

BenguFarm™
BEEF

ADVANCED BEEF CATTLE
MANAGEMENT SOFTWARE



Manual

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www.bengufarm.co.za

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PART A – HOW TO START:

1. General – Animal Identification and Numbering:

Individual identification:

Individual identification of animals is, of course, the basis of record keeping. The most common method of identification is a plastic ear tag with the animal's unique number on it. However, incorrect reading and/or recording of tag numbers is a common source of incorrect animal records. Electronic identification is a method that is fast gaining ground, mainly because reading an electronic ID number (EID) using an EID reader is quick and accurate. BenguFarm fully integrates with electronic identification systems – talk to your BenguFarm agent or visit bengufarm.co.za for more information.

We strongly recommend that at least two ways of individual identification be used, for the simple reason that if one is lost (e.g. plastic ear tag torn or broken off), the animal can still be identified and the historical records are therefore not going to get lost. The identification method for **registered (stud) animals** is prescribed by the relevant breeders' society. It usually consists of a permanent (primary) method (e.g. brand or tattoo) and a secondary method (e.g. ear tag or ear notches and/or electronic ID), depending on the breed concerned. The individual identification method for **commercial (non-stud) animals** is not prescribed, but one of the following options is recommended:

- Brand or freeze brand or tattoo + ear tag (VID) *or*
- Electronic ID (EID) + tag *or*
- Ear tag + steel ear tag *or*
- Brand or freeze brand or tattoo + electronic ID (EID).

Calves should be marked as soon as practicable after birth with at least one of the above methods, usually a plastic ear tag or ear notches and/or electronic ID. When calves are weaned, they should also be marked with a second method, e.g. branding or tattoo. It is strongly discouraged to record calves with a temporary ID number in BenguFarm at birth and then later, e.g. when they are weaned and it is decided which will be kept, change those calves' ID numbers as it creates unnecessary extra work and can cause confusion.

ID Number format:

The number format for **registered (stud) animals** is prescribed by the breeders' society concerned. The international ID number format is the herd's Herd Designation Mark (e.g. ABC) + Year of Birth (e.g. 19 for 2019) + Sequence Number (e.g. 1 for the first calf born in the year). In this example, the animal's ID number would be ABC191. In BenguFarm it should be ABC190001. The preceding zeros at the serial number are for sorting purposes. The number format for **commercial (non-stud) animals** is not prescribed, but we recommend that the ID number be made up of the herd's Brand Mark (optional) + Year of birth (e.g. 19 for 2019) + Sequence Number (e.g. 1 for the first calf born in the year). Most commercial farmers use only the year of birth plus a sequence number. In the above example, the animal's ID number would be 191. In BenguFarm it will be 1901 or 19001 or 190001, depending on how many calves are expected per year.

It is very important that there are **no duplicate numbers** in BenguFarm BEEF as this causes many problems. Preferably, different ID numbers should be used for animals in different herds on the same database, for example stud animals' sequence numbers 1 - 499 and commercial animals' sequence numbers 501 - 999. Another option is to put in BenguFarm a letter indicating the herd at the front of the number, e.g. **B191** for the first Bonsmara calf of 2019 and **N191** for the first Nguni calf of 2019. **Please note:** Use two (not just one) characters for the year of birth (e.g. 19 instead of 9 for animals born in 2019) to prevent duplicate numbers being created in the BenguFarm database over the long term. **See paragraph 6, ID Methods and Numbering, for setting up default methods and formats in BenguFarm.**

Alternative numbers:

The ID Number (visual) is the primary number of an animal in the program. Animals are listed and sorted by this number. However, BenguFarm provides for the recording of other numbers, where applicable, namely: Microchip Number (EID), Traceability Number, Computer Number (stud only), Animal ID [official] (stud only), Animal Name (stud only), DNA Number (stud only), Biobank Number (stud only), Scale Number and Lot Number. **To search for an animal on another number**, go to Animals > Search Animal.

2. Install BenguFarm:

BenguFarm is the umbrella software product with various modules, namely BEEF, SHEEP & GOATS, GAME, PIGS and GENETICS. Separate databases can be set up in **BenguFarm** for the various modules. The module used for the management of beef cattle is called BenguFarm BEEF. You will therefore

install **BenguFarm**, and then a beef cattle database is registered for the BEEF module.

To download and install the programme from the Internet:

- Go to www.bengufarm.co.za > Downloads > Software. Follow the instructions on the page to download and install the following software:
 - Crystal Reports Basic Runtime for Visual Studio 2008 [18MB] (third party software used for creating reports); and
 - BenguFarm Installer 21 Apr 2022 [47MB]. **Note:** If you get a security warning, click "More Info > Run" of "Allow" of "Run Anyway".
 - If you have bought the optional BenguFarm GENETICS Breeding Management Module with BenguFarm BEEF, also the BenguFarm GENETICS Installer.
- Go to Downloads > Updates and download the latest version [10MB] of the BenguFarm software and install it. If Windows gives you a "Discard" or "Keep" option when starting to download the update file, select "Keep". If you have Avast, Avira, Kaspersky, McAfee or Norton as anti-virus program on your computer, it may be necessary to temporarily de-activate it (at own risk) as these anti-virus programmes often block the update file without warning.

3. Running BenguFarm for the first time:

Double click on the BenguFarm icon located on the Windows desktop. A message "Do you want to allow this app (BenguFarm)..." will be displayed. Click "Yes". BenguFarm will now open and the "Welcome to BenguFarm" window will be displayed. On this window you should enter the following:

- **Language:** Choose the language in which you would like use the programme. (You can change it at any time if necessary).
- **Registered Username:** This will appear on the BenguFarm welcome email. (E.g. Fat Cattle Farming Enterprise CC). Please make sure that the name is correct, because you cannot change it yourself at a later stage. (This name will be displayed on the bottom of all BenguFarm BEEF reports).
- **Primary Herd:** Check "Primary Herd (e.g. Stud herd) what I want to run on BenguFarm"
 - At **Module**, select "Cattle".
 - At **Breed/Species**, select the applicable breed.
 - At **Description**, complete the name of you herd, or your primary herd if you have more than one herd, (e.g. Fat Cattle Bonsmara Stud).
- **Basic (non-stud) Program Layout:** Select this option if the screens, reports and fields that only apply to stud herds should be disabled. This option must therefore be marked if it is a commercial (non-stud) herd.
- **Secondary herd:** Mark "Secondary herd (e.g. commercial herd) that I want to manage on BenguFarm" only if a second herd is applicable.
 - At **Module**, select "Cattle".
 - At **Breed/Species**, select the applicable breed.
 - At **Description**, complete the name of the applicable herd (e.g. Fat Cattle Commercial).
- **Please read the instructions at paragraph 7 for the creation of additional herds before you decide on the option "Create the Respective Herds in the same Database".**
- Click on "Accept these Settings".

4. Register BenguFarm BEEF:

A window will now appear with a warning that the programme has not been registered and that you can open the programme for only five days without registering. If you want to register immediately, click on "Register/Renew Registration Now". On the Registration window at "BenguFarm Module (Spesie)", choose "Cattle". **To register**, please contact Naomi Havenga at 082 696 8306 or send an email to accounts@benguelasoft.co.za. Supply her with the following info:

- Your registered BenguFarm BEEF username (as completed on the order form) and account number (as on the Welcome e-mail you received from BenguelaSoft),
- The Computer Identification Code (code on the top left of the registration window),
- The number of herds for which you want to register the programme.

At Account Number, enter your BenguFarm account number (BPU...), at Access the access code that Naomi will give you and then click Change Client Account Number. At Registration Code, enter the registration code and at Access the access code that Naomi will give you and then click Register/Reregister.

For after-hours registration, please contact Mr. Leslie Bergh (082 801 2026) or Mr. Johan de Jager (083 305 1042) and supply the above information.


BenguFarm agents use **Teamviewer software for remote (Internet) support**. Teamviewer can, if installed, be opened from BenguFarm on the main screen by going to Help > Teamviewer Remote Support. If not installed, Teamviewer can be downloaded and installed at www.bengufarm.co.za > Downloads > Software > Teamviewer Remote Support Software.

Please Note:

- If you have installed BenguFarm on more than one computer, the above registration process needs to be followed for each computer.
- If you have bought the optional BenguFarm GENETICS Breeding Management Module with BenguFarm BEEF, you need to register the GENETICS module as well. To register BenguFarm GENETICS, go in BenguFarm BEEF to Reproduction > BenguFarm GENETICS Breeding Management Module and then follow the above-mentioned registration steps.


5. Main window and general functions:

Main window:

- **To change the language** in BenguFarm, go to Options > Change Language.
- **Access to all input windows, reports and data send/import functions** are obtained on the main window by selecting the window from the menu at the top of the window or by clicking on the corresponding shortcuts.
- **The largest part of the main window is used to view animals' data. There are two options, namely the Herd View and the Animal View.**
- **To switch between the above two main screen options**, click on the left side of the screen on Herd View or Animal View.
 - **General:**
 - The animals that appear in the **list of animals** on the main window are controlled by switching the **general filters** Active / Non-active / Male / Female on or off. The Group Filter (to the right of the Female filter) or the Choose Animals window (the  button) can be used as additional filter.
 - **Active animals** are animals that are alive in the particular herd. **Non-active animals** are animals that are not alive in the particular herd, for example animals that were sold or died and animals that have never been in the herd but found in the pedigree or progeny of animals that are in the herd.
 - Animal numbers are **displayed by sex on different background colours**:
 - Female – Pink
 - Male – Blue
 - Sex Uncertain – Red
 - Castrated – Orange
 - **To view the new/updated data**, click on the Refresh Screen icon.
 - **Please note:** If animals are moved to or from a group while that group has been selected with the group filter, the animals in the relevant group will only be updated after the group filter has been switched off (No Group Filter) and the relevant group has been filtered again.
 - **Herd View:** This layout is used to display certain important data of a group of animals (typically all the animals in the herd) in table layout. For step-by-step help, go in the main menu to **Help > Help with Main Window > Herd View**.
 - **To view the new/updated data**, click on Refresh Screen.
 - **To fully display data in columns**, click on Auto Width.
 - **To select which data should be displayed**, click Display Options at the bottom of the screen and select the relevant sections or fields.
 - **To highlight certain animal data** (e.g. cows with an average inter-calving period of more than 400 days) as well as setting up rank values for the selected criteria, click on Setup Herd Layout Highlighting (icon with small squares with different colours). Use the **Help** function if necessary. **Please note:** If Activate Highlighting and Rank Value is checked, the field AFC (Age First Calving) of females older than 36 months without a calf on record is automatically highlighted in red. The columns IDNr, Sire and Dam are also automatically highlighted green, blue and pink respectively.
 - **To display columns for Vaccinations, Dosings & Supplements, Disease Tests** (e.g. Brusellosis), **Traits** (e.g. condition score, general appearance score), **Procedures** (e.g. castrate, tail docking) **and/or**

- on the tab of the applicable display window at the bottom of the group of display windows.
 - **To hide display windows which are not used**, click on the "Display" menu and under the heading Main Window View Screens remove the tick mark next to the appropriate display window.
 - **To create a report of the data being displayed on a display window**, click on the printer icon in the right-hand top corner of the relevant display window. For more display settings, see paragraph 8.
 - **To select an animal** (which is already in the BenguFarm database) to display on the main window, click on the pink or blue box at the top left of the main window or press Ctrl+Z on the keyboard. The animal can be chosen from the list or the IDNr can simply be typed. The arrows left and right are used to move to the previous and next animals in the list.
 - **To enlarge or reduce sub-screens**, move the cursor on the brown line between the sub-screens and drag and drop to the desired size.
 - **Tip: To select the Herd View** (instead of the Animal View) **as the default layout for the main window**, go to Display and click the Use Herd View as Default Main Window Layout option.
- **For further assistance with the use of the main screen**, go to Help > How to Use this Window.
- **Tip: If an animal(s) that you expect to be in the animal list are not found**, check the following:
 - Are you in the right herd?
 - Have the correct general animal filters been selected? If only active animals are listed, check that the animal may not be non-active.
 - If so, was the correct group filter selected?
 - If so, were the correct column filter(s) selected? Look at the bottom left of the window for active column filters.
 - Are the animals sorted on ID number?
 - Is the number format of the animal concerned correct? (e.g. A210001, A 210001, A21001).

Choose Animals window:

- The **Choose Animals screen** is used everywhere in BenguFarm to choose animals for recording data or to include in a report. The user can choose the animals by hand (right hand side of screen) or choose the animals from a group(s) and/or filter(s) (left hand side of screen). The screen is opened when the user click on the  button in a recording or report window. Use the **Help** function if necessary.

General Features – All windows:

- **To open a window, all other windows must be closed.** If a window is minimized, another window cannot be opened.
- **BenguFarm can only be closed if all the windows are closed.**
- **To quickly find an animal on the main screen or other drop-down list**, open the list and enter the animal's ID number. The same goes for finding an item in any type of drop-down list.
- **Sex indication on screens:** Column heading is Male. Male animals have a tick mark, females not.
- **The general animal filters** (Active / Non-active / Male / Female) are displayed on all screens where animals can be selected at the top of the relevant screen as four squares. The description of each filter can be displayed by moving the pointer over the box.
- On all recording windows **fields compulsory/important to complete are on a yellow background.** Fields with a white background is optional to complete.
- **To move from one field/column to the next** where data need to be entered, use the "Tab" key or the "→" key.
- **To go to the next or the previous line** where data need to be entered, use the "↓" and the "↑" keys.
- **Numeric fields (e.g. weight, price) MUST have a value (0 or other).**
- **To select a date using the calendar**, firstly select the year, then the month, then click on the day.
- **To edit or delete existing data**, see paragraph 15.
- **To sort or filter records on a window or to move a column to another position in the table or to temporarily remove a column from a screen**, see the instructions above at Main Window > Herd View.

- **The full description of a column heading** can be displayed by moving the pointer over the column heading.
- **To choose animals for multi editing or deletion**, select the S (Select) column and change the relevant data at the top of the screen in the Multi Edit / Add New part of the screen.
- It is recommended that **costs and prices be recorded *without* VAT.**
- **To create a new record at Settings**, click on the "+" at the bottom right of the window. To delete a record, click on the "-" at the bottom right of the window.
- A **step-by-step Help function** is available on most windows at the top right of the screen. Please use it – you will be surprised how easy it works.

Reports and Recording Lists:

- All reports can be created through the Reports menu item.
- Reports with "(**recording list**)" behind the report name are reports with some blank columns in the report. The purpose is to **print the relevant report (recording list) and take it to the kraal/crush/scale to record data on it**, e.g. a Weighing List on which weights can be recorded. The benefits of using printed recording lists are:
 - Animals are sorted – easy to record data later in BenguFarm;
 - Easy to check if all animals are done;
 - All necessary info is printed on the recording list;
 - Does not waste time writing ID animal numbers;
 - Errors with animal identification can easily be detected.
- When a report is created (Display Report), there is always options to print or to the export the report. With the Export option a **report can be saved in various formats, e.g. pdf or Excel** or the report can be e-mailed directly from BenguFarm to a contact. **Please note:** Direct mail sending, for certain technical reasons, does not always work. If you have a problem with this option, contact your BenguFarm agent for help setting up the SMTP Direct Email Option [Settings > Herds > E-mail > Use SMTP Direct Email].
- To create a report containing **animals from all herds** on the relevant database (where applicable), go to the "ALL" herd [File > Change Active Herd To > ALL].

6. Settings:

Tip: To change the language in BenguFarm, go to Options > Change Language.

It is very important that the settings for each herd are done *before* you start using the programme to ensure that the programme functions correct and optimal.

Herd settings:

Go to Settings > Herds. Complete/change the information, where necessary, under the following headings on the grey area of the window. **Please note: First do the General settings, secondly the Service Providers and then the rest.** For most settings, default values or options have been selected. Check these default settings and only change if necessary for your specific needs.

Please note: Fields with a yellow background is compulsory to complete. Fields with a white background is optional to complete.

- **General:**
 - **Name** (required): E.g. Red Cattle Bonsmaras.
 - **Description** (optional): E.g. Bonsmara stud.
 - **Owner** (optional): E.g. James Brown.
 - **Farm Name** (optional): E.g. Sweet Water.
 - **BenguFarm Module** (required): Cattle.
 - **Breed** (required): E.g. BON - Bonsmara. If it is a crossbred herd, choose BCM - Commercial Beef Cattle. **This setting is very important**, for it determine certain breed-specific default settings. If you change this, close the programme, open it again and go to File > Support > Recalculate Summary Data for the change to take effect.
 - **Herd Type** (required): Check Stud or Commercial.
 - **HDM** (registered Herd Designation Mark or brand letters of the herd - required): E.g. ABC.
 - **Prefix** (herd name - only applicable to stud herds): E.g. Red Cattle
 - **Society Member No** (only applicable to stud herds and commercial herds that register and/or do performance testing with SA Stud Book or the ARC or Breedplan): Complete the number with preceding zeros so it is seven numbers and the breed code at the end, e.g. 0699999BON.
 - **Invoices Made Out To** (optional): Complete the name of the person or business to which the invoices should be made out to.

- **VAT No** (optional): Complete the VAT number.
- **Postal Address** (optional): Complete the postal address.
- **Postal Code** (optional): E.g. 2500.
- **Land Code** (optional): E.g. ZAR.
- **Contact Person** (required): Click on the shortcut icon on the far right (Auto creates herd contact from herd details). Now click on the shortcut on the right (which looks like a red notebook) to open the Contacts window and fill in the missing information, specifically the name & surname, cell phone number and email address. Save. Now select the contact from the contact list. **Please note:** The contact details completed here (name and surname, cell number and email address) will be printed at the top of all reports.
- **Breeder, Owner and Keeper** (optional): Select the contact you set up above, e.g. Red Cattle Farming.
- **Service Providers** (only applicable to all stud herds and commercial herds which do official performance testing with SA Stud Book the ARC or Breedplan): [**Note:** See Appendix E for settings instructions for Breedplan as service provider].
 - **Registration, Performance Testing and Breeding Values:** Select the service provider of the herd with each.
 - **Use Logix Direct File Upload Functionality** (optional - only applicable to Logix users. Please read the note on the window and also see paragraph 19):
 - Login Username: Enter your Logix username.
 - Login Password: Enter your Logix password.
 - Send E-mail Confirmation of Received Data To: Enter your email address here.
 - **E-mail Addresses:**
 - If Studbook was selected above as service provider for Registration and Performance Testing, please ensure that the E-mail Matings, Birth Notifications, Transfers and Cancellations To as well as E-mail Performance Test Data To addresses are edata@studbook.co.za.
 - If ARC was selected above as service provider for Performance Testing, change E-mail Performance Test Data To to intergis@arc.agric.za.
 - If Breedplan was selected above for Registration, Performance Testing and Breeding Values, see Appendix E or contact your BenguFarm BEEF agent or Mr. Leslie Bergh (see last page for contact information).
- **ID Methods and Numbering:** (Refer paragraph 1 for general information on ID Methods and Numbering of animals)
 - **Default ID Format:** The default ID format is used to determine the format of the Animal ID Nr (visual) in BenguFarm BEEF, according to the animal's Herd Designation Mark (HDM), Year and Sequence number. The default ID format in BenguFarm BEEF is HHHHYNNNN. The HHHH indicates there is provision for maximum 4 characters for the Herd Designation Mark or brand mark, the YY indicates there is provision for maximum 2 characters for the year of birth and the NNNN indicates there is provision for maximum 4 characters of the sequence number. E.g. if the herd designation mark is ABC, its year of birth 2020 and the sequence number 123, the ID Nr will be created as ABC200123. Commercial herds usually use only the year of birth and sequence number to identify animals. In this case, the default ID format can be set as YYNNNN or YY-NNNN.
 - **Default Main ID Method (Permanent ID):** For stud herds the default main ID method depends on the specific breeders' society's prescription, e.g. Branding.
 - **Default Sub ID Method (Visual ID):** For stud herds the default sub ID method depends on the specific breeders' society's prescription, e.g. Ear tag.
 - **Separate Sequence Numbers for Heifers and Bulls:** Check this option only if (for this herd) one serial number range for heifer and bull calves is *not* used. At Sequence Number Method the appropriate option should be selected for Male and Female. If continuous series sequence numbers (in this herd) are used for heifer and bull calves (e.g. 1-100 for heifer calves and 101-200 for bull calves OR 1-100 for heifer calves and 1-100 for bull calves), tick Continuous Sequence Numbers at both sexes.
 - **Apply Sequencing Settings of First Herd to All Herds:** Select this option if you have two (or more) herds on the same database and you use one sequence number range for both herds. BenguFarm will then allocate the next available sequence number irrespective of the herd when new calves are recorded on the Calving screen.
 - **Create IDnr (Visual) from EID (Microchip Number) where no IDnr is specified:** This option should only be chosen if *only* microchip/electronic identification is used and BenguFarm BEEF should *automatically* create visual Indris from the microchip/electronic identification numbers that are imported into BenguFarm from an electronic identification reader or -scale.
- **Mating, Pregnancy and Calving:**

- **Current Calving Season:** Ignore - see Calving Season settings below.
- See Appendix F on how **Minimum Age of Heifers at First Mating, Av. Period from Calving to Mated Again** and **Normal Pregnancy Period** are used in the calculation of Expected Calving Date.
- **Synchronisation** (if applicable): Complete the # Days from Insert to First Injection; # Days from Insert to Second Injection; # Days from Insert to Remove and # Days from Remove to AI / Lapa.
- **Other fields:** Check the default values/options and change only if necessary.
- **Performance Testing:**
 - **Maximum Allowable Age Difference between Animals in the same Performance Test Group:** The default value (usually 100 days) is correct.
 - **Allow Reduced Minimum Wean Age of 60 Days due to Drought:** Check this option only if calves are weaned before 150 days of age due to drought.
 - **Performance Test Groups (where no breeding seasons are used):** If **no** breeding seasons are used, check "Use Default Groups" and set up four groups of three months each.
 - **Weigh Calves at Birth:** Check this option if you normally weigh your calves at birth.
 - **Weigh Cows at Calving:** Check this option if you normally weigh cows at calving.
 - **Calculate Average Dam Weaning Weight Ratio based on Individual Animals** (i.e. the weaning weights are not added for multiple births). We recommend that this option be OFF, i.e. for multiple births the weaning weights are added in the calculation.
 - **Performance Testing Phases Animals are Tested In:** Mark the appropriate phases in which animals are normally tested. (This information is only used for automatic diary entries).
 - **Calculate Common Progeny ADA:** Check this option if the ADA (Average Daily gain per Age) should be calculated for calves not performance tested. Select the minimum and maximum age at weighing for the weights to be used as well as the birth weights to be used in the calculation for calves not weighed.
- **E-mail:**
 - **Use Windows Configured E-mail Program:** Check this option if you use any e-mail program other than Microsoft Outlook, e.g. Gmail.
 - **Use Microsoft Outlook as E-mail Program:** Check this option if you use Microsoft Outlook for e-mails.
 - **Use SMTP Direct Mail:** Check this option only if your BenguFarm BEEF agent recommended it when you have problems with your regular e-mail program.
 - **Send E-mail Direct:** Do not check this option.
 - **Display E-mail Success:** This option must be checked.
- **Default Folders for Files:**
 - During the installation of BenguFarm, a folder "BenguFarm" is automatically created on the computer's local disk (C:\BenguFarm\). In this folder is a subfolder "Beef" with three sub-folders, namely "Imports", "Exports" and "Backups" are created with sub-folders for your herd(s) in each of them. In BenguFarm BEEF these three sub-folders are then automatically set as the default folders where BenguFarm BEEF data can be saved. **Please note:** The default place for saving backup files (C:\BenguFarm\Beef\Backups\[Herd]) is NOT a safe place, since the backup will be lost if the computer is stolen or get damaged. **It is VERY IMPORTANT to save backups in a SAFE PLACE**, e.g. a cloud-based place like Dropbox, GoogleDrive or OneDrive and/or on an external hard drive or memory stick. Click on the button with the three dots to select a save place.
 - **Default Folder where Photos will be Saved In:** Do NOT change the default directory - it is correct.
 - Map Network Drive at Start-up: **If you want to put the BenguFarm database on a network**, please contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026 for instructions to set it up.
- **Reminders:**
 - Check the default values and change only if necessary.
- **Body Measurements:**
 - **Cows' Frame Size:** The default frame size is medium. If needed, change it to either small or large frame. The frame size is used in the calculation of the equivalent number of Livestock Units (LSUs).
 - **Use Hip Height in the Length/Height Ratio:** Check this option if BenguFarm must use the Hip Height in the Length / Height Ratio calculation.
 - **Measurements:** Select which body measurements are recorded in growth tests of bulls for performance testing.
- **Scoring:**
 - Ignore – the default is correct.
- **Other:**
 - Check the default values and change only if necessary.

