



SenseHub®  
COW CALF

# Installation and Startup Guide



**MERCK**  
Animal Health

Welcome to your new SenseHub® Cow Calf monitoring system. This guide will assist you in setting up the hardware and software to begin monitoring your herd and receiving alerts. If you have questions at any step of this process, please contact your Merck representative or call (608) 237-3170.

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# System Setup



Before you begin the self-installation process, you need to determine which setup scenario is applicable to your operation based on conversations with your Merck sales representative and the equipment you have received. There are three different setup scenarios:

**Scenario 1**—Direct Connection to Internet Router (Page 5)

**Scenario 2**—Connection with Antenna (Page 9)

**Scenario 3**—Connection in Remote Location with Solar Power (Page 15)

(If you have already installed the SenseHub hardware, skip to page 25 for SenseHub Registration information.)

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# Scenario 1

Direct Connection  
to Internet Router



For a direct connection to your router, you'll need the following:

1. SenseHub Controller
2. Black weather-protective box
3. Internet router
4. Ethernet cable
5. Antenna Mast
6. Section of PVC pipe

For mounting, you'll need an impact driver or drill, socket wrench, wire cutters and the following hardware:

- Hose clamps
- Self-tapping screws
- Zip ties
- Supplied mounting hardware

**The following steps will guide you through installing your SenseHub controller and connecting it directly to your internet router:**

## 1) Mounting the SenseHub Controller



- 1) Connect the Antenna Mast to the mounting bracket using the two supplied bolts—do not tighten the bottom bolt. Later the bottom bolt will be tightened to set the desired angle based on the mount to the desired roof or building side.



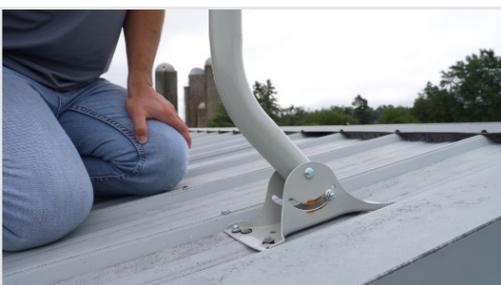
- 2) Insert the PVC pipe into the Antenna Mast. Secure by using a drill and two self-tapping screws.



- 3) Remove the metal mounting bracket from the backside of the SenseHub Controller. Using two hose clamps, attach the bracket to the lower part of the Antenna Mast facing outward.



- 4) Slide the SenseHub Controller onto the mounting bracket and tighten the bottom bolt to secure the Controller to the mount.



- 5) Using lag bolts, attach the mounting bracket to the post, building or wall in the desired location. This is where the Controller will collect data from SenseHub tags.

## 2) Connecting Controller to Internet Router



1) Using an Ethernet cable, connect one end of the cable to the PD port on the SenseHub Controller.



2) Connect the other end of the Ethernet cable to the Power and Data port to the 55v SenseHub power supply that comes in the box with the Controller. Then, connect another Ethernet cable from the “Data Only” port on this power supply to the internet router or network switch. Once connected to the internet, the light on the Controller will turn from red to green.



3) Using zip ties, secure the Ethernet cable to the Antenna Mast and to the structure. Do not pull too tightly, as it could damage the cable.

### Hardware Installation Complete

Your SenseHub Cow Calf system should now be set up and ready to begin collecting data on your herd. Refer to pages 24-41 to see instructions for software registration, adding tags, activating alerts and more. While data is collected immediately after setup, it will take 7-14 days for the system to gain a baseline for heat detection and health monitoring alerts.

Refer to page 9 for steps on Scenario 2—how to install the system with an Antenna connection. Refer to page 15 for steps on Scenario 3—how to install the Controller on its own solar panel.

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# Scenario 2

Connection  
with Antenna



This setup is to install the SenseHub Controller using nanos. For this type of installation, you will need:

1. SenseHub Controller or Antenna
2. Black weather-protective box
3. Internet router
4. Nanos
5. Ethernet cables
6. Antenna Mast
7. Sections of PVC pipe

For mounting, you'll need an impact driver or drill, socket wrench, wire cutters and the following hardware:

- Hose clamps
- Self-tapping screws
- Zip ties
- Supplied mounting hardware

**The following steps will guide you through installing the office-side nano, setting up the SenseHub Controller and Antenna, and mounting and connecting the remote nano:**

## 1) Installing the Office-Side Nano



- 1) Begin near the location of your internet router. First, connect the Antenna Mast to the mast mounting bracket using the two supplied bolts to affix to the desired roof or building side. The bottom bolt will be tightened later to set the desired angle based on the mount.



- 2) Insert a PVC pipe into the Antenna Mast. Secure it with two self-tapping screws.



- 3) Using a hose clamp, attach the office-side nano (should be labeled “access point”) near your local internet router in a location where an Ethernet cable can be connected to your internet router and to the nano.



- 4) Mount the office-side (access point) nano in a line-of-sight to where your remote nano will be. The more obstructions, the more range will be affected.



- 5) You will need two Ethernet cables. Connect one from the LAN port of your POE injector to your internet router. Connect the other cable from the POE side of the POE injector to the main port of the nano. The nano power light should illuminate.

### 2) Setting Up the SenseHub Controller or Antenna



- 1) Once you've mounted the office-side nano, move to the location where your SenseHub Controller or Antenna will be positioned.



- 2) Connect the second Antenna Mast to the mounting bracket using the two supplied bolts to affix to the desired roof or building side. Later the bottom bolt will be tightened to set the desired angle based on the mount to the desired roof or building side.



- 3) Insert a PVC pipe into the Antenna Mast. Secure by using two self-tapping screws.



- 4) Remove the metal mounting bracket from the backside of the SenseHub Controller or Antenna. Using two hose clamps, attach the bracket to the lower part of the Antenna Mast facing outward. Wait to fully tighten the hose clamps until you are certain of the orientation. The Controller or Antenna has the longest range, 350 yards, pointing out the front face.

## 3) Mounting and Connecting the Remote Nano



- 1) Using a hose clamp, attach another nano to the PVC pipe above the SenseHub Controller or Antenna.



- 2) Using lag bolts, attach the mounting bracket to the post, building or wall in the desired location. This is where the Controller or Antenna will collect data from SenseHub tags.



- 3) Using an Ethernet cable, plug one end into the main port on the nano.



- 4) Plug the other end of the cable into the POE port on the nano's POE injector. Then plug the POE injector into a power outlet.



- 5) Using a second Ethernet cable, plug one end into the Data In port on the SenseHub Controller/Antenna's POE injector and the other end into the LAN port of the nano's POE injector.



- 6) The other end of the Ethernet cable from the PD port of the SenseHub Controller or Antenna should be plugged into the Data and Power Out port of the provided SenseHub POE injector.



