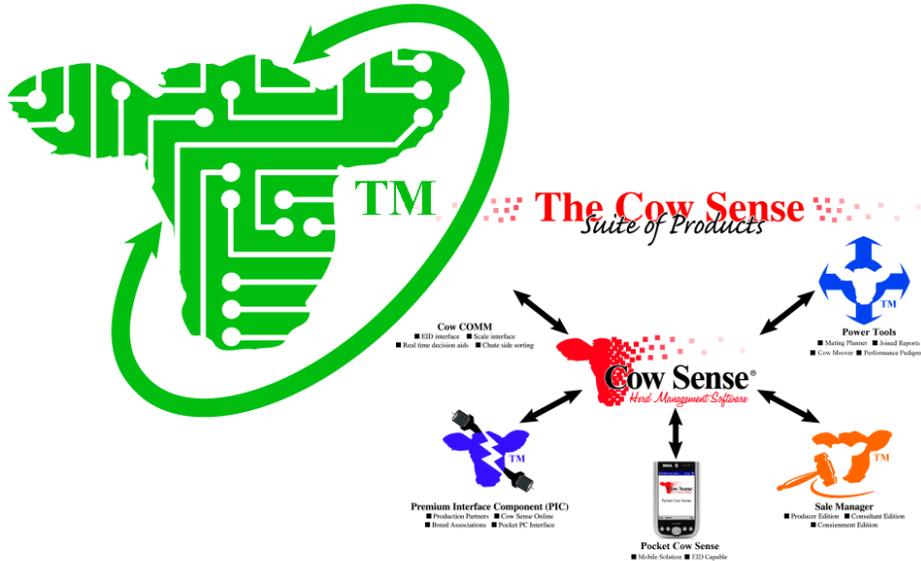


# Cow COMM™

## *User's Guide*



Version 3 for Windows



Midwest MicroSystems  
3100 'O' Street, Suite # 7  
Lincoln, Nebraska 68510-1532

### **Limited Warranty on Media and Replacement**

If you discover a physical defect in the manual or in the media with which the software is distributed, Midwest MicroSystems will replace the media or manual at no charge to you, provided you return the item to be replaced with proof of purchase to Midwest MicroSystems or a Cow Sense dealer during the 90-day period after you purchase the software.

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# Contents

<b>INTRODUCTION .....</b>	<b>2</b>
<b>Overview of Cow COMM .....</b>	<b>2</b>
<b>Features of Cow COMM.....</b>	<b>3</b>
<b>User Tips.....</b>	<b>3</b>
<b>Customer Service Policy.....</b>	<b>3</b>
<b>Updates.....</b>	<b>4</b>
<b>Upgrades .....</b>	<b>4</b>
<b>Information Flow .....</b>	<b>5</b>
<b>Organization of this Document.....</b>	<b>5</b>
 <b>COW COMM MAIN MENU .....</b>	 <b>7</b>
<b>File Function.....</b>	<b>7</b>
Open Cow Sense Herd .....	7
Start Cow Sense .....	7
Exit.....	8
<b>Set Up Function.....</b>	<b>8</b>
Chute-Side Devices.....	9
<i>Electronic Identification (EID)</i> .....	9
<i>Scales</i> .....	10
<i>Hip Height Measure</i> .....	11
<i>Bar Code Reader</i> .....	12
<i>Thermometer and Sign</i> .....	12
 <b>WORKING CHUTE-SIDE WITH COW COMM. ....</b>	 <b>13</b>
<b>Activity Function.....</b>	<b>14</b>
Process... ..	14
<i>Calves</i> .....	14
<i>Cows and Bulls</i> .....	24
 <b>POST-PROCESSING USE OF COW COMM.....</b>	 <b>34</b>
<b>Retrieve Scale Data.....</b>	<b>35</b>

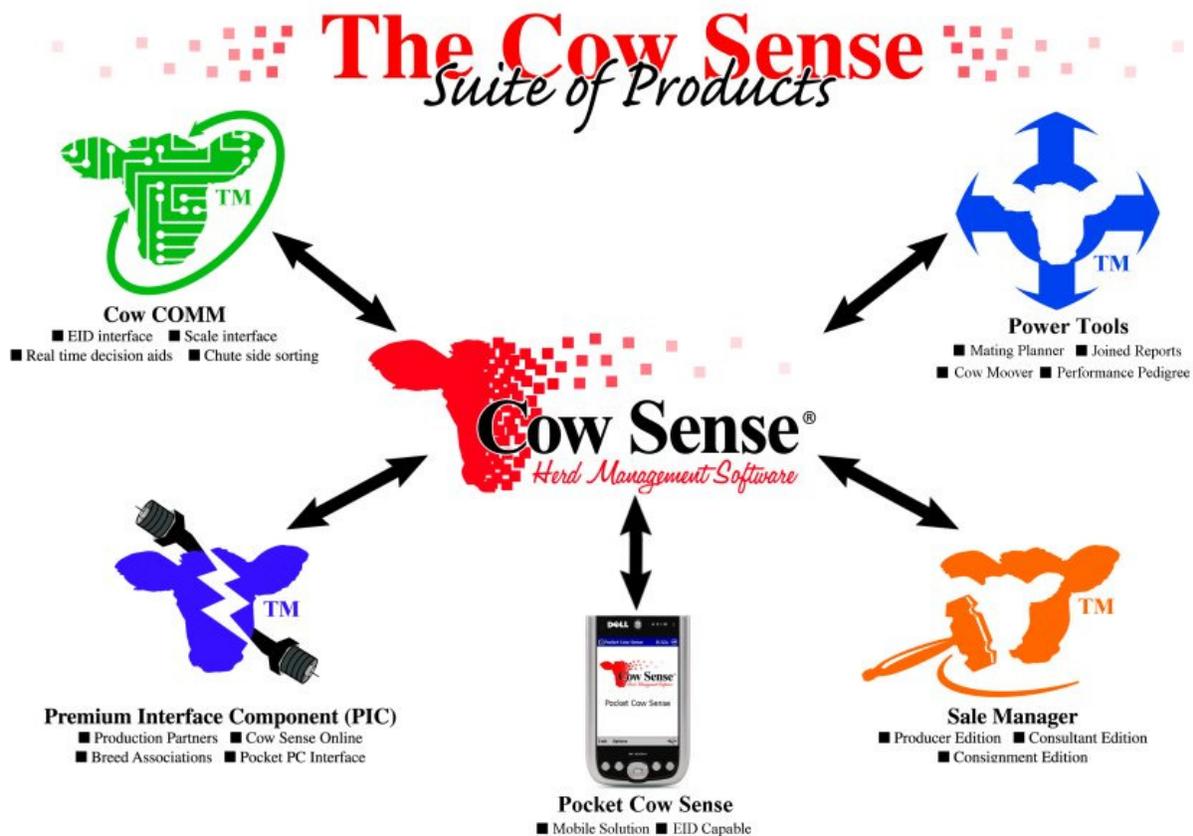
Digi-Star SDM & SW 550.....	35
Tru-Test 700, 2000 & 3000 .....	35
Horizon .....	36
Reliable 600 .....	37
Gallagher 600/700/800.....	37
<b>Retrieve EID Data.....</b>	<b>38</b>
Retrieve Data .....	38
Save Retrieved Data.....	38
Save Retrieved Data.....	39
Mark Records.....	39
Clear Reader.....	39
Exit.....	39
<b>HELP FUNCTIONS .....</b>	<b>39</b>
<b>Cow COMM User's Guide.....</b>	<b>39</b>
<b>Update Cow COMM.....</b>	<b>40</b>
<b>About Cow COMM.....</b>	<b>40</b>
<b>ADVANCED FEATURES .....</b>	<b>41</b>
<b>Auto Sort Function .....</b>	<b>41</b>
Defining Groups (done in Cow Sense) .....	42
Enabling Auto Sort .....	42
<i>Auto Sort Function</i> .....	43
<b>Cow COMM Pro .....</b>	<b>48</b>
Setup Menu .....	48
Chute-side Devices.....	48
Activation .....	48
ADG (Average Daily Gain) Display.....	48
Activity Menu .....	48
<i>Processing Calves</i> .....	48
<i>Process Cows</i> .....	50
<i>Process Bulls</i> .....	51
<i>Sorting the Measurement History Grid</i> .....	52
<i>Retrieve Measurement Data</i> .....	52
<b>CONCLUSION.....</b>	<b>53</b>

# Introduction

## Overview of Cow COMM

Cow COMM™ is a revolutionary product that provides for real time individual management of your herd. It is a communications component of the Cow Sense® suite of products that provides both an active or Chute-side interface and a passive or Post-processing interface with electronic data collection devices. In the Chute-side environment, Cow COMM allows for instantaneous interaction (real-time) with the Cow Sense database. In this chute-side environment, there are advanced features in Cow COMM that can also be used for real time sorting of cattle. Cow COMM can also be very useful for user's through a Post-processing interaction to retrieve data collected in scale indicators or RFID readers and automatically update data in Cow Sense. The information obtained while using Cow COMM is actually stored and resides in your Cow Sense herd file. Cow COMM runs as a separate program but it depends upon Cow Sense to function. It contains no reporting or analysis tools of its own. However, Cow COMM Pro features are available (as an upgrade) and add capabilities for recording, storing and exporting repetitive measurements over time.

Figure 1: The Cow Sense Suite of Products



Changes to a record are saved when you move off the record. However, it is recommended that you back up your Cow Sense Herd each time you quit Cow Sense. This will automatically institute a check and balance procedure to resave all of the information you obtained while using Cow COMM.

Please note that Cow COMM is designed to work with Cow Sense version 4 or higher.

Key benefits of Cow COMM:

- Increased profit through individual animal management.
- Rapid, objective application of predetermined decision criteria.
- Real time access to complete animal history for decision process.
- Enhanced speed and reliability of automated data acquisition.

## **Features of Cow COMM**

Cow COMM has so much to offer. In addition to allowing for retrieval of an animal's record from Cow Sense, this program allows for automatic recording of animals' weights when connected to compatible electronic scales. The retrieval of an animal's record can also be automated when using Radio Frequency Identification (hereafter referred to as RFID) equipment. Both functions are possible through the connection of these chute-side devices (i.e. the RFID reader and the electronic scale) with your computer's communications ports.

Another extremely powerful feature of Cow COMM is its Auto Sort function. This feature provides the ability to sort your cattle into any type of groups that you want – you decide! After you specify how you want to sort your cattle, Cow COMM will quickly and accurately perform the necessary calculations right while the animal is standing in front of you! Please note that for the Auto Sort function, you define the sorting groups before you process your cattle. In this way, processing the cattle at chute-side will be quick and easy. The Auto Sort features are at additional cost and discussed in more detail on pages 41-46 of this document.

### **User Tips**

It is recommended that you experiment with the Cow COMM application before working live cattle. Test the RFID reader and/or electronic scale indicator to insure its compatibility with the RFID devices you are using. You should also field test your RFID reader(s), and keep an additional RFID reader available.

## **Customer Service Policy**

We believe that individuals who need extra technical assistance should bear the cost of that service, rather than inflating the price of Cow COMM for everyone. Therefore, we include 30 minutes of telephone technical support with purchase to ensure that you get started well, but charge for support time after that. Your included support period begins with the first support contact following activation of your Trial Edition. To receive support:

1. Check this *User's Guide* first.
2. Point your Internet browser to <http://www.cowsensecorral.com> to access the Knowledgebase of answers to common questions or go to User's Forum (also at the Corral) and into the Cow COMM section.
3. Send e-mail to [support@midwestmicro.com](mailto:support@midwestmicro.com).
4. Call Midwest MicroSystems at (800) 584-0040.

Please have your Cow Sense serial number and your Cow COMM registration number handy when you call for support. The serial and registration numbers are located in the Cow COMM Trial Edition screen that appears when you first open Cow COMM. If you are already working

in the program, you can find these numbers on the About Cow COMM message box when you select **Help > About** from the Cow COMM Main Menu.

## **Updates**

Updates can be obtained in one of three ways.

1. Automated updater. For the smaller version updates that are downloaded in this manner, there will not be an update fee or charge. Occasionally, some firewall or Internet security issues block this type of update. If you experience this, try turning off your firewall or Internet security.

- a. Open a connection to the Internet.
- b. Launch Cow COMM.
- c. Go to **Help > Cow COMM Support > Update Cow COMM > Yes (to Retrieve Update via FTP) > Launch MicroFTP > Connect**. This process will download the most current version of Cow COMM from our FTP site.
- d. At the end of the download, you will be notified that the session was complete, click "OK".
- e. Upon clicking "Exit" in the Connect window, a message will be displayed indicating that the "File transfer was successful and to proceed with the update", click OK.
- f. A "WinZip Self-Extractor window will open and you will need to click the "Setup" button for the update to run. A "Setup succeeded!" window will open and you will click "OK".

2. You can download direct from our web site. For the smaller version updates that are downloaded in this manner, there will not be an update fee or charge. Occasionally, some firewall or Internet security issues block this type of update. If you experience this, try turning off your firewall or Internet security and running the update again.

- a. Go to [www.cowsense.com](http://www.cowsense.com) and go to Downloads, choose Updates and navigate to the Cow COMM section.
- b. In the Cow COMM update section click on the link to start the download process. Allow the download to "RUN" at all security checkpoints. At this point you should see the file transfer begin.
- c. A "WinZip Self-Extractor window will open and you will need to click the "Setup" button for the update to run. A "Setup succeeded!" window will open and you will click "OK".

3. You can also call or email us to receive an update CD. There is a charge for this update to cover the CD and shipping. Instructions will accompany the CD for this type of update.

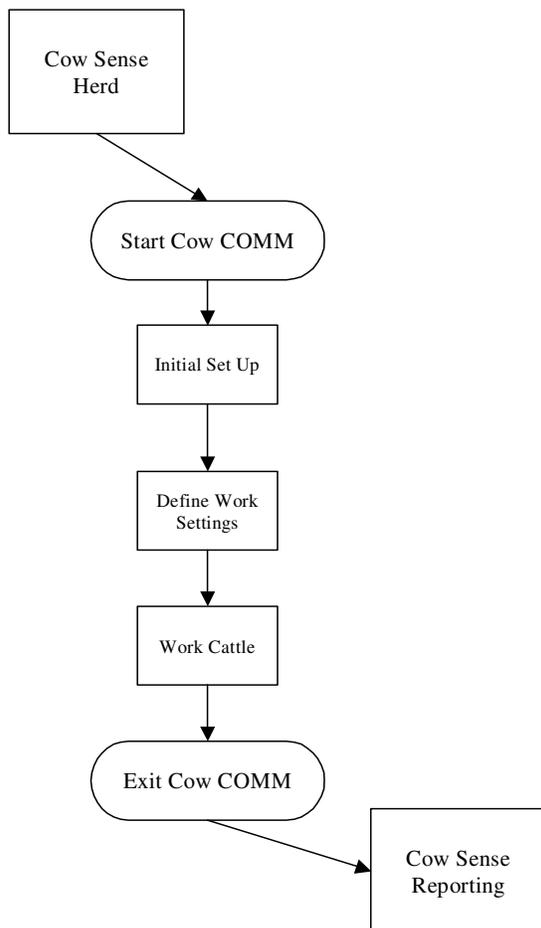
## **Upgrades**

The Cow COMM Trial Edition does not expire and you may activate it at any time. All registered Cow COMM users will be notified of future upgrades as they become available. To purchase these upgrades, call your Midwest Microsystems Reseller or call Midwest MicroSystems directly at 800-584-0040. You may also send e-mail inquiries to [sales@midwestmicro.com](mailto:sales@midwestmicro.com) or check the Midwest Microsystems web site at <http://www.cowsense.com>.

## Information Flow

Figure 2 gives you a graphical representation of how information flows within Cow COMM and how information flows between Cow COMM and Cow Sense. As stated previously, Cow COMM is a companion to Cow Sense. Data collected through Cow COMM is stored in Cow Sense.

