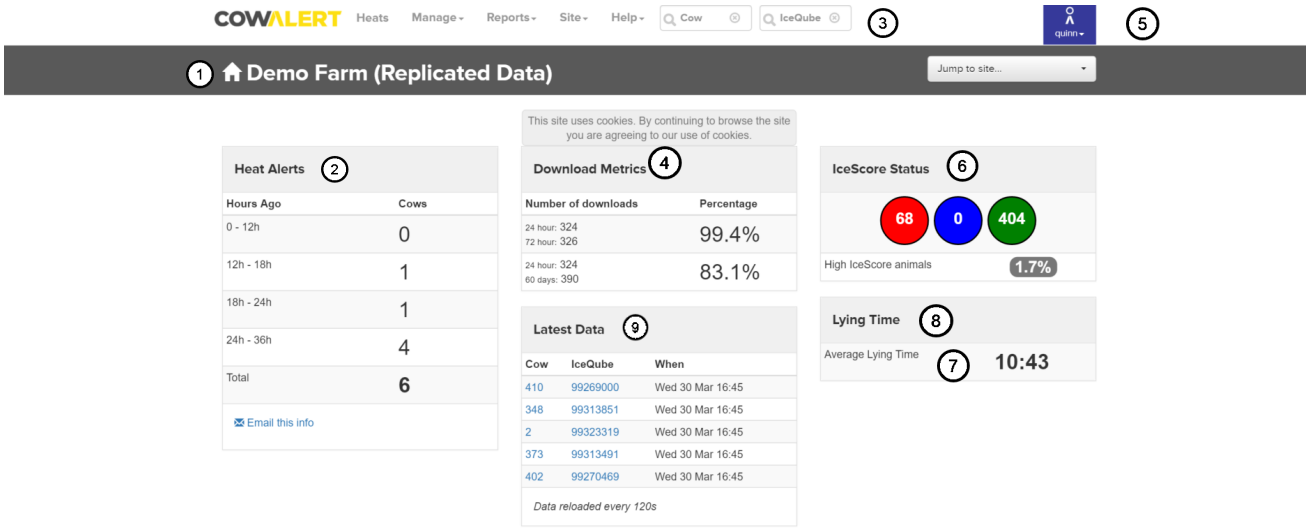


Your username and password are unique to you. Please do not share these details with others as they will then be able to make changes that may affect your data and therefore the effective functioning of the system. If however, you would like to authorise someone else to have access, please email

support@cowalert.com and a separate username and password can be issued for each additional user.

If you forget your password, or believe that it is no longer secure, please email support@cowalert.com and a replacement will be issued.

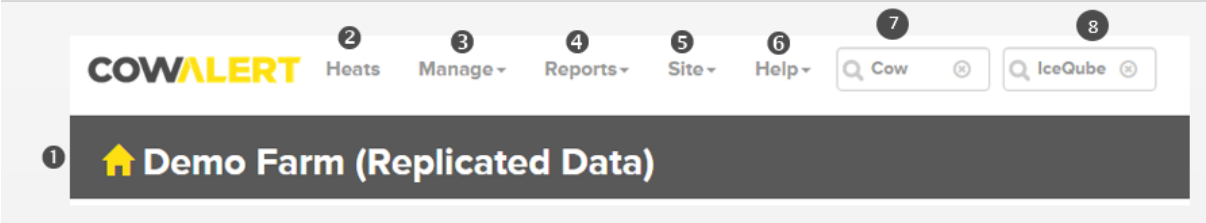
3 CowAlert Dashboard



1. Click on your farm name or CowAlert logo to return to Dashboard.
2. **Heat Alerts**: Clicking on any row in this table takes you directly to the details for the selected time period.
3. **The Navigation bar** allows you to access the different features of CowAlert.
4. **Download Metrics**: This section shows the download performance and latest downloads and times.
5. **Farm User**: Click here to logout from the system and select your language preference. Users can logout from any page.
6. **IceScore**: These are your IceScore Health Alerts. The red button are cows with an IceScore alerts (red), The cows assigned to an inspection list are in the orange, diagnosed problems from an IceScore show up in blue, while the green button represents cows with no significant change in Icescot.
7. **Lying Time (hrs)**: This shows the average lying time for the herd for the previous day.
8. **Average Lying Time**: Click on this text to display a graph of lying time distribution.
9. **Latest Data:** Live data automatically refreshed every 120 seconds is displayed here

3.1 Navigation Bar Details

Separate sections will be covered in more detail:

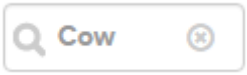
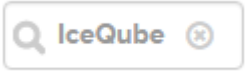


1. Click on your farm name or CowAlert logo to return your Dashboard

   IceServer Online Indicator: Colour of house icon indicates if your CowAlert system is connected to the internet
   Green = Good connection
   Orange = Offline for more than 30 mins but less than 10hrs
   Red = Offline! Site not seen for more than 10hrs

2. **Heats**: Select this link to access all the Heat Alerts for your farm
3. **Manage**: Select to view Cows, unused IceQubes, administer groups, associate cows with IceQubes, and remove cow IceQube attachments.
4. **Reports**: Access Lying Time, Health Alerts (subscription) and IceQube population reports.
5. **Site**: Shows site information and allows you to select settings to edit AI window and Cow page view window parameters
6. **Help:** Access copy of user manual and other update notes as they become available
7. **Cow**: Search by Cow number
8. **IceQube**: Search by IceQube number

3.2 Search for Cow or IceQube Numbers

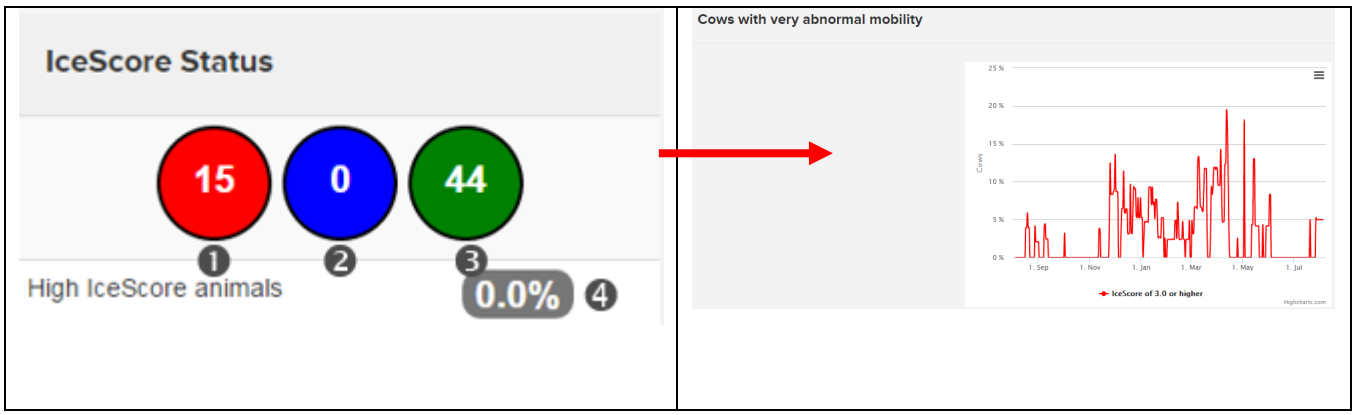
	
Search by Cow: Entering a cow number shows all the cows that have the number contained in their number in a drop down list. For example, if you enter 12 you would see cow 12, 120, 121, 122. A maximum of 4 rows is shown. You could simply hit enter to bring up that cows page.	**Search by IceQube**: In the same way you search for cows you can search for specific IceQubes. Numbers are matched, with a maximum of 4 rows displayed.