- 7) Once connected to the internet, signal strength will show on the nano if the access point is already installed. This will indicate how strong of a signal you are receiving from your office-side nano. At least two of the four signal strength bars should be illuminated. The light on the SenseHub Controller or Antenna will also change from red to green once receiving an internet connection.



- 8) Place both POE injectors into a weatherproof box; then secure the weatherproof box to a secure structure. Close the lid, ensuring both latches close.

### Hardware Installation Complete

Your SenseHub Cow Calf system should now be set up and ready to begin collecting data on your herd. Refer to pages 24-41 to see instructions for software registration, adding tags, activating alerts and more. While data is collected immediately after setup, it will take 7-14 days for the system to gain a baseline for heat detection and health monitoring alerts.

Refer to page 15 for steps on Scenario 3—how to install the Controller on its own solar panel.

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# Scenario 3

Connection in Location  
with Solar Power



For a remote connection using a solar panel, you'll need the following:

1. Deep cycle batteries (Locally sourced, typically labeled for RV or marine use)
2. Inverter
3. SenseHub Antenna
4. Large black tote for battery and inverter storage
5. Smaller black weather-protected box
6. Nano(s)
7. Ethernet cables
8. Antenna Mast
9. Section of PVC pipe
10. Flagpole
11. Solar panel (*not pictured*)

For mounting, you'll need an impact driver or drill, socket wrench, wire cutters and the following hardware:

- Hose clamps
- Self-tapping screws
- Weatherproof sealant or tape
- Zip ties
- Supplied mounting hardware

The following steps will guide you through installing the solar panel and connecting your SenseHub system using nanos and an antenna:

## 1) Setting Up the Solar Panel



- 1) To start, unbox the supplied solar panel. On the underside of the panel, remove the bolts and nuts securing the angle iron.



- 2) Lay the long side of the angle iron arm down against a pallet or solid surface to affix the solar panel. Use the shorter piece of angle iron to create a brace. The angle of the solar panel should be roughly 45 degrees and oriented to face south to receive maximum sun.



- 3) Using the bolts, secure the short piece of angle iron to the bottom piece of longer angle iron that sits on your solid surface. Attach the other end of the short angle iron to the backside of the solar panel. Tighten with a wrench. Repeat for both sides.



- 4) Using lag bolts, secure the solar panel to the surface.

## 2) Connecting the Battery and Inverter



1) Open the supplied large black tote.



2) Under the inverter, ensure the two breaker switches are switched to the “on” position.



3) Place the two deep cycle batteries inside the case and secure with straps. Attach the power cables to the batteries, ensuring red cables go to the positive terminals and black cables go to the negative terminals.



4) On the inverter, turn the power switch to “on.”



5) Using the supplied black solar panel cable, connect one end to the solar panel. You want to push the cable in until you hear a “click.” Connect the other end to each of the plugs coming out of the back of the tote.

## 3) Mounting and Connecting the SenseHub Antenna and Nano



- 1) Assemble the supplied flagpole. Once assembled, remove the metal mounting bracket from the backside of the SenseHub Antenna. It should have a yellow bottom. Using two hose clamps, attach the bracket to the flagpole approximately 10-15 feet above ground.



- 2) Using the hose clamp, attach the remote nano to the flagpole near the SenseHub Antenna.



- 3) Now connect the Antenna. Plug the Ethernet cable into the PD port on the bottom of the SenseHub Antenna and allow enough slack to reach the black tote.



- 4) Slide the SenseHub Antenna onto the mounting bracket and tighten the bottom thumbscrew to secure the Antenna to the mount.



- 5) Using a second Ethernet cable, plug one end into the main port on the nano, allowing enough slack to reach the black tote.



- 6) On the left side of the tote, remove the round plug and Ethernet bridge from the tote. If this is too difficult, a 1/2-inch hole can be drilled into the side of the tote for both Ethernet cables to pass through, and weatherproof sealant can be applied later.



- 7) Plug the other end of the Ethernet cable from the nano into the POE port on the nano's POE injector.



- 8) Plug the other end of the Ethernet cable coming from the SenseHub Antenna into the Data and Power Out port of the provided Antenna's POE injector.



- 9) Using a third, short Ethernet cable, plug one end into the provided POE injector Data In port and plug the other end into the other end of the LAN port of the nano POE injector.



- 10) Plug in the power supply cord to the inverter that is in the box. Close the lid to the tote.



- 11) Insert the flagpole and tighten the bolts to secure it. Ensure the remote nano on the flagpole is oriented to face your access point nano and your SenseHub Antenna is oriented to face your desired coverage area. The Antenna has a range of approximately 350 yards out front and approximately 150 yards out of each side and back.



- 12) Using zip ties, secure the Ethernet cables to the flagpole. Do not pull too tightly, as it could damage the cables. Apply weatherproof sealant or tape around the Ethernet cables where they enter the tote.

### Hardware Installation Complete

Your SenseHub Cow Calf system should now be set up and ready to begin collecting data on your herd. Refer to pages 24-41 to see instructions for software registration, adding tags, activating alerts and more. While data is collected immediately after setup, it will take 7-14 days for the system to gain a baseline for heat detection and health monitoring alerts.

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# Hardware Troubleshooting Guide



Different blink patterns indicate specific issues. Use the table below to decode and troubleshoot.

LED	DESCRIPTION
<b>LED lights on the PD/PSE port</b>	Blinking Light—Indicates link activity but not yet connected
	Solid Light—Link is stable and connected
	No Light—There is no link connection
<b>LED lights on the center of the Controller</b>	Solid Green—Power OK
	Off—No power
	Solid Red—DC on during power-up
	Blinking Red—Critical failure
	Blinking Green—Self-test/booting

LED	Possible Cause	Corrective Action
<b>Center or power LED is not lit</b>	The Ethernet Cable is not connected to the correct PD port on the Controller.	Plug the Ethernet cable into the other cable on the SenseHub Controller.
	The Ethernet cable is not connected to the correct port on the POE injector.	Plug the Ethernet cable into the correct, left side, port on the POE injector.
	The POE injector is not plugged in.	Plug the POE injector into the correct power outlet.
<b>PD Ethernet port LED is not lit</b>	The Ethernet cable is not correctly connected at both sides.	Check the connection on both sides.
	The POE injector is not plugged in.	Plug the POE injector into the correct power outlet.
<b>Power sourcing equipment LED is not lit</b> (only needed if Antenna is directly wired to Controller).	The Ethernet cable is not correctly connected at both sides.	Check the connection on both sides.
<b>Cannot access SenseHub system from mobile app, web app or browser</b> <b>OR PD LED is blinking rapidly</b> <b>OR there is no PING between router and SenseHub Controller</b>	The Ethernet cable is not connected to the correct PD port on the Controller.	Plug the Ethernet cable into the other cable on the Controller.
	The Ethernet cable is not connected to the correct port on the POE injector.	Plug the Ethernet cable into the correct, left side, port on the POE injector.

