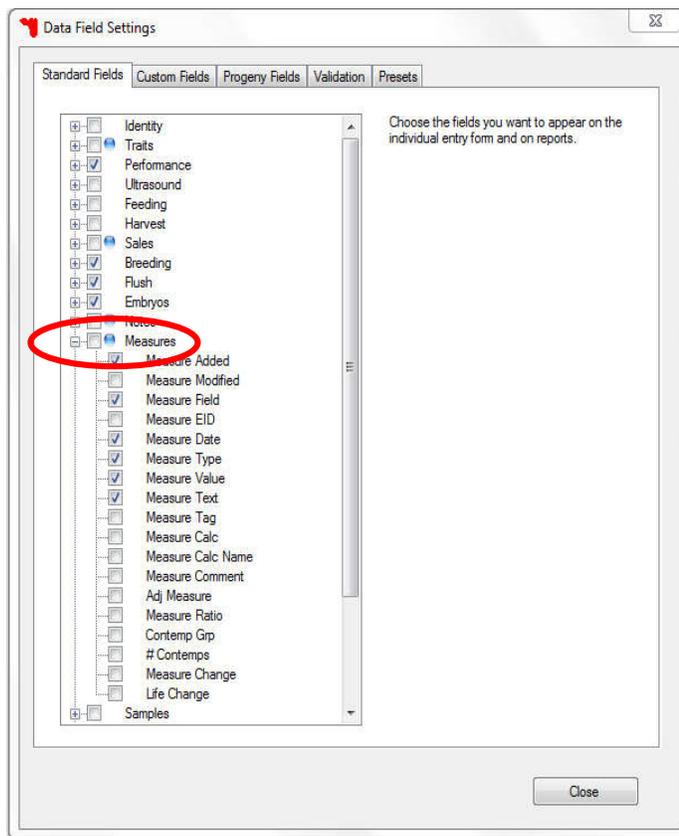


Please contact us at support@cowsense.com or 800-584-0040 for any questions or assistance.

Discussion

The Measures feature, available only in Cow Sense NxGen PRO edition, provides a Grid or table showing historical measures that have been recorded for an animal. This is particularly useful for comparing how a particular trait (such as weight) has changed over an animal's life. Measures may be entered directly on the Measures Tab, imported via the Import Tool or added through Cow Sense Chuteside™ software. Measure fields **must** be turned on in Cow Sense NxGen. From the Task Pane on the left, choose > Options > Data Field Settings > Standard Fields. Toggle "On" the fields you wish to be displayed on the Measures Tab.



There are three different methods to enter information into the Measures Tab. We will first discuss the methods of manual entry on the Measures Tab. We will then move to a more automated entry through Cow Sense Chuteside in a real-time situation as well as import of data from an outside source.

Measures Tab – Individual Animal Form

Measures are data fields that are displayed in the Traits and Performance tabs on the Individual Animal Form. The Measures tab (available as a NxGen PRO feature) is also located on the Individual Animal Form, and may be used to enter data directly, or copy data from the performance or traits tabs before overwriting it with new data. Note that data recorded in the Traits or Performance tabs will not automatically record to the Measures Tab, but data recorded on the Measures Tab will update certain fields on the

Traits or Performance Tab. Several types of Measures may be recorded directly on the Measures tab. Exceptions to this are Measures that contain multiple parts, such as Pelvis or Ultrasound.

1. You may wish to manually move an existing Measure to the Measures tab from the Traits or Performance tab to prevent it from being overwritten when recording updated data. Locate the Measure and copy the Measure Value and Measure Date.

Identity	Trait	Performance	Measures	Custom	Breeding	Notes	Pedigree
	Field		Value				Preset
	Birth Weight		83				
	Weaning Weight		542				
	Weaning Date		8/6/2012			<input type="checkbox"/>	
	Weaning Weight Adj		620				
	Weaning Weight Ratio		100				
	Weaning Hip Height						
	Weaning Hip Height Date					<input type="checkbox"/>	
	Dam's BCS at Weaning						
	Yearling Weight		1244				
	Yearling Weight Adj		1158				
	Yearling Weight Ratio						
	Yearling Hip Height		51.75				
	Yearling Hip Height Date		3/3/2013			<input type="checkbox"/>	
	Current Wt		1234				
	Current Wt Date		1/15/17			<input type="checkbox"/>	

2. To record a measure directly to the Measures Tab, enter the data in the appropriate columns. It is required to select a Measure Type from the dropdown, as well as recording the Measure Date and Measure Value or Text. You also may include as many or few optional fields as you desire. If you are moving data from the Traits or Performance Tabs, paste the data in the appropriate fields.

