

Cow Sense[®] Product Support Bulletin

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Product: **Cow Sense Purebred**

Version: **4.70 and greater**

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Embryo Transfer Functionality

Discussion

The purpose of this Product Support Bulletin is to document use of embryo transfer features in the Purebred mode of Cow Sense[®] V4.70 and higher.

Initial Setup

First, go through your cow inventory and identify all recipient cows. From the Cow Sense Main Menu, select Enter Data > Cows > Enter Cows. Identify recipient cows by using the Find button and type in the cow's ID to retrieve her record, assuming the cow has previously been entered to your Cow Sense herd. If her record does not exist, enter the cow as you would normally. There is a check box labeled ET Recipient located in the upper, right-hand corner of the Cow Entry screen on the Main tab. Click on the check box, an **X** will appear to designate the cow as an ET Recipient. (If the cow record already exists in Cow Sense and you prefer to edit records from a listing of cows, this can be done from a Cow Listing Report in Data Entry Mode.)

Next, identify all of your donor cows. Follow the same procedure as in marking the recipients, only click on the Donor check box to designate the cow as an ET Donor. Cows marked as ET Donors or Recipients are automatically excluded from the New Cycle process.

Embryo records are best maintained in a separate production cycle set up specifically for embryos. This provides a method for monitoring inventory and makes it more convenient to identify and reassign embryos upon implant in a recipient to the production cycle in which they will be born. We suggest that you create a production cycle in the future that will be easy to remember such as 1/1/2020. From the Cow Sense Main Menu, select Maintenance > Administration > Set Up. Select the Production Cycles tab. Click on the New button. Enter 1/1/2020 in the Process Date field (also known as the production cycle date); Cow Sense will enter "New" as the default in the Status field. In the Memo field enter a note to remind you what the purpose of this cycle is, such as "Embryo Inventory". Click on the Save button, and close the Set Up screen by clicking on the Done button. This will return you to the Cow Sense Main Menu. From the Main Tool Bar, find the Production Cycles Selector box. From the drop down button, select the 1/1/2020 Production Cycle to make it your current cycle. (See page 9 of the User's Guide for more detail).

Data Entry for ET:

Breeding. Enter breeding data as normal for the donor. From the Cow Sense Main Menu select Enter Data > Cows > Breeding.

Flush. Embryo records are created using the Post Cow function in Cow Sense. Post Cow is a method of creating new progeny records for a cow in a particular production cycle. In this case we use Post Cow to record the outcome of an Embryo flush. Embryo records are assigned to the current production cycle as indicated by the dropdown on the Cow Sense Main Menu. (**That is why it is important to be in the appropriate production cycle BEFORE Posting the cow's record.**) From the Cow Sense Main Menu, select Enter Data > Cows > Post Cow. From the Post Cow screen, enter the donor Cow ID and verify the entry from the reference information displayed. Select the Flush Embryos for Implant or Storage check box. This will reveal additional fields for you to record data for that flush. Cow Sense automatically defaults the function to add an Embryo ID and notations in the Remarks field to record details about the flush and transfer.

In addition fields are available to record, Flush Date, Sire, Technician (if you record a technician, they will appear in the drop down for future use). If known, enter number of Degenerate, and Unfertilized. (If you do not know if there were any Degenerate, or Unfertilized, leave these fields blank. If there were none, record the digit zero.) Enter the number of embryos that were Frozen or Stored. If Embryos were Transferred Fresh, record the number transferred. Transfer Date will default to the Flush Date and you can also record the Transfer Technician. Click Post Cow to save your entry. You will receive a message confirming the information you recorded for the flush. Click OK to proceed, or Cancel to return to the Flush screen to edit data. Upon clicking OK, the embryo records will be created and assigned to the current production cycle. The History Code on the calf record of the newly created embryo records will be recorded as 81 for an Embryo Implanted, and 82 for an Embryo Stored.