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# SenseHub Registration



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After you have installed the SenseHub system hardware, you can register and begin the software setup process. SenseHub is available both via web application and mobile application. Below are the steps to download and register on your desired device. Please note you will have to register on the web *before* logging into the mobile app. You can also reach out to the Solutions and Support team for help with this process at (608) 237-3170. Please leave a voicemail and the best tech for the situation will return your call.

1. Download and install the SenseHub web application at <https://www.scrdairy.com/images/SenseHubTools-Setup.zip>
2. Select the correct language and click “Register” to start the registration process.
3. Review/complete the “Account Details” section and write down your Farm ID for later sign in. Click “Next.”
4. If your SenseHub system is linked to a herd management system, switch the toggle to enable integration, and choose your system from the drop-down list. Copy the provided registration key to the correct place in that system and click “Next.”
5. Choose “Allflex Mode” for the best user experience. The mode will automatically be selected. If Herd Management integration is enabled, Allflex mode will not work.
6. User registration: Once the herd management system configuration is complete, the system automatically moves to the registration portion:
  - Enter your details as required by the system
  - Enter your verification code (this will be sent to the email you provided when entering your details)
  - Read and confirm the “System Terms of Use and Privacy Policy”
  - Sign in as prompted when your registration is complete

The screenshot displays the registration interface with a progress bar at the top containing three icons: a document for 'Account Details', a laptop for 'Herd Management Software', and a building for 'Farm Topology'. The 'Account Details' section is active and contains the following information:

- Farm ID:** EU XXXXXXXX (Note: \* Needed for remote login)
- Plan:** Premium (Cows)
- Services:** Disabled

The 'Herd Management Software' section contains the following fields:

- Farm Name:** XXXXXXXX XXXXX
- Address:** XXXXXXXX
- Country:** XXXXXXXX

The 'Farm Topology' section contains the following fields:

- Farm Housing:** Free Stall
- City:** City
- Time Zone:** Time Zone

At the bottom left, there is a link: → Work in Trial Mode. At the bottom center, there are two buttons: Back and Next.

## How to Find the SenseHub App

The SenseHub app is available for both Apple and Android devices.

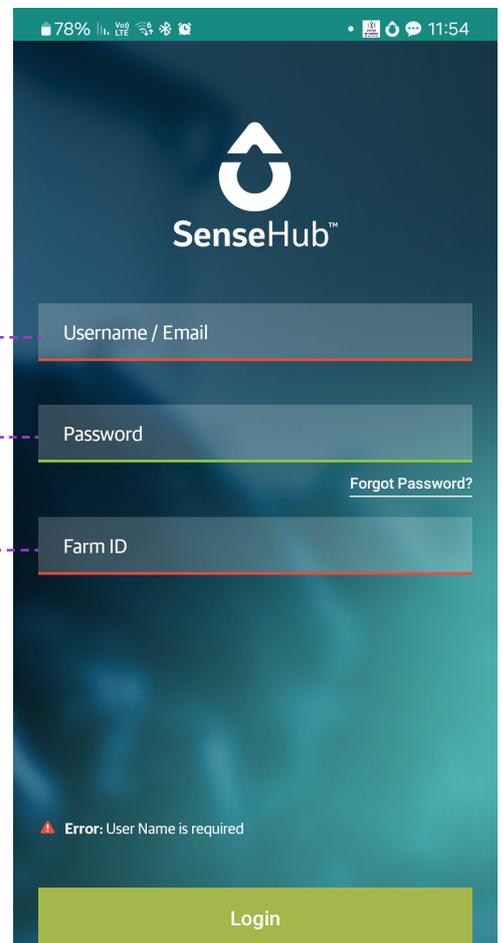
The minimum iOS version is 12.X  
The minimum Android version is 7.X

Search for the “SenseHub” app on Google Play or the App Store.



## How to Login to the SenseHub App

- The email address from the registration process
- Enter your password or click “Forgot Password?” to change password from a link via email
- Farm ID provided during the registration process

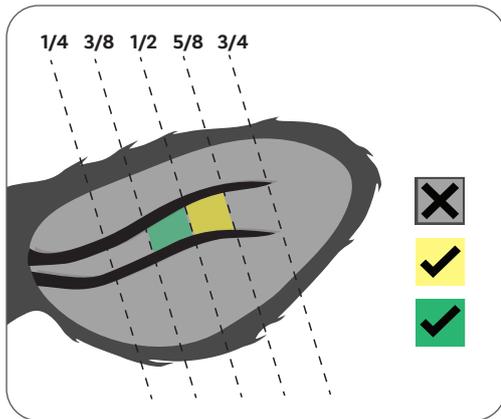


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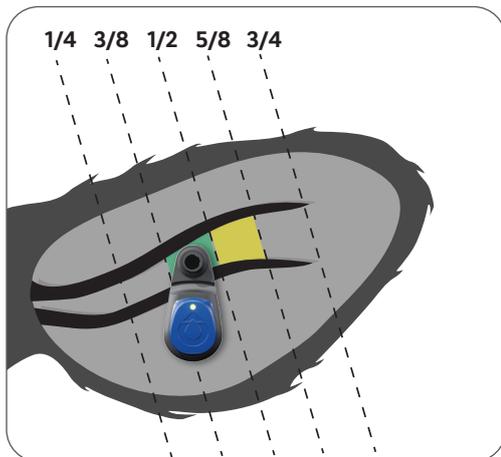
# Ear Tag Placement Instructions

Ensuring proper ear tag placement is important for the most accurate readings and data collection. Follow the steps below for proper ear tag placement. When it comes time to attach the SenseHub ear tag, there may already be other tags in place in the ear. Follow these rules when deciding where to place the SenseHub ear tag in the ear for the best results.

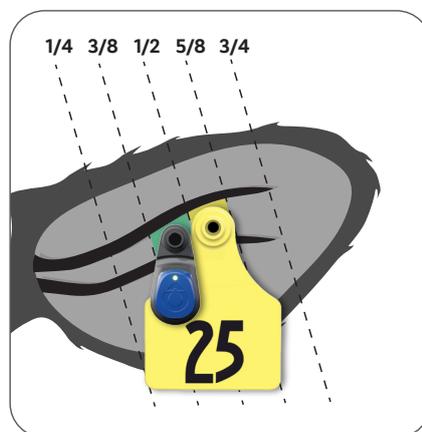
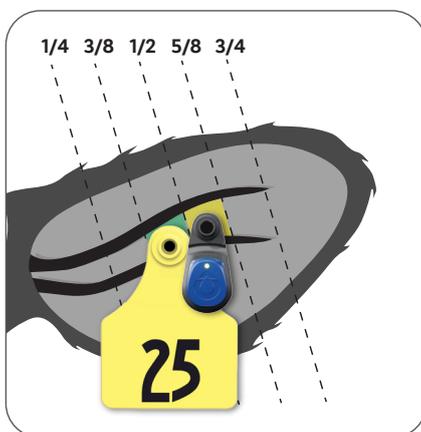
NOTE: Placing the SenseHub ear tag too close to the head of the cow may cause the tag to get caught in the ear and limit the freedom of motion on the tag.



