



# Notes to Video Tutorial

## Compute Wizard – Tutorial #16

This tutorial will explain the Compute Wizard and the associated calculations of data within a herd file. As with the Breeding, Calving and Weaning Wizards, these records may be grouped into calving seasons. The Calving Season establishes a collection of similarly aged and managed calves and cattle so performance data and comparisons are meaningful. The Calving Season Status is changed when you run compute performance calculations.

Launch the Compute Wizard by clicking on **Compute** from the Task Pane on the left. The options available to perform Compute functions include Performance data, Breed Composition or Expected Progeny Differences (EPD). For **Performance** computations, you may choose Birth, Weaning or Yearling calculations within the Calving Season selected. The calculations within the **Breed Composition** option are applied to “All Active Animals”. The calculations within the **EPD** option Computes Cow Sense EPD’s on all animals that do not have an outside EPD referenced, EPD source is empty, or EPD source says ‘Cow Sense’.

The functions in the Compute menu contain the commands to run calculations on the herd file AFTER all respective data has been entered in the animal form or entered via other wizards discussed in previous tutorials. It is recommended to run the Compute function after data has been updated in the Calving/Weaning/Yearling Wizard (whichever function is the applicable wizard for stage of herd development). When all the relevant data (pertaining to the animals which will have Compute function applied) is entered into Nx Gen, then you may run the Compute function. If you change or enter data for those records later, your Compute calculations will not be accurate and you will need to re-run the Compute Function.

### Performance

Select **Compute>Performance** from the task bar on the right to launch the Performance function. Then select whether you will compute performance on the calving season status of Birth, Weaning, or Yearling. The Compute function will process progeny/calves based upon their respective contemporary calving season groups. It will then analyze their birth, weaning or yearling data and calculate the adjusted weights and ratios. **NOTE: For the “choose calving season screen” seen in other wizards, the status of the calving season column may be updated when you run the Compute function.**

Once Compute>Performance>Weaning (or Birth or Yearling) is selected, a screen to choose the appropriate Calving Season appears. Since these computations are similar, we will discuss only the Weaning computations. Select the calving season by clicking in the select box on left. **NOTE: There is an optional box to click and select to display all seasons, including closed ones.** The default is to display only open calving seasons. Select the desired season and click “Run” on the bottom right. If you have not utilized the Calving Wizard to enter your data by Calving Seasons, you will need to see the Tools Menu from the Task

Pane on the left and run the Utilities function to assign the calf records to their appropriate Calving Season.

The Compute function initiates the calculation of the Birth Weight, Weaning Weight or Yearling Weight Averages (respectively) in Cow Sense Nx Gen. It also initiates the calculation of the adjusted weights, ratios, ADG, etc. At this same time, the data is also calculated for the Dams and Sire to update their Average Birth Weight, Weaning Weight and Yearling Weight averages and ratios of progeny, MPPA, etc.

A report now appears on the screen and is saved in the report logs, which display the computation results. This allows you to analyze specific animal data and conduct overall comparison and analysis on your herd. You may copy any or all of this data by selecting lines and copying to Notepad, Word, or Excel. You may also review the results in your C:\Users\...\CowSense\Logs\ComputeWeaning.txt folder and files as well. Red notes in the bottom left of the Compute screen display the status of computations and prompt you to review the log when the compute function completes.

When finished, click "Exit" to return to the Cow Sense Task Bar. You may also choose to run Compute>Performance on another Birth, Weaning or Yearling group, or run a different compute function.

## **Breed Composition**

The next function in the list is **Compute > Breed Composition**. This will calculate the breed integration (makeup) of the animals. Breed composition calculations will use the Breed 1, Breed Percent 1, Breed 2 (etc.) fields that were entered on an animals Dam and Sire and calculate the breed makeup of the progeny. (Remember: The pertinent Breed fields need to be 'turned on' in Traits in Options>Data Field Settings>Standard Fields from Task Bar on left, prior to entering the Compute menu).

To initiate these calculations, Click on Compute> Breed Composition, and then click on "Yes" to continue. These calculations will be performed on all active animals. You may review the results in your C:\Users\...\CowSense\Logs\ComputeBreed\_Composition.txt folder and log files.

## **EPD's**

The last compute function in the Compute menu is for calculation of Expected Progeny Differences (EPD's). EPDs are commonly used by cow/calf operators to select herd sires or make mating decisions for either artificial insemination or natural service mating. EPDs estimate an animal's genetic value and are calculated with performance data from the individual, its ancestors and relatives. Breed associations and now some private source service providers collect performance data, calculate EPDs using complex statistical equations and models, and report the results periodically. Most breed associations report birth weight, weaning weight, yearling weight and milk EPDs, and a host of other economically relevant traits.

To initiate this function, click on **Compute>EPD**. The relevant EPD fields must be turned on. EPD's will be calculated based on the characteristics and information entered for the parents (Dam and Sire). The calculation will only be performed on all active animals that are not assigned an outside EPD reference. If records have Cow Sense as the assigned EPD source, or this field is blank, the compute function is applied. You may review the results in your C:\Users\...\CowSense\Logs\Compute\_EPD.txt folder and files.

NOTE: If you do not run the COMPUTE function none of these calculations will be performed for your herd files. When finished, click "OK" to return to the Compute Wizard or the Cow Sense task bar and Main Menu.