- **Default Group Category:** Select the group category that will be used most often.
- **Allow Sales, Deaths and Culls Records for Animal in Each Herd:** Check this option only if you have more than one herd (on the same database) and you want to record more than one sales record per animal, e.g. the animal was first sold to your feedlot and then to another institution.
- **Allow Data Recording in "ALL" Herd:** Check this option if you have more than one herd (on the same database) to allow certain data (matings, pregnancy tests, vaccinations, illnesses and treatments, weights and traits not for performance testing, camp and group movements, purchases, procedures, etc.) to be recorded in the ALL herd.

Groups – Calving seasons, camps and management groups:

See paragraph 18 for the purpose, setting up and use of calving seasons, camps and management groups.

Contacts:

To create contacts for people or businesses that will be used several places in the program (e.g. Owner, Manager, Inseminator, Buyers, Veterinarians, Consultants, Inspectors, etc.), go to Settings > Contacts, click on the "+" (lower right corner of the window) to create a new contact record. **Please note:** The Business field (person or business name) is the field that will be displayed in selection lists and is the only compulsory field to complete.

Other Settings:

All the other lists have default items already included in the particular list. You cannot edit or delete these default items but, where necessary, you can add additional items by clicking on the "+" at the bottom right of the window. The Medicines list is the one list that will need to be extended with your own list of medicines.

Tip: In certain settings (e.g. Calving Seasons; Camps; Vaccines, Dosings & Supplements; Medicines as well as Diseases, Injuries & Parasites) there is an "In Use" column. Items marked with In Use are displayed in the relevant menu at the top of the list and the rest below to make it easier to select an item. Some items also have a "Device" column. Items not marked with Device are hidden in the relevant drop-down list on the Mobile app and on the APR500/600 EID reader so that the list is shorter.

7. Create a second herd and navigate between herds: (if applicable)

- BenguFarm BEEF makes provision for more than one herd (e.g. a stud and commercial herd) to be created in the programme without additional costs, provided of course that all the animals are the property of one owner. **A group of animals is set up as a different herd if the breed and/or herd type (stud or commercial) differs.**
 - **Breeders who have stud and commercial animals are recommended to set up separate herds in BenguFarm** as it will facilitate the comparison of your stud herd's animals on BenguFarm with the animals on Logix/at the Society, as well as sending data such as matings, births, weights, sales and deaths to Logix/the Society, as you do not need to select which animals' data should be sent. Because most data (excluding Weights for Performance Testing, Calvings as well as Sales and Deaths) can be recorded in the ALL herd (provided you have enabled the option Allow Data Recording in "ALL" Herd), two separate herds do not significantly complicate the recording of data.
 - **Stud breeders who have more than one stud herd where the breed, and/or breeders' society member number, herd mark, prefix and/or ID number format differs, should also set up different herds.**
 - **Breeders who have more than one commercial herd *managed separately* (e.g. on different farms) should also set up separate herds.**
- Separate herds can either be created on the same database or on separate databases.
 - If animals are shared between herds (e.g. bulls used in two herds) and/or if animals are moved from time to time between herds (e.g. commercial cows approved for upgrading to the stud or rejected heifers moving back to the commercial herd) and/or if embryos flushed from cows in one herd (e.g. stud) will be implanted into cows in another herd (e.g. commercial), we recommend that the herds are created on the *same* database. Creating a second herd on the same database also has the advantage that certain settings (e.g. Camps, Contacts and Calving seasons) do not need to be done separately for both herds and that it is not necessary to make a separate backup of each herd. It also has the advantage that, through the "ALL" herd option, reports and recording lists can be created that include all animals, regardless of herd.
 - The only instance where we would recommend that you create additional herds on *separate* databases is if the different herds' record keeping in BenguFarm is going to be done by different people, e.g. the manager of farm A keeps the records of farm A's herd(s) on his computer and the manager of farm B keeps the records of farm B's herd(s) on his computer. This then has the

advantage that each manager can work independently of the other manager(s) on BenguFarm and that a separate database backup of each farm's BenguFarm data can be made and, for example, restored on the owner's computer without overwriting the other farm's data.

- **If in doubt on which option to choose or you need more info on the setup of herds, please consult with your BenguFarm BEEF agent.**
- **To create a second herd on the *same* database**, go to Settings > Herds > General and click on the "+" at the bottom of the window. Enter a name (e.g. Commercial Herd), select the Breed and do the rest of the settings for the herd. Click Save and Exit. **Please note:** Some general herd settings will be entered automatically if it was entered for the first herd that was created. **It is therefore recommended that the General settings of the first herd are done (see paragraph 6) before the additional herd is created. Ensure the Breed field for each herd is entered – this is very important.**
- **To create a second herd on a *separate* database**, go to Options > Databases. Click on + Add New, choose the Specie (Cattle) and complete a name for the database (e.g. Commercial Herd) in the field Database Description. Click on Save and Exit.
- If necessary, please contact Naomi Havenga at 082 696 8306 or send an email to accounts@benguelasoft.co.za to register an additional herd and/or database.
- **To switch between herds** in BenguFarm BEEF, go to File > Change Active Herd to. Click on List All and Select, select the appropriate herd from the drop-down list and click Activate.
- **Please note:** If more than one herd is created on the same database, BenguFarm BEEF will automatically create an ALL "herd". The ALL herd's main purpose is to create reports that will include animals in all herds in the database. Normally one will *not* work in the ALL herd, since only certain data recording can be done in the ALL herd.
 - **To allow certain data** (e.g. matings, pregnancy tests, vaccinations, weights not for performance testing) **to be recorded in the ALL herd**, go to Settings > Herds > Other and check the option Allow Data Recording in "ALL" Herd.
 - If two (or more) herds are created on the same database, try **not to use the same ID numbers** for animals in the two herds, to prevent confusion with identification if working in the ALL "herd". If one set of numbers is used for all animals, regardless of the herd they are in, go to Settings > Herds > ID Methods and Numbering and select the Apply Sequencing Settings of First Herd to All Herds option.
- **To move animals between herds**, see paragraph 37.

8. Display settings – Main window and other:

The purpose of the Display options is to customise BenguFarm for your specific needs by hiding certain windows and certain fields on some windows in BenguFarm BEEF that is not used. This is specifically handy for **commercial (non-stud) breeders** who want to hide functions and windows that are not used. To customise your BenguFarm BEEF in this way to suit your specific needs and make it more user friendly, go to the Display menu item:

- **To select the Herd View** (instead of the Animal View) **as the default layout for the main window**, go to the Display and click the Use Herd View as Default Main Window Layout option.
- **To select or hide fields displayed on the Herd View of the main screen**, go on the Herd View to View Options. To save your selection of fields as the default settings for the specific herd, click Save Settings as Herd Default.
- **To hide functions and fields that only apply to stud studs on the Main Window, Calving Window and Add & Edit Animal Window**, go to Display > Customize Fields Displayed in Main Window View Screens, click the Mark Default Commercial Field Selections option and click Save.
- **To hide functions on the Main window and/or fields on the Calving window and the Add & Edit Animal window which is not used**, go to Display > Customise Displayed Program Items. Make a tick mark in the box in the yellow area next to "Display only the marked Functions and/or Fields...". Click on the "+" next to Main Window Functions, Add & Edit Animals window and Calving window to check and, if necessary, change the functions and/or fields you want to be displayed. Click on Save. **Please note:** Functions and/or fields that are hidden this way will be applicable to all herds in the relevant database.
- **To hide the display windows on the Animal Layout of the BEEF main window that are not used**, go to Display and below the heading Select Main Window Animal Layout View Screens uncheck the applicable display window. [Use the **Help** function if necessary]. **Please note:** Functions and/or fields that are hidden this way will only apply to the applicable herd. If it should apply to all herds in the relevant database, check the option Apply to All Herds in this Database and click Save.

- **To hide specific fields on certain lookup screens** (General, Birth, Last Mating, Reproduction & Progeny Averages, Performance Testing and Breeding Values) on the Animal View of the main window **that are not used**, go to Display > Customize Fields Displayed in Main Window View Screens. Click on the appropriate view screen (e.g. General) and uncheck the fields you do not use. Do the same for the other view screens. When done, click Save. **Please note:** Fields on view screens hidden in this way will only apply to the applicable herd. If it should apply to all herds in the relevant database, check the option Apply to All Herds in this Database and click Save.
- **To hide specific fields on the Progeny display window that are not used**, go to Display > Customize Progeny View Screen Columns. Uncheck the applicable fields you do not use and then click on Exit. **Please note:** Fields on the Progeny display screen that are hidden this way will be applicable to all herds of all modules, where applicable. Certain fields that do not apply to a specific BenguFarm module will be automatically hidden.

Tip: To select a specific animal (e.g. your favourite breeding bull) to be displayed by default on the main window's Animal View when you open BenguFarm BEEF, go to: Settings > Herds > Other > Animal to Display when Opening BenguFarm BEEF.

9. Step-by-step help function:

A step-by-step Help function is available on most windows. This function is designed to take the user step-by-step through the functions of each window. **We strongly recommend that you use these step-by-step Help functions until you are familiar with the applicable window.** The Help function is activated by clicking on the "Help" button on the applicable window. Then choose the applicable function you want to perform and follow the step-by-step instructions. Please note the flickering arrow in one of the corners of a Help window. This arrow indicates where on the window data should be entered or the function should be activated. Click on the ">>" button to go to the next step. Click the "<<" button to go back to the previous step. Click on the "X" button to close the Help window.

Click on the "Help" button on the main window for help with certain basic functions in BenguFarm BEEF, namely General, Handling of Multiple Herds, Herd View and Animal View. The latest version of the BenguFarm manual can also be downloaded and opened here.

10. Import animal data from external sources: (if applicable)

- BenguFarm is now ready for animal records to be imported or manually recorded. The first choice is, of course, to import data from some electronic file(s) if such file(s) is available. If such file(s) (see below) is not available, the data must be manually recorded. See paragraph 11 for instructions for this.
- Depending what data is available, data can be imported from one (or in cases where required more than one) of the following sources. Please contact your BenguFarm agent if you need any help with importing data.
- **Please note:**
 - **Make sure you are in the correct herd** where the data should be imported.
 - If you want to import Studmaster **and** Logix/Intergis data, you must firstly import the Studmaster data and then the Logix/Intergis data.
 - For stud breeders the preferred option is to import data obtained from Logix (SA Stud Book) **or** from the relevant breeders' society/registering authority using the Breedplan system (where applicable).
- **To import Studmaster data:**
 - Go to Data Send/Import > Import > Database > Studmaster.
 - Browse and select the SM3 folder, select the applicable import options and the herd to which the data must be imported. If you are also going to import Logix data, we recommend that you do NOT import the Studmaster performance tests, i.e. "Leave tests out" must be marked.
 - Click on "Import".
 - **Please note:** This function is intended to import data in an empty database. If there is already data in your BenguFarm BEEF database, the existing data of an animal will be replaced with the data in the Studmaster/SA Mutton Merino file. Animals with the same IDnr as animals that already exist will not be duplicated and information such as weights that already exist will also not be duplicated.
- **To import Herdmaster data:** Contact your BenguFarm agent for assistance.
- **To import Logix (or Intergis) data,** see paragraph 12.
- **To import data from another BenguFarm BEEF user:** If you have **bought animals from a fellow BenguFarm user**, he can create a BenguFarm Animal Transfer with the relevant animals' data [Data Send/Import > Send > BenguFarm Animal Transfer File] and send it to you. You can import this file at Data Send/Import > Import > Database > BenguFarm Animal Transfer File. **Please note:**

- Make sure you are in the correct herd where the data should be imported.
- If an animal(s) with the same ID number exists in another herd(s), ensure the option Only Search in Selected Herd is checked.
- Below the Existing heading, check that the Status of the animals are correct.
- **To obtain data from a breeders' society/registration authority that uses the Breedplan system to import**, see Appendix E.
- **To import animal data which was recorded on Excel**, see Appendix B or contact your BenguFarm BEEF agent or Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.
- **To import animals recorded on RFID Experts' APR500 / APR600 / AWR300 EID reader** (recorded with the Registration task), see Appendix C.
- **To import animals recorded on the Tru-Test XR5000 scale**, see Appendix C.
- **To import Stud Book breeding values**, see paragraph 32.
- **To view the general data of an animal on the main window**, go on the Animal View to the General view window or go on the Herd View to the General, Identification and Birth sections.
- **After the animal data has been imported, the following information can be added, where available:**
 - **To record purchase data** (purchased from whom, purchase date, price, etc.) of the above imported animals, see paragraph 13. Use the **Help** function if necessary.
 - **To assign animals to camp groups**, see paragraph 18. Use the Help function if necessary.
 - **To record the average tax and market values** for various categories of animals, go to Reports > Animal Lists and Numbers > Animal Numbers and Values. Select Calculation Method at the top left of the window and click on the Add and Edit Animals Numbers Calculation Methods icon, complete the Market and Tax Value columns and Save.
 - **To record the book and market value of individual animals**, go to Animals > Edit Animals (Table Layout). Use the Help function if necessary. **Please note:** When purchase data of animals is recorded (Other Data > Purchases), the purchase price will automatically be entered as the book value of the animal, provided that the book value of the animal was not already recorded.
 - **To mark your breeding bulls and AI-bulls as breeding/AI-bulls**, go to Animals > Add and Edit Animals (Single animal layout), highlight the applicable bull, make a tick mark in the field "Breeding/AI Bull" and click Save. Bulls marked as a breeding bull are listed separately under the "Breeding Bulls" category on the main screen's Herd View in the Category column as well in the Animals Numbers and Values report. The breeding bulls will also be listed on top the list of bulls when recording matings.
 - **If a bull is used in more than one herd** (e.g. stud and commercial) **that is on the same database**, go to Animals > Add and Edit Animals (Single Animal Layout) > General Data and mark the field "Visible for Reproduction in All Herds" and click Save. A bull marked as such will be visible in the other herd(s) on the Matings screen in the list of bulls to select as the bull and on the on the Calving screen to select as the sire of a calf. However, the bull will not be listed in the other herd(s) as an active animal in the herd list.

11. Create animal records manually: (if applicable)

- If the basic animal data of all animals in the herd couldn't be imported (refer paragraph 10), then it should be recorded manually. For this purpose, it is recommended to use the **Add Animals Wizard** window (Animals > Add Animals Wizard) to quickly and easily create animal records. [The Add and Edit Animals (Single Animal Layout) screen can also be used, but the Add Animals Wizard is the easiest way to create new animal records]. **Please use the calving window (Reproduction > Calving) to enter calvings.**
- On the Add Animals Wizard window, under "What do you want to do?" choose the option applicable to your herd and available data, e.g. Add a New Animal: Minimal Data – Commercial Animal and follow the instructions.
- The **minimum data** necessary for an animal record is ID no. (Farm), Sex, Breed, Birth date, Status (Active = Alive/In herd, Non-Active = Dead/Not in herd) and Registered or Commercial. **[Please note:** If an animal's precise birth date is unknown, then please enter an approximate date, e.g. 01 Oct 2014 for animals born in 2014 and check the Birth Date Uncertain box].
- If you want to **link the animals to a camp** on this screen, the camps must be set up first. (See paragraph 18 of this manual). If Animal in No Camp is selected at Camp, what is entered by default in Date in Camp and Reason will not be saved, so leave it unchanged.
- The field Herdmark (if applicable) and Year (of birth) will be completed automatically. **As soon as the Sequence number is completed, the program will automatically create the IDNo (Visual)** in the format set up at Settings > Herds > ID Methods and Numbering > Default ID Format. (See paragraph 6 of this manual). If needed, the default IDNo can be changed.

- **Begin with the oldest animals** in the herd and work down to the younger animals. If you want to record the **dam and/or sire** of an animal, first create an animal record for the applicable parent(s). When you create the animal record, you can then choose the parent(s) by clicking on the dropdown next to the parent field and choose the parent from the list. If the sire or dam is not in the herd, create it with Status as Non-active.
- **To view the general data of an animal on the main window**, go on the Animal View to the General view window or go on the Herd View to the General, Identification and Birth sections.
- **To change (or delete) an animal record**, see paragraph 15.
- **After the animal data has been created, the following information can be added, where available:**
 - **If the purchase data** (e.g. purchase date, purchase price, bought from) **has not yet been recorded on the Add Animals Wizard screen**, it can be recorded on the Purchases screen. See paragraph 13. Use the **Help** function if necessary.
 - **To record weights**, see paragraph 29.
 - **To record the average tax and market values** for various categories of animals, go to Reports > Animal Lists and Numbers > Animal Numbers and Values. Select Calculation Method at the top left of the window and click on the Add and Edit Animals Numbers Calculation Methods icon, complete the Market and Tax Value columns and Save.
 - **To record the book and market value of individual animals**, go to Animals > Edit Animals (Table Layout). Use the Help function if necessary. **Please note:** When purchase data of animals is recorded (Other Data > Purchases), the purchase price will automatically be entered as the book value of the animal, provided that the book value of the animal was not already recorded.
 - **To mark your breeding bulls and AI-bulls as breeding/AI-bulls**, go to Animals > Add and Edit (Single animal layout), > General Data, highlight the applicable bull, tick the field "Breeding/AI Bull" and click Save. Bulls marked as a breeding bull are listed separately under the "Breeding Bulls" category on the main screen's Herd View in the Category column and also in the Animals Numbers and Values report. The breeding bulls will also be listed on top the list of bulls when recording matings.
 - **If a bull is used in more than one herd** (e.g. stud and commercial) **that is on the same database**, go to Animals > Add and Edit Animals (Single Animal Layout) > General Data and mark the field "Visible for Reproduction in All Herds" and click Save. A bull marked as such will be visible in the other herd(s) on the Matings screen in the list of bulls to select as the bull and on the on the Calving screen to select as the sire of a calf. However, the bull will not be listed in the other herd(s) as an active animal in the herd list.

12. Download and import Logix (or Intergis) data: (if applicable)

If you are a **Logix (or Intergis) user**, you can extract the data of your own animals and purchased animals from Logix (or Intergis) for importation into BenguFarm BEEF – see the instructions below at paragraphs 12.1 and 12.2.

If you are **not a Logix (or Intergis) user**, you can unfortunately *not* download data of animals (e.g. an AI bull or purchased animals) from Logix. You can, however, log in as a guest on Logix and download sales catalogues and certain other reports. If you want to import the Logix data of an AI bull or registered animals you purchased into BenguFarm, please contact SA Stud Book at telephone number 051 4100 900 or send an e-mail to help@logix.co.za and ask to send you the 5-generation Logix BEEFDATA file of the animal(s).

See paragraph 10 for **other options** to import new animals and/or AI bulls' data.

If, for any reason, you are *not* able to import the applicable animals' data electronically into BenguFarm BEEF, you will have to **create the records by hand** from data you obtained from the seller or the information on the sale catalogue. See paragraph 11 for instructions to do this.