1) The picture to the left describes the entire ear area of the cow and identifies the best place to attach the ear tag.

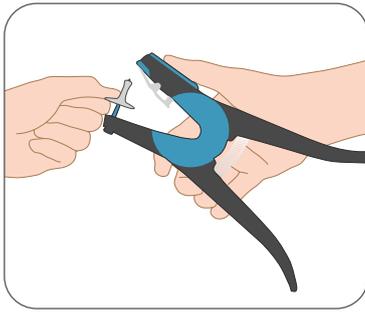


2) The best place for the ear tag is directly on the center line, the 1/2 line, of the ear.

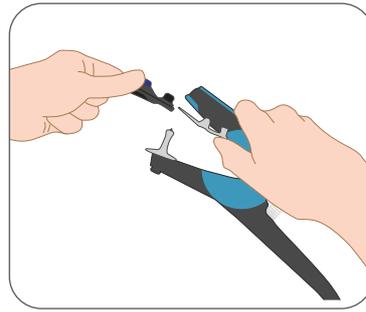


3) Place the SenseHub ear tag in either the green or yellow zone depending on where the EID or visual tag is already placed.

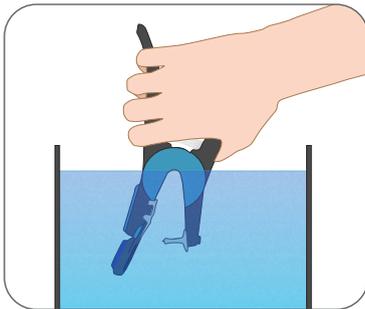
# Ear Tag Placement Instructions



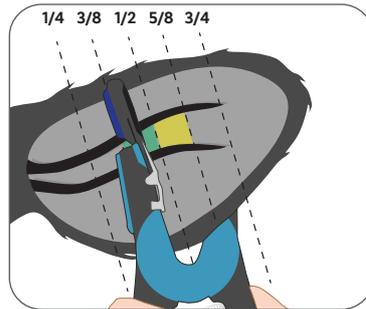
1) Attach the pin or back of the ear tag to the Universal Ear Tag Applicator.



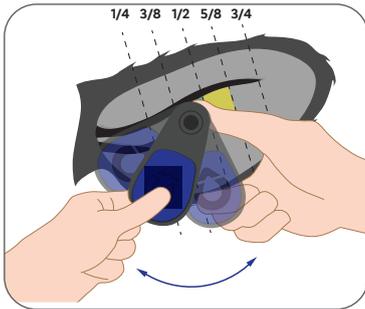
2) Attach the ear tag to the Universal Ear Tag Applicator.



3) Immerse the loaded tag applicator in the sterilizing solution.



4) Attach the ear tag to the ear of the cow.



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

SCR Tag Assignment	
	9000001
	9000002
	9000003
	9000004
	9000005
	9000006
	9000007
	9000008
	9000009
	9000010
	9000011
	9000012

6) Enter the tag and cow information on this sticker found on the box of tags so they can be entered into the SenseHub Cow Calf application later.

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# Entering Animals in SenseHub Cow Calf



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## Entering Animals in SenseHub Cow Calf

- ▼ From the Dashboard, navigate to the farm area  where you are directed to the Animals tab
- ▼ Click  to add an animal to the herd
- ▼ Click  to add more required information
- ▼ Enter the Current Lactation Number, Birthdate and Last Calving Date for this animal

**NOTE:** The Birthdate is required for heifers

- ▼ When complete, click  to continue entering the most recent breeding information or click 
- ▼ When complete, click  to enter the pregnancy Check Date and Result or click 
- ▼ When complete, click  to save

## Group Creation

Create groups that correspond with the groups on your operation.

From the Dashboard, navigate to the farm area  and choose Groups. Click  to add a Group.

FIELD NAME	DESCRIPTION
Group Name	The name of the group
Group Number	The number of the group
Branch	The category of this group—possible categories include Cows, Heifers, Calves or Default.
Heat Index Threshold	Heat index threshold—when cows in this group get to a heat index that is equal to or above the number you enter, the cows will enter the “Heat Report.”  Define the initial heat index threshold to 60 and examine how this new threshold and new sensitivity affect the system’s ability to identify heats by two criteria described on page 40.
Add a Bull	SenseHub Cow Calf offers the functionality to detect heat for cows in natural breeding. If a bull is assigned to a group, once a heat is detected, it creates a natural breeding event on the cow card.

Once completed click  to save the Group.

## On a PC

**From the animal list**, Select the “Assign Tag” option after clicking the vertical ellipsis on the right :

### Report New Event | Assign Monitoring Tag

Start Date: 06/26/2024  Start Time: 10:55  AM/PM New Tag Number: Select Tag 

---

Animals List: 1

88

**From the animal card**, in the “Events” section, select  and choose to assign a monitoring tag

### Report New Event | Event List

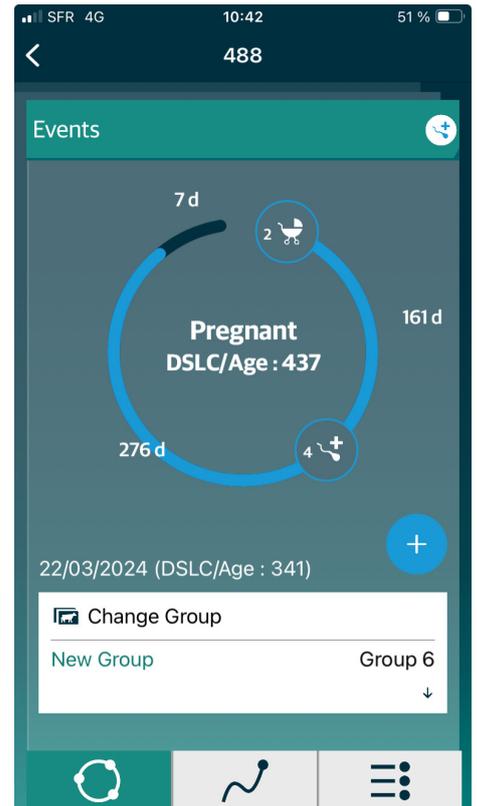
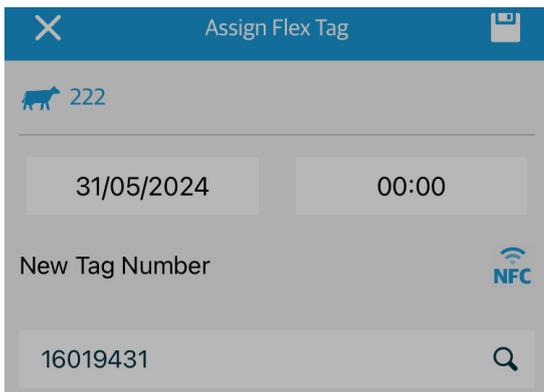
Search Event 

