Public

# SenseHub Cow Calf User Guide

SenseHub™ COW CALF

MSD Animal Health

Public

© Copyright ©2024 Merck & Co., Inc., Rahway, NJ USA, and its affiliates. All rights reserved. This manual is copyrighted. and no part of this publication may be reproduced or transmitted in any form or by any means without prior written consent of MSD.

**DISCLAIMER**

The information in this manual represents the product, technical specifications, and installation process applicable at the time of issuing such manual. The company reserves the right to change or update the product, the technical specifications and installation process of the product described in this manual without notice at any time. This product is not intended to diagnose, treat, cure, or prevent any disease in animals. For the diagnosis, treatment, cure, or prevention of disease in animals, you should consult your veterinarian. The accuracy of the data collected and presented through this product is not intended to match that of medical devices or scientific measurement devices.

**Registered Trademarks**

All other proprietary names mentioned in this manual are the trademarks of their respective owners

**Version 8.0**

**July 2024**

Public

1 SenseHub™ ..... 1
1.1 Safety First ..... 2
1.2 Conventions Used in this Manual ..... 2
2 SenseHub™ Setup Guide ..... 3
2.1 Monitoring Neck Tag Placement ..... 3
2.1.1 Attaching Monitoring Neck Tags to Cows ..... 3
2.1.2 Removing Monitoring Neck Tags from Cows ..... 8
2.1.3 Attaching Monitoring Ear Tags to Cows ..... 9
2.1.4 How to Place Monitoring Ear Tags to Cows as a Second Tag ..... 11
2.1.5 How to Remove Monitoring Ear Tags ..... 13
2.2 SenseHub™ Basic Configuration ..... 14
2.3 SenseHub™ Registration ..... 20
2.4 SenseHub™ Mobile Application ..... 24
2.5 Minimum Requirements ..... 24
2.5.1 Farm Network Connection Requirements ..... 25
2.6 Creating Groups ..... 26
2.6.1 Editing Groups ..... 28
2.7 First Time Animal Entry using SenseHub™ ..... 30
2.7.1 Required Data when Entering Heifers/Cows ..... 30
2.8 Entering Heifers in SenseHub™ ..... 32
2.9 Entering Cows in SenseHub™ ..... 35
2.10 Pairing Cows with Monitoring Neck Tags/Ear Tags ..... 38
2.11 SenseHub™ Cow Card ..... 39
2.11.1 Timeline ..... 40
2.11.2 Events ..... 42
2.11.3 Multiple/Batch Event Entry ..... 49
2.11.4 Graphs ..... 52
2.11.5 Details ..... 54
3 Using SenseHub™ ..... 56
3.1 Overview/Dashboard ..... 56
3.1.1 Accordion/Widgets ..... 57
3.1.2 Animals in Heat ..... 57
3.1.3 Animals to Inspect ..... 58
3.1.4 Farm Statistics ..... 59
3.1.5 Key Performance Indicators - KPIs ..... 60
3.1.6 Dashboard Configuration ..... 61

Public

3.1.7 System Maintenance ..... 64
3.2 SenseHub™ Alerts ..... 65
3.2.1 Cow Alerts ..... 65
3.2.2 Tag Software Version Alerts ..... 66
3.2.3 System Alerts ..... 68
3.3 SenseHub™ Reports ..... 70
3.3.1 Adding a Report to Your Favorites ..... 72
3.3.2 Removing a Report from your Favorites ..... 72
3.3.3 Core Functionality Reports ..... 73
3.3.4 Sorting and Filtering Reports ..... 73
3.3.5 More Actions from Reports ..... 75
3.3.6 Navigating within Reports ..... 76
3.3.7 Batch Events from Reports ..... 76
3.4 SenseHub™ Graphs ..... 77
3.5 Daily Tasks ..... 81
3.5.1 Reading the Animals in Heat Report ..... 82
3.5.2 Reading the Health Report ..... 85
3.5.3 Reading the Animal Distress Report ..... 86
3.5.4 Reading Animals to Inspect Report ..... 87
3.5.5 Reading the Daily Activity/Rumination Routine Graph ..... 90
3.5.6 Reading the Heat Stress Routine Graph ..... 91
3.6 Weekly Tasks ..... 92
3.6.1 Reading the Anestrus Cows Report ..... 93
3.6.2 Understanding the Expected Calving Graph and Report ..... 94
3.6.3 Reading the Irregular Heats Report ..... 97
**3.6.4** Reading the Pregnancy Probability Report ..... 98
3.6.5 Reading the Suspected for Abortion Report ..... 103
3.6.6 Understanding the Group Consistency Trend Graph ..... 105
3.6.7 Understanding the Group Heat Stress Trend Graph ..... 106
3.6.8 Reading the Tag Maintenance Report ..... 107
3.7 Monthly Tasks ..... 108
3.7.1 Understanding the Farm Statistics ..... 109
3.7.2 Checking Group Membership ..... 110
3.8 Recurring Tasks ..... 111
3.8.1 Adding Animals from File ..... 112
3.8.2 Reading the Connectivity Issues Report ..... 118
3.8.3 Unpairing Tags ..... 119
3.8.4 Changing Tags ..... 122

Public

3.9 Batch Events....124
4 Report Generator....127
4.1 Creating a Custom Report....127
4.1.1 Understanding Conditions....129
4.2 Creating a Custom Report - Continued....130
4.3 Icons Used in the Report Generator....134
4.4 Actions on Reports....136
4.4.1 Actions on System Reports....136
5 Which Wand and Which Device....138
5.1 Using the Allflex 420 NFC Wand....138
5.2 Pair the Wand with your Smart Phone....138
5.2.1 Pairing with an Android Smart Phone....138
5.2.2 Pairing with an iPhone....140
5.2.3 Differences in Wand Operation....140
5.2.4 Assign and Pair Tags....141
5.2.5 Pair EID tags with Flex Tags....141
5.2.6 Assign Flex Tags....142
5.2.7 Creating Working Lists....142
5.2.8 Using Working Lists....145
5.2.9 Common Wand Device Error Messages....146
5.3 Using the Agrident Wand....147
5.3.1 Pair the Wand with your Smart Phone....147
5.3.2 Configure Agrident Wand for the SenseHub Mobile App....147
5.3.3 Pairing with an Android Smart Phone....149
5.3.4 Working with the Agrident Wand....150
5.3.5 Creating Working Lists....150
5.3.6 Using Working Lists....152
6 Farm Settings....153
6.1 Notifications....155
6.1.1 Pre/Post Calving Distress and Animal in Distress Alerts....156
6.2 Reproduction....156
6.2.1 Voluntary Waiting Period....156
6.2.2 Pregnancy Length....158
6.2.3 Sexed Semen....158
6.3 Health....159
6.3.1 Health Report....159
6.3.2 Early Fresh Cows Report....159

Public

6.3.3 Distress Sensitivity ..... 160
6.3.4 Days to Weaning ..... 160
7 Pinpointing Animals using SenseHub ..... 161
7.1 Configuring and Using the Monitoring EarV2 LED ..... 161
7.2 Creating LED Tasks from Reports ..... 162
7.2.1 Creating LED Tasks with Custom Reports ..... 164
7.3 Creating LED Tasks for Individual Animals. ..... 165
7.4 Working with the LED Task List ..... 165
7.5 LED Lighting Report ..... 166
7.6 LED Lighting FAQ ..... 169
7.7 Why isn't the LED Lit? ..... 169
8 System Settings ..... 170
8.1 System Dashboard ..... 170
8.1.1 Device Details ..... 171
8.1.2 Spectrum Analyzer ..... 174
8.2 Tag List ..... 177
8.2.1 Monitoring EarV2 LEDs ..... 178
8.2.2 Battery Alerts ..... 178
8.2.3 Battery Overuse Alert ..... 179
8.2.4 Critical Battery Alert ..... 179
8.3 Herd Management Setup ..... 181
8.3.1 Monitoring Herd Management ..... 182
8.3.2 Herd Management Synchronization Threshold ..... 182
8.3.3 Flex Tag Assignment with Allflex Wand ..... 183
8.4 System Configuration ..... 183
8.5 Account Details ..... 184
8.5.1 Users ..... 185
Appendix A Certifications ..... 186

# 1 SenseHub™

SenseHub™ is a sophisticated, modular, cow monitoring solution that delivers actionable information on the reproductive, health, nutritional, and wellbeing status of individual cows and groups. With SenseHub™, dairy farmers can make data-driven decisions for maximized productivity. It offers a choice of neck or ear tags along with varied application plan levels, payment options, and user devices. All components can be expanded or changed to fit changing needs. Simple to install, use and maintain, and easily upgradable, SenseHub™ delivers value from the start, with long-term investment protection.

SenseHub™ offers farmers a new way to use advanced cow monitoring to improve the productivity and efficiency of their farm. Unique features and capabilities of SenseHub™ include:

- Unmatched heat, estrus, detection accuracy, with precision insemination timing guidance.
- Market-leading health monitoring and insight at the individual cow and group levels.
- An advanced solution from the global market-leaders in cow monitoring and livestock identification and based on technology and products proven on millions of cows worldwide.
- Extensive flexibility and choice of form factors, payment plan levels, user devices, and payment options.
- The first cow monitoring system supporting multiple tag form factors – ear tag and neck tag.
- Best-in-class interface that enables easy and efficient use, along with simple configuration to suit different farms and management practices.

Assemble the SenseHub™ solution package to best suit the needs of your farm. With a choice of neck tag or ear tag, application plan levels, user devices, and payment plans, in addition to the flexibility to change the package at any time according to your needs. SenseHub™ always makes sense for your business and operation.

- SenseHub Controller systems support:
    - Farms with up to 2000 Animals that have up to 1000 Animals with Tags
    - Up to 500 Culled Animals

- SenseHub Server systems support:
  - Farms with up to 10,000 Animals that have up to 5000 Animals with Tags
  - Up to 2500 Culled Animals

## 1.1 Safety First

In addition to always following all local codes and regulations, remember to always place wiring in such a way that it is distant from the natural curiosity of cows.

**WARNING**

**Always follow all local codes and regulations when working with electricity and on ladders.**

## 1.2 Conventions Used in this Manual

This manual is written to help technicians install and help Farmers use the SenseHub™ System. The following conventions are used throughout:

**NOTE**

**Note identifies information that is of interest or is important.**

**CAUTION**

**Caution identifies an item or items that may cause harm to equipment or data.**

**WARNING**

**Warning identifies an item or items that may cause personal injury or loss of data.**

There are currently several different Application Plans available for the SenseHub™ System:

- Essential – RFID Tags and Report Generator
- Young Stock – Monitoring of calves from birth to 12 months of age. This is a separate plan in addition to one of the adult plans.
- Starter – Reproduction Monitoring
- Advanced – Reproduction and Health Monitoring

- Premium – Reproduction, Health ,Group, Monitoring, and Report Generator
- Lifetime – Whole life monitoring from Calf to Cow

**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

There are also currently two different payment plans:

- – Farms using this payment plan are paying a monthly fee per tag purchased for the farm.
- Up – For this payment plan the tags are covered for 7 years for Monitoring Neck tags and for 5 years for Monitoring Ear tags.

# 2 SenseHub™ Setup Guide

This section describes the important first steps after the SenseHub™ System is physically installed on the farm.

## 2.1 Monitoring Neck Tag Placement

Fit the tags on the cows as soon as possible. Tags need to be on the cow for seven to ten days to gather activity and rumination information. The information collected depends on the type of tags in use. This baseline of information is used to judge behavior in the future.

**NOTE**

**Two people are needed to fit the tags on the cows.**

**WARNING**

**Extreme care and caution must be exercised when attaching tags/collars to cows.**

### 2.1.1 Attaching Monitoring Neck Tags to Cows

Read these instructions from start to finish before attempting this procedure.

1. Remove the collar from the box.

**NOTE**

**The tag is already mounted and positioned on the collar.**

2. Record the Tag Number and Cow Number

   When assembling the tags, record the tag number, cow number, group, and status in a list.

Keep this list handy since the information will be used later. This table may be printed as required.

| Cow Number | Tag Number | Group |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

3. Stand on the right side of the cow and pass the collar with the tag over the top of the cow.

4. Pay attention to; the correct amount of slack, 2 fingers at the top of the cow's neck, and that the tag is placed directly behind the left ear.

**CAUTION**

**Correct attachment of the Monitoring Neck tags is vital to their performance. Tags that are placed too high on the cow or too low on**

**the cow or on the wrong side of the cow result in inaccurate data collection.**

For a video demonstration on how to mount Monitoring Neck tags on cows in headlocks go here.

For a video demonstration on how to mount Monitoring Neck tags on cows in treatment stalls go here.

For a video demonstration on how to mount Monitoring Neck tags on cows in the milking parlor go here.

### 2.1.2 Removing Monitoring Neck Tags from Cows

From time to time it will be necessary to remove tags from cows. Read these steps from start to finish before attempting to remove tags.

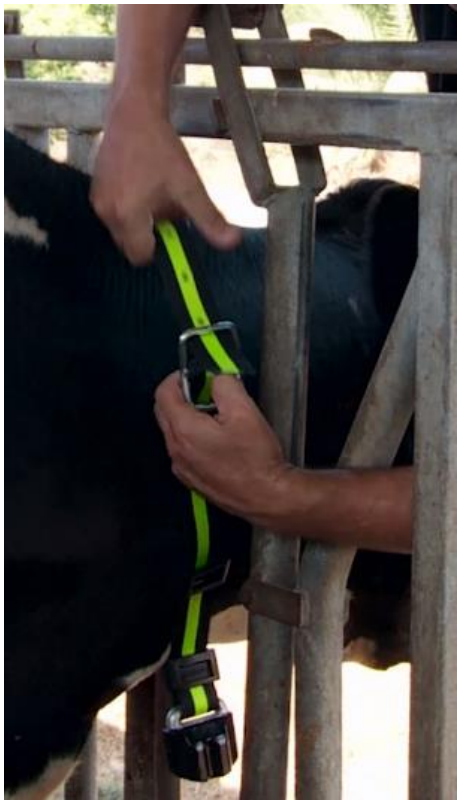
**NOTE**

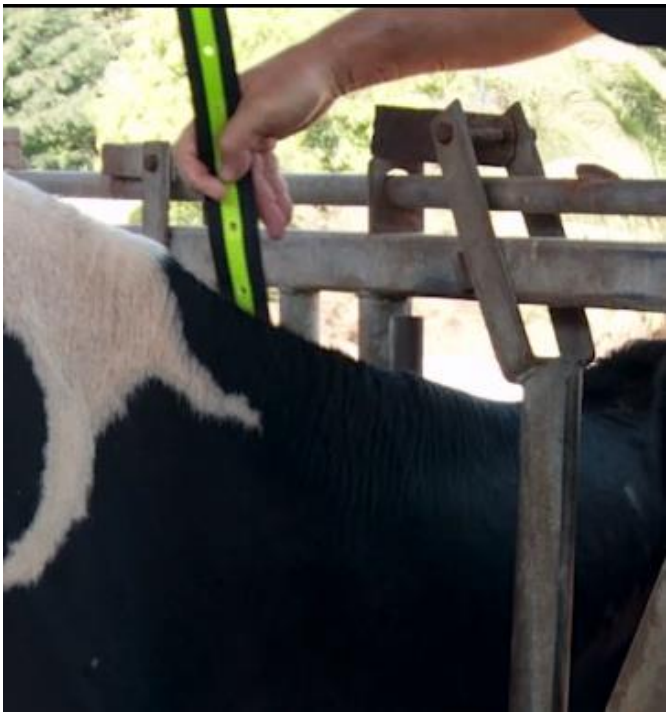
**Two people are needed to remove Monitoring Neck tags from cows.**

**WARNING**

**Extreme care and caution must be exercised when removing tags/collars from cows.**

- Unbuckle the buckle and pull the tag away from the left side of the cow over the headlocks.





For a video demonstration on how to mount Neck Tag/Monitoring Neck tags on cows in headlocks go here.

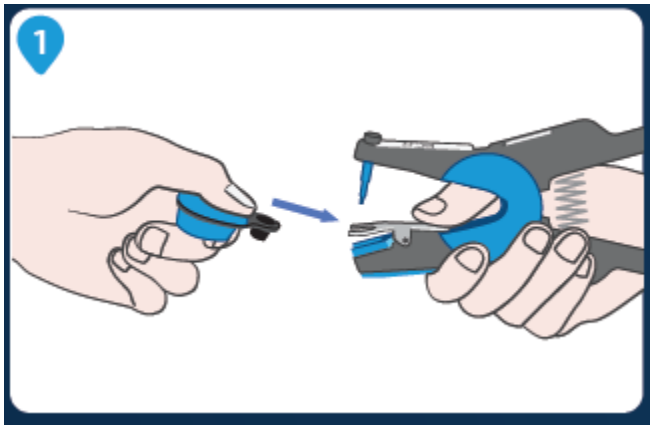
For a video demonstration on how to mount Neck Tag/Monitoring Neck tags on cows in treatment stalls go here.

For a video demonstration on how to mount Neck Tag/Monitoring Neck tags on cows in the milking parlor go here.

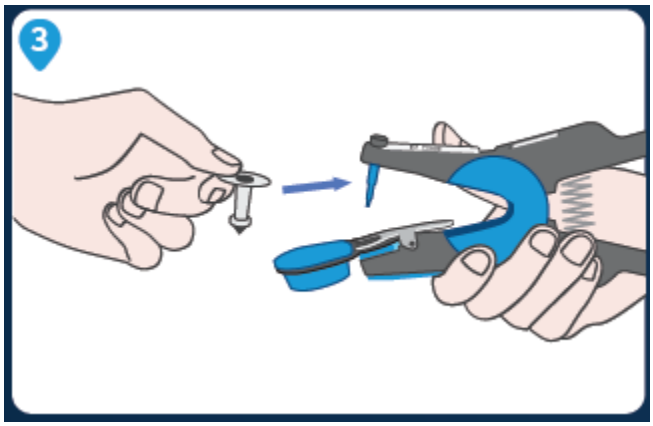
### 2.1.3 Attaching Monitoring Ear Tags to Cows

This explains how to attach a Monitoring Ear Tag as the only tag in the ear of the cow. Read these instructions from start to finish before attempting this procedure.

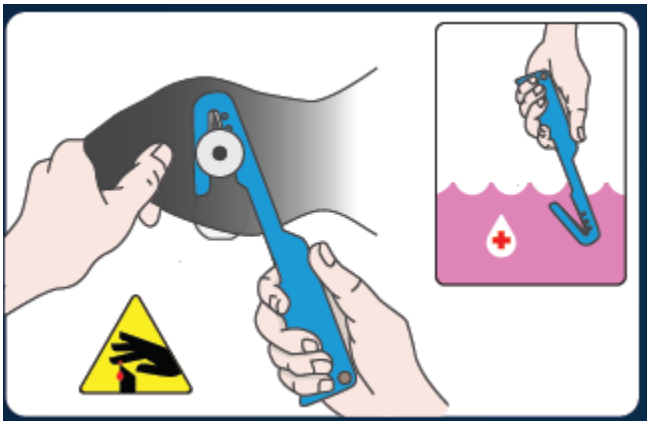
1. Attach the Monitoring Ear Tag to the Universal Ear Tag Applicator.



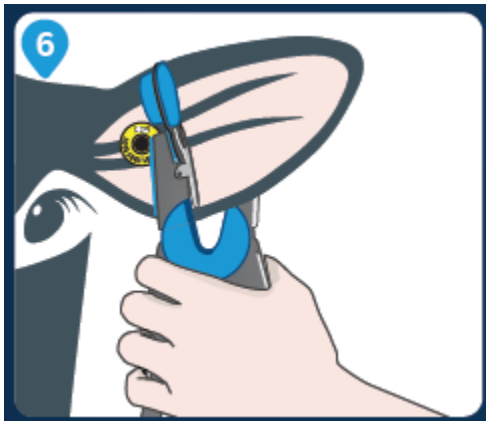

2. Attach the Monitoring Ear Tag to the Universal Ear Tag Applicator.



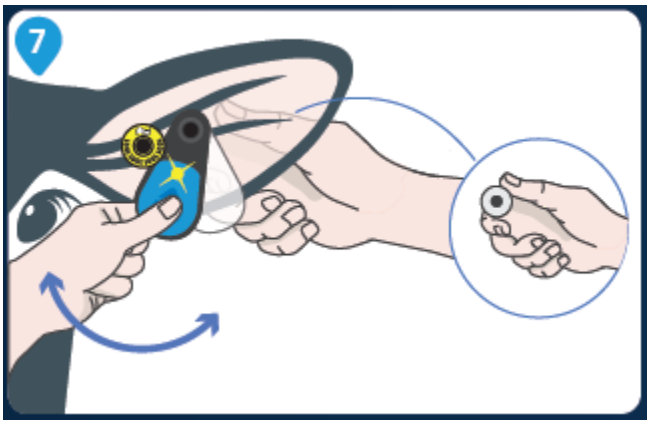

3. Immerse the loaded Tag Applicator in the sterilizing solution.



4. Attach the Monitoring Ear Tag to the ear of the cow.




5. Swing the tag back and forth while holding the back.




6. Enter the Tag and Cow information on this sticker found on the box of tags so they can be entered into the SenseHub™ application later.

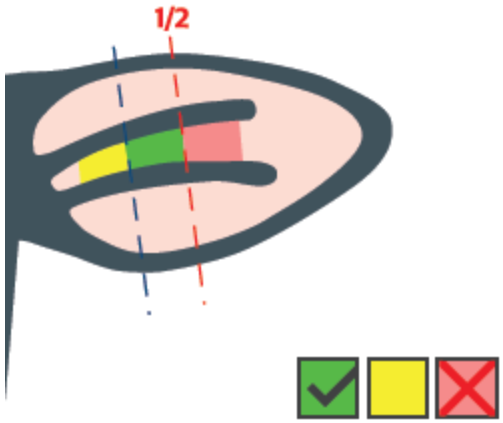
### 2.1.4 How to Place Monitoring Ear Tags to Cows as a Second Tag

When it comes time to attach the Monitoring Ear Tag to the cow there may already be a tag in place in the ear. Follow these rules when deciding where to place the Monitoring Ear tag in the ear for the best results.

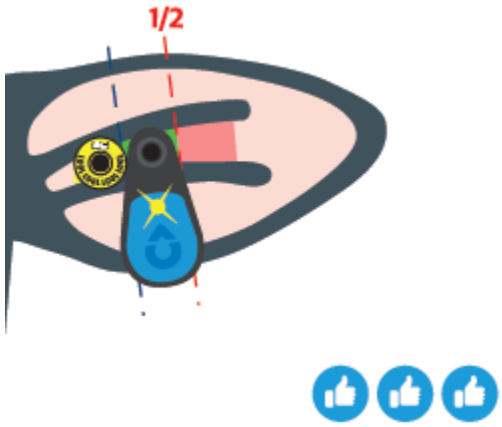
**NOTE**

**Placing the Monitoring Ear Tag too close to the head of the cow may cause the tag to get caught in the ear and limit the freedom of motion on the tag.**

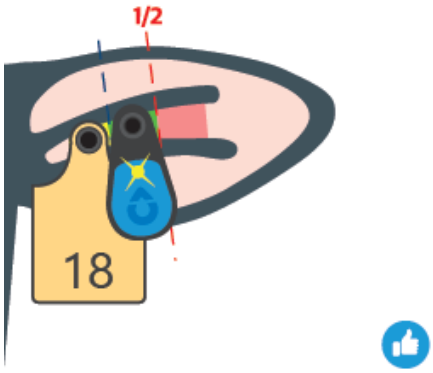
1. The picture below describes the entire area of the ear of the cow and identifies the best place to attach the Monitoring Ear Tag.




2. The best place for the Monitoring Ear Tag is directly on the center line, ½, of the ear.



3. Place the Monitoring Ear tag in the green zone and place the visual tag next to the monitoring ear tag, in between the calf's head and the monitoring ear tag.

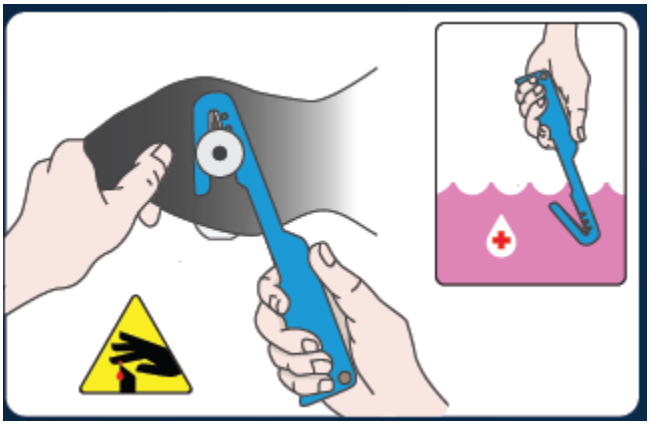



4. When attaching the tags to the cows follow the instructions as explained in Attaching Monitoring Ear Tags to Cows.

### 2.1.5 How to Remove Monitoring Ear Tags

When removing the Monitoring Ear tag, if the animal is culled for example, follow these instructions.

1. Grasp the ear of the cow firmly.
2. Using the Allflex Safety Ear Tag Removal tool, slip the blade of the tool between the base of the small male side and the ear.



3. Pull the tool firmly and quickly to cut through the shaft of the small male pin and remove the Monitoring Ear tag from the cow.
4. Make sure to clean the Tag Removal tool between uses.

**NOTE**

**If any irritation occurs to the hole, consult your veterinarian for the appropriate treatment.**

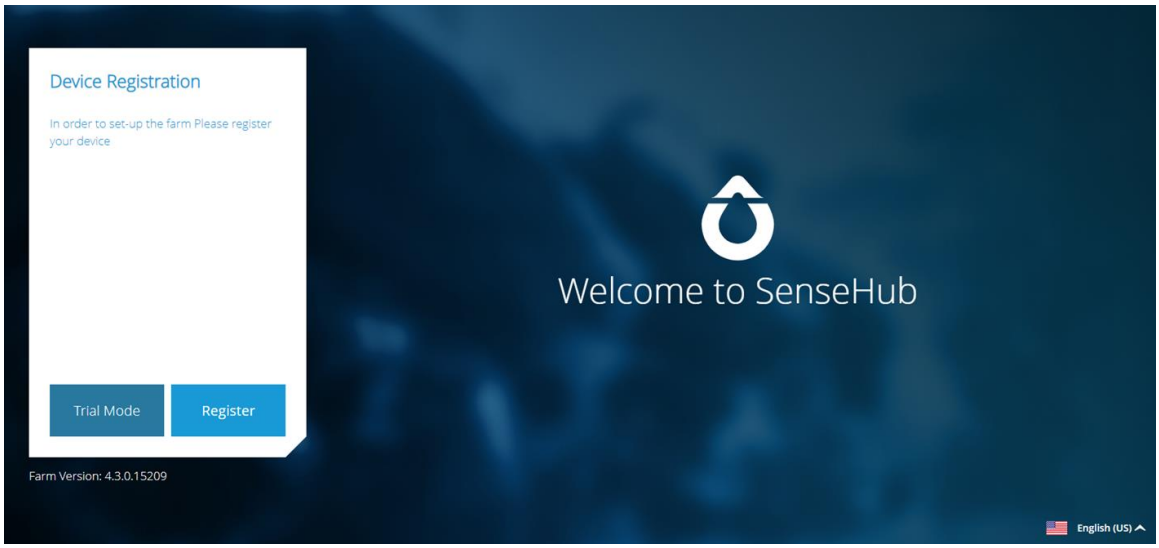
## 2.2 SenseHub™ Basic Configuration

Follow these steps to configure your SenseHub™ system.

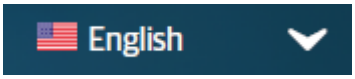
1. Download and install the SenseHub™ Web Application from here. This application allows a local network connection to your SenseHub™ System.

2. Double-click on the SenseHub™ Web Application

Icon, the application launches. The PC used to run the Web Application should be connected to the Internet.




   a. The application connects to the installed SenseHub™ Controller and begins the registration process.

   b. Choose the Language 

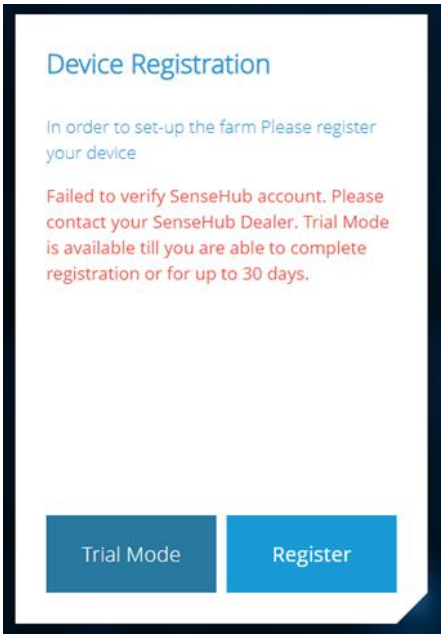
you wish to use for the Registration Process.

      i. The Emails sent during the verification process are sent according to the language chosen here.

   c. Click Register to begin the Registration Process or choose Trial Mode to enter Trial Mode.

   d. The Farm Version currently running on the Controller is displayed. This is information that you might need for support.

If the internet is not yet available on the farm you may see this message directing, you to enter Trial Mode until registration is available and can be completed.

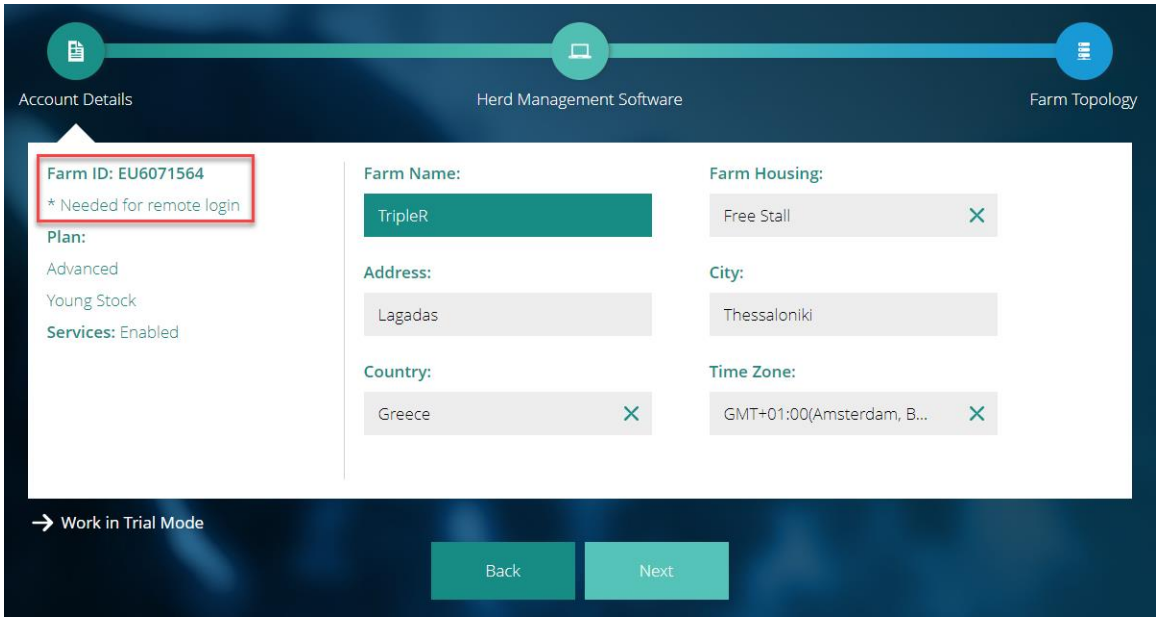



Trial Mode is available for 30 days after which Configuration and Registration must be completed.

**NOTE**

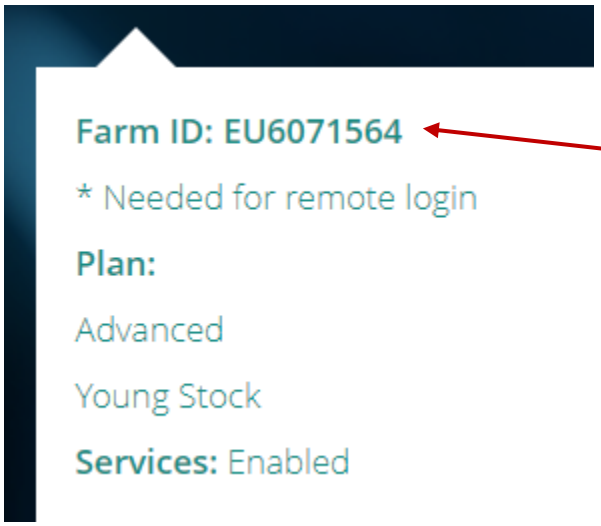
**When System Registration is completed after Trial Mode, reports and graphs that were available during Trial Mode may not be available after registration is completed as these depend on the Application Plan**

3. Review/complete the Account Details section, when finished click Next.




## NOTE

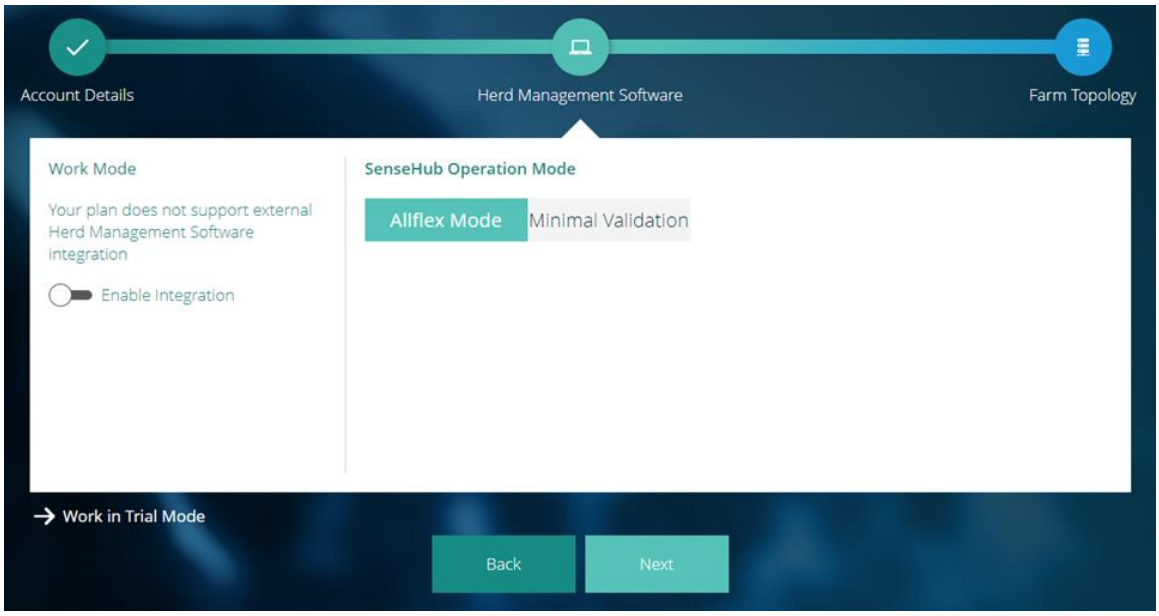
**Record the Farm ID as written. This Identification String is required to log in to your SenseHub™ Controller.**



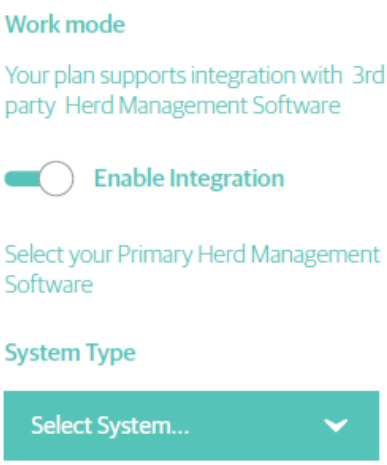

The Farm ID is very important for Remote and Mobile Connections to your SenseHub System.

4. Will SenseHub™ be linked to a Herd Management System?

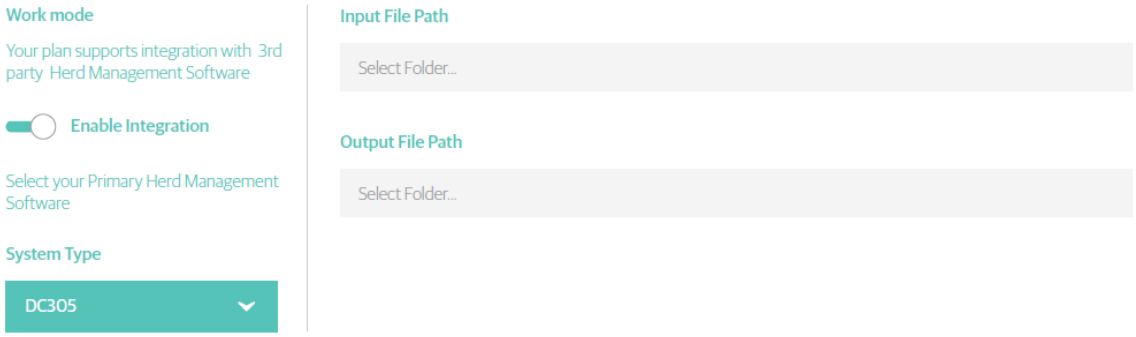
   Is there a Herd Management System in use on the farm and will there be an exchange of data between that system and the SenseHub™ System. If no continue to step 5.




a. If this SenseHub™ system is linked to a Herd Management System, choose that system from the Integration Drop-down menu, and then copy the Registration Key to the correct place in that system.




b. If so, then choose the Herd Management System in use. If you are working with DC 305 or PC Dart configure the Input and Output File paths as well.




When choosing to work in DC305 or PC Dart Modes the input and output file paths must be defined. These are the file paths where DC305 / PC Dart places the Status File, Input File Path, and where SenseHub, Output File Path, places its output files.

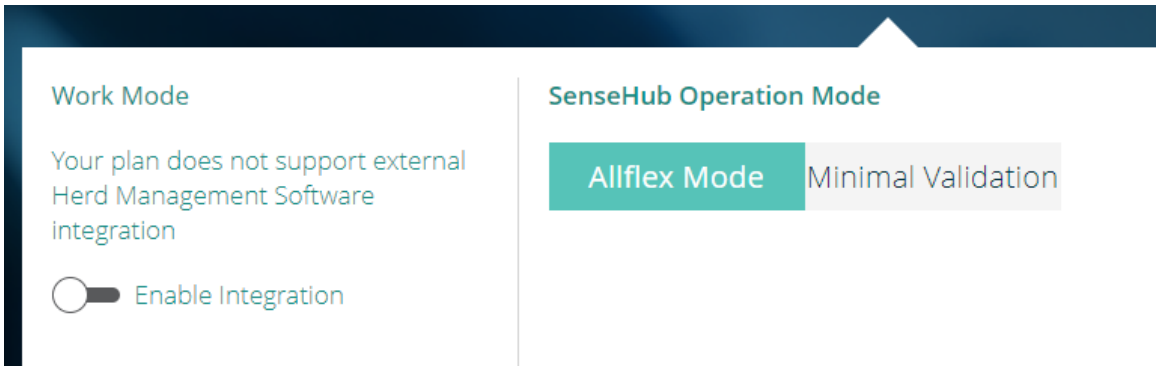
Create the Input and Output file paths on the same PC where the SenseHub Status File Service is installed.

**NOTE**

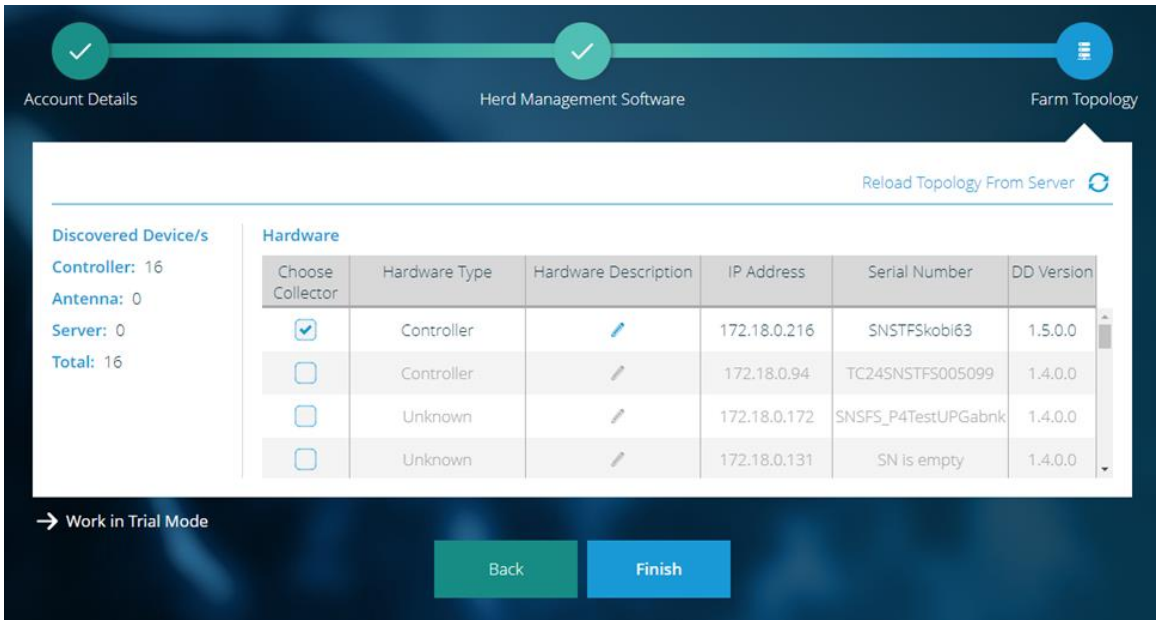
**It is highly recommended to browse on the local PC where the SenseHub Status File Service is installed using Windows Explorer to the correct file location and then copy that path to the correct window in the browser as the input or output file path as required.**

5. Will the SenseHub™ System work in Allflex or Minimal Validation Mode.

   Allflex Mode is the default system configuration and will give farms the best results. After making your choice, click Next.

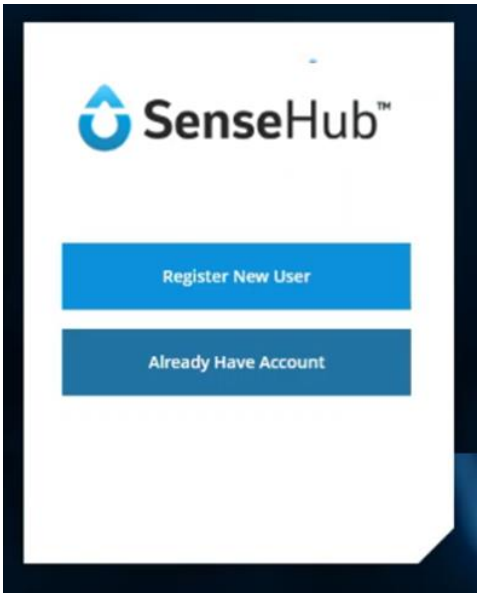



6. Review the SenseHub™ System Farm topology. Give the Controller and Antenna significant names that are associated with where they are installed so they can be found quickly. When complete click Finish.



## 2.3 SenseHub™ Registration

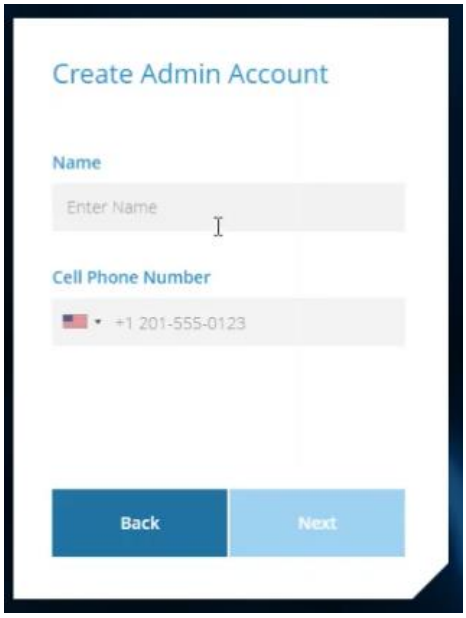
Once completing the configuration section, the system automatically moves to the registration portion of the wizard.



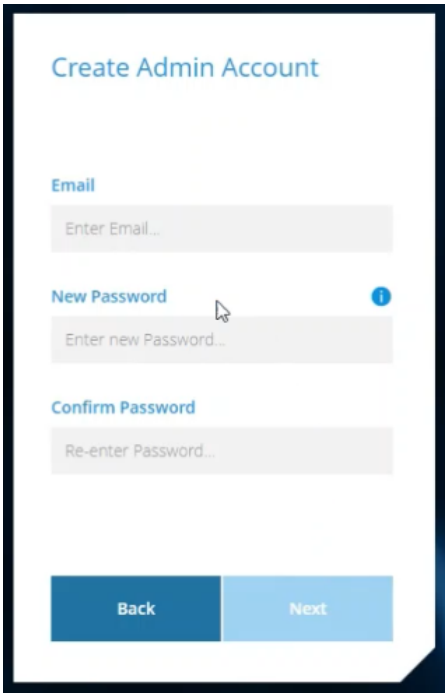

**NOTE**

**When Registering after Trial Mode, all the reports, graphs, and series that were available during Trial Mode may not be available after registration is completed as these depend on the Application Plan in place on the farm.**

1. Enter here the Username and Password created for you. Both these fields are mandatory.



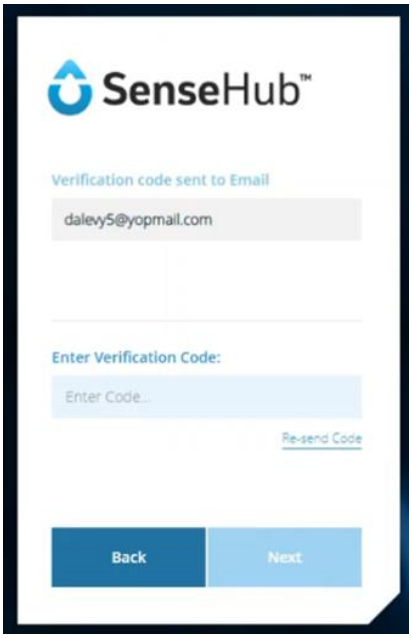
2. Verify/Edit the Account Details.