4 IceScore Mobility

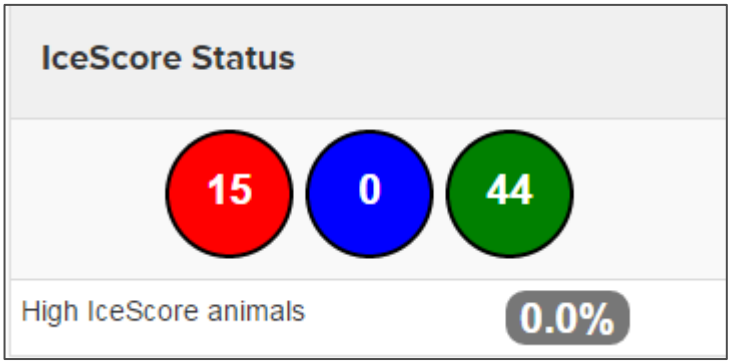
4.1 IceScore Mobility

IceScore is an optional subscription service. It provides an alert for animals exhibiting a change in mobility which may be related to health issues such as lameness or mastitis.

Home Page Dashboard

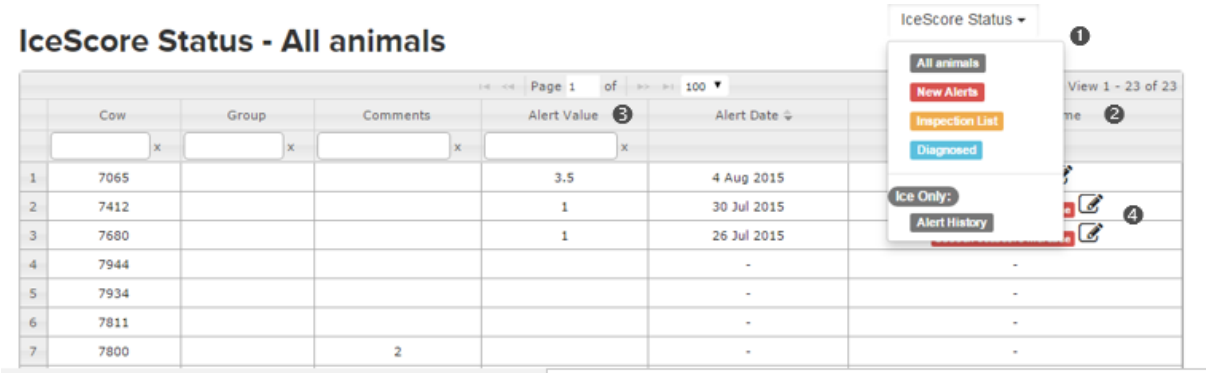


1. New alerts are shown here . Click on red circle to display cows – see New Alerts list below
2. If a diagnosis is made the recorded cow and symptom will be stored and shown here, in the blue circle. Cows that are diagnosed WILL NOT alert for 25 days – see Alert Processing.
3. Animals without an alert are shown here. If a cow is in the green circle she has no health issue identified. You can return a cow to the green group by selecting no health issue identified and then choosing how long to ignore the alert. When you choose to ignore you will be able to select the time frame to ignore for after 1 day, 1 week or 1 month, she will not create any new health alerts during this time (note: the default is Four weeks).
4. This displays the percentage of cows in the herd with a high score (>3). These cows may or may not have a mobility issue that relates to a health problem. The graph shows trend over time up to 1 year. Some cows due to the way they walk will have a naturally high IceScore, this graph is useful for evaluating overcrowding and heat stress over time.



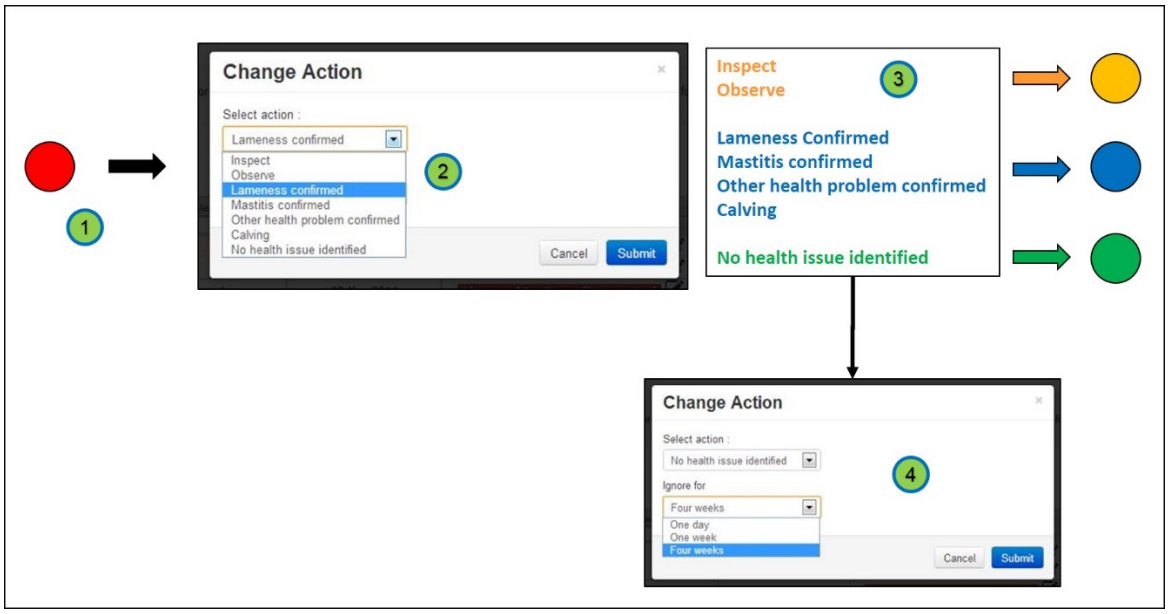
Note: If the **Inspect** or **Observe** categories are not selected then the Orange status will not show on the home page.

New Alerts List



1. Filter to view alert categories
2. Decreasing or increasing alert notification. An improving (decreasing) score is just as relevant to health issue as an increasing score.
3. Alert Value (4 = max value)
4. Edit icon to allow cow classification (inspect, diagnose, no issue). Refer to images below for further information.