**Figure 2: Cow Sense/Cow COMM Information Flow**



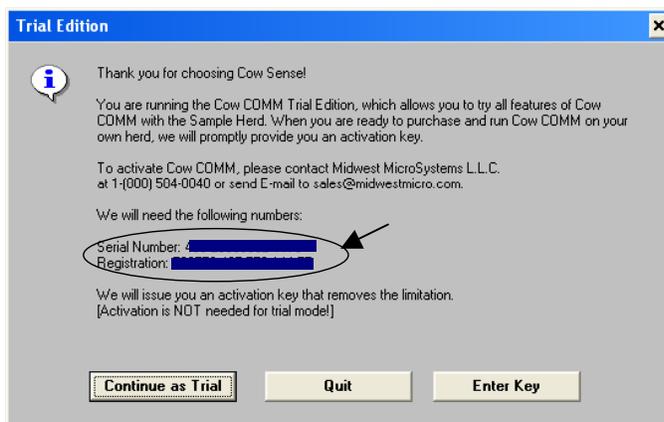
## Organization of this Document

This document is organized to follow the natural progression through the Cow COMM **Main Menu** screen. The reader is guided through each menu item with its associated tasks and related features. Detailed instruction per use of the advanced functionality of Cow COMM Pro and the Auto Sort capabilities are located at the back of this document. This organization style provides a direct reference as questions arise per the specific function and necessary method(s) to accomplishing the task. We are pleased to provide you with this useful tool and stand at your service to ensure your optimum benefit of its use.

## INSTALLING COW COMM

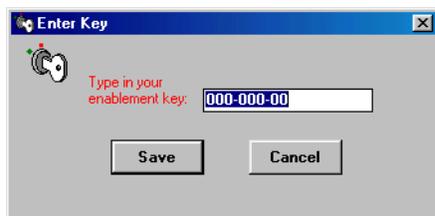
Cow COMM is installed automatically when the Cow Sense Suite is installed. No separate installation is necessary. However, Cow COMM does require it's own activation key. Following the purchase of the program, you will need to contact Midwest MicroSystems or your Reseller to obtain an activation "key" (a unique coded number that "unlocks" the Cow COMM Trial Mode on that specific computer). Provide Midwest MicroSystems or your Reseller with your Cow Sense serial number and your Cow COMM registration number in order to obtain your key. The serial and registration number are located in the Cow COMM Trial Edition screen that appears when you first open Cow COMM (see Figure 3). If you are already working in the program, you can find these numbers on the "About Cow COMM" message box when you select **Help > About** from the Cow COMM Main Menu.

**Figure 3: Cow COMM Trial Edition**



Select the **Enter Key** button on this screen and you will type in your activation key, as provided by Midwest MicroSystems or your Reseller, (replace all the zeros) in the open field (see Figure 4).

**Figure 4: Enter Key**



Following entry of your activation key, select **Save** and you will be instructed to restart the Cow COMM program so that your activation will take effect. When you select **OK**, Cow COMM will automatically shut down and you will then restart the program. In order to restart the program, select the Windows **Start** button > **Programs > Cow Sense > Cow COMM**. You can also launch Cow COMM from the icon Menu Bar in Cow Sense. With Cow Sense open, simply select the Cow COMM Icon . It is suggested that you create a "short-cut" icon to Cow COMM on your desktop. Please refer to Windows Help for specific instructions on creating short-cuts.

## COW COMM MAIN MENU

When Cow COMM is launched, the first screen that appears is the **Cow COMM Main Menu** (see Figure 5).

**Figure 5: Cow COMM Main Menu**



The Main Menu allows you to choose from four functions: **File**, **Set Up**, **Activity**, and **Help**. Note that the last text line on this screen displays the Cow Sense Herd which is currently open. When you first open Cow COMM, the Herd displayed will be the Herd in which you were last working with either Cow Sense or Cow COMM (whichever program was closed most recently).

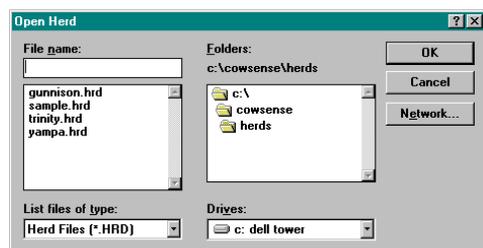
### File Function

#### Open Cow Sense Herd

If you are using Cow COMM in Trial Mode, you will be limited to working only with the Cow Sense Sample Herd. From the Cow COMM Main Menu, if you select **File > Open Cow Sense Herd** without having a Cow COMM key, a message box will appear reminding you that you cannot open up another herd without entering an activation key.

If you have already obtained an activation key for Cow COMM and have entered another Herd into your Cow Sense program, you will be able to choose which Herd you want to use with Cow COMM. From the Cow COMM Main Menu, select **File > Open Cow Sense Herd**.

**Figure 6: Open Herd**



An Open Cow Sense Herds screen (see Figure 6) will appear allowing you to choose from your personalized list of existing Herds in the Cow Sense Herds folder. All available Herds should appear in the left-most scroll box of this screen. Select (double left mouse click) the Herd with which you want to work.

#### Start Cow Sense

It is not necessary for your Cow Sense program to be open in order for you to enter the new data you will record using Cow COMM. However if you wish to view reports or the records in your herd file, you can do so by opening Cow Sense. If you have not already opened your Cow Sense program, this feature allows you to do so without exiting Cow COMM. From the Cow COMM Main Menu, simply select **File > Start Cow Sense**. Cow Sense will launch using the Herd that is displayed on the Cow COMM Main Menu screen.

## Exit

When you are ready to quit, or exit Cow COMM, select the **File > Exit** command from the Cow COMM Main Menu. You can also quit Cow COMM by selecting the  icon in the upper right-hand corner of your Cow COMM screen or by double clicking the control box in the upper left corner of your screen. A message box will ask you if you are sure you want to quit. Select **Yes** or **No**.

If you had Cow Sense open, and have exited Cow COMM, Cow Sense will remain open. If you would like to exit Cow Sense as well, proceed to the Cow Sense Main Menu. The method of exiting the program is the same as for Cow COMM. In this case, however, a Back Up Herd? message box will appear, recommending that you back up your Herd. Select **Yes** or **No**. If you select **No**, you will exit Cow Sense without a back up being made of your Herd. If you select **Yes**, a Back Up Herd screen will appear. The Backup file is saved by default to the Herdsbak file folder in Cow Sense (see Figure 7).

**Figure 7: Back Up Herd**



When you backup a herd, Cow Sense looks for the sequence number of the last backup of the current herd (stored in the file extension), increments it, and copies the current herd to the Herdsbak directory with the new sequence number as the extension. This way, Cow Sense keeps track of your backups, and you can see what the backup history is for a given herd. You aren't limited to that backup option,

however. Cow Sense will also let you back up to a flash drive or other removable media, to another directory, or to another hard drive. Cow Sense provides a name for the backup, using the incremented sequence number as an extension (sample.000, sample.001, etc.) and the Herdsbak directory as the destination. (In this example, Sample2 is the name of the herd file). Select **OK** to proceed with the backup, or choose a different destination or file name.

A backup to the Herdsbak directory on your hard disk protects you from user error or data file corruption, **but not equipment failure or other disasters**. Always keep a backup on removable media and *off site*.

BACKING UP YOUR DATA FILES IS VERY IMPORTANT. Therefore, Cow Sense makes the task easy to do. Get in the habit of backing up your files often; data files become corrupt, hard disks crash, lightning strikes. Disaster happens without warning! You can back up any of your Cow Sense herds at any time by going to **Utilities > Back Up Herd** from the Cow Sense Main Menu.

## Set Up Function

This function allows you to decide whether you will be using chute-side devices to aid in your data collection. Although optional, these devices may improve the accuracy and efficiency of recording data chute-side. You may choose to use one or all of these devices, or you may choose to manually enter the data into each animal's record. Both choices can utilize the same powerful Auto Sort or Cow COMM Pro features.

If you choose to use any of these chute-side devices, you will need to choose a Serial communications (COM) port or RS232 ports on the back of your laptop computer (assuming you are

**Figure 8: Serial Communications Port**



using a laptop computer for chute side data collection) to which these devices can be attached. Serial ports are used to interface between the device and your computer (see Figure 8). For many computer peripheral devices the USB interface has replaced the serial port. As of 2007, most modern computers are connected to devices through a USB connection. If your computer does not have COM port(s) you will need some type of an adapter to interface between these devices and your computer. You will then designate in Cow COMM, through a procedure described later, which COM port you will be using with which device.

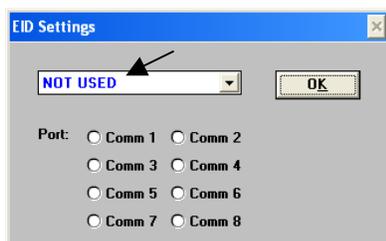
## Chute-Side Devices

To date, the list of chute-side devices include RFID or EID readers, electronic scales, hip height measurement tools, bar code readers, digital thermometers and certain LED signs. Cow COMM allows for real time interface of RFID readers with Cow Sense. If an animal has an existing RFID associated with it's record in Cow Sense, Cow COMM will recognize and automatically "Look-up" (or retrieve) an individual animal's record once the RFID is read. Cow COMM also allows for automatic real time input of an animal's weight, RFID, hip height or temperature into its Cow Sense record. The electronic interface with an LED sign provides the capability to display the results of an automated sort group.

### *Electronic Identification (EID)*

EIDs include electronic tags, boluses, and implants. EIDs can be useful to track individual cattle and retrieve past records or add new data to an animal's record. Although these devices are not necessary for the use of Cow COMM, they can help you to more efficiently access animal records in the program. From the Cow COMM Main Menu, select **Set Up > Chute-Side Devices > Electronic Identification**. The EID Settings screen will appear.

**Figure 9: EID Settings**



If you are using EIDs, select which EID your operation is using to identify the cattle from the drop-down list. IF you are not using EIDs, you will select the **NOT USED** option from the drop-down list (see Figure 9).

Table 1 lists the RFID Readers with which Cow COMM is compatible at the time this support document was created. To view a list of our most current Readers go to

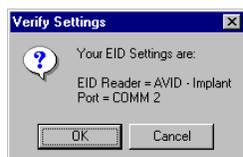
[http://www.midwestmicro.com/docs/info/info\\_cowcomm.pdf](http://www.midwestmicro.com/docs/info/info_cowcomm.pdf)

**Table 1. Compatible RFID Readers**

• <b>AgInfoLink</b>	• <b>I.D.ology Lightning ROD</b>
• <b>Allflex</b>	• <b>Reseaumatique</b>
• <b>AVID – Bolus</b>	• <b>Syscan Live Track</b>
• <b>AVID – Implant</b>	• <b>Tag Tracker 2</b>
• <b>Destron Pocket Reader</b>	• <b>TIRIS</b>
• <b>Digital Angel (Destron Ferring)</b>	• <b>Y-TEX</b>
• <b>Gallagher BR Series</b>	• <b>Y-TEX Panel Reader</b>
• <b>Gallagher HR3 Series</b>	

You will then choose which COM port on your computer you will use to communicate with the RFID reader. Once you have chosen the port by selecting the radio button to the left of the appropriate COM port (1 - 8), select **OK**. A Verify Settings message box will appear to verify that you have chosen the desired COM port (see Figure 10).

**Figure 10: Verify Settings**



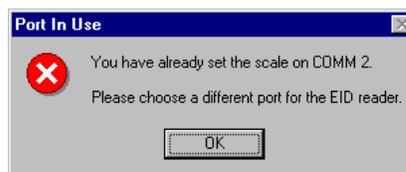
If the settings are correct, select **OK**. If they are not correct, select **Cancel** and you will be able to re-set the type of RFID and the COM port. If you select a COM port that is not available for use, a Port Unavailable message box will appear informing you to choose another COM port (Figure 11a).

If you select a COM port that is already being used, a Port In Use message box will appear informing you to choose another COM port (Figure 11b).

**Figure 11a: Port Unavailable**



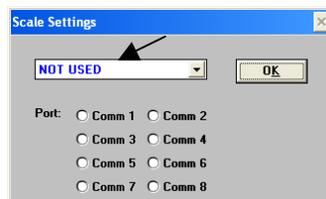
**Figure 11b: Port In Use**



### Scales

From the Cow COMM Main Menu, select **Set Up > Chute-Side Devices > Scales**. The Scale Settings screen will appear (see Figure 12).

**Figure 12: Scale Settings**



From the drop-down list, select which type of electronic scale you will be using to weigh your cattle. If you are not weighing your cattle at this time or will be entering a weight manually, you will select the **NOT USED** option from the drop-down menu.

Table 2 lists the scales with which Cow COMM is compatible at the time this support document was created. To view a list of our most current scales go to [http://www.midwestmicro.com/docs/info/info\\_cowcomm.pdf](http://www.midwestmicro.com/docs/info/info_cowcomm.pdf)

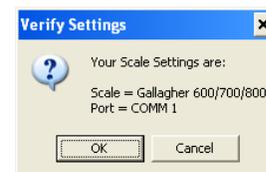
**Table 2. Compatible Scale Indicators**

• <b>Cardinal 205</b>	• <b>Horizon</b>
• <b>Digi-Star EZ</b>	• <b>Reliable 500</b>
• <b>Digi-Star SDM</b>	• <b>Reliable 600</b>
• <b>Digi-Star SW 4600EID</b>	• <b>Tru-Test 700 Series</b>
• <b>Digi-Star SW 550</b>	• <b>Tru-Test 2000 Series</b>
• <b>Gallagher 300</b>	• <b>Tru-Test 3000 Series</b>
• <b>Gallagher 600/700/800 (Ernie)</b>	• <b>Weigh-Tronix</b>
• <b>GSE 350</b>	• <b>Weigh-Tronix 640</b>

Once you have selected your scale indicator, you need to select a COM port for which the communication is to be established. In the event a COM port is not available you will receive a message box as reflected by Figure 11b.

Only the available COM ports on your computer can be selected. You will receive the message box displayed in Figure 13 once a compatible scale and port has been selected.

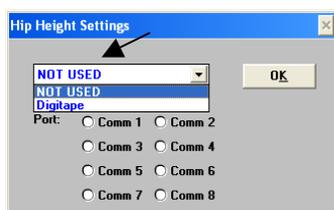
**Figure 13: Verify Settings**



### *Hip Height Measure*

From the Cow COMM Main Menu, select **Set Up > Chute-Side Devices > Hip Height Measure**. The Hip Height Settings screen will appear (see Figure 14).

**Figure 14: Hip Height Settings**



At this time, the only device listed is the Digitape. However, since this tool was setup in Cow COMM, the manufacturer no longer makes this model of the Digitape that can connect to a computer's COM port.

Should you have a Digitape with a serial connection, select Digitape

from the drop down and select a COM port for which the communication is to be established. In the event a COM port is not available you will receive a message box as reflected by Figure 11b.

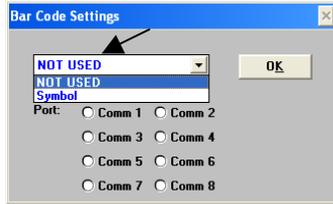
Only the available COM ports on your computer can be selected. You will receive the message box displayed in Figure 15 once a compatible device and port has been selected.

**Figure 15: Verify Settings**



## *Bar Code Reader*

**Figure 16: Bar Code Settings**



At this time, the only device listed is the Symbol. Once you have selected Symbol, you need to select a COM port for which the communication is to be established (See Figure 16). In the event a COM port is not available you will receive a message box as reflected by Figure 11b.

Only the available COM ports on your computer can be selected. You will receive the message box displayed in Figure 17 once a compatible device and port has been selected.