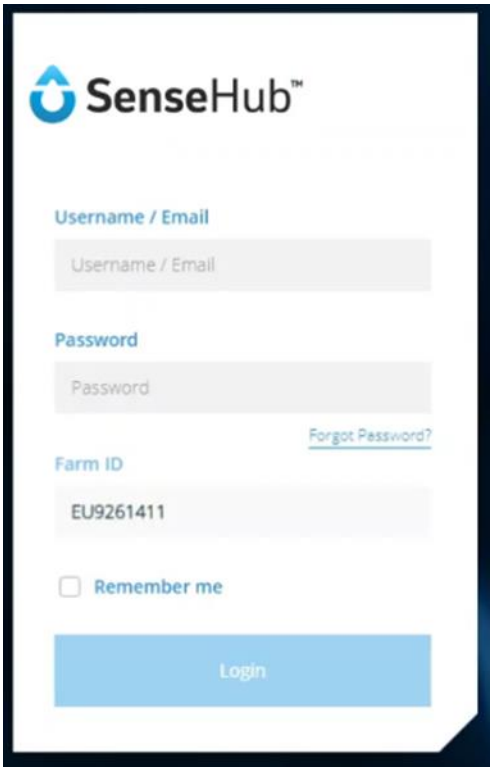



**NOTE**

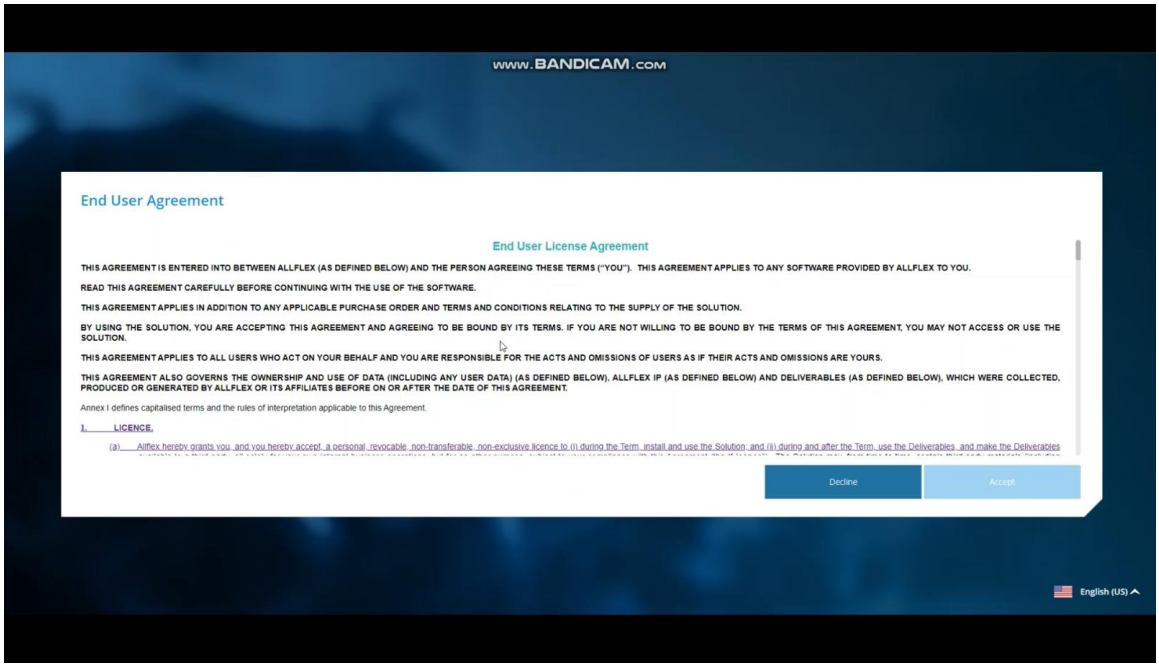
**The password must contain at least 8 characters. There must be at least one Capital Letter, one small letter, one symbol, and one number.**

3. Enter the verification code. The system will send you a verification code to the Email used during the registration process.



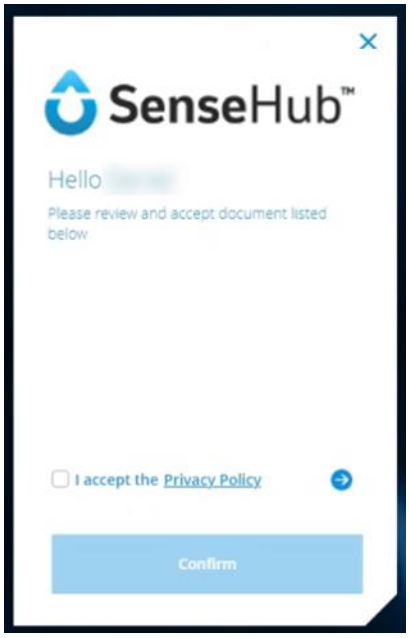



4. When complete you will be asked to sign in.
5. The Admin User is required to read and sign the End User License Agreement.



**NOTE**

**The Farm ID was assigned during Step 3 on page 15. If you have not yet done so record this now.**




6. All users are required to read and accept the Privacy Policy.
    a. Mobile Users must read and accept the Privacy Policy from the web before logging on to the mobile application.
7. Registration and Verification are now complete.

## 2.4 SenseHub™ Mobile Application

The SenseHub™ Mobile Application is available for both Android and Apple Devices.

**NOTE**

**The minimum Android version is 7.X.**
**The minimum iOS version is 12.X.**

**NOTE**

**Trial Mode users will only be able to use the Mobile Application when accessing their SenseHub™ Systems over the local network, LAN.**

## 2.5 Minimum Requirements

Correct operation of SenseHub™ requires these minimum requirements:

| Property | Minimum Requirement |
|---|---|
| Neck Tag Version | The Tag Version used must be 02.20.44.46 or higher. When migrating from Heatime® HR, update the tags before migrating the Farm/Customer |
| Ear Tag Version | The Tag Version used must be 11.24.12.12 or higher. |
| Windows PC Minimum Version | Windows 7 Service Pack 1 |
| Google Chrome Minimum Version | 60.0.XXXX.xxx |
| Video Resolution | The minimum Resolution is 1360 x 768 |
| Farm Network Connection | See |
| SenseHub™ Tools Installer (includes the Web Application) | Download from here |

| Property | Minimum Requirement |
|---|---|
| On-premises router/firewall configuration. | Ports 22, 80, 443, 61616 open for outbound communications for TCP, UDP, SSH, FTP, SFTP. |

**NOTE**

**For remote connections enter https://st.scrdairy.com/ in your Chrome Browser. Remote connections are only available after completing configuration and Registration, that is detailed above.**

### 2.5.1 Farm Network Connection Requirements

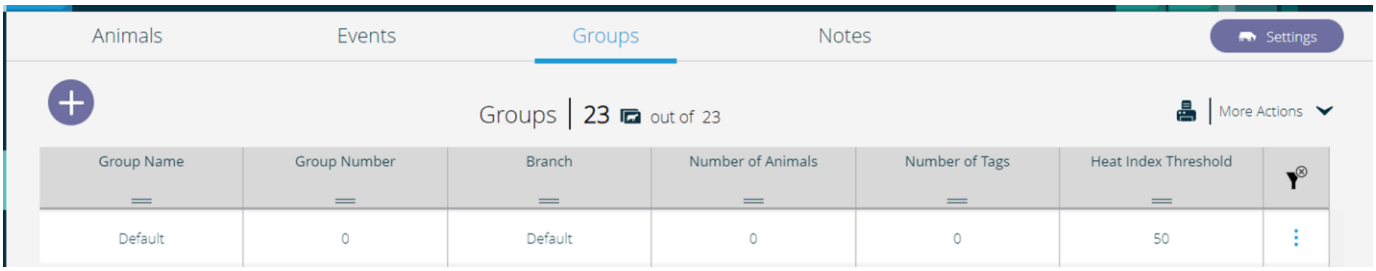
The table below describes the minimum network speeds required both for upload and download on farms where SenseHub is installed.

| Number of Animals | Upload Speed Mbps | Download Speed Mbps |
|---|---|---|
| Less than 50 | 0.5 | 1.5 |
| 50-200 | 2 | 6 |
| 201 – 500 | 4 | 8 |
| 501 – 1000 | 5 | 15 |
| 1001 – 5000 | 25 | 80 |

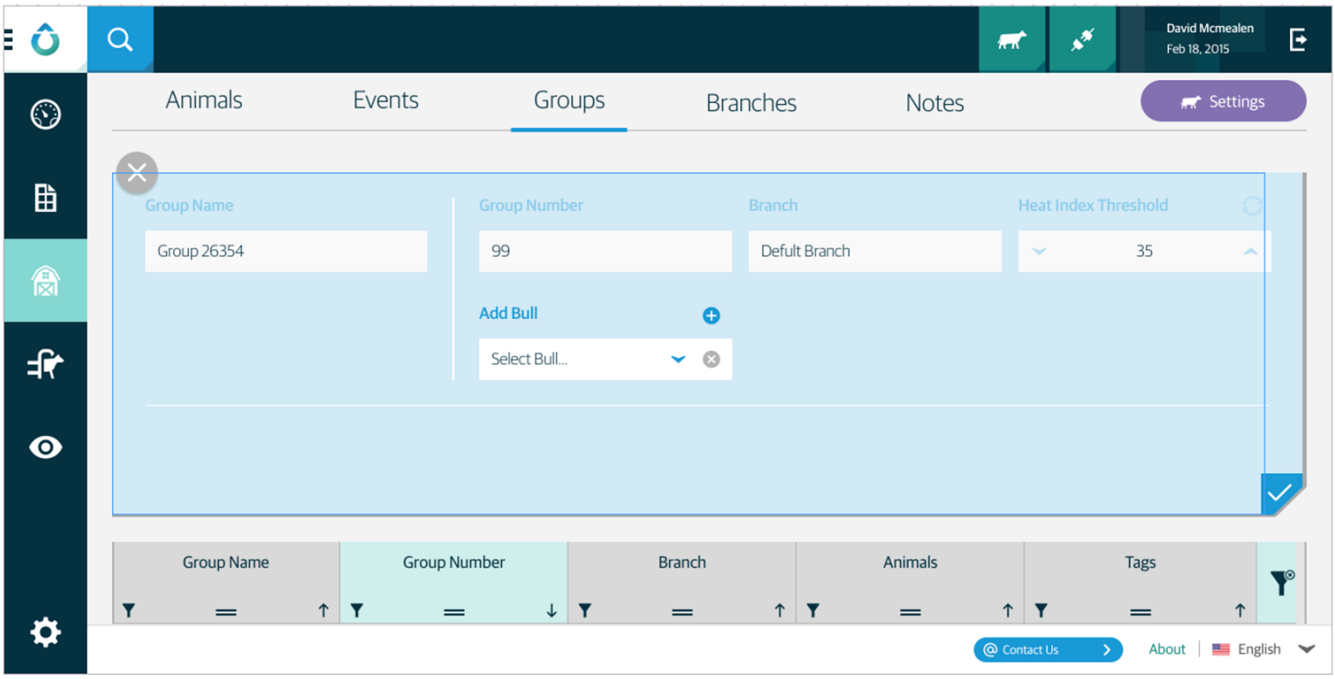
## 2.6 Creating Groups

The next step in setting up your SenseHub™ System is to create groups. Create groups that correspond with the actual groups on the farm.

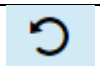
1. From the Dashboard click Farm and then Groups; the Groups page appears.




2. Click to add a group.



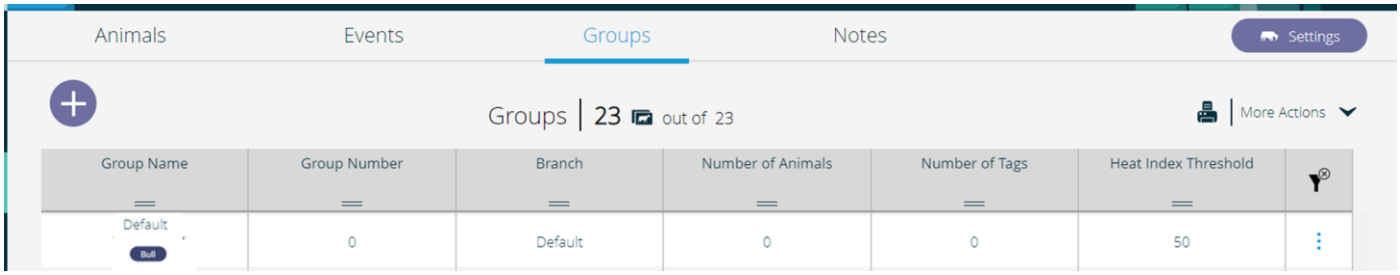

| Field Name | Description |
|---|---|
| Group Name | The name of the group. This field is limited to 20 characters. |
| Bull | When this badge appears there is one or more bulls associated with this group to enable natural breeding. |

| Field Name | Description |
|---|---|
| Group Number | The number of the group. All groups must have a number. |
| Branch | The economic category of this group. The possible categories are Milking, Dry, Heifers, Calves, or default. |
| Heat Index Threshold | The Heat Index Threshold for this group. When cows in this group get to a Heat Index that is equal to or above this number the cows will enter the Heat Report. |
| Select Bull | Choose or enter here the bull or bulls used for natural breeding in this group |
|  | Click here to return all the fields to default. |

3. When all the information is complete and correct click to save the Group.

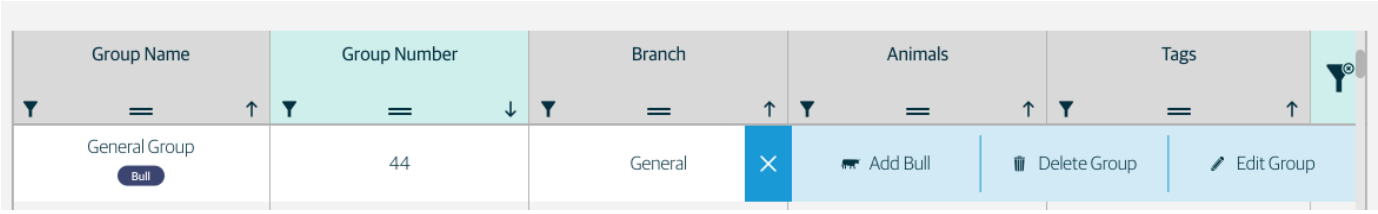
**NOTE**

**Changing the Heat Index Threshold can significantly affect how the SenseHub™ System detects heats and can significantly affect the fertility rates on the farm. Do not change the Heat Index Threshold unless directed by SCR or your SCR Dealer.**

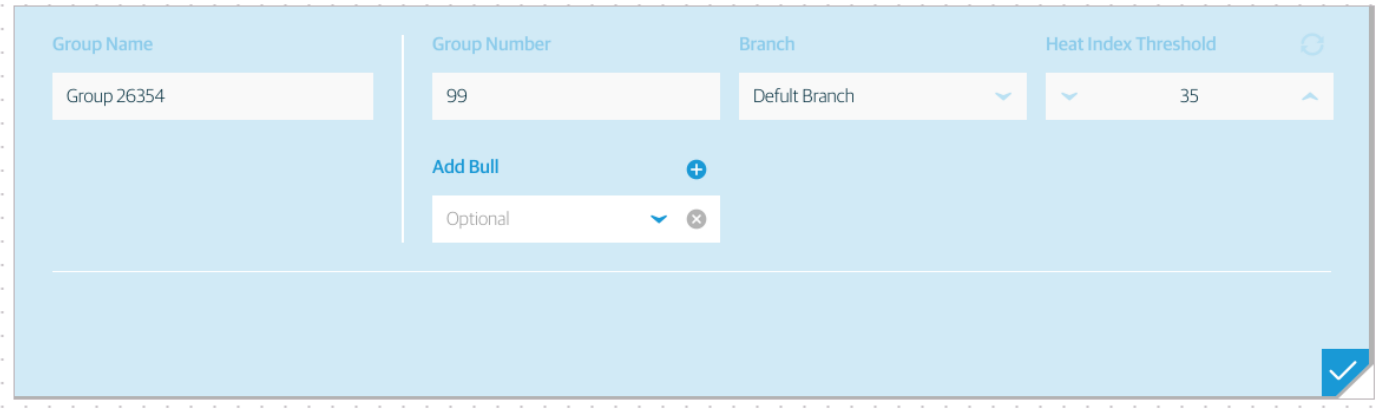


### 2.6.1 Editing Groups

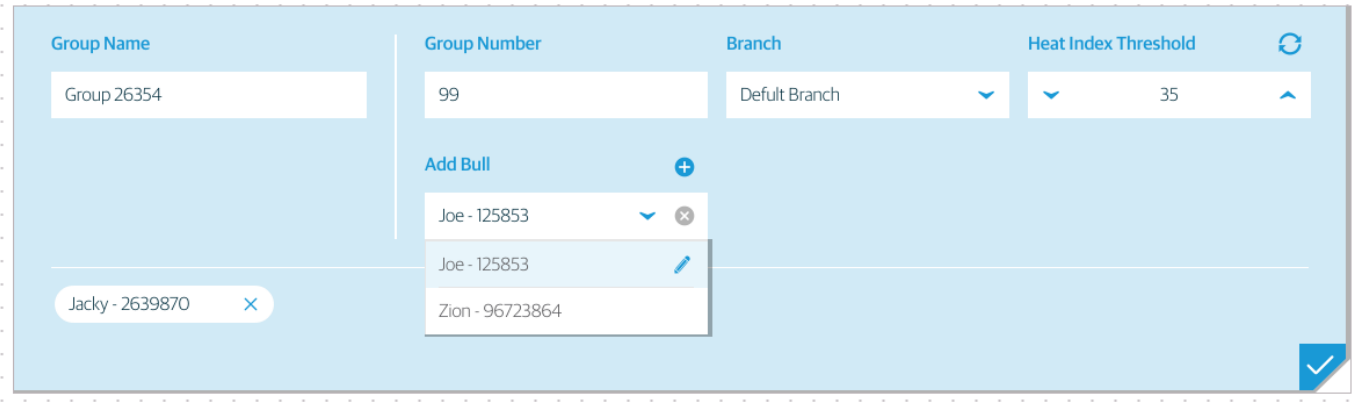
Clicking on the vertical ellipsis,  opens the line menu for editing the group or adding/removing bulls.




When adding a Bull, the other fields, Group Name, Group Number etc. are not accessible. Add the new Bull and click Save.




Click Edit Group to change the parameters of the group or to Delete a Bull from the group. When finished click Save.




Click Delete Group to delete the group. The group must be empty of all animals including bulls to be deleted.

## 2.7 First Time Animal Entry using SenseHub™

Entering your herd for the first time in SenseHub™ system is not difficult but is does require some preparation.

**NOTE**

**Farms that are migrating from Heatime HR should use the migration tool. Detailed instructions on how to use the migration tool are found on page 161.**

### 2.7.1 Required Data when Entering Heifers/Cows

This data is required when entering Heifers into SenseHub™:

| Heifer Status | Required Information |
|---|---|
| Ready (for Breeding) | Birthdate |
| Bred Heifer | Birthdate + Breeding Date and Number |
| Pregnant Heifer | Birthdate + Effective Breeding Date and Number |

This data is required when entering Cows, with one or more calvings, into SenseHub™

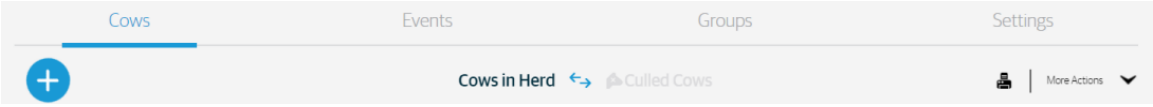
| Cow Status | Required Information |
|---|---|
| Fresh/Ready/Open Cow | Last Calving Date. The cow is classified as Fresh if:<br>• the calving date entered is less than 70 days in the past for first lactation cows.<br>• 60 days in past for second and higher lactation cows. |
| Inseminated Cow | Last Caving Date, Breeding Date and Number. |
| Pregnant Cow | Last Caving Date, Effective Breeding Date and Number. |
| Dry | Last Caving Date, Effective Breeding Date and Number, Dry-off Date. |

SenseHub™ Setup Guide

## 2.8 Entering Heifers in SenseHub™

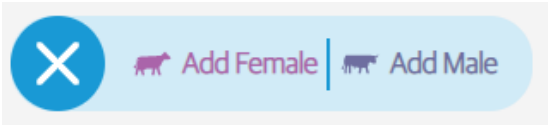
Follow these instructions to enter Heifers in SenseHub™.

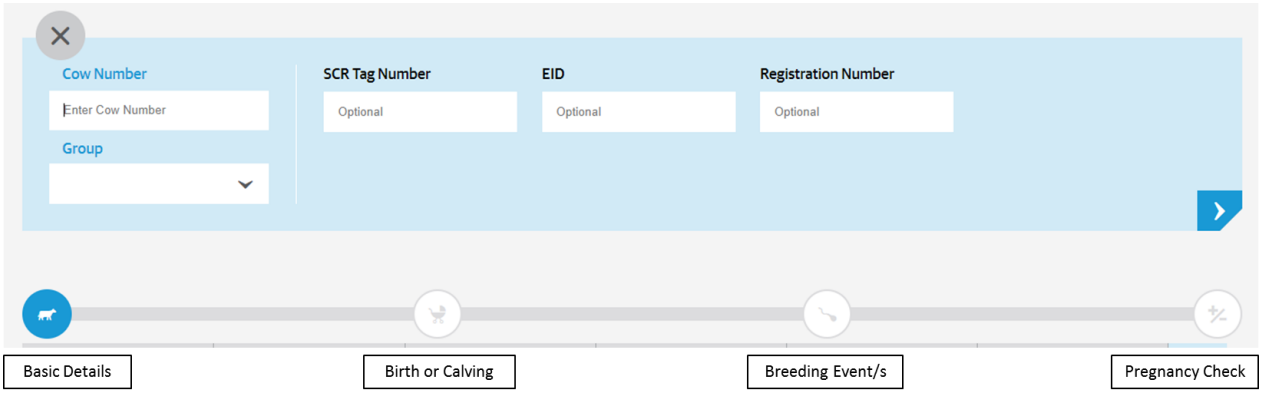
1. From the Dashboard click Farm and then Animals, the Animals in Herd list appears.




   The list of Culled Animals, once there are Culled Animals from the herd, is also found here.

2. Click to begin adding a Heifer to the herd.
   a. Choose the gender of the animal.



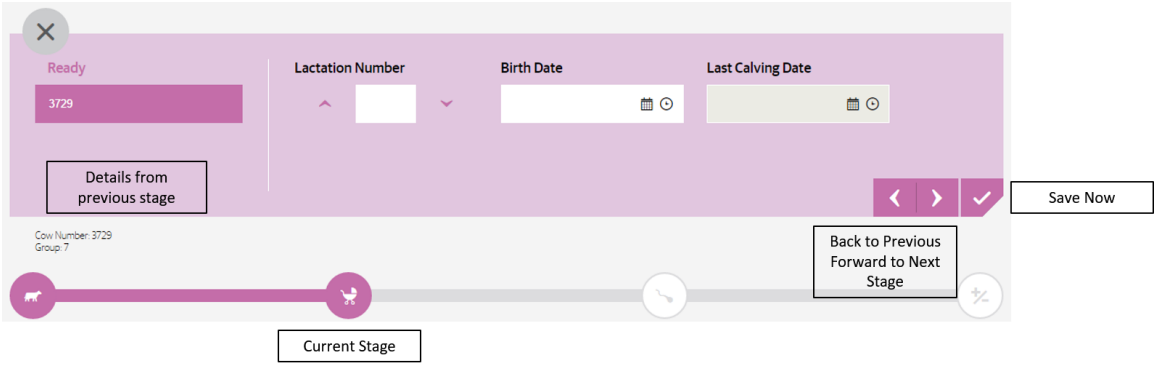

   b. Begin by entering the Basic Details about the Heifer, Cow Number, the Group where the Heifer is housed. The SCR Tag Number, EID Number, if used on the farm, and the Registration Number assigned to the Heifer, may be entered here but they are all optional.

3. Click Next to add more, required, information.

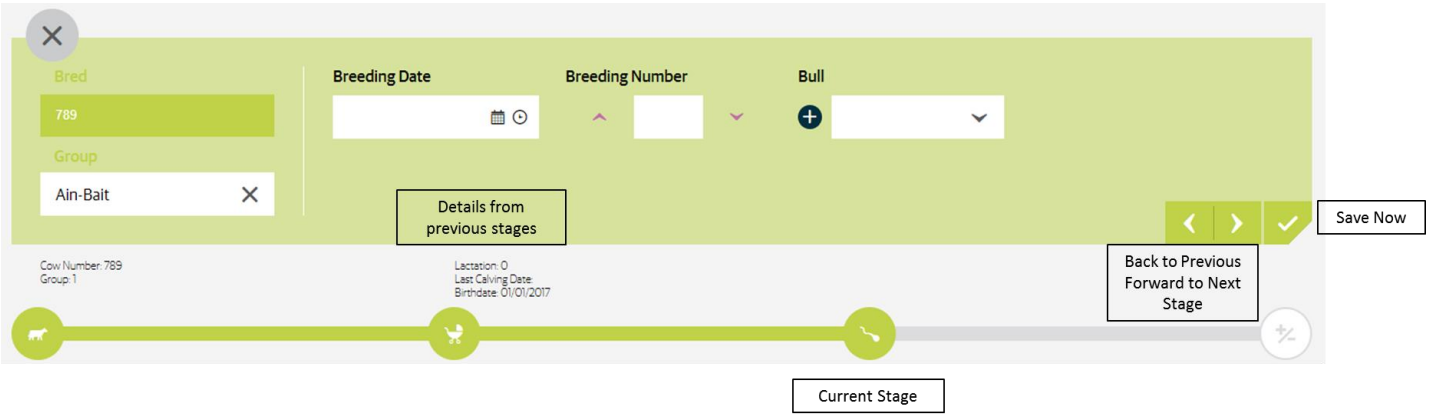
4. Enter here the current Lactation, 0 for Heifers, and the Birthdate of the Heifer.

**NOTE**

**The Birthdate is required for Heifers.**




5. When complete click Save Now, otherwise click Next.
6. Enter here the most recent Breeding Date and Number. The Bull used is optional and once a Bull is entered it can be chosen from the Drop-down List.




7. When complete click Save Now, otherwise click Next.

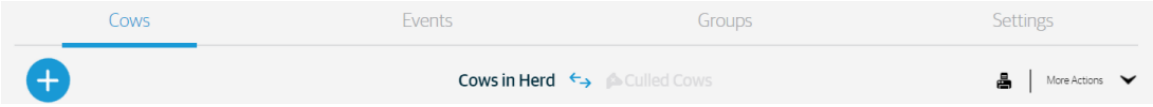
8. Enter the Pregnancy Check Date and the Result when complete click Save Now to save the Heifer.

9. The Heifer and all entered details are now saved in SenseHub™.

## 2.9 Entering Cows in SenseHub™

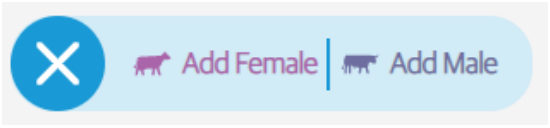
Follow these instructions to enter Cows of all calving counts in SenseHub™.

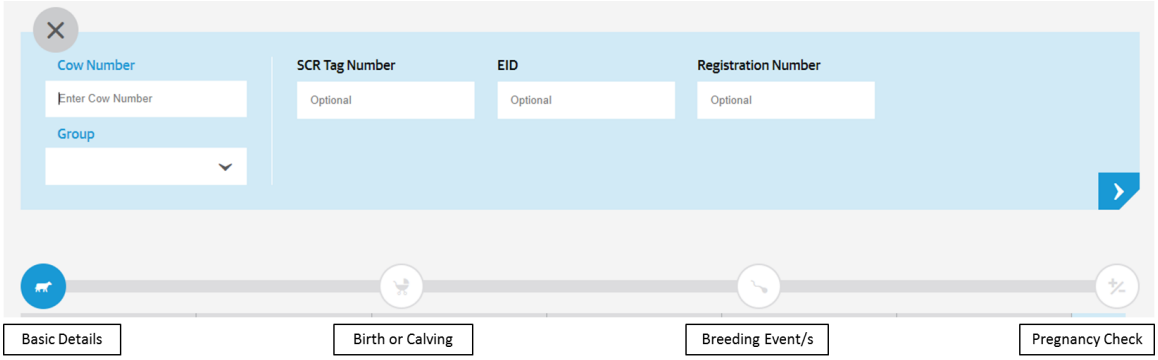
1. From the Dashboard click Farm and then Animals, the Animals in Herd list appears.




   The list of Culled Animals, once there are Culled Animals from the herd, is also found here.

2. Click to begin to add a Cow to the herd.
   a. Choose the gender of the animal.

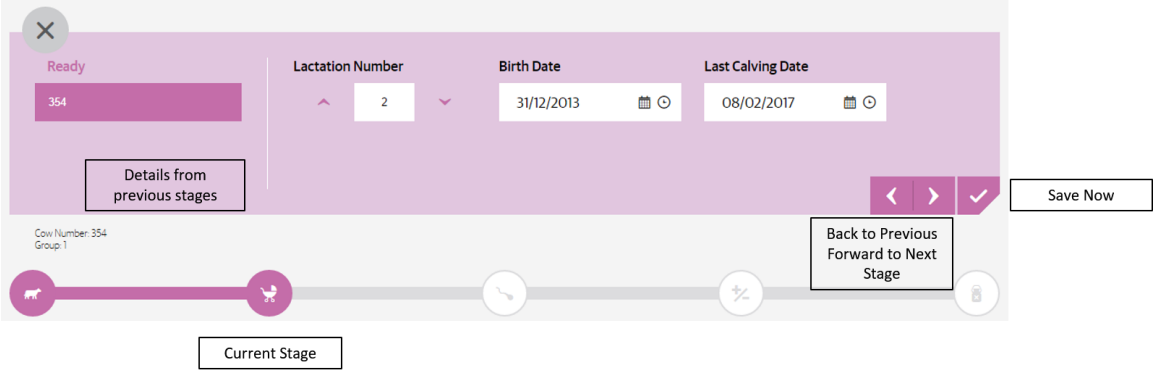



   b. Begin by entering the Basic Details about the Heifer, Cow Number, the Group where the Cow is housed. The SCR Tag Number, EID Number, if used on the farm, and the Registration Number assigned to the Cow, may be entered here but they are all optional.

3. Click Next to add more, required, information.

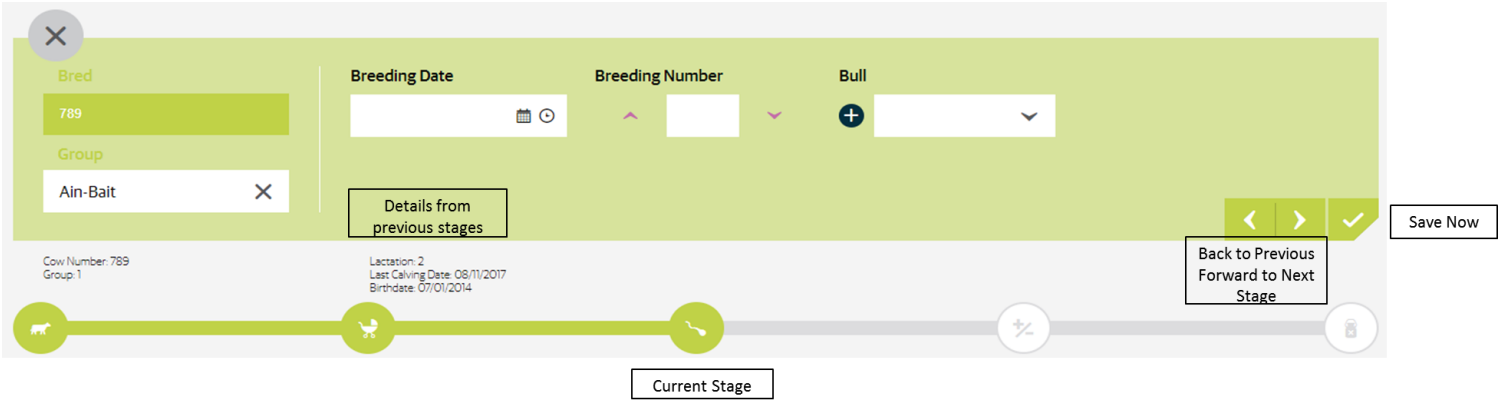
4. Enter the Current Lactation, Birthdate, and Last Calving Date for this cow.




5. When complete click Save Now, otherwise click Next.
6. Enter here the most recent Breeding Date and Number. The Bull used is optional and once a Bull is entered it can be chosen from the Drop-down List.

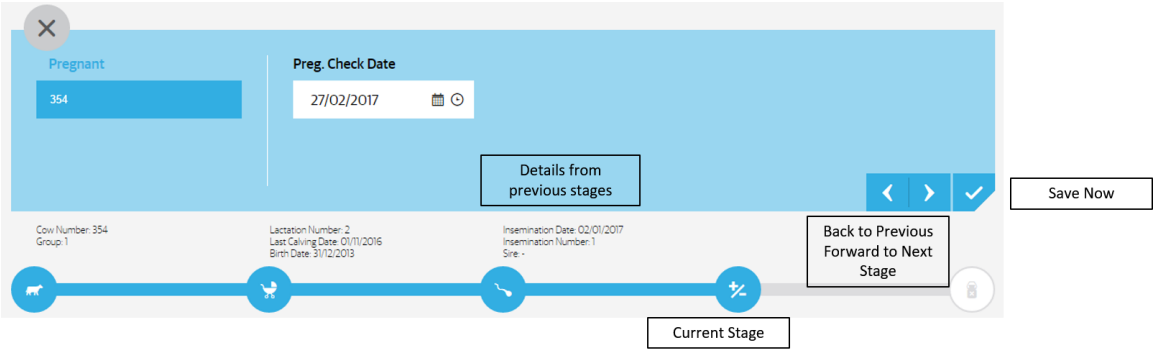
**NOTE**

**When migrating cows for the first time to SenseHub™ data on previous lactations is not needed.**




7. When complete click Save Now, otherwise click Next

8. Enter the Pregnancy Check Date.

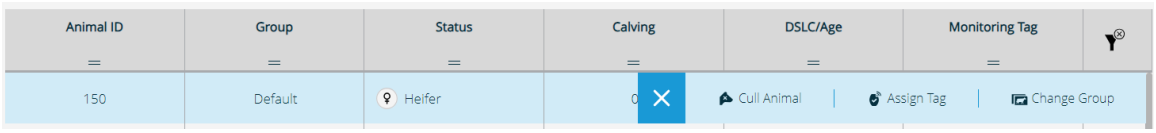



9. When complete click Save Now, otherwise click Next
10. The Cow, and all the entered details, are saved in SenseHub™

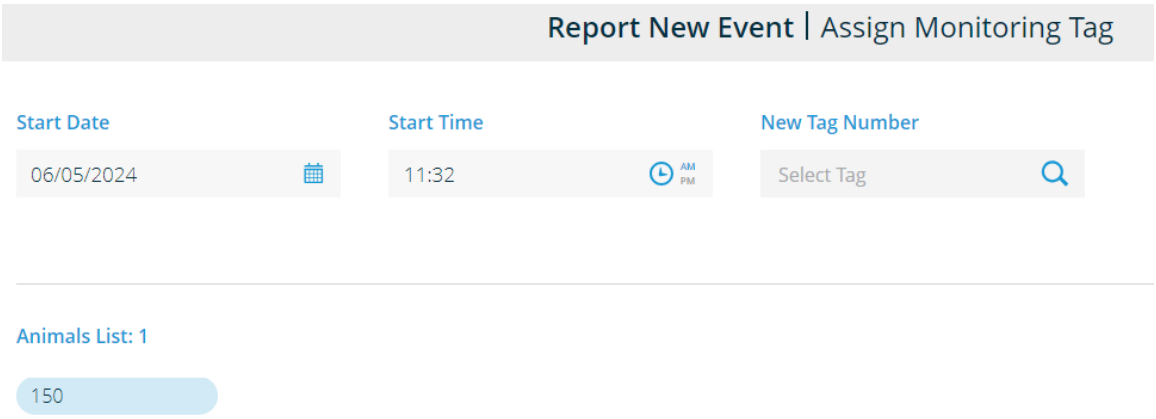
## 2.10 Pairing Cows with Monitoring Neck Tags/Ear Tags

After attaching the tags to the cows, configuring, and registering the SenseHub™ system and entering the herd, cows can be paired with their tags.

1. From the Dashboard click Farm and then Cows, the Cows in Herd list appears.




2. Click on Assign Tag; the Tag Assignment Pop-up appears.

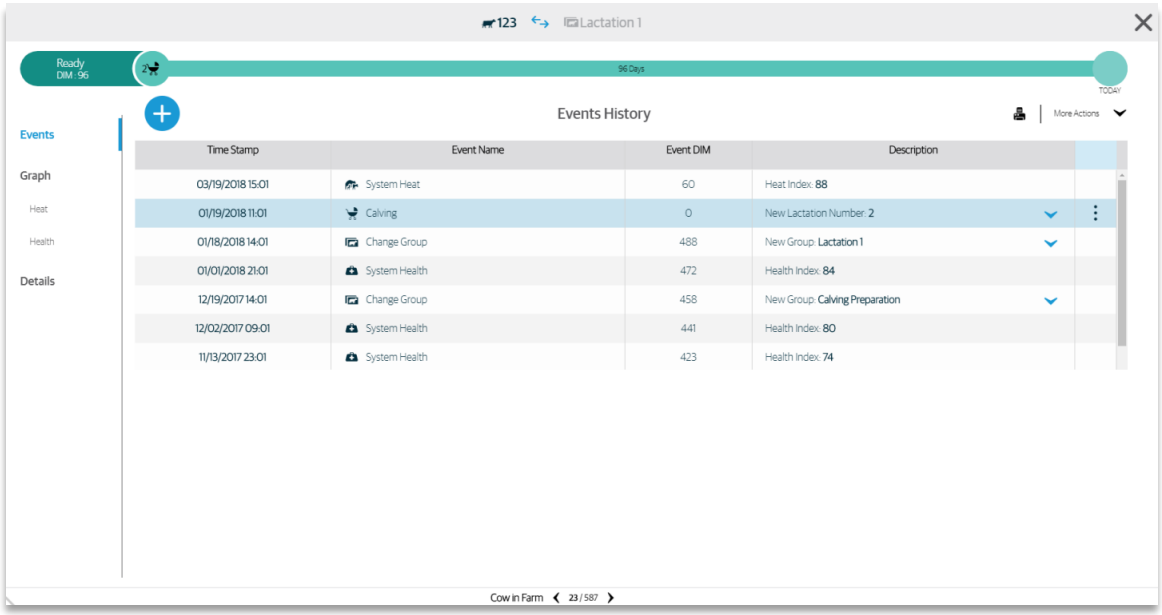



3. Enter the Tag Number and click apply. This tag is now assigned to this cow.

## 2.11 SenseHub™ Cow Card

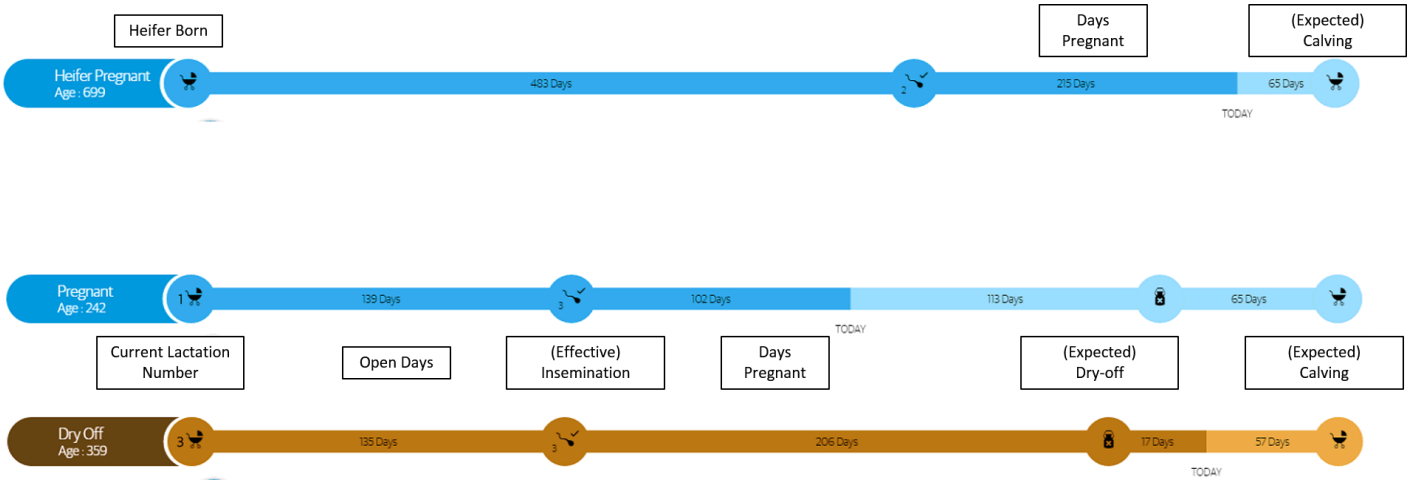
The Cow Card contains a great deal of information about the cow. The Cow Card is made up of the Lactation Timeline and three tabs:

- Events – Important happenings for this cow, grouped by lactation.
- Graphs – The Heat and Health graphs for the cow.
- Details – The information and description of the cow.



### 2.11.1 Timeline

The Timeline is a graphic summary of the current lactation for the cow. It contains the major events and the total number of days since the last calving for the cow.



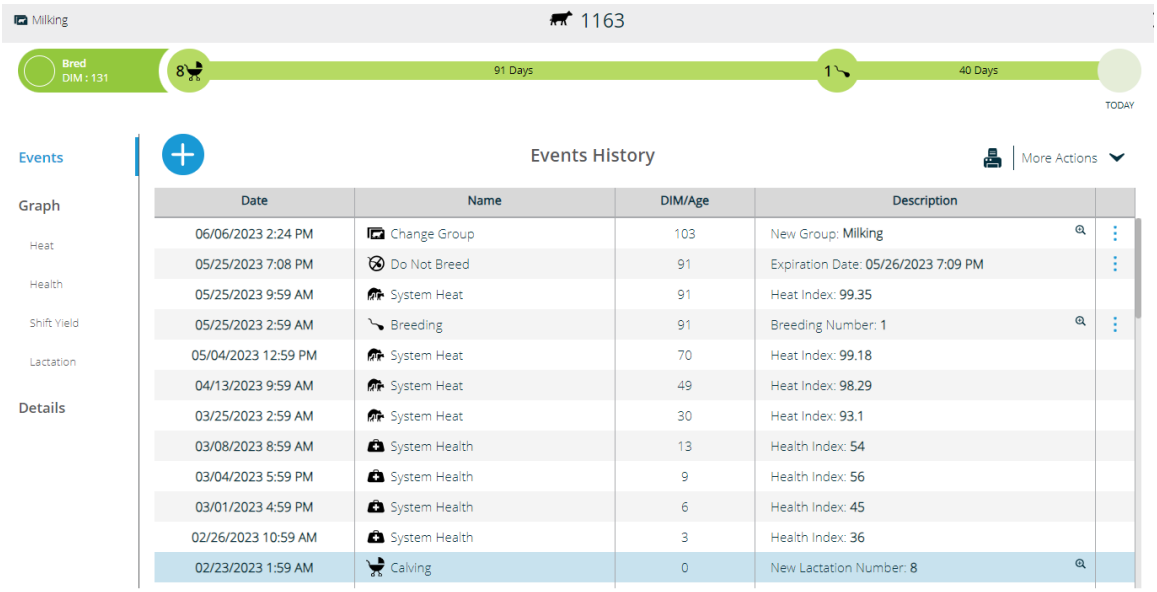

Timeline Colors are explained in this table.

| Color | Icon | Description |
|---|---|---|
| | | Heifer, From Birth until end of Voluntary Waiting Period. |
| | | Fresh. Cows from Calving till the end of the Voluntary Waiting Period. (configurable) |
| | | Ready/OK. Cows/Heifers ready for insemination. |
| | | Inseminated. Cows/Heifers after they have been inseminated at least once until they are checked for pregnancy. |
| | | Pregnant. Cows/Heifers once they have been recorded after a positive pregnancy check. |

| Color | Icon | Description |
|---|---|---|
| | | Open. Cows/Heifers after they have a recorded negative pregnancy check. |

### 2.11.2 Events

All the happenings to each cow in the herd are called events.




| Event Icons | Description |
|---|---|
| | Calving. This icon appears where a calving is reported. |
| | Health. This icon appears when the Health Index of a cow falls below the threshold. |
| | Distress. This icon appears when a cow is determined to be in distress. |
| | Do Not Breed. Used to designate cows that will not continue to a subsequent lactation. |
| | Heat. This icon appears when a system heat is registered. |

| Event Icons | Description |
|---|---|
| | Insemination. This icon appears where an insemination is entered/recorded for the cow. |
| | Weaning. When the calf is separated from its mother or taken off its liquid diet. |
| | Pregnancy Check. This Icon appears when a cow is checked for pregnancy. Can be positive or negative. |
| | Culling. This icon appears when the cow is culled, removed from the herd. |
| | Dry-off. This icon appears where the dry-off is entered/recorded for the cow. |
| | Change Group. This icon appears when a group change is entered/recorded for the cow |
| | Abortion New Lactation. This icon appears when an abortion is entered/recorded for the cow and a new Lactation must begin. |
| | Designate Tag. This icon appears when a tag is assigned to a cow or when a tag already assigned is changed to a different tag. |

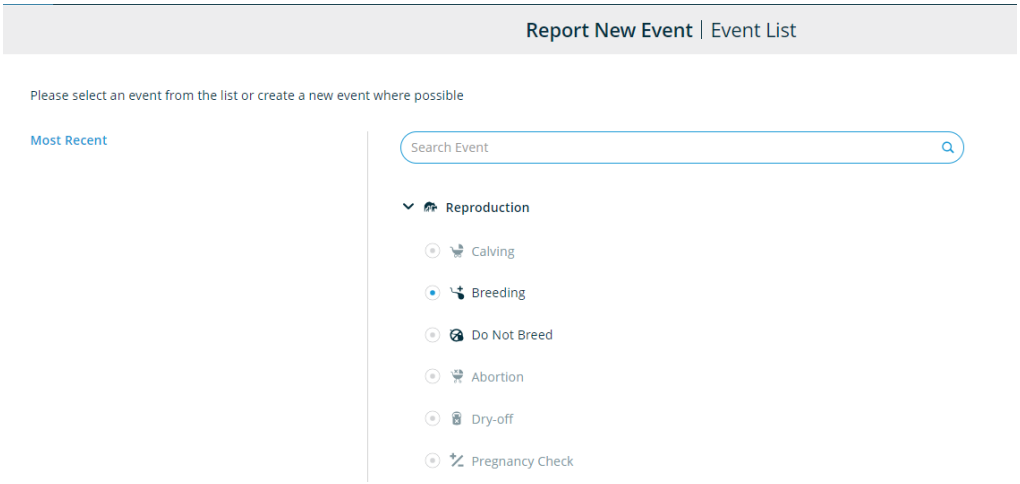
| Event Icons | Description |
|---|---|
| | Update Tag Firmware. This icon appears when the firmware for a tag is updated successfully. |
| | Remove Tag. This icon appears when a tag is removed from a cow and the event is entered/recorded. |

#### *2.11.2.1 Entering Events*

This section describes how to enter Events in the SenseHub™ System. The Add Event button is found either at the top of the Cow List, Farm → Cows, or at the top of any Cow Card.