Identity	Traits	Performance	Measures	Custom	Breeding	Notes	Pedigree	Progeny	Loca
Refresh Animal									
	Measure Type		Measure Date		Measure Value		Measure Text		
	Mouth		7/18/2017				Solid		
	Preg Status		7/18/2017				P		
	Weight		7/18/2017		1234				
*									

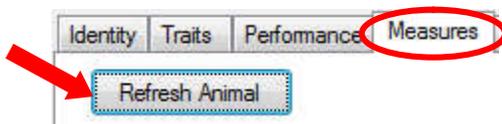
3. Data entered in Measures corresponds with specific data fields on the Performance and Traits tabs. (See Appendix A NxGen Measures Table – Field Descriptions, Uses and Relationships)

- In the case that a "Weight" and "Weight Date" are entered, a refresh will result in an update to the Current Weight and Current Weight Date on the Performance Tab.
- In the case that a "Height" and "Height Date" are entered, a refresh will result in an update to the Current Hip Height and Current Hip Height Date on the Performance Tab.
- Pelvis Measurements cannot be entered in the Measures Tab.
- In the case that a "Scrotum" and "Scrotum Date" are entered, a refresh will result in an update to the Scrotum and Scrotum Date on the Performance Tab.
- Ultrasound Measurements cannot be entered in the Measures Tab.
- In the case that "Preg Status" and "Preg Status Date" are entered, a refresh will result in an update to the Preg Status and Preg Check Date on the Traits Tab.
- In the case that a "Condition" and is entered, a refresh will result in an update to the Body Condition field on the Traits Tab.

- In the case that “Mouth” is entered, a refresh will result in an update to the Mouth field on the Traits Tab.
- In the case that “Temperament” and “Temperament Date” are entered, a refresh will result in an update to the Chute Score and Chute Score Date on the Traits Tab.
- In the case that “Udder” is entered, a refresh will result in an update to the Udder Score on the Traits Tab.
- In the case that “Foot” is entered, a refresh will result in an update to the Foot Score on the Traits Tab.
- In the case that “PAP” is entered, a refresh will result in an update to the PAP Score on the Traits Tab.

4. After Measures are added in the Measures Table, click the Refresh Animal button. Then go to the Traits or Performance tab and notice the data field will be updated with what was added in Measures.

Record the new data if you are replacing what was moved to the Measures tab. You may either enter the data manually in the Traits or Performance tab, or as a new measure in the Measures tab.



Identity	Traits	Performance	Measures	Custom	Breeding	Notes	Pedigree
	Field		Value				Preset
	Dam Age						
	Calving Ease		No difficulty				<input type="checkbox"/>
	Twin Code		Single				<input type="checkbox"/>
	Nurse Code		Own dam only				<input type="checkbox"/>
	Feed Code						<input type="checkbox"/>
	Horn Code		Polled				<input type="checkbox"/>
	Color Code		BK				<input type="checkbox"/>
	Body Condition						<input type="checkbox"/>
	Udder Score						
	Foot Score						
	Mouth		Solid				<input type="checkbox"/>
	Chute Score						<input type="checkbox"/>
	Chute Score Date						<input type="checkbox"/>
	Preg Status		Pregnant				<input checked="" type="checkbox"/>
	Days Bred						

Identity	Traits	Performance	Measures	Custom	Breeding	Notes	Pedigree
	Field		Value				Preset
	Birth Weight		83				
	Weaning Weight		542				
	Weaning Date		8/6/2012				<input type="checkbox"/>
	Weaning Weight Adj		620				
	Weaning Weight Ratio		100				
	Weaning Hip Height						
	Weaning Hip Height Date						<input type="checkbox"/>
	Dam's BCS at Weaning						
	Yearling Weight		1244				
	Yearling Weight Adj		1158				
	Yearling Weight Ratio						
	Yearling Hip Height		51.75				
	Yearling Hip Height Date		3/3/2013				<input type="checkbox"/>
	Current Wt		1234				
	Current Wt Date		1/15/17				<input type="checkbox"/>