**Figure 17: Verify Settings**



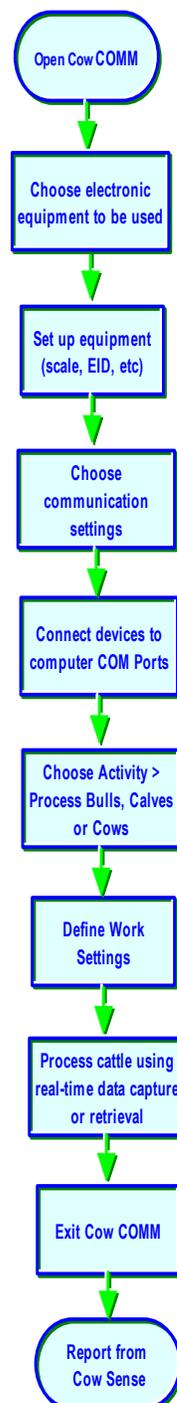
## *Thermometer and Sign*

The setup process for the Thermometer and Sign are similar to the other devices explained earlier in this document. The Sign is used to display the results of the Auto Sort function on an LED sign (see Auto Sort functions page 41). The Thermometer is used to record time and temperature taken for an animal in the Remarks field on the animals record. Since a limited number of our customers use these devices, we will not go into further details, as their application is very user specific. As always for any question on our products don't hesitate to call or email our support department.

## Working Chute-side with Cow COMM.

Here is where you will learn how to setup Cow COMM for working cattle chute-side or real-time. (If you are not using Cow COMM chute-side but wish to use the post-processing functions, proceed to page 35-39 of this document). This capability provides you the ability to access previous data as well as add data to animal records. Figure 18 provides a graphical representation of the process of working cattle with Cow COMM.

**Figure 18: Processing Cattle Chute-side with Cow COMM**



## Activity Function

Now that you have chosen the type of devices (if any) you will be using, you are prepared to process cattle chute-side with Cow COMM.

### Process...

In order to process the cattle, from the Cow COMM Main Menu, select **Activity > Process....** Choose which type of animals you want to process. Select **Calves, Cows, or Bulls.**

### Calves

#### Work Settings Screen

Before you work your cattle, you will need to define your work settings. A Work Settings screen (Figure 19) will appear with a Functions tab, a Settings tab, and an Auto Sort Disabled tab (Note: the Auto Sort Disabled tab is “grayed out” or not available to you unless the Auto Sort function is enabled from the Functions tab).

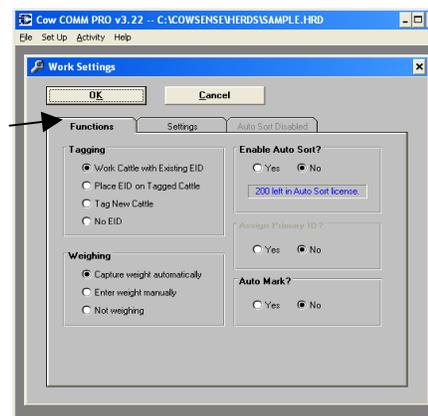
#### *Functions Tab*

##### *Tagging*

Choose which tagging option applies to your Herd. Please note that in Cow COMM an animal’s Primary ID refers to its unique animal ID in Cow Sense (ex. Cow ID, Bull ID, Calf ID) visual tag, tattoo, freeze brand, etc. (See Figure 19)

- **Work Cattle with Existing EID.** Use this option to process animals that already have an RFID recorded in Cow Sense. An RFID reader is connected to your computer through a previously selected COM port. This setting is to be used to scan their RFIDs to call up their records from the Cow Sense database.
- **Place EID on Tagged Cattle.** Use this option to process animals that have a Primary ID recorded in Cow Sense, although they do not have an RFID yet assigned to their Cow Sense record. This setting is to be used to place an RFID on the animals being worked at this time. You will use their Primary ID to call up their record from the Cow Sense database. An RFID reader is connected to your computer through a previously selected COM port. You will then scan their RFID onto their record to be stored in Cow Sense.
- **Tag New Cattle.** Use this option to process animals that have no previous records in Cow Sense. This setting is to be used to create new records for them in the Cow Sense database, and will assign a unique identification in the animal ID Field to each of these animal’s records. You may assign a new RFID to them as well, however the RFID is optional. If you select **Tag New Cattle**, the **Assign Primary ID?** section will be activated. See Assign Primary ID page 15 for more details.
- **No EID.** Use this option to process animals that have a Primary ID, although they do not have an RFID. This setting is to be used to work cattle that do not have an RFID associated with their Cow Sense record and you do not intend to add an RFID at this time. You will manually key in their Primary ID to call up their record from the Cow Sense database.

**Figure 19: Work Settings**



### Weighing

Choose if you wish to have the weight automatically recorded on the individual calf's record, if you wish to manually key it in yourself, or if you are not weighing the calves at this time (see Figure 19).

- **Capture Weight Automatically** – the scale is connected to your computer through a previously selected COM port. Selecting this option enables communications with the chosen scale and the recording of the weights through Cow COMM will be automatic.
- **Enter Weight Manually** – the scale is *not* connected to your computer. Selecting this option enables the ability to key in the weights on the animal's record in Cow COMM.
- **Not Weighing** – a scale is *not* connected to your computer. Select this option when you are not weighing the animals and no weights are to be recorded.

### Enable Auto Sort?

This section of the Functions tab enables the use of the powerful Auto Sort capability of Cow COMM. As the name implies this capability provides the ability to pre-designate sort criteria based upon existing data and data being collected to automatically sort the animals to the criteria. There is additional cost for this functionality and license to use this function are sold on a per sort basis. Two hundred sort licenses are included with your initial Cow COMM purchase (note upper right side of Figure 19). The radio buttons allow you to choose whether or not to implement the auto sort function for calves. Note the number of sorts you have remaining in your Auto Sort license is displayed here as well. If you do not want to sort your calves using Cow COMM at this time, select **No** and proceed to either the “Assign Primary ID?” or “Auto Mark?”. If you would like to learn more about this powerful tool see page 41-46 for additional direction on use of the Auto Sort capability.

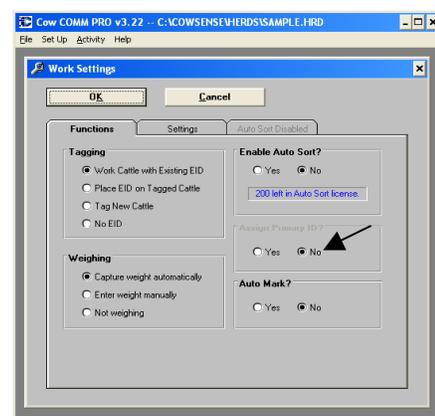
### Assign Primary ID?

This option is only available when creating new records in Cow COMM. If you choose the **Tag New Cattle** option in the **Tagging** section, you will be provided an option for Cow COMM to automatically (sequentially) assign a Primary ID to the next calf record. If you select **Yes**, after you manually enter the first new Primary ID, Cow COMM will automatically assign the next sequential number to the next untagged animal it encounters. Select **Yes**, if you would like to use this Cow COMM tool, or **No** if you do not wish to use it at this time.

### Auto Mark?

When this feature is turned on, changing any data on a record will mark the record so that you can query on Marked records later in Cow Sense. If you do not need to change any data on the record but would still like to add the record to the Marked group you need only hit the “Esc” button on your keyboard to manually mark the record. This procedure is the same for Cows and Bulls as well.

**Figure 20: Work Settings**



## Figure 21: Clear Marked Calves



In the event, you already have records marked in your herd you will be notified with the window to the left and given the option to clear out any previously marked records. This also allows you to keep a running count of how many calves have been marked. You can see this at the bottom in the middle of the working window. You will see how many animal records there are as well as how many records are marked (see Figure 24 for an example).

## Settings Tab

### Stage

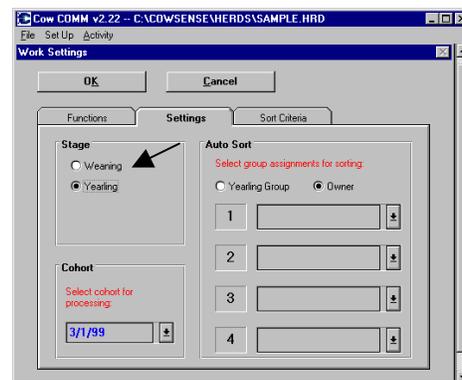
This section of the Settings tab, allows you to choose which stage in the production cycle applies to the calves with which you are working. Select the radio button to the left of the stage that applies to these calves.

- Weaning
- Yearling

### Cohort

This section of the Settings tab allows you to choose which production cycle applies to the calves with which you are working. In Cow Sense, this is referred to as a cohort (birth group or production cycle date). Please note that all the cohort groups available for that Cow Sense Herd appear on a drop-down list, which can be accessed by selecting the Hot button  to the right of the field. From the drop-down list, select the production cycle in which these calves were born or assigned. Once you have finished making selections for your Activity you will need to click on the “OK” button. If you are looking up calf records by calf ID, Cow COMM will only look for the animal within the cohort you select. However, if looking up by EID, Cow COMM will access all calf records regardless of cohort group.

Figure 22: Settings Tab



## Figure 23: Verify Date



Cow COMM will use the date set by your computer (shown in the open field) unless you change it before selecting OK. Make sure that the date shown in the message box is the correct date. This is extremely important as Cow COMM uses the date to make certain calculations. Select Cancel if you would like to return to the Work Settings screen. After you select OK in the Verify Date message box, the Process Calves screen will appear. (See Figure 24)

## Process Calves Screen

Use the Process Calves screen to add new information to the calf's record, to change old information, or to add new calves to the Cow Sense database. Note that the calf's Primary ID number is in the upper left-hand corner and either its sort group or weight (depending on whether or not the Auto Sort function is activated – see page 41-46), is in the upper right-hand corner of the screen.

This screen has a Setup tab, an Input 1 tab, and an Input 2 tab. The Input tabs are used to display, enter or modify information on a calf's record. The Setup tab is used to set defaults and validations.

**Figure 24: Process Calves**

### Setup Tab

This tab is used to create or change default settings and validation settings to save time and ensure accuracy of data being entered. Some of these validations may already be activated when this tab is opened. This is because an associated field may have been checked off in the Work Settings screen. For example, in the Tagging section on the Work Settings screen, in the case that you chose **Work Cattle with Existing EID**, the RFID validation will automatically be activated. However, if you chose **No EID**, the RFID validation will *not* be activated. Please understand that regardless of whether or not a validation is activated prior to manipulation of the Process Calves screen, it can be turned on or off by the user.

### Defaults

Defaults are only assumed when creating new records. Defaults are values that Cow COMM will enter automatically without user intervention. This saves you from having to enter repetitive information on record after record. However, you may change the defaults on any record. That is to say, defaults can be overwritten. The default settings will then be re-set to values from the current record.

If you are working calves that are all new (i.e. they don't already exist in Cow Sense), click the red **New** button on the Process Calves screen. You will then complete the information for the first animal on the Input 1 and Input 2 tabs. Then return to the Setup tab to set the fields where you wish the information entered to become a default field. If you would like a certain field to be a default field (i.e. you do not want to have to re-enter the information on all succeeding new records), activate the default by clicking on the box next to the name of the field. Then resume working the balance of the cattle and the fields you choose to be defaults will automatically be completed for you. These fields are discussed in the following section.

### Calf or Yearling Group 1

In this section, the title of your user-defined calf or yearling group 1 will appear (e.g. calf group titles are Pasture and Owner in the Sample Herd). Calf or yearling group 1 contains sub-group titles you established in the Define Groups option of the Enter Data drop-down menu in Cow Sense. Select this box if you would like the sub-group on the current record to be a default setting.

### Calf or Yearling Group 2

Same explanation as Calf or Yearling Group 1.

### Breed

Select this box if you want to set the breed of the calves as a default.

### Sex

Select this box if you want to set the sex of the calves as a default.

### Poll

Select this box if you want to set the horn status of the calves as a default.

### Prefix

Select this box if you want to set the bangs number prefix as a default.

### Born As

Select this box if you want to set the status of the calves when they were born (e.g. single, triplet, embryo transfer, etc.) as a default.

### Raised As

Select this box if you want to set the status of the calves as they were raised (e.g. single on foster dam, twin on own dam, etc.) as a default.

### Bangs No

Select this box if you want the bangs number to automatically increase by one sequential number on each new calf you process.

### *Validation*

Validations are used to warn you if some information is missing or is inappropriate for a particular field. A warning message box will appear if this is the case, however it will not prevent you from moving on and saving the record. This function is used as a “check,” to make sure you have entered all of the information you intend to enter during this session.

If you would like to be warned when information in a field is missing, select the box next to the name of the field. For the Weight and Hip Height fields, there is an additional validation feature. You can enter in a range of values into which all of the animals to be processed should fall. If a value is entered on a record that is not within this range, a warning message box will appear. Again, you will not be prevented from moving on and saving the record, but you will have to acknowledge that this measurement is correct.

### Weight

Select this box to warn you if the weight field on the calf’s record is not completed. Also, type in the upper and lower end of the range of weights that are acceptable to you. You will then be warned if an entered weight is outside this range.

### Hip Height

Select this box to warn you if the hip height field on the calf's record is not completed. Also, you may type in the upper and lower ends of the range of acceptable hip heights that are expected. You will then be warned if an entered hip height is outside this range.

### Tag

Select this box to warn you if the ear tag number (Calf ID) field is blank.

### EID

Select this box to warn you if the RFID number field is blank. This would generally be used only when applying RFIDs to animals.

### Bangs Tag

Select this box to warn you if the bangs tag number field is blank. This would generally be used only when applying Bangs Tags to animals.

### Calf or Yearling Group 1

In this section, the title of your user-defined calf or yearling group 1 will appear (e.g. calf group titles are Pasture and Owner in the Sample Herd). Calf or yearling group 1 contains sub-group titles you established in the Define Groups option of the Enter Data drop-down menu in Cow Sense. Select this box to warn you if a calf or yearling group 1 sub-group field is blank.

### Calf or Yearling Group 2

Same explanation as Calf or Yearling Group 1, above.

### Pelvis

Select this box to warn you if the pelvis area field is blank. This would generally be used only when recording pelvic measurements to animal records.

### Scrotum

Select this box to warn you if the scrotal circumference field is not completed. This would generally be used only when recording scrotal measurements to bull calf records.

### Breed

Select this box to warn you if the breed field is not completed.

### *Hip Height Option*

### Weaning or Yearling

When collecting Hip Height data you must select if it was taken at weaning time or yearling time. That way when the data goes into Cow Sense it will go to the appropriate field.

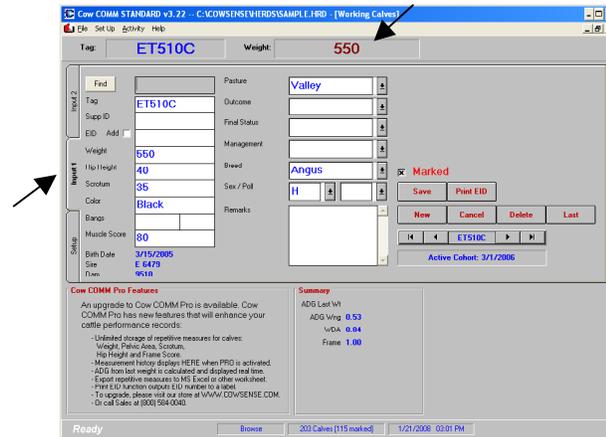
## Input 1 Tab

The Input 1 and 2 tabs are where you can enter, or reference previously entered information about each calf (see Figure 25). The screen is arranged to provide ease of use in data entry and navigation.

### Screen Display

Note if the Auto Sort function is *not* activated (see Figure 25), the weight of the animal will appear in the upper right-hand part of the screen (to the right of the tag number).

**Figure 25: Input 1 Tab** (Note Auto: Sort inactivated)



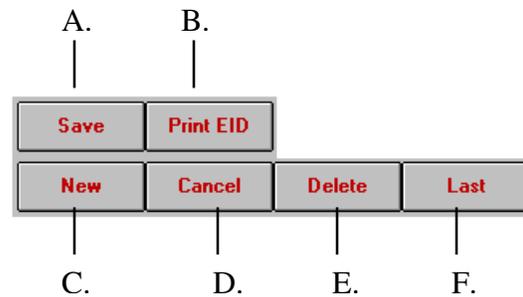
## The Command Buttons

The command buttons are located in the lower right of the Input 1 screen.