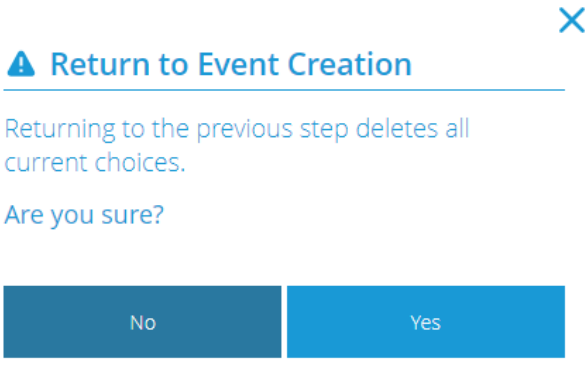
1. To Enter an Event click on Add Event; the Add New Event screen appears.

   Only the allowed events for this point on the Lactation Timeline are available. They appear darker.




2. Choose the desired event and click Next in the lower right-hand corner.

3. Click Report Event to save the event, or click Previous to return to the previous screen. Animals that were chosen will be un-chosen.

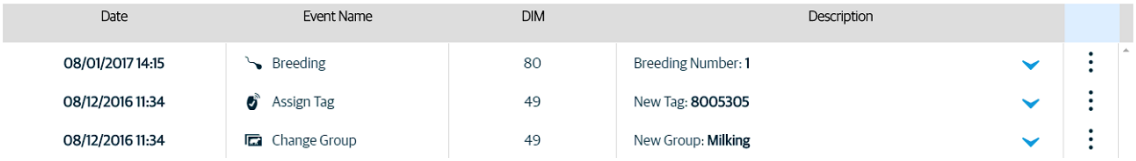



Click on Report Event to save the event.

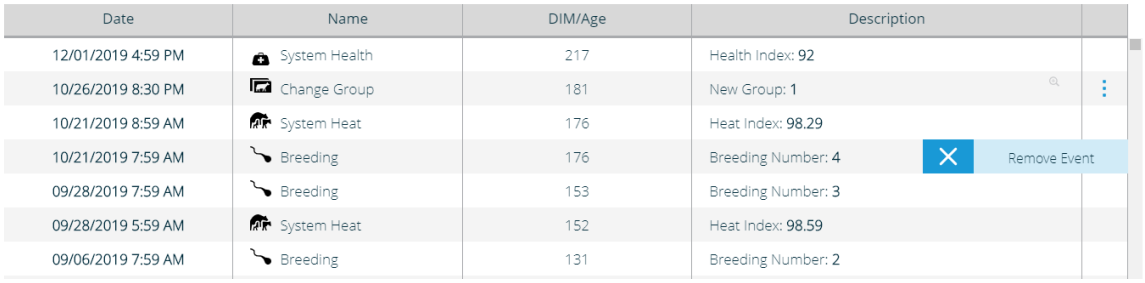
#### *2.11.2.2 Removing Events.*

It is possible to Remove Events.

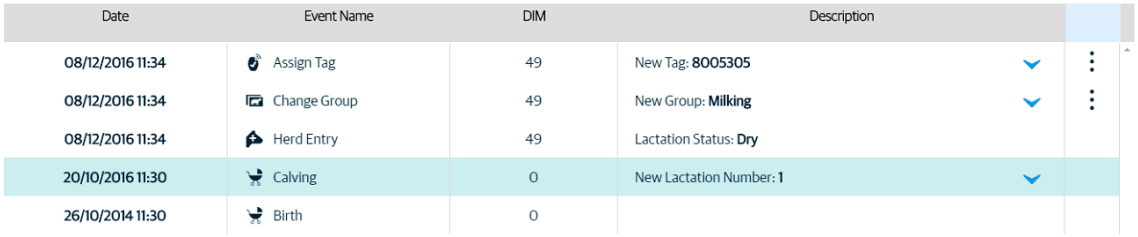
1. Find the desired event on the event tab.




2. Click the Vertical Ellipses and choose Remove Event.




3. The event is removed.



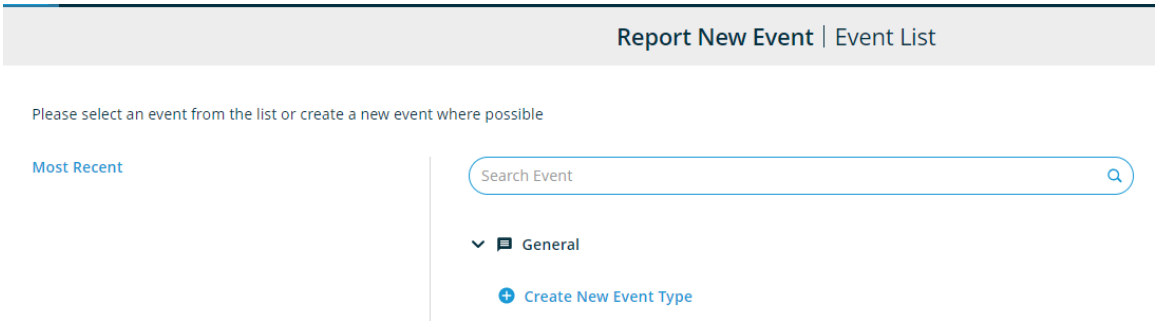

**NOTE**

**It is only possible to remove the last, topmost, event. Past events that affect more recent events, such as inseminations to the more recent pregnancy check, may not be removed.**

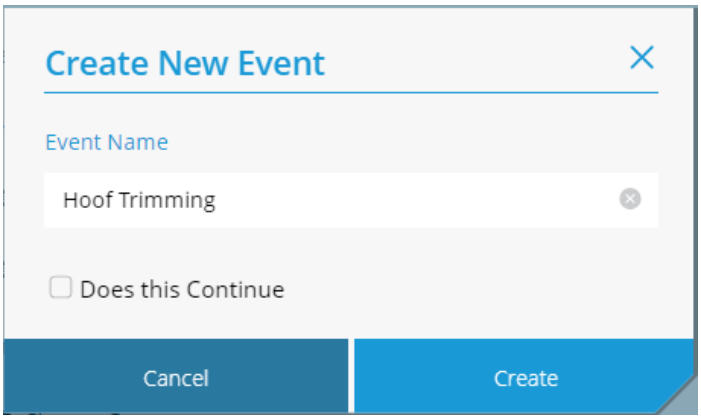
#### *2.11.2.3 Creating New Event Types*

SenseHub Farmers can enter and add their own event types.

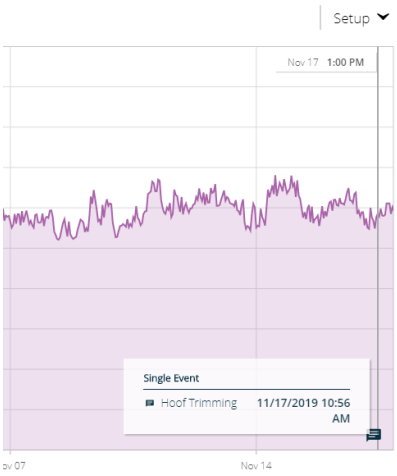
1. Click on and then choose General Event to add a General Event.




2. Enter the Event Name and if this event continues, exists for more than just today.



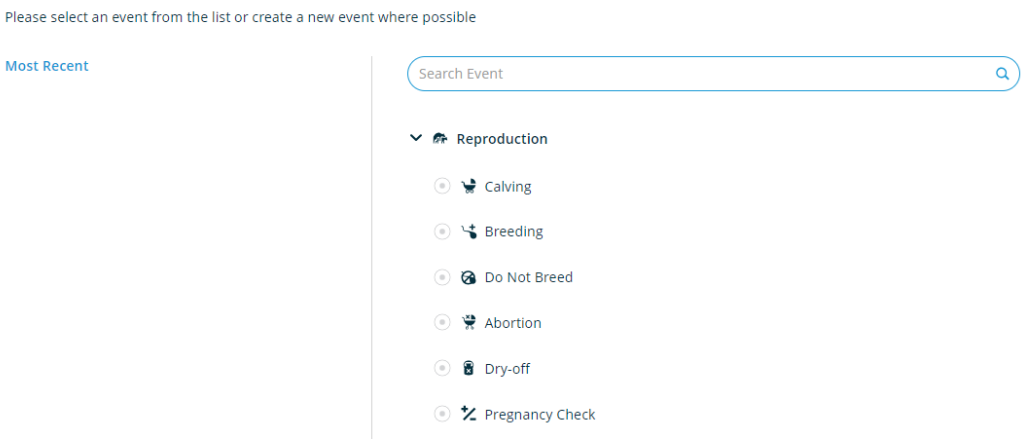

3. When complete, click Create to save the event.
4. The event now appears on the graphs for this cow



### 2.11.3 Multiple/Batch Event Entry

Events like Breeding, Pregnancy Checks, and Group Changes, among others, can be entered in batches.

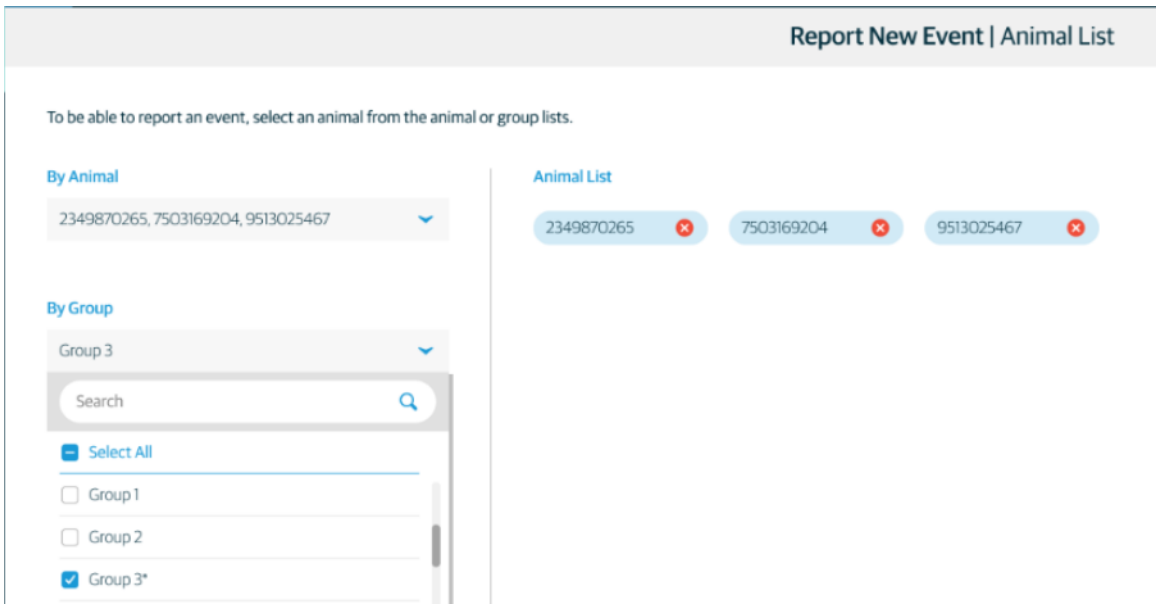
1. Go to Farm → Events and click on Add Batch Event.
2. Select the Event Type for the batch.



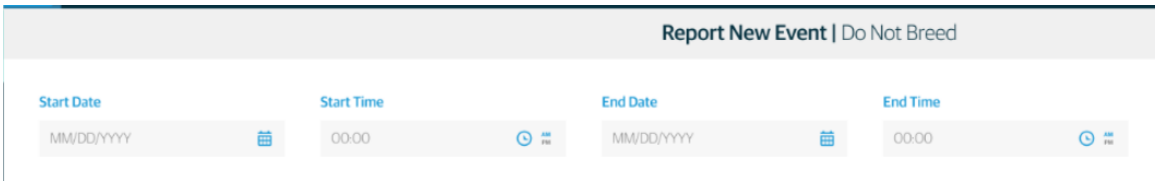

**NOTE**

**All events are available.**

3. Select the Animals for the batch or select the Group for the batch and click Next.



4. Set the parameters of the Event. When complete click Report Event. Report Event.




   a. Sometimes farmers may wish to report different parameters for each cow.

When complete click on Report Event Report Event to save the event.

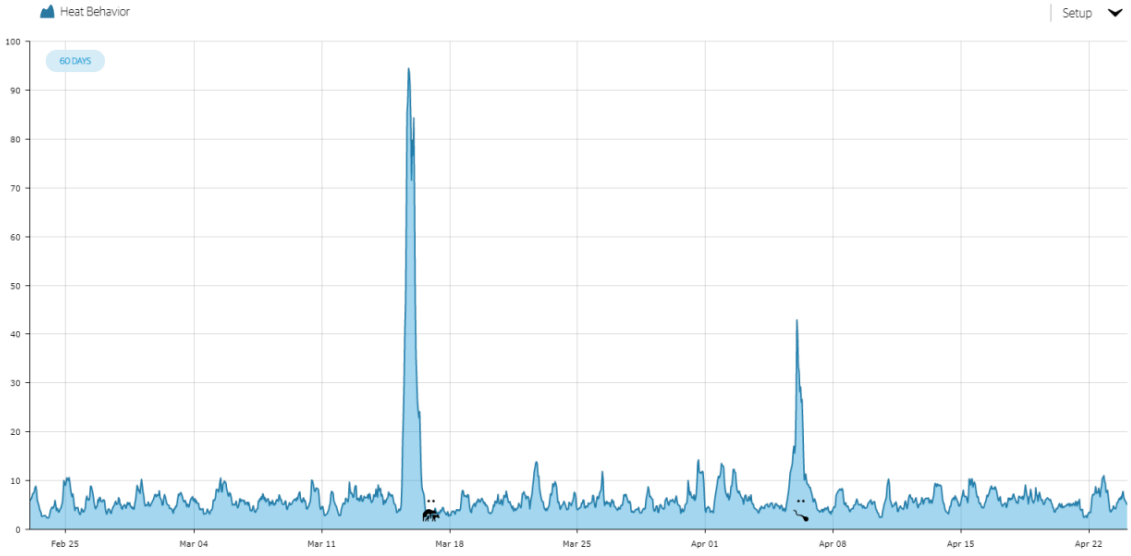
### 2.11.4 Graphs

The SenseHub™ System produces several useful graphs to help you manage your herd.

- Heat Graph
- Health Graph

#### *2.11.4.1 Heat Graph*

The Heat Graph displays the Heat Behavior of the cow.



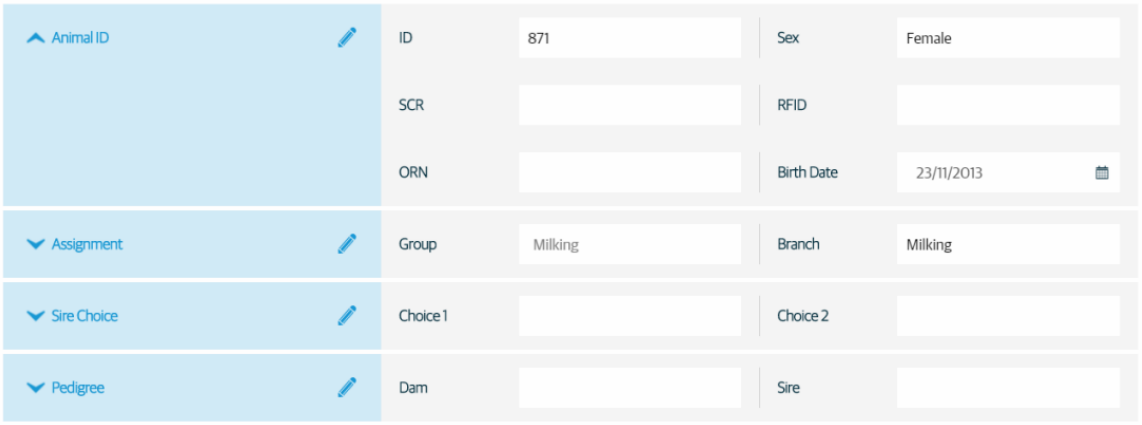
#### *2.11.4.2 Health Graph*

The Health Graph shows the relative health of the cow using Total Daily Rumination minutes.

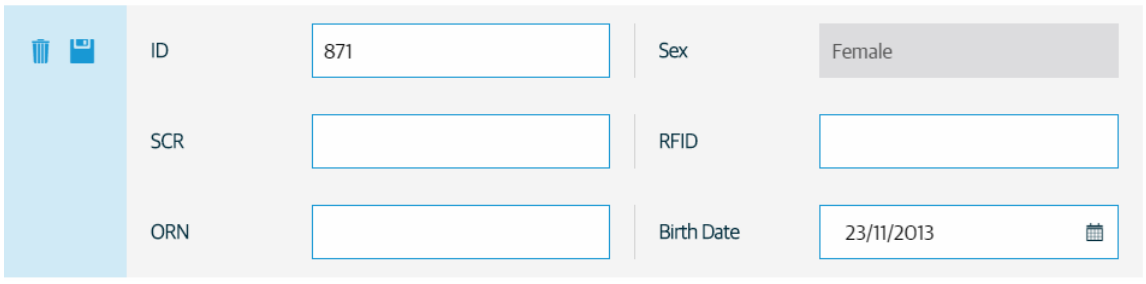
### 2.11.5 Details

The Details section shows all the important information about the cow.

1. To expand any of the areas click on the arrow; the area expands.

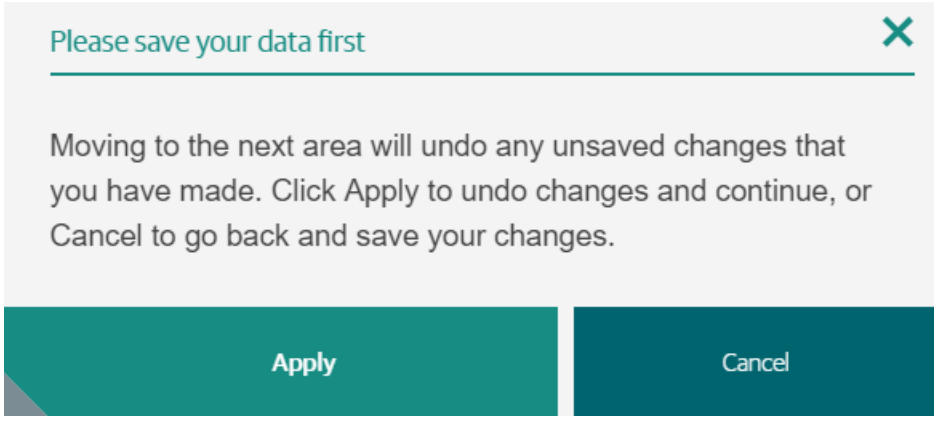



2. To edit any of the information click on Edit and the items available for editing are highlighted around the edges.




3. Click to save the changes or to discard them.

4. If you try to leave without saving a message appears.



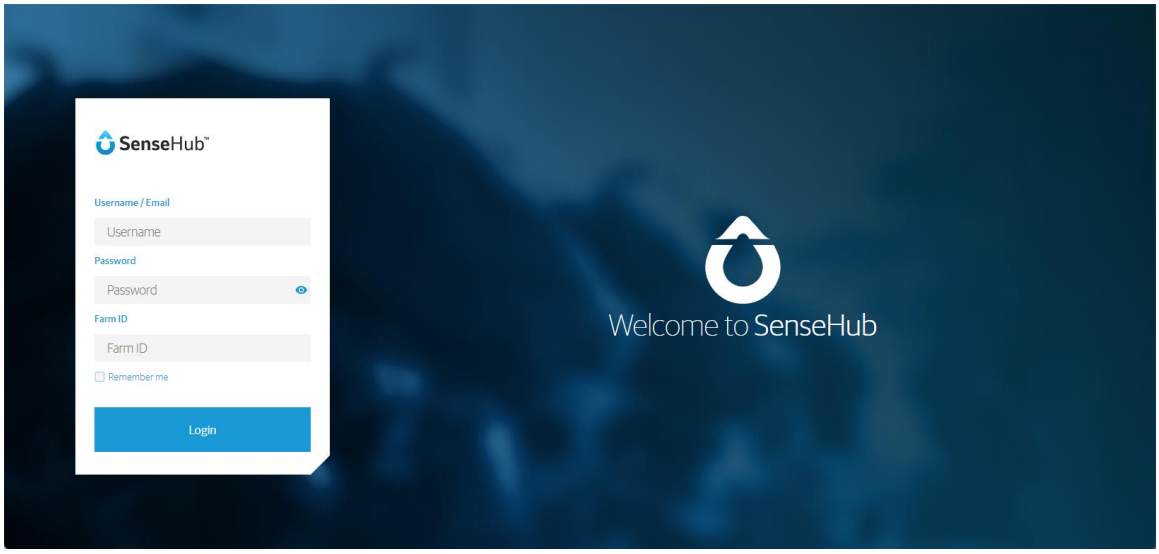
# 3 Using SenseHub™

Thanks to the clear and concise interface, SenseHub™ is quite easy to use.

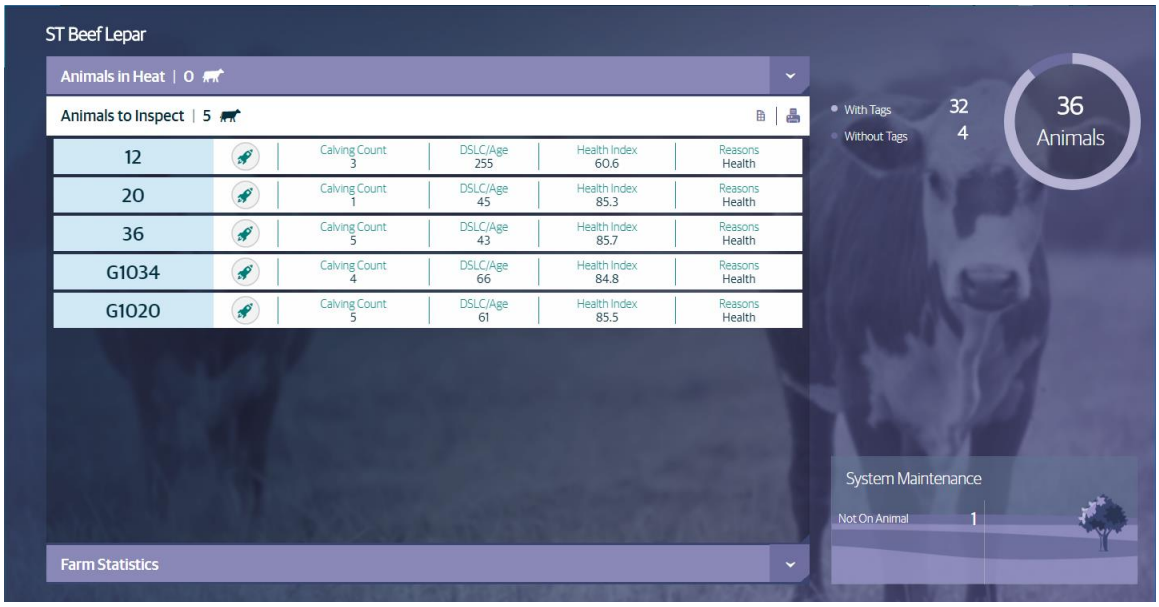
## 3.1 Overview/Dashboard

Click on the SenseHub™ Icon on the desktop

, the login page appears.

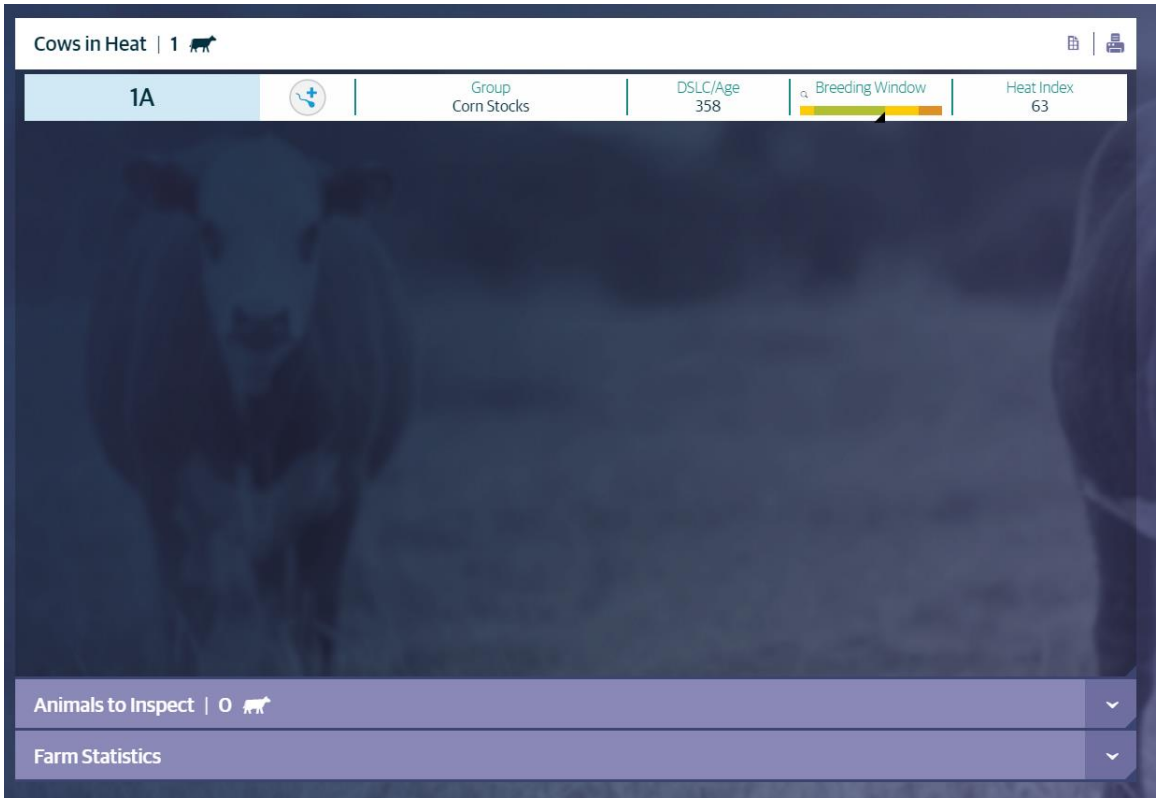



Enter the Username and Password you configured when you set up and registered your SenseHub™ along with the Farm ID that was assigned during registration and click Login. The SenseHub™ Dashboard appears.



### 3.1.1 Accordion/Widgets

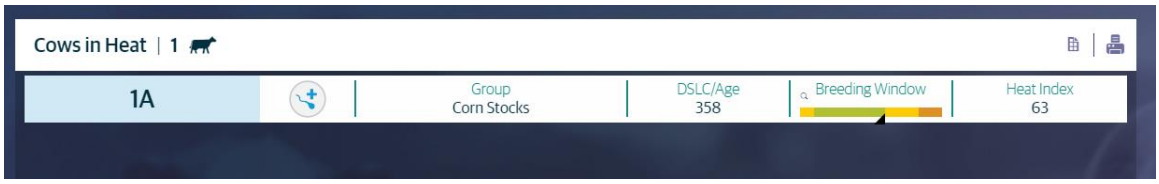
This part of the dashboard contains three important blocks of information.




- Animals that are in Heat.
- Animals that require further attention.
- Vital Farm Statistics.

### 3.1.2 Animals in Heat

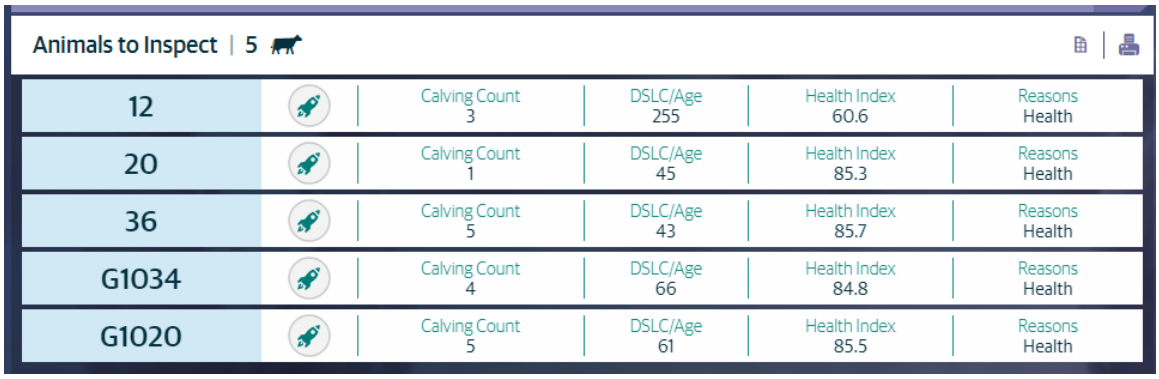
The cows in Heat section displays the cows that are currently in heat. This information is taken directly from the Cow in Heat Report.



### 3.1.3 Animals to Inspect

The Cows to Inspect portion contains cows from many different reports. By default, cows from the Health and Distress Reports appear here. Other reports can be added:

- Early Fresh Cows Report
- Suspected for Abortion Report
- Anestrus Cows Report
- Irregular Heat Report

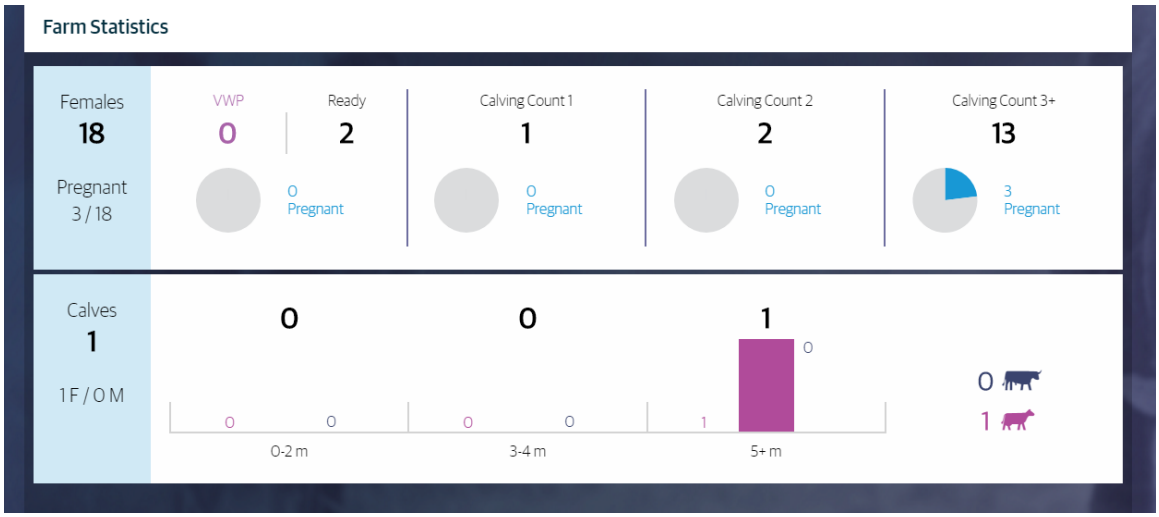



**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

### 3.1.4 Farm Statistics

The Farm Statistics Widget displays important summary information that gives an overview of the farm, “at a glance.”



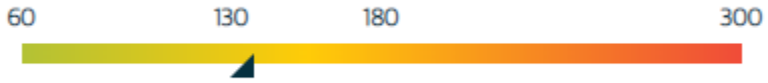

- Females – This line summarizes by calving count the females on the farm and the percent of them that are pregnant.
- Calves – This line displays the number of calves by age group, both females and males in each of the group are displayed.

The numbers here and their relationship give an instant snapshot as to the continuity and viability of the herd on your farm.

### 3.1.5 Key Performance Indicators - KPIs

This section displays Key Performance Indicators about the farm.

- Days Open – The number of days from calving until the Effective Insemination.

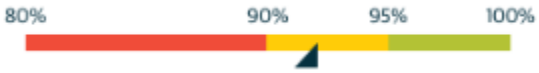



- This KPI takes time before it is available on the farm:
  - Small Farms – up to 100 Animals with tags – 90 days.
  - Medium Farms – up to 500 Animals with tags – 60 days.
  - Large farms – 501 and over – 30 days.
- At least 10 cows are required for each measurement.

**NOTE**

**This KPI is available when using the Starter Application Plan.**

- Health Rate – The Health Rate is the average percent of Animals, with tags, that are healthy on the farm over the last week.




- At least 10 cows are required for this measurement.

**NOTE**

**The Health Rate KPI is available on farms using the Advanced Application Plan.**

- Group Consistency – The amount the Daily Average Rumination of groups varies or differs from day to day over the last 10 days.

- Animal Daily Consistency – The variability of rumination minutes between cows during the same day in the Milking and Default Cows Branches.

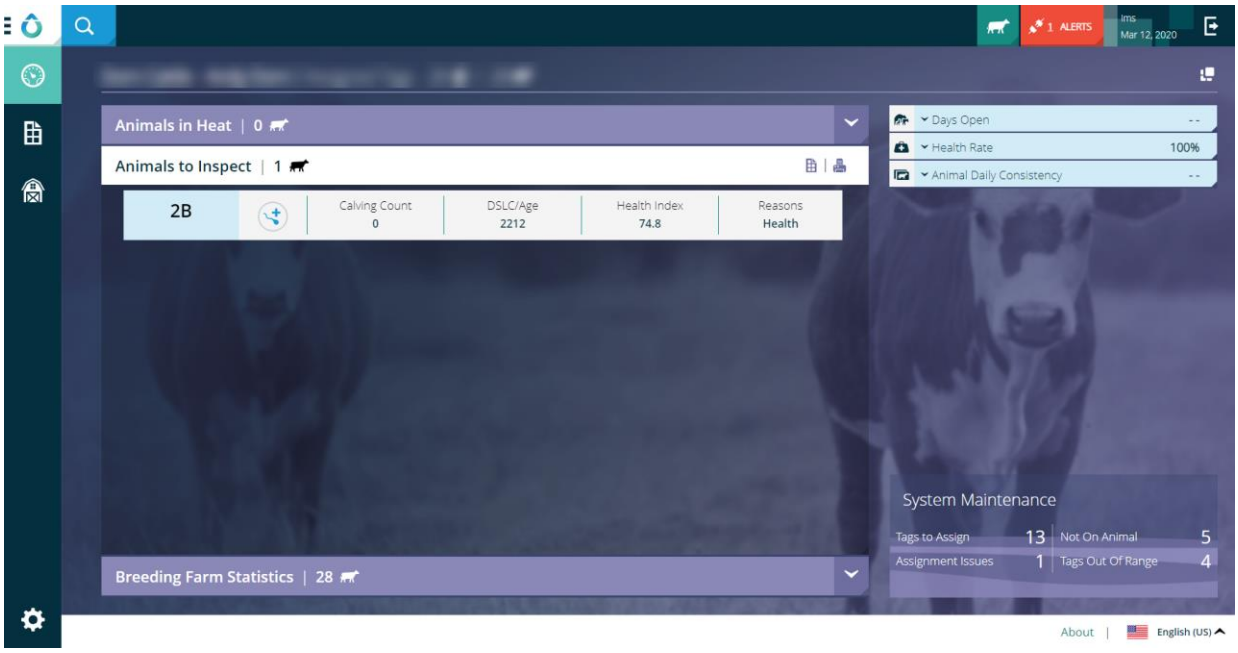
- At least 10 cows are required for each measurement.

**NOTE**

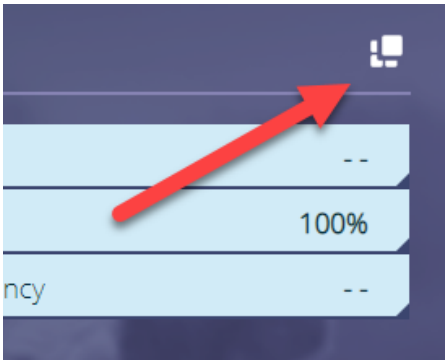
**These 2 additional KPIs are available on farms using the Premium Application Plan.**

### 3.1.6 Dashboard Configuration

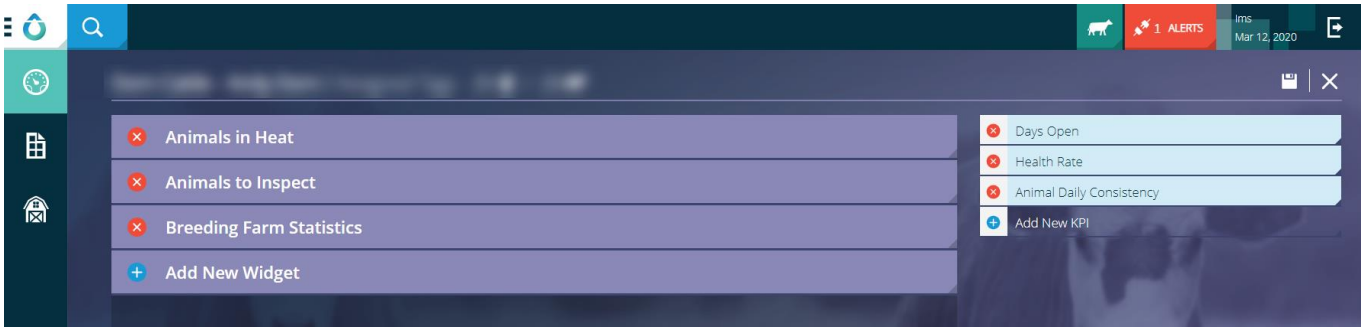
The widget and KPI displays can be configured to give a customized view for the farm.

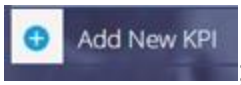



1. Click on Dashboard Configuration to open the Dashboard Configuration Zone.

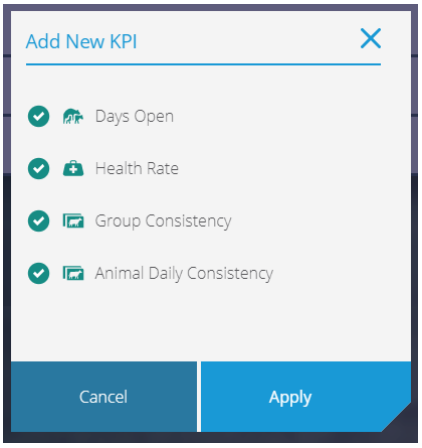



Both the widget and KPI areas are now unlocked for configuration.


1 ALERTS
Ims
Mar 12, 2020
Animals in Heat
Animals to Inspect
Breeding Farm Statistics
Add New Widget
Days Open
Health Rate
Animal Daily Consistency
Add New KPI

2. Click on 

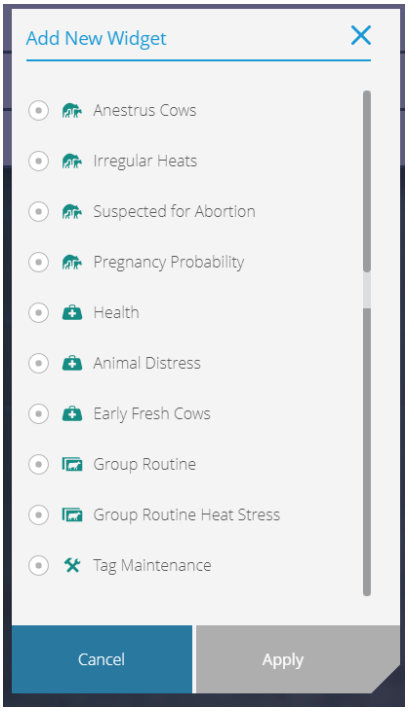
; the Add New KPI dialogue appears.




   a. Choose the desired KPIs and when complete click Apply.

3. Click on

; the Add New Widget dialogue appears.




   a. Choose the desired reports for the widget. Up to 4 different reports can be selected.

   b. When complete click Apply.

4. When the configuration of the Dashboard is complete, click save to save the configuration.

### 3.1.7 System Maintenance

The System Maintenance area displays important information about maintenance that may be required from time to time in SenseHub™.

- Tags to Assign – These tags are declaring that they are on a cow and the SenseHub™ system has no record of them being paired or assigned to a cow. Review these tags and pair them with cows.
- Assignment Issues - These tags are assigned to a cow, but no data has been received from them since they were assigned. Review these numbers in the system, perhaps these numbers need to be corrected.
- Tags to Replace – The tags that are declaring that their battery is low. These tags should be replaced.
- Not on Animal – These tags are assigned to an animal and are declaring that they are not on any animal. These tags may have become separated from their animal. Look for them so they can be attached again to the correct animal, or a new tag needs to be assigned.

Changing tags, if required, is described on page 122.

## 3.2 SenseHub™ Alerts

SenseHub™ generates many kinds of Alerts. These alerts are divided into 2 categories:

- Animal Alerts
- System Alerts

### 3.2.1 Cow Alerts

4 different types of alerts can appear in this area:

- Pre-calving distress.
- Post-calving distress.
- High Activity from the Daily Activity Group Graph.
- Low Rumination from the Daily Rumination Group Graph.

**NOTE**

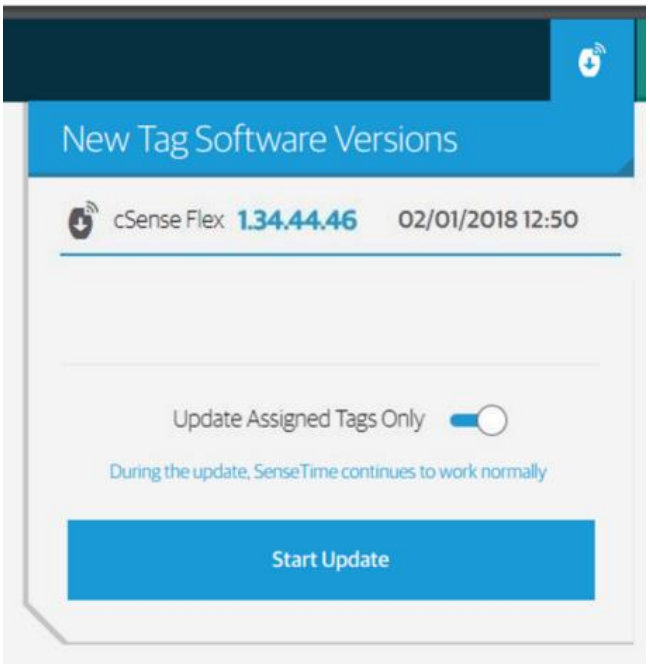
**The manual describes all possible alerts, reports, and graphs. The alerts, reports, and graphs available on the farm depend on the Application Plan enabled on the farm.**

### 3.2.2 Tag Software Version Alerts

When SenseHub receives the signal that a new software version is available for the tags currently in use on the farm, the New Tag Software Alert appears.

Click on the Tag Update Icon to begin the update process.

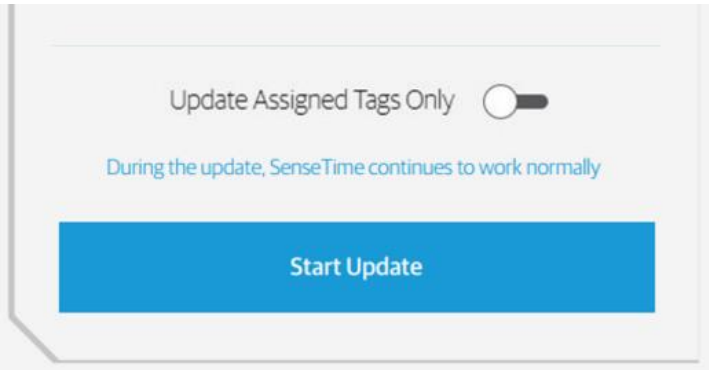
1. The system displays the Tag type and version that is available for update. Click Start Update when ready to begin the update. During this process SenseHub continues to work normally.



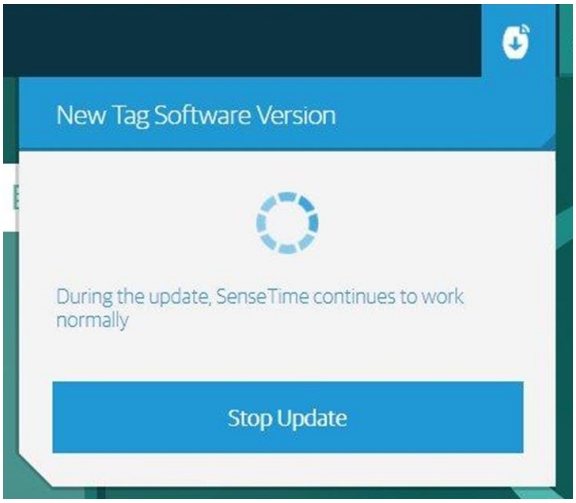

**NOTE**

**By default, only assigned tags are updated.**

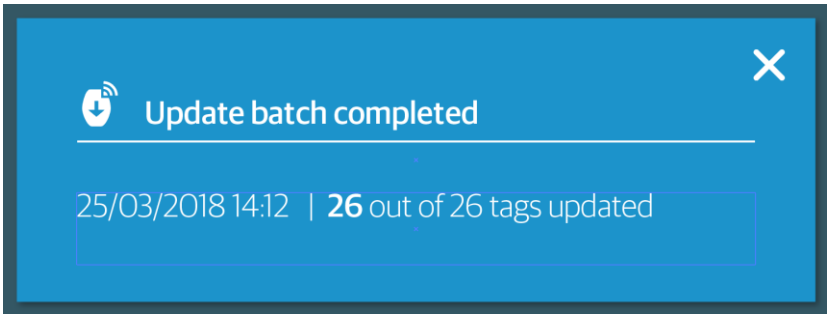
If you wish to update Unassigned Tags at the same time, slide the slider to the right and the update of Assigned and Unassigned Tags is enabled.