- Reproduction
  - Calving
  - Breeding
  - Do Not Breed
  - Pregnancy Check
  - Abortion
  - Dry-off
- Animal Management
  - Change Group
  - Culling
  - Unsort
  - Remove EID Tag
  - Remove Monitoring Tag
  - Assign EID Tag
  - Assign Monitoring Tag
- General

## On the Mobile App

From the animal card, select  and then  Assign Flex Tag

Make sure your NFC function is activated.  
 The NFC function appears in the pop-up window.  
 Scan the tag with your phone to simplify the registration.  
 If you have EID tags on your farm, you can use an Allflex wand reader to pair them with the cows.



## Events

	Calving		Culling
	Health		Weaning
	Distress		Change Group
	Do Not Breed Heat		Abortion
	Breeding		Update Tag Firmware
	Inseminated		Remove Tag
	Pregnancy Check		Assign Tag

- ▼ To enter an event, access the animal card by clicking on the animal in question in any report or list or via the search box 
- ▼ The event history of this animal now appears in the cow card
- ▼ Click on ; the “Add New Event” screen appears  
**NOTE:** Only the allowed events for this point on the life timeline are available. For example, a pregnancy check can be reported only if a breeding event was entered beforehand.
- ▼ Chose the desired event and complete the required fields
- ▼ Click  to save the event
- ▼ Click  to exit without saving

## Multiple/Batch Event Entry

Many events, such as Breeding, Pregnancy Checks and Group Changes, can be entered in batches.

- ▼ Go to Farm  > Events and click on 
- ▼ Select the Event Type for the batch
- ▼ Select the Animals for the batch or select the Group for the batch and click Next
- ▼ Set the parameters of the Event. When complete, click 

## Removing Events

- ▼ Find the desired event on the event tab
- ▼ Click the vertical ellipsis and choose Remove Event

Date	Name	DIM/Age	Description
14/07/2024 16:44	 Breeding	10	Breeding Number   Remove Event    Edit Event
08/07/2024 11:41	 System Heat	68	Heat Index: 94.21  

- ▼ The event is removed

**NOTE:** In general, it is only possible to remove the last, topmost event. Past events may not be removed due to logical sequence of the events.

**NOTE:** A batch entry event cannot be removed or edited as a batch but only as a single event per cow.

# Removing/Changing Ear Tags

Occasionally you may need to remove a SenseHub ear tag from a cow and change or replace it with another tag. Removing the tag will not cause the data to be lost for that cow.

- ▼ Use the search button to open the cow card in question
- ▼ Click on the cow in question; the events history on the cow card of this cow appears
- ▼ Click **+**; the new event window appears
- ▼ Choose Remove or Change Tag from the list of available events

### Report New Event | Remove Monitoring Tag

Date	Time	Existing Tag
06/18/2024	10:52	11550996

Animals List: 1

856

[Back](#) [Report Event](#)

- ▼ Review the details and click to save the event

# Adding a New User

To allow several people to receive the alerts and access your SenseHub Cow Calf account, you can create an account with a defined role for each one of them.

- ▼ Go to “System,” “Account” then “Users”
- ▼ Add a new user with
- ▼ An email is sent to the user once s/he is invited

**NOTE:** Only an admin role can add or delete new users

### Invite User

Select User Role

Select Role

Email Address

Enter Email...

Language

English

[Cancel](#) [Apply](#)

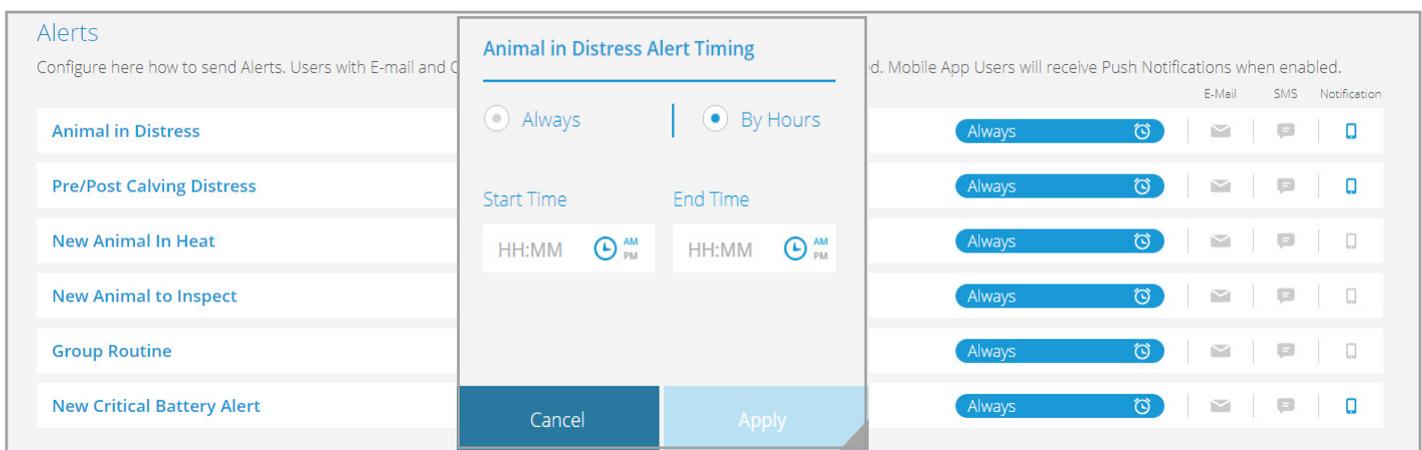
Four user roles are available on SenseHub

Role	Permissions	Not Possible
<b>Admin *</b> (Created during the system’s registration)	All permissions	
<b>Farm Manager</b>	Edit all settings related to the farm, its operation and the cows	Edit System Settings
<b>Farmer</b>	Enter events and view cows, reports and graphs	Edit farm notifications and system settings
<b>External User</b> (usually for consultants and service providers, like vets, breeders, etc.)	Receive alerts from the system. Access the system as read-only users.	Edit or enter any data