12.1 Download Logix (or Intergis) data:

Please note:

- **Newly bought animals:**
 - **If Logix/Intergis is not open for your particular breed (so you only have access to animals in your own herd), newly bought animals should be transferred to your herd before you can download their data.**
 - **If Logix/Intergis is open, (so all breeders have access to all animals in the particular breed), newly bought animals' data can be downloaded even before they are transferred to your herd.**

To download your entire herd's Logix (or Intergis) data:

- Go in Logix (or Intergis) to Services > Data Extraction > Farm Software Complete (V4) > Fill in your Participant Code > Choose the breed (if applicable) > Select the number of generations to be included (we recommend selecting 5 generations) > Submit > Wait for the file to be created.
- You now have the choice to download the data via one of two file formats, namely a csv or a zip file format. The zip format is smaller and thus quicker to download. **Right** click on the file of your choice and select Save Target As or Save Link As, depending the browser you use). Save the file in a suitable place on your computer. (E.g. C:\BenguFarm\Beef\Imports\Herd).
Please note: Do NOT open this file in Excel, for this can result in you not being able to import the data into BenguFarm BEEF and/or dates may import incorrectly.
- See "Import Logix/Intergis animal data" below for instructions to import this data into BenguFarm BEEF.

To download missing or specific animals' Logix (or Intergis) data:

- **Option 1 – Logix Direct (recommended option for herds with SA Stud Book as service provider):**
 - **Please note:** With this function you can only import data of animals already transferred to your herd. To download and import data of animals NOT belonging to you (e.g. an AI bull or animals bought but not transferred yet as well as loan bulls where you are not the owner as well as "keeper" on Logix), see Option 2 below.
 - To download and import **missing animals'** data (e.g. *all* animals recently bought and already transferred to your name), go in BenguFarm BEEF to Data Send/Import > Logix Direct > Import Missing Animals.
 - To download and import **specific animals'** data, go in BenguFarm BEEF to Data Send/Import > Logix Direct > Import Animals. On this window you can specify the computer number **or** the breed, sex, HDM, year and sequence number of the animals to be imported and the number of pedigree generations to be imported. It is recommended to select 5 generations.
- **Option 2:**
 - Go to the Logix website **www.logix.org.za** (or Intergis website www.intergis.agric.za) and log in with your username and password. (If you are not a registered Logix user, you can apply online on the Logix home page).
 - Go in Logix (or Intergis) to Services > Data Extraction > Farm Software Complete (V4) > Choose Animals > Create a new Group (give any suitable name to the group, e.g. Group 1) **or** Select an Existing Group from the dropdown list, if applicable, and click Submit > Add Animal > Fill in the animal's computer number **or** ID number in the format Breed code/Sex/Year/Sequence No > Submit > Mark the animal in the box to the left of its No > Add Animal to List [**or** Add Animal to List and choose more, if applicable] > Repeat until all the applicable animals have been chosen and added to the list > Generate Report > Select the number of pedigree generations to be included (we recommend you to choose 5 generations) > Submit > Wait for the file to be created.
 - You now have the choice to download the data via one of two file formats, namely a csv or a zip file format. The zip format is smaller and thus quicker to download. **Right** click on the file of your choice and select Save Target As (or Save Link As, depending on the browser you use). Save the file in a suitable place on your computer. (E.g. C:\BenguFarm\Beef\Imports\Herd).
Please note: Do NOT open this file in Excel, for this can result in you not being able to import the data into BenguFarm BEEF and/or dates being imported incorrectly.
 - See "Import Logix/Intergis Animal Data" below for instructions to import this data into BenguFarm BEEF.

Notes:

- If you have enquiries about Logix electronic data, please contact SA Stud Book on telephone number 051 410 0900 or send an e-mail to **help@logix.co.za**.
- To change or add your e-mail address in Logix, or if you want to change or check your Electronic Data Capture status, please contact Philna Moelich at telephone number 051 410 0900 or send an e-mail to **philna@studbook.co.za**.

12.2 Import Logix (or Intergis) animal data into BenguFarm BEEF:

- Before you proceed to import the data into BenguFarm BEEF, please make a backup of your BenguFarm BEEF database (File > Backup and Restore > Backup).
- Go in BenguFarm BEEF to File > Change Active Herd To and select the herd in which the data should be imported.
- **Go to Data Send/Import > Import > Database > Logix (or Intergis) Main Data File.** Browse for the csv or zip format data file (BEEFDATA_...) where you saved it. **Please note:** The zip file format can be imported directly, without the need to extract the data. Make sure the Stud Book/ARC Member No (seven characters, e.g. 0567890), HDM and Breed are completed. Select the relevant importation options (The default options are usually in order) and click on Import. Please note the **Delete Bull Progeny of Other Owners** option to remove the progeny of bulls (such as AI bulls) born in other herds during the importing to prevent unnecessary animals from being imported into the database. Use the **Help** function if necessary.
- Go to File > Support and run Remove DB Null Values and Recalculate Summary Information.
- To check if the animal data has been imported correctly, click on the arrow next to the white block on the main window and look if the animals that were imported appear on the "Active" list.

Please note:

- If the Stud Book/ARC Member No was entered incorrectly when you imported the data, the active animals will be listed incorrectly with status as "Non-active". To set the Stud Book/ARC Member No in BenguFarm BEEF, go to Settings > Herds > General > Society (Stud Book) Member No.
- **Animals which were not yet transferred to your herd** when you've downloaded the data via Logix will be listed in the non-active animals list after you have imported the data into BenguFarm BEEF. To move the animals to the active list, switch on the "Non-active" filter, find the particular animal(s) on the list, go to Animals > Add and Edit Animals window and change in the Status field from "Non-active" to "Active".
- If you also do not find a relevant animal(s) with the non-active animals, make sure that the ID number is not, for example, ABC 180038 (with a space after the HDM) instead of ABC180038. Try searching for the animal on computer number at Animals > Search Animal.
- **IA bulls and other bulls, of which you are not the owner**, will be imported with Status as "Non-active". They will therefore not be displayed on the "Active" animal list. To ensure that these bulls are displayed on top of the list of bulls on the Natural Matings/AI window, go to the Add and Edit Animals window, switch on the "Non-active" filter, find the applicable bulls and mark (highlight) these bulls. Make a tick mark in the field "Breeding/AI Bull" and click Save. **Please note:** The field "Breeding/AI Bull" will only be displayed if the applicable animal is a male.
- If you have previously recorded the animals in question manually on BenguFarm, **make sure that no duplicate animal records have been created with importing of the Logix data.** To find duplicate animals, see paragraph 45.

13. Purchases – Animals and semen of AI bulls:

Purchased animals:

- **To import or record the animal data of purchased animals in BenguFarm**, see paragraphs 9 and 10 above.
- **To record** (or edit/delete) **the purchase data** (purchased from whom, purchase date, price, etc.) **of purchased animals**, go to Other Data > Purchases. Use the **Help** function if necessary. **Please note:** If animal records are created manually by using the Add Animals Wizard screen, the purchase information can be recorded on that screen.
- **To create a report of animals that were purchased**, go to Reports > Purchases, Auctions, Sales, Deaths and Culls > Purchases.
- **To view the purchase data of an animal on the main window**, go on the Animal View to the General view window and scroll down to the purchase data fields or go on the Herd View to the Purchases section.

Purchased semen of AI bulls:

- **To import or record the animal data of an AI bull(s)** from Logix (or Intergis), see paragraphs 10 and 11 above.
- Because you are not the owner of the AI bull(s), you will need to use the option to download and import *specific* animals' Logix/Intergis data.

- Such AI bull(s) will be imported with status as Non-active. Keep the status of AI bulls as non-active to ensure they are not included in your herd list.
- To **record the semen of AI bulls in the Semen Stock register** (optional), see paragraph 60 of this manual.

General:

- **To ensure that the breeding bulls, including AI bulls, are displayed on top of the list of bulls on the Natural Matings and AI windows**, go to the Add and Edit Animals (Single Animal Layout) window, find the applicable bull (in case of AI bulls, remember to switch on the "Non-active" filter) and mark (highlight) the bull. Make a tick mark in the field "Breeding/AI Bull" and click Save. This will also ensure that active breeding bulls are listed separately in the "Breeding Bulls" category on the main screen's Herd View in the Category column as well on the Animals Numbers and Values report (Reports > Animal Lists & Numbers > Animals Numbers and Values)
- **If a bull is used in more than one herd** (e.g. stud and commercial) **that is on the same database**, go to Animals > Add and Edit Animals (Single Animal Layout) > General Data and mark the field "Visible for Reproduction in All Herds" and click Save. A bull marked as such will be visible in the other herd(s) on the Matings screen in the list of bulls to select as the bull and on the Calving screen to select as the sire of a calf. However, the bull will not be listed in the other herd(s) as an active animal in the herd list.
- **If you need help with downloading Logix data of an AI bull or registered animals you purchased**, please contact SA Stud Book at telephone number 051 4100 900 or send an e-mail to help@logix.co.za and ask to send you the 5-generation Logix BEEFDATA file of the animal(s).
- **To link animals to camp or management groups**, see paragraph 17. Use the **Help** function if necessary.

14. Check if all the animals are on record:

- **To view the important data of animals in table layout on the main screen**, go to the Herd View.
- **To view the data of a single animal on the main screen**, go to the Animal View, select the animal's ID number in the box (pink or blue) at the top left of the main screen, then click on the relevant view window's link.
- **To check if all the animals are in BenguFarm BEEF**, you can **create a herd list report** by going to Reports > Animal Lists and Numbers > Herd List. **Please Note:** If the Stud Book/ARC Member No. was not entered correctly when you imported the Logix data (see above), the active animals will be listed incorrectly with status as "Non-active".
- **To create an animal numbers and values report** which will show the number of animals in the herd per category (calves, cows, bulls, etc.), go to Reports > Animal Lists and Numbers > Animal Numbers and Values. See paragraph 18 for more information on how the categories are defined, etc.
- **To check if duplicate animal records have been created and/or imported**, see paragraph 45.

15. Edit and delete data:

- **To edit or delete general animal data** (e.g. sex, birth date, ID number, sire, dam, status), there are basically three windows that can be used, namely:
 - **Animals > Add and Edit Animals (Single Animal Layout):** Use this window for changes to single animals or unique fields such as ID No. Use the **Help** function if necessary.
 - **Tip:** The Add and Edit Animals window can be used for single animal editing as well as multi-animal editing. To select a single animal, click ONCE on the animal's number so that the number is only highlighted. To select multiple animals, DOUBLE click on an animal's number so that a tick appears in the box next to the number. Then click Multi Edit at the bottom left of the window.
 - **Animals > Edit Animals (Table Layout):** Use this window for the same change to multiple animals, e.g. to change the calving season for a group of calves. The screen can also be used to delete animal records, if necessary. Use the **Help** function if necessary.
 - **Reproduction > Calving window:** If you want to change something (e.g. a calving date) on an existing calving, choose the applicable cow, click on the "N" next to her number and choose the calving you want to change. Use the **Help** function if necessary.
- **To edit or delete specific (non-general) data** (e.g. matings, pregnancy tests, weights/traits not linked to a test, vaccinations, illnesses and treatments, procedures, purchases and sales), go to the window where the relevant type of data was originally entered. If, for example, natural matings need to be changed, go to Reproduction > Matings > Natural Matings. To display the existing data that needs to be changed, click at the top right of the window on **Load Existing Records**. When the animal or group of animals was selected, this animal(s) data can be edited and saved. If the same change needs to be made for several animals, mark the specific animals which data need to be edited with a tick in

the first ("S" = **Select**) column. Now the relevant data can be changed in the Multi Edit / Add New area at the top of the window and saved. Use the **Help** function if necessary.

- The **Data Navigator** window [Animals > Data Navigator] can also be used to edit data and delete records of various types. Use the **Help** function if necessary.

16. Backup and Restore of the database(s) and other info:

- **VERY IMPORTANT!!! Please read the following paragraph carefully.**
 - **The BenguFarm database, photos, et cetera are NOT kept in the cloud, in other words it is kept on the computer itself.** This means that if the computer is stolen or the hard drive get damaged or a virus damages the computer files, the BenguFarm data, et cetera will be lost.
 - **It is critically important to make a backup of your BenguFarm database(s), saved report layouts, photos & documents, etc. on a REGULAR basis,** especially after you have added or edited some data, before you let someone else work on your computer, etc.
 - **It is equally important to save the backup in a SAFE PLACE,** e.g. a cloud-based place like Dropbox, GoogleDrive or OneDrive and/or on an external hard drive or memory stick. Keep this external hard drive or memory stick in a safe place separate from your computer to prevent it being stolen with your computer.
- **To change the default place where your backup files will be saved,** go to Settings > Herds > Default Folders for Files > Default Folder where Backup Files will be Saved. **Please note:** The default place on the computer's hard drive (C:\BenguFarm\Beef\Backups\[Herd]) is NOT a safe place to save the backup, since it will be lost if the computer is stolen or get damaged.
- **To make a backup,** go to File > Backup and Restore. Under the heading Create a Backup, select the type of data (Database(s), Saved Report Layouts, Photos & Documents) of which you want to make a backup. Under the heading Make Backup To, select the location where you want to make the backup file. Click to the right on Backup to make the backup. Use the **Help** function if necessary.
- If you have more than one database in BenguFarm, remember to make a backup of each database.
- **To make a backup that includes everything** (database(s), saved report layouts, photos & documents, etc.), select Full System Backup (BFSysBackup folder).
- From time to time you may delete old backup files not necessary anymore.
- **To set up a BenguFarm reminder to make backups on a regular basis,** go to Settings > Herds > Reminders.
- **To restore a backup:**
 - Go to File > Backup and Restore.
 - If you have more than one database on BenguFarm, ensure you are in the correct database.
 - It is always a good idea to make a backup of the current data before backing up - just in case something goes wrong.
 - To restore a **database** backup, the option Restore Full System Backup option (Select BFSysBackup directory) under the heading Restore a Backup should NOT be selected. Click on Browse, go to where the backup was saved, select the **Database Backup**_[date+time] file, click Open and click Restore.
 - To restore a **full system** backup, select the option Restore Full System Backup (Select BFSysBackup directory) under the heading Restore a Backup. Click on Browse, go to where the backup was saved, select the **BFSysBackup**_[date+time] **folder**, click Open and click Restore. **Please note:** If a full system backup is restored, ALL databases' data will be overwritten.
- **To transfer data from one computer to a new or another computer:**
 - **On the old computer:**
 - Insert a memory stick on which you are going to make a BenguFarm backup into the computer.
 - Open BenguFarm and go to File > Backup and Restore.
 - Under Make a Backup, choose from What Type of Data do you want to make a Backup the option Full System Backup (BFSysBackup folder).
 - Click on Browse and select the memory stick drive and a folder where you want to make the backup.
 - Click on Backup. In the selected folder a sub-folder with the name BFSysBackup_[date+time] in it will be created where all the applicable data, photos, etc. will be saved.
 - Remove the memory stick with the backup from the computer.
 - **On the new computer:**
 - Insert the memory stick with the backup you've made into the new computer.
 - Make sure BenguFarm is the same or newer version than on the old computer. (See the top of the main screen for the version date).

- Open BenguFarm and select Restore a Backup from the Welcome window.
 - Under the heading Restore a Backup, select the option *Restore Full System Backup (select BFSysBack... folder)*. Click on Browse and go to where the backup is on the memory stick and select the BFSysBackup_[date+time] folder.
 - Click Restore.
 - To register BenguFarm on the new computer, call Naomi Havenga at 082 696 8306 and give her the Computer Identification Code at the top left of the Registration screen and your BenguFarm account name number (BPU_____).
 - All your BenguFarm data, photos, settings and own reports should now be on your new computer.
- **Please note:** All settings of all herds (where applicable) on the relevant database is included in the backup of the database. Existing settings are therefore overwritten when a backup is restored.

17. Access to and synchronisation of data between computers:

BenguFarm can be installed on more than one computer with one license (i.e. no extra cost), provided it is used only for the registered user's herd(s). Follow the same steps for installation and registration on the additional computer(s) as on the first computer.

VERY IMPORTANT!!!

The BenguFarm database is NOT "cloud" based, it is on the hard drive of the relevant computer on which the program is installed. This means that data recording/editing can normally only be done on one computer, unless the BenguFarm database is moved to a network server ("server") - see the network option below.

If you have installed BenguFarm on more than one computer, there are various options to synchronise the data between computers and to give access to all the persons who need to work on BenguFarm to the newest data on BenguFarm. These options are:

- **Master computer option:** With this option (which is presently used by most farmers), the owner should decide on a master computer, i.e. the only computer on which new data will be entered and changed. A backup of the BenguFarm database is then made on a regular basis on the master computer, shared (e.g. via memory stick, e-mail, Teamviewer's File Transfer or Dropbox) with the other users and each of them then restore the backup on his/her computer. The other users therefore use the program only for queries and reports, in other words they do not enter new data or change or delete data. This process is very quick and easy. **Note:** The first time a backup is made on one computer and restored on another computer, a registration and access code will be necessary to register that BenguFarm database on the new computer. After that backup and restore can be done without the need for a registration and access code. [See paragraph 15 for backup and restore functions].
- **Network option:** If the computers are linked to a network, e.g. a LAN, BenguFarm can be installed on various computers, the BenguFarm database can be put on the server and each computer's BenguFarm linked to the database on the server. This way everyone has simultaneously access to the same live database. Depending on some technical aspects, the program can in certain cases be a bit slower because it needs to access the database via a network. Many of our clients make use of this option and, provided the server is always on and all people have always access to the server, this option works well. For instructions to set up BenguFarm for a server, contact your BenguFarm agent or Mr. Leslie Bergh at leslie@benguelasoft.co.za or 0828012026.
- **Multiple database option:** This option works well where there are for example two managers, each on a separate farm, who are responsible for the data recording on BenguFarm of the herds/species on a specific farm, e.g. Farm A and Farm B respectively. In such a case, separate databases for each manager/farm can be set up and registered. On the owner's computer two databases can be set up and registered, one for Farm A and one for Farm B. The manager of Farm A can on a regular basis make a backup on his computer of Farm A's database and it send (via e-mail, Dropbox, etc.) to the owner. The owner can then restore the backup on his computer without effecting the data of Farm B. The same apply for farm B. In this way the owner can have access to the newest data without working directly on the two master databases.
- **TeamViewer option:** TeamViewer software enables a person (through a Teamviewer ID number and password which the other person should provide) to get access to the other person's computer via the internet. The Teamviewer option can work if the parties involved have relatively fast internet service. The only problem with this is that the remote computer is not available for the person to work on while the remote person is busy on it via TeamViewer.

NOTE:

You need to follow the steps up to paragraph 17 to ensure BenguFarm BEEF is ready for further use. In Part B of this manual we will explain the recording and other functions which are necessary for the basic use of BenguFarm BEEF. Some of these functions are only applicable to herds which are members of SA Stud Book's Logix Beef and/or doing performance testing through the ARC's National Beef Recording and Improvement Scheme. Where applicable, these functions are indicated in the respective sections. Additional functions are explained in Part C.

PART B – BASIC FUNCTIONS:

18. Groups – Calving Seasons, Camps, Management Groups and Other:

Animal numbers categories:

BenguFarm *automatically* link animals to an Animal Numbers category (e.g., Heifer Calves, Young Heifers, Breedable Heifers, Young Cows, Mature Cows, Old Cows) based on the animal's age, sex and (for female animals) whether progeny is on record (cow) or not (heifer). For example, when a heifer's first calving is recorded in BenguFarm, its category will *automatically* change from Breedable Heifers to Young Cows. Please note that older cows without progeny on BenguFarm, regardless of age, are categorised as Breedable Heifers. The animal numbers categories are displayed on, among other places, on the main screen > Herd Layout > General > Category.

To see the criteria for the various animal numbers categories, go to Reports > Animal Lists and Numbers > Animal Numbers and Values. At the top left of the screen at Select Calculation Method, click the setup shortcut button (red notebook). The Default Cattle Numbers method cannot be changed. If the Default Cattle Numbers method does not meet your needs, you can set up your own method by clicking New or Copy. We recommend selecting the Copy option, only change it as needed and then save it with a name. Please discuss your own criteria with your BenguFarm BEEF agent to ensure that the criteria are set up so that certain animals are not excluded from the count. **Tip:** To record average tax and market values for the different categories of animals, complete the Market Value and Tax Value columns and Save. To select a different calculation method as the default method for the particular herd, go to Settings > Herds > Reminders > Default Animal Numbers Calculation Method.

To create an animal numbers and values report which will show the number of animals in the herd per category, go to Reports > Animal Lists and Numbers > Animal Numbers and Values. There are two options for the report: The Category View lists the number of animals per category with values (if set up) and livestock units (LSU). The Camp View lists the number of animals per category per camp.

Own Set Up Groups:

In BenguFarm BEEF different type of groups can be set up and animals linked to it. The different types of groups are called Categories, e.g. Calving Seasons, Camps, Management Groups, etc. Under each category, the relevant groups are set up. Under Calving Seasons, for example, a calving season "Spring 2019" can be set up to link all calves born in that season to it.

Groups are used to select a group of animals easily, quickly and accurately for recording data (e.g. to record results of pregnancy tests for all animals in Camp 1) or for inclusion in a report (e.g. to create a weighing list for all calves born in the Spring 2019 season), to have an inventory to check if all animals are in a camp or group, to know in which camp or group to look for an animal, to record feed and/or lick usage per camp and to calculate pasture utilization per camp.

Please note:

- Animals can *not* be linked to a category; they should be linked to groups of the applicable category.
- Groups in different categories are independent of each other. An animal can, for example, be linked to a certain calving season, camp and management group.

Calving Season Groups:

- Calving seasons are used when entering matings and pregnancies to indicate in which season the applicable cows should calf. When calves' birth data are recorded on the Calving screen, BenguFarm will, if the calving season is chosen, link the calves to the relevant calving season. It can then be used, when necessary, as a group to select the relevant calves for weighing, vaccinations, etc. We strongly recommend that you do set up and use calving seasons when recording matings and calvings. **Tip:** If calves are for some reason not linked to a calving season or linked to the incorrect season, it can be done/corrected at Animals > Edit Animals (Table Layout).
- **PLEASE NOTE:** When matings are recorded, the relevant *mating records* should be linked to a calving season, not the cows themselves. When the calves are born, the calves are linked to a calving season. Calving season can then be used later as a group to select calves for recording weights, vaccinations, etc.
- **To set up a new calving season**, go to Settings > Calving Seasons and click on the "+" (right bottom corner of the window). It is recommended that you use the year and first letter of the season for the calving season code, e.g.:

		Calving Season		Mating Season		Calvings	
Herd	In Use	Code	Name	Begin Mating	End Mating	Start	End
ALL	√	2017S	Calves born 2017 Spring	15 Nov 2016	15 Feb 2017	calculated	calculated

After the new calving season has been saved, select the **Current Calving Season** in the yellow area of the window and click on Save.