2. You can check on the Tag Update process while it is running.




3. When the process completes, a message is displayed.



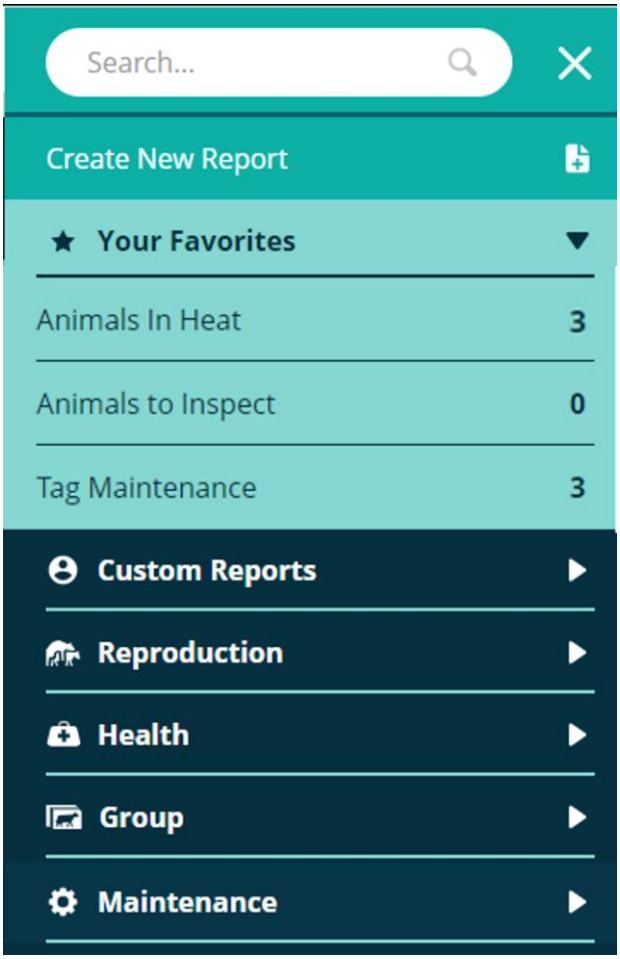
### 3.2.3 System Alerts

Alerts concerning the system and/or the connectivity of the system are displayed here.

| System Alert | Description | Suggested Action |
|---|---|---|
| No Tag Data from any Tag | No data is received from any tag. In normal configuration, this appears after 1 hour of no data from assigned tags. In grazing configuration, this appears after 24 hours of no data from assigned tags. | Contact your dealer for technical support |
| RF Configuration Error | The antenna is not accepting its configuration | Contact your dealer for technical support |
| General Controller Error | The controller is generating a general error | Contact your dealer for technical support the affected device may require replacement |
| Antenna Disconnected | There is no response from an installed antenna | Check the network connectivity between the Controller and the Antenna |
| Device Overheated | The Controller is too hot | Contact your dealer for technical support |
| RF Module Error | One of the RF modules is not working correctly | Contact your dealer for technical support |
| Device Storage Error | Data is not being stored internally | Contact your dealer for technical support |

| Connectivity Alert | Description | Suggested Action |
|---|---|---|
| Cloud is Disconnected | There is no connectivity with the Cloud | Check local connectivity |
| No Herd Management Synchronization | It has been more than 25 hours since there was synchronization of your Herd Management system and SenseHub™ | Synchronize your Herd Management System |
| Herd Management Synchronization Issues | This indicates one or more herd management issues; Duplicate Cow Cards, Duplicate Tags, too many cows culled | Check the data being sent by the Herd Management System |
| Local Backup Error | There is an issue preventing the creation of the local backup | Contact your dealer for technical support |
| Cloud Backup Error | There is an issue preventing the backup being copied to the cloud. This error will only show if the local internet connection is functioning. | Contact your dealer for technical support |

## 3.3 SenseHub™ Reports




Click on the Reports Icon, the reports menu appears.

The Reports menu is divided into different sections:

- Favorites – This area contains all the reports that are marked as your favorite.
- Custom Reports – This area contains reports created on the farm. See Report Generator for details.
- Reproduction – this area contains all the reports related to Reproduction:
  - Anestrus
  - Irregular Heats
  - Suspected for Abortion
  - Cows in Heat
- Health - this area contains all the reports related to Health:
  - Health
  - Animal Distress
  - Early Fresh Cows
  - Animals to Inspect
- Group – This area contains all the Group related reports.
  - Group Routine
  - Group Routine Heat Stress

Enter any report name, even a Custom Report, in the Search box to find that report.

**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

- Maintenance – This area contains all the Maintenance related reports.
    - Tag Maintenance.

  There are several different reports available in the SenseHub™ System. These reports should access on a daily, Weekly, or Monthly basis.

### 3.3.1 Adding a Report to Your Favorites

For easier access add a report to Your Favorites.

1. Click on the Reports Icon, the reports menu appears.
2. Click on the White Star next to the report that you wish to add to Your Favorites.

3. The star changes color from white to green, signifying that the report is added to Your Favorites.
4. Custom Reports can also be added to Favorites.

**NOTE**

**Up to 20 custom reports can be added to favorites.**

### 3.3.2 Removing a Report from your Favorites

Users may want to remove a report from Your Favorites.

1. Click on the Reports Icon, the reports menu appears.
2. Click on the Green Star next to the report that you wish to remove from Your Favorites.

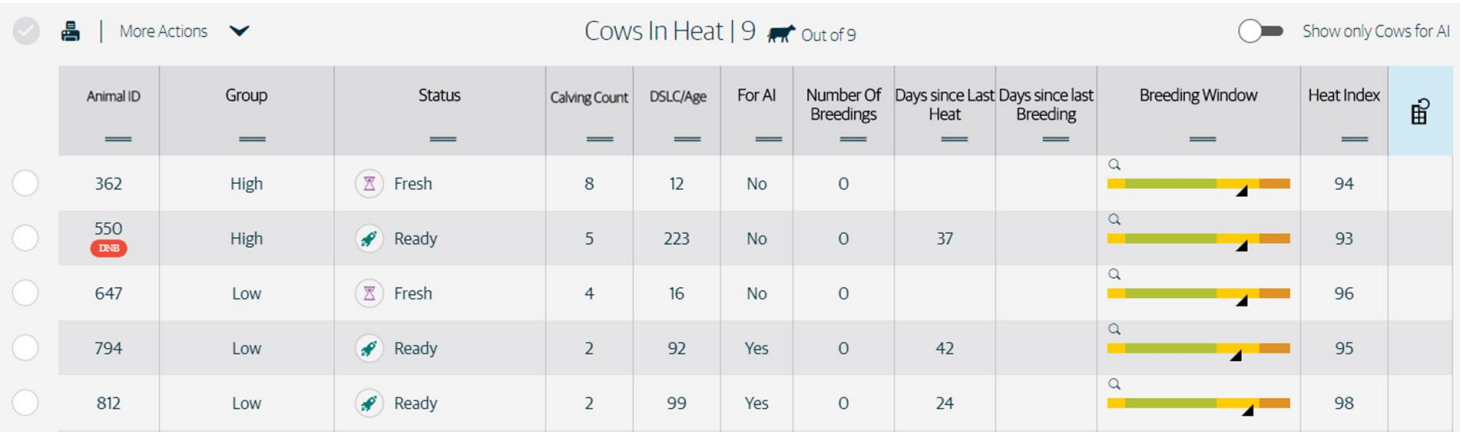
3. The star changes from Green to white, signifying that the report is removed from Your Favorites.

### 3.3.3 Core Functionality Reports

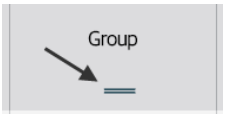
The Core Functionalities of SenseHub, Animals in Heat, Health, Young Stock Health, and Heat Mask by Group Activities reports are always available even if there is no internet access on the farm.

### 3.3.4 Sorting and Filtering Reports

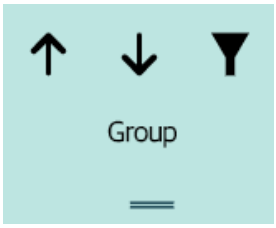
Reports in SenseHub can be Sorted and/or Filtered.



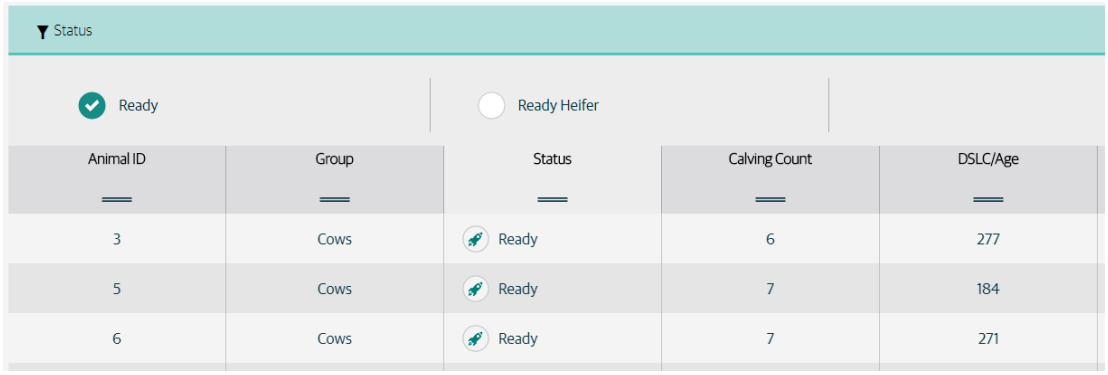

| Animal ID | Group | Status | Calving Count | DSLC/Age | For AI | Number Of Breedings | Days since Last Heat | Days since last Breeding | Breeding Window | Heat Index |
|---|---|---|---|---|---|---|---|---|---|---|
| 362 | High | Fresh | 8 | 12 | No | 0 | | | | 94 |
| 550 DNB | High | Ready | 5 | 223 | No | 0 | 37 | | | 93 |
| 647 | Low | Fresh | 4 | 16 | No | 0 | | | | 96 |
| 794 | Low | Ready | 2 | 92 | Yes | 0 | 42 | | | 95 |
| 812 | Low | Ready | 2 | 99 | Yes | 0 | 24 | | | 98 |

1. Click 

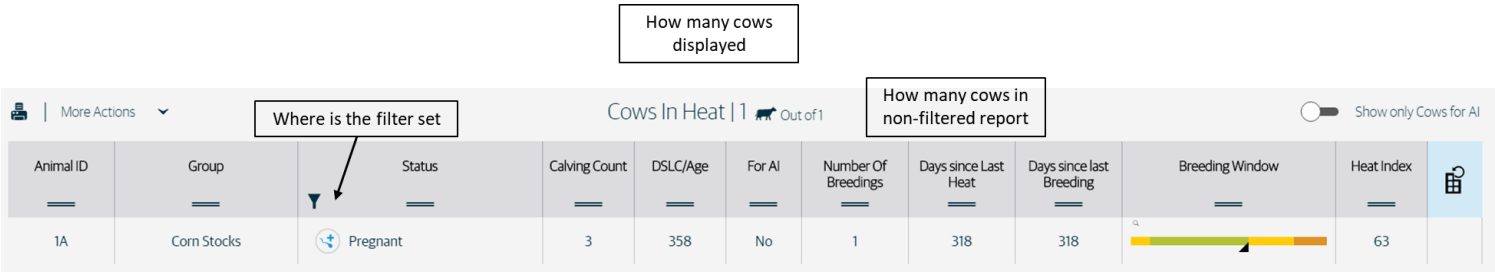
to open the Column Action Menu. The Column Action Menu appears.



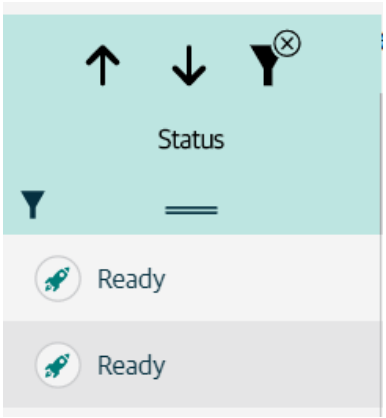

2. The Column Action Menu allows you to:
    a. Sort Ascending – Sort the report according to this column from lowest value to highest.
    b. Sort Descending – Sort the report according to this column from highest to lowest.
    c. Create a Filter – Create a filter from the items in this column that only displays the cows in the report according to the values chosen.




3. The report is now displayed according to the filter created.

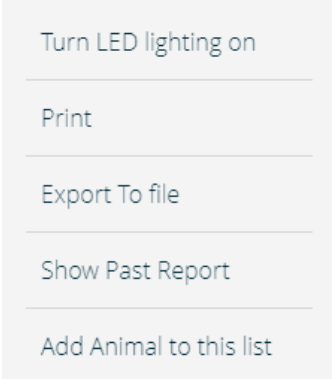



4. To cancel the filter, click on the Column Action Menu and click on the funnel with the X.



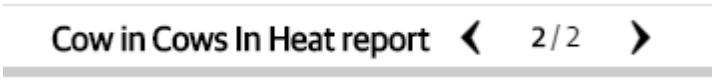
### 3.3.5 More Actions from Reports

There are several actions available from Reports. Click More Actions and the list of additional actions available for this report appears.



### 3.3.6 Navigating within Reports

Clicking on the Cow ID of any cow in any takes you to the related Graph of that cow in the cow card.



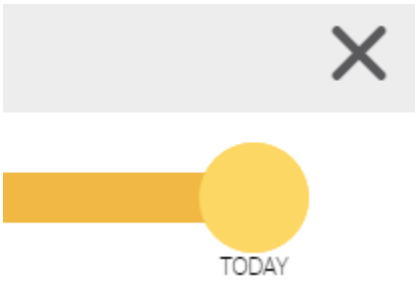

Once you have accessed the graphs related to the report you can browse through the graphs of only those cows that are in the report.

Press refresh to refresh the cows in the report.

**NOTE**

**Once a report is opened in SenseHub™ it will not be refreshed automatically. Reports are only refreshed when the refresh button is pressed or when the report is opened.**

Click on the to Exit the graph view of this report and return to the report.

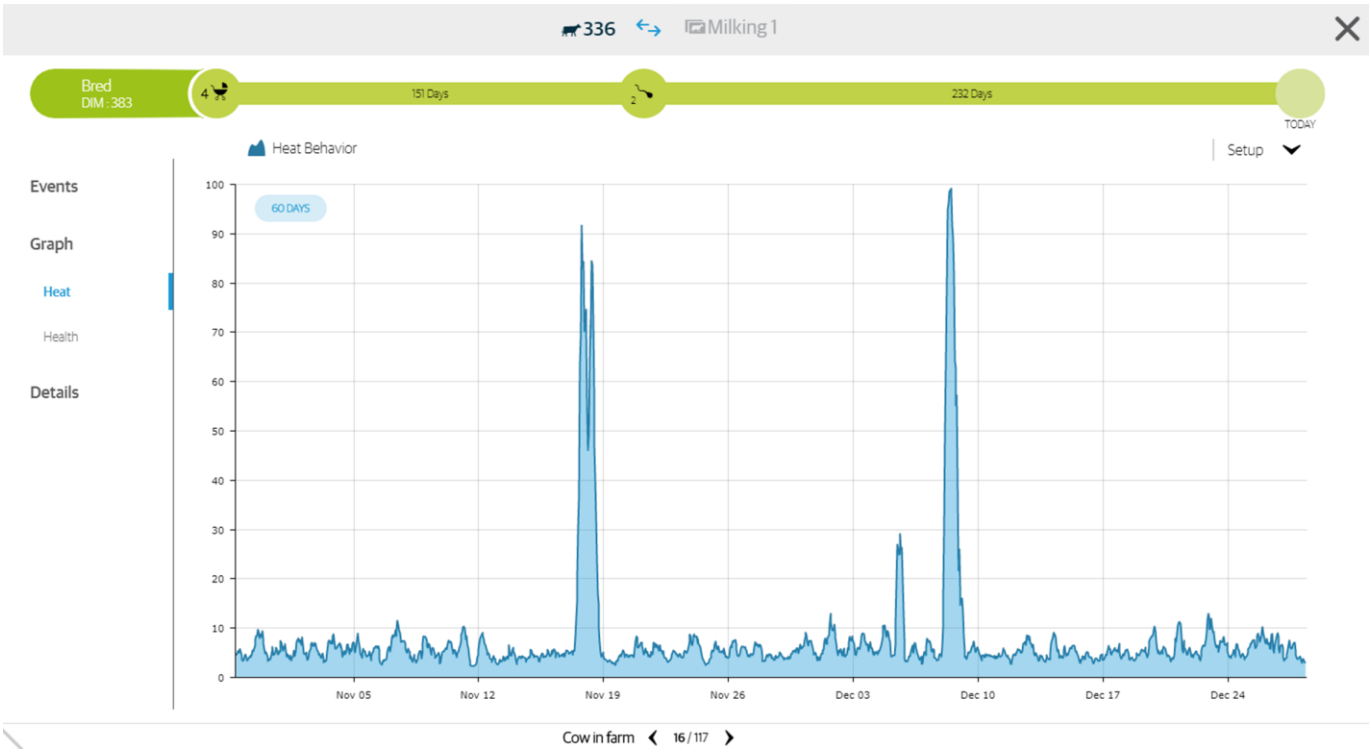



### 3.3.7 Batch Events from Reports

Batch events are available from reports. The event/s available depend on the report. For example, Breeding Events can be reported as a batch from the Animals in Heat Report.

## 3.4 SenseHub™ Graphs

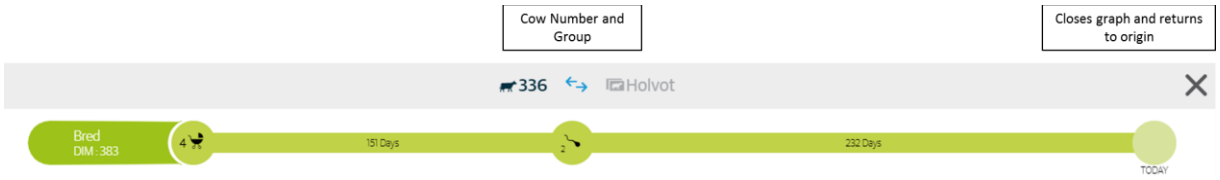
SenseHub™ Graphs display a great deal of information and have several available series and options.



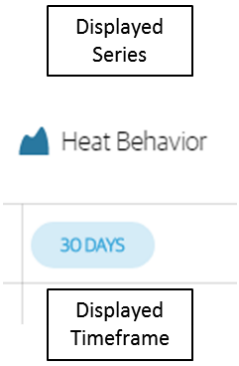

**NOTE**

**The available series and options are determined by the Application Plan enabled for the farm: Starter, Advanced, and Premium.**

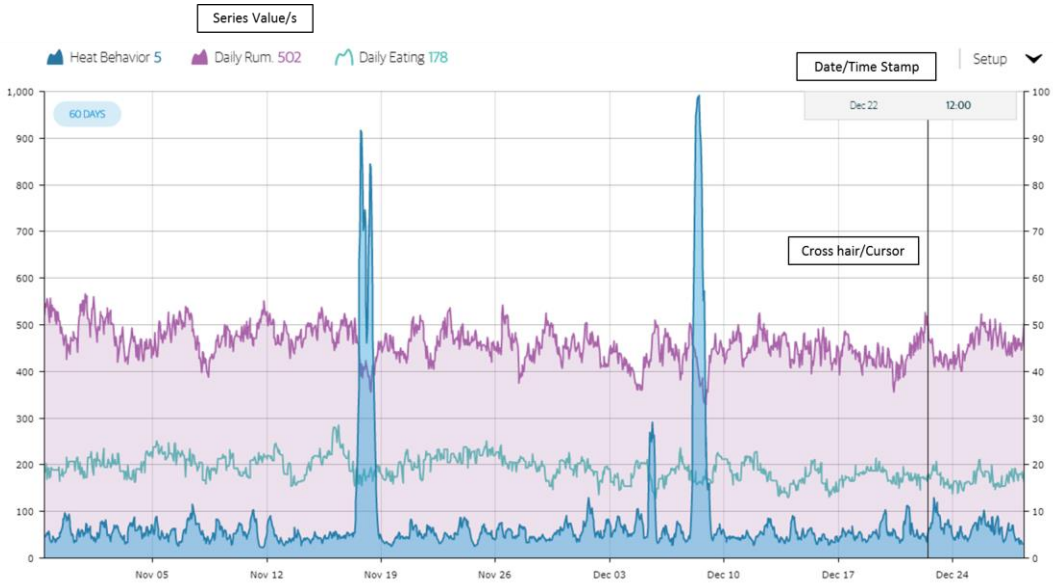
1. The top of the graph contains the current lactation timeline and other information about the cow



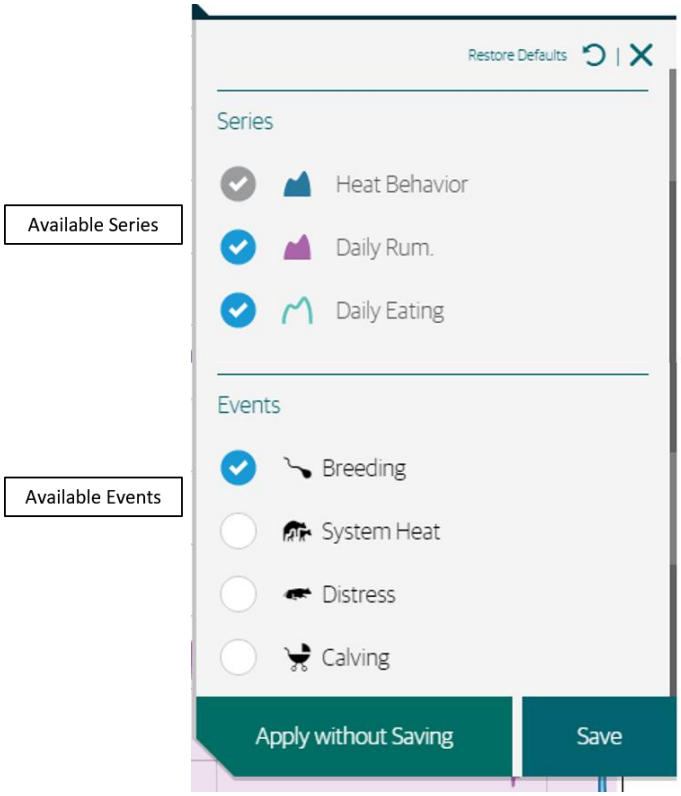
2. Displayed Series and the Timeframe. This portion of the graph informs usof the series that is displayed and the timeframe of the graph



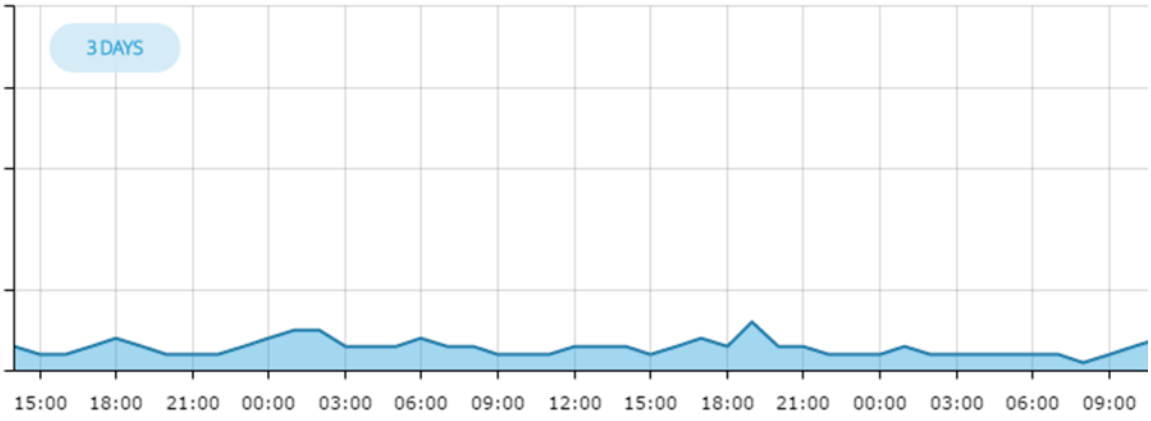

3. The cursor on graphs become a cross hair. Moving the cross hair displays the current Date/Time Stamp as well as the current value for the displayed series.



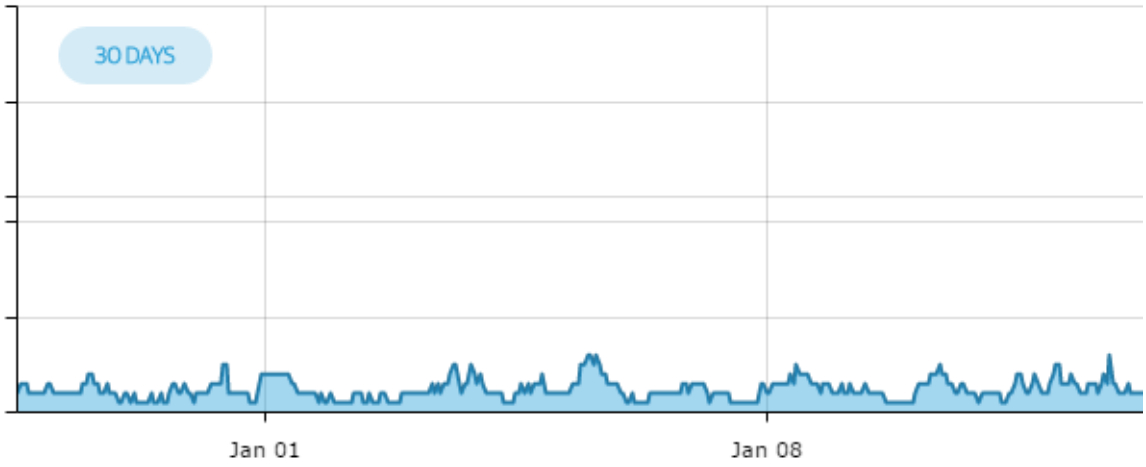
4. Clicking on Setup displays the options available for this graph.




5. Timeframe – The displayed ticks correspond always to the chosen Timeframe.



As the Timeframe increases so does the distance between each tick on the graph.




**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

## 3.5 Daily Tasks

These reports should be reviewed every day.

| Report | Description |
|---|---|
| Animals in Heat | This report displays the cows that are in heat including the cows that are ready for AI. |
| Reading the Health Report | This report displays the cows that have possible health issues. |
| Reading the Animal Distress Report | Identify cows in distress that need immediate attention. |
| Reading Animals to Inspect Report | This is a collection of cows from several different reports. |
| Reading the Daily Activity/Rumination Routine Graph | This graph displays the daily average of Rumination or Activity compared to the previous 2-week average. |
| Reading the Heat Stress Routine Graph | This graph displays the effect of Heat Stress on the various groups in the herd. |

**NOTE**

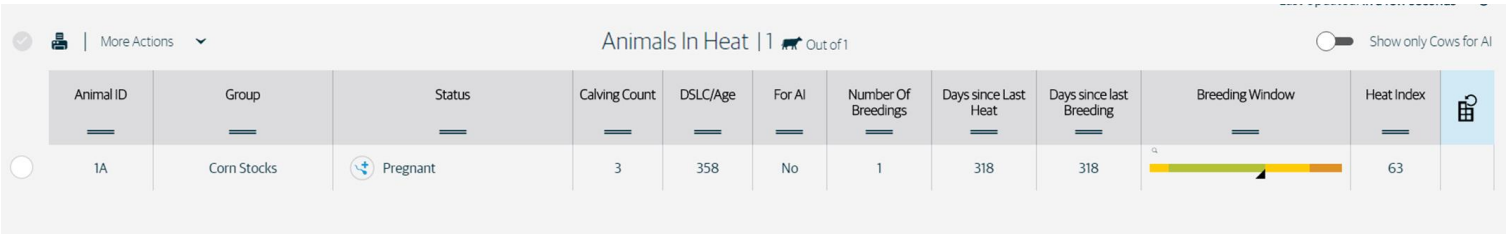
**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

### 3.5.1 Reading the Animals in Heat Report

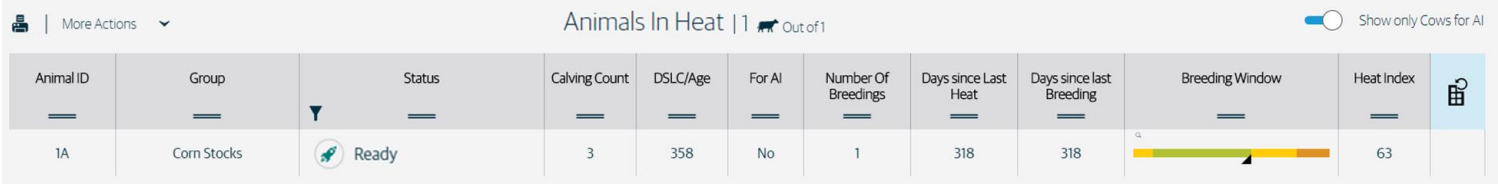
The Animals in Heat report displays all the cows in heat with a quick filter that shows just those cows that are ready to breed, the cows that have completed their voluntary waiting period.

1. Click on the Reports Menu Icon and the Browse Report drawer appears.

2. Click on Animals in Heat; the Animals in Heat Report appears.




3. Move the Slider to the right and only the Cows that are Ready for AI are displayed. Cows Ready for AI are those cows that have completed the configured Voluntary Waiting Period, are not pregnant, and of course are not tagged as Do Not Breed, DNB. See page 156 for details.

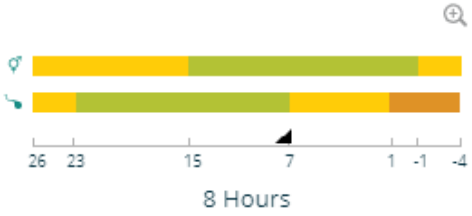


| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| DNB | Do not Breed. This is the designation for cows that the farmer no longer wants their offspring. |
| For AI | This cow is available for breeding. For example, cows that have not yet completed their Voluntary Waiting Period, described on page 156, will be designated here, No. |
| Number of Breedings | The number of time this cow has been bred during the current lactation |
| Days since Last Heat | The number of days since the last heat recorded for this cow in the current lactation |
| Days since Last Breeding | The number of days since the cow was last bred in the current lactation |
| Breeding Window | The Breeding Window, described on page 84, describes the optimum time for inseminating the cow. |
| Heat Index | This is a score that combines all the outputs from the tags, and the cow's heat history. This results in a score, Heat Index, that is equal to the strength of the current heat. |

#### 3.5.1.1 Breeding Window Explained

The Breeding Window is a graphic representation of the optimal time for inseminating the cow and the current position of the cow on this timeline.

If the option to use Sexed Semen is enabled, see page 158 for details, then two Breeding Windows are shown.

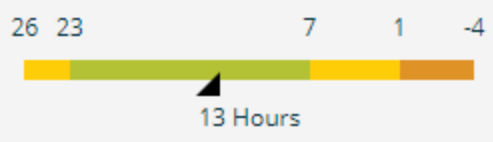



- The upper Breeding Window is for Sexed Semen.
- The lower Breeding Window is for regular semen.

This timeline is made up of 4 zones:

| Breeding Window Zone | Description |
|---|---|
| First Yellow Zone | 26-23 Hours. Breeding during this timeframe may result in lower conception rates. |
| Green Zone | 23-7 Hours. This is optimum Breeding Window. Breeding during this time may result in the highest conception rates. |
| Second Yellow Zone | 7-1 Hours. Breeding during this timeframe may result in lower conception rates. |
| Red Zone | 1-(-4) Hours. Breeding during this timeframe may result in the lowest conception rates. |

Occasionally you may see a cow in the Cows in Heat Report with a Breeding Window as above. This means that the Heat Index of the cow has not yet reached its highest value. Breeding cows like this may result in lower conception rates. Clicking on the magnifying glass explains the current position within the breeding window.




### 3.5.2 Reading the Health Report

Animals that have a drop in Rumination, Eating, and/or Activity will have a decrease in their Health Index and appear in the Health Report.

The Health Index value for entry into the Health Report is configured on page 156.

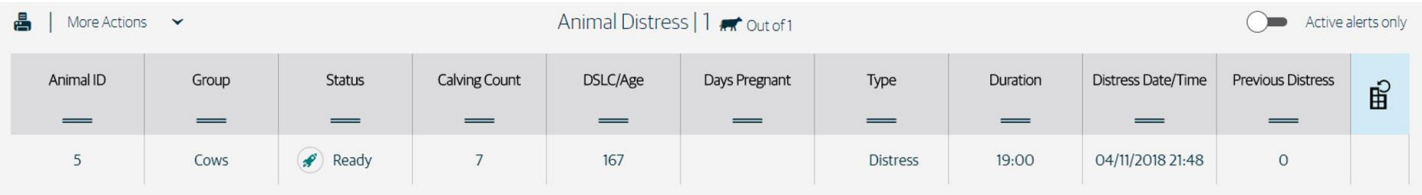
| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Health Index | The current Health Index for this cow. This filed is colored RED when the Health Index is below the value set for a Marked Health Issue as explained in section 6.3.1 on page 159. |

**NOTE**

**Identify and observe cows with a Red Colored Health Index immediately.**

### 3.5.3 Reading the Animal Distress Report

Animals appear in this report when they have not had sufficient rumination activity for an extended period, coupled with an absence of eating activity during that period. Cows around the time of calving that are in Pre and/or Post Calving Distress should be given special attention to help prevent metabolic and calving diseases.




By default only those cows in active distress appear in the report. Slide the quick filter to the left to see all cows that were in distress during the previous 24 hours.

| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Type | If the cow is detected to be in General Distress, Pre-calving Distress, or Post-Calving Distress<br>This field is colored RED when the cow is in active Pre or Post calving distress.<br>This filed is colored YELLOW when the cow is in active distress that is not associated with calving. |
| Duration | How long the cow was in Distress this time |
| Distress Date/Time | The time and date when the cow was labeled as in Distress. |

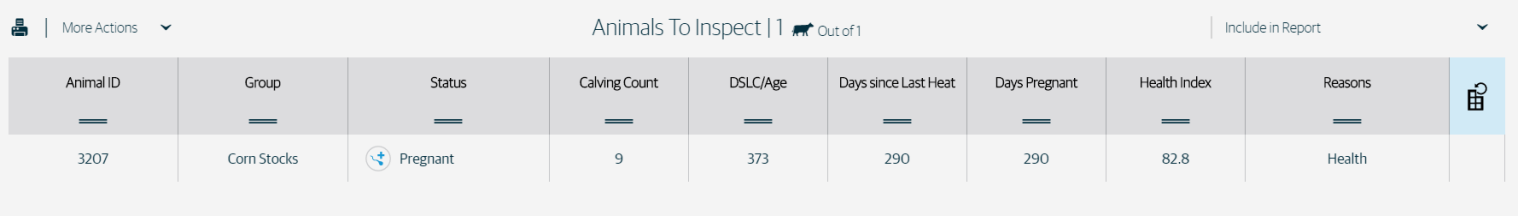
| Field | Description |
|---|---|
| Previous Distress | How many times around this calving event was this cow in distress. |

**NOTE**

**All cows that were in distress in the previous 24 hours appear in this report.**

### 3.5.4 Reading Animals to Inspect Report

The Animals to Inspect report is made up of animals that appear in other reports. The Health and Animal in Distress reports are included by default, other reports can be included as configured.



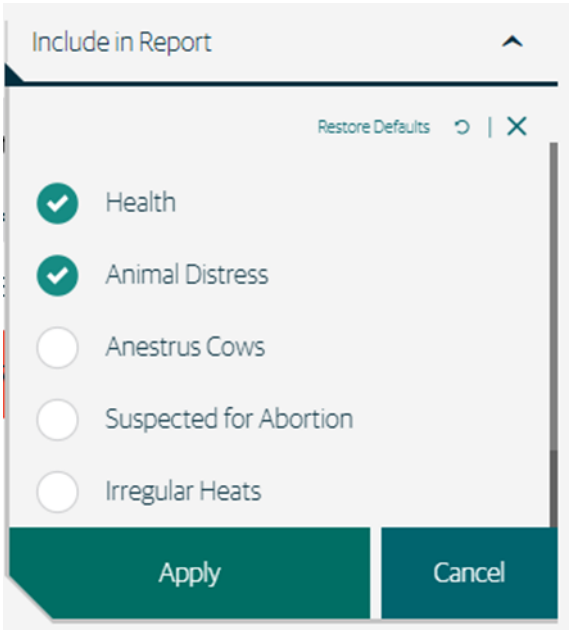

| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animals in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Days since last Heat | The number of days since the cow was last determined to be in heat. |
| Days Pregnant | When the cow has a recorded positive pregnancy check, the number of days since the effective breeding. |
| Health Index | The current Health Index of the cow |

| Field | Description |
|---|---|
| Reasons | The report/s where the cow is listed are the reason/s the cow appears in the Cows to Inspect Report. |

#### 3.5.4.1 Changing the Reports that appear in the Animals to Inspect Report

It is possible to see and edit the reports that are included in the Animals to Inspect Report; Click on Animals to Inspect in the Dashboard Widget and then Click on the Report Icon, the Animals to Inspect Report Appears.

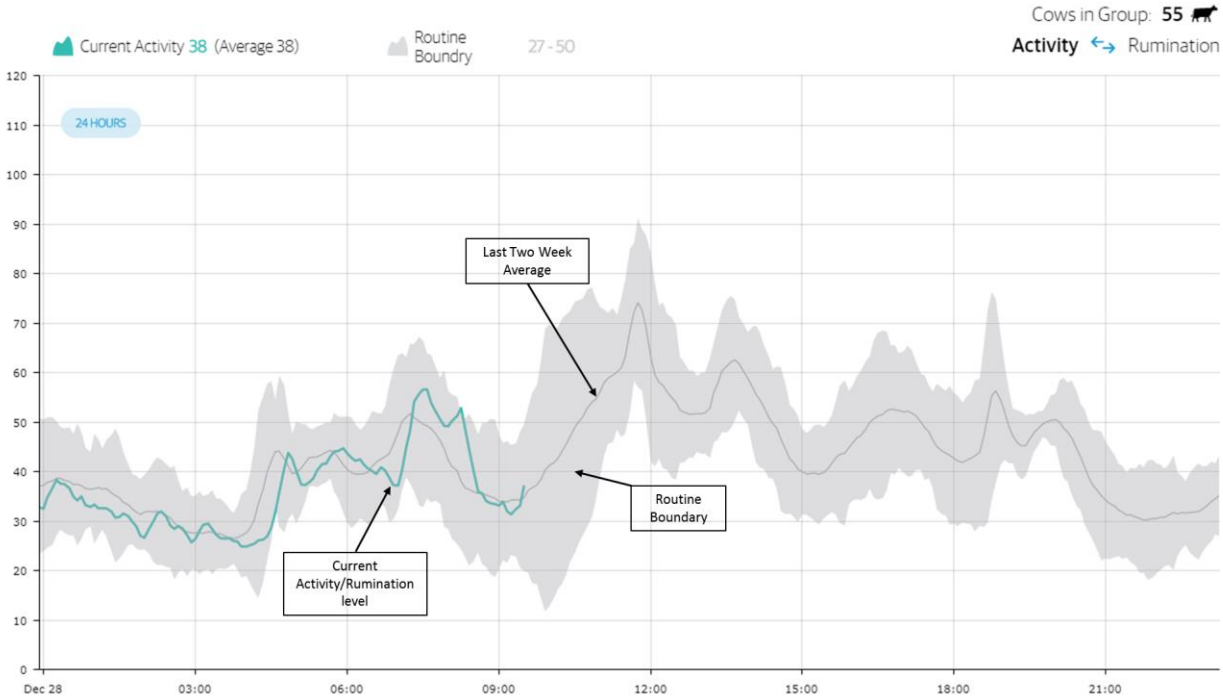
Click on the arrow next to Include in Report. The reports included in the Animals to Inspect Report are listed with a check mark next to their name.




Check or Uncheck reports as desired and click apply to save the desired configuration.

### 3.5.5 Reading the Daily Activity/Rumination Routine Graph

The Daily Activity/Rumination Routine graph displays the average activity or rumination from the past two weeks over the past 24 or 48 hours.

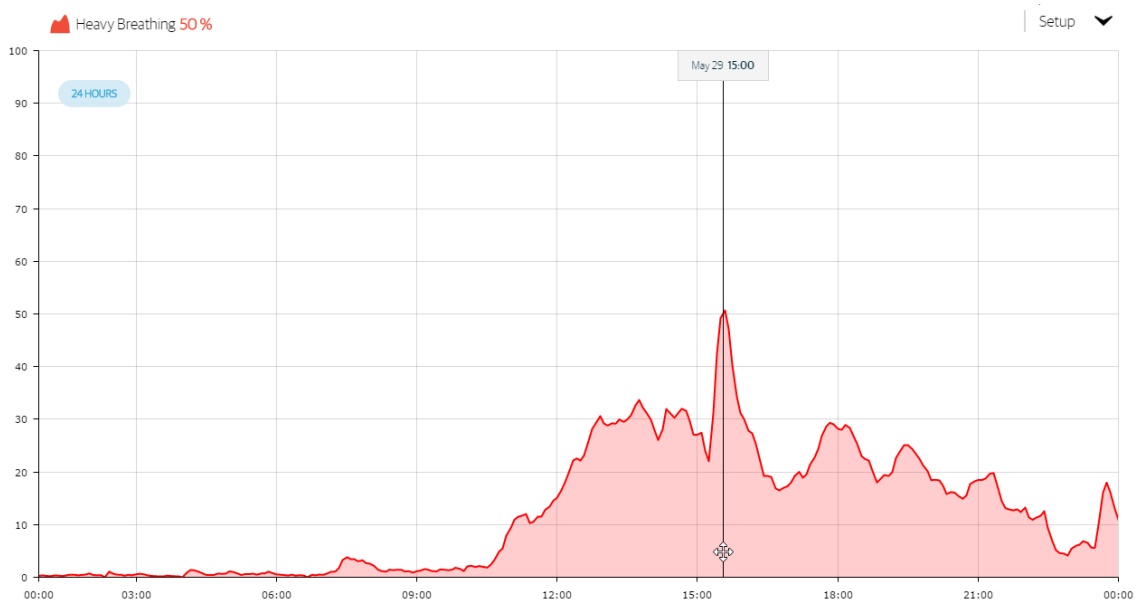



This graph clearly identifies when the current Activity or Rumination level ventures outside of the routine boundary.

This graph displays information only if there are at least 10 cows with tags in the group and these tags have been paired with the cows for at least 14 days. In addition to those two conditions, the farm must also be subscribed to the appropriate Application Plan.

### 3.5.6 Reading the Heat Stress Routine Graph

The Heat Stress Routine graph shows the amount of heavy breathing among the cows in the various groups in the herd. This graphs helps to understand when the heavy breathing occurs during the daily farm routine and if the policies set down on the farm for cooling and feeding are being effective.




This graph displays information only if there are at least 10 cows with tags in the specific group, and these tags have been paired with the cows for at least 24 hours. In addition to the above the farm must also be subscribed to the appropriate Application Plan.

## 3.6 Weekly Tasks

These SenseHub™ reports/graphs should be reviewed at least once a week.

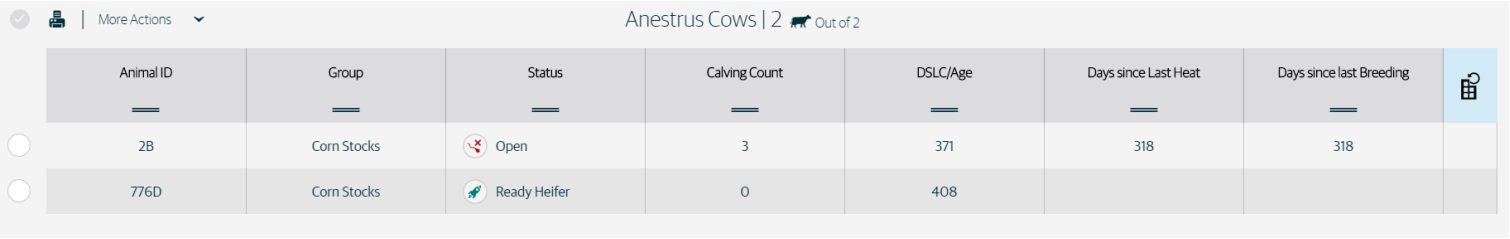
| Report | Description |
|---|---|
| Reading the Anestrus Cows Report | Cows that have not displayed a heat during the last 30 days. |
| Understanding the Expected Calving Graph and Report | Cows that are Bred and/or Checked Pregnant appear in this Graph and Report. |
| Reading the Irregular Heats Report | Cows with 3 or more heats during the last 30 days. |
| Reading the Suspected for Abortion Report | Cows that may have aborted or dropped their calf very early. |
| Understanding the Group Consistency Trend Graph | This graph displays the average daily rumination along with the total variability within the group. Higher variability might signal something that is stressing the group or the herd. |
| Understanding the Group Heat Stress Trend Graph | When the weather demands, this report should be accessed more often. |
| Reading the Tag Maintenance Report | Check weekly to make sure there are no outstanding issues with the tags. |

**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

### 3.6.1 Reading the Anestrus Cows Report

The Anestrus Cows Report displays any cow that has completed the configured Voluntary Waiting Period, VMP, and has not been detected in heat for the last 30 days; the cow must also have the tag for at least 30 days.




| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Days since last Heat | The number of days since the cow was last determined to be in heat. |
| Days Since Last Breeding | The number of days since the cow was last inseminated. |

### 3.6.2 Understanding the Expected Calving Graph and Report

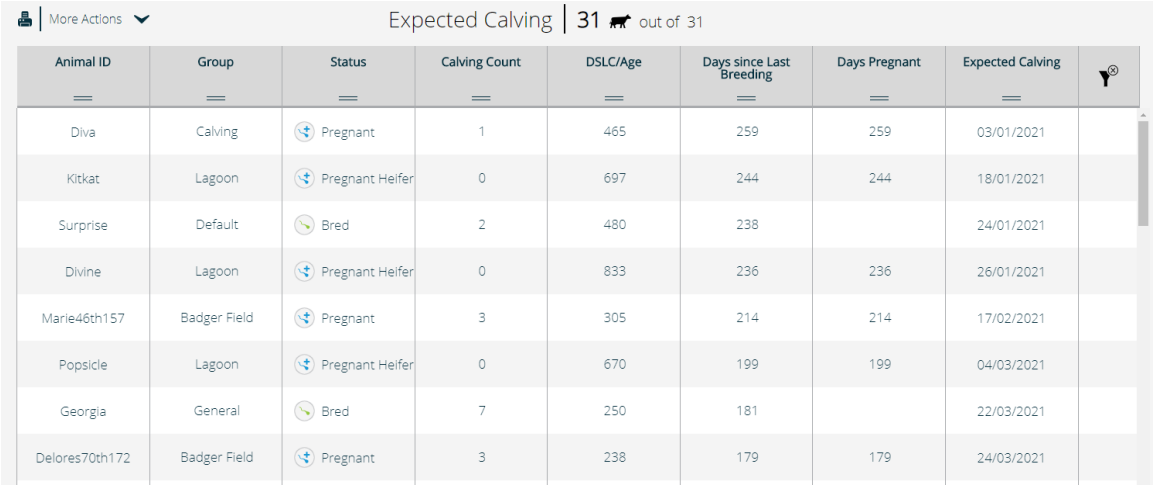
The Expected Calving graph and report display the current month and 9 additional months of expected Calvings on the farm. These can help you plan for the number of Calvings and give you an idea of what is expected in terms of farm production for the coming months.