Alert Processing and Classification

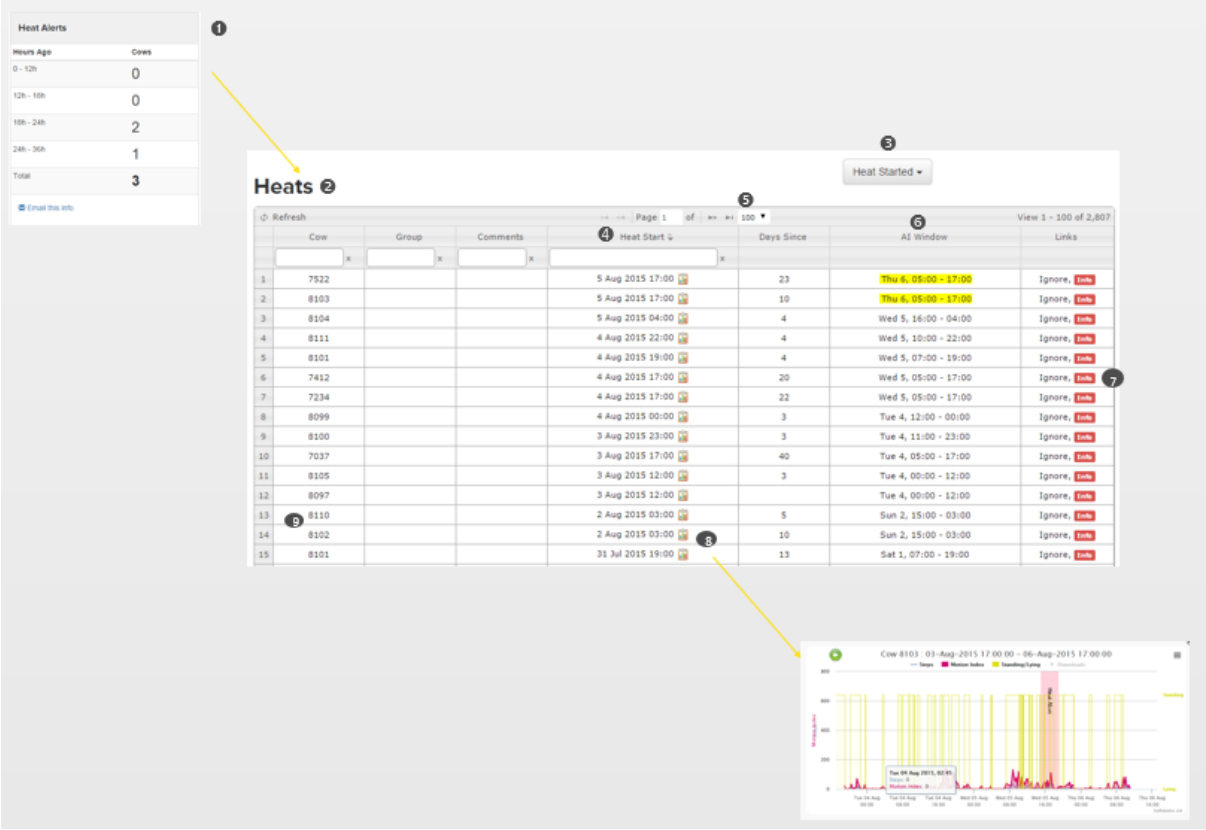


1. Click on red alert circle on the home page.
2. Select the change action.
3. Coloured text matches the options (yellow = inspect, blue = diagnose, green = no issue identified)
4. Different alert timeframes are available when moving cows from red to green.

5 Heat Alerts

5.1 Viewing recent heat alerts and their associated behaviour graphs

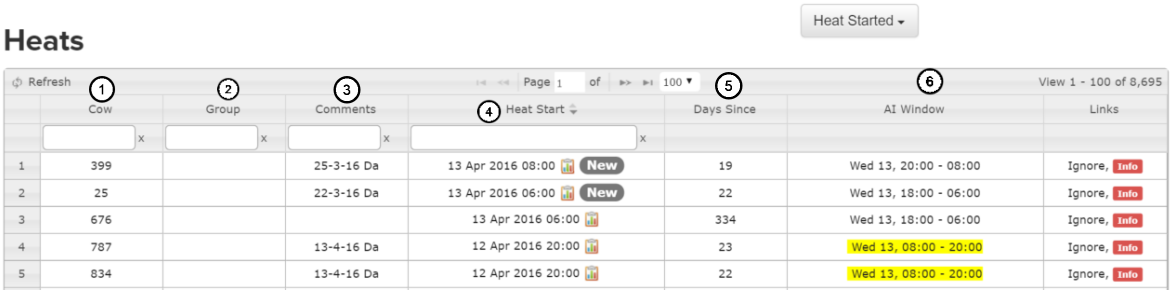
Heat alerts are shown in the left-hand table on the farm homepage.



1. **Heat Alerts:** Click on any row to open the details of the highlighted alerts.
2. **Heats:** This opens the table on the Heats webpage (for these specific heats) which are also accessible via the Heats link in the navigation bar.
3. **Drop Down Menu:** Click to open drop-down menu to select different search criteria.
4. **Heat Started**: This column displays the time the heat started. The search box below it also allows further refinement. Click column header to order by date/time.
5. **Page Forward**: Move to the next page and select view options of 100 or 500 rows per page.
6. **AI Window:** This is the recommended AI window and is set by the farm by selecting **Site** from the main menu bar, and then **Settings.** Note: The default is set to reflect the current CowAlert recommended window, however this can be adjusted to reflect your management practices.
7. **Ignore Button:** To cancel a heat alert (eg if caused by a known event). The Info button displays further details and to if necessary reinstate an alert (e.g. if ignored by accident).
8. **Graph Icon:** Click on the small chart icon to show the 24 hour window to view to heat activity graph.
9. **Cow Number:** Click the cow number to show all activity graphs for the animal.

5.2 Viewing all Heat alerts

A list of all cows and heat alerts can be accessed by selecting **Heats** from the navigation bar.

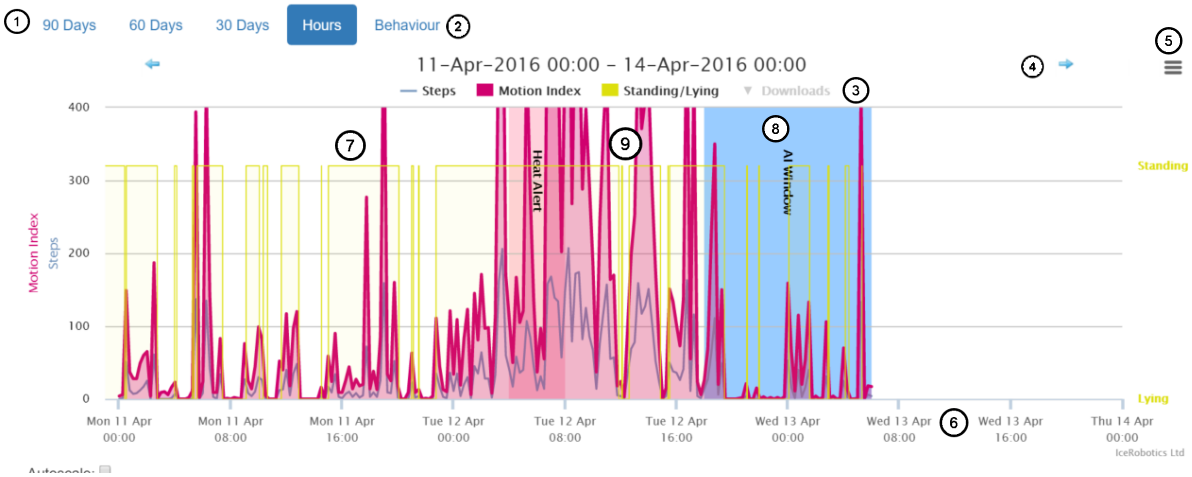


1. **Cow:** The table can be sorted by Cow by clicking the column heading. Enter a cow number in the white search field and hit <enter> to look for a specific cow.
2. **Group:** The table can also be sorted by Group via the Group column heading. For farms integrated with DC305 group information is taken from DC305.
3. **Comments:** Sorting by Comments can also be done by selecting this column heading.
4. **Heat Start**: This column reflects the time the heat started. The search box below it also allows further refinement. Click column header to order by date/time.
5. **Days Since:** Number of days between current heat and previous one are shown here. This information can be used to help identify cows with unusual cycles.
6. **AI Widow:** Cows within a current AI window are highlighted in yellow. See section 9.1 on how to set the AI window.