Using the command buttons:

- A. Save - If you select this button, Cow COMM will save the current record and update the Cow Sense database immediately. Selecting the Save button is not required to store the information on the current record. Cow COMM will automatically save the added information when you move off the record. Clicking on the “Save” button makes it become the default and enables the Enter Key on your keyboard. On subsequent animal records you can simply touch the Enter Key on your keyboard to repeat the Save function.
- B. Print EID this button provides the user the capability to print a label with the animal EID, visual EID and date. This is particularly useful when collecting samples from animals with EIDs. This feature is only available in Cow COMM Pro.
- C. New – this button creates a new record. Clicking on the “New” button makes it become the default and enables the Enter Key on your keyboard. On subsequent animal records you can simply touch the Enter Key on your keyboard to repeat the New function.
- D. Cancel – this button clears an unsaved entry.
- E. Delete – this button deletes a current record.
- F. Last – this button takes you back to the last record viewed.

**Figure 26: The Command Buttons**



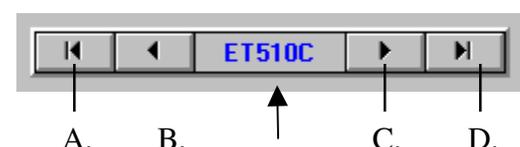
## The Navigation Tool Bar

All of the Process Calves data entry screens have a navigation tool bar to easily move through the data file. Visualize each data entry screen, which represents a record in your herd database, as a single card in a card file. You may wish to move to the first or last card in the file, or leaf forward or back through the file. The navigation tool bar performs these functions for you on the data entry screens. Note the animal’s primary ID is located in the center of the tool bar. The use of these buttons for navigating between records is noted below.

Using the navigation tool bar:

- A. This button takes you to the first record in the file.
- B. This button takes you back one record.
- C. This button takes you forward one record.

**Figure 27: Navigation Tool Bar**



- D. This button takes you to the last record in the file.

### Marked

The “Marked” box allows you to manually mark a record by selecting or clicking this box. This allows you to flag a particular record for later reference. If the Auto Mark feature is turned on when first setting up the functions in Cow COMM (see Figure 20), changing any data on a record will mark the record so that you can query on Marked records later in Cow Sense. If you do not need to change any data on the record but would still like to add the record to the Marked group you need only hit the “Esc” button on your keyboard to manually mark the record. This procedure is the same for Cows and Bulls as well.

### *Data Entry/Edit Fields*

#### Find

This field is for typing in a Visual ID to look up an animals record. You click in the box, type in the Visual ID of the animal you are looking for and then click on the “Find” button to move to that animals record. You must type the ID exactly as it is stored in Cow Sense for this function to work properly. . Clicking on the “Find” button makes it become the default and enables the Enter Key on your keyboard. On subsequent animal records you can simply touch the Enter Key on your keyboard to repeat the Find function. Hint – be careful of spaces in animal IDs.

#### Tag

This is where the unique Primary ID is entered. It can be used to locate the record in the Cow Sense database. If this is a new calf, it must be assigned a Primary ID.

#### Supp ID

This field can be used to record a supplemental or backup ID. For example if you are retagging animals you may want to put in the old Visual ID here.

#### EID

This is where the RFID number is entered, either manually or electronically through use of an RFID reader that is connected to your computer’s COM port, as previously described. While this 15-digit number can be entered manually, it is not recommended! Due to the length of the number, the chance of a data entry error is increased significantly.

#### Weight

This is where the calf’s weight is entered, either manually or electronically through use of an electronic scale that is connected to your computer’s COM port, as previously described.

#### Hip Height

This is where the calf’s hip height is entered either manually or electronically through use of an electronic measurement device that is connected to your computer’s COM port as previously described.

### Scrotum

This is where the calf's actual scrotal circumference is recorded. This field is only applicable to bull calves.

### Color

This is where the calf's color is entered. It is important for you to be uniform when entering information in this field. For example BLK and Black are recorded as two different colors and will be recorded as such in the Cow Sense database.

### Bangs

This is where the calf's bangs tag number is entered. The field is divided into two parts. The first is for the prefix and the second is for the sequential number.

### Muscle Score

This is where a muscle score is entered.

### Birth Date, Sire and Dam

These fields are for reference only. They cannot be edited here.

### Calf or Yearling Group 1

In this section, the title of your user-defined calf or yearling group 1 will appear (e.g. calf groups titles are Pasture and Owner in the Sample Herd). Calf or yearling group 1 contains sub-group titles you established in the Define Groups option of the Enter Data drop-down menu in Cow Sense. Click on the Hot button  at the right side of this field to choose which sub-group to which this calf belongs.

### Calf or Yearling Group 2

Same explanation as Calf or Yearling Group 1, above.

### Breed

This is where the calf's breed is entered.

### Sex

This is where the calf's sex is recorded. Select the Hot button  at the right of the field for choices. A valid entry in this field is required for saving and storing a calf record in Cow Sense.

### Poll

This is where the calf's horn status is recorded. Select the Hot button  at the right of the field for choices. (Not a required field.)

### Remarks

This is where any additional notes to the calf's record are entered.

### Input 2 Tab

The Input 2 tab (see Figure 28) is where you can enter more information about each calf, or confirm previously entered data.

**Figure 28: Input 2 Tab**

The screenshot shows the 'Input 2' tab in the Cow COMM STANDARD v3.22 software. The window title is 'Cow COMM STANDARD v3.22 - C:\COWSENSE\HERD\SAMPLE.HRD - [Working Calves]'. The 'Tag' field contains 'ETS10C' and the 'Weight' field contains '550'. The 'Input 2' section includes:
 

- Born As:** A dropdown menu with a 'Hot' button (a square with a downward arrow) to its right.
- Raised As:** A dropdown menu with a 'Hot' button to its right.
- New ID:** A text input field.
- DNA Case:** A text input field.
- Pelvis V:** A text input field containing the value '14'.
- Pelvis H:** A text input field containing the value '12'.
- Pelvis A:** A text input field containing the value '168'.
- Ad Pelvis:** A text input field.
- Buttons:** Radio buttons for 'Bif', 'Area', and 'Est Biv'.

 A 'Summary' box at the bottom right displays:
 

- ADG Last Wt: 0.53
- WDA: 0.84
- Frame: 1.00

 A 'Ready' status bar at the bottom shows '203 Calves (115 male) 1/21/2008 03:05 PM'.

### Born As

This is where you record the status of the calf when it was born (e.g. single, triplet, embryo transfer, etc.). Select the Hot button  at the right of the field for choices. A valid entry in this field is required for saving and storing a calf record in Cow Sense. See Cow Sense User's Guide for additional information and definition of these codes.

### Raised As

This is where you record the status of the calf as it was raised (e.g. single on foster dam, twin on own dam, etc.). Select the Hot button  at the right of the field for choices. A valid entry in this field is required for saving and storing a calf record in Cow Sense. See Cow Sense User's Guide for additional information and definition of these codes.

### New ID

This field is for entering the New ID for a calf that will become a replacement cow or bull.

### DNA Case

This field is for entering the bar code number as may be used when collecting a tissue sample for DNA. If collecting a DNA sample it is recommended that you enter the number from the collector into this field for future reference. This may be manually entered or electronically through the use of a barcode reader that is connected to your computer's COM port as previously described.

### Pelvis V

This is where the calf's vertical pelvic measurement is recorded (in cm.).

### Pelvis H

This is where the calf's horizontal pelvic measurement is recorded (in cm.).

### Pelvis A

This is where the calf's pelvic area is displayed. As long as the vertical and horizontal pelvic measurements are recorded, the pelvic area is calculated in square centimeters and automatically displayed in this field.

### *Adj Pelvis*

This is where the adjusted pelvic area is displayed. It is computed by Cow COMM using either of 2 methods – Area or Est. BW (estimated maximum birth weight). Whichever option is chosen is stored in the Adjusted Pelvic Measure field on the Cow Sense calf record.

Off – Select Off if you do not want Cow COMM to calculate an adjusted pelvic area at this time.

Area – Select Area if you want Cow COMM to calculate an adjusted pelvic area (in square centimeters) according to the age of the calf.

Est. BW – Select Est. BW if you want Cow COMM to calculate the estimated maximum birth weight of a calf that this potential cow should be able to have without assistance. The source of this calculation is from the document Pelvic Measurements for Reducing Calving Difficulty, NebGuide G87-839-A, Gene H. Deutscher, Extension Beef Specialist.

### *Ultrasound Measures*

Back fat – This is where you will record the actual ultrasound measurement taken for back fat.

IMF – This is where you will record the actual ultrasound measurement taken for inner muscular fat.

REA – This is where you will record the actual ultrasound measures taken for rib eye area.

### *Summary*

The summary box displays the ADG (Average Daily Gain) Last Wt, ADG Wng or Yrlg, WDA (Weight per Day of Age) and Frame Score.

### *Audible Cues*

Audible tones are available to verbally confirm the sex of the calf if present on the animal record. In addition as EID and weight are entered a verbal confirmation will acknowledge that they have been recorded. If you wish to use this function check the volume settings on your computer to ensure it is turned on and set at a level loud enough to hear. Some users have attached additional speakers to the computer to increase the volume.

### *Cows and Bulls*

Processing cows and bulls with Cow COMM is very similar, so they will be described simultaneously in this document. If there are any differences between the two sections, they will be mentioned at that time.

### Work Settings Screen

From the Cow COMM main menu, select **Activity > Process > Cows (or Bulls)** A Work Settings screen will appear with a Functions tab and an Auto Sort Disabled tab (see Figure 29).

A tab on a screen in Cow COMM is much like a tab in a card file. It allows you to direct focus to the card you would like to look at and allows you to flip back and forth between cards.

### *Functions Tab*

#### *Tagging*

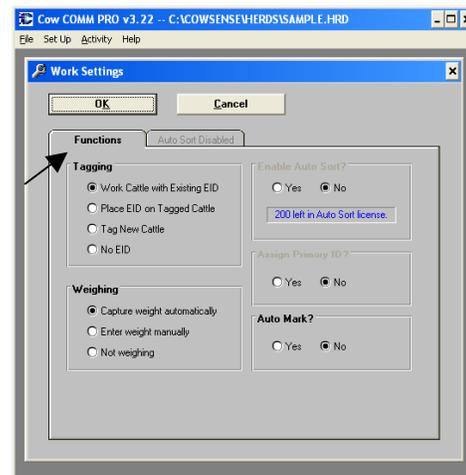
Choose which tagging option applies to your Herd. Please note that in Cow COMM an animal's Primary ID refers to its unique animal ID in Cow Sense (ex. Cow ID, Bull ID, Calf ID) visual tag, tattoo, freeze brand, etc.

- **Work Cattle with Existing EID.** Use this option to process animals that already have an RFID recorded in Cow Sense. An RFID reader is connected to your computer through a previously selected COM port. This setting is to be used to scan their RFIDs to call up their records from the Cow Sense database.
- **Place EID on Tagged Cattle.** Use this option to process animals that have a Primary ID recorded in Cow Sense, although they do not have an RFID yet assigned to their Cow Sense record. This setting is to be used to place an RFID on the animals being worked at this time. You will use their Primary ID to call up their record from the Cow Sense database. An RFID reader is connected to your computer through a previously selected COM port. You will then scan their RFID onto their record to be stored in Cow Sense.
- **Tag New Cattle.** Use this option to process animals that have no previous records in Cow Sense. This setting is to be used to create new records for them in the Cow Sense database, and will assign a unique identification in the animal ID Field to each of these animal's records. You may assign a new RFID to them as well, however the RFID is optional. If you select **Tag New Cattle**, the **Assign Primary ID?** section will be activated. See Assign Primary ID page 17 for more details.
- **No EID.** Use this option to process animals that have a Primary ID, although they do not have an RFID. This setting is to be used to work cattle that do not have an RFID associated with their Cow Sense record and you do not intend to add an RFID at this time. You will manually key in their Primary ID to call up their record from the Cow Sense database.

#### *Weighing*

Choose if you wish to have the weight automatically recorded on the individual cow's (or bull's) record, if you wish to manually key it in yourself, or if you are not weighing the cows (or bulls) at this time.

**Figure 29: Work Settings**



- **Capture Weight Automatically** – Choose this option if the scale is connected to your computer through a previously selected COM port and the recording of the weights will be automatic. Selecting this option enables communications with the chosen scale.
- **Enter Weight Manually** – the scale is *not* connected to your computer. Choose this option to manually key in the weights on the animals' records.
- **Not Weighing** – Choose this option if you are not weighing the animals at this time and no weights will be recorded.

### *Enable Auto Sort?*

This function is not presently available for cow (or bull) records and therefore cannot be selected. It is currently being developed, at which time this function will be enabled and available for use.

### *Assign Primary ID?*

This feature has application when you are creating new cow or bull records with Cow COMM and attaching sequentially numbered tags on them. If you choose the **Tag New Cattle** option in the **Tagging** section, you are presented an option if you would like Cow COMM to automatically assign a Primary ID to the next cow (or bull) record. If you select **Yes**, manually enter the first new Primary ID. Cow COMM will then automatically assign the next sequential number to the next animal record entered. Select **Yes**, if you would like to use this or **No** if you intend to manually key in the animal ID.

### *Auto Mark?*

When this feature is turned on, changing any data on an animals' record will mark the record so that you can query on Marked records at a later time. If you do not need to change any data on the record but would still like to add the record to the Marked group you need only hit the "Esc" button on your keyboard to manually mark the record. This is the same for Calves as well.

**Figure 30: Clear Marked Cows**



In the event, you already have records marked in your herd you will be notified with the message displayed in Figure 30 and given the option to clear out any previously marked records. This also allows you to keep a running count of how many cows or bulls have been marked. You can see this at the bottom right of the working window. You will see how many animal records there are as well as how many records are marked. See Figures 33a and 33b.

### *Auto Sort Disabled Tab*

The Auto Sort function is not yet available for cow or bull records and is therefore "locked" so that you cannot use it at this time.

After you select **OK** on the Verify Work Settings message box, the Enter Cows (or Bulls) screen will appear.

When you have completed filling out the Functions tab, select **OK** and a Verify Work Settings message box will appear (see Figure 31).

**Figure 31: Verify Work Settings**



*Verify Work Settings*

If the settings are correct, select **OK**. If they are not correct, select **Cancel**, make any necessary corrections, and then repeat the verification step.

*Verify Date*

After verifying your settings a “Verify Date” screen will appear. Confirm the date by selecting the “OK” button. Select the “Cancel” button to modify the date.

**Figure 32: Verify Dates**

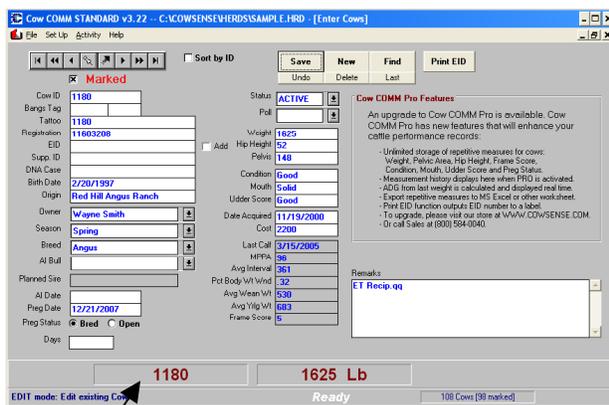


Cow COMM will use the date set by your computer (shown in the open field) unless you change it before selecting OK. Make sure that the date shown in the message box is the correct date. This is extremely important as Cow COMM uses the date to make certain calculations. Select Cancel if you would like to return to the Work Settings screen. After you select OK in the Verify Date message box, the Process Calves screen will appear.