The graph can be configured as a widget and added to the dashboard. See Dashboard Configuration on page 61 for instructions on how to add this to the dashboard.

Only Bred and Checked Pregnant animals appear in this graph. Bred Cows or Heifers and Checked Pregnant Cows or Heifers.

### *3.6.2.1 Expected Calving Report*

The Expected Calving Report provided more details for the Expected Calving Graph. The Expected Calving Date appears in Red when this day has passed. Cows that are more than 30 days past their expected calving date no longer appear in this report.



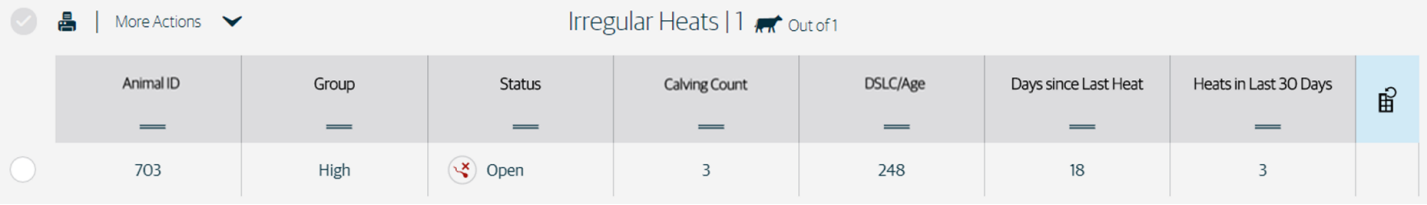

| Animal ID | Group | Status | Calving Count | DSLC/Age | Days since Last Breeding | Days Pregnant | Expected Calving |
|---|---|---|---|---|---|---|---|
| Diva | Calving | Pregnant | 1 | 465 | 259 | 259 | 03/01/2021 |
| Kitkat | Lagoon | Pregnant Heifer | 0 | 697 | 244 | 244 | 18/01/2021 |
| Surprise | Default | Bred | 2 | 480 | 238 | | 24/01/2021 |
| Divine | Lagoon | Pregnant Heifer | 0 | 833 | 236 | 236 | 26/01/2021 |
| Marie46th157 | Badger Field | Pregnant | 3 | 305 | 214 | 214 | 17/02/2021 |
| Popsicle | Lagoon | Pregnant Heifer | 0 | 670 | 199 | 199 | 04/03/2021 |
| Georgia | General | Bred | 7 | 250 | 181 | | 22/03/2021 |
| Delores70th172 | Badger Field | Pregnant | 3 | 238 | 179 | 179 | 24/03/2021 |

| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Days Since Last Breeding | The number of days since the cow was last inseminated. |
| Days Pregnant | The number of days since the effective breeding. This only appears for animals that have been checked pregnant. |

| Field | Description |
|---|---|
| Expected Calving | The date since the last breeding + the Pregnancy length configured for the farm/system. |

### 3.6.3 Reading the Irregular Heats Report

The Cows with Irregular Heat Report displays any cows that have three or more heats in the past 30 days.




| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Days since last Heat | The number of days since the cow was last determined to be in heat. |
| Heats in Last 30 Days | The number of times the cow has been recorded in Heat during the past 30 days. |

### 3.6.4 Reading the Pregnancy Probability Report

The Pregnancy Probability Report shows cows with their Pregnancy Probability Ranking. Cows appear in the report from 27 days after last breeding and until a pregnancy check result, positive or negative, is entered for them.

| Animal ID | Group | Status | Lactation | DIM/Age | Days since Last Breeding | Pregnancy Probability |
|---|---|---|---|---|---|---|
| 223 | Gr. 3 | Bred Heifer | 0 | 755 | 262 | Medium |
| 507 | Gr. 5 | Bred Heifer | 0 | 743 | 248 | High |
| 732 | Gr. 3 | Bred Heifer | 0 | 731 | 245 | High |
| 366 | Gr. 3 | Bred | 2 | 350 | 244 | High |
| 542 | Gr. 5 | Bred Heifer | 0 | 694 | 223 | High |
| 729 | Gr. 3 | Bred Heifer | 0 | 728 | 203 | High |
| 411 | Gr. 3 | Bred | 2 | 96 | 37 | Low |
| 165 | Gr. 3 | Bred | 3 | 141 | 37 | Medium |
| 386 | Gr. 3 | Bred | 2 | 111 | 35 | Medium |
| 693 | Gr. 2 | Bred | 1 | 89 | 34 | Medium |

| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Lactation | The number of times the cow has given birth or calved |
| DIM/Age | The number of days since the cow has last given birth, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Days since Last Breeding | The number of days since the cow was last bred. |
| Pregnancy Probability | The probability the cow is pregnant measured in 4 ranks: NP – Not Pregnant, Low = Maybe Pregnant, Med – Probably Pregnant, High = High Probability of Pregnancy. |

**NOTE**

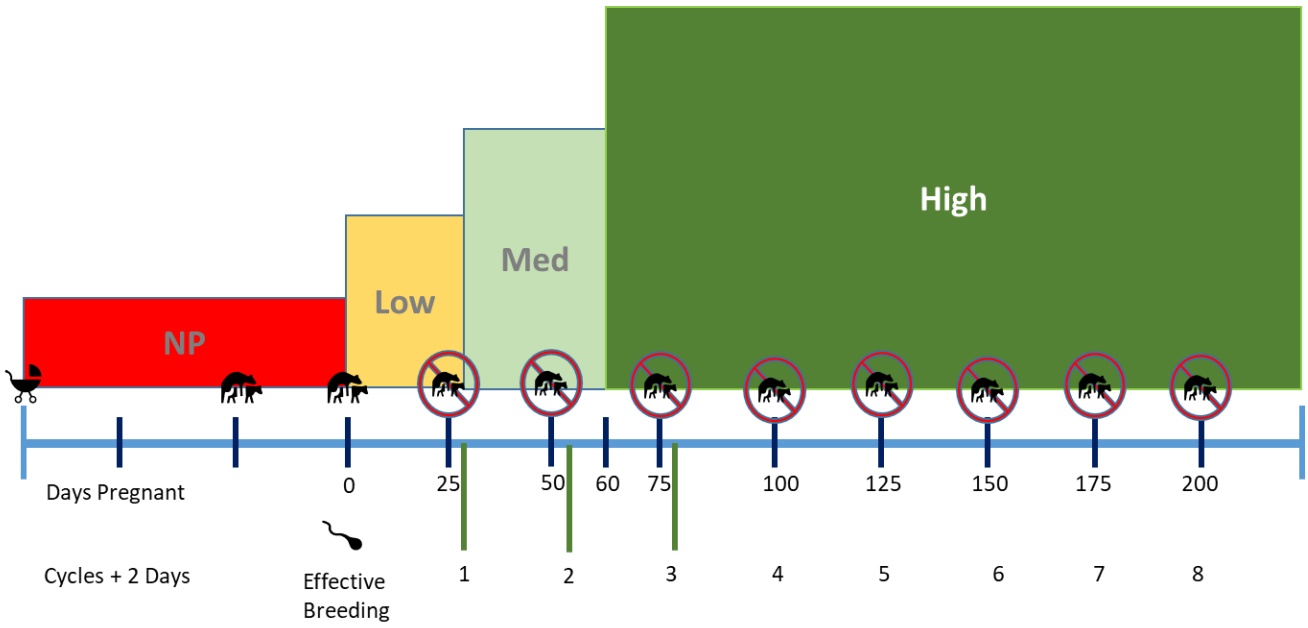
**The Pregnancy Probability calculation and rankings are described on page 99.**

#### 3.6.4.1 Pregnancy Probability Explained

The Pregnancy Probability calculation used in the Pregnancy Probability Report allows farmers to better chose the cows for pregnancy testing. By focusing on the cows that need to be tested allows for better control of the open/empty days in the herd and reduces labor.

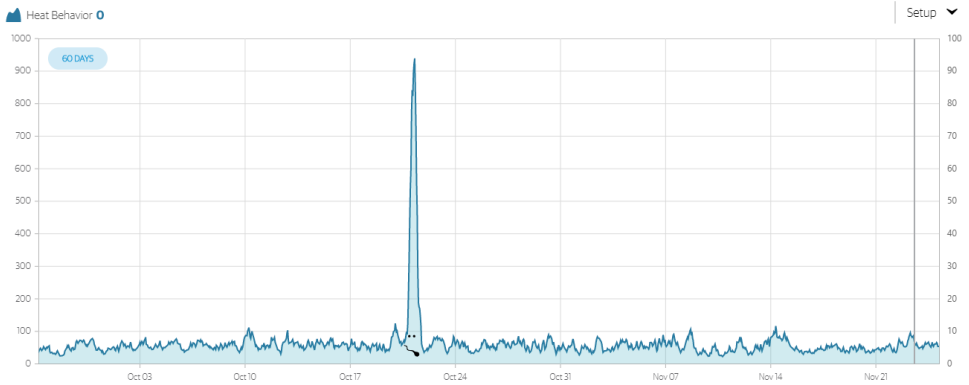
The Pregnancy Probability calculation gives the best results when all events occurring in the lactation are entered into the system correctly and in a timely manner. Data continuity is also important not just in terms of system coverage, but also in terms of keeping tags on the cows continuously, from calving to calving.

| Pregnancy Probability Ranking | Explanation |
|---|---|
| NP-Not Pregnant | Cows are not pregnant after: Calving, No Insemination, Negative Pregnancy Check, Abortion, more than 300 days since last breeding. This Pregnancy Probability rank does not appear in the report. |
| Low-Maybe Pregnant | From Breeding until one missed 25 Days Cycle + 2 days. Normally this Pregnancy Probability rank does not appear in the report unless there are cows that are more than 27 days since last breeding and have experienced a system heat. |
| Medium – Probably Pregnant | From after the first missed cycle + 2 days until 60 days. Cows that are more than 60 days since breeding but have recently experienced a system heat will have this Pregnancy Probability rank. |
| High – High Probability of Pregnancy | From 60 days after last breeding. |

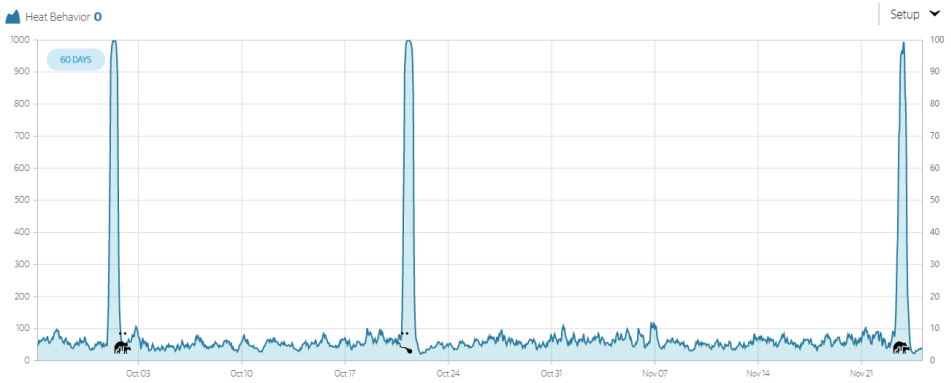


When we take a closer look at the report above there are two cows, 411 and 165, isolated above, with the same number of days since last breeding, but their Pregnancy Probability Ranks are different, one is Low and the other is Med, why?

Heat Graph for Cow 165




Heat Graph for Cow 411




Examining the Heat Graphs for each cow helps explain why these cows have a different Pregnancy Probability Ranking. Cow 165 is 37 days since the last breeding and has no signs of estrus or heat activity. According to the calculation she has a Medium Pregnancy Probability Rank.

Cow 411 recently experienced heat. According to the calculations this takes her Pregnancy Probability down one level to Low.

The day after the Pregnancy Probability report, when these cows were Pregnancy Checked and the results entered, Cow 165 was found to be pregnant, and Cow 411 was found to be not pregnant.

| Date | Name | DIM/Age |
|---|---|---|
| 11/26/2019 12:59 AM | Negative | 96 |

| Date | Name | DIM/Age |
|---|---|---|
| 11/26/2019 12:59 AM | Positive | 141 |

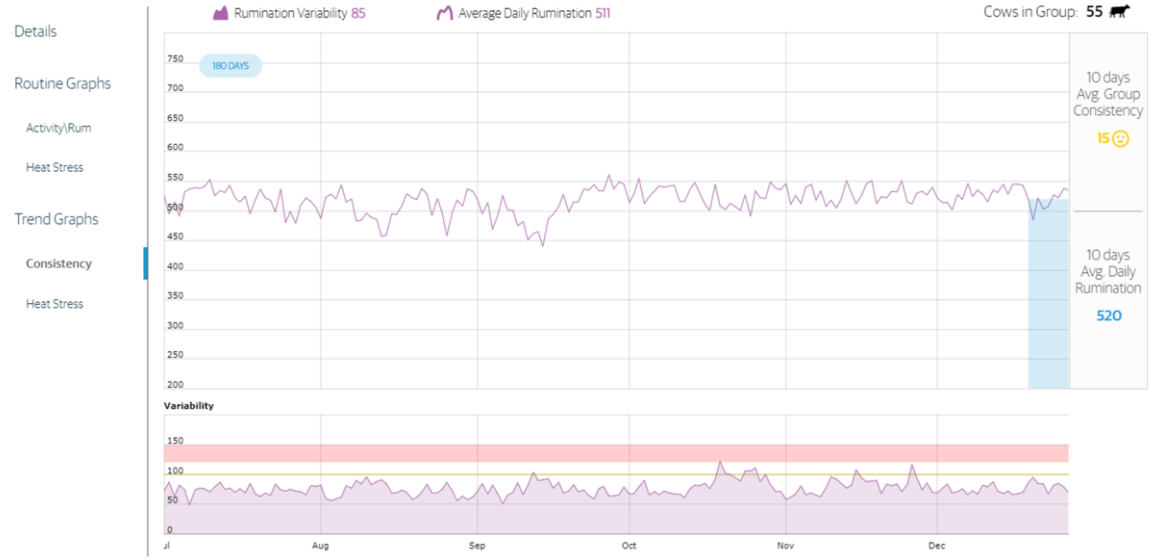
### 3.6.5 Reading the Suspected for Abortion Report

The suspect for Abortion Report displays cows that may have aborted. This report is dependent on entering breedings and Positive Pregnancy Checks in SenseHub™. Cows remain in this report for 30 days after the “Abortion” heat.

| Field | Description |
|---|---|
| Animal ID | The Identification number assigned to the animal in SenseHub™ |
| Group | The group where the animal is assigned |
| Status | The status of the animal. Statuses are explained on page 40. |
| Calving Count | The number of times the cow has given birth or calved |
| DSLC/Age | The number of days since the cow has last calved, or if she is a Heifer/Calf, the number of days old the Heifer/Calf is. |
| Last Heat Index | The last Heat Index for the most recent heat for this cow. |
| Days since last Heat | The number of days since the cow was last determined to be in heat. |
| Days Pregnant | When the cow has a recorded positive pregnancy check, the number of days since the effective breeding. |
| Pregnancy Probability | The probability that the cow is no longer pregnant.<br>NP = Not Pregnant<br>?NP =Possibly Not Pregnant |

### 3.6.6 Understanding the Group Consistency Trend Graph

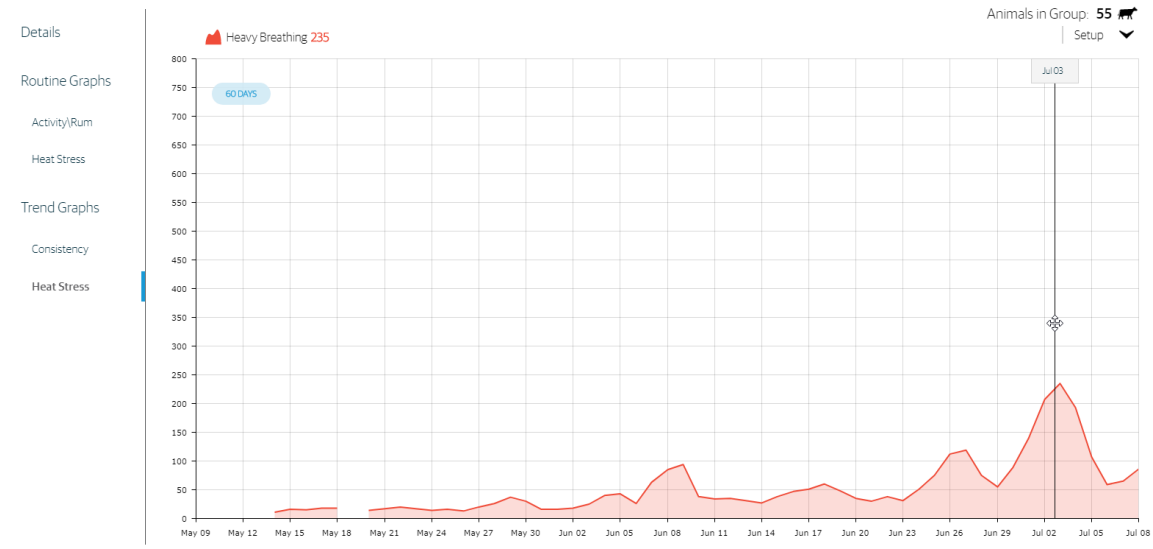
This graph displays the average daily rumination for the group in minutes along with the total variability of that average within the group. Variability within the group might signal something that is stressing the group or the herd.




This graph displays information only if there are at least 10 cows with tags in the group and these tags have been paired with the cows for at least 7 days. In addition to the above the farm must also be subscribed to the appropriate Application Plan.

### 3.6.7 Understanding the Group Heat Stress Trend Graph

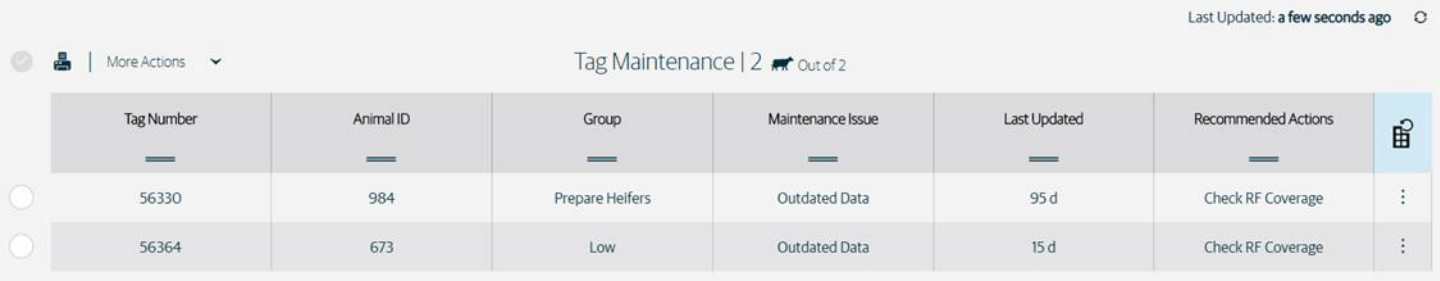
This graph shows the effect of Heat Stress on the herd over time. This graph shows the effect of heat stress over a much larger horizon than the Daily Heat Stress Routine graph.




This graph displays information only if there are at least 10 cows with tags in the group and these tags have been paired with the cows for at least 1 day. In addition to the above the farm must also be subscribed to the appropriate Application Plan.

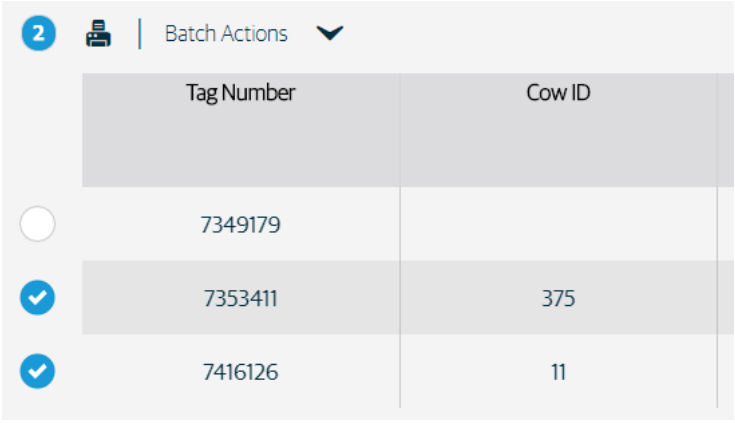
### 3.6.8 Reading the Tag Maintenance Report

This report contains all the identified Tag Issues and how to resolve these issues.




| Field | Description |
|---|---|
| Tag Number | The number of the SCR Tag. |
| Cow ID | The Identification number assigned to the cow in SenseHub™. |
| Group | The group where the cow is assigned. |
| Maintenance Issue | The identified issue with the tag. |
| Last Updated | The last time the tag was seen by the system if there is such a record. |
| Recommended Actions | Perform this recommended action to resolve this issue. |

Click the checkboxes on the left side to select records to create a printed list to take with to the barn or strings to find the cow and/or tag.



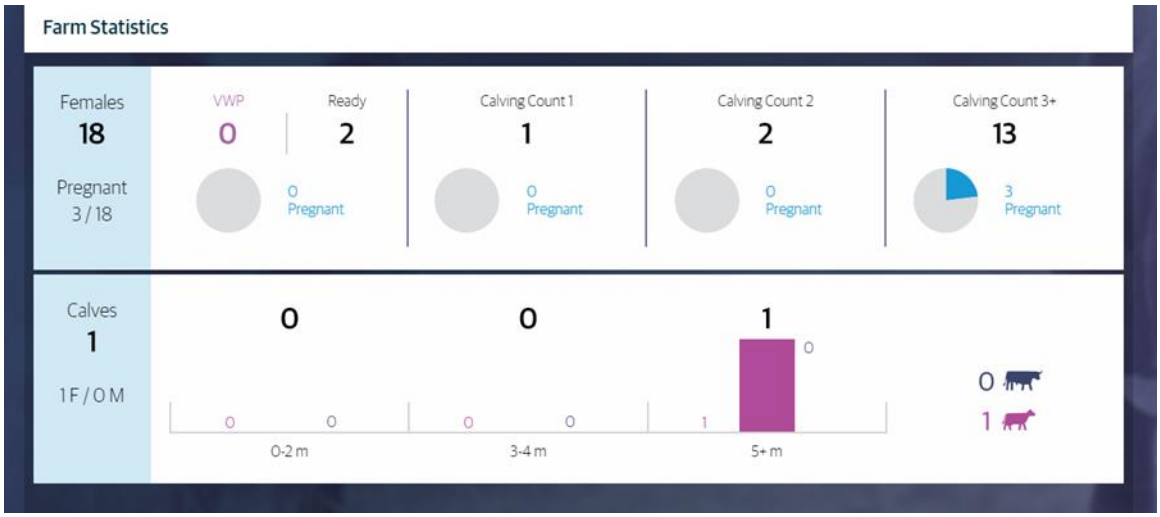
## 3.7 Monthly Tasks

These SenseHub™ reports/graphs should be reviewed at least once a week.

| Report | Description |
|---|---|
| Understanding the Farm Statistics | Review the relationships between the number of the different types and ages of cows on the farm. |
| Checking Group Membership | Review the cows to ensure that they are registered in the correct groups. |

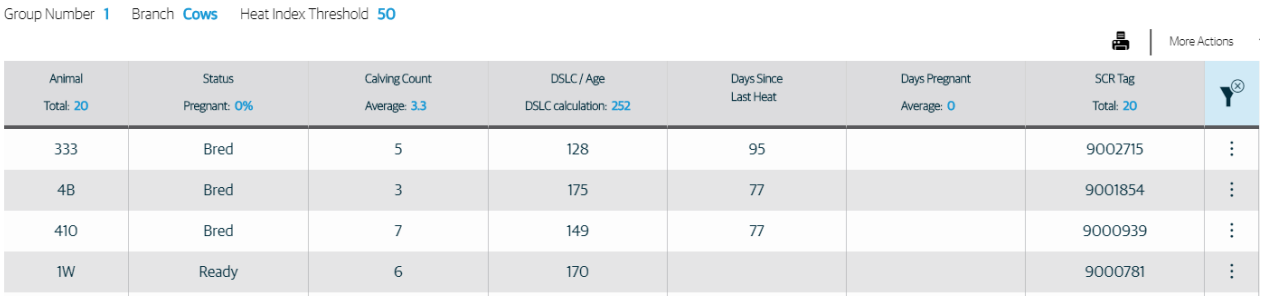
### 3.7.1 Understanding the Farm Statistics

The Farm Statistics Widget on the SenseHub™ Dashboard gives at-a-glance important information about the herd. It is important to check this each month, more often if required, to make sure that your herd is currently “configured” to meet its economic potential as well as your business needs.



### 3.7.2 Checking Group Membership

Review the list of cows in each of the groups. This will ensure that all the cows are registered where they are and will also allow to review other important information about the herd.



Group Number 1 Branch Cows Heat Index Threshold 50

More Actions

| Animal<br>Total: 20 | Status<br>Pregnant: 0% | Calving Count<br>Average: 3.3 | DSLC / Age<br>DSLC calculation: 252 | Days Since Last Heat | Days Pregnant<br>Average: 0 | SCR Tag<br>Total: 20 | |
|---|---|---|---|---|---|---|---|
| 333 | Bred | 5 | 128 | 95 | | 9002715 | ⋮ |
| 4B | Bred | 3 | 175 | 77 | | 9001854 | ⋮ |
| 410 | Bred | 7 | 149 | 77 | | 9000939 | ⋮ |
| 1W | Ready | 6 | 170 | | | 9000781 | ⋮ |

| Field | Description |
|---|---|
| Animal / Total | What is the total number of Animals in this group. |
| Status / Pregnant | The status of the cows and what percentage of the cows are pregnant in the group. |
| Calving Count / Average | Calving Count and what is the average Calving Count for the group. |
| DSLC/Age<br>DSLC Calculation | Days since Last Calving or Age and what is the average of the DSLC for the cows in the group. |
| Days since Last Heat | The number of days since the cow was in heat. |
| Days Pregnant / Average | The number of days the cow is pregnant and the average number of days pregnant for the pregnant cows in the group. |
| SCR Tag / Total | The total number of SCR tags on the cows in the group. |

## 3.8 Recurring Tasks

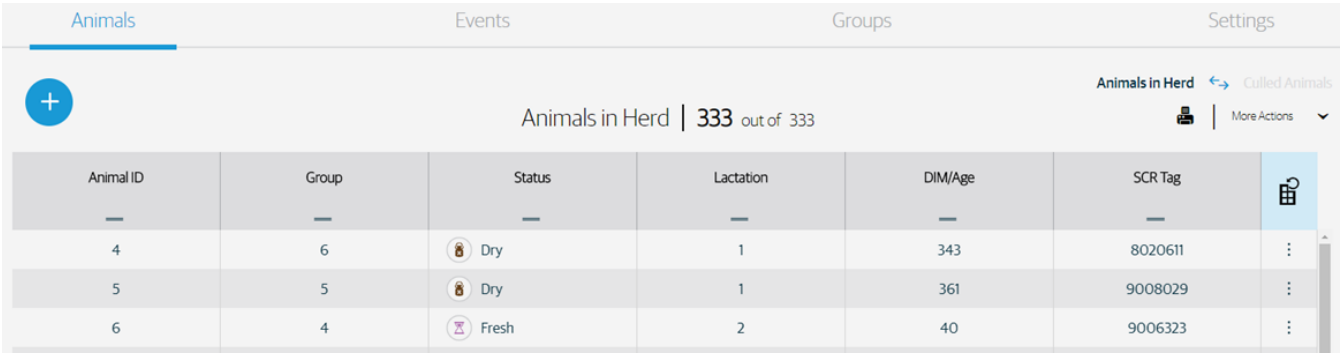
There are a few tasks associated with the SenseHub™ System that may happen at any time.

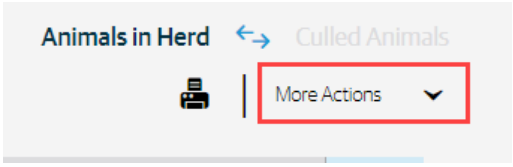
| Report | Description |
|---|---|
| Adding Animals from File | Adding additional animals to SenseHub using a CSV File |
| Reading the Connectivity Issues Report | The Connectivity Issues Reports displays connectivity issues recorded for the previous 60 days |
| Unpairing Tags | How to unpair SCR Tags from the cow |
| Changing Tags | How to change the paired SCR tag |

### 3.8.1 Adding Animals from File

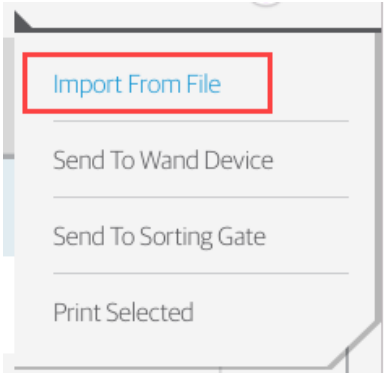
From time-to-time farmers add animals to their herd from the outside, new animals that were not born on the farm. Farmers can choose to add animals using the interface. Some users may find it easier to add new animals using a CSV File.

1. From the Dashboard go to Farm → Animals.

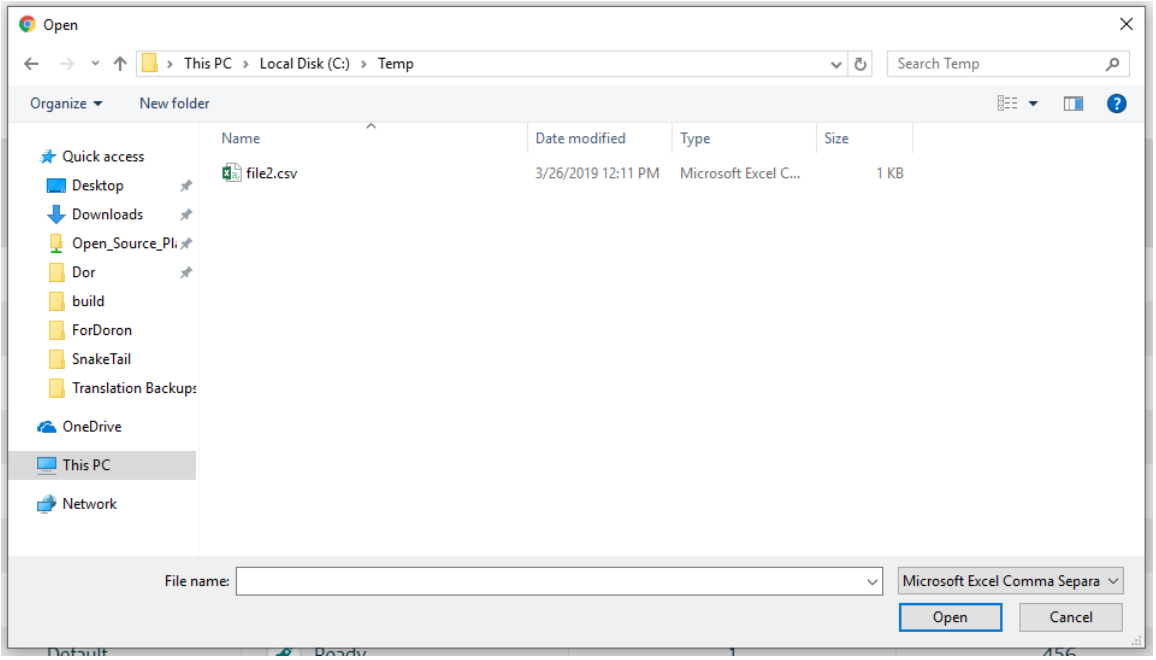



2. Click on More Actions; 

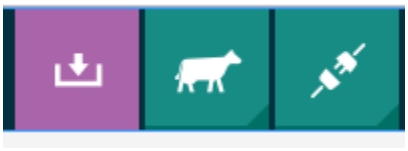
the More Actions menu appears.
3. Choose Import from File from the menu.



4. Browse to the location on your PC where you created and saved the CSV file with the new animals.

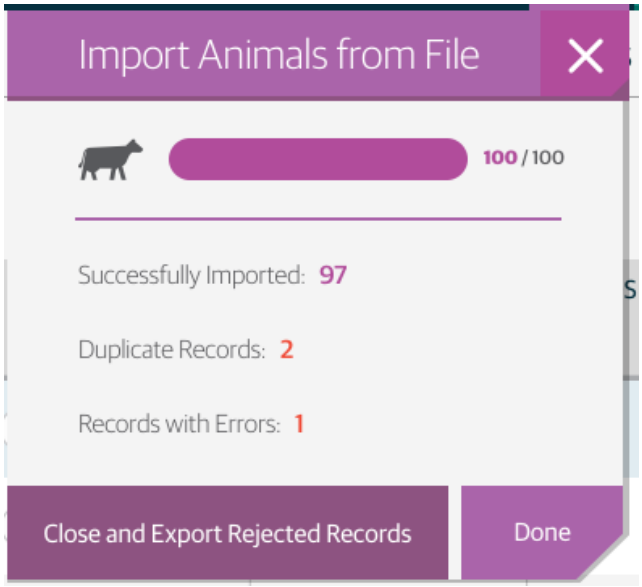



5. A New Icon appear on the top notification bar.



6. Click the purple icon to see the progress of the CSV file import.

7. When complete the Progress tag opens.




If there are no errors, Click Done. If there are errors, you can choose to export these rejected records for editing and loading again later.

#### *3.8.1.1 CSV File Format*

This CSV format is different that the format used when migrating animals from Heatime HR system to SenseHub.

Only three of these columns are required:

- Sex
- Animal ID
- Current Group Number.

The other columns are not required, but cows uploaded without a Birth Date and/or Calving Date may not be accepted by SenseHub.

| Column | Name in CSV File | Value Type | Required |
|---|---|---|---|
| Sex | Sex | M/F (String) | Yes |
| Animal ID | ID | String | Yes |
| Current Lactation Number | Lactation Number | Number | |
| Current Group Number | Current Group | Number | Yes |
| Registration Number | Registration Number | String | |
| Birth Date | Birth Date | DD/MM/YYYY | |
| Last Calving Date | Calving Date | DD/MM/YYYY | |
| Last Insemination Date | Insemination Date | DD/MM/YYYY | |
| Last Insemination Number | Insemination Number | Number | |
| Last Pregnancy Check Date | Pregnancy Check Date | DD/MM/YYYY | |
| Last Pregnancy Check Result | Pregnancy Check Result | +/-/? (String) | |
| Last Dry-off Date | Dry-off Date | DD/MM/YYYY | |
| EID Tag Number | EID Tag Number | String | |

| SCR Tag Number | SCR Tag Number | Number | |
|---|---|---|---|

The values from Name in CSV File must appear in the first line of the CSV file

| A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sex | ID | Lactation Number | Current Group | Registration Number | Birth Date | Calving Date | Insemination Date | Insemination Number | Pregnancy Check Date | Pregnancy Check Result | Dry-off Date | EID Tag Number | SCR Tag Number |

These items can appear in any order, in any CSV File, but must be consistent throughout the CSV File

Explanation:

- Number – Integer equal or greater than 0
- Date – always in DD/MM/YYYY Format
- Pregnancy Check Result – Only the characters, + - ? are accepted
- Columns headers must be written as in the above table, or they will not be processed into SenseHub, and each animal may be rejected.

**NOTE**

**Lactation Number in the CSV File equals Calving Count in SenseHub Beef.**

### 3.8.2 Reading the Connectivity Issues Report

The Connectivity Issues Reports displays connectivity issues recorded for the previous 60 days.

| Field | Description |
|---|---|
| Issue Time | The time of the Connectivity Issue |
| Device | The device where the issue occurred, System, Mobile, or Desktop. |
| Performed By | The Email of the User that performed the action that had the issue. If a – is displayed, then the action was performed by the system. |
| Issue Type | The different types of issues: System Actions, Failed User Actions from Web and/or Mobile, Run a Custom Report, Create a Custom Report, Copy or Edit a Custom Report, Create or Delete a Folder for Custom Reports, Rename a Custom Report, Delete a Custom Report, Move a Custom Report. |

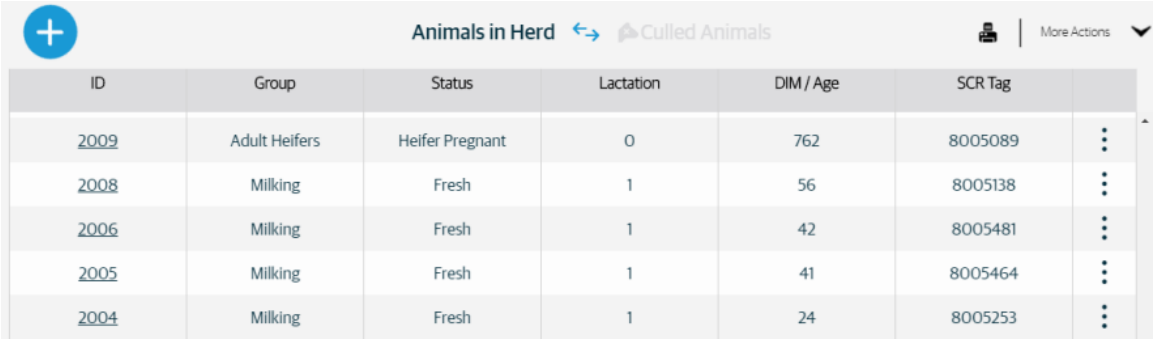
**NOTE**

**The manual describes all possible reports and graphs. The reports and graphs available on the farm depend on the Application Plan enabled on the farm.**

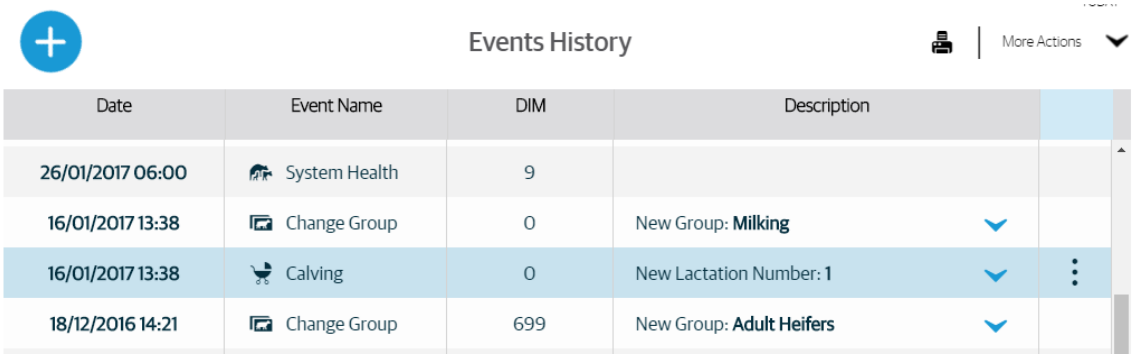
### 3.8.3 Unpairing Tags

Occasionally you may need to “unpair” or remove a monitoring Tag from a cow. These instructions explain how to remove an SCR Tag from a cow.

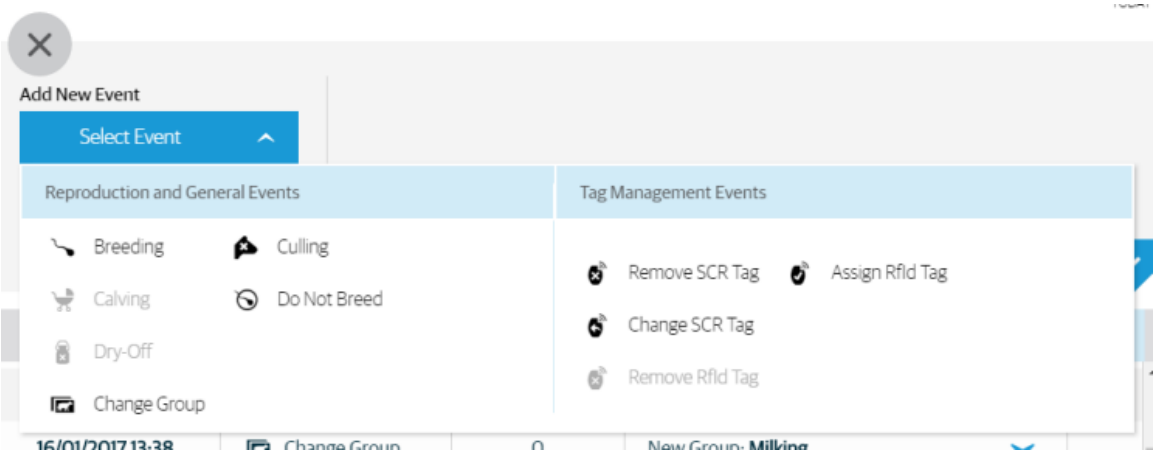
1. From the Dashboard click Farm and then Animals, the Animals in Herd list appears.



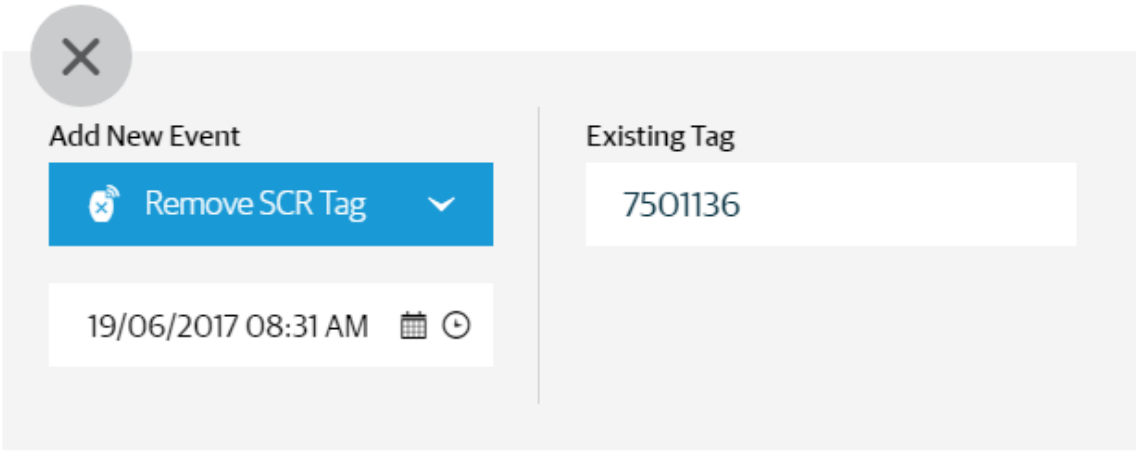

2. Click on the cow in question; the Events History on the Cow Card of this cow appears.



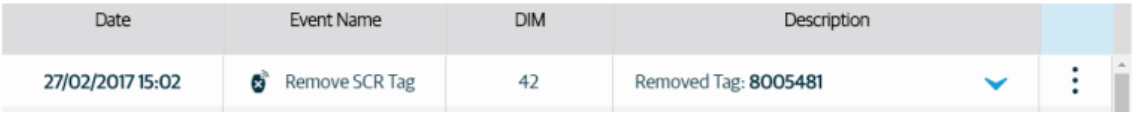

3. Click Add New Event; the new event window appears.



4. Choose Remove SCR Tag from the available Tag Management Events.



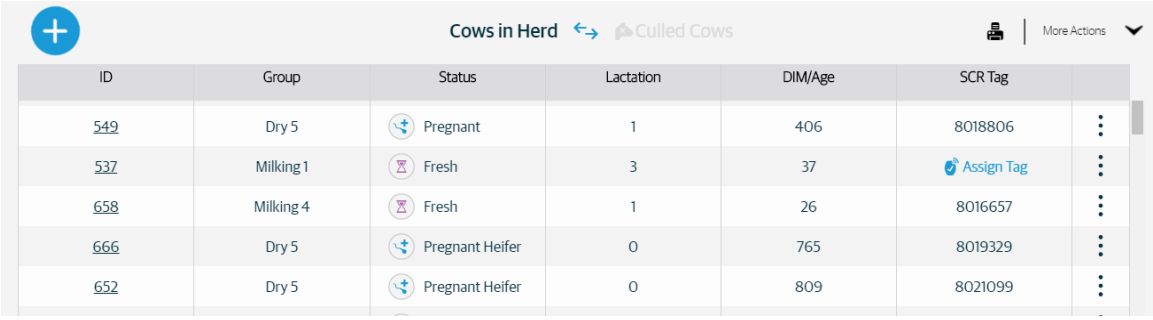

5. Review the details and click Save Now to save the event.
6. The event now appears in the Event History for this cow.



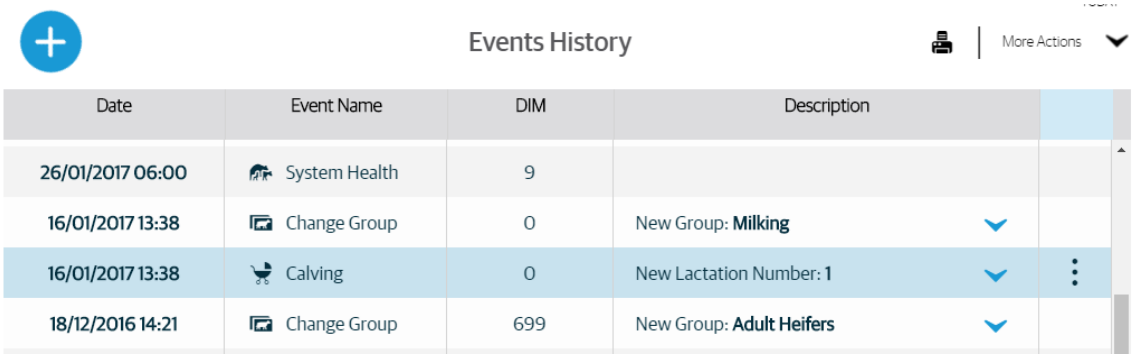
### 3.8.4 Changing Tags

When directed by the Tag Maintenance Report, follow these instructions when changing a tag paired with a cow in SenseHub™.