Please note: Remember to do the necessary settings with each new calving season and to choose that calving season as the current one.

Tip: For an article on the benefits and how to implement breeding seasons, contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.

Camp Groups:

- Camps are used to link animals in BenguFarm to keep record of which animals are or were in which camps on a specific date. It can then be used for stock take. It is also used to calculate the pasture utilization per camp and to record feed and/or lick usage per camp.
- To set up a new camp**, go to Settings > Camps and click on the "+" (right bottom corner of the window), for example:

Herd	In Use	Device	Code	Name	Scale ID	Size (ha)	Type of grazing	Carrying Capacity (ha/LSU)	Total LSUs
ALL	√	√	FC1	Fairview Camp 1	FC1	25	Sour bushveld	5	5
ALL	√	√	FC2	Fairview Camp 2	FC2	32	Sour bushveld	6	5.3

Please note:

- The setup of camp sizes and carrying capacity per camp is optional, but it is important to get the full benefit of the Pasture Utilisation per Camp report (see the paragraph below for more info).
- If you have a feedlot, you can create the various pens as "camps" in BenguFarm.
- The category Camps on Farm is set up to allow an animal to be in only ONE camp at a time. If an animal is moved from one camp to another, it is automatically removed from the previous camp.
- If applicable, complete the camp code as it is captured on your scale software in the Scale ID field.

Management Groups:

- Management groups are used to link animals that are managed together, regardless of in which camp(s) the group is to a group in BenguFarm, e.g. Young Heifers, Pregnant Heifers, First Calf Cows and Mature Cows. **Please note:** The actual management groups on the farm dictate how the management groups in BenguFarm should be set up, not the other way around. **Tip:** If camp groups are not going to be used (e.g. where intensive rotational grazing is applied and animals are moved with short intervals between camps), the category Camps on Farm can be used instead of Management Groups for setting up management groups. It has several advantages, among other things, that the Camp group option on the Select Animals screen can be used to quickly and easily select a specific management group, record can be kept in BenguFarm of dates and reasons why animals were moved between management groups, movements can be recorded at different locations in BenguFarm, etc.
- We recommend that management groups be set up that an animal can only be in one management group.** To do this, go to Settings > Groups and Camps > Select Category > Management Groups > Add/Edit/Remove Categories and select the option **Only in One Group**.
- Tip:** At Settings > Herds > Other > Default Group Category, the most often used groups category can be selected.

Cull and Sale Groups:

- Cull and Sale Groups are used to link animals to be culled or sold in BenguFarm, for example cows for possible culling, weaners to sell, feedlot animals to sell and production sale animals. These groups allow you to choose animals to be culled or sold, irrespective in which camps or management groups these animals are in. Animals linked to a cull or sale group therefore remain in their respective camp or management group until such time as they are sold.

- The default setting of the category Cull and Sale Groups is that an animal can be in more than one cull or sale group at a time. To change it so that an animal can only be in one cull or sale group at a time, go to Settings > Groups and Camps > Select Category > Add/Edit/Delete Categories > check the Only in One Group box next to the Cull and Sale Groups > Save > Exit.

Link or move animals to a camp or group:

- **To link animals to a group (e.g. a camp or management group) or to move animals between groups or camps**, go to Other Data > Move Animals to another Camp or Group. Use the **Help** function if necessary.
- **Animals can also be linked or moved to camps or groups on various recording screens and some report screens by selecting the relevant animals in the S column and clicking on Link Animals to Group.** This feature has several options, e.g. to move selected cows' calves to the same or another camp as the dams.
- **Animals can also be linked to a camp** on the Add Animals Wizard, Add and Edit Animals (Single Animal Layout) and Edit Animals (Table Layout) screens.
- **To link animals which are in a management group to a camp (or vice versa)**, go to Other Data > Move Animals to Another Camp or Group. Select the camp to move the animals to the right at the top of the screen as the active group. In the middle of the screen (under the heading Add / Remove Animals by Group / Camp), by Category, select Management Groups. At Group / Camp, select the relevant management group. Click on the black arrow on the right of the Group / Camp to place the animals in the relevant management group in the camp concerned. Use the **Help** function if necessary.
- **To edit *existing* camp movements of an animal**, go to Animals > Add and Edit Animals (Single Animal Layout) > General. At the Camps field, click the Edit Camp Movement History button.
- **To create a report of animals per camp or group**, go to Reports > Camps and Herds > Animals per Camp or Group. **Note:** The animals that are *not* assigned to a camp are listed in a "camp" with code "[none]".
- **To create a report of animal movements between camps**, go to Reports > Camps and Herds > Camp Movements.
- **To create a report of the pasture utilisation of camps for a certain period**, go to Reports > Camps and Herds > Pasture Utilisation per Camp. This report will only be available if the camps are set up with at least the camp sizes. **Tip:** Click the Calculate information button at the bottom right of the screen to see how the calculations are done. **Please note:**
 - This report uses the camp movement history in BenuFarm. It is therefore critical that this data is available for the period for which the report is created.
 - To get the full benefit of this report, specifically the percentage utilisation of the various camps, it is important to set up camp sizes and carrying capacity (LSUs/ha) per camp at Settings > Camps.
 - Animals that have been sold or died should be recorded with the date, etc. at Sales, Deaths and Culls (i.e. their status should not be simply changed to Non-active) to ensure that the period in the last camp is calculated correctly.
 - To see how the number of LSUs is calculated for different animal categories, go to Settings > Herds > Reminders > Default Animal Numbers Calculation Method and click the settings button. Please ensure that the applicable frame size is selected at Settings > Herds > Body Measurements > Cows' Frame Size.
 - The number of LSUs is calculated according to the category in which the animal concerned was at the time when the animal was in the camp.
- **To view the camp data of an animal on the main window**, go on the Animal View to the General view window and scroll down to the camp information fields or go on the Herd View to the Camp section. **Tip:** Filter the relevant camp at the Group Filter to only see the animals of a specific camp on the Herd View.
- **To view other groups (e.g. management groups) in which an animal is on the main screen**, go to the Animal View to the General view window and scroll down to the My Groups field or go on the Herd View to the General section. If there is no column for Management Groups on the Herd View, go to Display Options, select the Show Groups of Category option, select Management Groups, and click Save Options as Herd Default.

Performance Test Groups:

- A performance test group is normally a subgroup of animals born in the same calving season. The purpose of performance test groups is to define a group of animals where the age distribution is within the allowable age distribution for performance testing (see Settings > Herds > Performance Test Groups). These groups can then be selected to be included in a specific performance test. Calves are

assigned automatically to performance test groups on the calving window. For example, calves born during the first 100 days of calving season 2017S are assigned to performance test group 2017S-0, the next 100 days to performance test group 2017S-1, etc.

- If necessary, the **performance test group assignments can be changed** by going to Performance Testing > Performance Test Groups. Use the **Help** function if necessary.
- **Please note:** Animals do *not* need to be linked to a performance test group to be included in a performance test – it just makes it easier to select animals for a test.

Filter Groups:

- A filter group is a group of animals as selected by a certain set of criteria. These criteria can be specified and saved in the My Animal Data report [See Reports > My Reports > Animal Data > Select Animals (Criteria)]. You can for example setup criteria to list all active female animals born in a certain year and that did not calve yet. These criteria can then be saved for later use. Animals can be selected via saved filter groups on the Choose Animals window, on the main window > Herd Layout > Group Filter as well as in the My Animal Data reports. **Please note:** It is important to note that a filter group is thus not a specific selection of animals stored somewhere in the database. The animals in the group are determined by the stored criteria and the applicable field values of the animals in the herd at the point in time when the filter group is selected.

Birth Contemporary Group settings:

- **Please note: *These settings are only necessary if you have a stud herd, using SA Studbook (Logix) as service provider and weigh calves at birth.***
- Birth contemporary groups are only used to allocate calves to the applicable birth weight contemporary group for breeding value estimations for birth weight.
- **To set up a new birth contemporary group**, go to Settings > Birth Contemporary Groups and click the "+" (right bottom corner of the window).
- The Birth Weight Contemporary Group Code is composed of the Year of Birth + Season + Farm/Management group. In the Year column, select the year in which (most of) the relevant group of calves born was born. In the Season column, select the (sub) season in which the group of the calves are born. We recommend that same season code is allocated to calves which **age differs maximum two months**. If you calves are born for example from 1 September to 30 November, then choose early spring season for calves born 1 Sep – 15 Oct and late spring season for calves born 16 Oct – 30 Nov. In the Farm/Management column a code (it must be two characters) is entered for the farm and/or management group, for example FP for the calves from the farm Fairview where the cows are on Planted Pastures and FN for the calves from the farm Fairview where the cows are on Natural Pasture. For example:

Herd	In Use	Year	Season	Farm/Management Group	Name (Description)
ALL	√	2017	Early Spring	FP	2017 Early Spring calves at Fairview on Planted pastures
ALL	√	2017	Early Spring	FN	2017 Early Spring calves at Fairview on Natural Veld
ALL	√	2017	Late Spring	FN	2017 Late Spring calves at Fairview on Natural Veld

Please Note: Remember to do the necessary birth weight contemporary group settings for each new calving season.

Tip: For an article on the need for and composition of contemporary groups for birth weight, contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.

19. Sending and importing of electronic data:

To import data recorded on RFID Experts' APR500 / APR600 Reader, see Appendix C.

19.1 Synchronise data with BenguFarm MOBILE:

BenguFarm MOBILE is an application (app) for Android and Apple iOS operating systems. BenguFarm-MOBILE can be used to capture all important data on the spot while working with animals. Data that can be captured include new animals (registration), synchronisation of ovulation, matings, pregnancy tests, calvings, weights, general notes, vaccinations, camp/group movements, tests for diseases, illnesses, treatments, inspections, sightings, measurements and scores, procedures, sales and deaths, camp activities (e.g. feed or lick put out) and rainfall.

The information recorded on BenguFarm-MOBILE can be synchronised with the BenguFarm database on the PC/laptop(s). Synchronisation of data can be done via Wi-Fi or Internet (cloud) connection, depending on which method is available and the method preferred by the user.

See the **BenguFarm MOBILE manual** for instructions to synchronise data between BenguFarm MOBILE and BenguFarm BEEF.

19.2 Sending and importing Logix (or Intergis) data:

Please note: This section is only applicable to breeders of societies that register through SA Stud Book and/or members of Stud Book or the ARC National Beef Recording and Improvement Scheme.

If you are a member of a breeders' society that make use of the Breedplan system, see Appendix C or contact your BenguFarm BEEF agent or Mr. Leslie Bergh.

Because of the interdependency of BenguFarm BEEF and data of animals on Logix (or Intergis), we will, where applicable, refer to Logix, the internet access (www.logix.org.za) to the Logix database of SA Stud Book (or Intergis, the internet access (www.intergis.agric.za) to the ARC/Intergis database), and how Logix fits in with BenguFarm BEEF. For more information on Logix, contact Herman Labuschagne of SA Stamboek at 051 4100 900.

With BenguFarm BEEF you can create and send electronic files for matings, embryo implants, birth notifications, performance test data (Phase A & B weights), transfers and cancellations for capturing and processing on Logix. There are several options to send data to Logix, but **we recommend that the Logix Direct File Upload Functionality is used**. To enable it, go to Settings > Herds > Service Providers. Mark the option Use Logix Direct File Upload Functionality, fill in your Logix username, password and your e-mail address and click Save. On the same screen, also make sure the correct e-mail addresses are set up. (See paragraph 6, Settings > Herd Settings > Service Providers). On the same screen, click on the General tab at the top of the screen and make sure the Breed and Society/Studbook Member Number is set correctly. When set up like this, the existing Data Send functions which create electronic files will use Logix Direct (instead of your e-mail programme) to send data to Logix.

Missing computer numbers, PEN animals' sections, DNA verified parentage, missing animals, inspection data, official performance data (adjusted weights, indexes, etc.) and breeding values can easily be imported with the Logix Direct features in BenguFarm BEEF (or via the electronic files received by e-mail) to keep your BenguFarm BEEF database up to date with your herd's data on the Logix database. We recommend that the Logix Direct functions in BenguFarm are used (Data Send/Import > Logix Direct).

To make use of the Logix features, you must have a recorded e-mail address on Logix and be marked "Yes" for Electronic Data Capture. [To check this, go to Logix (www.logix.org.za) and click on Enquiries > Participation > Participant Details. If you are not a Logix user, you can complete an application on-line on the Logix home page at www.logix.org.za.] If you are not activated for electronic data, please contact SA Stud Book on telephone number 051 4100 900 or send an e-mail to help@logix.co.za.

20. Synchronisation: (if applicable)

- **Make sure the applicable values are set up** at Settings > Herds > Mating, Pregnancy and Calving for # Days from Insert to First Injection; # Days from Insert to Second Injection; # Days from Insert to Remove and # Days from Remove to AI / Lapa.
- **To create a list of all breedable heifers and cows**, go to Reports > Matings, Pregnancies and Calvings > Breedable Heifers and Cows (recording list).
- **To record (or edit/delete) synchronisations as well as subsequent actions**, go to Reproduction > Synchronisation. To record additional / follow-up actions data to existing records, click Load Existing Records.
- **To create a report on synchronisations as well as subsequent actions**, go to Reports > Matings, Pregnancies & Calvings > Synchronisation. **Please note:** Actions already done are displayed in normal font; actions that still need to be done are shown in bold and actions that should already have been done are shown in bold red.

- **To view synchronisation data of an animal on the main screen**, go to the Animal View to the Mating and Pregnancy History view screen (the Show Synchronization option at the top right of the view sub-screen must be enabled) or on the Herd Layout to the Sync section.

21. Matings and inbreeding calculation for planned matings:

We recommend that you record the natural matings and/or artificial inseminations/laparoscopies (AIs) in BenguFarm BEEF as soon as the bulls are put with the cows and/or the AIs are done. It has several advantages, including that lists to record pregnancies on can be printed from BenguFarm BEEF and that pregnancy and calving percentages can be calculated per bull (or bull group) and season. When calves are recorded in BenguFarm BEEF on the Calving screen, the possible or most likely sire of the calf is automatically selected from the existing matings for the relevant cow.

The optional **Genetics module** enables stud breeders to **determine, with the aid of breeding values and pedigrees, the best matings** for the breeding goals that he set for his own herd. For more info, contact your BenguFarm agent or Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026 or visit www.bengufarm.co.za > Products > Genetics.

For instructions to do the recording of **embryo flushings or the collection of oocytes, *in vitro* fertilization and embryo implants**, see Appendix D of this manual.

- **To create a list of breedable heifers and cows**, go to Reports > Matings, Pregnancies and Calvings > Breedable Heifers and Cows (recording list). **Tip:** Click Display Worksheet to link animals to groups (e.g. camps or mating groups).
- **To create a list on which specific, *observed* matings can be recorded** (if applicable), go to Reports > Matings, Pregnancies and Calvings > Matings (recording list).
- **To calculate the inbreeding percentages of progeny for possible matings**, go to Reproduction > Inbreeding Calculation for Planned Matings. **Note:** Inbreeding percentages in **red** are higher than the value set (default = 6.25%) for "Warn if the Inbreeding percentage is higher than" at Settings > Herds > Mating, Pregnancy and Calving and such matings should be avoided. Use the **Help** function if necessary.
- **Tips:**
 - Click on the **Common Inbreeding %** button at the bottom of the screen for the inbreeding percentages of some common matings.
 - When the inbreeding percentage of possible matings are calculated and there is inbreeding, go on the Animal Layout of the main window to the Pedigree view window of the concerned parents to see which animal(s) is the **common ancestor**.
 - **Matings can be recorded directly on this screen** by selecting the relevant bull(s) and cow combinations and record the matings for the selected combinations at the bottom of the screen.
 - For an **article on the dangers of inbreeding**, contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.
 - **To create a pedigree report**, go to Reports > Animal, Pedigree and Progeny > Pedigree. **Common ancestors** (which cause inbreeding) will be displayed on a red background on the pedigree report for easy identification.
 - **To see which animals are related to a specific animal** (e.g. a bull), go to Reports > Animal, Pedigree and Progeny > Related Animals.
- **If no mating seasons are used**, record the matings with the Date Bull(s) In the date on which the relevant bull(s) were placed with the relevant group of cows and the Date Bull(s) Out the expected or planned date when the relevant bull or, in this case of multi-bull matings, one or more of the bulls will be removed/replaced. The Date Bull(s) Out of existing matings may be changed, when needed.
- **Before recording matings in BenguFarm BEEF:**
 - Ensure that all the **cows, heifers and breeding bulls (including AI bulls) are on record** in BenguFarm BEEF.
 - If semen has been purchased and **semen stock** are recorded, record the new semen purchases at Reproduction > Semen stock.
 - To ensure that **breeding bulls** (herd sires) are displayed on top of the list of bulls on the Natural Matings and AI/lapa windows, go to the Add and Edit Animals (Single Animal Layout) window, find the applicable bull (in case of AI bulls, remember to switch on the "Non-active" filter) and mark (highlight) the bull. Make a tick mark in the field "**Breeding/AI Bull**" and click Save. This will also ensure that active breeding bulls are listed separately in the "Breeding Bulls" category on the Animals Numbers report (Reports > Animal Lists & Numbers > Animals Numbers).

- If a **bull is used in more than one herd** (e.g. stud and commercial) that is on the *same database* in BenguFarm BEEF, go to Animals > Add and Edit Animals (Single Animal Layout) > General Data and mark the field Visible for Reproduction in All Herds. And Save. A bull marked as such will be visible on the Matings screen in the list of bulls to select as the bull and on the on the Calving screen to select as the sire of a calf. However, the bull will not be listed in the other herd as an active bull in the herd list.
- Ensure that the applicable **calving season** has been created. [Refer the Settings section above to create a new calving season].
- If animals are linked to **camp or management groups**, remember to move the animals of the new breeding groups to the relevant camp or management group in BenguFarm before the new matings are recorded in BenguFarm because then the camp or management group can be used to select the animals for the registration of coverings. If there are also calves in the camp, check at Existing Groups also Birth Date and choose the dates of birth to exclude the calves.
- **To record** (or edit/delete) **matings**, go to Reproduction > Matings and choose the applicable mating method (e.g. Natural Mating). Use the **Help** function if necessary.
- **If AI is followed up with natural matings ("pickup" bulls)**, record the AI on the AI/Lapa window and then the natural mating on the Natural Mating window.
- **If cows/heifers are AIed with more than one bull on the same day**, record a separate AI record for each bull for each the applicable cows/heifers.
- **If multi-sire mating groups are used**, choose in the Bull field the *default* "?MULTISIRE?" record listed directly under the breeding bulls.
 - **Please note:** Do NOT create a "Multisire" animal record yourself, as BenguFarm will consider it as a real bull and then all animals with "Multisire" as sire will be related.
 - To choose the bulls in the specific multi-sire bull group, tick the box next to Multi Sires and then click on the "+" to select the applicable bulls.
 - **To see which bulls are the possible sire of an animal**, go on the main window to the Animal View > Birth view window > Mating Bull(s).
- **If a bull cannot continue mating during the mating season** (sick/injured/dead):
 - Change the Bull Out date on the existing mating records [Natural Matings > Load Existing Records];
 - If the bull died, remove the Breeding/AI Bull mark from the bull's record and record the death on the Sales, Deaths and Culls screen;
 - If the bull is replaced with another bull for the remainder of the mating season, record new mating records for the replacement bull at Natural Matings.
- **To create a report of existing matings**, go to Reports > Matings, Pregnancies and Calvings > Existing Matings (Mating Lists). See Appendix F for expected calving date calculation.
- **To view the last mating data of an animal on the main window**, go on the Animal View to the Last Mating view window or on the Herd View to the Previous and Last Mating sections. **Please note:** Only existing matings, in other words matings of which the cow has not yet calved, are displayed here. To view all the mating and pregnancy data of an animal on the main window, go on the Animal View to the Mating and Pregnancy History view window.

22. **Send matings:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- After the matings have been captured in BenguFarm BEEF (Reproduction > Matings) the mating data should be sent to the SA Stud Book (or ARC) to capture this data on the Logix (or Intergis) database.
- **To send the mating data in electronic format (csv) to SA Stud Book** (or Intergis) (or to print it if you do not have the facilities to send data in electronic format), go to Data Send/Import > Send > Stud Book/ARC > Matings. Select the matings you want to send and click on List Matings according to Selection Criteria.
- Check if there are any **errors**. If there are errors, you first have to fix it, because BenguFarm BEEF will NOT allow you to send matings data if there are any errors. To display the error description, move the computer's cursor over the column heading. Use the **Help** function if necessary. **Please note:** In order to send multi-bull matings, the bulls in question must have been selected when the matings were recorded.
- If you are sure all data is correct and complete, click on **Create Electronic File** to create and send an electronic file of the selected matings. If the Use Logix Direct File Upload Functionality (see Settings > Herds > Service Providers) or use SMTP Direct E-mail option (see Settings > Herds > E-mail) is selected, the electronic file will be sent directly (i.e. not through your e-mail program) to Logix. If the data was sent successfully, a message "Data successfully received by Logix" will be displayed. If not, BenguFarm BEEF will automatically attach the electronic data file to an e-mail message and put it into the Outbox of your default e-mail programme (e.g. Outlook). The e-mail will be sent when you are on-line.