Chuteside License

All measures entered into Cow Sense using Chuteside will automatically update the corresponding fields in the Measure's Table in Cow Sense. Measures may also be imported into Cow Sense from an external source, such as a separate file with a trait recorded for each animal. Note that a Chuteside license must be purchased to enable the Measure Import feature. Appendix A NxGen Measures Table – Field Descriptions, Uses and Relationships describes the relationships between fields on the Measures Tab and related fields on others including Identity, Traits, Performance, Ultrasound, Feeding and Harvest.

Chuteside Measures

When measures, for example Test Weights, are recorded into Chuteside Input Fields, they are automatically added to the Measures Table. These measures will stay with the animal record on the Measures Table, even when new data is later entered in the Input Field. All measure data entered in Chuteside can also be found in the Measures Tab of the Cow Sense NxGen PRO Individual Animal Form. Please refer to the Chuteside Video Tutorials and Script Notes (particularly Part II and IV) for further information.

When using “Presets” to add repetitive data to animal records be aware that if you position to a record by mistake the Preset Fields will be added to that record. You will need to correct that record, or the data will be stored in Cow Sense. The Autodate feature (available from the Settings Menu > Options), on the other hand does not fill a date field IF the linked measure is not input. Again, refer to Appendix A for a description of these relationships.

Measure Added	Measure Field	Measure EID	Measure Date	Measure Type	Measure Value
7/24/2017 9:48 AM			3/1/2015	Weight	
7/24/2017 9:30 AM	Test - On Wt		1/3/2015	Weight	
7/24/2017 9:18 AM			1/2/2015	Weight	

Measure Type	Measure Date	Measure Value	Measure Text	Measure EID	Measure Tag
Weight	3/1/2015	940			
Weight	1/3/2015	740			
Weight	1/2/2015	740			

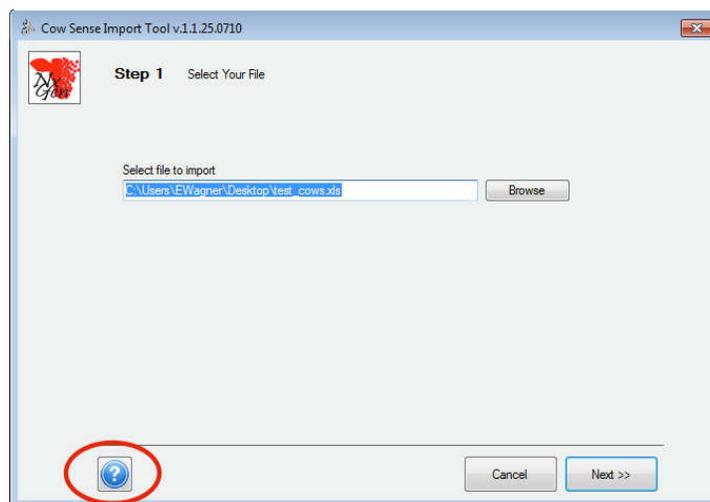
Measures Import

Importing measures can be very useful if you already have a data file prepared to import. (Remember this feature is only available to Licensed Cow Sense PRO plus Chuteside users.) However, it is important to note that measures will be imported into a generic data field for the type of measure (for example, imported weights will populate the current weight field.) If you are importing weights from a file recorded on a scale indicator you may instead wish to use the Download Devices function in Chuteside as more options are available. Refer to the Chuteside Devices Guide from more information on this process.

1. Open “Import Tool” from left Sidebar Menu. (Make sure you have made a backup of your herd first.)



2. Click “Browse” and select the file containing the data you wish to import. If you do not see the file you are looking for, check to see that the file is set to display the type expected. Remember that you may need to format your data file to align with the Import Tool requirements. Refer to the Question Mark icon located on the lower left corner of the Import Tool as well as to the Import Tool Video Tutorial and Script Notes for more information.