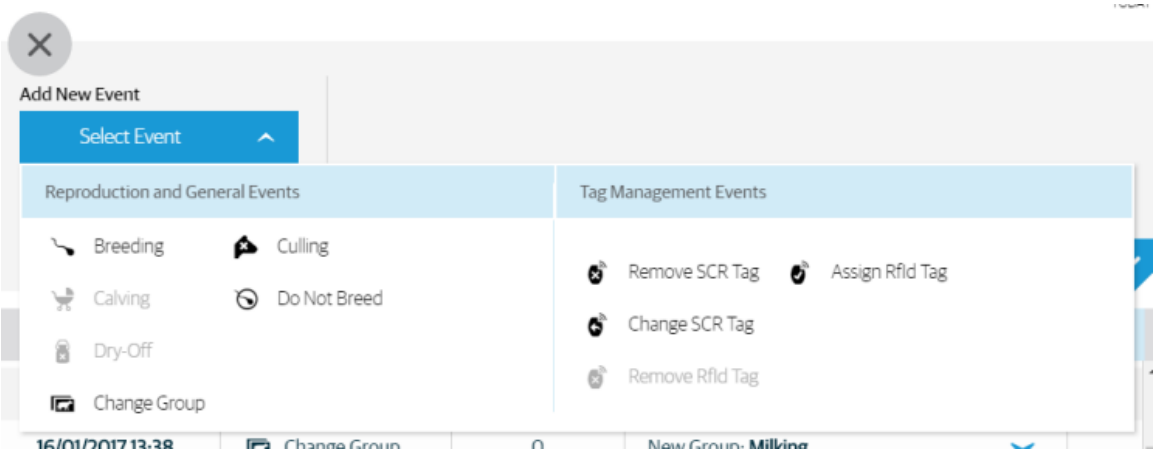
1. From the Dashboard click Farm and then Cows, the Cows in Herd list appears.



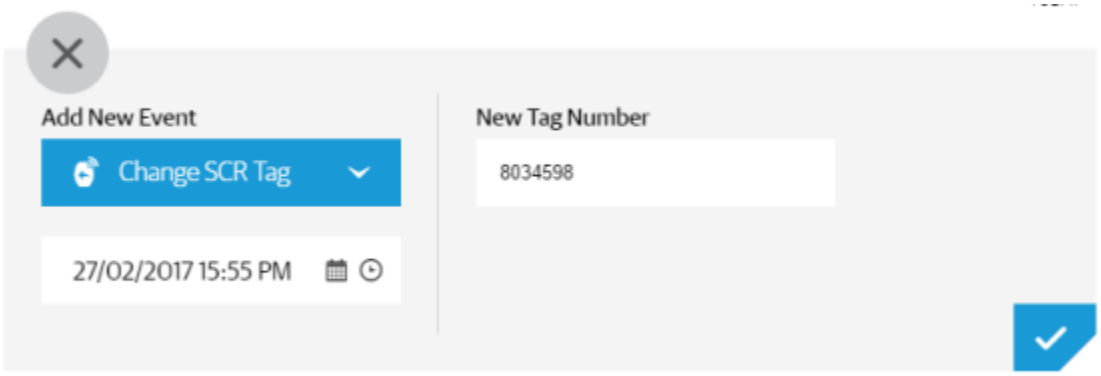

2. Click on the cow in question; the Events History on the Cow Card of this cow appears.



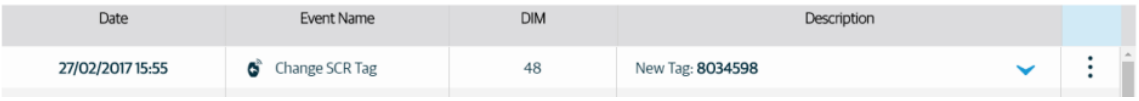

3. Click Add New Event; the new event window appears.



4. Chose Change SCR Tag from the available Tag Management Events.



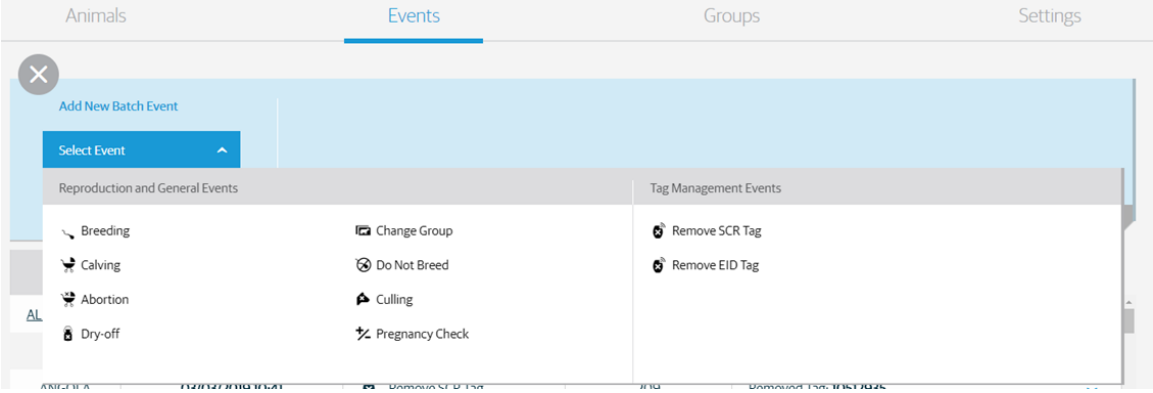

5. Review the details and click Save Now to save the event.
6. The event now appears in the Event History for this cow.



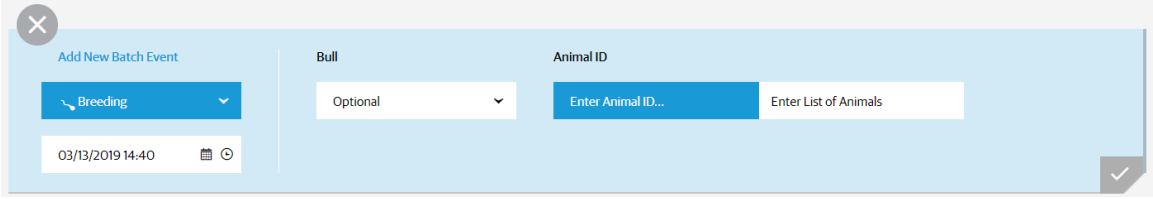
## 3.9 Batch Events

Entering Events in Batches, a list of cows that all need to have the same event, is easier and less time consuming then adding them one at a time.

1. To begin entering a Batch Event go to Farm → Events → and click on Add New Batch Event. The Batch Event Menu appears.



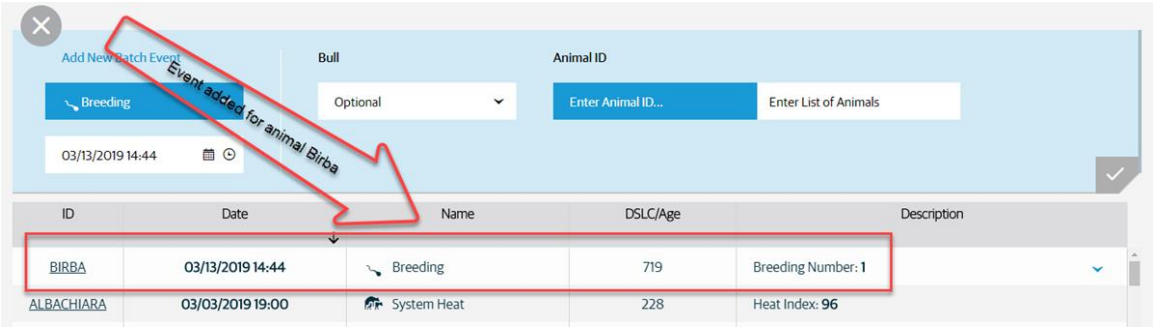

2. Choose the event you wish to enter as a Batch Event.




Adding the Bull is optional.

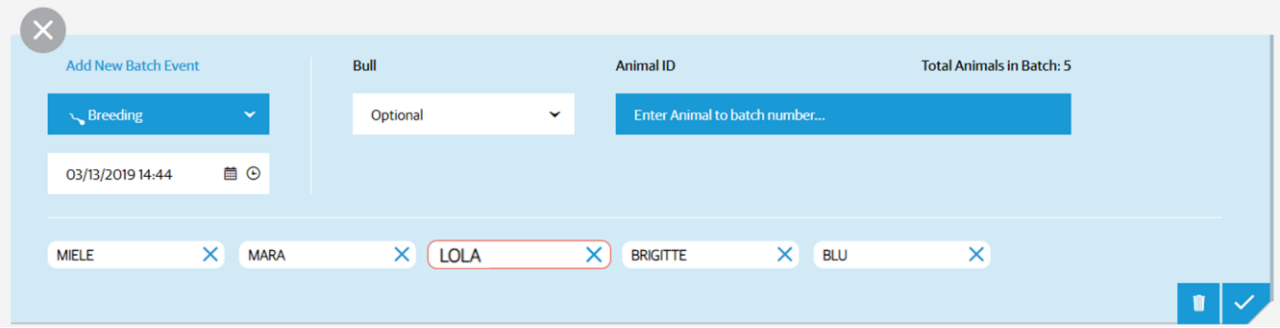
   a. The Cows to be Bred can be entered one at a time, Using Enter Animal ID, or as a list by using Enter List of Animals.

3. Entering the Animals one at a time will add the event to the Events list for the farm and the animal with each entry.




   a. You can continue to enter animals for this event until complete.

4. Entering the Animals as a list, creates a list.

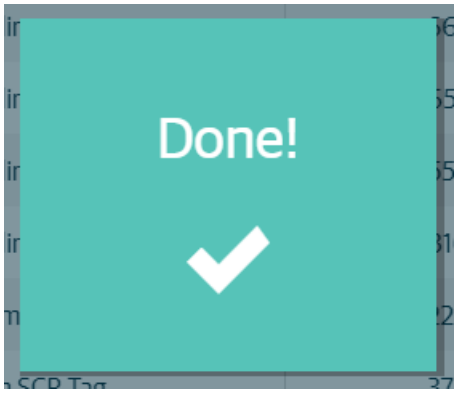



   a. The animals entered are validated as they are entered. An animal that appears with a red outline, like LOLA, did not pass the validation test. LOLA can be removed from the batch list by clicking on the X.

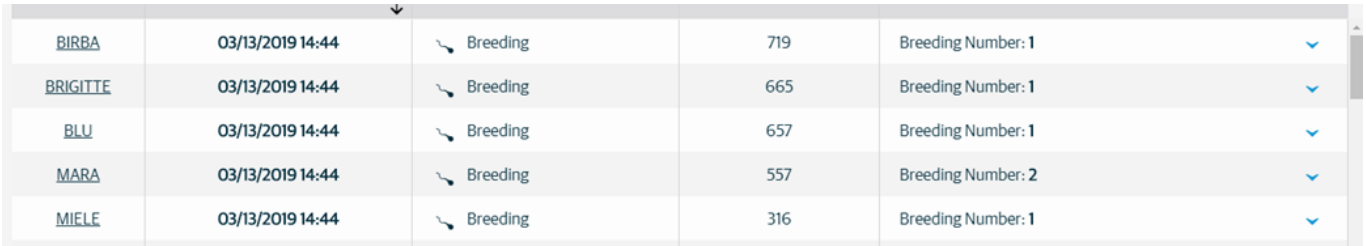
5. When you are ready click Enter and the batch event will be entered.

   a. If you want to discard the batch and start over, click delete; and the batch is deleted.

6. When the Batch Entry is complete a confirmation message appears.




   The events appear in both the global event list and the event list for the individual animals.



| | | | | |
|---|---|---|---|---|
| BIRBA | 03/13/2019 14:44 | Breeding | 719 | Breeding Number: 1 |
| BRIGITTE | 03/13/2019 14:44 | Breeding | 665 | Breeding Number: 1 |
| BLU | 03/13/2019 14:44 | Breeding | 657 | Breeding Number: 1 |
| MARA | 03/13/2019 14:44 | Breeding | 557 | Breeding Number: 2 |
| MIELE | 03/13/2019 14:44 | Breeding | 316 | Breeding Number: 1 |

# 4 Report Generator

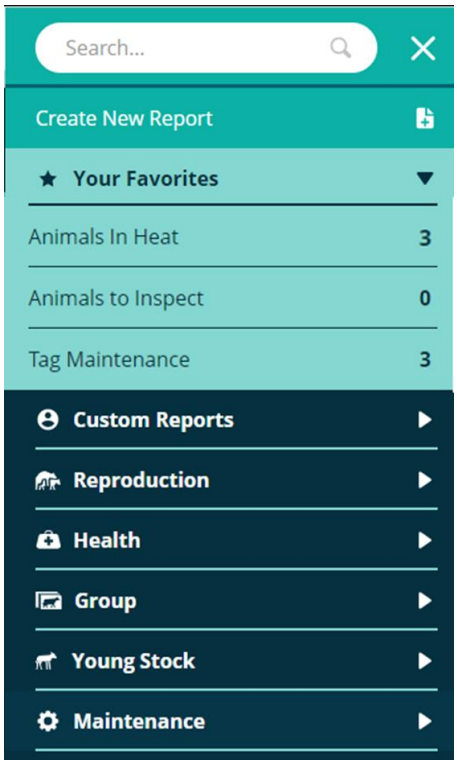
The report generator allows farmers using the Premium Application Plan to create their own custom reports. The queries, keys, other building blocks are the same that we use to create the powerful system reports. The Report Generator is available whenever the SenseHub controller is connected to the internet.

**NOTE**

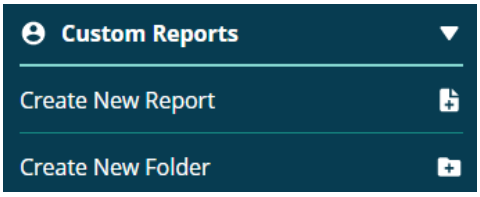
**The Report Generator is available to all SenseHub Farms subscribed to the Premium Application Plan.**

## 4.1 Creating a Custom Report

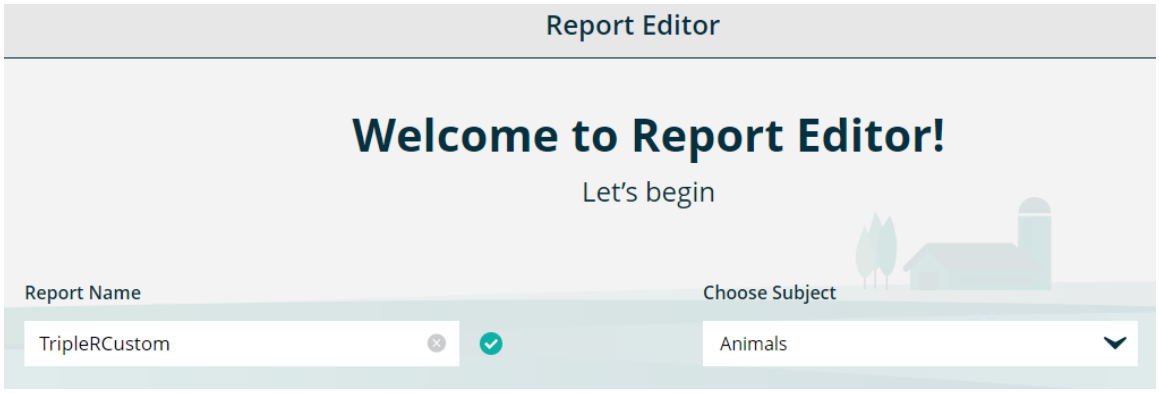
Click on the Reports Icon; the Report Menu appears.



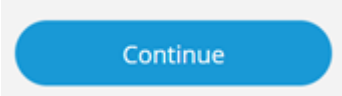

Click on Custom Reports to begin.



1. Click on Create New Report; the New Report Wizard appears.

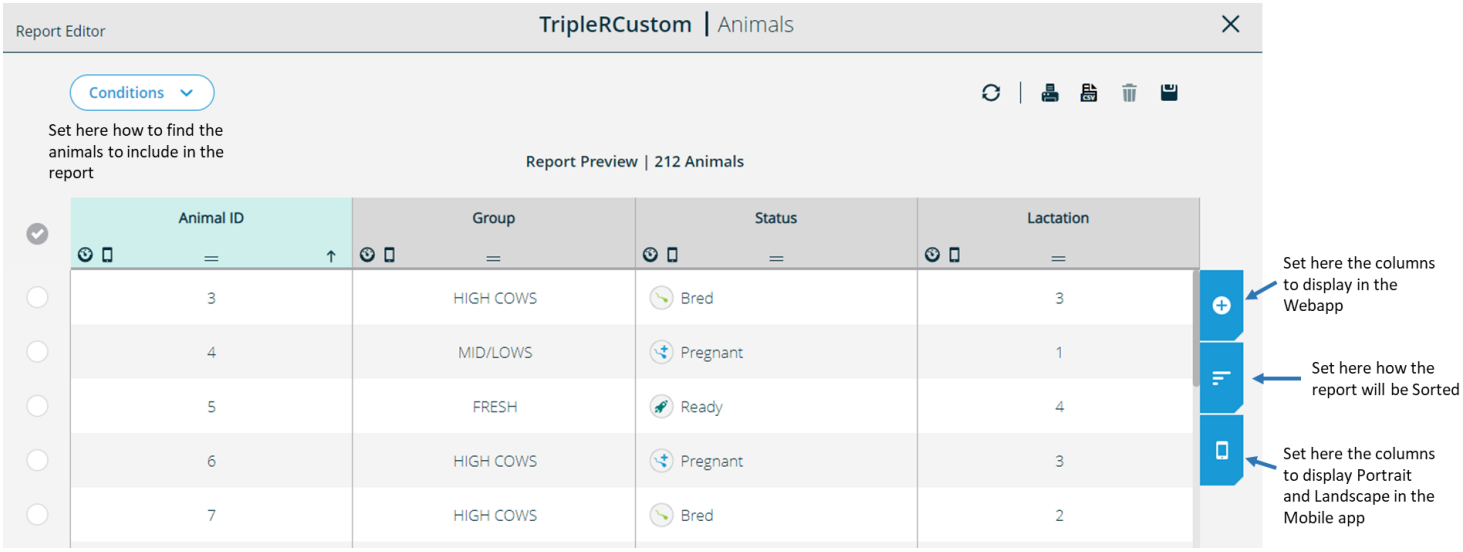



2. Enter the name of the report and choose the report subject.

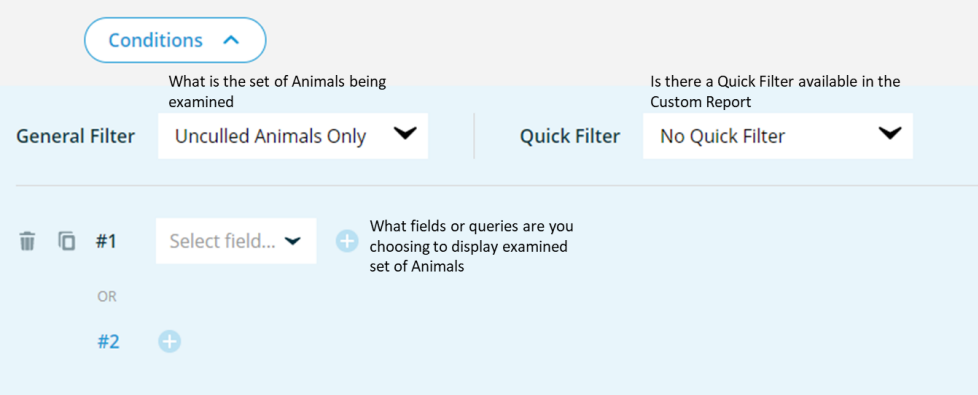
   Click 

   Continue.

3. The Report Preview Appears. It is here that the design of the report and its appearance are completed.




   a. In the Conditions Section define what data is examined and how it is displayed.

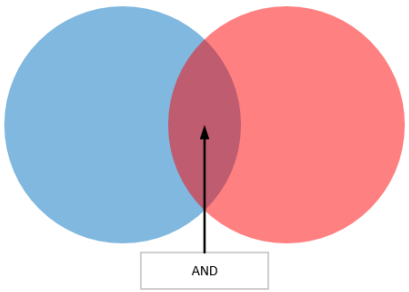



| Section | Definition |
|---|---|
| General Filter | Define the set of Animals from the database to be examined. |
| Quick Filter | Is there a quick filter like Cows for AI, or DNB applied to the report? |
| Fields/Queries | What information, taken from the defined set of Animals, is displayed in the report. |

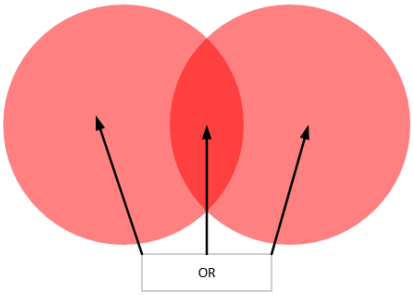
### 4.1.1 Understanding Conditions

Conditions describe the relationship between the field/queries used in creating the custom report.

- Conditions used together on the same line are AND conditions.

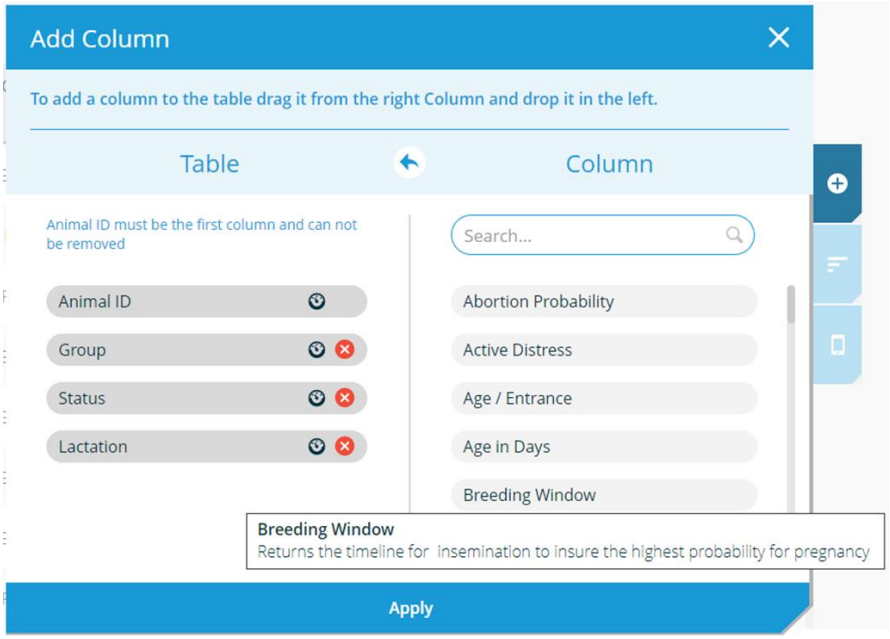



- Conditions used together on different lines are OR conditions.



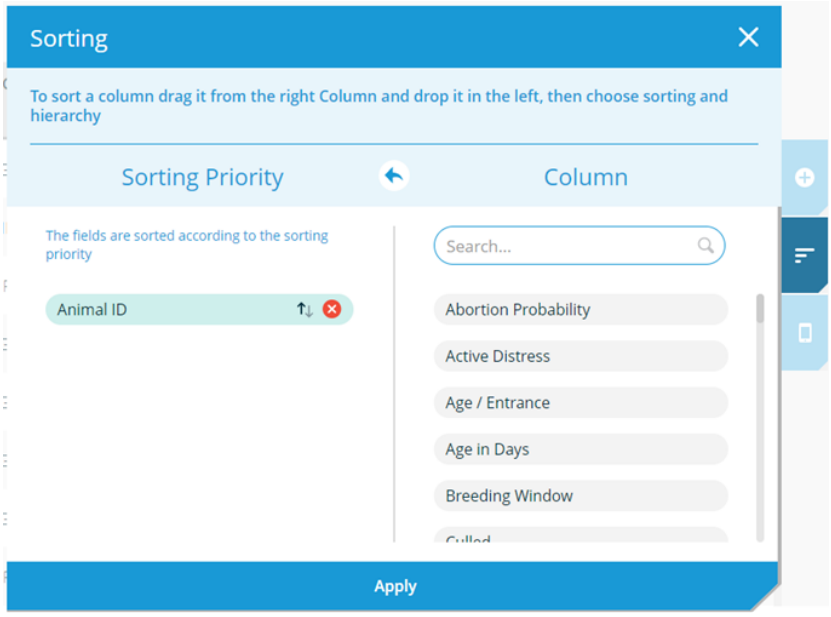

## 4.2 Creating a Custom Report - Continued

4. Next click Display Columns to configure what columns to display for the report in the Webapp and in what order they should be displayed.



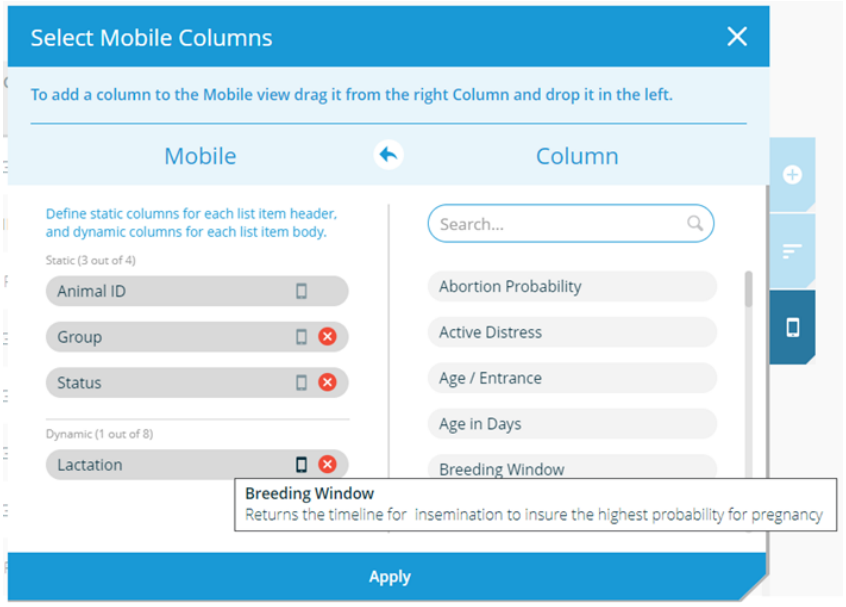

Hovering with the mouse over the Column name displays a tool-tip that explains what is returned when using this. Click apply to continue.

5. Next Click on Sorting Options to configure how the report should be sorted.



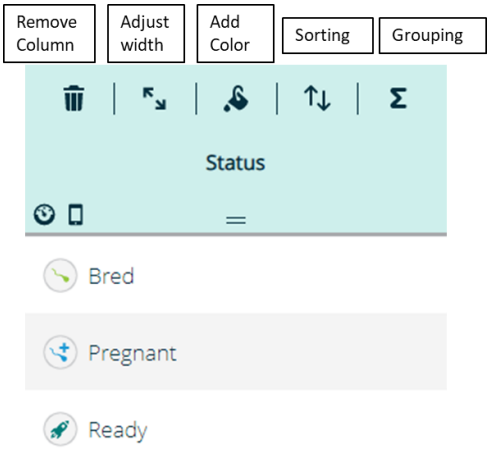

Click Apply to continue.

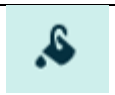
6. Next Click on Cell Phone Display to configure how the report appears in Portrait and Landscape



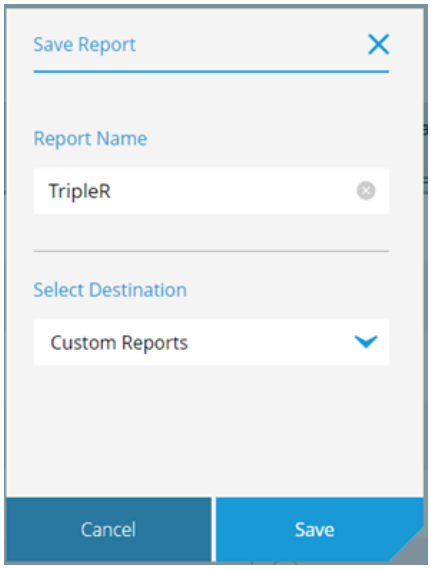

Hovering with the mouse over the Column name displays a tool-tip that explains what is returned when using this. Click apply to continue.

7. Click the top of column for these actions:

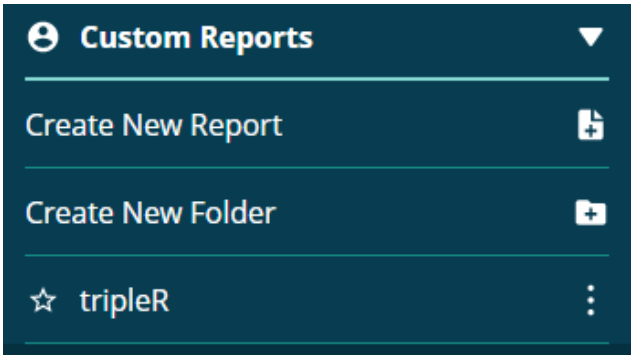



| Action | Definition |
|---|---|
| | Delete this column |
| | Adjust the size of the column |
|  | Highlights cells in this column according to values or conditions. |
| | Sort ascending or descending |
| | Group the results by one of the values in this column |

8. The creation and configuration of the Report is now complete. Click Save to save the report; the report is saved.




9. The report can now be found in the Reports Menu.

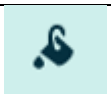



**NOTE**

**Custom Reports can only be created, edited, or run when the SenseHub Controller has an active internet connection.**

## 4.3 Icons Used in the Report Generator

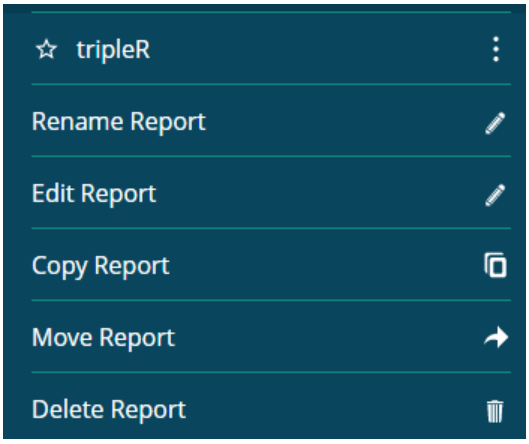
There are several Icons in the Report Generator. These Icons are explained here.

| Icons | Definition |
|---|---|
| | The report is sorted by the column where this appears. |
| | When the report has primary and secondary sorting each sorted column is displayed with an arrow as well as a number |
| | This column is also shown in the mobile app rendition of the report |
| | This column is also shown in the widget version of the report |
| | Save the report |
| | Delete the report |
| | Save the report as a CSV file |
| | Send the output of the report to the printer |
| | Delete this column |
| | Adjust the size of the column |
|  | Highlights cells in this column according to values or conditions. |
| | Sort ascending or descending |
| | Group the results by one of the values in this column |
| | Empty Custom Report Folder |
| | Custom Report Folder that contains one or more Reports |

Report Generator

## 4.4 Actions on Reports

There are several available actions that can be performed on any farmer created report.

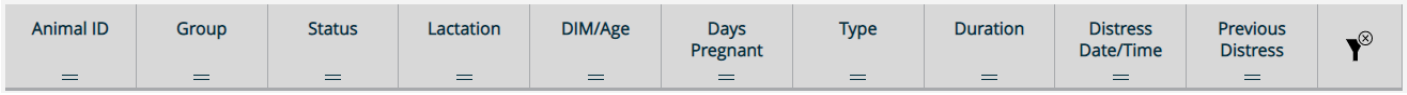



| Actions | Definition |
|---|---|
| Rename Report | Change the name of the report |
| Edit Report | Edit any attribute of the report |
| Copy Report | Copy the report |
| Move Report | Move the report to a different folder |
| Delete Report | Delete the report |

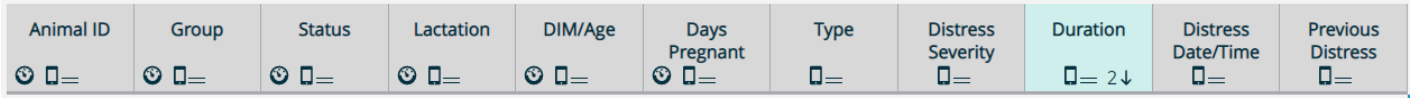
### 4.4.1 Actions on System Reports

It is possible to take a system report, a report that is already part of SenseHub, and customize it further by copying this report and then editing it.

Please note that the column names in the system report and the copy of the report in custom reports may not be the same.




System Report (Distress)



Copied Report (Distress)

# 5 Which Wand and Which Device

The SenseHub Mobile app supports two Wand Devices:

- Allflex 420 NFC
- Agrident AWL Wands.

## 5.1 Using the Allflex 420 NFC Wand

The Allflex 420 NFC is a device that helps make work on the farm easier. The Wand works seamlessly with the Mobile Device where the SenseHub App is installed.

The minimum version required is the same as for the mobile app:

- 5.X for Android users.
- 10.X for iOS users.

## 5.2 Pair the Wand with your Smart Phone

Before the Allflex 420 NFC can be used it must first be paired with your Smart Phone. Turn on Bluetooth on your smart phone, usually by tapping the Bluetooth Icon. Pair the Allflex 420 NFC Wand with your device. More detailed instructions are found below.

Android Phones will discover the Allflex 420 NFC and ask for a code. Enter the code that appears on the wand at Wand Settings → Bluetooth Settings → About Bluetooth. and the two devices will be paired.

iOS devices require different settings on the Wand. One the Wand long press to enter the menus → Bluetooth Settings → iPhone discoverable.

### 5.2.1 Pairing with an Android Smart Phone

Follow these steps when using an Android smart phone.

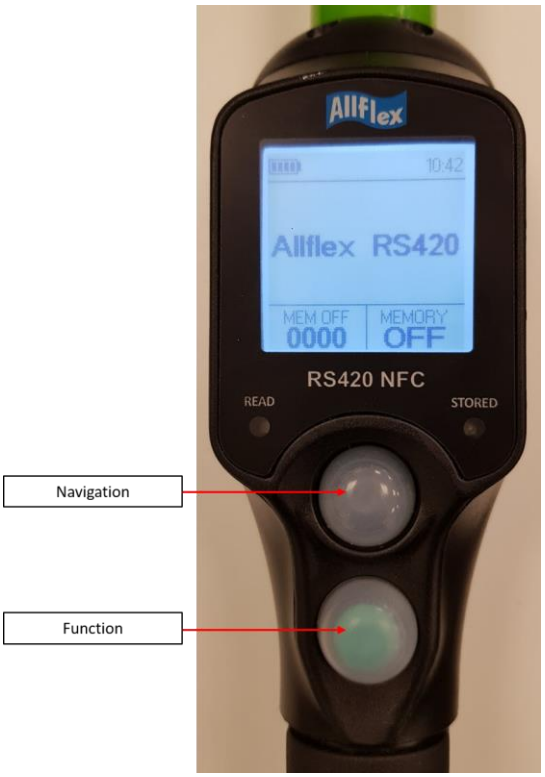
1. Go to Bluetooth Settings in the Settings app; Settings → Bluetooth & Device Connection.
    a. Make sure the Wand is Turned on.
2. Turn Bluetooth on.
3. Search for a New Device available for pairing and select the Allflex 420 NFC from the list.
    a. If a PIN Code is required in is available on the Wand at Wand Settings → Bluetooth Settings → About Bluetooth.

4. The Wand is now paired with this smart phone.

### 5.2.2 Pairing with an iPhone

Follow these steps when using an iPhone smart phone.

1. On the Wand go to Wand Settings → Bluetooth Settings → iPhone Discoverable. DO NOT touch Yes until you finish the connection process.
2. On the iPhone go to Bluetooth Settings on the settings app; Settings → Bluetooth and select the Wand.
3. Wait until the Device Status is Connected.
4. Touch Yes on the Wand Device.




### 5.2.3 Differences in Wand Operation

The Wand operates slightly different when connected to Android or iPhone Smart Phones.

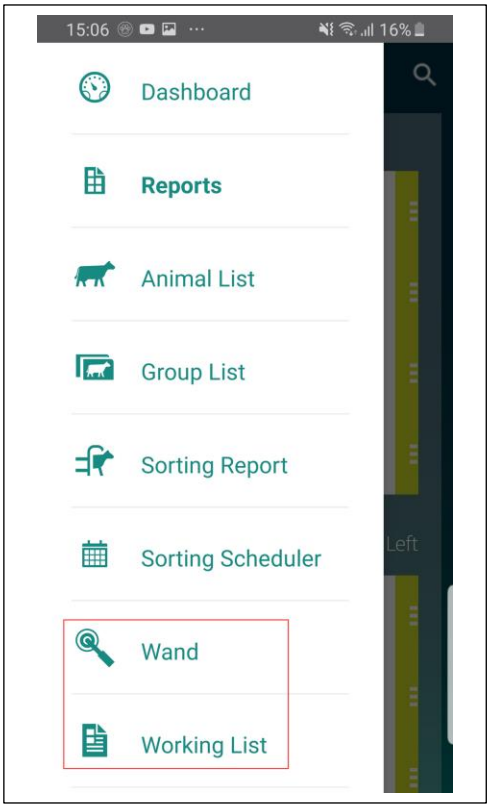
| | Android | iPhone |
|---|---|---|
| Wand Response when Tag Found | When not connected there is no response from the Wand | The Wand always responds even when not connected |
| Wand Sleep Mode | When connected, never enters sleep | Sleep after 5 minutes |

| | | |
|---|---|---|
| Select Wand in SenseHub Mobile App | The application lists all Wands ever connected | The application lists only the last connected Wand |

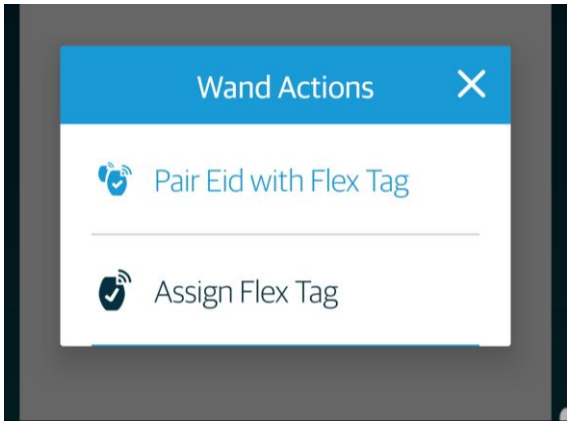
### 5.2.4 Assign and Pair Tags

Once the Wand is paired with your Smart Phone two new menu items appear in the SenseHub Application Menu:

- Wand
- Working List




Tap Wand and the Wand Actions Menu appears.




### 5.2.5 Pair EID tags with Flex Tags

Farms that use both EID and Flex Tags need to pair the tags, so they are both associated with the animal.

1. In the Mobile App go to the menu → Wand and then choose Pair EID with Flex Tag.
2. Press the green button to energize the wand. Move the wand first to the EID Tag on the cow. The wand will make a sound and vibrate.
3. Now move the wand to the Flex Tag on the cow. The wand will make a sound and vibrate.
4. The Flex tag is paired with the cow in the Animal Card in SenseHub.

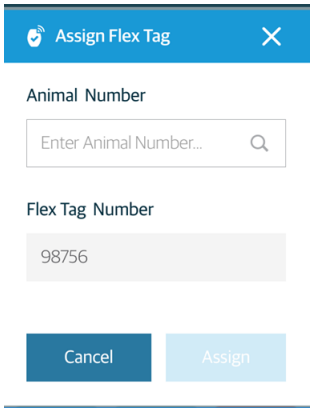
**NOTE**

**The cow must already have a record and the EID Tag needs to already be associated with the Cow in SenseHub.**

### 5.2.6 Assign Flex Tags

The Allflex 420 NFC is a useful tool for error free tag assignment/pairing with animals.

1. In the Mobile App go to the menu → Wand and then choose Assign Flex Tag.
2. Press the green button to energize the wand. Move the wand to the Flex tag on the cow. The wand will make a sound and vibrate
3. Enter an Animal number and tap Assign.
4. The Flex tax is now paired with the animal.



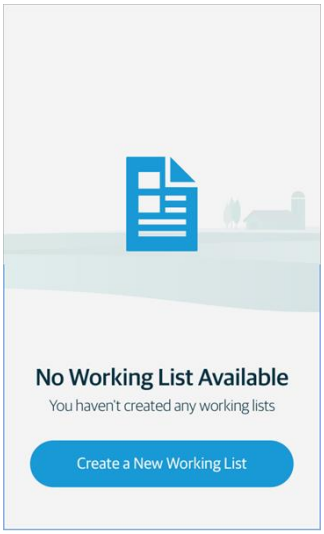

**NOTE**

**The Assign button is available only after entering an Animal Number.**

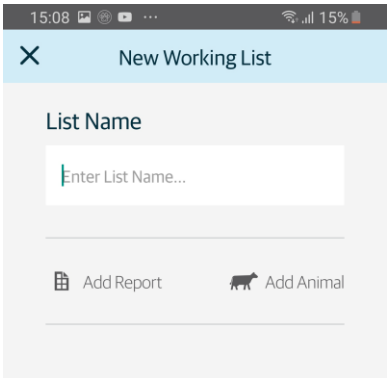
### 5.2.7 Creating Working Lists

Working Lists are a useful tool to help find and identify animals on the farm that require attention or treatment.

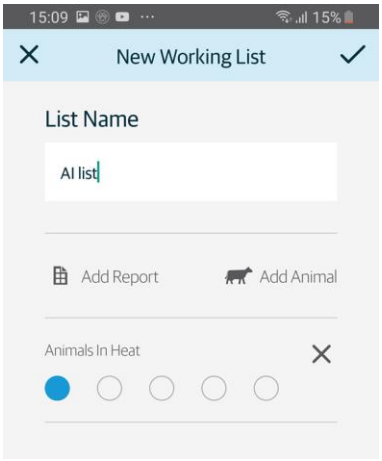
1. In the Mobile App go to the menu → Working List. Since there are no working lists this screen appears.



2. Tap Create a New Working List; the new working list wizard appears.

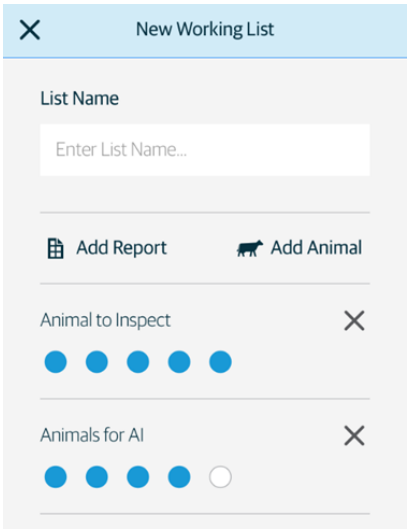



3. Give the List a name and then choose to add a Report or one or more animals.
4. Set the number of “beeps” or vibrations the Wand will use to signal that a cow from this specific report has been found.




   a. More than one report can be configured in a Working List. Each report is then assigned a different number of “beeps.”

Which Wand and Which Device




5. When complete, tap to save the working list.

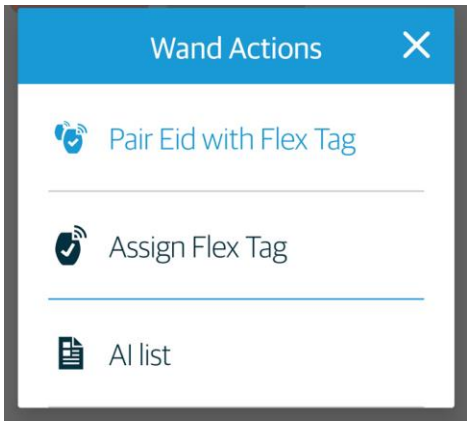
**NOTE**

**Using reports means that the working list does not have to be recreated it is updated as the report updates.**

### 5.2.8 Using Working Lists

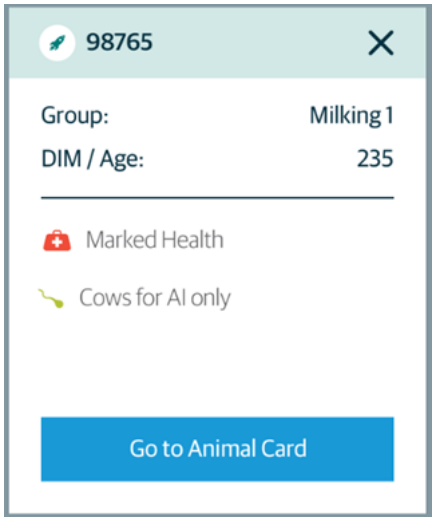
Once a Working List is created it can be reused.

1. To access a Working List on the Mobile App, go to the Menu → Working List, choose the working list to use.




   a. When returning to use the Wand after a break, a message appears asking if you wish to go back to the list that you were using.

2. Using the wand Identify an animal, the Wand will “beep” and vibrate and a screen appears on the mobile device identifying the animal, and the reason the Wand beeped.




   If desired access the Animal Card or continue and identify the next cow.

### 5.2.9 Common Wand Device Error Messages

During normal wand device operation these error message may appear. They are described here with their cause.

| Error Message | Description |
|---|---|
| Unassigned Tag | The scanned tag is not assigned, paired, to any animal. |
| No Working List Available | There are no working lists available. |
| No Paired Wand | There is no wand paired with this mobile device. |
| Wand is not compatible | The ALLFLEX 420NFC wand is not compatible and requires a version update. |
| Connection to Wand Failed | This error will appear when:<br>The Wand is off<br>Bluetooth is off on the Mobile Device<br>Bluetooth is off on the Wand Device<br>Bluetooth is not configured correctly on the Wand Device |
| Unsupported Action | Appears when trying to activate an action that is not supported by the current Wand. |

## 5.3 Using the Agrident Wand

The Agrident is a device that helps make work on the farm easier. The Wand works seamlessly with the Mobile Device where the SenseHub App is installed.

The minimum version required is the same as for the mobile app:

- 5.X for Android users.

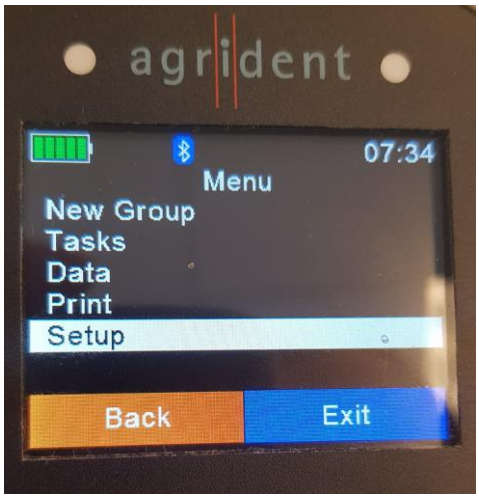
### 5.3.1 Pair the Wand with your Smart Phone

Before the Agrident Wand can be used it must first be paired with your Smart Phone. Turn on Bluetooth on your smart phone, usually by tapping the Bluetooth Icon. Pair the Agrident Wand with your device. More detailed instructions are found below.