5.3 Behaviour graph: Hours view

The Hours graph can be accessed either by:

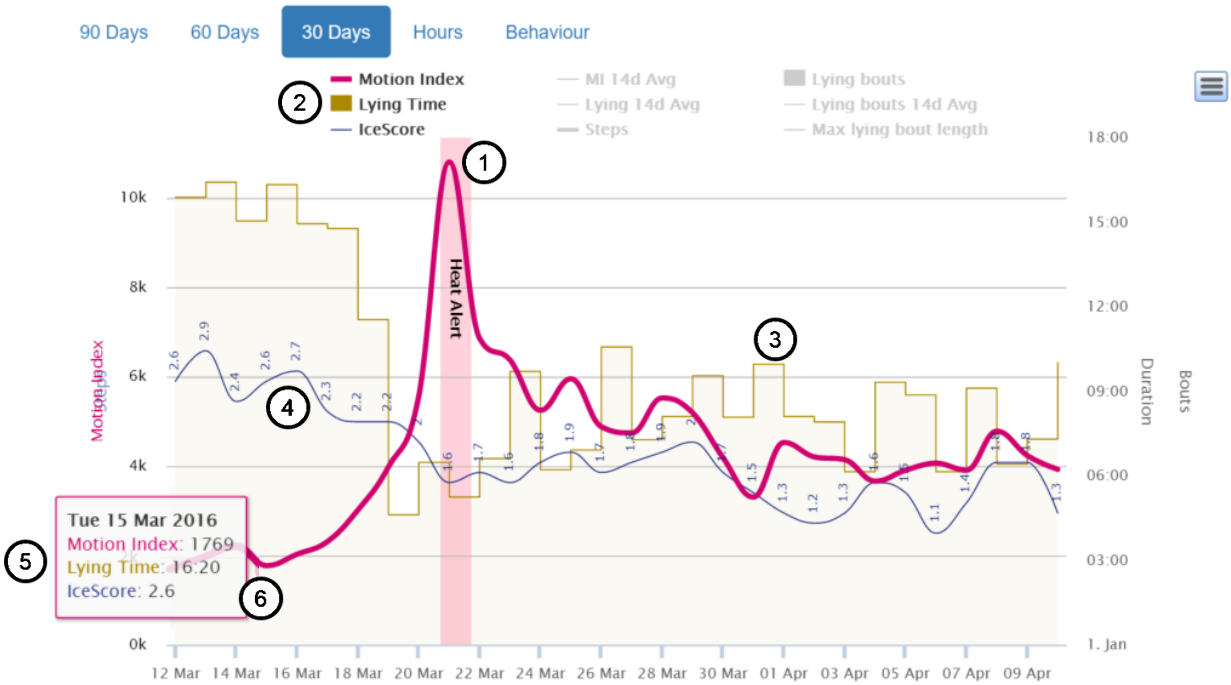
- Selecting a heat event and clicking on the chart icon
- Selecting the **Hours** tab on the main cow activity screen



1. Select the time period (hours to 90 days) to view the data for that period.
2. **Behaviour** shows detailed behaviour information for the cow.
3. Clicking on any of these headings hides/shows them on the graph.
4. Scroll back/forward in time.
5. Options to print and export the graph.
6. The **Hours** view is fixed width. Data will progressively fill the window.
7. **Standing/Lying Time** is denoted by the yellow line. Here the cow is standing.
8. Recommended **AI Window** (editable) is shown in blue.
9. The pink line shows the **Motion Index**. This is a measure of how active the animal is. Note the raised activity level during oestrus.

5.4 Behaviour Graph: Multi-day view

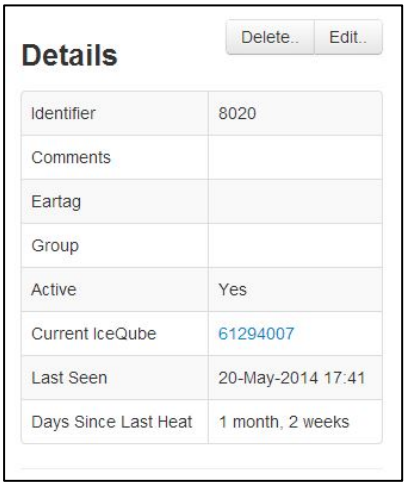
An example of a 30 day activity graph is shown below:



1. Motion Index (MI). Note the sharp peak associated with oestrus and the reduced lying time.
2. MI, Lying time and IceScore are shown by defualt. Another 6 graphical options are available. Click to select.
3. Yellow line shows lying time. Hours are shown on right hand "Y"-axis.
4. Blue line shows IceScore with score value. Numbers above 2 indicate a potential health problem.
5. Drag your cursor across the screen to view a popup box of average scores for each day.
6. Highlight a line with the mouse cursor and a pop up window appears showing the date and numerical values of Motion Index, Lying Time and IceScore.

5.5 Behaviour Tables

Several tables are shown on the screen displaying the behaviour graph.



Details

Delete.. Edit..

Identifier	8020
Comments	
Eartag	
Group	
Active	Yes
Current IceQube	61294007
Last Seen	20-May-2014 17:41
Days Since Last Heat	1 month, 2 weeks

Details:

Delete a cow by clicking **delete**. Note that this will remove the animal from the cow list along with all its data. The data cannot be recovered, so this function should be used with caution.

Summary information on the cow, including optional Group allocation and Eartag number. The table shows the number of the IceQube currently attached, when it last downloaded, and when the last heat event occurred.

Edit Cow

Identifier: 8020

Comments:

Eartag:

Group: ---------

Cancel Save

Click on **Edit** to edit the Cow Number, Group, Comments, or Eartag fields. Use Cancel to exit without saving. Fill in the fields as required.

Events

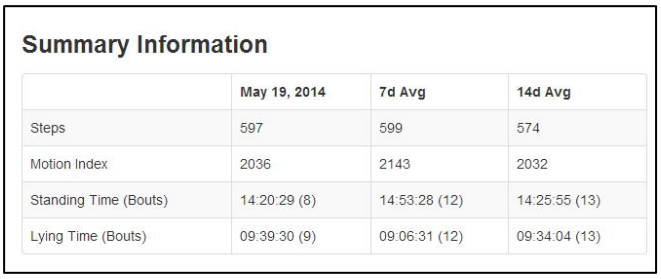
When	Event	Days
6 Apr	Heat Alert	

The **Events** table provides a list of the dates of previous heat alerts.

IceQube Attachments

IceQube	Started	Ended	Actions
61294007	27 Jan 2014		✖ 95578

The **IceQube Attachments** table provides details on when IceQubes were attached and removed from the cow, and the associated IceQube numbers.



Summary Information

	May 19, 2014	7d Avg	14d Avg
Steps	597	599	574
Motion Index	2036	2143	2032
Standing Time (Bouts)	14:20:29 (8)	14:53:28 (12)	14:25:55 (13)
Lying Time (Bouts)	09:39:30 (9)	09:06:31 (12)	09:34:04 (13)

The **Summary Information** table provides summary movement information for the current day, the average of the last 7 days and the average of the last 14 days.

5.6 Receiving Heat Alerts by email

In addition to viewing heat alerts at any time via CowAlert, automated email messages can be sent to specific email addresses.

To set up automated email alerts, email support@cowalert.com with the following information:

- Farm name
- Name and email address of the person/people to receive email alerts.
- When the email alert should be received, eg once a day, 3pm, twice a day, at 6am and 6pm.

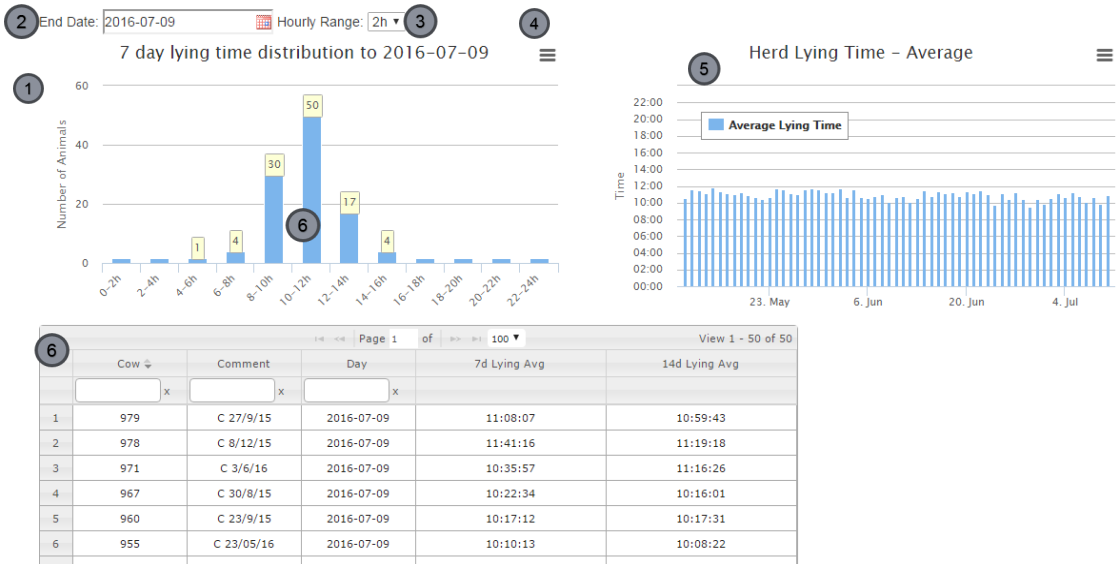
The email will include heat alerts generated within the last 72 hours.