(Over)

An Embryo Flush Report is available from the Cow Sense Main Menu > Reports > Breeding > ET Flushes. This report appears in the same format as a custom report and can be printed, or data exported.

Embryo records are best maintained in Tabular Calf Entry (see Cow Sense User's Guide pages 75 – 78). First make sure you have selected the appropriate production cycle in which the embryos can be found, from the Production Cycle Selector on the Main Menu. To record additional information on the embryo relevant to the flush go to the Cow Sense Main Menu and select Enter Data > Calves > Tabular Entry. When the Tabular Calf Entry screen opens, select "This Prod Cycle" from the Saved Selection (query) drop down (see page 92 of the User's Guide for additional direction regarding using the Reports Tool Bar). This is assuming you are still in the special production cycle you had previously set up for embryos. The "Standard Columns" layout includes fields for recording additional data relevant to the flush event. You are encouraged to customize this layout to your needs. See page 77 of the Cow Sense User's Guide for additional information on designing a custom Tabular Calf Entry form. As mentioned previously, specific notations are stamped in the Remarks field to record flush details pertaining to the donor including: Donor: QG (Quality Grade), ST (Stage or maturity), and DSED (Days Since Estrus of Donor). You may wish to use the Calf ID field to record any additional unique identification assigned to the embryo at time of freezing. This can be replaced with the identification given the calf at birth. Furthermore you may wish to use the Supplemental ID field as a temporary field to record the semen tank, canister and cane where the embryo is stored. If this is done uniformly, it can be very helpful for inventory purposes as it can provide an address for the stored embryo. As this is a "Text Field" an example maybe "A-5-125Nx6I6" depicting Semen Tank # A, Canister 5, and Cane Code 125Nx6I6. This information should be cleared upon recording the transfer of the embryo to a recipient.

Transfer. To record additional information on the embryo relevant to the transfer, go to the Cow Sense Main Menu and select Enter Data > Calves > Tabular Entry. When the Tabular Calf Entry screen opens, select "This Prod Cycle" from the Saved Selection (query) drop down. (This is assuming you are still in the special production cycle you had previously set up for embryos.) The "Standard Columns" layout includes fields for recording additional data relevant to the transfer event. You are encouraged to customize this layout to your needs. See page 77 of the Cow Sense User's Guide for additional information on designing a custom Tabular Calf Entry form. Embryos that are transferred should be reassigned to History code 81, embryo – implanted. Enter the recipient ID at this time, and reassign the calf record to the appropriate Cohort Start Date (also known as the Production Cycle Date or birth cohort) to which it will be born. Record any additional information you wish to collect regarding the transfer. As mentioned previously, specific notations are stamped in the Remarks field to record transfer details pertaining to the recipient including: "Recip: DSER (Days Since Estrus of Recipient) and SOI (Side Of Implant, or side of the Recipient's uterus to which it was implanted)".

When assigned to a recipient, ET calves will appear on the progeny listing of both the donor cow and the recipient. Adjusted weights are computed using age of dam values of the recipient.

In the event of an unsuccessful transfer, and the recipient was bred by a natural service sire, then use the Post Cow function to post a natural calf for her. Prior to posting the recipient's record, make certain you have selected the appropriate production cycle to which this calf will be born.

Calving. Calving data entry may be done normally. Select the Production Cycle Date to which you assigned the embryo to be born (this should appear from the Production Cycle drop down list). From the Cow Sense Main Menu select, Enter Data > Calves > Calving. Navigate to the calf record associated with the appropriate donor by either scrolling through the records, or use the Find Cow button. If the Calf ID had been assigned previously at time of transfer, you can use the Find Calf button as well. Cow Sense will default the Born As code to E (Embryo), record S (Single) for the Raised As code. Cow Sense automatically marks "Omit from ratios".

In the event of an unsuccessful transfer and the embryo was aborted by the recipient, reassign the Calf History from 81 to 6 (Abortion). Do not enter a Raised As code, however you may wish to also add a note in the Remarks field such as "ET unsuccessful".