- If, for some or other reason, BenguFarm BEEF cannot send the electronic file, a warning message will appear. Please note where you save the file to be attached to an email (e.g. C:\BenguFarm\Beef\Exports\Herd or C:\Program Files\BenguelaSoft\BenguFarm\Electronic\Send). Please follow the instructions on the warning message for help on how to create an e-mail with your e-mail programme (e.g. Outlook) yourself, attach the applicable file to it and send it to edata@studbook.co.za (SA Stud Book) or intergis@arc.agric.za (ARC) depending on who your service provider is. **Note:** Remember where you have saved the file for attaching it to an email. [For help to solve problems with the sending of data, contact you BenguFarm agent].
- When the data has been received, Logix will automatically send you an e-mail message as proof of receipt. If you have not, for some or other reason, received such an e-mail, please contact SA Stud Book on telephone number 051 410 0900 or send an e-mail to **help@logix.co.za**.
- If you do not have the facilities to send data in electronic format, you can print it and send it by fax or normal mail. To print the matings and/or AI data, click on Display Printout > Print.
- **To check which matings were already send**, go to Reports > Administration Log of Files and Reports Sent.

23. Pregnancy tests:

- Before you record pregnancy test results, ensure that you have recorded the applicable matings (refer paragraph 21) and/or embryo implants (Appendix D) in BenguFarm BEEF.
- **To create a list to record the pregnancy test results**, go to Reports > Matings, Pregnancies and Calvings > Heifers and Cows for Pregnancy Test (recording list).
- **To record** (or edit/delete) **pregnancy test results**, go to Reproduction > Pregnancy Tests. Use the **Help** function if necessary.
- **To create a report of matings and pregnancies**, go to Reports > Matings, Pregnancies and Calvings > Matings and Pregnancies. **Please note:** If the Existing Matings option is selected, only mating and pregnancy records of heifers and cows which have not yet calved, will be listed. If *only* the option Pregnant and/or Not Pregnant (i.e. Existing Matings is *not* selected) is selected, mating and pregnancy records of all relevant heifers and cows will be listed, regardless of whether they have calved or have not yet calved. See Appendix F for expected calving date calculation. **Tip:** Click Display Worksheet to link animals to groups (e.g. pregnant / not pregnant groups).
- **To create a report with a summary of matings and pregnancies per bull and/or season**, go to Reports > Matings, Pregnancies and Calvings > Mating Summary per Bull and/or Season.
- **To view the last mating and pregnancy data of an animal on the main window**, go on the Animal View to the Last Mating view window or on the Herd View to the Pregnancy section. On the Herd View expected calving dates of cows that should have calved more than 14 days ago are highlighted in red. To view all the mating and pregnancy data of an animal on the main window, go on the Animal View to the Matings and Pregnancy History view window.

24. Calvings/calves born (including abortions, stillborn calves, etc.):

- **To create a report of heifers and cows near calving**, go to Reports > Matings, Pregnancies and Calvings > Heifers and Cows near Calving (recording list). See Appendix D for expected calving date calculation.
- Before you record calvings, ensure that you have recorded the applicable matings/embryo implants and pregnancy test results (if applicable) in BenguFarm BEEF (refer paragraphs 21 and 23). **Please note:** The recording of matings apply only where breeding seasons are used. See below for how to choose the sire where no matings were recorded.
- **To record** (or edit/delete) **calvings (and calves)**, go to Reproduction > Calvings.
 - Choose the applicable cow/heifer, choose the calving date, choose the sire and complete and/or change the rest of the details, where applicable. Use the **Help** function if necessary.
 - **If the dam of a calf is unknown**, the calving cannot be recorded on the Calving screen. To record such a calf's birth, go to Animals > Add and Edit Animals (Single Animal Layout), click "+ Add", complete the required birth information and Save. When the mother is identified later, go back to this screen, select the calf from the animal list, select the mother in the Dam field and Save.
 - **Please note:**
 - Most of the fields will be filled by default with the applicable data as retrieved from the Settings you have done in BenguFarm BEEF (refer paragraph 6). The calf's sex, birth date, birth weight and the cow's weight at calving (if recorded) should be completed by you.
 - **If a mating(s) was recorded for the applicable cow** which could cause a calving on the calving date (according to the normal pregnancy period as set up in BenguFarm), the most probable bull's number (based on the expected calving date) will automatically be displayed as the sire of the calf. **If there are two matings (e.g. AI and natural) listed as possible**

matings, the sire is uncertain because the calving date falls within the minimum and maximum pregnancy period for more than one mating. BenguFarm will consequently display New Mating at Sire (Mating). If the list of matings is opened, existing matings for the cow will be displayed. Select New Mating. At Mating Details (blue part of the calving screen), select ?MULTISIRE? in the Sire field and select the relevant possible sires at Additional Sires. This is technically the correct recording of the calving and it will also help to remember to have the correct sire confirmed with DNA.

- **If "New Mating" is displayed in the Bull (Mating) field** after the calving date has been entered, it means that there is no mating on record for the cow which could cause a calving on that calving date. In such a case the bull should be selected at the Mating Data to the right of your window, in which case a default mating record will be created.
- **If matings were not recorded** (because no mating seasons were practiced), the relevant animals are linked to camps and camp movement history is available, you can **determine the possible sire of a calf from the camp movement history**. On the Mating Data area of the calving window, click on the button "Bulls in the Same Camp as Cow at Mating" to the far right of the Bull field. This will bring up a window displaying the bull(s) that were in the same camp as the cow at the stage the cow should have become pregnant. You can select this bull (or bulls as multiple sires) as the sire of the calf.
- **To change a calf's sire** which was recorded at birth as unknown [?UNKNOWN?] OR recorded as multi-sire [?MULTISIRE?] OR recorded incorrectly, go to the Add and Edit Animals (single animal layout) and select the appropriate calf. At the Mating (not Sire) field, select the appropriate mating (bull) or New Mating from the list. A Mating Details window will open (on a light blue background). Select the correct bull (sire) here, click Save and Exit.
- The **default calving season** is the calving season selected at the recording of the applicable mating that resulted in the calving (if a mating was recorded), or otherwise it is the calving season which was selected as the Current Calving Season at Settings > Calving Seasons.
- If the **default sequence number** of the calf need to be changed, change it in the Sequence Number field.
- **Abortions, stillborn calves and calves that died shortly after birth** should be recorded to change the pregnancy status of the applicable cows and to make their reproduction records complete. Select the appropriate option (e.g. Still born) in the field Calf Status (at birth). A **fictitious number** can be assigned to such calves, e.g. ABC2000D1 (D for Dead) or ABC209001 (sequence number outside the normal range) for the first dead-born calf in 2020.
- **If a pregnant stud heifer/cow has been purchased** and the mating of the purchased heifer/cow with the relevant bull has been sent to Logix by the seller of the heifer/cow, the mating will be on record on Logix and the mating will be imported with the cow's data into BenguFarm – see paragraph 12. In this case the calving can be recorded directly in BenguFarm – the sire will be automatically selected via the mating record. If the mating in question is NOT on record on Logix, the buyer must obtain the mating details from the seller. Then the bull's data should first be downloaded from Logix and imported (as an non-active animal) in BenguFarm. Then the mating can be recorded in BenguFarm and then the calving can be recorded.
- **To correct the pregnancy status of cows that were recorded as pregnant at pregnancy test, but did not calf**, go to the Pregnancy Test screen, click Load Existing Tests, select the applicable cows, remove the tick in the Pregnant column, change the period to 0 (zero) and Save. If you are sure or suspect the cow had re-absorpt or aborted, record it on the Calving screen with the applicable Birth Status.
- **To record twins**, ensure that you choose Twins in the field # Calves (Birth Status). BenguFarm BEEF will automatically create two tabs with calf numbers at the top of the grey area (calf information) of the window. Click on the first calf's number and complete the calf's details. Then click on the second calf's number and do the same.
- **Stud breeders with SA Stud Book (Logix) as service provider:**
 - To ensure that births of calves born from a mating by a **loan bull** are accepted on Logix, the owner of the bull must inform Studbook to whom and for what period the bull is being lent.
 - To ensure that births of calves born from a mating by a **bull with co-owners** are accepted on Logix, the co-owners of the bull must inform Studbook who all are co-owners are.
- To record that a calf is reared by a **foster dam or orphaned**, go on the Calving screen to the Foster Dam field (bottom left). It can also be recorded by going to Animal > Add and Edit Animals (single animal layout) > General > Foster Dam. In the list there is also an **ORPHAN PENS** option that can be used for calves raised as orphans. On the main screen's Animal View you can see on the Progeny view window which calves of a cow were raised by a foster dam.

- On the calf's record on the Birth view window, it can be seen which cow is the calf's foster dam. On the main window's Herd View, foster dam can be viewed in the Birth section.
- **To edit an existing calving/birth data**, go to the Calving window, choose the applicable cow, click on the "N" next to her number and choose the calving you want to change.
- **To delete an existing calving/calf**, go to Animals> Add and Edit Animals (Single Animal Layout). Select the calf in question and click Delete.
- **To re-assign a microchip number (EID) that was used on an animal to a new animal**, see paragraph 57.
- If you want to record the **breed composition** of the calf (e.g. 50% Bonsmara, 25% Angus, 25% Nguni), click on the icon "Setup calf breed composition" (to the right of the Breed field). Click on the "+", select the first breed and enter the %. Click on the "+", select the second breed and enter the%, etc. Click Accept. If the breed composition of the parents were already recorded, you can click on the "Automatically calculate from parents' breed composition" icon at the top right of the small window to automatically calculate the breed composition of the calf. **Note:** When a new animal record is created, the breed composition is automatically completed from the breed, e.g. if the breed is Bonsmara, the breed composition will be 100% Bonsmara. The breed composition of an animal can also be entered or changed by going to Animals > Add and Edit Animals (Single Animal Layout) > Miscellaneous Data > Breed composition. The breed composition of an animal can be printed on the My Reports. [Reports > My Reports > Animal Data > Report Columns (Layout) > General > Breed composition].
- **To create a report of heifers and cows that have calved/not calved yet**, go to Reports > Matings, Pregnancies and Calvings > Heifers and Cows that Calved/Not Calved Yet (recording list). See the notes at Report Interpretation for which animals are listed for the various scenarios.
- **To create a report with a summary of matings, pregnancies and calvings per bull and/or season**, go to Reports > Matings, Pregnancies and Calvings > Mating Summary per Bull and/or Season.
- **To create a report of calves born in a certain period** (e.g. calving season or year), go to Reports > Matings, Pregnancies & Calvings > Births. **Tip:** Remember to also select the non-active filter to include calves recorded as abortions, stillborn, died at/shortly after birth. This is important to get the correct summary of percentage calves born alive, stillborn, etc.
- **To view the birth data of an animal on the main window**, go on the Animal View to the Birth view window or go on the Herd View to the Birth section.
- **To view the reproduction and progeny averages data of an animal on the main window**, go on the Animal View to the Reproduction and Progeny Av. view window or go on the Herd View to the Reproduction section.
- The various **reproduction calculations** in BenguFarm BEEF are explained in Appendix D.

25. **Send birth notifications:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- After the calvings/births have been captured in BenguFarm BEEF (Reproduction > Calvings) this data should be sent to SA Stud Book (or ARC) to capture this data on the Logix (or Intergis) database. [**Please note:** Penalty fees are payable to breeders' societies for birth notifications that are not submitted in time].
- **To send new births in electronic format to SA Stud Book** (or Intergis) (or to print it if you do not have the facilities to send data in electronic format), go to Data Send/Import > Send > Stud Book/ARC > Birth Notifications. Click on List Births Not Sent Before.
- **To resend births that have already been sent** (e.g. after corrections have done on the birth data in BenguFarm), go to Data Send/Import > Send > Studbook/ARC > Birth Notifications. Remove the check mark Include Animals with Computer Numbers From the option at the top left of the screen. Click on Select Animals and select the calf in question. Under Options, mark Animal Update (U) instead of Birth Notification (B). Use the **Help** function if necessary.
- Check if the **Options** are correct for the applicable animals. Also check if there are any **Errors/Missing Data or Warnings**. By moving the computer's cursor across the applicable column heading, it will show you the details of the error/missing data or warning. If there are any errors and/or missing data, BenguFarm BEEF will NOT allow you to send birth notifications. The Warnings are only intended to make you aware of *possible* errors or problems, but you can send the birth notifications despite the warnings. To print a report of the errors and/or missing Data, click on Print Errors Report. To fix errors or missing data, click next to the animal on the three dots in the "i" column to open the Add and Edit Animals window.
- If you are sure all data is correct and complete, click on **Create Electronic File** to create and send an electronic file of the selected calves' birth notifications. If the Use Logix Direct File Upload Functionality (see Settings > Herds > Service Providers) or use SMTP Direct E-mail option (see Settings > Herds > E-

mail) is selected, the electronic file will be sent directly (i.e. not through your e-mail program) to Logix. If the data was sent successfully, a message "Data successfully received by Logix" will be displayed. If not, BenguFarm BEEF will now attempt to automatically attach the electronic data file to an e-mail message and put it into the Outbox of your default e-mail programme (e.g. Outlook). The e-mail will be sent when you are on-line.

- If, for some reason, BenguFarm BEEF cannot send the electronic file, a warning message will appear. Please note where you save the file to be attached to an email (e.g. C:\BenguFarm\Beef\Exports\Herd of C:\Program Files\BenguelaSoft\ BenguFarm \Electronic\Send). Please follow the instructions on the warning message for help on how to create an e-mail with your e-mail programme (e.g. Outlook) yourself, attach the applicable file to it and send it to edata@studbook.co.za (SA Stud Book). **Note:** Remember where you have saved the file for attaching it to an email. [For help to solve problems with the sending of data, contact you BenguFarm agent].
- When the data has been received, Logix will automatically send you an e-mail message as proof of receipt. If you have not, for some or other reason, received such an e-mail, please contact SA Stud Book on telephone number 051 410 0900 or send an e-mail to **help@logix.co.za**.
- If you do not have the facilities to send data in electronic format, you can print it and send it by fax or normal mail. To print birth notifications, click on Display Printout > Print.
- **To check which birth notifications were already send**, go to Reports > Administration > Log of Files and Reports Sent. **Please note:** Once the electronic file is created, BenguFarm logs the file in question as sent. Therefore, if the data could not be sent directly or via your email, it will still be logged as sent, since the file was created. The best proof that the birth notifications were received by Logix, is the receipt acknowledgment email you should receive from Logix.

26. **Import computer numbers:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- When the birth notifications have been captured and processed on Logix (or Intergis), Logix again automatically sends you an e-mail message, as proof of capture and processing. Attached to this e-mail is an electronic file (BIRTHS_...) which you will need to import the computer numbers into BenguFarm BEEF.
- **Note:** If you did not, for some or other reason, receive the e-mail from Logix, you can acquire the electronic file concerned by going to the Logix website (**www.logix.org.za**) and clicking on the left-hand side of the window on Messages. The electronic files that were sent to you are saved there according to the date of capture/processing.
- **To import missing computer numbers** into BenguFarm BEEF, there are two options:
 - **Option 1 – Logix Direct (recommended option for herds with SA Stud Book as service provider):**
 - Go to Data Send/Import > Logix Direct > Import Missing Computer Numbers. An option to update the Pen (Pending) animals' sections is also available.
 - **Option 2:**
 - Save the electronic file that you received from Logix at a suitable place on your computer (e.g. C:\BenguFarm\Beef\Imports\... – see Settings > Herds > Default Folders for Files). This can be done in Outlook by clicking on File > Save Attachment or otherwise by right clicking on the file and choosing Save Target As. Make a note of where the file is saved. [**Please note:** Do NOT open this file in Excel and save in xls or csv format, for this will result in you not being able to import the data into BenguFarm BEEF and/or the dates may import incorrectly].
 - In BenguFarm BEEF go to Data Send/Import > Import > Stud Book/ARC > Animal Computer Numbers, browse for the electronic file (BIRTHS...) and click on Import. [Use the **Help** function if necessary]. **Please Note:** BenguFarm BEEF uses the animal's HDM, Year, Sequence Number, Sex and Breed to link the relevant animal in the BIRTHS ... file with the animal in the BenguFarm BEEF database. Animals with "UNKNOWN" in the "Animal in BenguFarm BEEF" column's computer number will NOT be imported. To link an unknown animal by hand to the correct animal in BenguFarm BEEF, click on the "UNKNOWN" and select the appropriate animal from the list.
- **To create a report of animals without computer numbers**, go to Reports> Administration> Animals without Computer Numbers.

27. **Parentage verification and other DNA services:** (not applicable to commercial herds)

- Parentage must, inter alia, be verified by means of DNA analysis in the following cases if you want to register the calves:
 - If multi-sire matings have been done. (Please contact your breeders' society to verify the requirements for registration of calves from multi-sire matings);

- If natural mating was followed up by AI or a different bull within 21 days after the last natural mating;
- All calves born from embryo transfers.
- **To create a DNA service request form** that should accompany the applicable animals' biological samples to the DNA laboratory, go in BenguFarm BEEF to Data Send/Import > Send > DNA Profiling Service Forms and select the applicable laboratory you use. Use the **Help** function if necessary.
Please note:
 - Ensure the computer numbers of the animals to be DNA analysed are recorded in BenguFarm before creating the DNA service request form.
 - If you want to keep a record of which animals' DNA were sent for analysis, mark at the bottom right of the window "Yes, keep record of sent DNA samples specified below".
 - To ensure the customer's details are completed correctly on the service request form, make sure all relevant fields (Owner, Farm Name, Invoices Made Out To, VAT No. and Postal Address) is completed at Setting > Herds > General.
- **To print labels for the marking of the envelopes in which biological samples** (e.g. tail hairs) **of animals are placed** for submission to a biobank (e.g. at SA Stud Book) or a DNA laboratory, go to Data Send/Import > Send > DNA Profiling Service Forms > Print Biological Sample Labels.
- **To create a report of DNA samples sent for analysis**, go to Reports > Administration > Log of DNA Samples Sent. If an animal's DNA Number does not appear on the report, it indicates that the results of the animal concerned have not yet been received and/or not yet imported/recorded in BenguFarm.
- **To import DNA verified parentage and the accompanied DNA reference numbers** when the DNA report is received by SA Stud Book from the DNA lab and loaded onto Logix, go to Data Send/Import > Logix Direct > Import DNA Parentage. **Please Note:** This function will automatically update these animals' parents and the section of PEN (pending) animals in BenguFarm BEEF according to the parentage results. Where applicable, it will also automatically certify the parent(s) as correct. Certified parents will be shown with the DNA icon on the main screen in the Pedigree view screen, the Pedigree report and in the My Reports.
- Alternatively, when you receive the DNA report from the DNA laboratory, you can record the applicable animal's DNA numbers and correct parentage by going to Animals > Edit Animals (table format). Use the **Help** function if necessary.
- **To view the DNA number of an animal on the main window**, go on the Animal View to the General view window and scroll down to the DNA Number field or go on the Herd View to the Identification section.
- **To certify parentage based on DNA results parentage results**, go to Animals > DNA Verified Parentage. **Please note:** The DNA numbers *must* be completed before the certification field can be checked. You should also check the certification declaration at the bottom of the window before the data can be saved. Certified parents will be displayed with the DNA icon on the main window in the Pedigree view window and on the My Reports.
- On the Add and Edit Animal window [Animals > Add and Edit Animals] the parents are displayed in the same way as certified. If the parents are changed here, the certification expires and the certification for the newly selected parents should be done again on the certification window.
- **To create a report indicating which animals' parents are certified in BenguFarm**, go to Reports > My Reports > Animal Data. Click Choose Animals (Criteria) to choose the animals. Then click on Report Columns (Layout). Under the General section, select Sire DNA Verified and Dam DNA Verified. Click View Report to see what the report will look like.
- **Tip: Save the animal's DNA certificate as a document** on BenguFarm – see paragraph 72.
- **To record** (or edit/delete) **genomic results**, see paragraph 53.

28. Vaccinations, dosings, dip and supplements:

- **To record vaccines, remedies, dips and supplements stock**, see paragraph 64.
- **To create a list of animals in a specific camp that has *not* been vaccinated**, go to Reports > Diseases, Prevention and Treatment > Vaccinations, Dosings, Dips and Supplements. On the left, select the criteria of the vaccinations that have been done, e.g. between two dates. On the right, select the appropriate camp. Then select the option "Not Vaccinated/Received Remedy or Supplement."
- **To create a list for recording vaccinations, dosings, dip and supplements**, go to Reports > Diseases - Prevention & Treatment > Vaccinations, Dosings, Dip, Supplements & Procedures (recording list). In Select Items to Print, select the vaccinations/dosings/dip/supplements to be recorded and add it with the arrow pointing to the right to the Items to Print on Report. **Tip:** To print the dosage (as set up at Health > Vaccines, Remedies, Dips and Supplements Stock), check the Print Vaccine/Remedy Dosage option.

- **To record** (or edit/delete) **vaccinations, dosings, dip and supplements**, go to Health > Vaccinations, Dosings, Dip and Supplements. Use the **Help** function if necessary.
- **Tip:** Information such as **default dosage, withholding period and expiry date** of vaccines, remedies, dips and supplements can be recorded on the stock register [Health > Vaccines, Remedies, Dips and Supplements Stock]. When Vaccinations, Dosings, Dips and Supplements are recorded, the cost per animal will be calculated automatically from the Vaccines, Remedies, Dips and Supplements Stock, provided the batch number is entered. If a batch number is not entered, the last purchase's unit price (total price / # units) will be used.
- **To create a report of vaccinations, dosings, dip and supplements done**, go to Reports > Diseases - Prevention & Treatment > Vaccinations, Dosings, Dip and Supplements. **Tip:** Click Display Worksheet to link animals to groups (e.g. vaccinated / not vaccinated groups).
- **To view the vaccinations, etc. data of an animal on the main window**, go on the Animal View to the Vaccinations, Dosings and Disease Tests view window. To display it on the Herd View, go on the main window's Herd View to Display Options > click the Set Up My Columns to Display (icon at the top).
- **Tip:** It is recommended that, where necessary, the default list of vaccines, remedies, dips and supplements be expanded with specific drugs that you use. This can be done by going to Settings > Vaccines, Remedies, Dips and Supplements. Vaccines, remedies, dips and supplements in the default list that do not apply to your herd can be disabled by removing the tick mark in the In Use and Device (e.g. APR500 / APR600) columns.