6 Lying Behaviour

CowAlert allows the user to monitor the lying times of the group or herd down to individual cow level.

6.1 Lying Behaviour for the herd

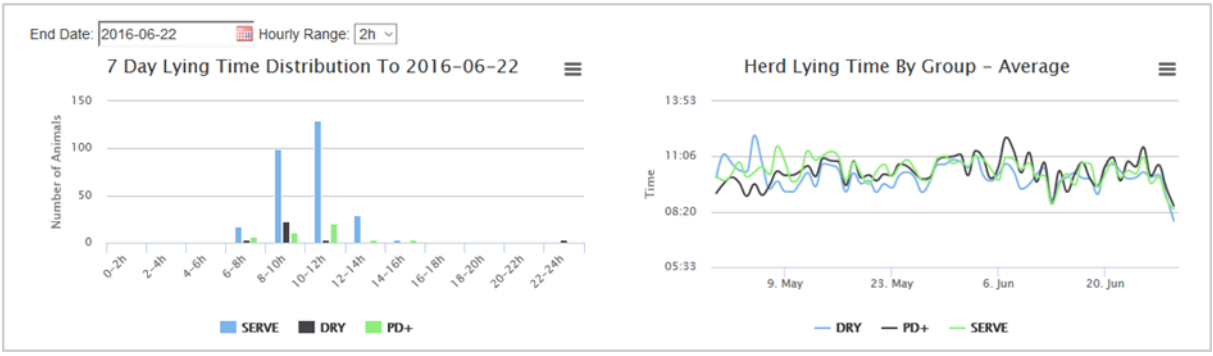
From the **Navigation bar** select **Reports** then **Lying Time** for the drop down menu. Herd lying time can also be accessed from the Home page by clicking on the average lying time figure. The left hand graph shows 7 day average lying time and the right hand graph shows herd average lying time over the last 60 days.



1. The 7 day average lying time of the herd is shown as bar charts in intervals of 2hrs. The horizontal axis shows the average hours of lying time and the vertical axis shows the number of cows lying within that period.
2. The end date for the 7 days can be changed here.
3. The hourly range distribution can be changed to show 1hr to 8hr groupings. 2hrs is the default view.
4. The graph can be exported by clicking here.
5. The average lying time for the herd is shown for the past 60 days.
6. Moving the cursor over any of the bars on the chart shows the number of animals in that group. Clicking on any bar reflects the specific animals in that group

6.2 Lying Behaviour by group

From the **Navigation bar**, select **Reports** then **Lying time – Groups** from the drop down menu.

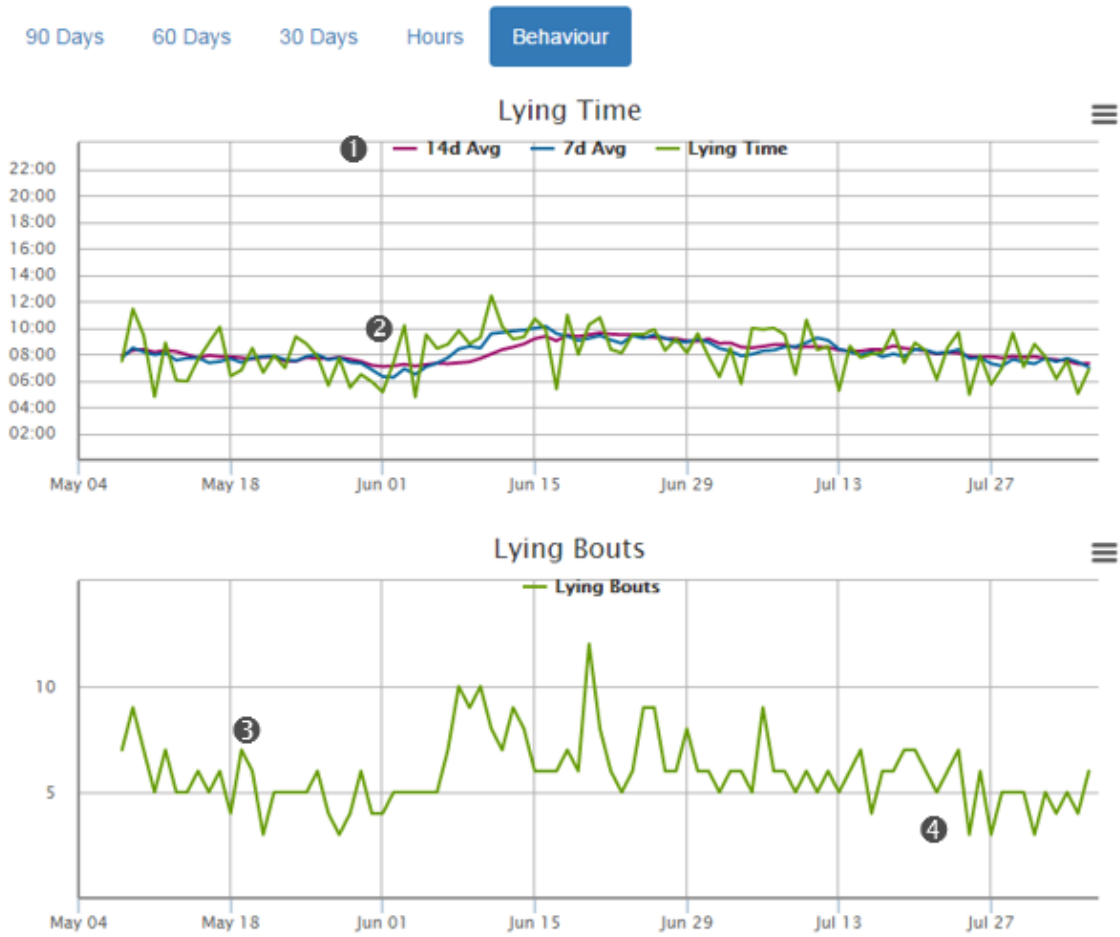


Hover the cursor over any of the bars to see the number of animals in that bar. Click on a bar to create a list of those cows.

The right hand chart shows the average lying time of each group over time. Click on any of the lines to show or hide the group on the graph.

6.3 Lying Behaviour graphs for an individual cow

Selecting **Behaviour** from the activity graph page accesses a comprehensive graph for each cow showing trend analysis over a 90 day moving window.



1. Click on the titles to turn displays on or off on the graph
2. This cow has very steady behaviour but the graph can help spot trends in lying time
3. This view shows the number of lying bouts over the 90 days and is a moving 90 day window
4. The display is a moving 90 day window

7 Managing Cows and IceQubes

7.1 Attaching IceQubes to Cows

When attaching IceQubes for the first time the best method to organise your data is to create a manual list of which cows (i.e freeze brand numbers) have been given which IceQubes.

Many farmers fill out a spreadsheet with this information. The date and time of attachment should be included.