3. In Step 2 of the Import Tool, select “Measures” as the Target field and select the Linking information to be used between the data file and the animal records. If using “Visual Tag” as the linking field, you will likely want to select by “Season” or “Status” and “Type” as well.

	A	B	C	D
1	Tag	Measure Value - Wt	Measure Type	Date
2	RA32	1250	Weight	7/26/2017
3	RA33	1436	Weight	7/26/2017
4	RA34	1234	Weight	7/26/2017

Cow Sense Import Tool v.1.1.25.0710

Step 2 Select Import Options

Target: Measures
 Import Method: Add New
 Linking Field: Visual Tag
 Season: [Dropdown]
 Status: Active
 Type: Breeding Cow

Sample Data: Data Contains Header Row Clear target field when value is empty

Tag	Measure Value - Wt	Measure Type	Date
RA32	1250	Weight	42942
RA33	1436	Weight	42942
RA34	1234	Weight	42942
RA35	1345	Weight	42942
RA37	1356	Weight	42942

Buttons: Cancel, << Back, Next >>

4. Continue to Step 3 of the Import Tool. Map the Source and Target fields so data is recorded in the right fields. The required include Measure Type, Measure Date, and Measure Value or Text fields. Map any optional fields you wish to include as well.

Once all fields have been mapped, chose “Import” from the bottom button bar. Note that each field may only be mapped once in an import, so multiple imports are required if multiple measures are recorded for an animal.

- # Contemps
- Adj Measure
- Contemp Grp
- Life Change
- Measure Change
- Measure Comment
- Measure Date
- Measure EID
- Measure Ratio
- Measure Tag
- Measure Text
- Measure Type
- Measure Value

This list includes all data fields that may be imported along with a measure.

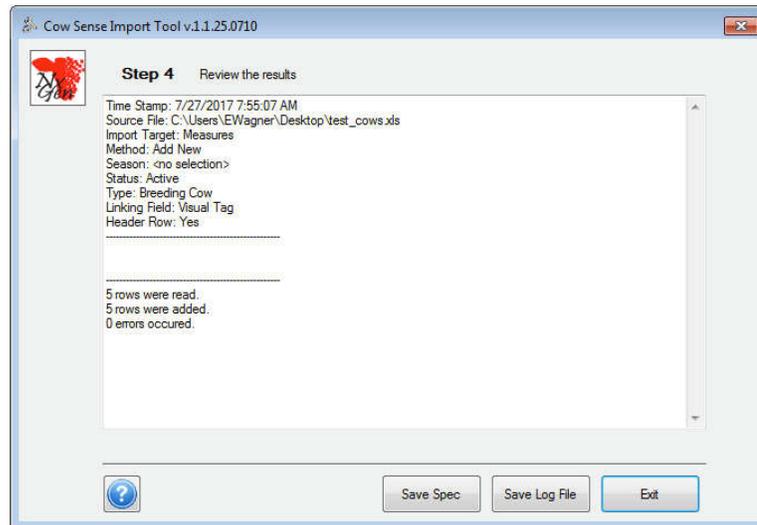
Cow Sense Import Tool v.1.1.25.0710

Step 3 Choose a target field for the columns you wish to import

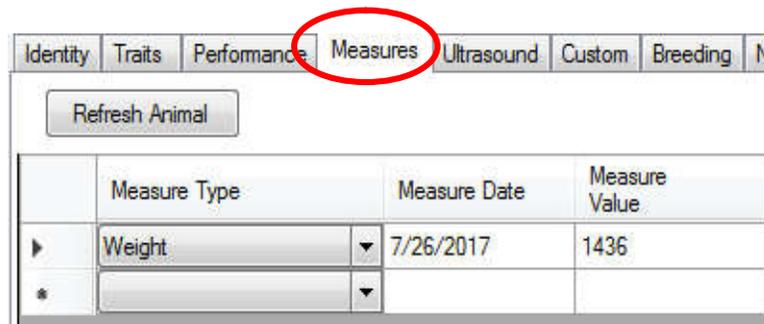
Source Field	Target Field
Tag	Visual Tag (Linking Field)
Measure Value - Wt	Measure Value
Measure Type	Measure Type
Date	Measure Date

Buttons: Recall Spec, Cancel, << Back, Import

5. A log will appear detailing any errors that occurred in the Import. Fix any errors in your data file if necessary and repeat the import.