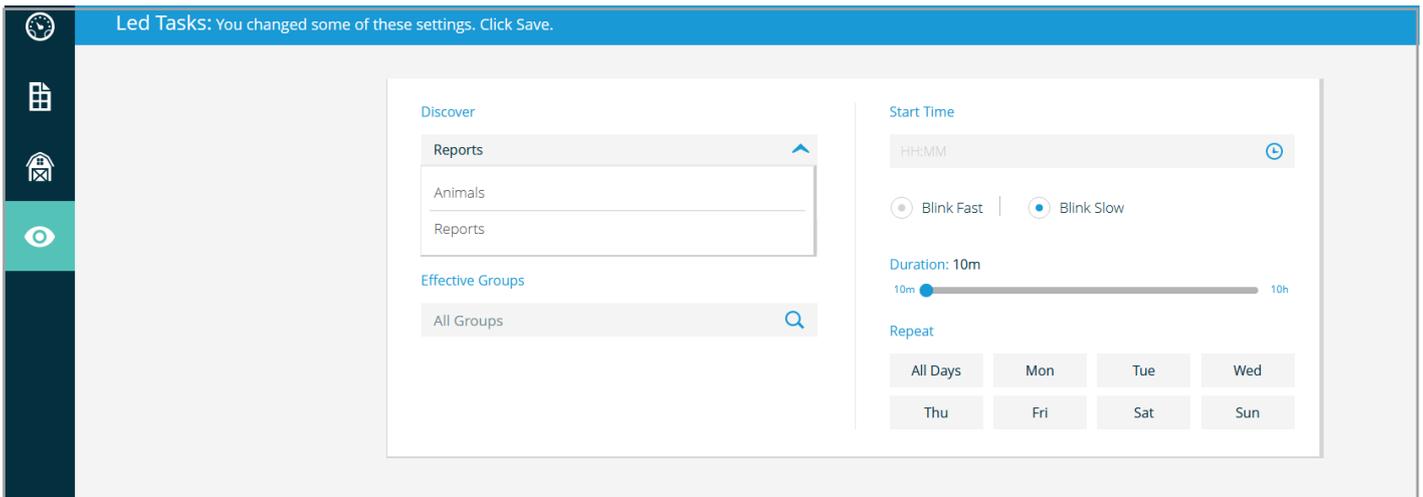
\*There is only one admin per SenseHub system.

## Alert Activation

You can choose to receive alerts via email, text messages or push notifications. To configure the alerts, go to [Settings](#) under the farm section and then [Notifications](#).



You can choose to receive “Always” or to set a defined period.  
**NOTE:** Alerts generated outside of that period are not sent to the user but are visible in the system.



With SenseHub ear tags, you can choose to create LED Tasks from reports or for individual animals. Give the task a significant name. Configure the Start Date and Start Time of this task. Configure the Blinking Rate of the LED (Default, Slow or Fast).

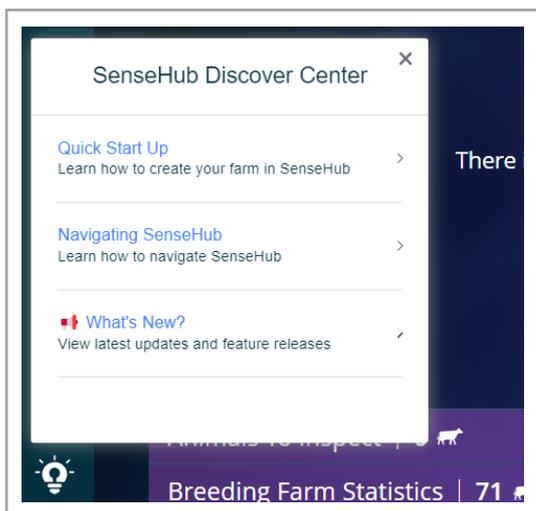
**NOTE:** Fast mode uses three times the battery life of Slow mode. One hour of Fast mode equals three hours of Slow mode. A LED Lighting Report is available on the SenseHub Mobile application. Access the Main Menu from the Dashboard and tap LED Lighting Report.

## Learn More About SenseHub Cow Calf

To ensure full utilization of SenseHub Cow Calf and its capabilities, there are several training resources available directly from your system.

### SenseHub Discover Center

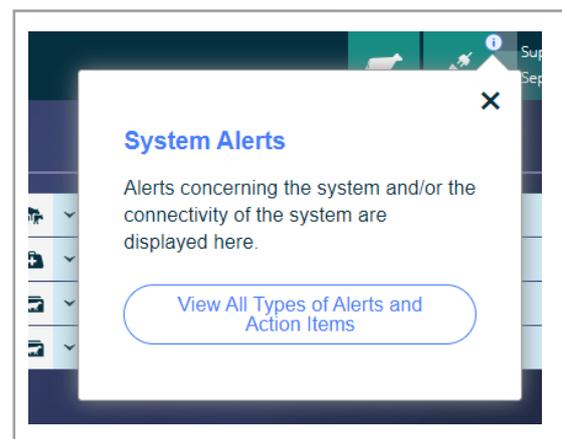
It hosts multi-step guides in your SenseHub account. Click the SenseHub Discover button and easily learn how to set up your account, navigate in SenseHub, extract data, manage processes and more.



### Information Badges

Your SenseHub account is embedded with information badges, providing knowledge about specific buttons and pages within the system. Click on an information badge to get short, to-the-point information about SenseHub features.

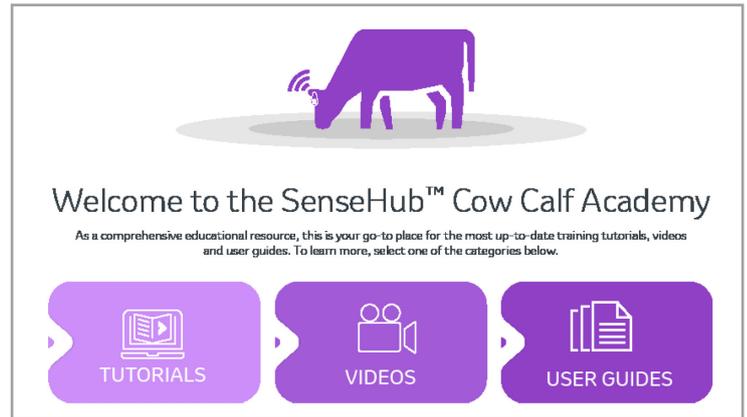
**Note:** Some information badges appear only when hovering over specific buttons.



## SenseHub Cow Calf Academy

The SenseHub Cow Calf Academy hosts a variety of tutorials, videos and user guides that provide more information on SenseHub and its capabilities.