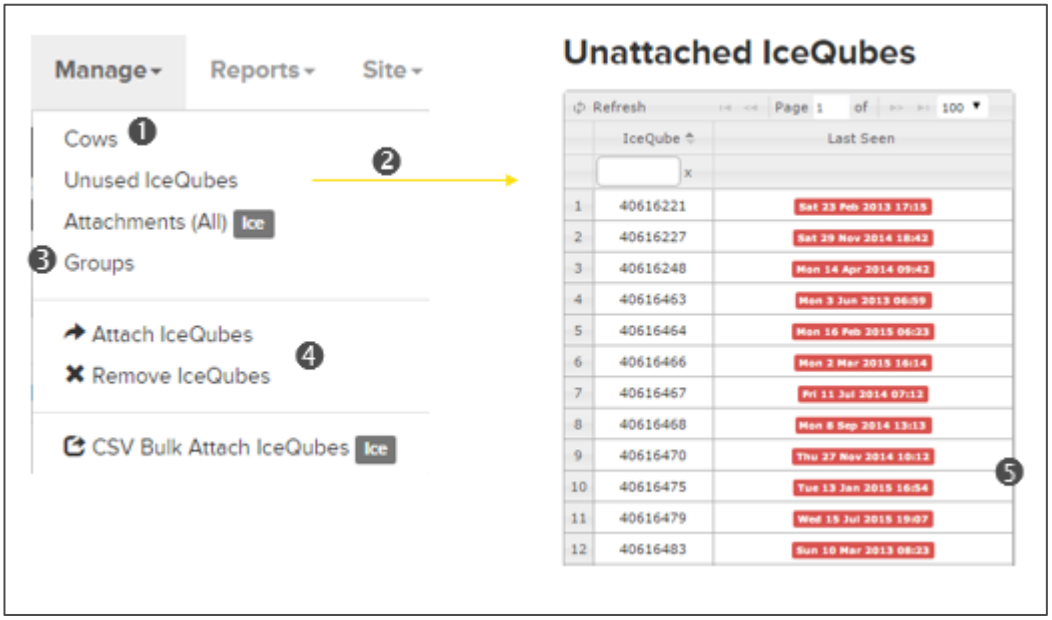
Cow Number	IceQube Number	Date attached	Time attached

IceRobotics can upload this spreadsheet into CowAlert for you to make the initial association easier.

***Note**: If you wish to make the cow to IceQube associations yourself, you **must** create the list of cow numbers in CowAlert first. Once the list of cows is created it is a simple task to match the cow to the IceQube – see section 7.4, adding a new cow to CowAlert.*

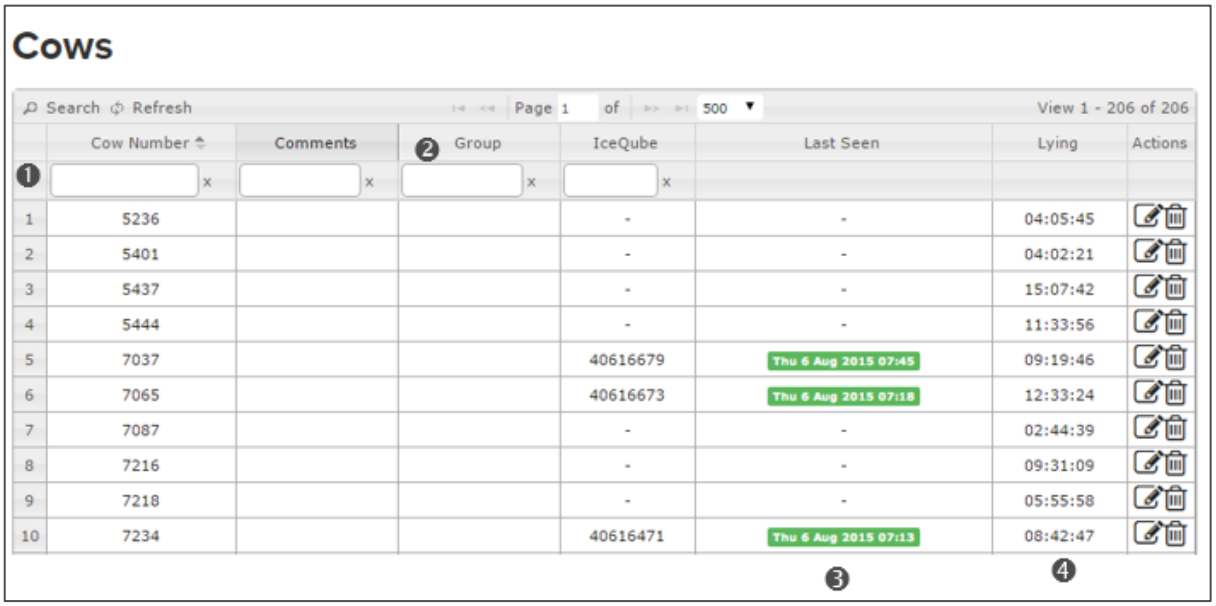
7.2 Selecting Manage Options

Select **Manage** from the main menu at the top of the Home page to access the selection.



1. Select **Cows** to access the Cows page – see next section
2. Select **Unused IceQubes** to view all unattached devices.
3. Select **Groups** to associate cows to groups to faciliate herd managment – see section 7.4
4. For DC305 and Uniform Agri mastered sites, Attach and Remove IceQubes is not available as all associations must be done via DC305 or Uniform Agri.
5. This shows the last download date. No date shown indicates the IceQube has never been seen.

7.3 Viewing Cows

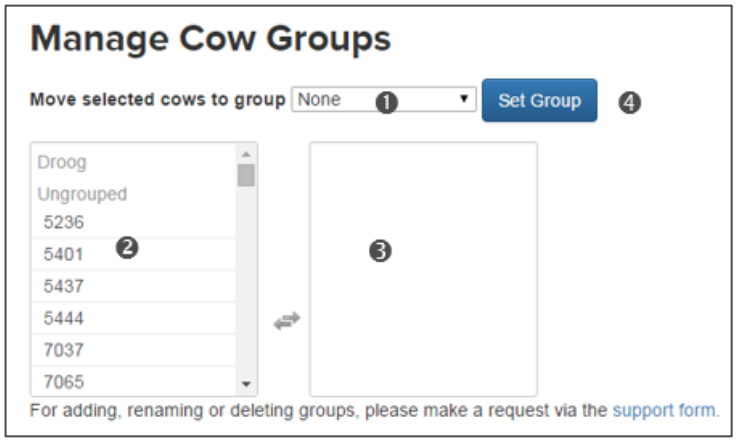


1. Insert search criteria in the white boxes.
2. Click on any column heading to change the ordering sequence – for example lowest number to highest (or vice versa) or ordering alphabetically (A-Z or Z-A).

3 **Last seen** shows when a cow last downloaded. Clicking the heading will change the ordering from most recent to furthest away in time.

4 The lying time for the 24hrs since the last download are shown in this column. This allows IceQubes which may have been attached upside down to be identified (lying time = 23:59:59). Cows demonstrating a sudden change in their lying time may have a health issue or indicate a need for a management change.