6. Return to the Cow Sense Manage Menu > Individual > Measures Tab. Review the imported Measures to ensure they were imported correctly.





Appendix A. NxGen Measures Table – Field Descriptions, Uses and Relationships

The Measures Fields in Cow Sense NxGen are designed to store historical measurements taken over and animals’ lifetime. The purpose of this document is to provide the user definitions of these fields, their use and interaction with other program fields.

Definitions of Measures Fields

<i>Field Name</i>	<i>Field Description</i>
Measure Added	Date the record was first created
Measure Modified	Date the record was last modified
Measure Field	The name of the field to which this measure is linked (further defines Measure Type)
Measure EID	If Electronic Identification is scanned at time of measurement, it will be recorded in this field as well
Measure Date	The date that the measurement was taken. This can be entered manually or choose the option to automatically enter today's date or specified date.
Measure Type	Currently the general categories or types of measurements that may be recorded include: Weight; Height; Pelvis; Scrotum; Ultrasound; Preg (pregnancy) Status; Condition (Body Condition); Mouth, Temperament, Udder, Foot, PAP (pulmonary artery pressure)
Measure Value	
Measure Text	Categorical measures (e.g. preg status; body condition)
Measure Tag	Special tag for measurement
Measure Comment	Measure comment (255-character max)
Measure Change	Daily change since last measure of same Measure Type
Life Change	Daily change since birth of same Measure Type

Functions and Interaction of Measures Fields

There are several date fields in Cow Sense that date entry can be populated automatically by Chuteside. This function is available from the Chuteside Menu > Settings > Options. When “Autodate” is toggled on by default Chuteside will insert the current date into the date field associated with the measure data recorded. The user may insert a different date if recording historical measurement data previously taken and now recording with Chuteside (such as hard copy or downloading from a scale indicator).

If toggled on in Cow Sense > Data Field Settings these Date Fields will be available for display on the Input or Reference grids in Chuteside. If the Autodate function is enabled and a Date Field is turned on for display in the Input grid, a message will appear asking if you wish to utilize this feature. It is best not to show this Date Field on the Input display unless you wish to manually input a date other than the default date.

Appendix A. NxGen Measures Table – Field Descriptions, Uses and Relationships

A list of these Date Fields are listed below. When data is recorded in a Measurement Field (selected for display on the Input grid), the associated Date Field can be automatically populated with the default date by Chuteside.

Cow Sense Table	Field Name
Identity	Birth Date
Traits	Cond Code Date (BCS)
Traits	Udder Code Date
Traits	Foot Code Date
Traits	Chute Score Date (temperament)
Traits	Pen Score Date (temperament)
Traits	Preg Check Date
Performance	Weaning Date
Performance	Weaning Hip Height Date
Performance	Yearling Date
Performance	Yearling Hip Height Date
Performance	Supp 1 Date (supplemental weight)
Performance	Supp 1 Hip Height Date
Performance	Supp 2 Date
Performance	Supp 2 Hip Height Date
Performance	Current Wt Date (weight)
Performance	Current Hip Ht Date (height)
Performance	Test - On Wt Date
Performance	Test - Interim Wt Date
Performance	Test - Off Wt Date
Performance	Mature WT Date
Performance	Mature Hip HT Date
Performance	Scrotum Date (scrotal measurement)
Performance	Pelvic Date (pelvic measurement)
Ultrasound	US Date
Ultrasound	US2 Date
Feeding	GY In Date9 Grow Yard)
Feeding	GY Final Weight Date
Feeding	In Date (arrival at feed yard)
Feeding	Final Weight Date (at feed yard)
Harvest	Kill Date

If Days Bred is recorded in Chuteside, a calculation of estimated calving date will be recorded in the Est Calving Date on the Traits tab in Cow Sense. This is based on the Gestation settings in Cow Sense (Options Menu > Preferences > Herd Options).