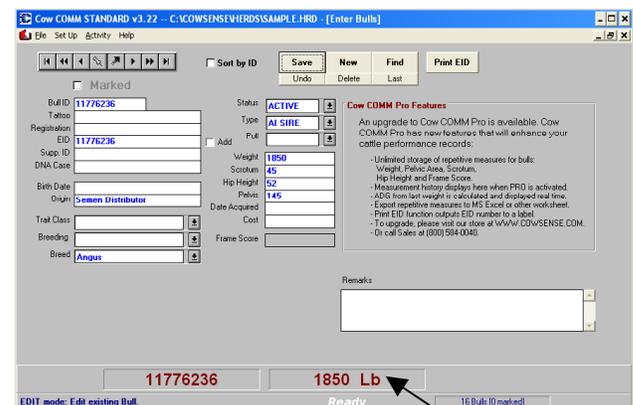
*Process Cows (or Bulls) Screen*

Figures 33a & 33b show the processing screens for cows and bulls. Use these screens to add new information to an existing cow (or bull) record, to change old information, or to add new cow (or bull) records to the Cow Sense database. Note that the cow’s (or bull’s) Primary ID number is also displayed in bold font in the lower left-hand corner and the cow’s (or bull’s) weight (if previously recorded) is in the lower right-hand corner of the screen. Note in this case Cow COMM is in “Edit” mode (lower most left) indicating that you are ready to add data to existing animal records.

**Figure 33a: Process Cows**



**Figure 33b: Process Bulls**



## Special Enter Data Features

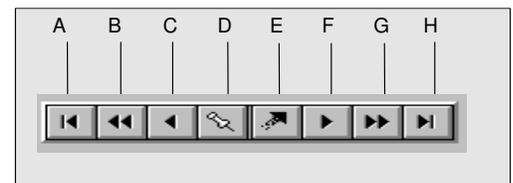
### The Navigation Tool Bar

All of the Process Cows (or Bulls) data screens have a navigation tool bar to easily move through the data file. Visualize each data entry screen, which represents a record in your herd database, as a single card in a card file. You may wish to move to the first or last card in the file, or leaf forward or back through the file. You might also want to mark a card and come back to it after further browsing. The navigation tool bar performs these functions for you on the data entry screens.

Using the navigation tool bar:

- A. This button takes you to the first record in the file.
- B. This button takes you back 20 records.
- C. This button takes you back one record.
- D. This button marks a record so you can return to it with button E.
- E. This button takes you to the record you marked with button D.
- F. This button takes you forward one record.
- G. This button takes you forward 20 records.
- H. This button takes you to the last record in the file.

**Figure 34: The Navigation Tool Bar**



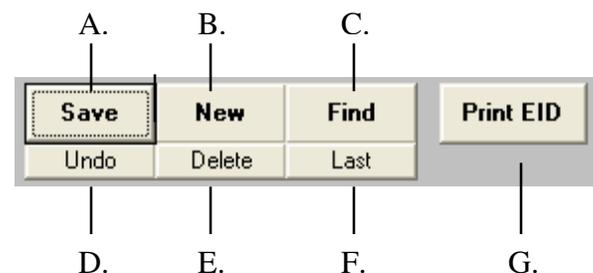
### Command Buttons

All Process Cows (or Bulls) data screens have command buttons that allow you to manipulate records in the data file. You may save a record, clear unsaved entries, create a new record, find an existing record, delete a record, or return to the last record processed. Cow Sense is a very safe program, in that it does not permit you to leave a record without saving changes, even if you do not intentionally click the Save button. In addition, each time a record is saved it is actually written to the hard disk. This way, you do not have to worry about losing data through forgetfulness or due to a power failure. At most, you will only lose information on the current unsaved record.

Using command buttons:

- A. This button saves the current record.
- B. This button creates a new record.
- C. This button opens a dialog box to find an animal ID.
- D. This button reverses any changes made to the current record.
- E. This button deletes the current record.
- F. This button will return you to the last animal record processed
- G. This button is available to print an EID label using Cow COMM Pro upgrade functions.

**Figure 35: Command Buttons**



Clicking on the “Save”, “New” or “Find” buttons makes them become the default and enables the Enter Key on your keyboard. On subsequent animal records you can simply touch the Enter Key on your keyboard to repeat the “Save”, “New” or “Find” functions. Hint – be careful of spaces in animal IDs

### Ordering Features

Sort by ID – check this box if you want to put your cow (or bull) records in order of Primary IDs. If this is unchecked, the animal records will be displayed in the order in which they were initially added to Cow Sense.

### Marked Feature

The “Marked” box (see Figure 36) allows you to manually mark a record by selecting or clicking this box. This allows you to flag a particular record for later reference. If the Auto Mark feature is turned on when first setting up the functions in Cow COMM (see page 15), changing any data on a record will mark the record so that you can query on Marked records later in Cow Sense. If you do not need to change any data on the record but would still like to add the record to the Marked group you need only hit the “Esc” button on your keyboard to manually mark the record.

Figure 36: Marked Box

The screenshot shows the 'Working Calves' window for cow 001S. The 'Marked' checkbox is checked, and an arrow points to it. The interface includes fields for Tag, Supp ID, EID, Weight, Hip Height, Scrotum, Color, Bangs, Muscle Score, Birth Date, Sex, Dam, Wearing Ratio, Call Group 2, Yearling Group 1, Yearling Group 2, Breed, Sex / Poll, and Remarks. A summary section shows ADG Last Wt, ADG Wrg, WDA, and Frame.

### Fields on Process Cows (or Bulls) Screen

Unlike calves, there is only one input screen for use in Processing Cows and Bulls. The only *required* fields for entry of records on this screen are the Cow (or Bulls) ID, Cow Birth Date, Status and Bull Type fields. If data is not recorded in these fields, a validation message will appear, prompting you to complete the required missing data.

### Cow (or Bulls) ID

This is the cow’s (or bull’s) unique Primary ID. It can be used to locate the record in the Cow Sense database. If this is a new cow (or bull), she (or he) must be assigned a Primary ID. A valid entry in this field is required for saving and storing a cow or bull record in Cow Sense.

### Bangs Tag

This field is used to record the cow’s (or bull’s) bangs tag number. The field is divided into two parts. The first is for the prefix and the second is for the sequential number. The prefix is a default and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the “Save” button before adding a new record.

### Tattoo

This field is used to record an animal’s tattoo. This information will be stored in the Tattoo field (which is by default the LE tattoo) in Cow Sense.

### Registration

This is the number assigned by the Breed Association when the animal was registered. This field is only functional in the Purebred Mode.

### *EID*

This field is used to record an RFID number. It can be entered either manually or automatically by a connection of the RFID reader to your computer via a COM port, as previously described. (It is highly recommended that you do not key RFID numbers into Cow COMM as such long numbers are highly prone to contribute to data entry errors.)

### *Supp. ID*

This field can be used to record a supplemental or backup ID.

### *DNA Case Number*

In the event that you are collecting DNA samples, this field can be used to record the sample ID number that is often affixed to the collection device. If the sample collector was purchased from Cow Sense Genetic Services, it will also have a bar code incorporated with the ID number. This Bar code can be scanned with a Bar Code Reader (connected to your computer's Com port as previously described) and it will be automatically recorded in this field.

### *Birth Date*

This is the cow's (or bull's) date of birth. A valid entry in this field is required for saving and storing a cow record in Cow Sense. It is not a required field for creating a bull record. This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the "Save" button before adding a new record.

### *Origin*

This is the source of the cow (or bull). It can be a ranch name, a person's name, the IDs of this cow's (or bull's) parents if they are part of your Cow Sense herd, etc. This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the "Save" button before adding a new record.

### *Cow (or Bull) Group 1*

This field is user defined. It contains sub-group titles you established in the Define Groups option of the Enter Data drop-down menu in Cow Sense. You are limited to the selections you defined. You can click on the Hot button  at the right of the field to choose from your previously defined sub-groups. This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the "Save" button before adding a new record.

### *Cow (or Bull) Group 2*

Same explanation as Cow (or Bull) Group 1, above.

### *Breed*

This field is used to record the breed of the animal. Select the Hot button  at the right of the field to choose from the breeds you have listed in Breeds tab of the Define Groups option of the

Enter Data drop-down menu in Cow Sense. You are limited to the selections you have included in your database. This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the “Save” button before adding a new record.

#### *AI Bull (cows only)*

This field is only on Cow records and is used to record the AI Sire that was used, if applicable. Select the Hot button  at the right of the field to choose from the active AI Sires you have recorded in Cow Sense.

#### *Planned Sire (cows only)*

This field is only on cow records and is populated when a Planned Sire is entered on the Cow’s Record in Cow Sense (in the Supplemental Data Entry area) or by Cow Sense Power Tools. This is to assist when AI breeding is utilized. When working chute side the AI technician will know which bull any given cow is to be bred to by checking this field. That way the decision of which bull a cow is to be bred to can be made in advance and relayed to the person actually performing the AI.

#### *AI Technician (cows only)*

This field is only on cow records and used to record the person who performs the AI.

#### *AI Date (cows only)*

This field is only on Cow records and is used to record the date that the cow was artificially inseminated. If the AI Bull was selected during this session the AI Date will be automatically recorded as the date you confirmed while defining Work Settings previously.

#### *Preg Date (cows only)*

This field is only on cow records and populated if a Preg Status (**Bred** or **Open**) is selected. Cow COMM will automatically default the Preg Date to the date you had confirmed while defining Work Settings previously. If you would like to type in a different date on a succeeding record, you can override the **Insert Preg Date** default.

*If you enter an AI Breeding event in to the Breeding Table of Cow Sense, when recording **Days Bred** and a Date, you will receive notification if the pregnancy is a likely result of that AI Breeding. You will also see the Technician who preformed the AI if it was entered on the Breeding record.*

#### *Preg Status (cows only)*

This field is only on cow records and used to record if the cow was Bred or Open at the time of pregnancy exam. Just click next to the appropriate results for each cow.

#### *Days (cows only)*

This field is only on cow records and used to record the number of days a cow is bred. Should the technician performing the procedure call days bred, at the time of the pregnancy examination, enter the number called.

### *Status*

This field defines whether the cow (or bull) is “active” or “gone” in your herd. A valid entry in this field is required for saving and storing a cow or bull record in Cow Sense. Click the Hot button  at the right of the field to choose the status of the cow (or bull). This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the “Save” button before adding a new record.

### *Type (bulls only)*

This field is for selecting the type of service for which a bull will be used within a herd. This is a required field for bulls and either AI, Both or Herd must be selected. AI means that this bull is only used in AI Breeding. Both means that the bull is used for AI as well as for Natural Service mating. Herd means that this bull is only used for Natural Service matings.

### *Poll*

This field is used to record the horn status of the cow (or bull). Click on the Hot button  at the right of the field for choices.

### *Weight*

This field is used to record the cow’s (or bull’s) weight. It can be entered either manually or automatically by a connection of an electronic scale to your computer via a COM port, as previously described.

### *Scrotum (bulls only)*

This field is used to record the scrotal circumference of the bull and only applies to the bull records. It is a numeric field only.

### *Hip Height*

This field is where a cow or bulls hip height measurement would be entered. This plays a part in the calculation of the frame score for a cow or bull.

### *Pelvis*

This field is used to record the cow’s (or bull’s) pelvic measurement. This is a numeric field only.

### *Condition (cows only)*

This field is used to record the cow’s (or bull’s) body condition score. (BCS). This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record. However, to set the default, you must select the “Save” button before adding a new record.

### *Mouth (cows only)*

This field is used to record the condition of the cow’s teeth and only applies to the cow records. This is a default field and if you are adding new cows to your herd, it will carry over to the next

new cow record. However, to set the default, you must select the “Save” button before adding a new record.

*Udder Score (cows only)*

In this field you would enter the udder score for cows. See document in Cow Sense **Help > Reference** for further details on the Beef Improvement Federation recommended scoring system.

*Date Acquired*

This field is used to record the date you place the cow (or bull) in your herd. This is a default field and if you are adding new cows (or bulls) to your herd, it will carry over to the next new cow (or bull) record.

*Cost*

This field is used to record a purchase cost for the cow (or bull) if you purchased her (or him).

*Last Calf (cow only and for display only)*

This field displays the birth date for the cow’s last calf.

*MPPA (cow only and for display only)*

MPPA stands for Most Probable Producing Ability. This field displays this performance ratio. See the Cow Sense User’s Guide for more information on this measure.

*Avg Interval (cow only and for display only)*

This field displays the average number of days between calving dates for a cow.

*Pct Body Wt Wnd (cow only and for display only)*

This field displays Percent Body Weight Weaned. This measurement takes into account how many pounds that a cow has weaned as a percentage of her own weight.

*Avg. Wean Wt (cow only and for display only)*

This field displays average weaning weight of all calves for a cow that have a weaning weight recorded.

*Avg. Yrlg Wt (cow only and for display only)*

This field displays average yearling weight of all calves for a cow that have a yearling weight recorded.

*Frame Score (display only)*

This field shows the frame score of the animal being displayed.

### Remarks

This field is used to make any additional notes about the cow (or bull). At the bottom of the processing bulls and processing cow screens, you will see in larger font the visual ID of each animal as well as the last weight that was taken for them. Note if you are using the Auto Mark Feature, the number of the marked records appear in the lower right hand corner of this screen as well.

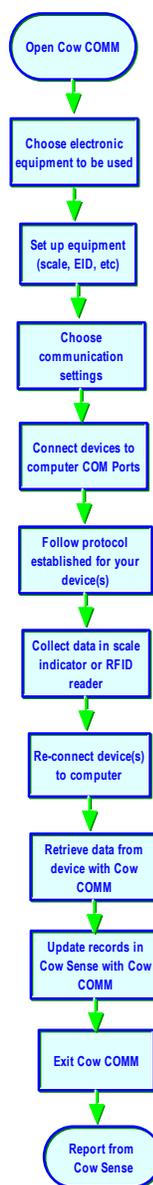
### Audible Cues

Audible tones are available to verbally confirm the addition of EID and weight. As this information is entered a verbal confirmation will acknowledge that they have been recorded. If you wish to use this function check the volume settings on your computer to ensure it is turned on and set at a level loud enough to be heard. Some users have attached additional speakers to the computer to increase the volume.

## Post-Processing use of Cow COMM

As mentioned in the introduction of this document, Cow COMM can also be very useful for user's through a post-processing interaction to retrieve data collected in scale indicators or RFID readers and automatically update data in Cow Sense. This function allows you to capture data in these electronic devices in the field and afterward return to your computer and upload into Cow Sense to update or in some case even create new animal records. The following sections describe how Cow COMM can help you bring data in from a scale indicator or RFID Reader. Figure 37 relates the process of using Cow COMM in this manner.

**Figure 37: Post-processing functions in Cow COMM**



## **Retrieve Scale Data**

Of the scale indicators mentioned earlier in this document, some have the ability to not only work chute side but can also be used as a data collection device themselves. In those cases the data can be retrieved via Cow COMM and used to update or even add new records to your Cow Sense herd file. You will need to set up your devices (scale indicators, RFID readers, etc) with your computer and Cow COMM as indicated on pages 10 – 11 of this User’s Guide. Also consider how you want the information to be updated into Cow Sense *before* processing the cattle. This will help to improve your accuracy in importing the information correctly.

Some scale indicators, other than the ones listed below have the ability to export weight data through their own software. You would want to check with the User’s Guide or representative from any other scale companies to see if and how they can export or dump out data from their scale indicators. In those cases the data can be imported into Cow Sense using the Import Tool (included with Cow Sense). For further documentation on the Import Tool see page 188 of your Cow Sense User’s Guide or go into the Import Tool (**Utilities > Transfer Data > Import > Import Tool**. Click the Help Button for further documentation.)

This section will discuss an automated function of Cow COMM to retrieve data collected in certain scale indicators bypassing the use of the Import Tool. The initial setup process to retrieve and import scale data with Cow COMM is common for all scales. These steps are outlined below.

1. To “Retrieve” scale data from the indicators set up the connection between Cow COMM and the indicator as described earlier on pages 10-11.
2. Connect the indicator to your computer with the cable that would have been shipped with your indicator or contact your supplier who sold you the scale.
3. Turn on the scale
4. From the Cow COMM Main Menu select **Activity > Retrieve Scale Data**.