7.4 Groups



1 Select the group – note you must request IceRobotics to define these for you.

2 Clicking on the cow number will move the cow into the right hand **"group"** column.

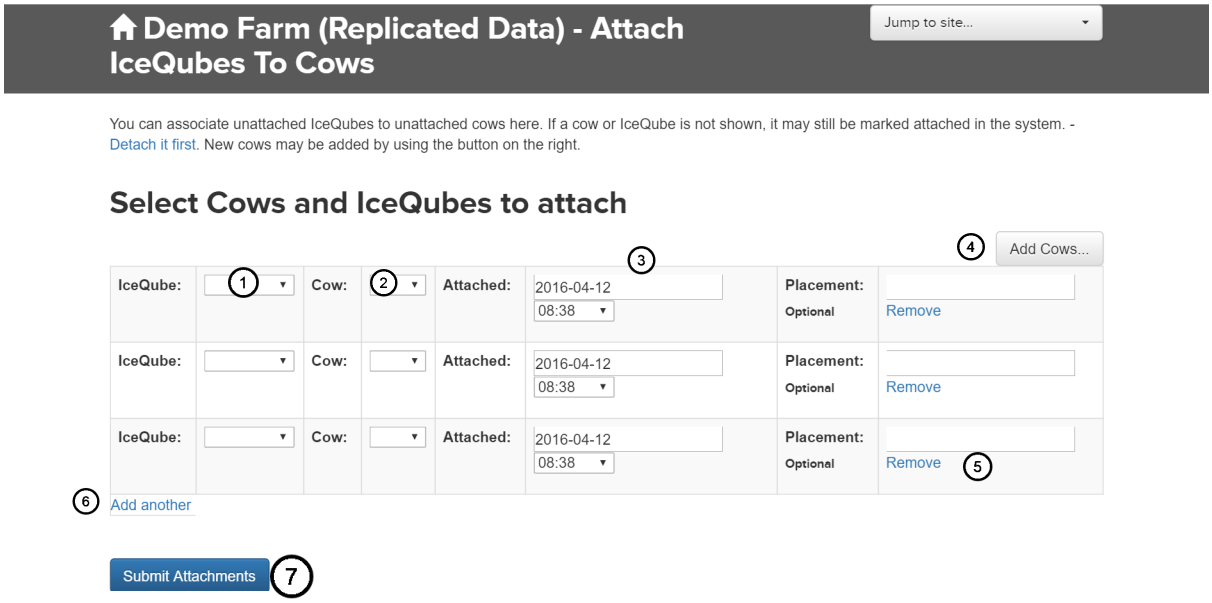
3 Click on the cow number here to move it back.

4 Once you have set all the cows in the group click "**Set Group**"

7.5 Attaching an IceQube to a Cow within CowAlert

Select **Manage** in the main menu, Attach IceQubes.

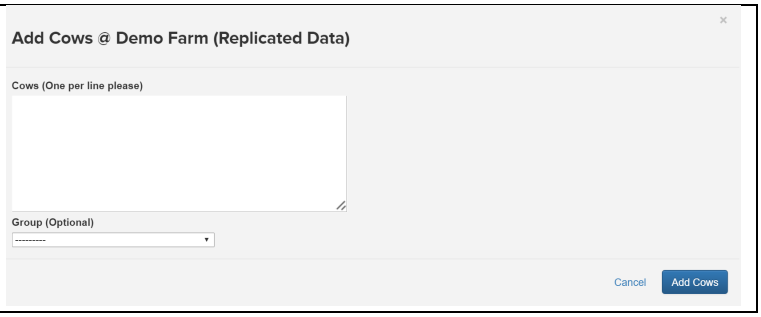
A form will open allowing you to select the IceQube number, the cow it is to be attached to and the date and time of attachment. Please be as accurate as possible with attach and detach times to avoid any data overlaps or gaps.



1. The list of available (unattached) IceQubes is shown here (via a drop down menu).
2. Similarly, the list of available (unattached) cows is shown here. If the cow number does not exist add the cow number (see #4)
3. The current time will display as the default, so it is unneccessary to change this. You cannot input a time prior to this.
4. Click here to add a cow number – see section 7.6 for more detail.
5. You can indicate which leg the IceQube is attached to.
6. Click here to add additional rows.
7. Once complete, select submit.

7.6 Adding new cows to CowAlert

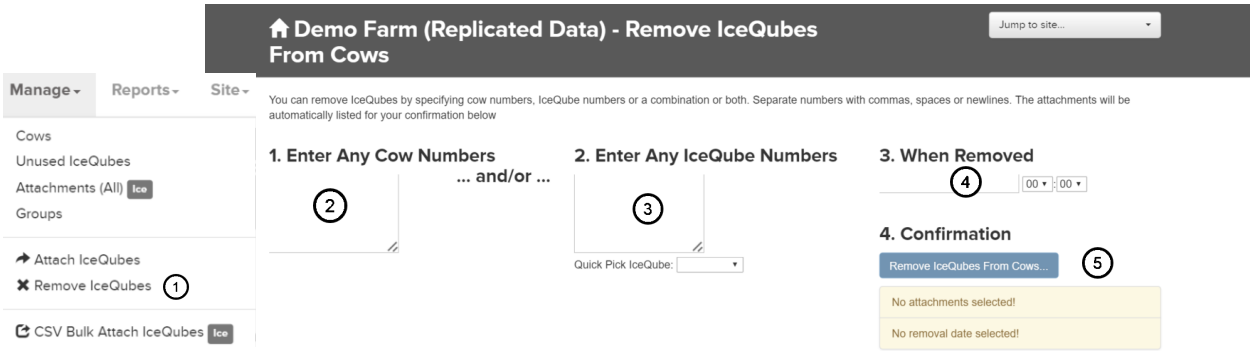
To add a new cow number to CowAlert, click on the **Add Cows** option within the Attach IceQubes form seen in option 4 on the above diagram.

Enter the new cow number. If adding more than one cow, enter the numbers on separate lines. A group description can also be added for the cow(s).	

7.7 Detaching an IceQube from a cow number

If you remove an IceQube from a cow you must update CowAlert. To remove the association between a cow and IceQube:

Select **Manage** in the main menu, and then select **Remove IceQubes**



1. Select **Remove IceQubes**.
2. To remove associations, select the Cow Number or the IceQube Number. Numbers can be separated with a space, a colon, or entered on a separate line. When a cow number is entered, a dialogue box will open to confirm the cow number or provide a warning if there is no IceQube currently attached to that cow.
3. To remove associations, select the Cow Number or the IceQube Number.
4. Add the date – a calendar menu option opens up - and time (hrs and mins) of removal. Be as accurate as possible to avoid data gaps or overlaps.
5. Click here to confirm the detachments. This opens a table summarising the changes made.

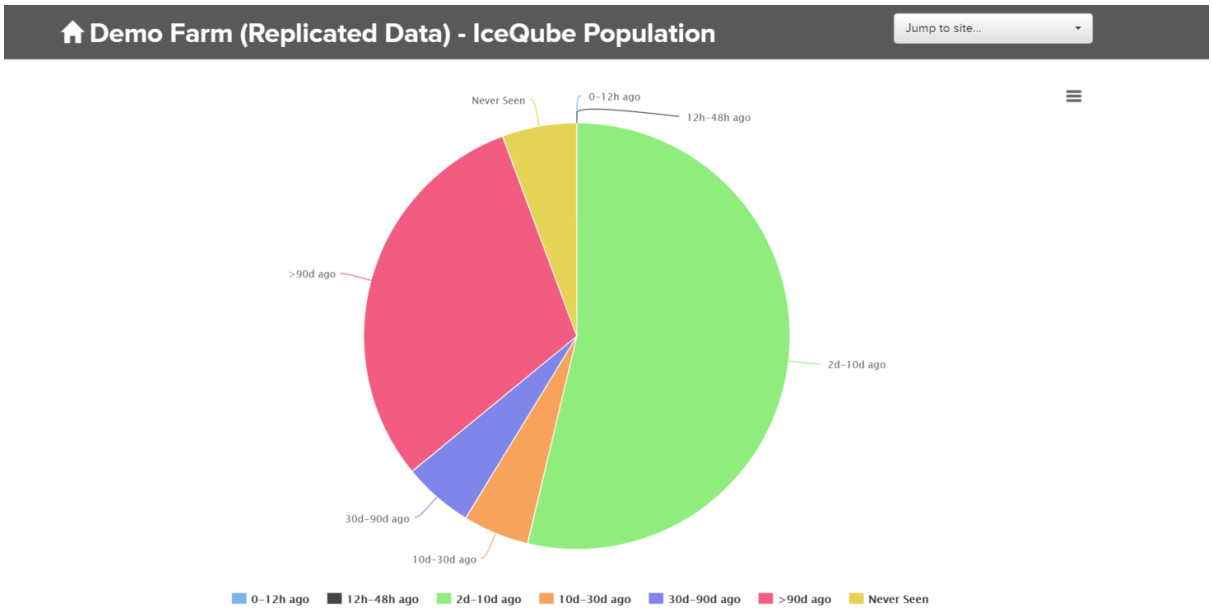
8 Reports

A variety of reports are available to evaluate your farm. These can be accessed from the **Reports** option on the main menu bar:

1. Click here to view Lying Time – see sections 6.1, 6.2 6.3 on pages 15 and 16.
2. Click any of the three categories to view the list of cows – see section 4.1 pages 7 & 8.
3. Click here to view the IceQube population – see section 8.1

8.1 IceQube Population

The IceQube Population chart displays all IceQubes registered to your farm. Each segment shows the number of IceQubes seen over the indicated time period.



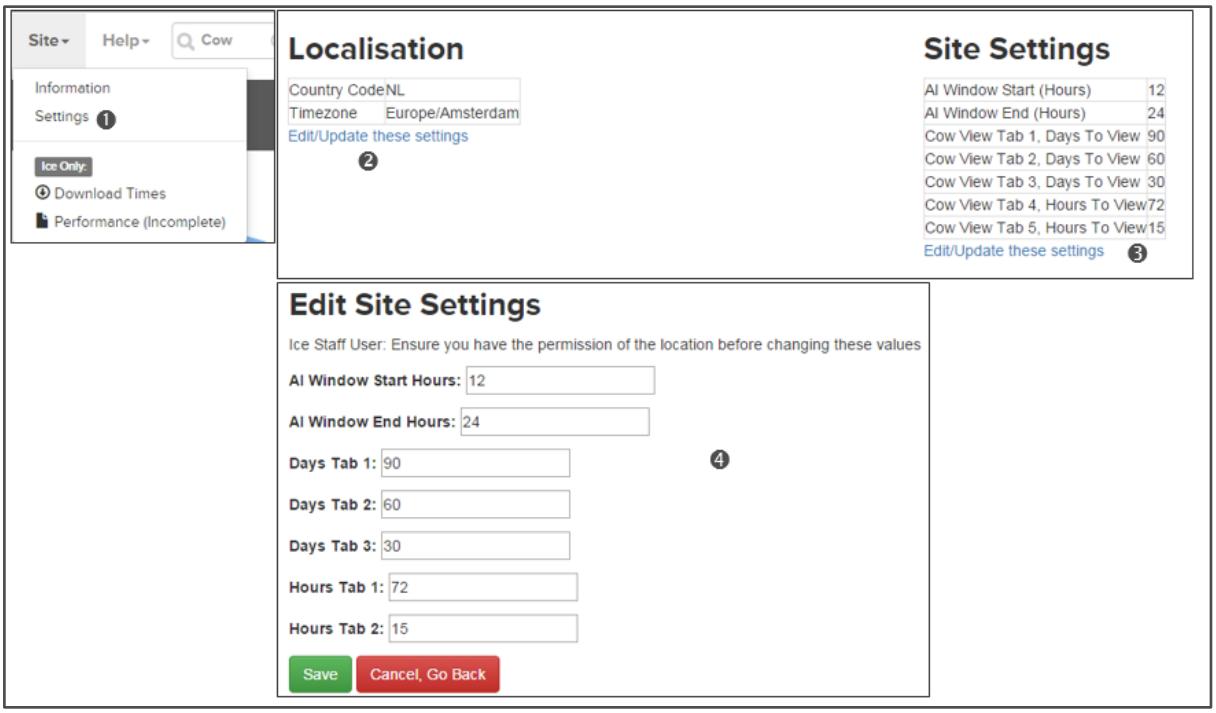
9 Site Information

The Site option from the main menu bar provides:

- Summary information on the farm and its location
- Settings information the user can edit

9.1 User Settings

This section contains settings the user can edit according to their preferences:



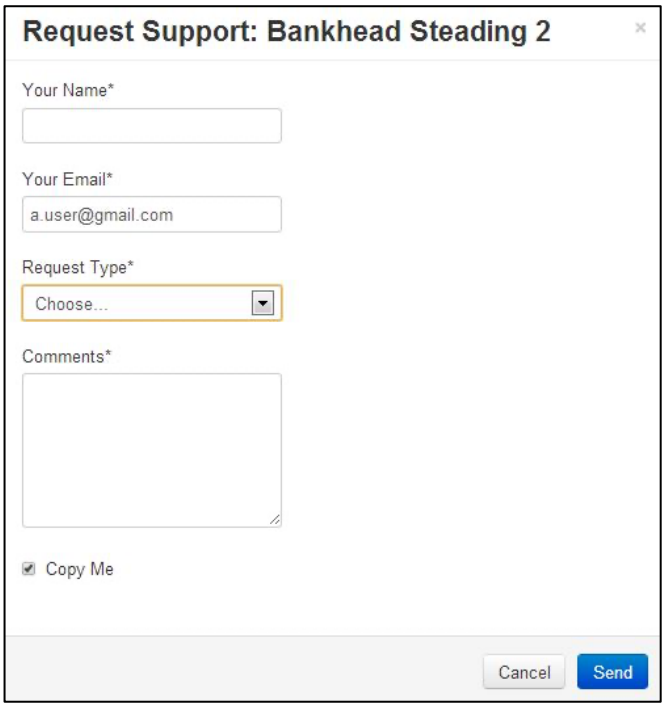
1. Select **Settings**.
2. To change your timezone select **Edit/Update these settings**/
3. You can edit the views (30, 60, 90 day views) for the Cow page, select **Edit/Update these settings** and make your changes.
4. When the changes have been made, under **Edit Site Settings** select **Save**.

10 Help and Support

If you require assistance or have questions on CowAlert, the Support team can be contacted in three ways:

1. Select the Help option from the main menu. This will open a web form which is shown below. Fill in the required details and follow the on screen instructions. An email will be sent to support@cowalert.com.

   Your email address should appear automatically. If not, enter it (or change it to another user on your farm).



2. **Email:** **support@cowalert.com**

3. **Telephone :** **0131 541 2010 and select "Support" (option 2)**

Telephone support is available between 0800 and 1800, Monday to Friday. Messages can be left on this number at any time.

Any support requests will be dealt with as quickly as possible.

11 Compliance Information

FCC Compliance Information and Notice to Users

FCC ID: WWP-I-HUB

FCC ID: WWP-I-QUBE

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Contact IceRobotics for help

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. See 47 CFR Sec. 15.19(a)(3).

IceRobotics has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment. See 47 CFR Sec. 15.21.

The IceHub is designed to operate with the two antennas shown below:

Use with ANY other antennas invalidates the FCC certification. Per FCC 15.203, the system must be professionally installed and the installer has the responsibility to ensure that the correct antennas are used.

ISED Compliance Information and Notice to Users

IC ID: 8143A-IQUBE	HVIN: I-Qube	PMN: I-Qube	FVIN: 2.002
IC ID: 8143A-IHUB	HVIN: I-Hub	PMN: I-Hub	FVIN: 1.008

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

This device must be installed to provide a separation distance of 20cm from all persons.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- L'appareil ne doit pas produire de brouillage;
- L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil doit être installé de manière à assurer une distance de séparation de 20 cm de toutes les personnes.