Appendix A. NxGen Measures Table – Field Descriptions, Uses and Relationships

If utilizing an EID (Electronic Identification) reader to scan an EID while processing, Chuteside provides the capability to either add an EID to a record or retrieve a record with an existing EID. The following EID fields can be selected for display on either the Input or Reference grid and available for interface with the EID Reader.

Cow Sense Table	Field Name
Identity	EID
Feeding	GY EID
Feeding	Feeding EID
Harvest	Carcass EID

If using a Barcode Scanner to scan a barcode while processing, Chuteside provides the capability to add a barcode to an animal’s record or retrieve a record with an existing barcode. The following fields can be selected for display on either the Input or Reference grid and available for interface with the Barcode Scanner.

Cow Sense Table	Field Name
Identity	Supp ID
Feeding	Feeding Visual Tag
Harvest	Packer ID
Harvest	Carcass ID

If using an electronic scale indicator to capture a weight while processing, Chuteside provides the capability to add a weight to an animal’s record. The following fields can be selected for display on the Input grid and be available for interface with the scale indicator. All Measure Types will be filed as Weight. The Associated Date Field can be configured to fill as described on page ii.

Cow Sense Table	Field Name	Associated Date Field (Table/Field Name)
Performance	Birth Weight	Identity / Birth Date
Performance	Weaning Weight	Performance / Weaning Date]
Performance	Yearling Weight	Performance / Yearling Date]
Performance	Supp 1 Weight	Performance / Supp 1 Date (First Supplemental Weight)
Performance	Supp 2 Weight	Performance / Supp 2 Date (second supplemental Weight Date)
Performance	Current Wt	Performance / Current Wt Date
Performance	Test - On Wt	Performance / Test – On Wt Date
Performance	Test - Interim Wt	Performance / Test – Interim Wt Date
Performance	Test - Off Wt	Performance / Test – Off Wt Date
Performance	Mature Weight	Performance / Mature Wt Date
Ultrasound	US Weight	Ultrasound / US Date
Ultrasound	US2 Weight	Ultrasound / US 2 Date
Feeding	GY In Weight	Feeding / GY In Date (at grow yard)
Feeding	GY Final Weight	Feeding / GY Final Weight Date
Feeding	In Weight	Feeding / In Date (at feed yard)
Feeding	Final Weight	Feeding / Final Weight Date
Harvest	Live Weight	Harvest / Kill Date
Harvest	Hot Weight	Harvest / Kill Date

Appendix A. NxGen Measures Table – Field Descriptions, Uses and Relationships

The following Measures Fields can be selected for display on the Input grid and the Measure Type will be filled by Chuteside. The Associated Date Field can be configured to fill as described on page ii.

Cow Sense Table	Field Name	Measure Type	Associated Date Field (in same table)
Traits	Condition Code	Condition	Cond Code Date
Traits	Udder Code	Udder	Udder Code Date
Traits	Foot Code	Foot	Foot Code Date
Traits	Mouth	Mouth	(No Associated Date Field)
Traits	Chute Score	Temperament	Chute Score Date
Traits	Pen Score	Temperament	Pen Score Date
Traits	PAP Score	PAP	(No Associated Date Field)
Traits	Preg Status	Preg Check	Preg Check Date
Traits	Days Bred	Preg Check	Preg Check Date
Performance	Weaning Hip Height	Height	Weaning Hip Height Date
Performance	Yearling Hip Height	Height	Yearling Hip Height Date
Performance	Supp 1 Hip Height	Height	Supp 1 Hip Height Date
Performance	Supp 2 Hip Height	Height	Supp 2 Hip Height Date
Performance	Current Hip Height	Height	Current Hip Ht Date
Performance	Mature Hip Height	Height	Mature Hip Ht Date
Performance	Scrotum	Scrotum	Scrotum Date
Performance	Pelvis Horizontal	Pelvis	Pelvic Date
Performance	Pelvis Vertical	Pelvis	Pelvic Date
Performance	Pelvic Area	Pelvis	Pelvic Date
Ultrasound	US IMF	Ultrasound	US Date
Ultrasound	US Rib Fat	Ultrasound	US Date
Ultrasound	US Rump Fat	Ultrasound	US Date
Ultrasound	US REA	Ultrasound	US Date