### **Digi-Star SDM & SW 550**

AND

### **Tru-Test 700, 2000 & 3000**

Working with these scales Cow COMM can automatically retrieve scale weights and link them to existing records in Cow Sense by matching on the animal’s primary ID or EID. If the EID is recorded in the scale indicator and not yet in Cow Sense it too can be added through this function. Hint – if matching to the Primary ID it must be the same in Cow Sense as it is recorded in the scale indicator. Print out a list of ID’s from Cow Sense for reference in the field.

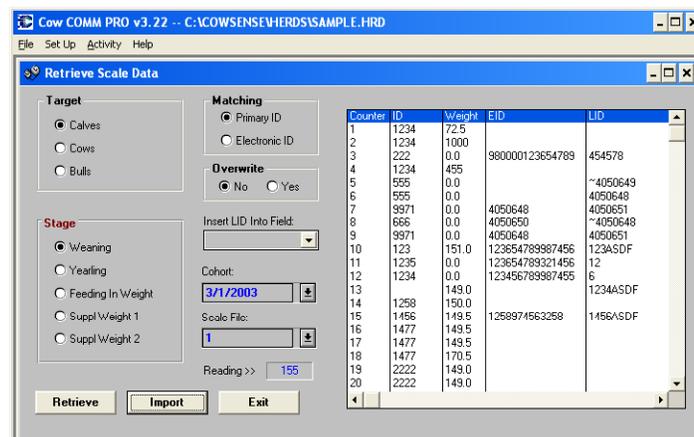
The process to retrieve and import scale data with Cow COMM is identical for the scales listed above. These steps are outlined below.

1. Upon launching the command data as described above, the Retrieve Scale Data window (Figure 38) will appear.
2. Select which “Scale File:” you wish to retrieve by clicking on the Hot button  at the right of the field from the drop down , then click the “Retrieve” Button. You will see the data being brought in from the scale head as the “Reading” box counts how many records are being retrieved.

- Once the data is retrieved, you will want to select the Target records (Calves, Cows or Bulls) that you intend to update.
- Then select what ID you will be Matching to, either Primary or Electronic.
- If your Targets are the calves, you will need to select the Stage and the Cohort date.
- If your targets are Cows and Bulls, you will need to decide whether or not to “Overwrite” the existing weight.

Tru-Test has created a field for what they call a Life Time ID or LID. This field is optional and does not need to be populated or imported. However if used, Cow COMM provides you a choice of where you wish to store this data in Cow Sense, either in the Supplemental ID or the DNA case number fields.

**Figure 38 Digi Star and Tru-Test Retrieve Scale Data via Cow COMM**

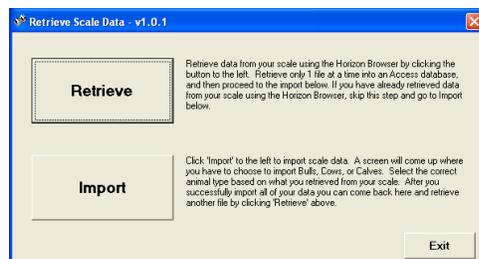


Now that you have selected what you want to import and where, you can click on the “Import” button. You will see the import of data progress and at the end of the import, you will have the opportunity to view the import log. If there were any issues with the import, such as “could not match the ID,” the log will inform you. You should always review the log for anything that needs to be resolved and entered manually.

## Horizon

You will need to make sure that you install the software that came with your Horizon Scale as previous to using this function. From the Cow COMM Main Menu select **Activity > Retrieve Scale Data**. A Retrieve Scale Data window will appear (see Figure 39). There are two functions to this interface.

**Figure 39 Horizon Retrieve Scale Data via Cow COMM**



**Retrieve** – Retrieve data from your scale using the Horizon Browser by clicking this button. Retrieve only one (1) file at a time and then proceed to the import below. If you have already retrieved data from your scale using the Horizon Browser, skip this step and go to the Import.

**Import** – Click the “Import” button to import scale data.

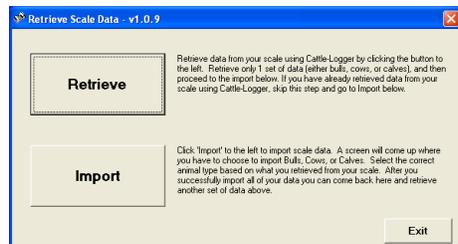
A screen will appear where you have to choose to import Bulls, Cows or Calves. Select the correct target (animal type) based on what data you retrieved from your scale. After you

successfully import all data from that file, you can “Exit” out. Repeat the process to “Retrieve” and “Import” any other files.

## Reliable 600

You will need to make sure that you install the software that came with your Reliable Scale previous to using this function. From the Cow COMM Main Menu select **Activity > Retrieve Scale Data**. A Retrieve Scale Data window will appear (see Figure 40).

**Figure 40 Retrieve Reliable Scale Data via Cow COMM**



**Retrieve** – Retrieve data from your scale using Cattle-Logger by clicking the button to the left. Retrieve only one (1) set of data (bulls, cows or calves), and then proceed to the import function. If you have already retrieved data from your scale using Cattle-Logger, skip this step and go to “Import”.

**Import** – Click the “Import” button to the left to import scale data. A screen will appear where you have to choose to import Bulls, Cows or Calves. Select the correct target (animal type) based on what data you retrieved from your scale. After you successfully import all data from the file, you can “Exit” or repeat the process to Retrieve and Import any other files.

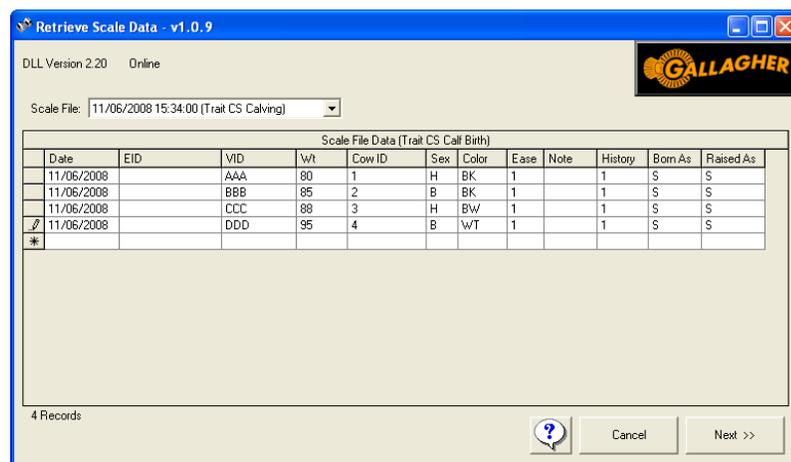
## Gallagher 600/700/800

The interface with these Gallagher indicators is more intuitive and allows you to select from different Trait Forms that are copied from your computer to the indicator before collection of any data. This provides the mechanism to bring that data collected in the field back into Cow Sense through Cow COMM. For detailed documentation on this procedure, click on the Cow Sense Trait Tables icon on your desktop. If you are using Internet Explorer 7 you will see this

icon . If you are using Fire Fox you will see this type of icon . Just keep in mind that the name will be similar but the icon picture itself may be different depending on how you browse the Internet. This document was created when you installed the Cow Sense Suite of Products. The data retrieved will be dependant upon the Trait Form used for recording the data.

Here again it is important that you also install the software that comes with your scale indicator for this to work properly. Figure 41 displays a “Retrieve Scale Data” window for the Cow Sense Calving Trait table available for the Gallagher 700 and 800. This data can be reviewed and edited prior to import into Cow Sense.

**Figure 41 Retrieve Gallagher Scale Data via Cow COMM**



## Retrieve EID Data

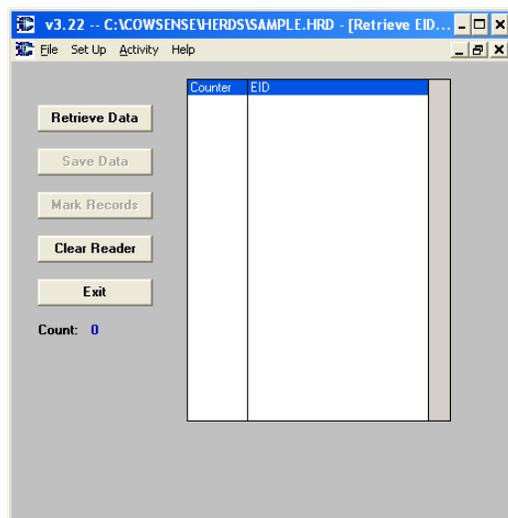
Some RFID readers offer a memory that stores the RFID numbers that have been scanned. For the Allflex, Digital Angel and Syscan Live Track readers we offer the “Retrieve EID Data” option for retrieving data stored in the reader’s memory using Cow COMM.

For other readers that have memory you would need to use the software that comes with the reader for extracting the data from the reader. Review any user instructions for the reader software for additional guidance. The software that accompanies your reader (will usually generate a text document that can then be imported into Cow Sense using the Import Tool. For further documentation on the Import Tool see page 188 of your Cow Sense User’s Guide or go into the Import Tool (**Utilities > Transfer Data > Import > Import Tool**) itself for further documentation.

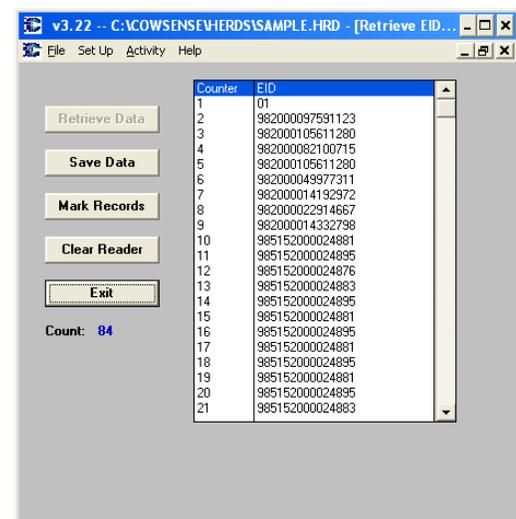
## Retrieve Data

1. To “Retrieve” EID Data from the Allflex, Digital Angel or Syscan Readers: set up the connection between Cow COMM and the reader as described earlier on pages 9-10.
2. Connect the reader to your computer with the cable that would have been shipped with your reader.
3. From the Cow COMM Main Menu select **Activity > Retrieve EID Data**. The following Retrieve EID window will appear. (see Figure 42)
4. Click the “Retrieve Data” Button. (Make sure that the reader is turned on for Cow COMM to be able to pull the data from the reader.)
5. The RFID data will be retrieved and displayed as in Figure 43 below.

**Figure 42 Retrieve EID via Cow COMM**



**Figure 43 Retrieved EID**



## Save Retrieved Data

The “Save Data” function allows you to output a text file that can be printed or edited and imported back into Cow Sense using the Import Tool. **TAKE NOTE OF WHERE YOU SAVE THE FILE SO THAT YOU CAN EASILY LOCATE IT AGAIN!** For further documentation on the Import Tool see page 188 of your Cow Sense User’s Guide or go into the Import Tool (**Utilities > Transfer Data > Import > Import Tool**. Click the Help Button for further documentation.)

## Mark Records

The “Mark Records” function is designed to allow you to retrieve Scanned RFID records from the RFID reader, match them up to the RFID’s stored on the animal record in Cow Sense and Mark or flag those records. This is particularly useful if you want to generate a list of cattle that were processed, shipped, or received a mass treatment. Once “Marked” in Cow Sense you can retrieve marked records. Should you choose to mark the records you will be asked if you wish to clear the existing marked records (if any) before marking the ones just downloaded from the reader.

## Clear Reader

The Clear Reader function provides you an easy way to erase or clear the memory of the RFID reader. Once you click Clear Reader, all RFID’s will be removed from the reader. Use caution to ensure you have saved the downloaded data or marked the records in Cow Sense to which the RFID list pertains. Another hint is to clear the reader before beginning each day’s work or session, especially if you are planning to use the mark records function for entering other data on a record in Cow Sense.

## Exit

Your last option is to “Exit” which closes the “Retrieve Data” window.

## Help Functions

The Cow COMM Help Menu has three main functions as discussed below.

### ***Cow COMM User’s Guide***

This document is available in a Portable Document Format (PDF) and launched from the Cow COMM Main Menu **Help > Cow COMM User’s Guide**. You must have Acrobat Reader 4.0 or higher (a free program) to view this document. You may print this document or access it in this fashion. In the PDF form you can use search functions in Acrobat Reader to find specific topics of interest.

## ***Update Cow COMM***

The auto update feature of the Help Menu provides a very simple and easy way to update your Cow COMM program if you have Internet access to the computer on which Cow COMM is installed. Occasionally, some firewall or Internet security issues block this type of update. If you experience this, try turning off your firewall or Internet security.

- a. Open a connection to the Internet.
- b. Launch Cow COMM.
- c. Go to **Help > Cow COMM Support > Update Cow COMM > Yes (to Retrieve Update via FTP) > Launch MicroFTP > Connect**. This process will download the most current version of Cow COMM from our FTP site.
- d. At the end of the download, you will be notified that the session was complete, click “OK”.
- e. Upon clicking “Exit” in the Connect window, a message will be displayed indicating that the “File transfer was successful and to proceed with the update”, click OK.
- f. A “WinZip Self-Extractor window will open and you will need to click the “Setup” button for the update to run. A “Setup succeeded!” window will open and you will click “OK”.

## ***About Cow COMM***

If you select **Help > About** from the Cow COMM Main Menu, an About Cow COMM message box will appear. This message box contains the Cow COMM version number, the Cow Sense serial number, the Cow COMM registration number, and the support phone number, e-mail address and web address. Select the **OK** button when you are finished viewing this screen to exit.

## Advanced Features

As discussed earlier, there are more advanced features available to power users that may have special application to your use of Cow COMM. Both Auto Sort and Cow COMM Pro add some sophisticated tools to the standard Cow COMM features.

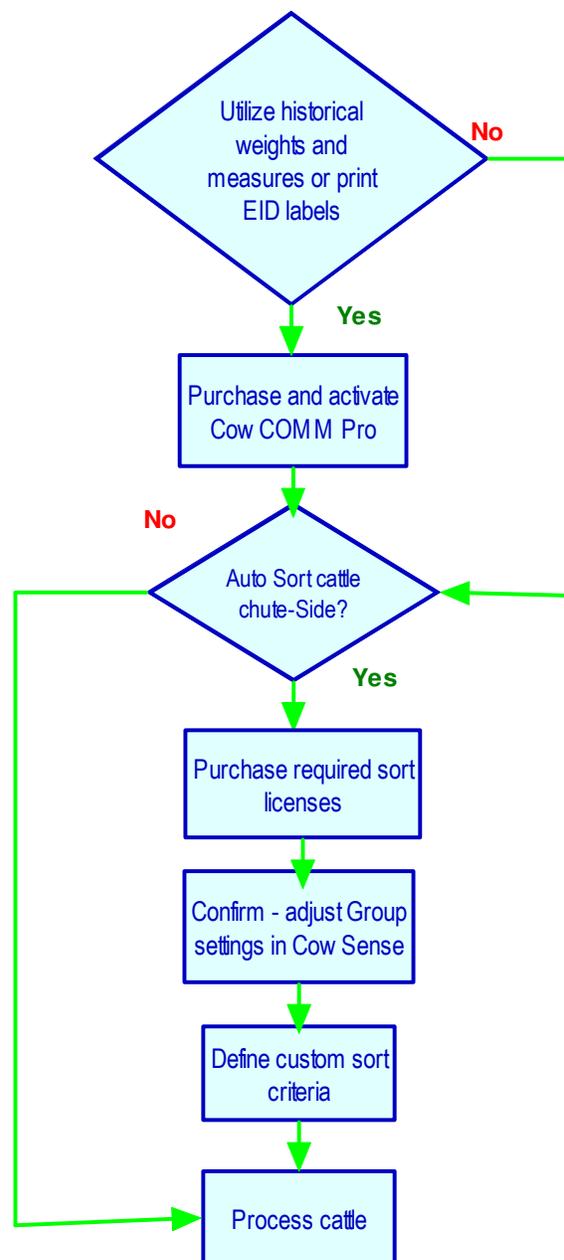
Figure 44 shows a decision tree that you may follow to determine if either of these products have application to your operation. As these will not have application to all Cow COMM customers, these advanced features may be purchased separately and their functionality is discussed in this section. By all means, if you have any questions on use of these tools please contact us toll free at (800) 584-0040 or e-mail: [info@midwestmicro.com](mailto:info@midwestmicro.com).