### 5.3.2 Configure Agrident Wand for the SenseHub Mobile App

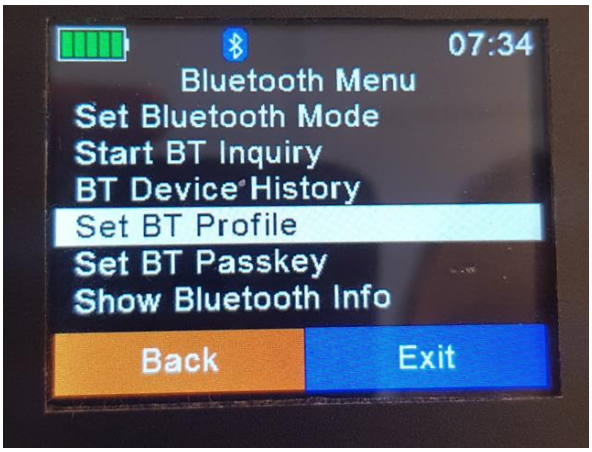
The Agrident Wand must first be configured correctly for use with the SenseHub Mobile App.

1. After the Bluetooth Icon turns blue, use the menu, and go to Setup → Interface →Bluetooth → Bluetooth Mode→.

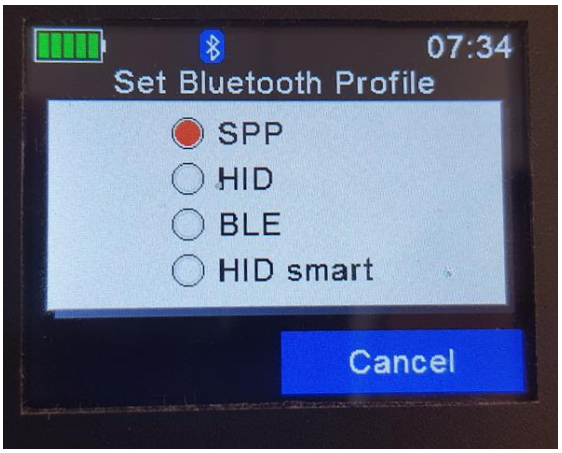


   a. Set the Bluetooth mode to Slave Mode.

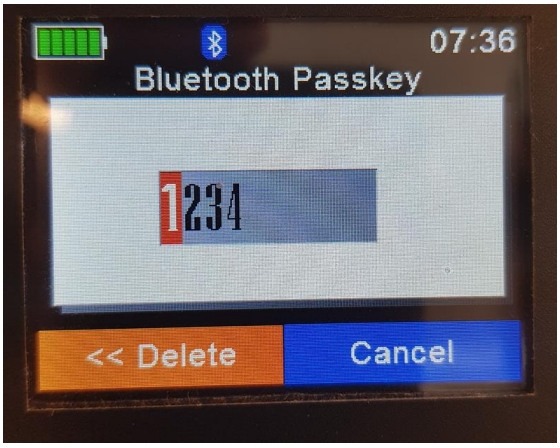
2. Back out from here and go back to the Bluetooth Menu and Choose Set BT Profile.




3. Choose SPP for the Bluetooth Profile.




   a. From here go back to the Bluetooth Menu and choose Set BT Passkey.

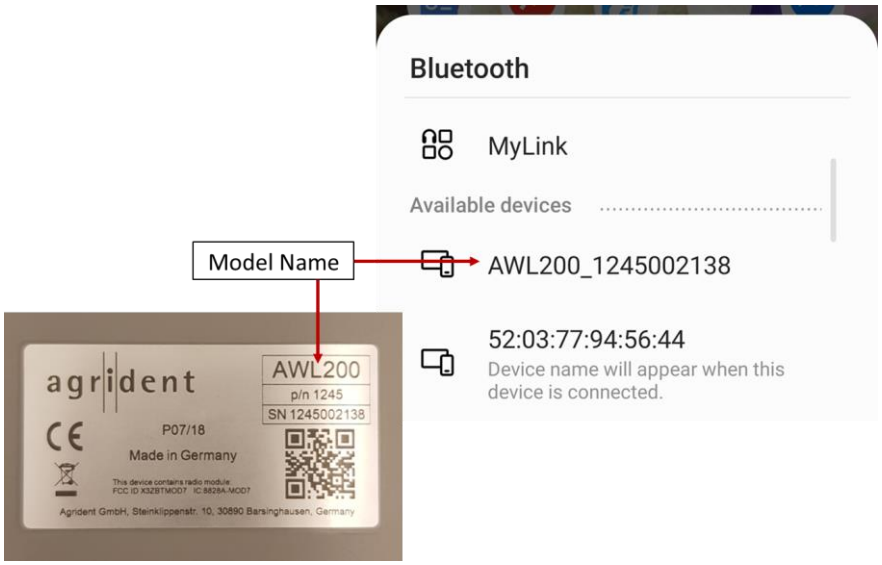



   b. Reset the passkey or use the default value when asked to enter it while pairing with your mobile device.

### 5.3.3 Pairing with an Android Smart Phone

Follow these steps when using an Android smart phone.

1. Go to Bluetooth Settings in the Settings app; Settings → Bluetooth & Device Connection.
    a. Make sure the Wand is Turned on.
2. Turn Bluetooth on.
3. Search for a New Device available for pairing and select the Agrident Wand from the list.

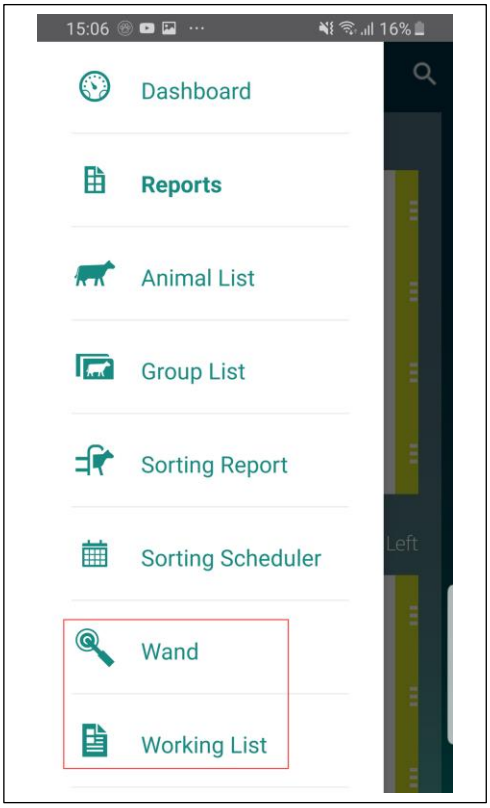



    a. See above for the location on the Agrident Wand of the required Passkey for first time pairing.
4. The Wand is now paired with this smart phone.

### 5.3.4 Working with the Agrident Wand

Once the Wand is paired with your Smart Phone new menu items appear in the SenseHub Application Menu:

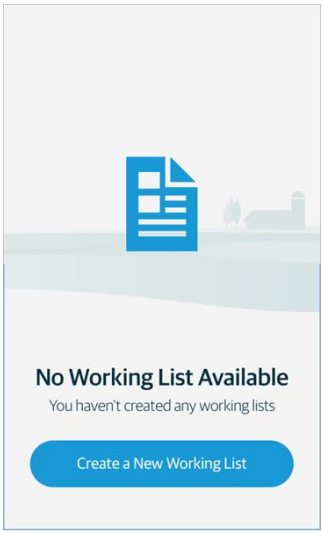
- Working List



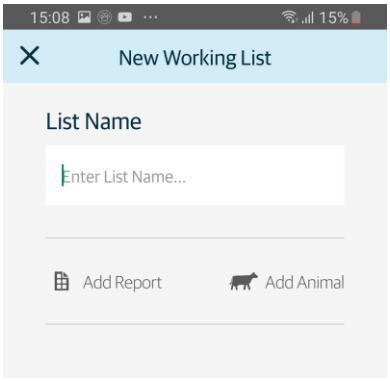

### 5.3.5 Creating Working Lists

Working Lists are a useful tool to help find and identify animals on the farm that require attention or treatment.

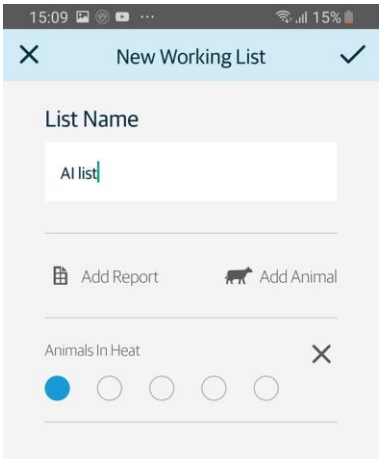
1. In the Mobile App go to the menu → Working List. Since there are no working lists this screen appears.



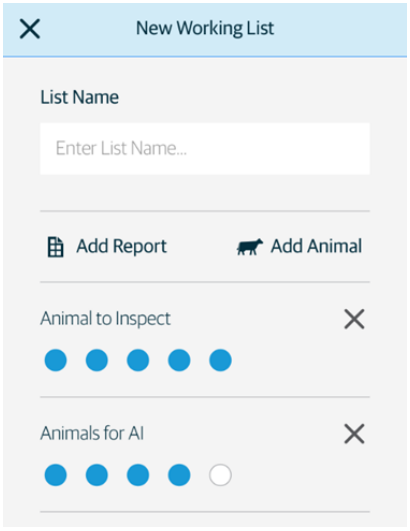

2. Tap Create a New Working List; the new working list wizard appears.




3. Give the List a name and then choose to add a Report or one or more animals.
4. Set the number of “beeps” or vibrations the Wand will use to signal that a cow from this specific report has been found.



a. More than one report can be configured in a Working List. Each report is then assigned a different number of “beeps.”




5. When complete, tap to save the working list.

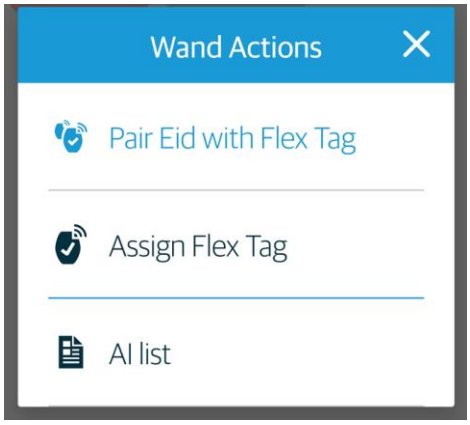
**NOTE**

**Using reports means that the working list does not have to be recreated it is updated as the report updates.**

### 5.3.6 Using Working Lists

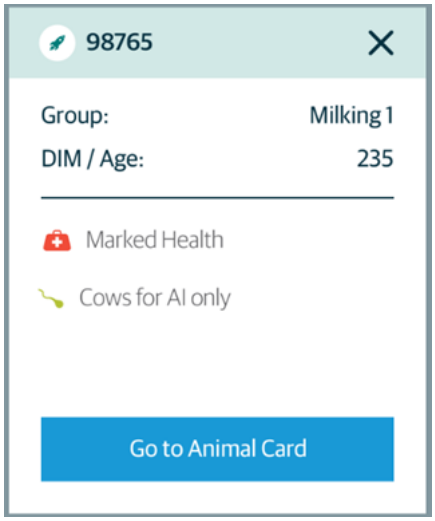
Once a Working List is created it can be reused.

1. To access a Working List on the Mobile App, go to the Menu → Working List, choose the working list to use.




a. When returning to use the Wand after a break, a message appears asking if you wish to go back to the list that you were using.

2. Using the wand Identify an animal, the Wand will “beep” and vibrate and a screen appears on the mobile device identifying the animal, and the reason the Wand beeped.




If desired access the Animal Card or continue and identify the next cow.

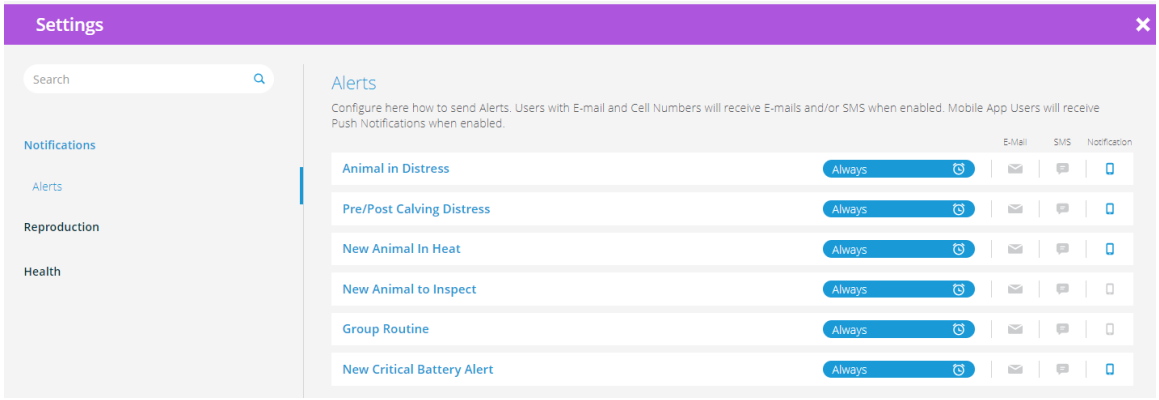
# 6 Farm Settings

This section describes how to configure SenseHub™ for the protocols and practices already in place on your farm.

**NOTE**

**The Farm Settings available in your SenseHub™ System reflect the Application Plan enabled in place on the farm. Not all items described in this chapter are available in every SenseHub™ System.**

Click on Manage and then Settings; the Farm Settings landing page appears.

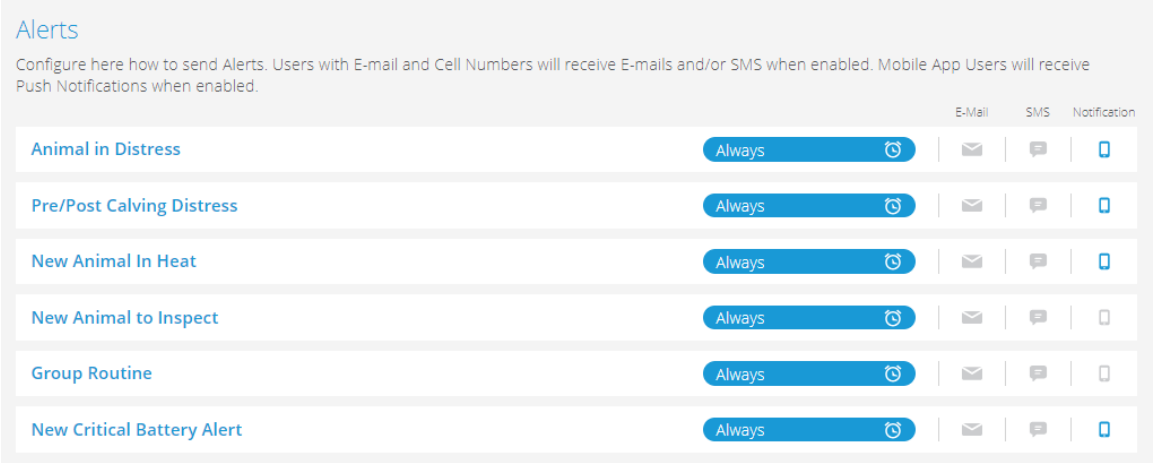



This section is divided into 3 parts:

- Notifications: Configuration of what Notifications each user receives.
- Reproduction: Configuration of the various reproduction related protocols that are already in use on your farm.
- Health: Configuration of the various Health related reports, and graphs.

## 6.1 Notifications

The alerts section configures which types of alerts are sent to which destinations, Email, SMS, or Push Notifications.




By Default, the only alert sent by SenseHub™ is the Pre/Post Calving Alert. This alert is sent to mobile application users only.

Click on to send this specific alert as an Email.

- SenseHub™ Users with a valid Email address will receive this alert in an Email.

Click on to send this specific alert as an SMS/Text Message.

- SenseHub™ Users with a valid E.164 Phone number will receive this alert in an SMS/Text Message.

**NOTE**

**SMS/Text Messages for New Animal in Heat and New Animal in Animals to Inspect Report are aimed at farms that have less than 200 cows with assigned tags.**

Click on to send this specific alert as Push Notification to the Mobile Application.

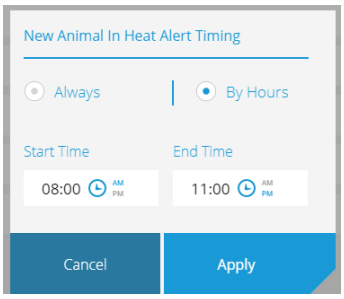
- Only registered Mobile Application users will receive these push notifications.

**NOTE**

**Even if the Push Notification icon is selected, users that have not downloaded, installed, and logged in to the Mobile Application will not receive these push notifications.**

Click on the Clock

to configure the time of day that these notifications will be sent.




- Always for always (24/7).
- By hours to only receive alerts between the Start and End Times.

### 6.1.1 Pre/Post Calving Distress and Animal in Distress Alerts

Our core functionalities, Animals in Heat, Health, Young Stock Health, Heat Mask by Group Activity Reports, and Distress Alerts are always available regardless the internet connectivity in all available modules, Favorite reports, notifications, Sorting gate, LED tasks, and Wand operations.

Pre/Post Calving and Distress Alerts will continue to be generated when needed, even if the internet is not connected if the notifications are configured.

## 6.2 Reproduction

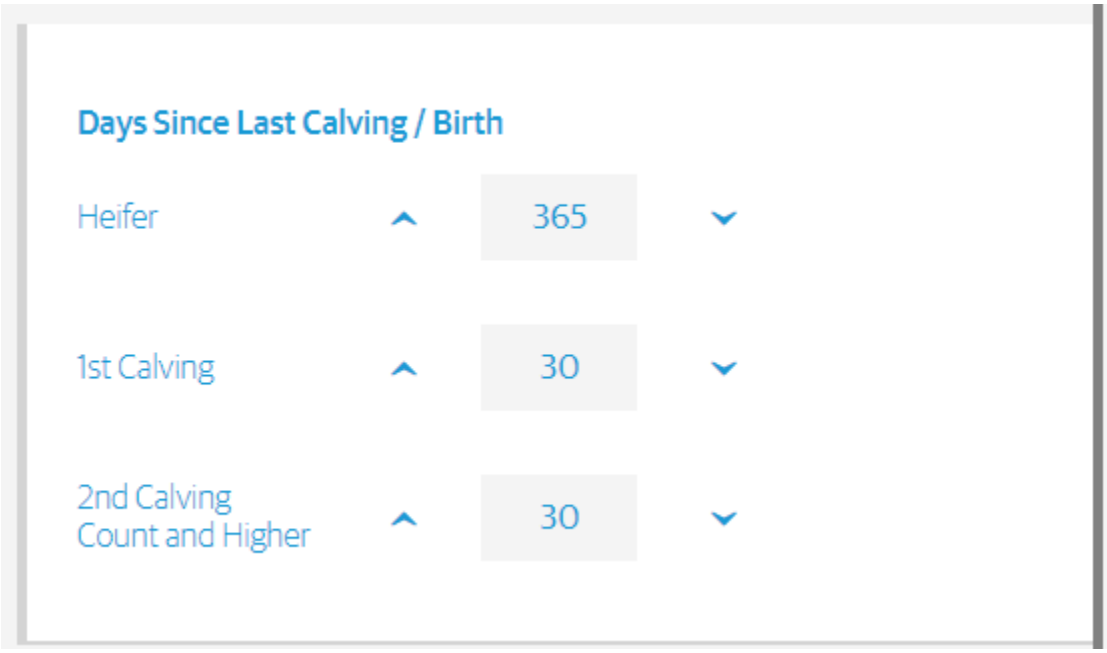
Configure here various reproduction and pregnancy related values.

### 6.2.1 Voluntary Waiting Period

In this section configure:

- Voluntary Waiting Period for each type of cow in the herd separately.
  - Heifer – Default 365 days of age
  - 1st Calving Cow – Default 30 days after calving
  - 2nd Calving Count and Higher Cow – Default 30 days after calving.

Farm Settings

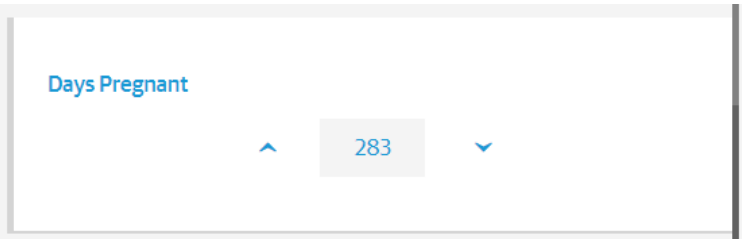



Cows that are in heat but have not yet reached and/or exceeded the number of days above will not appear as cows for AI.

### 6.2.2 Pregnancy Length

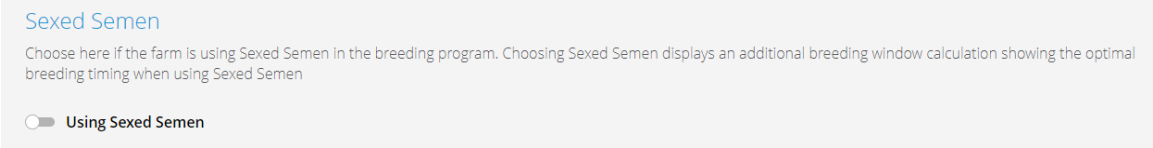
Configure here the Average Pregnancy Length for your herd.

- Pregnancy Length – default = 283 Days.
    - The average pregnancy length for the herd is 283 days from the last or effective insemination.



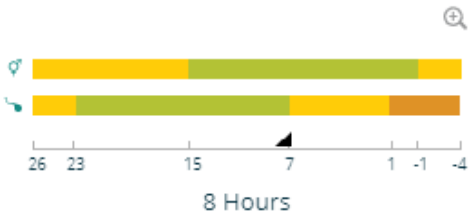

### 6.2.3 Sexed Semen

Some farms use Sexed Semen in their reproduction program. Choose here to activate this option in SenseHub.




When this option is activated two Breeding Windows are displayed:

- One for AI with Sexed Semen
- One for Normal AI



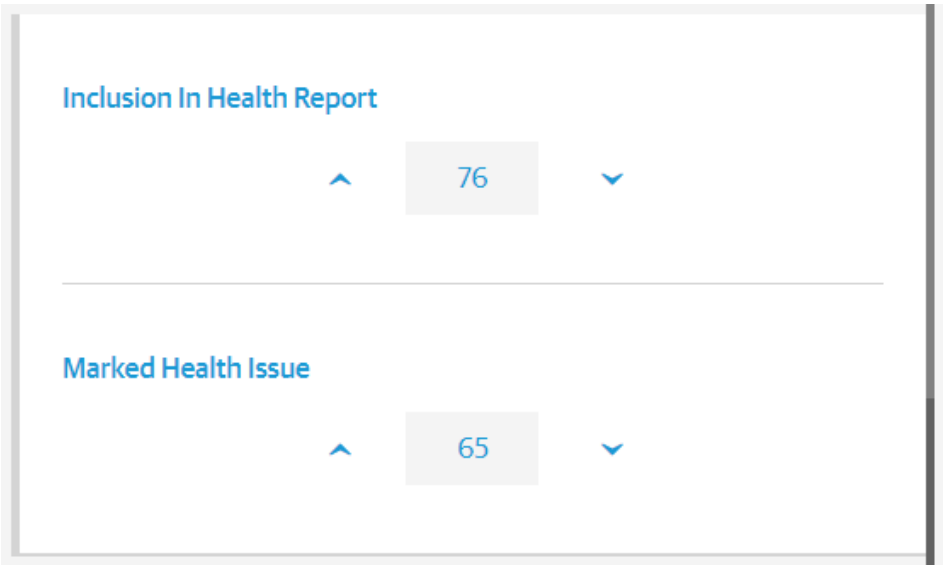

The Breeding Window for Sexed Semen appears on top.

## 6.3 Health

Configure here parameters for inclusion in the various health related reports.

### 6.3.1 Health Report

- Inclusion in Health Report – default Health Index = 76.
    - Cows with a Health Index of 86 or lower will appear in the Health Report.
- Marked, significant, Health Issue – default Health Index = 65.
    - Cows with a Health Index of 65 or lower are highlighted and should be more closely examined.



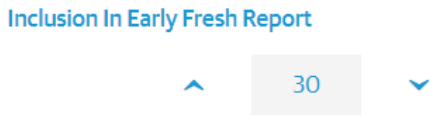

**NOTE**

**The Farm Settings available in your SenseHub™ System reflect the Application Plan enabled in place on the farm. Not all items described in this chapter are available in every SenseHub™ System.**

### 6.3.2 Early Fresh Cows Report

Configure here the number of days after calving for cows to appear in the early fresh report.

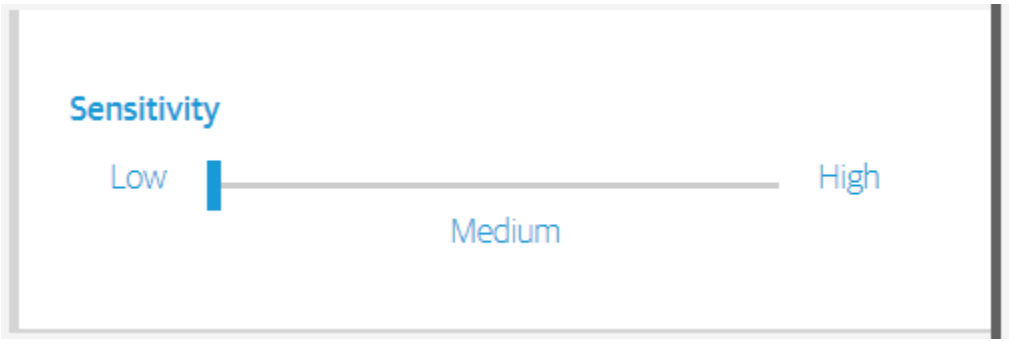
- Inclusion in Early Fresh Report – default 30 days.
    - Cows no matter their Health Index appear in the Early Fresh Cow report for this number of days.




### 6.3.3 Distress Sensitivity

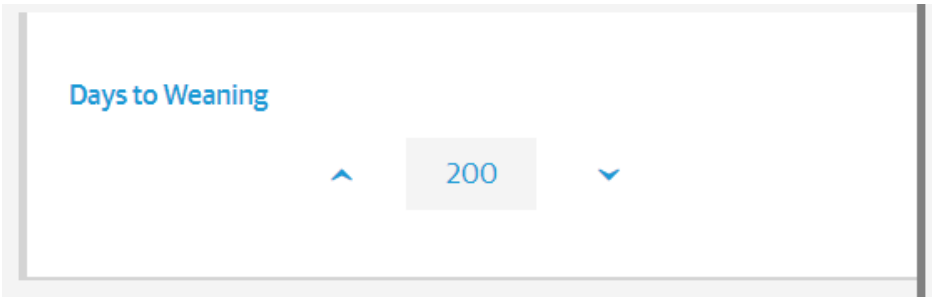
Configure here the sensitivity level of the distress alerts.

- Sliding this to MEDIUM or HIGH increases sensitivity and may result in more alerts, some of which may not actually be distress.




### 6.3.4 Days to Weaning

Configure here when, as several days, the calves in your operation are weaned and separated from their mothers. This number represents the days when the calves are separated from their mothers and will create an event on the health graph of the mother.



# 7 Pinpointing Animals using SenseHub

SenseHub can help you pinpoint the animals on the farm that require attention or service:

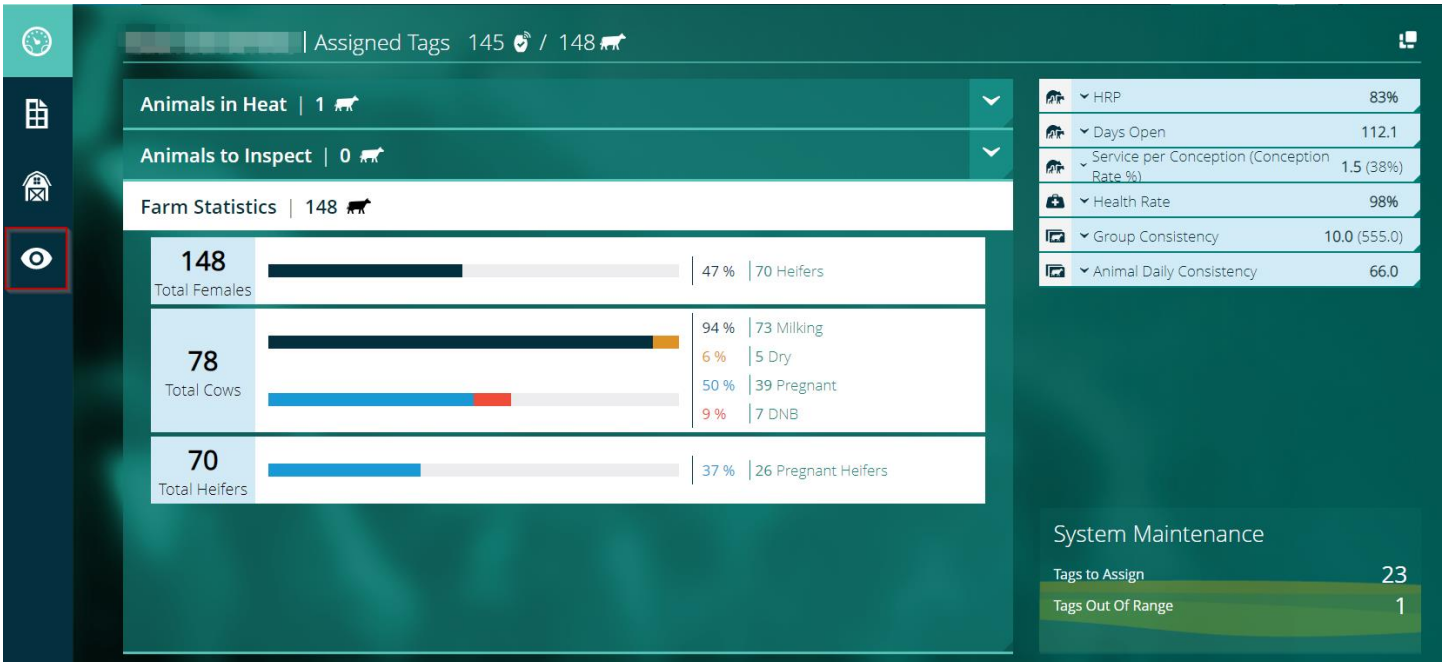
- Monitoring EarV2 LED page 161, enables farmers to find and identify animals from reports or as individuals.

## 7.1 Configuring and Using the Monitoring EarV2 LED

The LED on the Monitoring EarV2 tag allows farmers to quickly find animals requiring a certain type of attention, according to the configured task, from within their group or as part of a pen of animals sorted using the Allflex Sorting Gate.

This feature is best experienced when using both the Web and Mobile interfaces.

Once there are Monitoring EarV2 tags paired with one or more animals on the farm the LED Option Menu appears.




**NOTE**

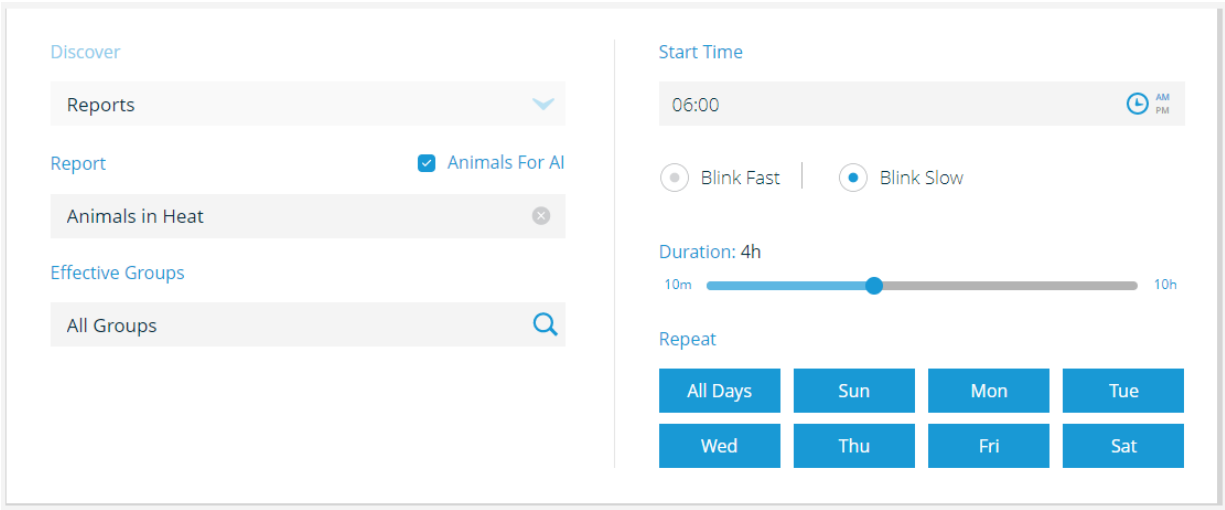
**The lighting of the LED feature supports up to 1000 tags to be lit at the same time.**

## 7.2 Creating LED Tasks from Reports

Accessing the LED Tasks table displays one or more sample or default tasks. Farms with the Starter Application plan will see one task, Animals for AI, Farms with Advanced or Premium application plans will see also the Marked Health Task. Custom Reports can also be used to create a LED Task.

1. Click ⋮ next to the Animals for AI task and choose Edit; the LED Task configuration screen appears.

    a. Farmers could also click on the Create New LED Task button and choose to discover the animals from Reports and continue as below.




2. Chose the report that contains the animals that are required. The available reports are Health, Animals in Distress, and Animals in Heat. The configuration of the LED tasks includes any quick filters available in the report.
3. Configure the Effective Groups. These are the groups where the animals are located. Only animals that appear in the report AND are in the cited groups will have their LEDs lit.

4. Configure the start time, the time the LEDs will be lit.
5. Configure the Blinking Rate of the LED, Slow, default, or Fast. This is useful in lighting the LEDS for 2 different reasons.

**NOTE**

**Fast Mode uses 3 times the battery life of Slow Mode.**
**1 Hour of Fast mode equals 3 hours of Slow Mode.**

6. Configure the duration, the length of time the LEDs will operate. The default and minimum length is 10 minutes.
7. Set the days of the week when this LED task will operate.
8. Click save to save the task.

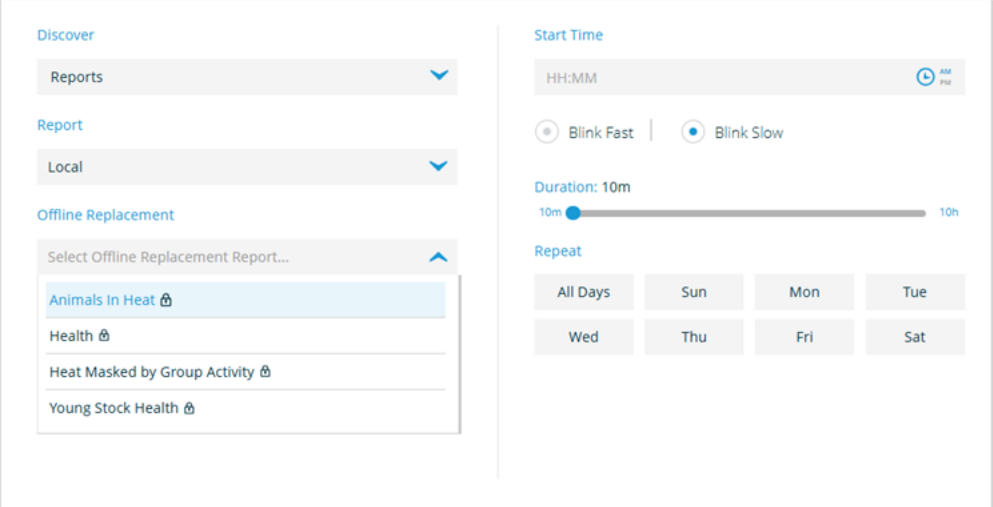
**NOTE**

**Only animals fitted and paired with Monitoring EarV2 Tags will have their LED activated.**

### 7.2.1 Creating LED Tasks with Custom Reports

When using a Custom Report for a LED Task Farmers can choose an Offline Replacement for the Custom Report they choose to use.

The Core Functionalities of Animals in Heat, Health, Young Stock Health, and Heat Mask by Group Activity Reports are available when SenseHub is not connected to the Internet.

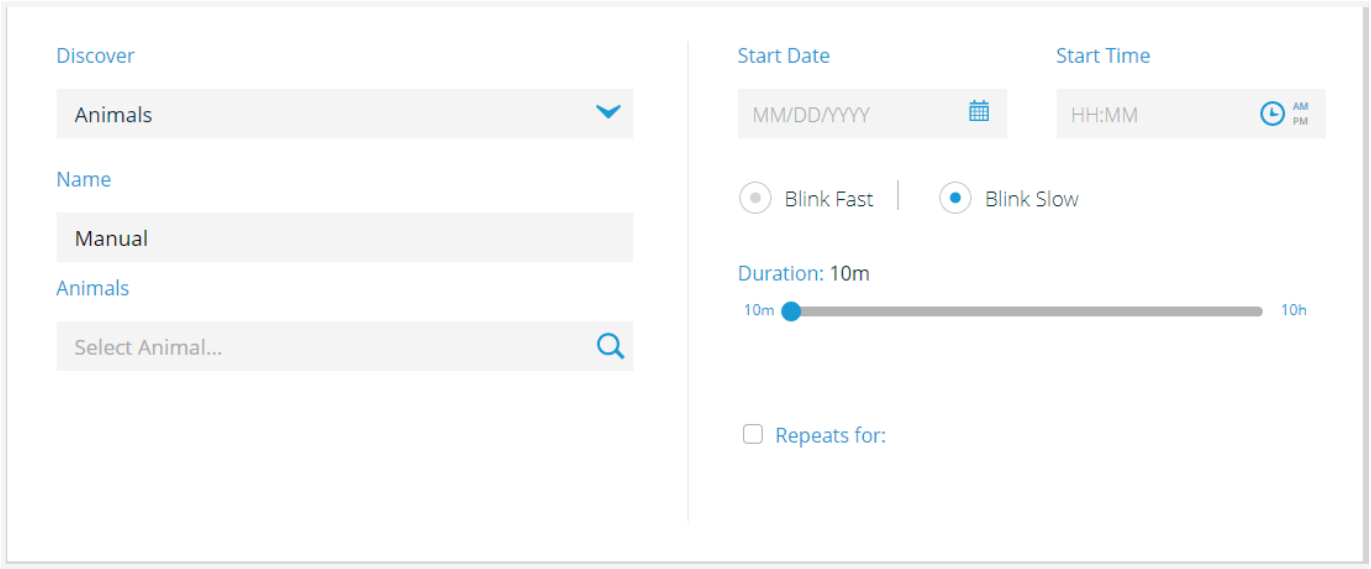



**NOTE**

**A System Alert also appears informing the Farmers that the original report assigned to the Sorting task was replaced by the configured Offline Replacement Report**

## 7.3 Creating LED Tasks for Individual Animals.

1. Click on the Create New LED Task button and choose to discover Animals.




2. Give the task a significant name, Hoof Trimming, External Exam, etc.
3. Enter the Animal IDs of the animals required.
4. Configure the Start Date and Time of this task.
5. Configure the Blinking Rate of the LED, Slow, default, or Fast. This is useful in lighting the LEDS for 2 different reasons.

**NOTE**

**Fast Mode uses 3 times the battery life of Slow Mode.**
**1 Hour of Fast mode equals 3 hours of Slow Mode.**

6. Configure the number of days the task is required to repeat. Tasks can repeat for up to 365 days.
7. Click save to save the task.

**NOTE**

**Only animals fitted and paired with Monitoring EarV2 Tags will have their LED activated.**

## 7.4 Working with the LED Task List

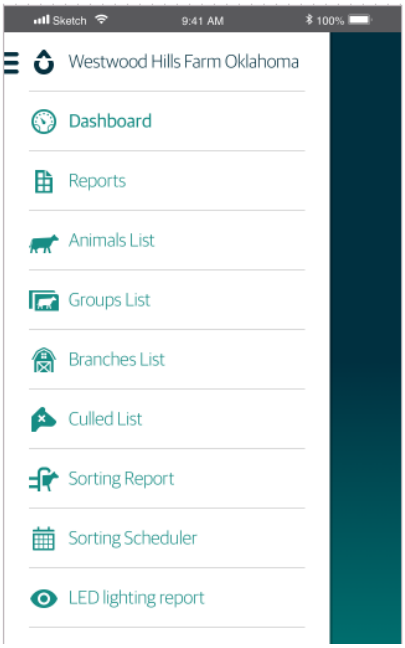
1. One can Suspend, Edit, or Delete LED Tasks that are in the Task List.

2. Suspend pauses tasks but does not delete their configuration. This is useful for seasonal farms or when one or more tasks is currently not needs but will be needed again in the future.
3. Edit allows for the editing of the configuration of a task.
4. Delete removes a task from the system.

## 7.5 LED Lighting Report

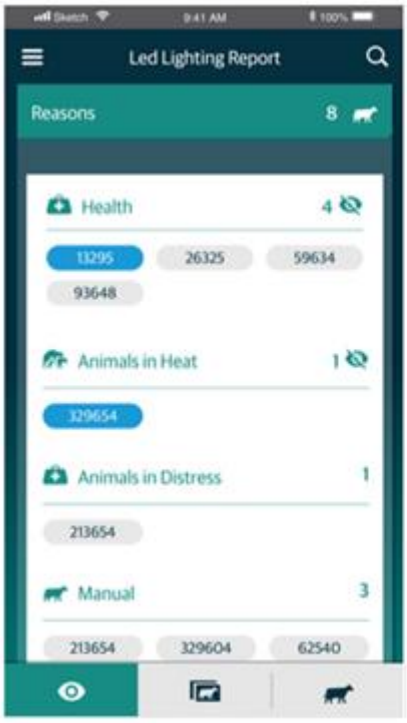
The Led Lighting Report is available on the SenseHub Mobile Application. Access the Main Menu from the Dashboard and tap, LED Lighting Report.

The LED Lighting Report is useful when working on the farm in the groups. This report allows farmers to turn-off LEDs on animals that have completed their treatment or examination. This conserves battery life.



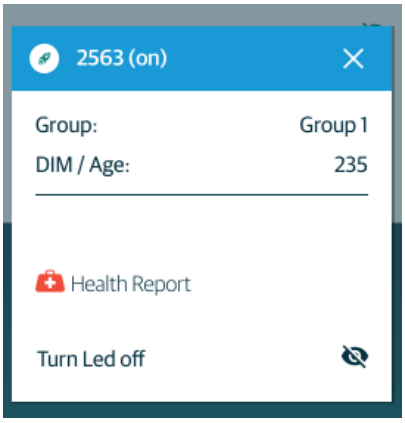
The LED Lighting Report displays the lit LEDs in three different views:

- Reasons – Display by the name of the LED Task.
- Groups – Display by the groups where the Lit LED animals are located.
- Animals – Display the list of animals that have lit LEDs according to ALL active LED tasks.



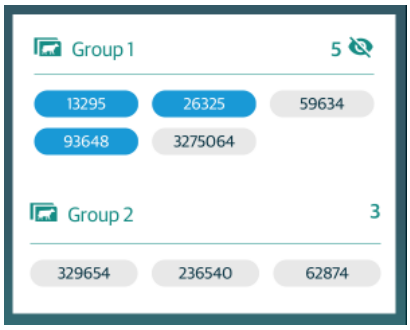
Touching the Chip displays the mini animal card for this animal.






The mini animal card shows the Animal Number, Group, DIM/Age, the Reason the LED is on, and give the option to turn the LED Off.

LEDs can be turned off also by clicking the LED icon at the top of the group section.



## 7.6 LED Lighting FAQ

To ensure a lifetime of high performance we suggest using the LED Lighting feature for up to 60 hours of LED lighting per year.

LED Lighting Tasks will not function and/or will be stopped early in some cases:

- LED Tasks do not operate during a system version update. Note that this includes updates to remote antennas that may not complete during the configured system update time.
- LED Tasks do not operate while tag firmware is being updated. If there is more than one antenna, then this make take some time.
- LED Tasks do not operate while the farm is undergoing an RF channel change.
- LEDs will not light on any Monitoring Ear Tag V2 Flex that has a Critical Battery Alert.

## 7.7 Why isn't the LED Lit?

There are several reasons why the LED might not be lit on a particular tag:

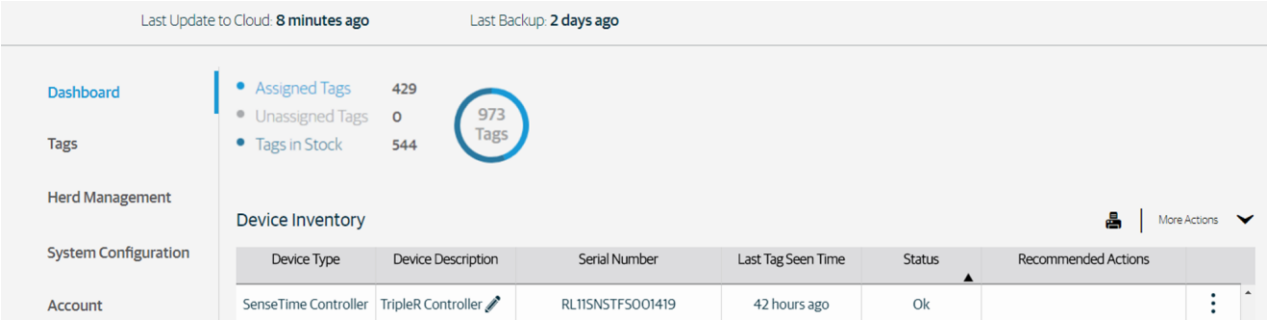
- There are already 1000 tags with LEDs lit on the farm.
- The tag is/was outside the range of the Antenna and has not received the command to light its LED.
- It is less than 20 minutes since the lighting command was sent. Tags on Animals that were not in reports may take 20 minutes or so until the LED on their tag is lit.

# 8 System Settings

The System Settings area has important information about the configuration and working environment of the SenseHub System.