29. Weights:

- **To create a list for recording animals' weights at weighing**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Weigh List (recording list). **Tips:**
 - If cows are weighed at weaning of their calves, mark at Print Options both **Include Dam Weight Column** and **Sort Dams Separately** options. An extra column where the cows are order sorted in numerical order will be added to the weigh list. By using this column, the cows can easily and quickly be found on the weigh list. (If the cow numbers are not sorted separately, it is difficult to find a cow's number on the weigh list, for a cow and her calf do not necessarily enter the crush together). You can thus see on the weigh list who is a calf's dam, but you fill in the cows' weights where the cows are sorted, in other words in the **Cow IDnr** field. A relevant calf's dam's weight will therefore not be in the same line as the calf. When the weights are recorded in BenguFarm from the weighing list, first record all the calves' weights. Then click on the column heading "Dam". The records on the screen will now be sorted in the same order as in the Cow IDnr field on the weigh list. The cow weights can now be recorded quickly and easy in the same order.
 - **To compare the current weight to the previous weight**, select Last Weight and Last Weigh Date at Include Columns.
- BenguFarm makes provision for the importation of weights from any electronic scale which has the feature whereby the recorded weights and animal ID numbers on the scale can be saved and an electronic file of the weights and animal ID numbers create. Please consult with your scale manufacturer or agent if you are unsure if your particular scale model has these features.
- **To import weights from a scale** into BenguFarm BEEF, you have to create at the scale an electronic file (in csv format) with the applicable animals' numbers and weights. To import these weights, go to Data Send/Import > Import > Weights from Scale. Use the **Help** function if necessary. **Tip:** To select a default scale file format for your specific scale, go to Settings > Herds > Other > Default Electronic Scale File Layout.
- Some scales allow for to animal data (e.g. number, birth date and sex) to be imported into the scale software. **To create such a file with animal data in BenguFarm for importing into the scale software**, go to Data Send/Import > Send > Animal Data to Scale.
- **To import data from or send data to a Tru-Test XR5000 scale**, go to Data Send/Import > Tru-Test XR5000 Integration. Use the **Help** function for step-by-step instructions. See also instructions in paragraph 10. **Please note:** The XR5000 drivers and software must be pre-installed on the computer.
- **Two types of weights** can be recorded in BenguFarm BEEF:

Weights for performance testing:

- Certain weights (pre-wean, wean, 12-month and 18-month weights) can be processed in BenguFarm to obtain adjusted weights, ADAs (Average Daily gain per day of Age) and performance indexes. These performance index calculations are to be used for selection purposes as they are corrected for age of the animal, age of the dam, etc. – see Appendix F. **PLEASE NOTE: The processing of weights for performance indexes is applicable to both stud and commercial herds.** The calculations in BenguFarm are the same as those being done by SA Stud Book on Logix. The BenguFarm calculated

data are saved separately from the Logix calculated data that, for stud herds, can be imported. When displayed on the main window's Herd View and on reports, Logix calculated indexes are given preference and displayed in bold. BenguFarm calculated indexes are displayed normal.

- **Animals must meet the following requirements** to be included in the same performance test:
 - The age difference between the oldest and the youngest animal should not exceed 100 days.
 - All animals' age at weighing date must be within the limits of the particular test type:
 - Pre-wean (A11): 51 - 150 days
 - Wean (A22): 151 - 270 days
 - 12 months (B12): 271 - 450 days
 - 18 months (B22): 451 - 634 days
 - Central Growth Tests (C12, C22, C32): 179-278 days at start of test
 - On-Farm Growth Tests (D11, D21): 172-455 days at start of test
 - If the animals are not all weighed on the same day, the first and last weighing dates may not be more than 14 days apart.
 - The animals must still be active in the relevant herd (on BenguFarm and Logix, where applicable) at the weighing date, in other words, not cancelled or transferred.
- When calves' birth data is recorded on the Calving window, BenguFarm will, if the field Add to Performance Test Group is checked, **automatically links the calf to a performance test group within the applicable calving season** according to the minimum and maximum allowable age limits as well as the maximum allowable age difference (as set up at Settings > Herds > Performance Testing > Maximum Allowable Age Difference...). All calves born in the first 100 days of the season will be linked to the first performance test group (e.g. Group 2020S-0) and, if the calving season is longer than 100 days, the rest to the next performance test group (e.g. 2020S-1). The purpose of the performance test groups is to select a group of animals for evaluation in a performance test. Refer Appendix F for an explanation of the importance of contemporary groups when selecting animals for inclusion in a performance test.
- **If heifers are mated earlier**, the full calving season (first calf cows plus the rest of the cows) will probably be longer than 100 days and the calves will automatically be divided into two performance test groups as explained above. If it is preferred that the calves of the first calves be divided into one performance test group and the rest of the cows' calves in a second group, the calves' performance test group allocations can be changed – see next item.
- If necessary, the **performance test group divisions can be changed**. Go to Performance Testing > Performance Testing Groups. Use the **Help** function if necessary.
- If calves are linked to a performance test group on the Calving window and the Calving window is closed, a "Recalculate Automatic Diary Entries" window will appear. If "Calculate" is clicked, BenguFarm will **calculate the dates when the relevant group of calves must be weighed for the respective performance test weights**. When the relevant group of calves has to be weighed for a certain performance test weight (e.g. weaning weight), a reminder will appear in the diary [Other Data > Diary and Management Calendar].
- If the performance test weights were for some reason not calculated, performance test weigh dates can be calculated for a particular calving season or group of calves by going to Performance Testing > **Calculate Valid Weigh/Test Dates**. Use the **Help** function if necessary.
- **To record (or edit/delete) or import weights for performance test purposes** and process it, go to Performance Testing > Weights for Performance Testing. Weights not linked to a test (general weights) already on BenguFarm (e.g. imported from the scale) will automatically be displayed in the test provided the weigh date corresponds. Use the **Help** function if necessary.
- **To create a report of animals' processed weights** (corrected weights, indexes, etc.), go to Reports > Weights, Measurements, Performance Testing & Breeding Values > Performance Test Results. See Appendix F for the interpretation and use of processed performance test data. **Please note:** If the official performance test data has already been imported (see paragraph 31), the official data on the report will be displayed in bold.
- **To view the weights of an animal on the main window**, go on the Animal View to the Weights view window or go on the Herd View to the Weights section.
- **To view the performance test results of an animal on the main window**, go on the Animal View to the Performance Test Results view window or go on the Herd View to the Weight Indexes section. **Please note:** Performance indexes in bold on the main window > Herd View and certain reports, e.g. the Inspection List and Sale Catalogue, are indexes which were imported from Logix. Indexes not in bold is BenguFarm calculated, i.e. the Logix calculated indexes are not available or have not been imported into BenguFarm.
- **Tips:**
 - For an article with guidelines on management and performance test practices for accurate breeding values, contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.

- See Appendix F for the various **reproduction and performance data calculations** in BenguFarm BEEF.

General and feedlot weights:

- **To record** (or edit/delete) **general weights** (e.g. monthly weights), that will not necessary be used for performance test purposes, go to Performance Testing > Weights, Traits and Scores not linked to a Test. Use the **Help** function if necessary.
- **To record** (or edit/delete) **all data recorded in a feedlot on one window**, go to Add-Ins > Feedlot Manager. Use the **Help** function for step-by-step instructions.
- **To view the weights of an animal on the main window**, go on the Animal View to the Weights view window or go on the Herd View to the Weights section.
- **To create a report of animals' weights and gains**, click on Weights and Gains at the bottom left of the Weights and Traits not linked to a Test screen OR go to Reports > Weights, Measurements, Performance Testing & Breeding Values > Weights and Gains. **Tips:**
 - If the option Print Only First and Last Weights during the Period is selected, an option Display Worksheet is available that can be used to link animals to a group, e.g. animals that are heavy enough for marketing.
 - Click Display Worksheet to link animals to groups (e.g. camps or weight groups).

30. **Send performance test data (weights):** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- After the performance test was created and the weights have been captured/imported in BenguFarm BEEF [Performance Testing > Weights for Performance Testing], this data should be sent to Stud Book/ARC to capture this data on the Logix database.
- **To send the performance test data in electronic (csv) format to Stud Book** (or to print it if you do not have the facilities to send data in electronic format), go to Performance Testing > Weights for Performance Testing. Select the appropriate test and click the Load Selected Test icon. **Alternatively**, go to Data Send/Import > Send > Stud Book/ARC > Performance Test Data. Select the applicable test from the tests in the Select Tests list. Use the **Help** function if necessary.
- Check if there are any **errors** – see the columns on the left side of the screen. To display the description of an error, move the computer's cursor over the column heading. BenguFarm BEEF will NOT allow you to send performance test data if there are errors and/or missing data.
- If you are sure all data is correct and complete, click on **Create and Send Electronic File of Data to Service Provider / Create Electronic File** to create and send an electronic file of the selected performance test. If the Use Logix Direct File Upload Functionality (see Settings > Herds > Service Providers) or use SMTP Direct E-mail option (see Settings > Herds > E-mail) is selected, the electronic file will be sent directly (i.e. not through your e-mail program) to Logix. If the data was sent successfully, a message "Data successfully received by Logix" will be displayed. If not, BenguFarm BEEF will now attempt to automatically attach the electronic data file to an e-mail message and put it into the Outbox of your default e-mail programme (e.g. Outlook). The e-mail will be sent when you are on-line.
- If, for some or other reason, BenguFarm BEEF cannot send the electronic file, a warning message will appear. Please note where you save the file to be attached to an email (e.g. C:\BenguFarm\Beef\Exports\Herd of C:\ProgramFiles\BenguelaSoft\BenguFarm \Electronic\Send). Please follow the instructions on the warning message for help on how to create an e-mail with your e-mail programme (e.g. Outlook) yourself, attach the applicable file to it and send it to edata@studbook.co.za (SA Stud Book) or intergis@arc.agric.za (ARC) depending on who your service provider is. **Note:** Remember where you have saved the file for attaching it to an email. [For help to solve problems with the sending of data, contact you BenguFarm agent].
- When the data has been received, Logix will automatically send you an e-mail message as proof of receipt. If you have not, for some or other reason, received such an e-mail, please contact SA Stud Book on telephone number 051 410 0900 or send an e-mail to **help@logix.co.za**.
- If you do not have the facilities to send data in electronic format, you can print it and send it by fax or normal mail. To print performance test data, click on Display Printout > Print.
- **To check which performance tests were already send**, go to Reports > Administration > Log of Files and Reports Sent.

31. **Import official performance test results:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- When the performance test data has been captured and processed on Logix, Logix again automatically sends you an e-mail message, as proof of capture and processing. Attached to this e-mail is an electronic

file (BEEF_TEST_...) which you will need to import the official performance test data into BenguFarm BEEF.

- **Note:** If you did not, for some or other reason, receive the e-mail from Logix, you can acquire the electronic file concerned by going to the Logix website (www.logix.org.za) and clicking on the left-hand side of the window on Messages. The electronic files that were sent to you are saved there according to the date of capture/processing.
- **To import official performance test data** into BenguFarm BEEF, there are two options:
 - **Option 1 – Logix Direct (recommended option for herds with SA Stud Book as service provider):**
 - Go to Data Send/Import > Logix Direct > Import Official Performance Test Data.
 - **Option 2:**
 - Save the electronic file at a suitable place on your computer (e.g. C:\BenguFarm\Beef\Imports\Herd). This can be done in Outlook by clicking on File > Save Attachment or otherwise by right clicking on the file and choosing Save Target As. Make a note of where the file is saved. [**Please note:** Do NOT open this file in Excel and save in xls or csv format, for this will result in you not being able to import the data into BenguFarm BEEF and/or the dates may import incorrectly].
 - In BenguFarm BEEF go to Data Send/Import > Import > ARC/Stud Book > Official Performance Test Data. Browse for the electronic file (BEEF_TEST_...) and click on Import. Use the **Help** function if necessary.
- **Please note:** The performance test indexes that were processed in BenguFarm BEEF are NOT replaced – it is stored separately from the official indexes. In Settings > Herds > Other you can set whether you will see both official and unofficial performance test data on the main window's Animal View > Performance Test Data view window. Select (tick) them, if not already done. On the main window's Herd View > Weight Indexes, BenguFarm displays processed indices in ordinary and official indices in bold.
- **Tip: To create a report of animals without official performance test results,** go to Reports > Administration > Animals without Official Performance Test Results.

32. **Import breeding values (with herd averages and breed averages):** (Only applicable to stud herds which are members of SA Stud Book's Logix Beef)

- **Tip:** For an article on how to understand and use breeding values, contact Mr. Leslie Bergh at leslie@benguelasoft.co.za or 082 801 2026.
- If you are a member of Stud Book, you should ensure that your BenguFarm BEEF database is updated with the newest breeding values for your animals, every time a new BLUP analysis for your particular breed has been done. To check which **analysis date's** breeding values you have in BenguFarm, choose one of your cows and look on the Animal Layout of the main screen at the top of the Breeding Values screen at Date.
- **Tip:** At Settings > Herds > Reminders > Remind to Download Latest Breeding Values, BenguFarm can be set to remind you at certain intervals to import new breeding values.
- **To import the newest breeding values for your animals as well as the newest herd and breed averages** into BenguFarm BEEF, there are two options:
 - **Option 1 - Direct Logix (recommended option for herds with SA Stud Book as service provider):**
 - Go in BenguFarm BEEF to Data Send/Import > Logix Direct > Import Breeding Values. BenguFarm will log you in on Logix, look for latest breeding values for your animals, create a file and import it into BenguFarm BEEF without requiring any further actions. The latest breeding values (excluding the herd and breed averages) and breeding value indexes will be imported.
 - If you receive a "time-out" message from Logix, follow the on-screen instructions or Option 2 below to download and import the newest breeding values.
 - **Option 2:**
 - Go in Logix to Breeding Values > Breeding Values with EBV Indices).
 - You now have the option to download data via one of two formats, namely a csv or zip format file. The zip file format is smaller and will download faster. Click on the file format of your choice and choose Save Target As. Both the CSV and the zip format can be imported.
 - Save the appropriate electronic file (BEEFBLUP_...) to an appropriate location on your computer (e.g. C:\BenguFarm\Beef\Imports\Herd). This can be done by right clicking the file and choose Save Target As. Please note where you save the file.
 - Go in BenguFarm BEEF to Data Send/Import > Import > Studbook/ARC > Breeding Values, browse to the appropriate electronic file (BEEFBLUP_...), select the herd and click Import. Use

the **Help** function if necessary. The latest breeding values, herd and breed averages and breeding value indexes will be imported.

- **To create a breeding values report**, go to Reports > Weights, Measurements, Performance Testing & Breeding Values > Breeding Values.
- **To create a pedigree report (with breeding values)**, go to Reports> Animal, Pedigree and Progeny > Pedigree.
- **To view the breeding values of an animal on the main window**, go on the Animal View to the Breeding Values or the Breeding Values Graph view window or on the Herd View to the Breeding Values section.

33. Selection and Inspection:

Selection:

- **To create a report of animals' performance test results** (adjusted weights, indexes, etc.), go to [Reports > Weights, Measurements, Performance Testing and Breeding Values > Performance Test Results].
- **To create a report of cows which performed poorly according to self-chosen reproduction and pregnancy minimum standard**, go to Reports > Inspections and Selections > Reproduction and Pregnancy Selection.
- **To create a report of animals which performed poorly according to self-chosen reproduction, production, retention and breeding values minimum standards**, go to Reports > Inspections and Selections > Breeding Herd Selection. Values that do not meet the minimum criteria are printed in bold and framed in the report. See Appendix F for the interpretation and use of calculated values in BenguFarm. Please note that retention and breeding values are only available for registered animals.
- **To create a progeny report of a cow or bull**, go to Reports > Animal, Pedigree and Progeny > Progeny Summary.
- **To highlight certain animal data** (e.g. cows with an average inter-calving period of more than 400 days) **on the main screen's Herd View** as well as setting up rank values for the selected criteria (the total rank value to be displayed in the General section in the Rank column), click View Options at the bottom of the main screen's Herd View and then click at the top of the View Options screen on Setup Herd Layout Highlighting (button with small squares with different colours). Use the **Help** function if necessary. See paragraph 5 for how to create a report with selected columns from the main screen's Herd View.

Inspection: (not applicable to commercial herds)

- **To create a list of animals which will be inspected** on which the inspection data can be recorded, go to Reports > Inspections & Selections > Inspection Lists (recording list). All applicable official performance test indexes, breeding values, etc. on record in BenguFarm BEEF will be listed on the inspection list for use by the inspector. **Please note:** Performance indexes in bold are imported Logix calculated indexes. Indexes not in bold are BenguFarm calculated.
- **Please note:** Inspection lists must be signed by the inspector and will be sent by him to your breeders' society or SA Stud Book for recording on Logix. Inspection lists may therefore *not* be sent directly by the breeder.

34. Import inspection data: (not applicable to commercial herds)

- When the inspection data has been captured and processed on Logix, Logix automatically sends you an e-mail message, as proof of capture and processing. Attached to this e-mail is an electronic file (INSPECTIONS_...) which you will need to import the official performance test data into BenguFarm BEEF.
- **Note:** If you did not, for some or other reason, receive the e-mail from Logix, you can acquire the electronic file concerned by going to the Logix website (www.logix.org.za) and clicking on the left-hand side of the window on Messages. The electronic files that were sent to you are saved there according to the date of capture/processing.
- **To import the inspection data into BenguFarm BEEF**, there are two options:
 - **Option 1 – Logix Direct (recommended option for herds with SA Stud Book as service provider):**
 - Go to Data Send/Import > Logix Direct > Import Inspection Data. **Please note:**
 - This function will import the following data: Inspection date, visual point (if applicable), approved/rejected, rejecting reason(s), section and subsection (if applicable).
 - If the option Change Status of Active Rejected Animals to Non-active at the bottom of the screen is marked, the status of the rejected animals that are still active in BenguFarm, is made Non-active.

- **Option 2:**
 - Save the electronic file at a suitable place on your computer (e.g. C:\BenguFarm\Beef\Imports\Herd). This can be done in Outlook by clicking on File > Save Attachment or otherwise by right clicking on the file and choosing Save Target As. Make a note of where the file is saved. [**Please note:** Do NOT open this file in Excel and save in xls or csv format, for this will result in you not being able to import the data into BenguFarm BEEF and/or the dates may import incorrectly].
 - In BenguFarm BEEF go to Data Send/Import > Import > ARC/Stud Book > Inspections. Browse for the electronic file (INSPECTIONS_...) and click on Import. Use the **Help** function if necessary.
- Alternatively, you can record (or edit/delete) the inspection data by going to Other Data > Inspections. Use the **Help** function if necessary.
- **To move rejected animals to another (e.g. commercial) herd**, see paragraph 35.
- **To view the inspection data of an animal on the main screen**, go on the Animal Layout to the General view screen and scroll down to the inspection data fields or go on the Herd View to the Inspection section.
- **To create a report of animals inspected**, go to the main window's Herd View to the Inspection section, select the animals that have been inspected (or approved) and click View in My Reports. Click Report Columns (Layout), click on the "+" next to the General section, go to the Inspection sub-section and select the relevant fields that you want to include in the report.

35. Sales, deaths and culls:

- **To create a report with the most important information of an animal(s) on one report**, go to Reports > Animal, Pedigree and Progeny > Animal Summary. This report can be used to send to prospective buyers for marketing purposes.
- **To create a sale catalogue** (that can also be used for out-of-hand sales), go to Reports > Purchases, Auctions, Sales, Deaths and Culls > Sale Catalogue.
- **To print a Livestock Removal Certificate**, go to Reports > Purchases, Auctions, Sales, Deaths and Culls > Livestock Removal Certificate.
- When animals were sold, died, stolen or left the herd for other reasons, this should be recorded in BenguFarm BEEF to keep your herd list up to date. **Please note:** Do NOT delete the animal records of animals leaving the flock (non-active animals) from BenguFarm-BEEF, as they may in some way be connected to other animals in the database. If an animal is deleted, the pedigree or progeny of the related animal(s) will no longer be complete.
- **To create a list for recording animals' weights at selling**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Weigh List (recording list).
- **To create a list on which animals' sale-/hunting-/death data can be recorded**, go to Reports > Animal Lists and Numbers > Herd List. To the far right are columns to record the date and reason why animals left the herd.
- **To record (or edit/delete) the sales data** (to whom sold, date sold, reason for selling, weight, price, etc.) **of sold animals or the left-herd data of animals that left the herd for reasons other than sold** (e.g. died, stolen, etc.), go to Other Data > Sales, Deaths and Culls. Use the **Help** function if necessary.
- **Please note:**
 - When an animal that has left the herd (sold or died), they are NOT removed automatically from the camp and/or group(s). If you do want to remove the animals from the camp and/or group(s) they were in when they left the herd, this can be done, but this is not necessary as you normally only work with the active animals in a camp or group.
 - If a breeding bull is sold or died, remember to remove the Breeding/AI Bull mark from the bull's record. [Animals > Add and Edit Animals > General > Breeding/AI Bull].
- **If the buyer is also a BenguFarm user, you can send the buyer the relevant animals' data electronically which he can then import into his BenguFarm.** To create this electronic file containing the data of the sold animals, go to Data Send/Import > Send > BenguFarm Animal Transfer File. **Please note:** The following data is *not* included in the Animal Transfer File:
 - Camps and groups
 - Vaccinations, Dosings, Disease Tests, Diseases and Treatments
 - Procedures
 - Purchases and Sales
 - Photos and Documents.
- If animals are marked with an electronic number (EID tag), the EID can be removed when the animal is sold or die and be re-used for another animal. If sales and deaths are recorded directly in BenguFarm or on the APR500 / APR600 EID reader or the BenguFarm MOBILE app, the applicable EID numbers are

removed automatically when the applicable data is imported. **Before reusing EIDs, it is critically important that the Erase and Update Reader Data step is done** in BenguFarm at Data Send/Import > Import > RFID Experts APR500/600 Reader to ensure the EID is linked to the new animal's record with reuse. **To delete/delink microchip numbers (EIDs) of animals sold or died (i.e. non-active)**, see paragraph 56. **To re-assign the microchip number of an animal to a new animal**, see paragraph 57.