### ***Auto Sort Function***

The Auto Sort features of Cow COMM offer you powerful tools to automate chute-side decision-making based upon objective predetermined criteria. This process is an advanced feature of Cow COMM. This automated function is currently only available for processing calves. As the name implies this capability provides the ability to pre-designate sort criteria based upon existing data and data being collected to automatically sort the animals to the criteria. Application of the auto sort can be used to sort calves into like groups based upon this information. For example if you retain your own replacement females, you could define minimum performance criteria that is acceptable. If this function were turned on while processing calves, any data updated or previously recorded to the animal's record could be used to automatically make the sort call chute-side, based on the criteria you had imposed. As this is an advanced feature there is an additional charge for this functionality.



**Figure 44: Advanced Features to Cow COMM**

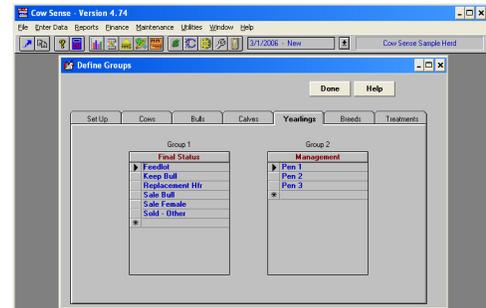


Charges are assessed for each animal record sorted. Please call toll free at 800-584-0040 for current pricing on Sorts. There are 200 Auto Sort licenses included with your Cow COMM purchase, so it is like getting 200 sorts free!

### Defining Groups (done in Cow Sense)

Auto Sort allows you to sort your calves into the calf groups or the yearling groups you defined in Cow Sense (Cow Sense **Main Menu > Enter Data > Define Groups**). If you would like to modify these groups, you must do so by editing the **Define Groups** section in Cow Sense, and then restarting Cow COMM so that the changes in the groups take effect (see Figure 45).

**Figure 45: Define Groups**

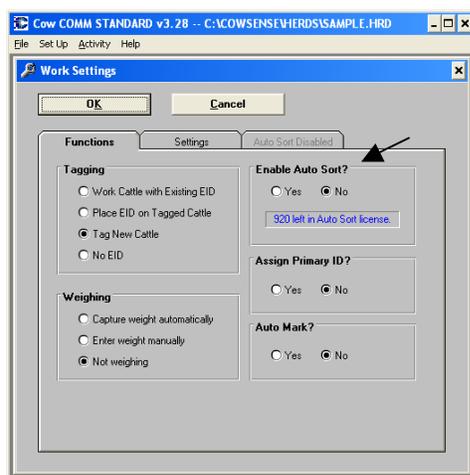


### Enabling Auto Sort

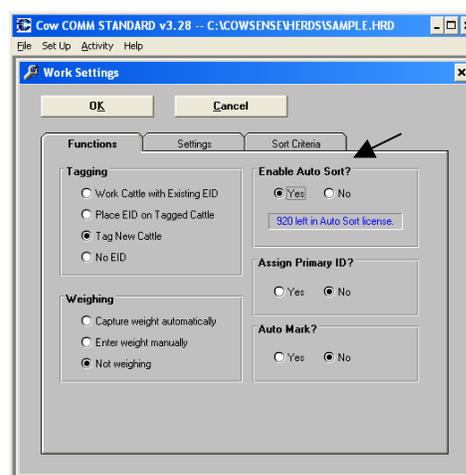
From the Cow COMM Main Menu, select **Activity > Process > Calves**. This section of the Functions tab enables the use of the powerful Auto Sort capability of Cow COMM. Figure 46a and 46b shows the radio buttons that allow you to choose whether or not to implement the auto sort function for calves. Note the number of sorts you have remaining in your Auto Sort license is displayed here as well. If you want to sort your calves using Cow COMM at this time, select **Yes** and proceed to define the balance of your Work Settings as described previously on pages 14-17.

When Auto Sort is activated it allows you to define the criteria by which you want the cattle sorted. You define up to four different sort groups and an OUT-group. This allows you to sort up to 5 ways. Once sort criteria are defined, when any information is modified on either Input 1 or the Input 2 tab (that is included in your sort criteria) the Auto Sort function of Cow COMM will be triggered. Auto Sort will assign/reassign the calf to the sort category of which it now matches. The name of the new sort category will appear in the upper right-hand part of the screen, and also in the Calf or Yearling Group 1 field (or Calf or Yearling Group 2, depending on which group you chose to sort).

**Figure 46a: Auto Sort (OFF)**



**Figure 46b: Auto Sort (ON)**



## Auto Sort Function

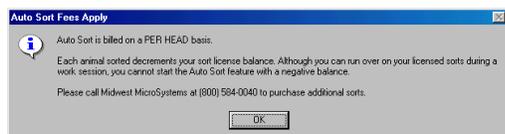
If you have fewer than 200 sorts left in your sort license, a “Sort License Low!” message box will appear (see Figure 47).

### Figure 47: Sort License Low!



Once you choose “OK,” regardless of the number of sorts you have remaining in your sort license, an Auto Sort Fees Apply message box will appear (see Figure 48).

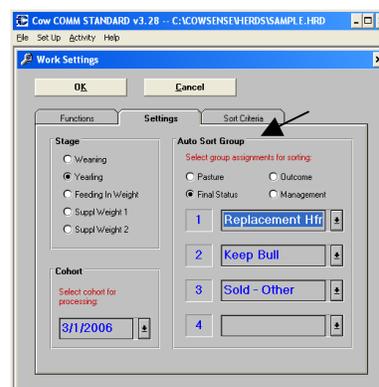
### Figure 48: Auto Sort Fees Apply



This box informs you that the Auto Sort Function is available on a cost per head basis. Select **OK** from this box. Notice that the tab that was labeled Auto Sort Disabled is now labeled Sort Criteria.

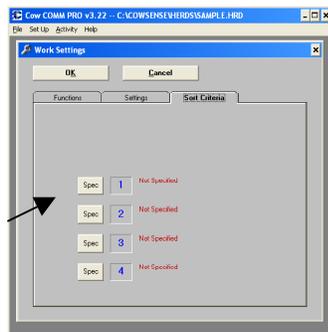
If you choose to sort cattle in the weaning stage, you will choose the calf group (e.g. in the Cow Sense Sample Herd, one calf group is Pasture) by which you want to sort your calves. If you choose to sort cattle in the yearling stage, you will choose the yearling group (e.g. in the Cow Sense Sample Herd, one yearling group is Yearling Group) by which you want to sort your calves. Click the radio button to the left of the group you want to use (see Figure 49). Then you will assign one subgroup (e.g., a specific pasture or yearling group) to each sort category (i.e. the numbers 1, 2, 3 and 4). Once you choose which calf or yearling group you are going to sort by, the subgroups will appear in the drop-down lists next to each sort category (click the Hot buttons  to view the drop-down lists). From these lists, choose the sub-groups into which you wish to sort your calves.

### Figure 49: Selecting Auto Sort Groups



## Sort Criteria Tab

### Figure 50: Sort Criteria Tab



This feature allows you to customize sort criteria by which you sort your calves. The numbers 1-4 refer to the sort categories that you specified in the Settings tab. Each sort category has “specs,” or specifications, that you must define for the Auto Sort function to assign your calves appropriately.

If a calf meets certain “Specs” or requirements, which you have defined, for a particular sort category, it will be assigned into that category. If a calf does not meet all of the requirements set by you, it will be excluded from that category.

It is *critical* to understand that the process of sorting your calves into categories is progressive. That is, Cow COMM will first use your defined criteria for sort category 1 and will see if a particular calf fits into that category. If it does, Cow COMM will assign that calf into sort

category 1. If it does not, Cow COMM will compare its information with the criteria defined for sort category 2. If the calf does not meet the requirements for any of the defined categories, it will be put into an “Out” category. So, functionally there are 5 sort categories: categories 1-4 and “Out.”

Please note that if a calf meets the criteria for more than one sort category, it will be placed in the sort category that numerically comes first. For example, if a calf meets the defined specifications for sort categories 1 and 3, it will be placed in sort category 1.

It is therefore necessary to be *as specific as possible* when defining your sort categories and to make sure that your sort categories are *mutually exclusive* in their definitions. Please note that Cow COMM provides the user the ability to enter applicable data chute-side and include it in the immediate sorting decision. See the **Calves > Working Calves Screen > Input 1 Tab** section for more details.

### *Defining Specifications for Sort Categories*

To define the criteria that must be met for a calf to be sorted, select the **Spec** button immediately to the left of the sort category that you would like to customize or define. A Sort Specifications for Calves screen will appear (See Figure 51).

**Figure 51: Sort Specifications for Calves**

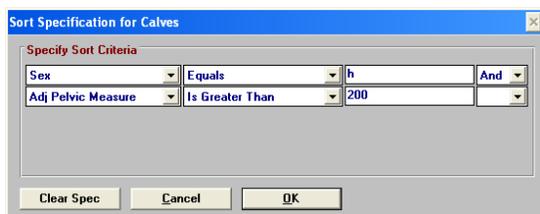


The “Defining specifications for Sort Categories” function in Cow COMM is very similar to the “Select” function in Cow Sense. Please refer to page 94 of the *Cow Sense User’s Guide* for more detailed instructions on that function.

To begin specifying your sort criteria for a particular sort category, you need to select the Hot button  from the Sort Specification for Calves screen. A drop down list will appear containing all of the possible fields available from the Cow Sense program. You need to choose a field with which you want to start defining your sort criteria.

Cow COMM will then display boxes to enter an operator (e.g. “Begins With,” “Equals,” or “Contains”), a value (e.g. “200,” or “h”) and a logical operator (i.e. “and”). Selecting the logical operator “and” opens a sort field for the next criterion. Cow COMM allows you to choose up to five total sort criteria using the logical operator “and.”

**Figure 52: Sort Specifications for Calves**



Once you have completed defining the criteria for a sort category, select **OK** to save these settings. Once saved, they will appear on the Sort Criteria tab, in red, next to the sort category number they are defining.

Select the **Clear Spec** button at any time to reset sorting criteria. Select the **Cancel** button at any time to exit the Sort Specification for Calves screen.

Cow COMM will save the user defined specifications for each sort category. That is, the next time you open Cow COMM, the “specs” defining the sort categories will be the same as they

were at the time Cow COMM was last closed. When you re-open Cow COMM, however, you will still have to select **Yes** to the "Enable Auto Sort?" section of the Functions tab. You will therefore be reminded, every time you want to sort cattle, of the Auto Sort License Agreement.

### *Example of Custom Sort Use*

#### *Set Up Specs (Criteria)*

An example of a situation for using the Auto Sort function would be a scenario for selecting replacement females. For management purposes, you may want to separate out your replacement heifer candidates from the rest of their cohorts or contemporaries in the herd. In this example, you would define a sort category that will contain only replacement heifer candidates, or replacements, from the Yearlings stage.

In the Settings tab, select "Yearlings" from the Stage section. Then select the Cohort group of calves that you will be processing from the Hot button  at the right of the Cohort dates available. In the Auto Sort section, select Yearling Group. Then click the Hot button  at the right of the sort category field to access the drop-down list, and select Replacements.

In this scenario the operator had previously decided that all heifers having an adjusted pelvic measure greater than 200 cm<sup>2</sup>, an adjusted birth weight ratio less than or equal to 100, and an adjusted weaning weight ratio greater than or equal to 100, should be included in this Replacement category. This is an example of the criteria that must be defined or specified on the Sort Criteria tab.

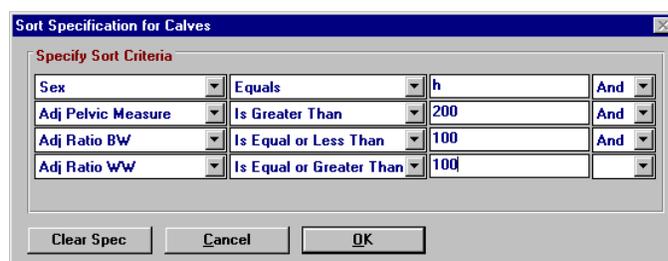
Select the **Spec** button for sort category 1. The first item you choose to set the criteria for this sort category is the "sex" field. Your operator is "Equals" and your value is "h." You then choose the logical operator "and" to open the next sort field. (See Figure 53)

The next criteria you choose is: "Adj Pelvic Measure," "is greater than," "200," "and."

The next criteria you choose is: "Adj Ratio BW," "Is Equal or Less Than," "100," "and."

The last criteria you choose is: "Adj Ratio WW," "Is Equal or Greater Than," "100."

**Figure 53: Sort Specifications for Calves - Example**



Field	Operator	Value	Logical Operator
Sex	Equals	h	And
Adj Pelvic Measure	Is Greater Than	200	And
Adj Ratio BW	Is Equal or Less Than	100	And
Adj Ratio WW	Is Equal or Greater Than	100	

All of the calves that meet these criteria will be placed in this sort category. All of the calves which do not meet these criteria will be put in the "Out" sort category (because none of the other sort categories have been defined to include any calves).

#### *Confirm Work Settings*

When you have completed filling out the Functions tab, the Settings tab, and the Sort Criteria tab, select **OK** on the Work Settings screen (see Figure 20). A Verify Work Settings message box will appear. If the settings are correct, select **OK**. If they are not correct, select **Cancel**, make any necessary corrections, and then repeat the verification step.

After you select **OK** on the Verify Work Settings message box, and **OK** on the Verify Auto Sort message box, a Verify Date message box will appear. You can then process calves, collect data and use it to objectively sort the calves into like groups

Sorting Calves

The sort function is automatically triggered in Cow COMM, when any of the following events occurs:

- 1) Upon reposition, i.e., when you move to an animal’s record
- 2) Upon changing specific data for these fields only:

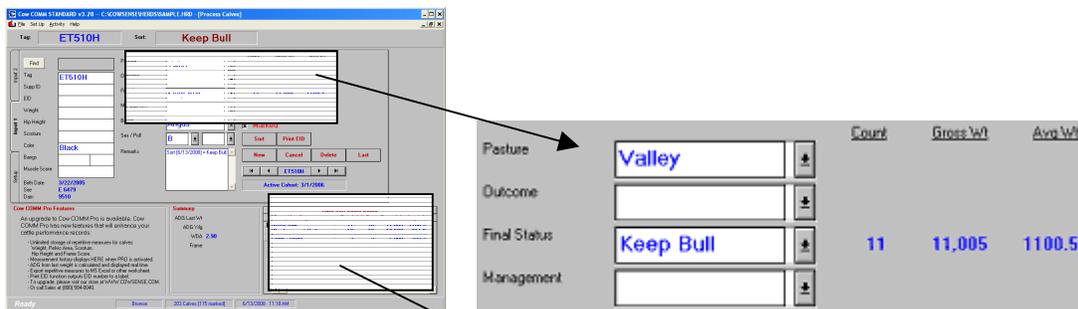
- Weight
- Hip Height
- Pelvic Area.

3) Clicking the red Sort button. When Auto Sort is enabled the “Save” button transforms to the “Sort” button. Clicking on the “Sort” button makes it become the default and enables the Enter Key on your keyboard. On subsequent animal records you can simply touch the Enter Key on your keyboard to repeat the Sort function.

Changes to other fields may affect sort results but not trigger the Auto Sort. It is always a good idea to select the red Sort button after new information has been entered on either of these Input tabs. Selecting the Sort button will trigger Cow COMM to analyze the new information and assign/reassign the calf into the new sort category.

The Auto Sort not only sorts the calves into groups for you but it also will give you a running count, gross weight and average weight for those in each sorted group (see Figure 54). This is very helpful when loading trucks and you need to know how much weight and number of head going onto a truck or pen. In the enlarged portion of the picture in Figure 54, you see that the “Final Status” Group “Keep Bull” that there are 11 head, the gross weight is 11,005 lbs and the average weight is 1100.5 lbs. This view will change when the group changes for a calf that sorts into a different group.