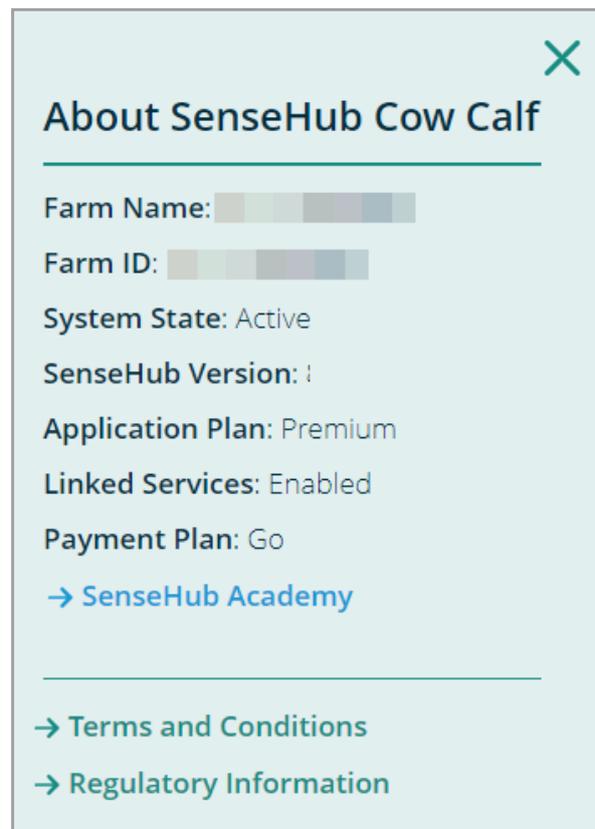
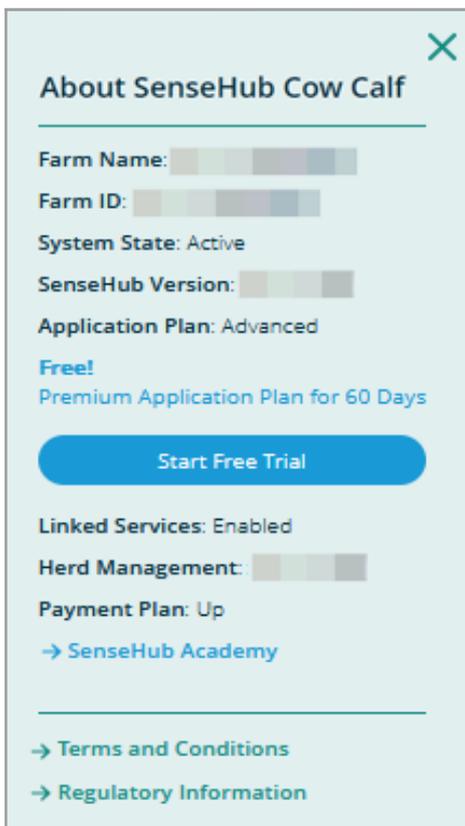
To open the Academy, open the SenseHub Discover Center and click on the “SenseHub Cow Calf Academy” module.



**Not a premium user? You can try the premium application plan for 60 days.**

## Contact the Local Support Team

Through the Contact Us button, you can reach out to us at any time. Our support team will contact you as soon as possible.



SenseHub Cow Calf

# Heat Identification



1

If a significant number of animals enter the Animals in Heat report and they are not exhibiting physical heat signs

**AND/OR**

2

If the heat events of these animals are displayed as a spiked and sharp heat behavior curve in the Heat Graph(\*)

Increase the heat index threshold of the relevant group by 10 and repeat if necessary (typically not to exceed 85)

If most of the animals in the Animals in Heat report are exhibiting heat signs

**AND**

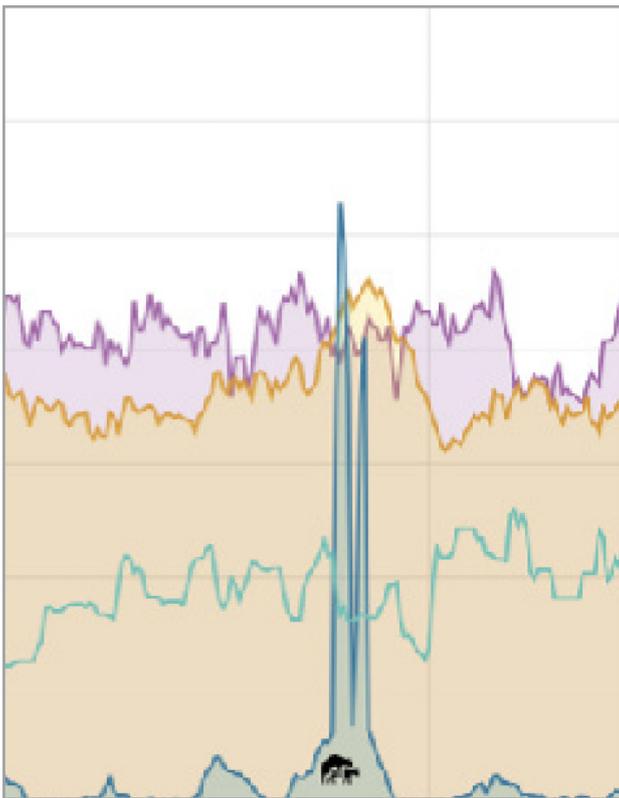
The heat graph of most of these animals is displayed as a wide and round heat behavior curve(\*)

**Keep the heat index threshold as is**

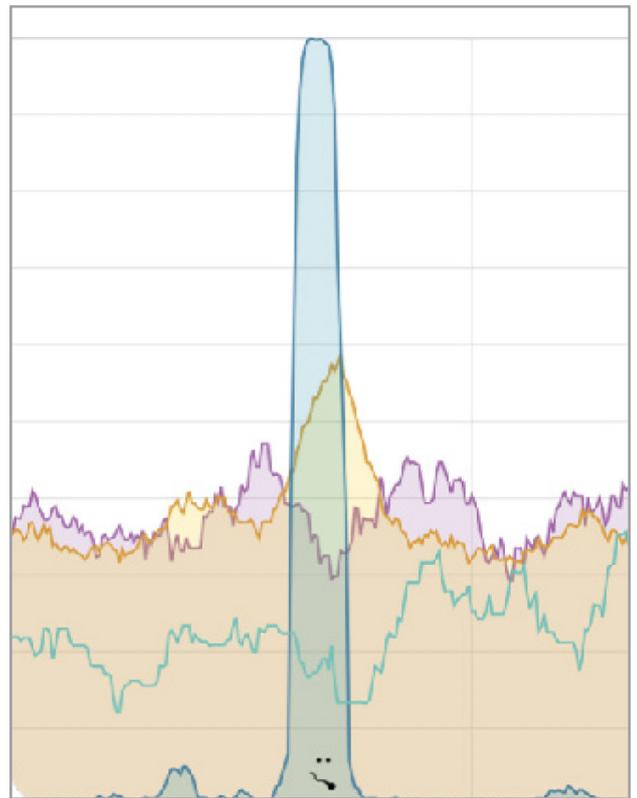
## How to Identify True Heat From False Heat in the Graph

Below are examples of a spiked and sharp curve compared to a wide and round curve showing the heat in an animal's graph. Knowing the difference will help you differentiate false heat from true heat.