- **To create a report of animals that were sold or that left the herd for other reasons**, go to Reports > Purchases, Auctions, Sales, Deaths and Culls > Sales, Deaths and Culls.
- **To create a report of the animals which were added to the herd (calves born, animals bought, moved from another herd) and left the herd (sold, died, moved to another herd, etc.) for a specific period**, go to Reports > Animal Lists and Numbers > Animal Numbers Reconciliation. For this report to reflect the correct numbers and display all relevant values, it is necessary that:
 - The animal numbers and values are calculated and stored regularly:
 - All applicable data such as animals born, purchased, moved from another herd, sold, died and moved to another herd recorded with, where applicable, the purchase price, selling price and loss value must have been recorded.
- **To view the sale data of an animal on the main window**, go on the Animal View to the General view window and scroll down to the sale data fields or go on the Herd View to the Sales and Deaths section. **Tip:** Remember to turn on the Non-active filter to see the animal in the list of animals.
- **To restore an animal that was wrongly recorded as sold or dead**, go to Animals > Add and Edit Animals (Single Animal Layout). Turn on the Non-active filter and select the animal in question. On the General Data screen, change the Status to Active. On the Miscellaneous Data screen, remove the Cancelled record and Save. On the same screen, click on Edit Detailed Transfer / Cancellation Record. The Sales, Deaths and Culls screen will now open and the animal's record will be automatically loaded. Select the record and click Delete and Save. **Tip:** If it is a registered animal, remember to request from your service provider (e.g. SA Stud Book) that the animal be re-instated.
- **Tip: To create a report of all activities recorded in BenguFarm during a selected period**, go to Reports > Administration > Log of Recorded Activities.

36. **Send transfers and cancellations:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- After the sales and/or deaths have been captured in BenguFarm BEEF (Other Data > Sales, Deaths and Culls), this data should be sent to SA Stud Book to transfer the animals to the new owner and/or remove them from your herd's inventory on Logix. **Please note:** To send a transfer to Logix, the buyer should be selected in the Sold To field from the Contact list and the contact should, except for the Business name, also contain the Stud Book member number OR an address to ensure the animal is transferred to the correct new owner.
- **To send the transfer and/or cancellation notifications electronically to SA Stud Book/ARC** (or to print if you do not have the facilities to send data in electronic format) directly from the Sales, Deaths and Culls screen, click at the bottom left of the screen on the Create and Send Electronic Data File to Service Provider icon. If the records are not already on the screen, first click Load Existing Records and select the records to be sent. **Alternatively**, go to Data Send/Import > Send > Stud Book/ARC > Transfers and Cancellations. Click on List Transfers and Cancellations Not Sent Before. If the applicable transfers and/or cancellations have already been sent or printed and you need to send them again for whatever reason, click on Select Animals. Use the **Help** function if necessary.
- Check if the **Options** are correct for the applicable animals. Also check if there are any **Errors**. To display the description of an error, move the computer's cursor over the column heading. If so, make a note of the animal(s) involved and the problem. To correct this, click on the three dots in the "\$" column. **Please note:** If animals have been sold and the Sale (Transfer) field was marked, the buyer's address and/or Studbook member number (e.g. 0678678BON) must be filled in on the buyer's contact. To fill it in or change it, click on the three dots in the Contacts column.
- If you are sure all data is correct and complete, click on **Create and Send Electronic File of Data to Service Provider / Create Electronic File** (icon with red and blue arrows at the bottom of the window) to create and send an electronic file(s) of the selected cancellations and/or transfers. If the Use Logix Direct File Upload Functionality (see Settings > Herds > Service Providers) or Use SMTP Direct E-mail option (see Settings > Herds > E-mail) is selected, the electronic file will be sent directly (i.e. not through your e-mail program) to Logix. If the data was sent successfully, a message "Data successfully received by Logix" will be displayed. If not, BenguFarm BEEF will now attempt to automatically attach the electronic data file to an e-mail message and put it into the Outbox of your default e-mail programme (e.g. Outlook). The e-mail will be sent when you are on-line.

- If, for some or other reason, BenguFarm BEEF cannot attach the electronic file to an e-mail, a warning message will appear. Please note where you save the file to be attached to an email (e.g. C:\BenguFarm\Beef\Exports\Herd of C:\Program Files\BenguelaSoft\BenguFarm\Electronic\Send). Please follow the instructions on the warning message for help on how to create an e-mail with your e-mail programme (e.g. Outlook) yourself, attach the applicable file(s) to it and send it to edata@studbook.co.za (SA Stud Book) or intergis@arc.agric.za depending on who your service provider is. **Note:** Remember where you have saved the file for attaching it to an email. [For help to solve problems with the sending of data, contact you BenguFarm agent]. **PLEASE NOTE: Transfers and cancellations are saved in two separate files. Remember to send both.**
- When the data has been received, Logix will automatically send you an e-mail message as proof of receipt. If you have not, for some or other reason, received such an e-mail, please contact SA Stud Book on telephone number 051 410 0900 or send an e-mail to **help@logix.co.za**.
- If you do not have the facilities to send data in electronic format, you can print it and send it by fax or normal mail. To print the cancellations, click on Display Cancellations Printout > Print. To print transfers, click on Display Transfers Printout > Print.
- **To check which matings were already send**, go to Reports > Administration > Log of Files and Reports Sent.

37. Move animals to another herd:

- **To create a new herd**, see paragraph 7.
- How to move animals in BenguFarm from one herd to another herd, depends on whether the two herds are in the same database or in different databases. **Tip:** To see if the respective herds are on the same database, go to File > Change Active Herd To > List All and Select.
- **If the two herds are on the same database**, you can simply move the animals from one herd to another. Go into the herd **from** which you want to move the animals to Other Data > Move Animals to Another Herd. Mark the animals involved in the "S" column, and then select at the top of the window, the herd **to** which the animal must be moved, enter the date, select the reason and Save. Use the **Help** function if necessary. **Please note:** Remember to change the relevant animal's section (e.g. SP to Comm), camp and/or management group, where applicable. **Tip:** If a registered animal has to be cancelled and moved to the commercial herd, first record the cancellation at Other Data > Sales, Deaths and Culls, but do not change the status to (default) Non-active, i.e. keep the status Active. Send the cancellation to the service provider (e.g. Studbook). Then move the (active) animal to the commercial herd.
- **To create a report of animal movements between herds on the same database**, go to Reports > Camps and Herds > Herd Movements.
- **To view the herd movement data of an animal on the main window**, go on the Animal View to the General view window and scroll down to the Herd information fields.
- **To create a report of the animals that were added to the herd for a certain period (animals born, purchased, moved from another herd) and left the herd (sold, died, moved to another herd)**, go to Reports > Animal Lists and Numbers > Animal Numbers Reconciliation. For this report to reflect the correct numbers and display all relevant values, it is necessary that:
 - The animal numbers and values are calculated and stored regularly:
 - All applicable data such as animals born, purchased, moved from another herd, sold, died and moved to another herd recorded with, where applicable, the purchase price, selling price and loss value must have been recorded.
- **If the two herds are each on a separate database**, you must transfer the animals through an Animal Transfer File. Go into the herd **from** which you want to move the animals to Data Send/Import > Send > BenguFarm Animal Transfer File, select the animals concerned, select the transfer options and create the Animal Transfer File. Note where the file is saved. To import the Animal Transfer File into the other herd (on another database), go into the herd **to** which you want to move the animals to Data Send/Import > Import > Database > BenguFarm Animal Transfer File. Browse to where the file was saved and click on Import. Use the **Help** function if necessary.

Tip: To move animals between camps or other groups, go to Other Data > Move Animals to another Camp or Group. Use the **Help** function if necessary.

38. Compare BenguFarm BEEF herd list with Logix/Intergis herd list: (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- **To verify that your BenguFarm BEEF herd list match your Logix/Intergis herd list** (if applicable and if you are registered as a Logix user), please follow these steps:

- **Option 1 – Logix Direct (recommended option for herds with SA Stud Book as service provider):**
 - Go in BenguFarm BEEF to Data Send/Import > Logix Direct > Compare BenguFarm BEEF and Logix Herd Lists. Use the **Help** function if necessary.
 - Differences between the BenguFarm BEEF and Logix herd lists (active animals) are indicated as follow:
 - For each field the BenguFarm BEEF data is listed in the first column, followed by the Logix data in the next column.
 - Animals on a **red** background are (still) active in the BenguFarm BEEF database, but:
 - The animal cannot be found on the Logix database. The reason may be that the animal's birth was recorded in BenguFarm, but the birth notification was not sent to Stud Book or that it was sent but for some reason not accepted. It also may be that the animal's number are incorrect in BenguFarm BEEF; and/or
 - The animal is in Logix, but you are not the owner of the animal (the reason may be that you have already send in the transfer of the specific animal to Stud Book, but you have not yet recorded it in BenguFarm BEEF (on the Sales, Deaths and Culls window), or you have neglected to change the animal's status in BenguFarm BEEF to "Non-active"; and/or
 - The animal is in Logix, but the animal is cancelled or dead (the reason may be that that you have already send in the cancellation of the specific animal to Stud Book, but you have not yet recorded it in BenguFarm BEEF (on the Sales, Deaths and Culls window), or you have neglected to change the animal's status in BenguFarm BEEF to "Non-active". It may also be that the animal was automatically cancelled on Logix, e.g. because it no longer meets the minimum breed standards, but in BenguFarm the animal is still active.
 - If an animal's birth was recorded in BenguFarm but the birth notification has not been sent to Studbook, select the animal(s) concerned and send the birth notification(s) to Studbook by clicking Send Birth Notifications at the bottom of the screen.
 - Animals on a **brown** background is in both the Logix and the BenguFarm BEEF database, but the animal's status in BenguFarm BEEF is "Non-active", while in Logix it is active, in other words you are the owner of the animal and the animal is not cancelled or dead. (See the computer number on the far right to identify the animal. Please ignore the BenguFarm BEEF birth date – it is a fictitious date). The reason might be that you already recorded the animal in BenguFarm BEEF as cancelled or transferred, but the animal's cancellation or transfer was not sent to Stud Book. If the animal is still in the herd, change the animal's status to BenguFarm to active. If the animal is not in the herd and it is already recorded on the Sales, Deaths and Culls screen (there will be a dot in the \$ column), select the animal(s) and send the animal's cancellation or transfer to Stud Book by clicking Send Transfers/Cancellations at the bottom of the screen. If the animal is no longer in the herd and it is *not* yet listed on the Sales, Deaths and Culls screen (not a dot in the \$ column), select the relevant animal(s) and create a cancellation or transfer record by clicking on the Create Transfers/Cancellations at the bottom of the screen. Then send the cancellation or transfer to Studbook by clicking Send Transfers/Cancellations at the bottom of the screen.
 - Animals on an **orange** background could not be found in the BenguFarm BEEF database but is (still) active in the Logix database. The reason might be that it is a purchased animal which is already transferred on Logix, but the animal's data was not imported in BenguFarm. It also might be that the animal's computer number has not been recorded in BenguFarm BEEF en thus could not be found. It might also be that the animal is actually not in BenguFarm BEEF, e.g. where the calving has not been recorded in BenguFarm BEEF but was directly recorded on Logix or send in via a paper document. If it is a purchased animal that has already been transferred on Logix, but that animal's data has not yet been imported into BenguFarm, select the animal(s) concerned and import the animal's Logix data by clicking Import Animals at the bottom of the screen.
 - Animals on a **white** background are active in both the BenguFarm and Logix herd lists, but information in the fields on a red background differ (e.g. number of calves). If a cow's number of calves in BenguFarm BEEF is for example one more than on Logix, the reason may be that you have already recorded the last calf in BenguFarm BEEF, but you have not sent in the birth notification to Stud Book. If the latter is the reason, send the relevant calves' birth notifications to Studbook. **Please note:** Where the number of progeny

differs for a bull, this is not necessarily a problem. It may simply be a case of the bull in question also having progeny in another herd(s) on Logix.

- **Tip:** To print the herd list differences with the background colours, make a "Print Screen" (PrtSc on your computer keyboard) and paste it to a Word document.
- Changes to an animal's status, sex, date of birth, breed, section and subsection can be made directly on the comparative list in the corresponding BenguFarm columns. After the changes have been made, click Save.
- **Option 2: (only option for herds with ARC as service provider):**
 - Go to the Logix website (www.logix.org.za) > Reports > Inventory > Beef Cattle > Inventory list.
 - Download the csv or zip format file. (The ZIP file format is smaller and will therefore download faster, but you must first extract the csv file before you can import it into BenguFarm BEEF). **Right** click the file format of your choice and select Save Target As. [**Please note:** Do NOT open this file in Excel and save in xls or csv format, as this will cause you not to be able to import the file into BenguFarm BEEF and/or the dates could be imported incorrectly)
 - Save the chosen file in an appropriate location on your computer (e.g. C:\BenguFarm\Beef\Imports\).
 - Go in BenguFarm BEEF to Reports > Animal Lists and Counts > Compare BenguFarm BEEF and Logix Per-capita Lists.
 - Click in the top right-hand corner on Browse and Compare with Logix csv or zip Per-capita File.
 - Find and select the csv or zip format inventory file (e.g. INVBEEF csv) where you saved it.
 - See Option 1 above for an explanation of any differences between the two herd lists.

39. Update the programme:

- It is important to always update your BenguFarm programme to the newest version (the version date appears at the top of the main window, e.g. "BenguFarm (TM) [BEEF] **v21 Apr 2022**"). BenguFarm users are notified by e-mail when a new version has been released on the BenguFarm BEEF website.
- **There are three ways to update your BenguFarm programme via the internet** to the newest version:
 - If you are on-line and the automatic update option is selected (Settings > Herds > Reminders > Automatically check for Newest BenguFarm Update), BenguFarm will remind you when a new update is available. Follow the instructions to update your BenguFarm.
 - To initiate the above process manually go in BenguFarm to File > Update from Web and follow the instructions.
 - Close your BenguFarm programme, go to the BenguFarm website www.bengufarm.co.za > Updates and download and install the update. The instructions how to do this are available on the website page.
- **Please note:**
 - **Windows may give a security warning** and ask the user whether the file must be run of not. Select "More Info" and/or "Run" / "Run Anyway" to run the update file.
 - **If your computer does not allow you to download the update file, de-activate your computer's anti-virus program temporarily and try again.** (The default settings of some anti-virus programs, e.g. Avast, Avira, Kaspersky, McAfee and Norton, are very aggressive and may see the BenguFarm updating file (.exe format) as risk and block it, with the result that you will not be able to continue with the BenguFarm installation).
- When you have finished the update process, open BenguFarm again and see if the applicable version's date appears on top of the main window, e.g. "BenguFarm [BEEF] TM **v21 Apr 2022**."
- **Tip:** To see what has been added and changed in BenguFarm, go to www.bengufarm.co.za > Downloads > Newsletter. Select the latest newsletter and look for the What's New section.

40. Renew the programme's registration:

Your BenguFarm programme will annually warn you about a month before your BenguFarm license is about to expire. BenguelaSoft BK will send you an invoice for the license fee about a month before your BenguFarm license is about to expire. If for some reason you didn't receive an invoice (please ensure that we have your correct e-mail address), please contact Naomi Havenga at 082 696 8306 or send an email to accounts@benguelasoft.co.za.

To re-register your BenguFarm, follow these instructions:

- Please send the proof of payment of the license fee to Tim Pauw at accounts@benguelasoft.co.za.
- For the automatic re-registration function in BenguFarm to work, the following must be in place:

- Your computer must be online on the internet at the time that you open BenguFarm;
- Your BenguFarm module's license fee must be paid-up;
- The license fee payment must be recorded on the BenguFarm client database (please allow 5 working days for this); and
- Your BenguFarm account number (BPU...) must be recorded in your BenguFarm. (If your account number is recorded, it will be displayed next to your account name at the top of the main window).
- The relevant BenguFarm Computer Identification Code (at the top of the registration window) must already be recorded on the BenguFarm client database.
- If all this is in place and your BenguFarm registration has expired or is about to expire in the near future, your BenguFarm will, when you open it, link via the internet to the BenguFarm client database at BenguelaSoft and automatically renew your BenguFarm registration. A message "Re-registration successful. You have access until [date]" will appear on the screen. In such cases, it is not necessary to enter the new registration codes manually on the registration screen.
- Irrespective of the automatic re-registration option, BenguelaSoft will in any case send you, within five working days from date of receipt of payment, an e-mail with the registration and access codes for the Computer Identification Codes (CICs) we have on record for you (see note below). If the automatic re-registration was unsuccessful, go to Options > Registration and complete the registration code and access code for the specific CIC on the registration window and click Register/Reregister.
- **If the automatic re-registration was unsuccessful, and the CIC is not included in the e-mail or SMS or if you do not have an e-mail facility,** contact Naomi Havenga at 082 696 8306 or send her an email to accounts@benguelasoft.co.za while you are on the registration window, and supply her with your BenguFarm account name and number (beginning with BPU) and the CIC for which you need a registration code. She will then supply you with a registration code and access code which you need to enter on the registration window. Then click on Register/Reregister.

Please note:

- Please make sure that we have your correct e-mail, phone number and other contact details on record. If you are on-line on the internet, you can check and, if necessary, change your account details via BenguFarm by going to Options> View/Update my Account Information. Alternatively, please contact Naomi Havenga.
- Each database in BenguFarm has a different CIC. Also, the CIC of each computer on which BenguFarm is installed is different. Therefore, you will need to supply the CICs of all the databases on all the computers on which BenguFarm is installed and get a registration code and access code for each. To get the CICs of the other databases, change the active herd to the applicable database (File > Change Active Herd to) and then go to Options > Registration. Do the same for each computer on which BenguFarm is installed.

PART C – ADDITIONAL AND ADVANCED FUNCTIONS:

File

41. Recalculate summary data:

- To recalculate summary data, go to File > Support > Recalculate Summary Data.

42. Recalculate expected calving dates:

- Expected calving dates must be recalculated if the Youngest Age at 1st Mating, Rest Period from Calving to Mating or Minimum, Normal or Maximum Period Pregnancy settings [Settings > Herds > Mating, Pregnancy and Calving] has been changed for the affected herd.
- To recalculate expected calving dates, go to File > Support > Recalculate Expected Calving Dates.

43. Recalculate automatic diary:

- To recalculate automatic diary entries, go to File > Support > Recalculate Automatic Diary Entries.

44. Recalculate inbreeding percentages:

- To recalculate inbreeding percentages, go to File > Support > Recalculate Inbreeding Percentages.

45. Find duplicate animals:

- BenguFarm will not normally allow duplicate animal records (animals with the same IDnr) to be created, but when an animal record was created by hand or imported from some file and then also imported from another file, it is possible in certain circumstances that duplicate records may arise. An example is when data was first imported from another software package, such as Studmaster, in BenguFarm and then also imported from a Logix file. For animals that did not have computer numbers in Studmaster or where the computer number was incorrect, duplicate records will then be created.
- **To search for animals with the same visual or electronic ID (EID) number or computer number**, go to File > Support > Find Duplicate Animals. **Please note:** Animals with duplicate numbers are searched for across all herds in the applicable database.
- If there are animals in the *same herd* with the same ID number, this can lead to several problems. If there are really two animals with the same ID number (e.g. one purchased and one self-bred), add a letter at the back of one of the animal's number to make the animals' numbers unique, e.g. 190022A.
- **To create a report of duplicate animals**, click on Display Report.
- Duplicate animal records can be corrected manually by first determining what data (general animal data, pedigree data, progeny data, weights, etc.) differ between the two animals involved, secondly completing one of the two animals' data and then thirdly delete the other animal. However, it is a long and arduous process, especially when there are many such duplicate animals. However, there is an administrative function in BenguFarm [File > Support > Administrative Functions] that performs this merge process programmatically. To access the Administrative Functions, a password is needed. Contact your BenguFarm agent for assistance using this administrative function to merge duplicate animal records into BenguFarm and delete the other record.

46. Change ID numbers and/or names:

- **Please note:** It is strongly recommended that a backup of the relevant database be made before using this feature.
- Go to Settings > Herds > ID Methods and Numbering and make sure the Default ID Format is set up correctly.
- Go to Animals > Edit Animals (table layout). At Select Columns to View, select the fields HDM, Year, Sequence Number and, if applicable, Prefix (Flock Name). Make sure these fields, where applicable, are filled in and correct for ALL active animals in the herd concerned, as the first three fields will be used to recreate the IDnrs according to the Default ID Format setting. If anything has been added or changed, click Save.
- To change animals' ID numbers and/or names in BenguFarm BEEF, go to File > Support > Change ID Numbers and/or Names and select the appropriate option.

47. Administrative functions:

- BenguFarm has various administrative functions to correct or change data (e.g. to find and remove duplicate animals after Studmaster and Logix/Intergis data has been imported), to remove bulls' (e.g. AI bulls) offspring born in other herds, etc.) to remove unnecessary animals from the database and make the database smaller. Go to File > Support > Administrative Functions. Your BenguFarm agent will refer you to these functions when needed and provide you with the password to access these functions.

Please note: It is strongly recommended that a backup is made of the relevant database before any administrative function is used.