**Figure 54: Group Tally**



**Figure 55: Auto Sort Score Board**

Group/Yearling	Total	Wt Cnt	Gross Wt	Avg Wt
Keep Bull	11	10	11,005	1100.5
Replacement Heifers	13	13	10,582	814.0
Sold - Other	3	3	2,866	955.3

Auto Sort also displays a Score Board (see Figure 55) of all groups of which at least one calf has been sorted. In addition a grid will appear displaying the number of calves (Total), number with weights (Wt Count) gross weights and average weights for the group. With this display you will always have a running tally of the status of your groups being sorted.

## **Cow COMM Pro**

Cow COMM Pro is an upgrade to Cow COMM that can be purchased to provide advanced features for customers that desire to apply these capabilities in their chute side decisions. Cow COMM Pro features are available in Version 3.2 or higher. Update Cow COMM from the **Help Menu > Select Cow COMM Support > Update Cow COMM** (see page 4 of this document for further instruction). Cow COMM Pro has new features that will enhance use of your cattle performance records. This section describes these features and their application.

## **Setup Menu**

### **Chute-side Devices**

Set up of the chute side devices will be the same process as in the standard Cow COMM program. See pages 9-15 of this document for a review of this process.

### **Activation**

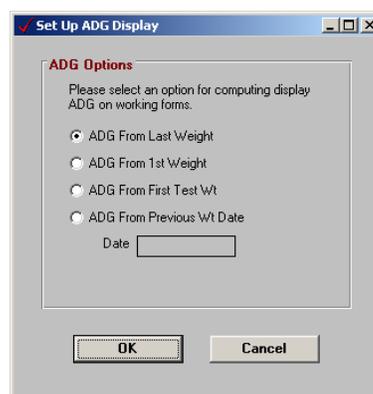
Cow COMM Pro does require a different activation key from the standard Cow COMM program. When you purchase the upgrade to Cow COMM Pro, you will be provided your new activation key. To activate Cow COMM Pro, launch Cow COMM and from the main menu **Select > Activity > Activate**. Type in the new key provided. You will need to restart Cow COMM and the new key will take effect and provide the Pro features described in this section.

### **ADG (Average Daily Gain) Display**

The ADG Options available in Cow COMM Pro provide you the ability to choose how you would like the Average Daily Gain to be calculated and displayed on the processing window in Cow COMM Pro. From the Cow COMM Pro Main Menu **Select > Setup > ADG Display**. The ADG Options screen will appear as shown in Figure 56.

These options allow you to choose from Last Weight recorded, 1<sup>st</sup> Weight recorded, First Test Weight or from Previous Wt Date (a weight taken on a specified date.)

**Figure 56 ADG Display Options**



### **Activity Menu**

As with the standard Cow COMM program, you will select the type of cattle you intend to process. See pages 15-17 of this document for a review of this procedure.

### **Processing Calves**

The processing calves screen is very similar to the standard display in Cow COMM. It has a Setup Tab as well as Input 1 and 2 tabs. However there are slight differences that provide the Pro user some tremendous advantages.

Setup Tab

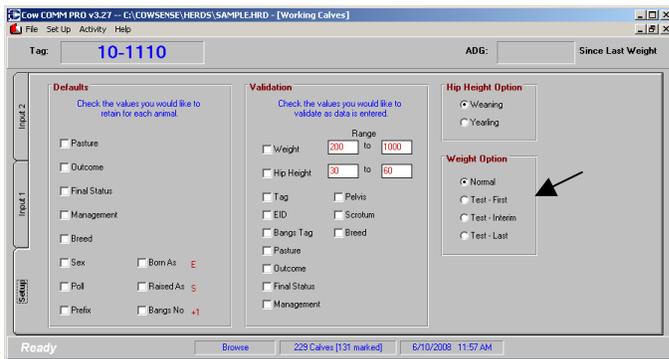
*Hip Height Option*

Note the Setup tab in Figure 57 now has an option to select Hip Height Option. You can choose between a Weaning and Yearling Hip Height Measurement. The user can select the hip height measurement to be taken and Cow COMM Pro will store it appropriately in the measurements table.

*Weight Option*

Note the Setup tab in Figure 57 now has an option to select the Weight Option. This is particularly useful function for collecting multiple weights on calves through a test period. You can select the weight to be taken and Cow COMM Pro will store it appropriately in the measurements table. The ADG Option selected in the Setup Menu will use this information to display the ADG in the upper right hand corner of this screen.

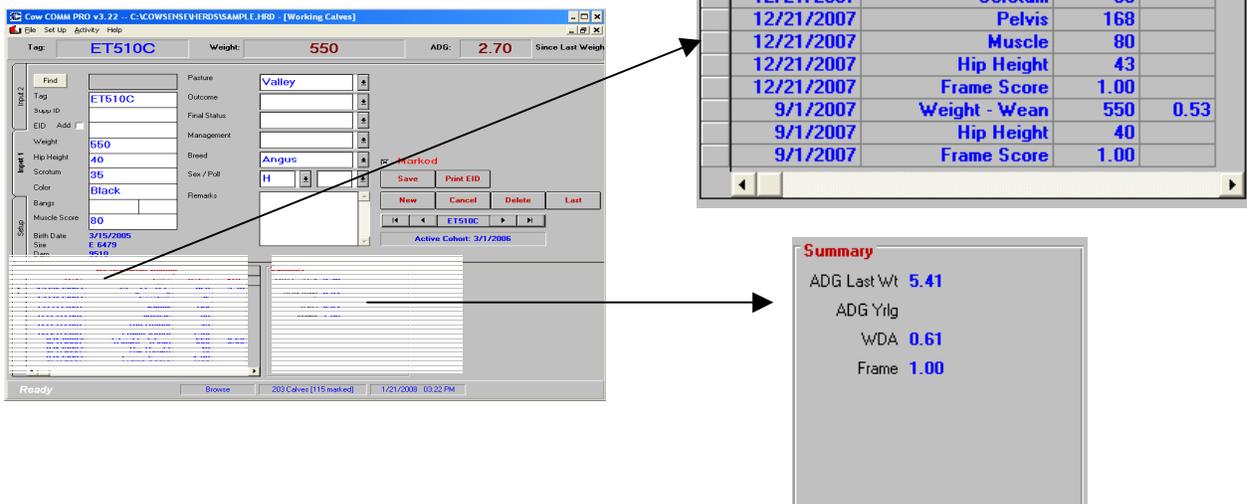
**Figure 57 Weight Option Feature of Cow COMM Pro**



Input 1 Tab

The Input 1 Tab in Figure 58 reveals the additional features available to the Cow COMM Pro user. Particularly note the Measurement History Display in the lower left corner, and Summary Display in lower right corner.

**Figure 58 Processing Calves**



*Print EID*

Navigation and use of the Command Buttons is the same as with Cow COMM, with one exception. The “Print EID” button is functional in Cow COMM Pro. This command is used to print a label as displayed in Figure 59. Please note the 15 digit EID is displayed as a bar code, with the numeric representation printed below. The animal’s primary ID is printed to the lower left and the date printed to the lower right. This feature is particularly useful when collecting blood, fecal, tissue and other samples from animals. This feature allows you to print labels that can then be applied to the sample container. This feature is common in all processing screens (calves, cows or bulls).

**Figure 59 Print EID display***Historical Measurements*

One of the most popular features that Cow COMM Pro provides is the ability to collect and store key measurements taken on an animal over its lifetime. When a measurement is taken in Cow COMM, it overwrites any previously recorded data and is stored on the animal’s record in the Cow Sense database. However, Cow COMM Pro retains those previous measures in a Historical Measurements Table. This information is displayed in a grid on the Cow COMM Pro screen. For calves, the chart appears on the lower left hand side of the Cow COMM Pro screen (see Figure 58). A small chart will display the previous measurement data taken on an animal. This feature is particularly helpful if you wish to retain and compare information about that animal over time. The data for calves that will be logged in the repetitive measures table of Cow COMM Pro appear below in Table 3.

**Table 3. Repetitive calf data fields logged by Cow COMM Pro**

Weight	Hip Height	Scrotum (bulls only)
Muscle Score	Pelvis Area	Back fat
IMF	REA	

Note that dates for each of the measures above will also be recorded. Average Daily Gains for weights taken is logged as well. For calves, there is also, a “Summary” box (to the right of the Measurement History grid that displays the changes since the last data was collected.

If you are currently using the standard version of Cow COMM version 3.2 or higher and choose to upgrade to Cow COMM Pro any previous data collected (in version 3.2) will then be displayed in the Measurement History grid.

*Process Cows*

The Working cows screen is also very similar to the standard Cow COMM (see Figure 60). Note the main difference is the Print EID command button and the Measurement History grid.

Print EID

The print EID feature is the same function as with Working Calves described previously on page 50.

Historical Measurements

As with the Processing Calves screen, Cow COMM Pro provides the ability to record and retain individual measurements in an historical grid. For cows and bulls, the chart appears on the right hand side of the Cow COMM Pro screen. This scrollable grid will display the previous measurement data taken on an animal.

This feature is particularly helpful if you wish to retain information about that animal over time, providing you the ability to compare such measures as Body Score Condition codes, Udder or Mouth Scores from year to year (or whatever measurement frequency your management dictates). The measurement data for cows that will be logged in the repetitive measures table of Cow COMM Pro appear below in Table 4.

**Table 4. Repetitive cow data fields logged by Cow COMM Pro**

• Weight	• Mouth	• Condition
• Udder Score	• Hip Height	• Preg Status *1
• Pelvis	• Frame Score	

\*1 - Note that if you select only Bred or Open, Bred or Open will be displayed, if Days are entered, Days will be displayed in the grid.

Note that dates for the measures above will also be recorded. Average Daily Gains for weights taken is logged as well.

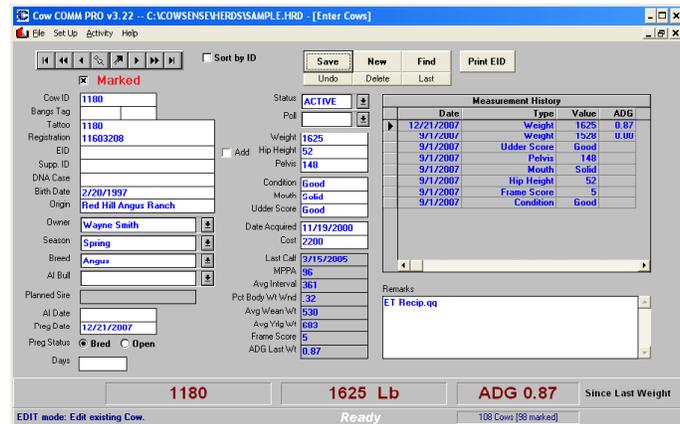
**Process Bulls**

The Process Bulls screen appears and functions like the Processing Cows screen (see Figure 61 Processing Bulls). The only difference is the historical measures grid. The measurement data for bulls that will be logged in the repetitive measures table of Cow COMM Pro appear below in Table 5.

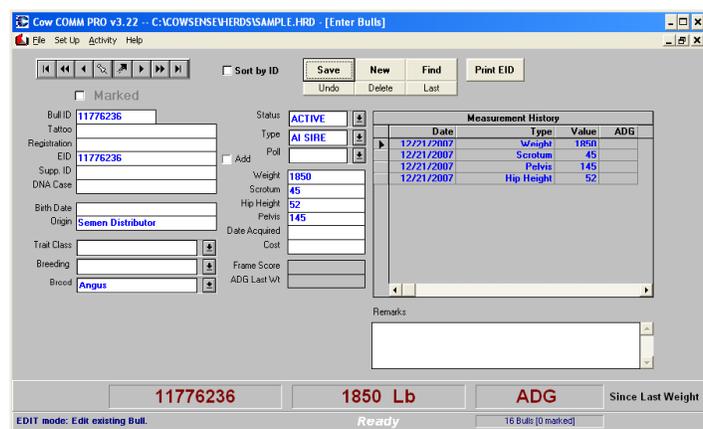
**Table 5. Repetitive bull data fields logged by Cow COMM Pro**

• Weight	• Scrotum
• Hip Height	• Pelvis

**Figure 60. Process Cows Screen**



**Figure 61 Process Bulls Screen**



Note that dates for the measures above will also be recorded. Average Daily Gains for weights taken is logged as well.

### ***Sorting the Measurement History Grid***

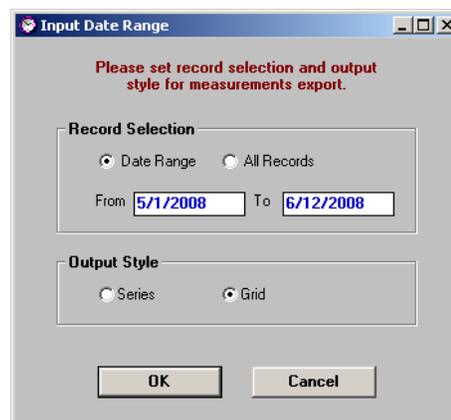
The information can be sorted one of two ways, by Date or Type. To sort by Date or Type just click on the data in the date or type column (not the Headers).

### ***Retrieve Measurement Data***

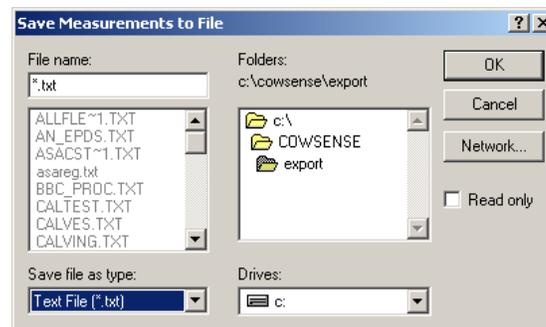
Having the historical data available for advanced chute-side decision-making is great... but how do you get at it for advanced analysis? From the **Main Menu Select > Activity > “Retrieve Measurement Data”**. This function allows you to export data from Cow COMM Pro’s historical measurement table out to a text file that can be opened with Microsoft Excel, Access or any other analytical tool that can convert a text file. You can select a specific Date Range or All Records. In addition you can select the Output Style, either Series or Grid. With the Series Output the data will appear chronologically by date. Alternatively the Grid Output will display the data sorted by animal ID and the measurement data in columns to the right. Once you have made your selection click “OK”(see Figure 62).

A “Save Measurements to File” window will appear (see Figure 63). Enter a name for the file by simply typing over the wild card character (\*), leaving the .txt extension. By default, the file will be exported to C:\CowSense\Export folder unless you specifically direct it to be saved to another location. Then click “OK”, you will receive a message that the data was exported successfully. Now the file can be opened from Excel, another spreadsheet application or any software that can convert a text file.

**Figure 62. Input Date Range window.**



**Figure 63. Save Measurements to file window.**



## Conclusion

Cow COMM allows for unprecedented real time use of the Cow Sense data while working cattle. Whether collecting data, sorting cattle or both, Cow COMM provides you powerful new tools for positioning your operation for profitability. You can count on us to continue offering products on the leading edge of technology for the beef industry. Our promise to you is simple and a part of our company mission: *Midwest MicroSystems is dedicated to improve the economic position and success of our customers by providing the most current, superior quality, integrated information management solutions.* This release of Cow COMM is continued evidence of that commitment.

This is the third general release of this product and development continues to enhance its user-friendliness and to introduce additional features. Like Cow Sense, Cow COMM is designed and programmed for beef producers by beef producers. That inborn appreciation of our industry and the challenges we face provides us the ability to understand cattlemen's needs and incorporate their input. This combination of highly competent technical skills and beef production expertise provides an unparalleled ability to design products that efficiently and effectively meet the needs of the industry. We are hopeful that this product becomes an important part of your management tools. We welcome your suggestions and comments as to future enhancements. Please feel free to contact us at (800) 584-0040, or e-mail [info@midwestmicro.com](mailto:info@midwestmicro.com).