## 8.1 System Dashboard

From the SenseHub Dashboard click on System; the System Dashboard appears.




| Table Item | Description |
|---|---|
| Last Update to Cloud | The last time the cloud was updated. |
| Last Backup | The last time the SenseHub system performed a backup. |
| Tag summary | A graphic summary of the tags in use on this farm. |
| Device Type | The type of the device. |
| Device Description | The description or name of the device. Click on to edit. Give the SenseHub Controller a significant name. |
| Serial Number | The serial number of the device. |
| Last Tag Seen Time | The last time a tag was identified by the device. |
| Status | The current status of the device. |
| Recommended Actions | Perform this recommended action to resolve this issue that appears in the Status column. |

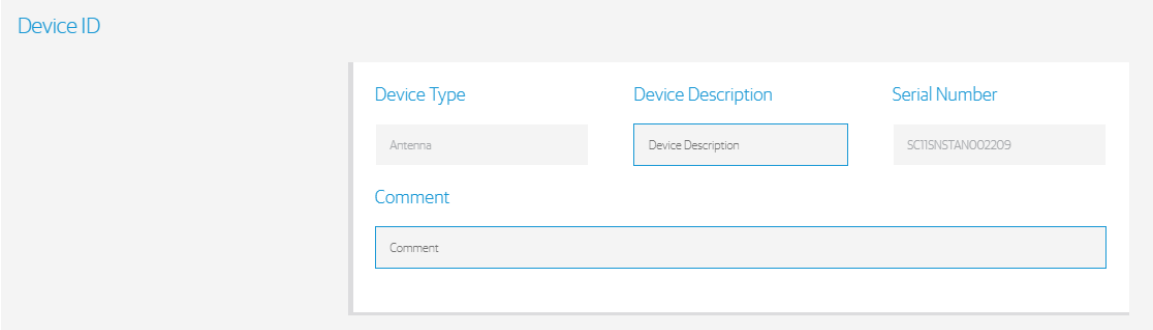
| Table Item | Description |
|---|---|
| Last Management Sync (Not Shown) | The last time SenseHub sync'd with the configured Herd Management System. If there is no Herd Management System configured this does not appear. |

### 8.1.1 Device Details

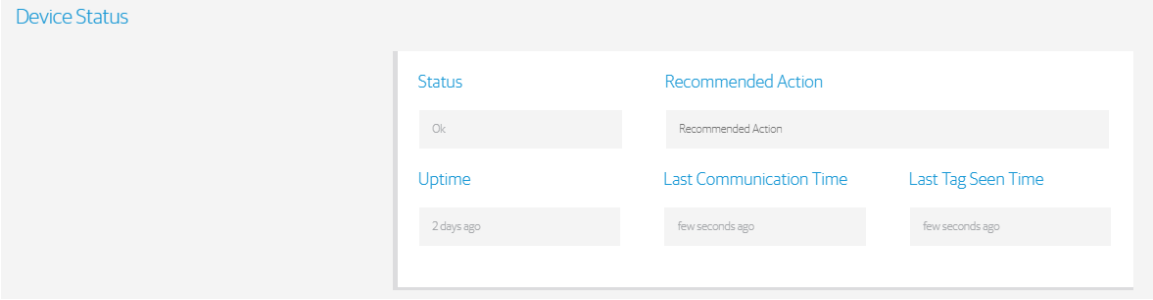
Clicking on the Device in the Device Type column displays the Device Details.

There are 4 sections here:

- Device ID: The type and name of the device.
- Device Status: the current status and correction action for this device.
- Device Versions: the version running on the device.
- Device Network: The network configuration and properties of this device.

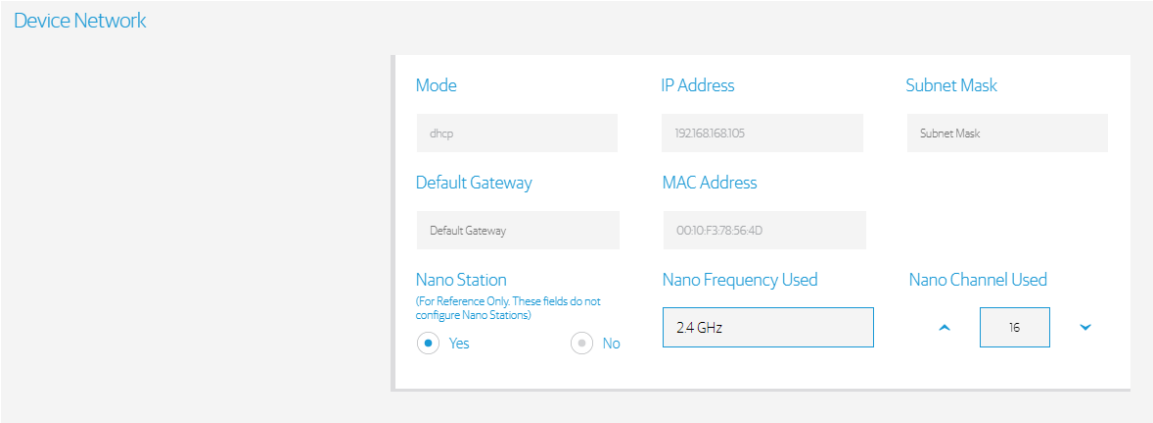



1. The type and ID of the device. It is recommended to enter information in the description and comment fields to help locate this device on the farm.



2. The current status along with recommended action is available in this section. This section also displays the current uptime of the operating system and communication time for this device as well as the last tag seen time.

3. The Device Versions section displays the versions of the device and is device dependent.

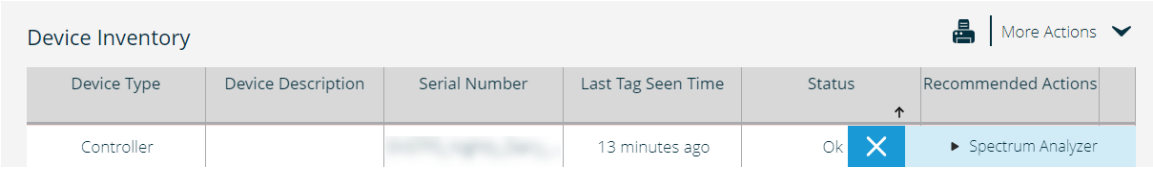



4. The Device Network section displays information about the configuration of the network. There is also a section here for manually adding information about nano stations that may be in use on this farm.

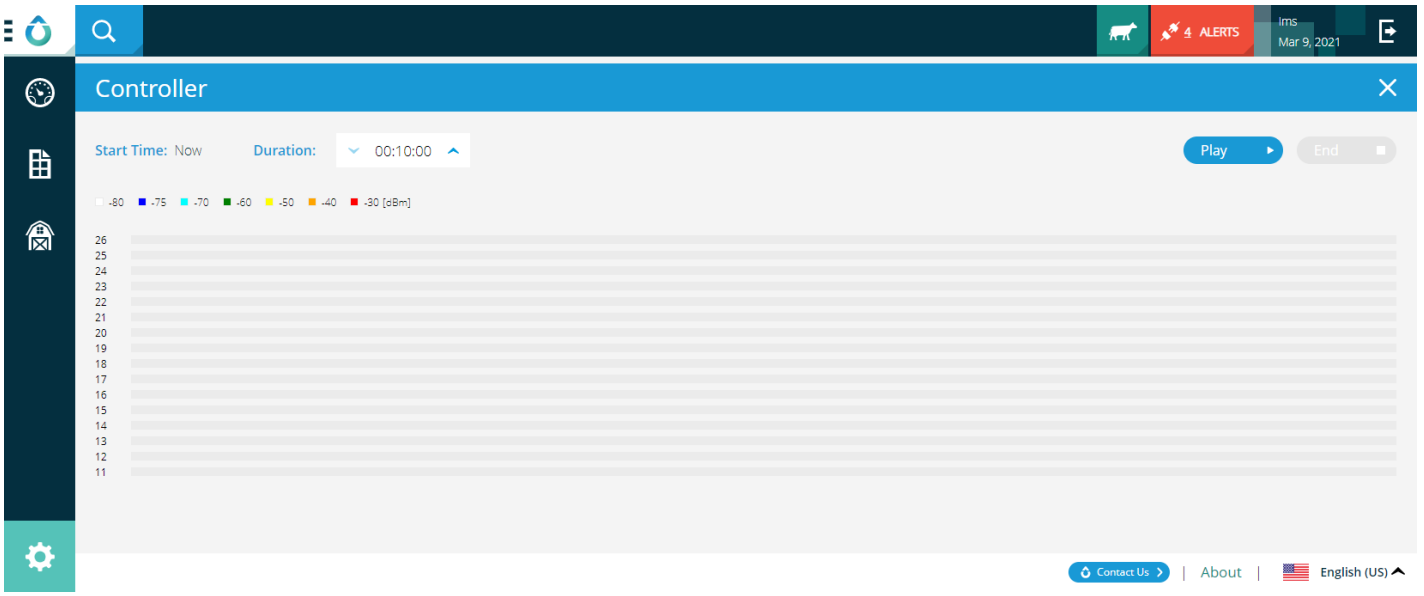
### 8.1.2 Spectrum Analyzer

The Spectrum Analyzer is a technical tool for technicians to use to analyze how much RF, Radio Frequency, or simply radio, traffic already exists on the channels that our Flex Tags use for communications.

1. In the Device Inventory table click on the 3 dots at the end of the line for a controller or antenna.




2. Click on Spectrum Analyzer and the Spectrum Analyzer screen appears.




   a. The spectrum analyzer screen displays the name of the device.

      Another reason to always give devices a significant name connected to their mounting location.

   b. The Start Time and Duration for the Spectrum Analyzer run.

      The Start time appears only after Play is clicked. The duration of the Spectrum Analyzer run can be from 10 minutes, default, to 24 hours, and the run stops automatically.

**NOTE**

**No data is received from tags from this antenna while the Spectrum Analyzer is running.**

c. Play/Pause and End buttons.

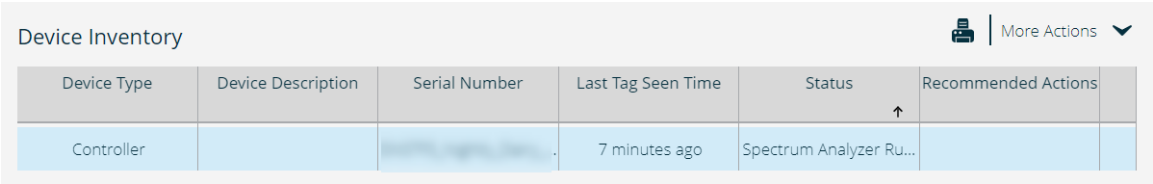
d. Key for understanding how clear or noisy each of the channels during the Spectrum Analyzer run.

| RF Noise (in dBm) | Meaning |
|---|---|
| -80 | No Noise/clear |
| -75 | |
| -70 | |
| -60 | |
| -50 | |
| -40 | |
| -30 | Most noise |

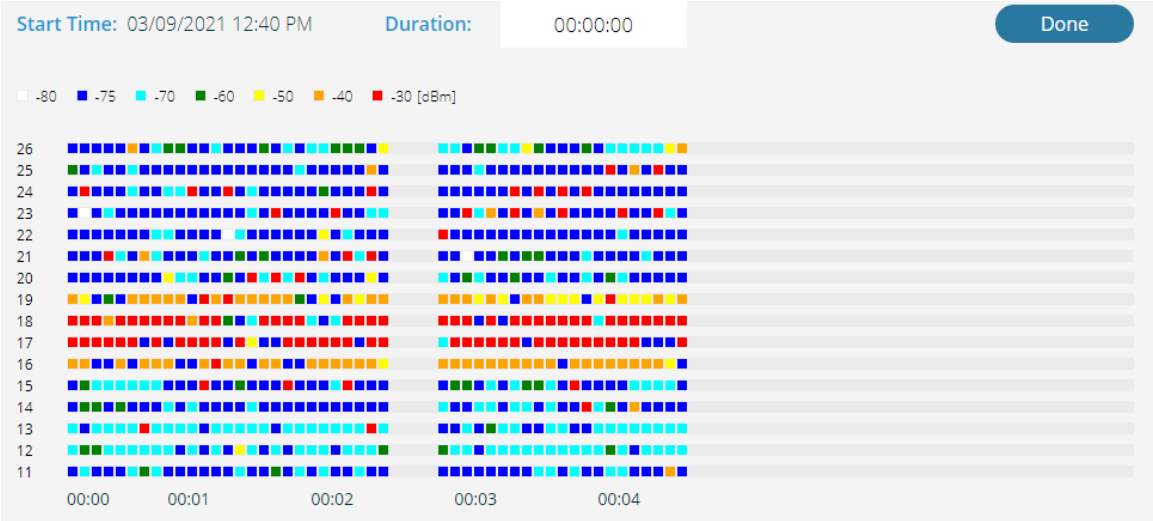
3. After Clicking

Play the Spectrum Analyzer begins, and data appears on the screen.

The Spectrum Analyzer screen can be minimized, and other work performed on SenseHub. Note that while the spectrum analyzer is running no tag data is received on this antenna.



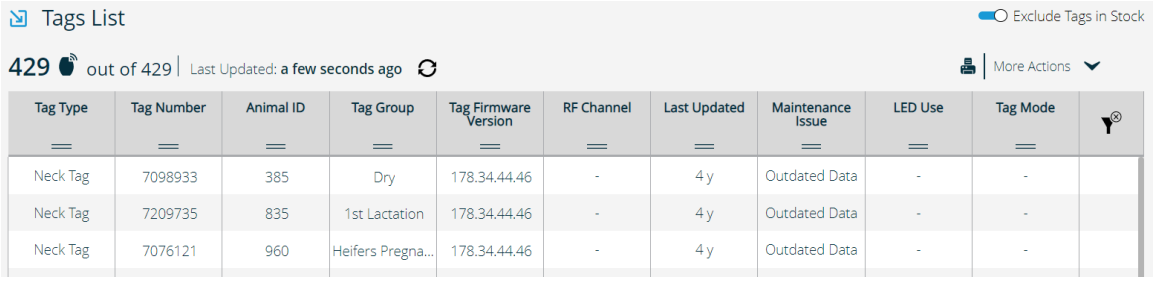
4. The Spectrum Analyzer run can be paused. No data is displayed on the screen while the run is paused. Note that the duration countdown clock is still running. If a spectrum analyzer run is set to run for 15 minutes, and then after 7 minutes of the run it is paused for 10 minutes, when the run is unpaused this run will be complete. 7 +10 = 17 minutes 2 minutes more that the configured duration.
5. When resuming the Spectrum Analyzer Run after a pause, a gap appears indicating that the run was paused for a time.




6. After stopping the Spectrum Analyzer run or when it completes clicking Done Done, the Spectrum Analyzer screen closes, and the antenna returns to normal operation.

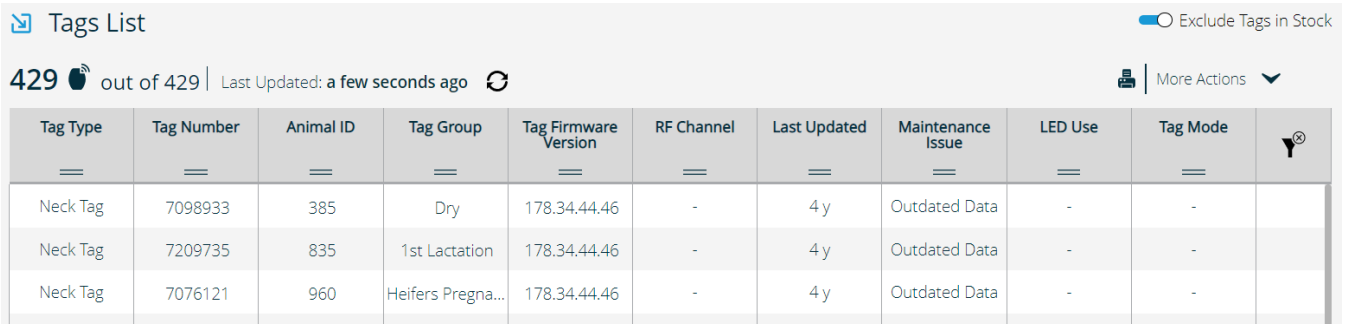
## 8.2 Tag List

Click on Tags, the Tag List appears.



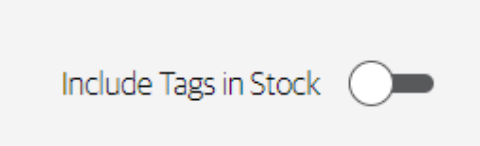

| Column Header | Description |
|---|---|
| Tag Type | The type of the tag |
| Tag Number | The number of the tag. |
| Animal ID | The number of the animal that is paired with the tag. |
| Group | The group where the animal is. |
| Software Version | The active software version running on the tag. |
| RF Channel | The configured RF Chanel used by the tag. |
| Last Updated | The last time data was received from the tag. |
| Maintenance Issue | The current Maintenance Issue, if any, identified for this tag. |
| LED Use | The number of Slow Mode LED Blinking hours the tag has used |
| Tag Mode | The current operational mode of the tag |

Click on to expand the view to include all the columns.



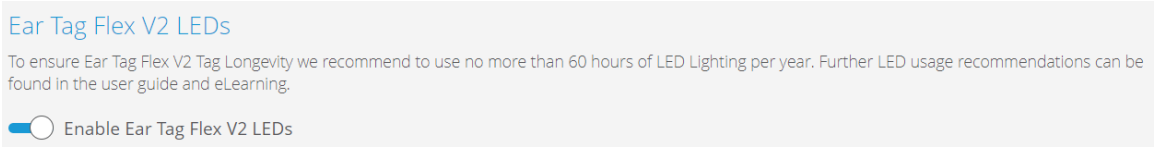
**NOTE**

**By default, this table only shows tags that are paired with cows/animals.**




### 8.2.1 Monitoring EarV2 LEDs

This toggle Enables/Disables the lighting of Monitoring EarV2 LEDs

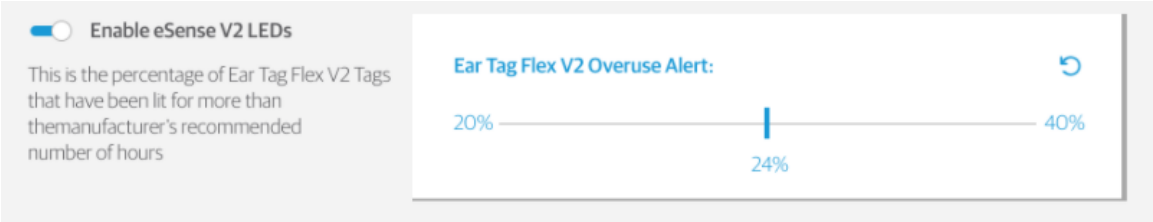



When a Monitoring EarV2 tag is assigned to an animal is switched to Enabled automatically. If this toggle is ever switched to Disable, it must be enabled again manually.

### 8.2.2 Battery Alerts

When Monitoring Ear Tag V2 Flex are enabled and in use on the farm, two battery alerts are available:

- Overuse Alert
- Critical Battery Alert

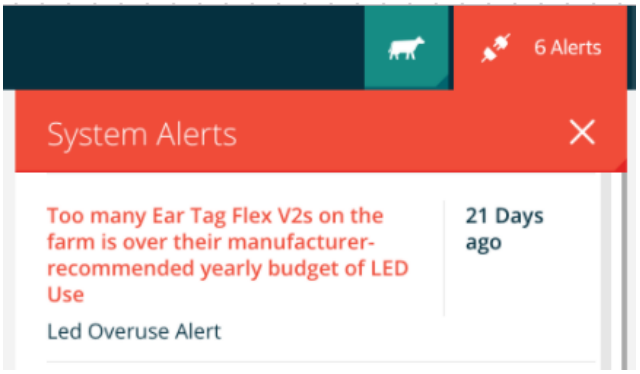



**NOTE**

**30 Assigned Ear Tags Flex V2 are required for the Alerts to be generated.**

### 8.2.3 Battery Overuse Alert

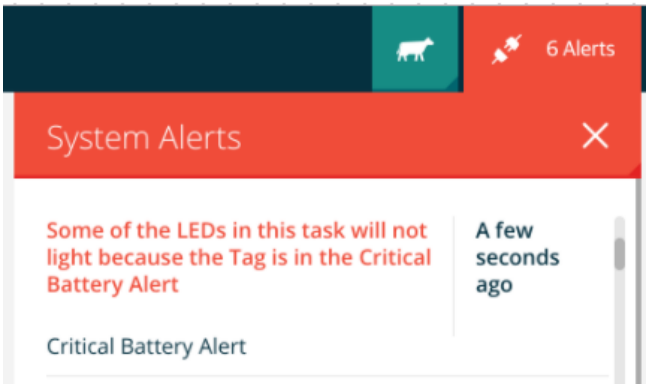
When LED use on Monitoring EarV2 tags goes over the recommended manufacturer's number of hours, currently 60 hours per year, for the configured percentage of tags, the Battery Overuse Alert appears.



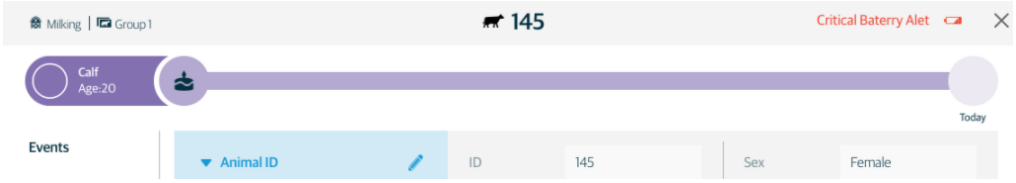

When this alert appears, it is an opportunity re-evaluate the LED use on the farm.

### 8.2.4 Critical Battery Alert

When a Critical Battery Alert appears, this means that it is time to replace the tags that show this alert.

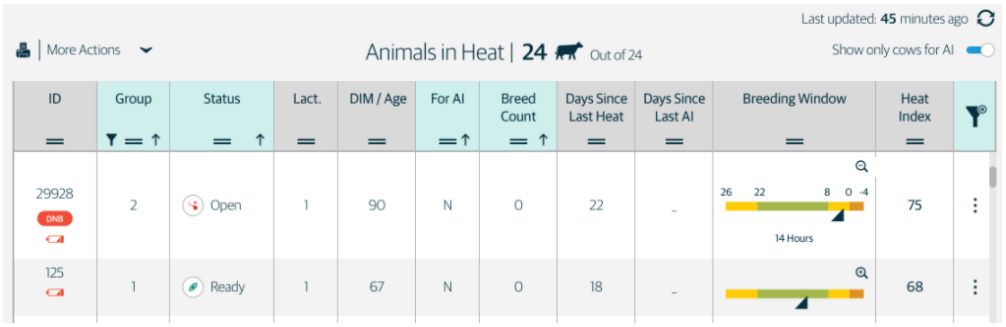



Tags that have Critical Battery Alerts will not have their LEDs lit if they are part of a LED Task, nor will they update their firmware if a Tag Update is initiated.




The Critical Battery Alert appears on the Cow Card and in each report where there are animals with tags that have a Critical Battery Alert.

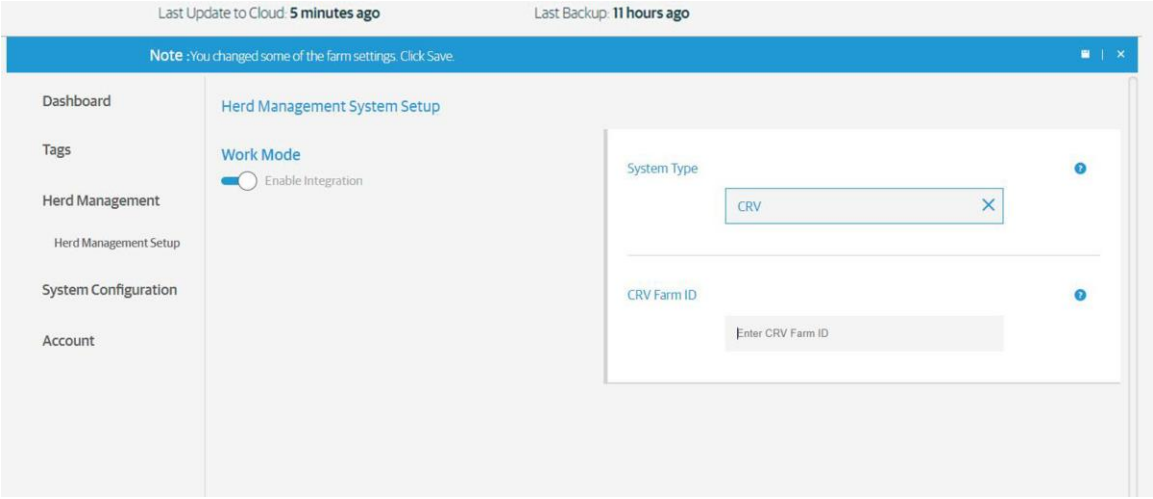
# System Settings



## 8.3 Herd Management Setup

The Herd Management Setup section identifies and defines the current system configuration. Is the system configured to work in Allflex Mode, stand alone, or is it configured to work integrated with a Herd Management System.

- If the Herd Management System was not configured during registration, go to System → Herd Management and choose the Herd Management System in use on the farm.



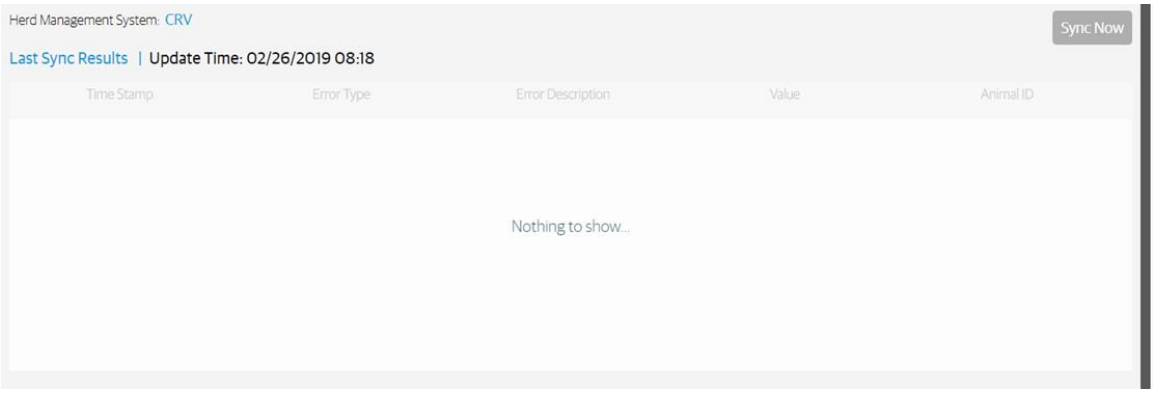

Depending on the Herd Management System you are using you will need to add additional information.

When configuration is complete click save to save the configuration.

### 8.3.1 Monitoring Herd Management

SenseHub monitors and reports on the status of the most recent synchronization with the Herd Management System.

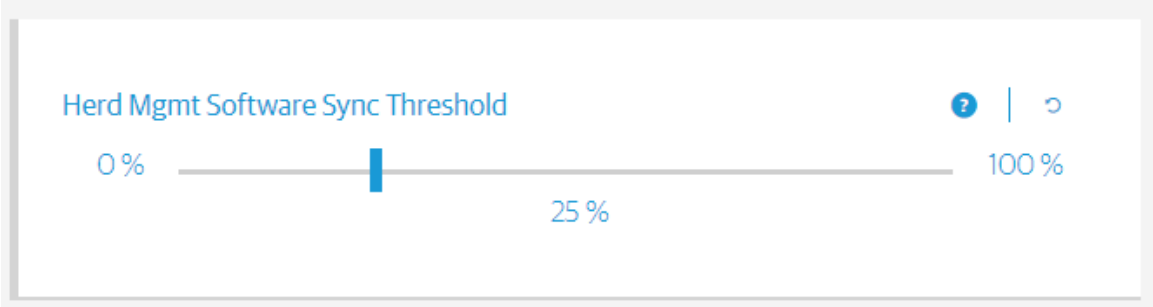
Go to System → Herd Management → Results the last Sync Results screen appears.




| Field | Description |
|---|---|
| Time Stamp | The time the error occurred |
| Error Type | The type of Error |
| Error Description | Long Description of the error |
| Value | The value in error |
| Animal ID | The Animal ID record that contains the error |

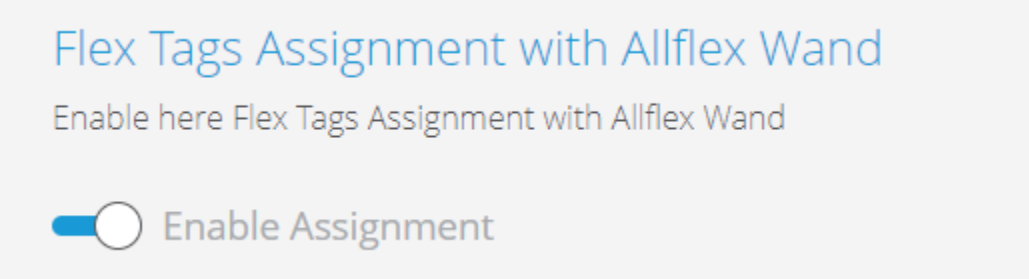
### 8.3.2 Herd Management Synchronization Threshold

This threshold defines the percentage of cows that may be culled because of a Herd Management Software synchronization.



### 8.3.3 Flex Tag Assignment with Allflex Wand

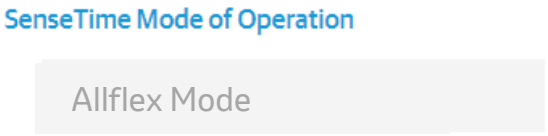
When this is enabled, Flex Tags will be paired with animals when using the Allflex Wand. Pairing with the Allflex Wand will also overrule any pairing of Flex tags sent by the Herd Management Software.



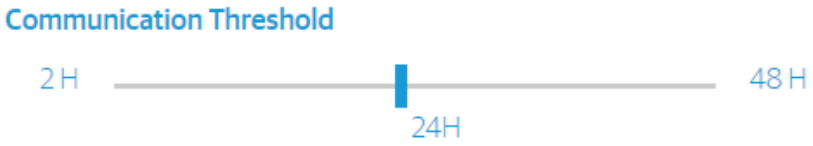

## 8.4 System Configuration

This section contains configuration information about the SenseHub Operation Mode, Tag Communication Configuration, and Internal Algo Versions.

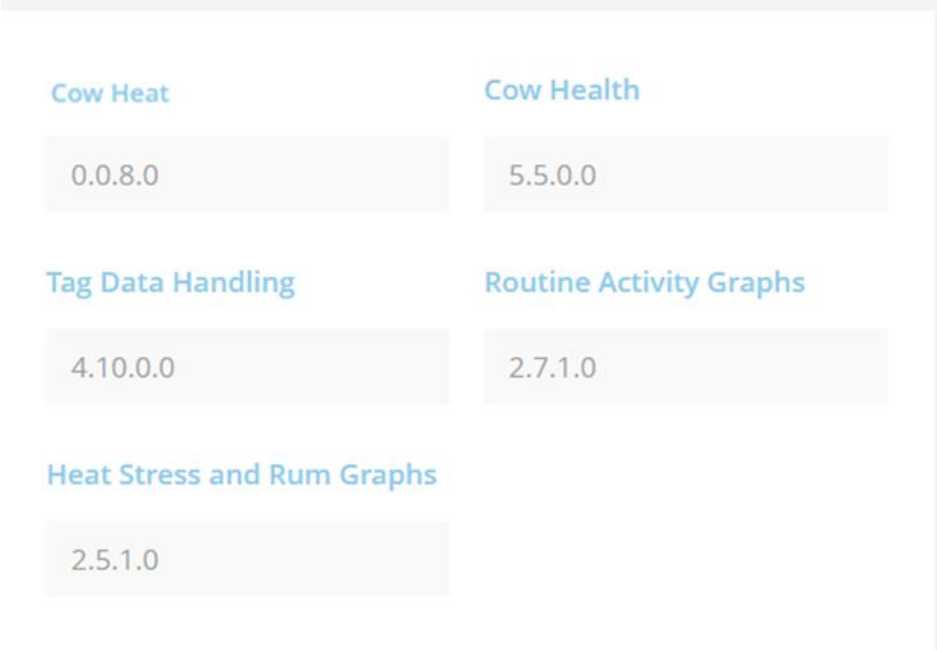
- SenseHub Operation Mode – Choose between Allflex Mode and Minimal Validation Modes of operation. Using Allflex Mode guarantees the full functionality of the system. The system will provide less utility when used in Minimal Validation mode.




- Tag Communication Configuration – Configure when tags that have not identified since assignment and tags that have identified at least once since assignment but not in a while appear in the Tag Maintenance Report.

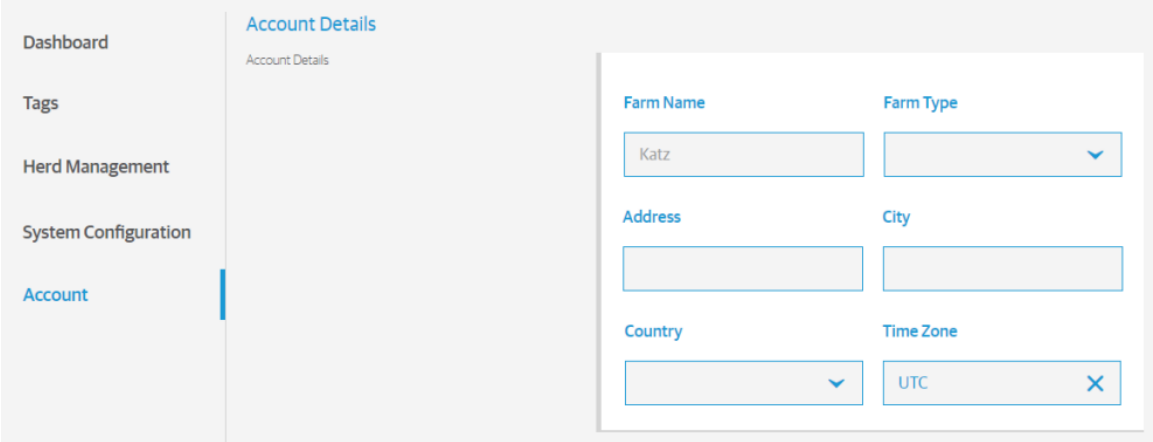



- Algo Versions – This section contains important information needed to communicate to Technical Support.



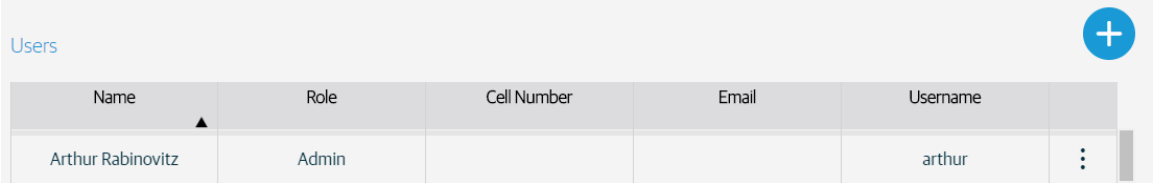

## 8.5 Account Details

This section contains the current configured account details.



### 8.5.1 Users

The users page is where Users to the local SenseHub™ system are added and managed.

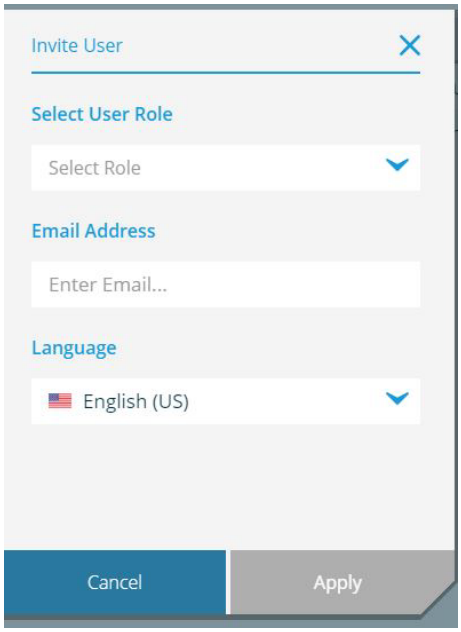



There are 4 user Roles available on SenseHub™:

- Admin – the user that is created during registration is the system administrator and has access to edit everything in SenseHub™. There is only one Admin per SenseHub™.
- Farm Manager – This user can edit all settings related to the Farm, its operation, and the cows. This user may not edit System Settings.
- Farmer –This user can enter events and view cows, reports, and graphs.
- External User – This type of user should be used for consultants and service providers to the farm like the breeder, veterinarian, and feeding consultant. With this user service providers/consultants can receive alerts from the system. They can also access the system but only as Read-only users.

To add a new user, click on Add, and then choose the user role to add.

Complete the User Details and click Apply.



Continue to Notifications on page 155 to configure the types of notifications and alerts sent to the users, and on which devices.

# Appendix A Certifications

telefication

TCB

GRANT OF EQUIPMENT AUTHORIZATION

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

TCB

Telefication B.V.
Edisonstraat 12a
Zevenaar, NL-6902 PK
Netherlands

Date of Grant: 01/16/2017

Application
Dated: 01/06/2017

SCR Engineers Ltd.
18 Hamelacha street, Poleg Industrial Zone
P.O. Box 13564,
Netanya, 42138
Israel

Attention: Eli Kamhine , VP Technologies

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

| | |
|---|---|
| FCC IDENTIFIER: | AMUT04 |
| Name of Grantee: | SCR Engineers Ltd. |
| Equipment Class: | Part 15 Low Power Transceiver, Rx Verified |
| Notes: | eSense ear tag |

| Grant Notes | FCC Rule Parts | Frequency Range (MHZ) | Output Watts | Frequency Tolerance | Emission Designator |
|---|---|---|---|---|---|
| | 15C | 2405.0 - 2480.0 | | | |

| | | |
|---|---|---|
| Certificate No.: 162185948/AA/00 | Mark Chung<br>Product Assessor | Mark Chung |

# Appendix A Certifications

telefication

TCB

GRANT OF EQUIPMENT AUTHORIZATION

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

TCB

Telefication B.V.
Edisonstraat 12a
Zevenaar, NL-6902 PK
Netherlands

Date of Grant: 01/13/2016

Application
Dated: 01/13/2016

**SCR Engineers Ltd.**
**18 Hamelacha street, Poleg Industrial Zone**
**P.O. Box 13564,**
**Netanya, 42138**
**Israel**

**Attention: Eli Kamhine , VP Technologies**

**NOT TRANSFERABLE**

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

| | |
|---|---|
| FCC IDENTIFIER: | AMUT03 |
| **Name of Grantee:** | SCR Engineers Ltd. |
| **Equipment Class:** | **Part 15 Low Power Transceiver, Rx Verified** |
| **Notes:** | **Activity based tag** |

| Grant Notes | FCC Rule Parts | Frequency Range (MHZ) | Output Watts | Frequency Tolerance | Emission Designator |
|---|---|---|---|---|---|
| | **15C** | **2405.0 - 2480.0** | | | |

| | | |
|---|---|---|
| Certificate No.: 152185079/AA/00 | Mark Chung<br>Product Assessor | Mark Chung |

Appendix A Certifications

HERMON LABORATORIES

# CERTIFICATE OF CONFORMITY

**With EN 301 489-3: V1.6.1: 2013, other than telecommunication center equipment and EN 301 489-1 V1.9.2: 2011, other than telecommunication center equipment Standards harmonized under article 3.1(b) of R&TTE Directive 1999/5/EC**

**With AS/NZS CISPR 22: 2009 + A1(10), Class B Standard**

**Certificate Number SCREMC_EN.26956C**

This certificate of conformity has been granted to the applicant based on the results of tests and evaluations, performed by Hermon Laboratories from April 16 to May 4, 2015 on representative sample of the specified product.

## Product description

| | |
|---|---|
| **Product name:** | Activity based tag |
| **Model:** | HR-TAG-LDn |
| **Serial number:** | PO055798 |
| **Hardware version:** | 04.04 |
| **Software release:** | 001.002.021.026 |

## Applicant/Manufacturer details

| | |
|---|---|
| **Name:** | SCR Engineers Ltd. |
| **Address:** | 18 Hamelacha street, Netanya, POB 13564, Israel |
| **Telephone number:** | +972 73 240 6053 |
| **Fax number:** | +972 9865 0703 |

This is to certify that the tested product sample satisfies the requirements of the above listed standard/s.

Measurement/test results are contained in the test report: SCREMC_EN.26956.

The comments in the associated (if applicable) test report/s shall be taken into account and used in conjunction with this certificate

**Michael Nikishin,**
**EMC & Radio Group Manager**
Hermon Laboratories Ltd.

**July 20, 2015** **Page 1 of 1**

EXPERTS IN GLOBAL COMPLIANCE SOLUTIONS

EMC Radio Telecom Environmental Product Safety International Approvals

**Hermon Laboratories Ltd.**
Hatachana St., POB 23, Binyamina 30500 Israel
Phone: +972 4 628 8001, Fax: +972 4 628 8277
Email: mail@hermonlabs.com, www.hermonlabs.com

Appendix A Certifications

HERMON LABORATORIES

# CERTIFICATE OF CONFORMITY

**With EN 301 489-3: V1.6.1: 2013, other than telecommunication center equipment and EN 301 489-1 V1.9.2: 2011, other than telecommunication center equipment Standards harmonized under article 3.1(b) of R&TTE Directive 1999/5/EC**

**With AS/NZS CISPR 22: 2009 + A1(10), Class B Standard**

**Certificate Number SCREMC_EN.26956C**

This certificate of conformity has been granted to the applicant based on the results of tests and evaluations, performed by Hermon Laboratories from April 16 to May 4, 2015 on representative sample of the specified product.

## Product description

| | |
|---|---|
| **Product name:** | Activity based tag |
| **Model:** | HR-TAG-LDn |
| **Serial number:** | PO055798 |
| **Hardware version:** | 04.04 |
| **Software release:** | 001.002.021.026 |

## Applicant/Manufacturer details

| | |
|---|---|
| **Name:** | SCR Engineers Ltd. |
| **Address:** | 18 Hamelacha street, Netanya, POB 13564, Israel |
| **Telephone number:** | +972 73 240 6053 |
| **Fax number:** | +972 9865 0703 |

This is to certify that the tested product sample satisfies the requirements of the above listed standard/s.

Measurement/test results are contained in the test report: SCREMC_EN.26956.

The comments in the associated (if applicable) test report/s shall be taken into account and used in conjunction with this certificate

**Michael Nikishin,**
**EMC & Radio Group Manager**
Hermon Laboratories Ltd.

**July 20, 2015** **Page 1 of 1**

EXPERTS IN GLOBAL COMPLIANCE SOLUTIONS

EMC Radio Telecom Environmental Product Safety International Approvals

**Hermon Laboratories Ltd.**
Hatachana St., POB 23, Binyamina 30500 Israel
Phone: +972 4 628 8001, Fax: +972 4 628 8277
Email: mail@hermonlabs.com, www.hermonlabs.com

Appendix A Certifications

HERMON LABORATORIES

# CERTIFICATE OF CONFORMITY

CERTIFICATE

**With AS/NZS CISPR 22: 2009 + A1(10), Class B standard**

**With EN 301 489-3: V1.6.1: 2013, other than telecommunication center equipment and EN 301 489-1 V1.9.2: 2011, other than telecommunication center equipment standards harmonized under article 3.1(b) of R&TTE Directive 1999/5/EC**

**With EN 300 440-2 V1.4.1: 2010 standard harmonized under article 3(2) of R&TTE Directive 1999/5/EC**

**With AS/NZS 4268:2012 and AS/NZS 4268/Amdt1:2013 standards**

**Certificate Number SCREMC_RAD_28575C**

This certificate of conformity has been granted to the applicant based on the results of tests and evaluations, performed by Hermon Laboratories from July 11 to 14, 2016 on representative sample of the specified product.

## Product description

| | |
|---|---|
| **Product name:** | eSense Ear TAG |
| **Model:** | AMUT04 |
| **Serial number:** | QD0000145 |
| **Hardware version:** | 01.02.00 |
| **Software release:** | 110.07.05.06 |

## Applicant/Manufacturer details

| | |
|---|---|
| **Name:** | SCR Engineers Ltd. |
| **Address:** | 18 Hamelacha street, Netanya, POB 13564, Israel |
| **Telephone number:** | +972 73 240 6053 |

This is to certify that the tested product sample satisfies the requirements of the above listed standard/s.

Measurement/test results are contained in the test reports:

SCREMC_28575, SCRRAD_EN.28575.

The comments in the associated (if applicable) test report/s shall be taken into account and used in conjunction with this certificate

**Michael Nikishin,**
**EMC & Radio Group Manager**
Hermon Laboratories Ltd.
**November 16, 2016**

**Page 1 of 1**

EXPERTS IN GLOBAL COMPLIANCE SOLUTIONS

EMC | Radio | Telecom | Environmental | Product Safety | International Approvals

**Hermon Laboratories Ltd.**
Hatachana St., POB 23, Binyamina 30500 Israel
Phone: +972 4 628 8001, Fax: +972 4 628 8277
Email: mail@hermonlabs.com, www.hermonlabs.com

Appendix A Certifications

HERMON LABORATORIES

# CERTIFICATE OF CONFORMITY

**With EN 300 440-2 V1.4.1: 2010 Standard harmonized under article 3(2) of R&TTE Directive 1999/5/EC**
**With AS/NZS 4268:2012 and AS/NZS 4268/Amdt1:2013 Standard**

**Certificate Number SCRRAD_EN.26956C**

This certificate of conformity has been granted to the applicant based on the results of tests and evaluations, performed by Hermon Laboratories from May 3 to 17, 2015 on representative sample of the specified product.

## Product description

| | |
|---|---|
| **Product name:** | Activity based tag |
| **Model:** | HR-TAG-LDn |
| **Serial number:** | PO055798 |
| **Hardware version:** | 04.04 |
| **Software release:** | 001.002.021.026 |

## Applicant/Manufacturer details

| | |
|---|---|
| **Name:** | SCR Engineers Ltd. |
| **Address:** | 18 Hamelacha street, Netanya, POB 13564, Israel |
| **Telephone number:** | +972 73 240 6053 |
| **Fax number:** | +972 9865 0703 |

This is to certify that the tested product sample satisfies the requirements of the above listed standards.

Measurement/test results are contained in the test report: SCRRAD_EN.26956.

The comments in the associated (if applicable) test report/s shall be taken into account and used in conjunction with this certificate

**Michael Nikishin,**
**EMC & Radio Group Manager**
Hermon Laboratories Ltd.

**July 15, 2015**

**Page 1 of 1**

CERTIFICATE

EXPERTS IN GLOBAL COMPLIANCE SOLUTIONS

EMC Radio Telecom Environmental Product Safety International Approvals

**Hermon Laboratories Ltd.**
Hatachana St., POB 23, Binyamina 30500 Israel
Phone: +972 4 628 8001, Fax: +972 4 628 8277
Email: mail@hermonlabs.com, www.hermonlabs.com