**False Heat—  
spiked and sharp curve**



**True Heat—  
typically wide and round curve**



Occasionally a group stimulus event may cause multiple false heats, triggered by the increase in cows' activity/stress. To avoid multiple animals in the Animals in Heat report and to avoid recording multiple false system heats, **elevate the group heat index threshold temporarily\* to 99:**

When a **planned** group stimulus event is expected (e.g., cow treatment, weaning, etc.)

Set it **PRIOR** to the planned event

When **an unplanned** group stimulus event occurs (storm, group mixing, etc.)

Elevate it when the event is identified

\*Temporarily means the threshold can return to its initial value 12 hours after the animals' behavior seems to return to normal. If the event causes a longer behavioral reaction, the threshold is to return to its initial level 24-48 hours after the event or when the animals return to their routine behavior.

SenseHub Cow Calf

# Frequently Asked Questions



SenseHub®  
COW CALF

## 1. Once I start to use the system, when can I expect to receive alerts?

 «HEAT» Alert	From Day 6 after tag assignment
 «HEALTH» Alert	From Day 5 after tag assignment
 «DISTRESS» Alert	From 24 hours after tag assignment

## 2. What do these issues signify in the Maintenance Tags Report?

Type of Issue	Reason	Recommended Action
Not on animal	Assigned tag but not detecting any movement	Find the tag or replace it
No ID since assignment	Assigned tag not sending any data	Check tag number or antenna coverage
Unassigned on animal	Unassigned tag but detecting movement	Assign the tag
Outdated data	Assigned tag not communicating anymore	Check RF coverage
Stuck in the ear	Ear tag stuck for 48 hours or more	Release the tag

## 3. Can I stop receiving alerts at night ?

It is possible to stop receiving alerts for a defined period every day (e.g., at night). Please refer to the alert settings of the quick guide page 36.

**NOTE:** Alerts generated outside of that period are not sent to the user but are visible in the system.

## I have visually detected an animal in heat, but the system alerts with a delay. Why?

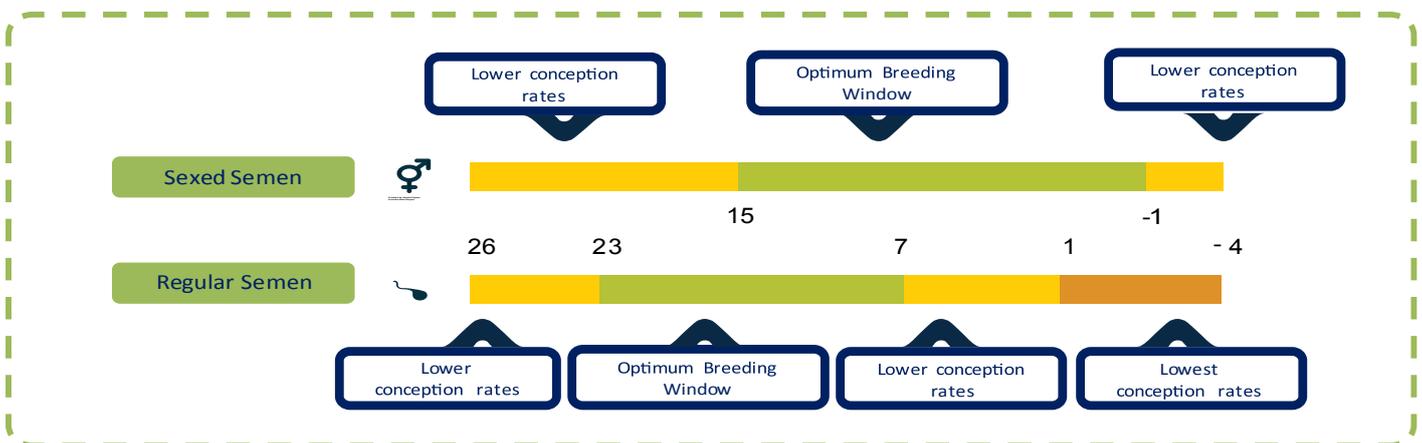
First visual heat signs can appear before the animal enters the report. The system waits for the highest heat index value, so in some cases, it may take several hours from the first heat signs until an alert is sent.

If you consistently feel alerts are delayed, you may consider decreasing your heat index threshold.

## How does the breeding window work?

The breeding window is a graphic representation of the estrus period when the cow is ready for insemination and her current position on this timeline. It provides guidance on the most appropriate time for AI within that 30-hour timeline, optimizing the breeding conception rates.

The black pointer moves from the left (26 hours = Heat peak/Heat alert) to the right (0 hour = Ovulation). The best moment is during the green period, available three hours after the Heat alert for a period of 16 hours. An additional breeding window is available for sexed semen. You can enable it through the farm settings.



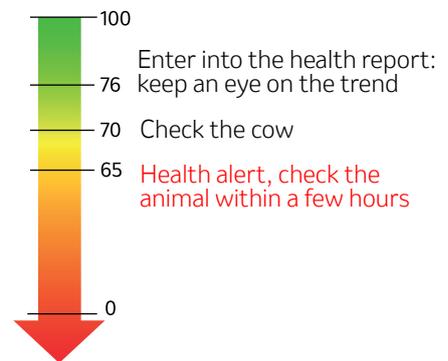
## What is the difference between heat behavior and heat index?

- Heat behavior is animal behavior based on high activity levels and low resting, eating and rumination levels.
- The heat index is a combination of heat behavior peak, rumination negative peak and cyclicity. Heat index = the probability the animals are in heat.

## I have received a health alert, but the cow seems to be healthy?

The rumination monitoring provides you with an early detection of a potential health issue.

As part of their natural behavior when bovines experience stress or discomfort, they reduce their eating and rumination time. The alert has to be analyzed in parallel with the health index to understand the issue. Sometimes, animals may recover after a minor health issue. If the index continuously decreases and lowers around the defined threshold (65 by default), observe the animal and consult a vet if needed.



## I have received a distress alert. What should I do ?

A distress alert is a sign of a prolonged period without any rumination, which is not normal. It is recommended to check the animal as soon as possible.

## Can the pre-calving distress alert be considered as a calving alert ?

SenseHub Cow Calf is not a calving detection system. However, the pre-calving distress alert may indicate potential calving difficulty. With this distress alert, it is recommended to check the animal as soon as possible.

# FAQ : Groups (for Premium Users )

## What is the meaning of “Group Routine” graphs ?

These graphs represent the percentage of cows ruminating or the standard deviation of activity within the group over 24 or 48 hours. It displays the live value in color (purple for rumination and green for activity), the average value in black and the group variability in grey.



## There is no data in the “Consistency” graph ?

There is a need of 10 animals with tags to have calculation.

**For any additional questions, please contact (608) 237-3170.**

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.

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