48. Troubleshooting and problem solving:

- If you encounter an error message in BenguFarm BEEF (e.g. "An unhandled exception has occurred..."), the following should solve it in most of the cases:
 - Go to File > Support > Test Data Structures and DBNull Values.
 - Go to File > Support > Compact and Repair Database.
 - Go to File > Support > Recalculate Summary Data.
 - Go to Settings > Herds > General and make sure that all applicable settings are in place and correct.
 - Close BenguFarm and open it again.
- If the above steps do not solve the problem, go in BenguFarm to File > Update from Web OR close BenguFarm, open your Internet browser and go to www.bengufarm.co.za > Downloads > Updates. Download the latest update, install it and open BenguFarm again.
- If this still does not solve the problem, contact your BenguFarm agent.

Animals

49. Notes:

- **To record** (or edit/delete) **a general note** (e.g. "Half-sister of most expensive bull at National Sale 2012") **on a record of an animal**, go to Animals > Add & Edit Animals (Single Animal Layout) > Miscellaneous Data > Notes. **Notes can also be recorded on the Animal View of the main window on the Notes view window.** This is the *only* view window where data can be entered and saved. (Click on the "stiffy" disk icon to save the new note).
- Notes can only be included in the My Reports by going to Reports > My Reports > Animal Data. Click on Report Columns (Layout) and then select General > Notes.

50. Appearance remarks:

- **To record** (or edit/delete) **appearance remarks** (e.g. Woolly coat) of an animal, go to Animals > Add & Edit Animals (Single Animal Layout) > General > Appearance Remarks. Select the remark(s) under the relevant section and mark it (e.g. under the Skin and Coat section > Frizzy/Woolly Summer Coat). **Appearance Remarks can also be recorded and saved on the Animal View of the main window on the Notes view window under the Appearance Remarks heading.**
- Appearance Remarks can only be included in the My Animal reports by going to Reports > My Reports > Animal Data. Click on Report Columns (Layout) and then select General > Appearance Remarks.

51. Family lines:

- **The purpose of recording family lines** is to indicate that an animal was bred from a specific family. Record can be kept of either dam lines or sire lines.
- **To set whether the program should keep record of dam lines or sire lines**, go to Settings > Herds > Matings, Pregnancy and Calving and select Breed Dam Lines or Breed Sire Lines and, if applicable, Force Selected Line. If Breed Dam Lines is selected, a calf will receive the family line of the dam. If the dam does not have a family line, the calf gets the family line of the sire. Sire lines just the other way around. If Forced Selected Line is selected and for example Breed Dam Line was set up and the dam does not have a family line, the father's family line will NOT be used.
- **The family line can be recorded for an animal** on the Calving screen, Add and Edit Animals screen as well as the Edit Animals screen.
- **On the calving screen, a calf will be automatically linked** to the dam's family line, if the dam's family line has been recorded, or the sire's family line, if the sire's family line has been recorded.
- **To view an animal's family line on the main screen**, go to the Animal View > Birth > Family Line and on the Herd View to the Birth section.
- **Animals from a specific family line can be selected** with the Choose Animals screen > Choose Animals by Group(s) / Filter(s) > Family Line.
- **The family line can only be included in the Animal Summary report and the My Reports** by going to Reports > My Reports > Animal Data. Click Report Columns (Layout) and then choose Birth > Family Line.

52. DNA verified parentage:

See paragraph 27 for how to certify the DNA verified parentage of animals in BenguFarm.

53. Genomic results:

- **To import your animals' genomic results in BenguFarm BEEF, there are two options:**
 - **Option 1 - Logix Direct (recommended option for herds with SA Studbook as service provider):**
 - Go in BenguFarm BEEF to Data Send / Import > Logix Direct > Import Genomic Results. BenguFarm will now log you in to Logix, look for the latest genomic results for the animals in the relevant herd, create a file and import it into BenguFarm BEEF without any further action being required.
 - If you receive a "time-out" message from Logix, follow the on-screen instructions or Option 2 below to download and retrieve the latest breeding values.
 - **Option 2:** Alternatively, once you have received the genomic results report from the DNA laboratory, you can record (or change / remove) the genomic results of the animals concerned at Animals> Genomic Results.
- **To view an animal's genomic results on the main window**, go on the Animal View to the Genomic Results view window. . To print the results, click on the printer icon at the top right of the Genomic Results view screen. **Tip:** To display this view window, go to Display > Select Main Screen Animal Layout View Screens > Genomic Results.
- **To create a report of genomic results**, go to Reports > My Reports > Display Columns (Layout) > Genomic Testing

54. Data navigator:

- The **Data Navigator** window is very useful to display various types of data together on one window for the entire herd (default option) or a selected group of animals. Changes to data and removal of records can also be made on the applicable data window via the Data Navigator window. **Tip:** The Data Navigator window can also be used to select and sort animals and to quickly print a report. It is indeed a very useful window. Use the **Help** function if necessary.

55. Search animal:

- **To search an animal on a different number** (e.g. microchip/electronic number, computer number, DNA number, etc.) in BenguFarm BEEF, go to Animals > Search Animal. This feature is especially handy to see what the ear tag number was when an animal has lost its visual tag.

56. Delete non-active animals' microchip numbers (EIDs):

- **To delete/delink microchip numbers (EIDs) of animals sold or died (i.e. non-active)** in BenguFarm BEEF, go to Animals > Delete Non-active Animals' Microchip Numbers (EIDs). **Please note:** Before running this function, first ensure that the status of the sold/died animals are non-active.

57. Re-assign a microchip number (EID) to a different animal:

- **To re-assign the number of a microchip (EID) that was assigned to on an animal to a new animal** in BenguFarm BEEF, go to Animals > Re-assign Microchip Number (EID) to a Different Animal.
- Select the applicable animal and enter the microchip number (EID) to be assigned to the animal. The animal that currently has this microchip number (EID) will be listed below and the microchip number (EID) will automatically be deleted from that animal, i.e. after the relevant microchip number (EID) was entered at the new animal and saved, the microchip number (EID) field for the previous animal will be blank. If necessary, a different microchip number can be entered for this animal, but it's unlikely, as a re-assignment of a microchip usually happens where the animal that currently has the chip, was slaughtered or sold.
- **Please note:**
 - BenguFarm do NOT keep record of the previous animal(s) that had a particular microchip number (EID). If you want to keep such records, we suggest that you leave the microchip number with the previous animal, but add a character to it to make a unique number, e.g. the first animal that had the microchip number 123456789 is 123456789-**A**, the 2nd animal that had this microchip number (EID) 123456789-**B**, etc. The animal that currently has the microchip number is of course only 123456789.
 - **Please note:** If you *only* use electronic identification (EIDs), please see Settings > Herds > Create IDnr (Visual) from EID (Microchip Number) where no IDnr Specified.

58. Change breeders, owners and/or keepers:

- To change one or several animal's breeders, owners and/or keepers in BenguFarm BEEF, go to Animal > Change Breeders, Owners and/or Keepers. Use the **Help** function if necessary.

Reproduction

59. BenguFarm GENETICS breeding management module:

- Stud breeders can use the optional **GENETICS module** using breeding values and pedigrees to **determine the best matings** according to breeding goals they can set themselves for their own herds. For more information, contact Mr. Leslie Bergh leslie@benguelasoft.co.za or 082 801 2026 or visit www.bengufarm.co.za > Products> Genetics. For a GENETICS module manual, go to www.bengufarm.co.za > Downloads > Manuals.

60. Semen stock:

- **To record** (or edit/delete) **the semen of AI bulls in the Semen Stock register** (optional), go to Reproduction > Semen Stock. Use the **Help** function if necessary.
- When AI records are recorded, the semen stock is updated automatically, provided that Frozen is selected at Semen Type on the AI screen. If Fresh is selected, those AI records will have no effect on the semen stock.
- **To create a report of semen stock**, go to Reports> Matings, Pregnancies and Calvings > Semen Stock.

61. Embryo flushings, -implants and embryo stock:

- See Appendix D.

Health

62. Tests for diseases:

- **To create a list on which tests for illness can be recorded**, go to Reports > Diseases, Injuries, and Treatments > Disease Tests (recording list). [Not available yet]
- **To record** (or edit/delete) **the results of disease tests**, go to Health > Disease Tests.
- **To create a report of the results of disease tests**, go to Reports> Diseases, Injuries and Treatments> Disease Tests. **Tip:** Click Display Worksheet to link animals to groups (e.g. tested / not tested groups).
- **To view an animal's results of disease tests on the main screen**, go on the Animal View to the Vaccinations, Dosings and Diseases Tests > Disease Tests view window. To display disease tests on the Herd View, go on the main window's Herd View to Display Options > click the Set Up My Columns to Display (icon at the top). [Not available yet]

63. Diseases, injuries and treatments:

- **To record medicine stock**, see paragraph 65.
- **To record** (or edit/delete) **diseases, injuries and treatments**, go to Health > Diseases, Injuries and Treatments. Use the **Help** function if necessary.
- **Tip:** Information such as **default dosage, withholding period and expiry date** of medicines can be recorded on the stock register [Health > Medicine Stock]. When Treatments are recorded, the medicine cost per animal will be calculated automatically from the Medicines Stock, provided the batch number is entered. If a batch number is not entered, the last purchase's unit price (total price / # units) will be used.
- **To create a report of diseases, injuries and treatments**, go to Reports > Diseases – Prevention and Treatments > Diseases, Injuries and Treatments.
- **To view the diseases, injuries and treatments of an animal on the main window**, go on the Animal View to the Diseases and Treatments view window. To display it on the Herd View, go on the main window's Herd View to Display Options > click the Set Up My Columns to Display (icon at the top).
- **Tip:** It is recommended to, where necessary, extend the default list of medicines with the specific medicines you use. This can be done by going to Settings > Medicines. Medicines in the default list that do not apply to your herd can be disabled by removing the tick mark in the In Use and Device (e.g. APR500 / APR600) columns. The same applies to the Diseases, Injuries and Parasites settings.

64. Vaccines, remedies, dips and supplements stock:

- **To record** (or edit/delete) **vaccines, remedies, dips and supplements** (such as multimineral or multivitamin) **stock** (optional), go to Health > Vaccines, Remedies, Dips and Supplements Stock. Use the **Help** function if necessary.
- When vaccinations, dosing, dip and supplements records are recorded, the vaccines, remedies, dips and supplements stock is updated automatically.
- On the Diary and Management Calendar screen under the Stock near Expiry category, a warning will appear if the relevant batch of vaccine is near the expiry date.

65. **Medicine stock:**

- **To record** (or edit/delete) **medicine stock** (optional), go to Health > Medicine Stock. Use the **Help** function if necessary.
- When treatment records are recorded, the medicine stock is updated automatically.
- On the Diary and Management Calendar screen under the Stock near Expiry category, a warning will appear if the relevant batch of medicine is near the expiry date.

Performance Testing:

66. **Measurements and Scores:**

- **To create a list on which measurements or scores of various traits can be recorded**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Measurements and Scores (recording list).
- **To record** (or edit/delete) **measurements or scores** (e.g. Condition Score or General Appearance Score) **of traits**, go to Performance Testing > Weights, Measurements and Scores not Linked to a Test > Measurements and Scores. **Please note:** Only measurements or scores with numeric values can be recorded here. To record traits with alpha values, see paragraph 89 of this manual.
- To set up additional traits, go to Settings > Traits.
- **To create a report of measurements or scores**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Measurements and Scores Report.
- **To view an animal's measurements or scores on the main window**, go on the Animal View to the Measurements and Scores view window. To display measurements and scores on the Herd View, go on the main window's Herd View to Display Options > click the Set Up My Columns to Display (icon at the top).

67. **Apply for bull growth tests:** (Only applicable to herds which are members of SA Stud Book's Logix Beef)

If you want to test bulls in a Central Growth Test (Phase C) or an On-Farm Growth Test (Phase D), you can complete the necessary **application forms** in BenguFarm BEEF, including a list of the applicable bulls with their particulars and send it to the ARC or Stud Book. Go to Data Send/Import > Send > ARC/Stud Book > Phase C/D Performance Test Application. Please note that you can print this application or save it in electronic format and **send it to the applicable Stud Book Technical Advisor or ARC regional office or bull testing centre** (please note, NOT to Logix).

68. **Pelvic measurements:**

- **To record** (or edit/delete) **pelvic measurements**, go to Performance Testing > Pelvic Measurements.
- **To create a report of pelvic measurements and calculations** (corrected pelvic opening, indexes, etc.), go to Reports > Weights, Measurements, Performance Testing & Breeding values > Performance Test Results > Pelvic Measurements. See Appendix F for the interpretation and use of processed pelvic measurements.

69. **Body measurements, functional appearance, ultrasonic measurements, tick counts and feed intake:**

- Body measurements, functional appearance scores, ultrasonic measurements of certain carcass traits, tick counts and feed intake are normally only recorded in official growth tests of bulls. In such cases the data will be recorded by the applicable service provider (e.g. SA Studbook or ARC) under whose supervision the test is carried out.
- To record this type of data in BenguFarm BEEF, go to Performance Testing and choose Body measurements or Functional Appearance or Ultrasonic Measurements of Tick counts or Feed intake.

70. **Calculation of approximate feed costs in on-farm growth tests (Phase D):**

- To calculate the approximate feed cost (according to animal weight) per bull in an on-farm growth (Phase D) test, go to Performance Testing > Performance Testing Weights, select the test and click Specify Feed Cost. Fill in the date, cost / kg feed and percentage of animal weight fed and save. Please note: The relevant animal weights must already have been entered to calculate the feed cost.
- **To print a feed cost report**, go to Reports > Weights, Measurements, Performance Testing & Breeding Values > Performance Test Results. When the window opens, select the test at the top left of the screen and click Feed Costs at the bottom left.

71. Milk data:

- **To record** (or edit/delete) **milk production and milk analysis data**, go to Performance Testing > Milk Data.
- **To create a report of milk data**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Milk Production Summary. **Tip:** Click Display Worksheet to link animals to groups (e.g. production groups).
- **To create a milk lactation report**, go to Reports > My Reports> Milk Lactations.

Other data

72. Photos and documents:

- **To import** (or edit/delete) **animal photos and documents** (e.g. purchase invoice, DNA certificate, fertility/pregnancy certificate, sale invoice), go to Other Data > Photos and Documents. Use the Help function if necessary.
Please note: Photos in BMP, GIF, JPEG PNG and TIFF format and documents in any format can be imported. A **video** can also be imported and viewed as a document.
- **To view an animal's photos on the main window**, go on the Animal View to the Photos view window.
- **To view an animal's documents (including videos) on the main window**, go on the Animal View to the Documents view window, select the document and click on Display Document.
- **To print an animal's photo on the Pedigree report**, go to Reports > Animal, Pedigree and Progeny > Pedigree and select the option Print Photo of Animal at the top of the window.
- **To display an animal, its pedigree and progeny's pictures on one screen**, go on the main screen to the Animal View > Photos view screen and click below the animal's photo on the Pedigree and Progeny Photo Browser button.
- **Tip: To send a photo of an animal to Logix**, see paragraph 87.

73. Diary and management calendar:

- BenguFarm BEEF has an internal diary that is integrated with the management calendar function.
- **To set up your own management calendar**, go to Settings > Management Calendar Settings. Use the **Help** function if necessary.
- **To view the management tasks and other diary entries**, go to Other Data > Diary and Calendar Management. Use the **Help** function if necessary.
- At Settings > Herds > **Reminders** you can set the diary and integrated management calendar to be displayed when BenguFarm BEEF is opened (by default it is enabled) and set the period (default is 7 days) for diary items to be displayed.
- **Please note:** If calves are linked to a performance test group on the Calving window, the field Add to Performance Test Group is checked and the Calving window is closed, a "Recalculate Automatic Diary Entries" window will appear. If "Calculate" is clicked, BenguFarm will **calculate the dates when the relevant group of calves must be weighed for the respective performance test weights**. When the relevant group of calves has to be weighed for a certain performance test weight (e.g. weaning weight), a reminder will appear in the diary.

74. Procedures:

- The Procedures screen is intended to record activities or procedures such as calves weaned, dehorning, castration, hooves cut, biopsies taken, semen tests, sheath washing, disease tests, animals marked, etc.
- **To create a list on which procedures can be recorded**, go to Reports > Diseases – Prevention and Treatment > Vaccinations, Dosing, Supplements and Procedures (recording list). At Select Items to Print, select the procedures you want to record and add it with the arrow pointing to the right to the Items to Printed in Report.
- **To record** (or edit/delete) **procedures**, go to Other Data > Procedures. Use the **Help** function if necessary.
- **To create a report of procedures**, go to Reports > Other Reports> Procedures.
- **To display the procedures of an animal on the main screen**, go on the Animal View to the Procedures view screen. To display it on the Herd View, go on the main window's Herd View to Display Options > click the Set Up My Columns to Display (icon at the top).
- **Tip:** It is recommended to, where necessary, extend the default list of procedures. This can be done by going to Setting > Procedures.

75. General Herd Expenditures and Income

- See paragraph 86, section Expenditures recording in BenguFarm for recording of expenditures per animal or per camp.
- **To record** (or edit/delete) **general herd expenditures** (e.g. labour, diesel, SA Stud Book fees, breeders' society fees, etc.) **and income for the particular herd**, go to Other Data > General Herd Expenditures/Income. Use the **Help** function if necessary.
- **To create a report of general herd expenditures for the particular herd**, go to Reports > Herd Analysis > General Herd Expenditures/Income.
- **To create a report of all income and expenditures recorded for the particular herd**, go to Reports > Herd Analysis > Herd Income and Expenditure Summary.

76. Rainfall:

- **To import historical rainfall data from Excel**, see Appendix B.
- **To record** (or edit/delete) **rainfall** (per location), go to Other Data > Rainfall. Use the **Help** function if necessary.
- On the same screen a **report** (with various options) **can be created of rainfall**.

77. Miscellaneous stock:

- **To record** (or edit/delete) **miscellaneous stock** (licks, feed, hay, etc.), go to Other Data > Miscellaneous Stock. Use the **Help** function if necessary.

78. Camp activities:

- **To record** (or edit/delete) **activities linked to a specific camp** (e.g. feed or lick put out, burned, debushed, feeding place moved, fence maintenance, drinking place cleaned), go to Other Data > Camp Activities. **Please note:** Camp activities are not linked to the animals in the specific camp at that time.
- **Stock items** such as concentrate feed, lick and hay recorded at Miscellaneous Stock (see above) are **automatically updated** *if* the put out of it in camps were recorded at Camp Activities *if* the appropriate stock item is selected and the amount indicated.
- **To create a report of camp activities**, go to Reports > Camps > Camp Activities.
- **To create a report of feed usage per camp**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Feed Usage. This report provides a summary of feed usage as recorded at Camp Activities as well as feeding stations where animals' individual feed intakes are recorded.

79. Animal sightings:

- **To record** (or edit/delete) **animal sightings on a specific date and camp and/or GPS coordinates**, go to Other Data > Animal Sightings.
- **To create a report of animal sightings**, go to Reports > Animal Lists and Numbers > Animal Sightings. **Tip:** With the Animal Sightings vs Camp option, all the animals seen are listed, and next to each animal the camp in which it is currently in BenguFarm. With the Camps vs. Animals Sightings option, all the animals that are in BenguFarm in a certain camp(s) are listed and next to it in which camp and when they were last seen.

80. Insurance:

- **To record** (or edit/delete) **insurance data** of animals, go to Other Data > Insurance.
- **To create a report of insurance data**, go to Reports > Other Reports > Insurance.

81. Move animals to another place:

- **To record** (or edit/delete) **the (temporary) movement of animals from the farm to another place (keeper)**, e.g. a bull testing centre, go to Other Data > Move Animals to Another Place. Use the **Help** function if necessary.
- **Please note:** **To move animals between herds** (e.g. stud to commercial), go to Other Data > Move Animals to Other Herd. **To move animals between camps** or other groups, go to Other Data > Move Animals to another Camp or Group.

82. Awards:

- **To record** (or edit/delete) **awards of animals** (e.g. Elite Cow), go to Other Data > Awards.
- Awards can be displayed in the following reports:
 - Breeding Herd Selection [Reports > Inspections and Selections > Breeding Herd Selection]
 - My Reports [Reports > My Reports > Animal Data > Columns > Awards]

- **To view the awards of an animal on the main screen**, go on the Animal View to the General view screen and scroll down to the Awards fields.

83. **Inspection Scores:** (Only applicable to some breeds)

- Some breeders' societies (e.g. Drakensberger) score a series of traits at inspection of animals. To record (or edit/delete) such scores, go to Other Data > Inspection Scores.
- **To view the inspection scoring data of an animal on the main screen**, go on the Animal View screen and scroll down to the Scoring fields.
- **To create a report of such inspection scores**, go to Reports > Inspections and Selections> Scores Report.
- **Please note:** To record your own scores of certain traits (e.g. Condition Score or General Appearance Score), see paragraph 66.

84. **Wagyu Carcass Data:** (Only available if breed is set up as Wagyu)

- **To record** (or edit/delete) **carcass data** of animals, go to Other Data > Wagyu Carcass Data.

Reports

85. **My animal data reports:**

- The **My Animal Data Reports function is very powerful to set up your own customised reports** and save them for later use. Go to Reports > My Reports > Animal Data.
- Click at the top of the screen on **Choose Animals (Criteria)** and then at the bottom on Choose Animals with Choose Animals Window **OR** set up criteria to select animals by clicking the "+" bottom right of the screen. Use the **HELP** function if necessary.
- Click at the top of the screen on **Report Columns (Layout)** and select under the relevant section the fields you want included in the report.
- Click at the top of the screen on **View Report** to see how the report will look like. If you want to sort the animals on a specific field, click on the column heading.
- Click at the bottom right of the screen on **Display Report**. Choose Print or Export.
- To save the criteria and/or the layout for future use, click at the bottom of the screen on **Save Criteria and Layout**.
- To load saved criteria and/or layouts, click at the bottom of the screen to **Load Criteria and Layout**.
- **Tips:**
 - On the Report Columns screen, empty columns can also be selected to record, for example, comments or notes.
 - On the My Reports> Report Columns (Layout) in the column Heading of Column on Report, the default column headings can be changed with custom headings. The newly selected column headings can be saved with the "stiffy" icon at the bottom right of the screen.
 - The saved criteria can be used on the main window's group filter as well as on the Choose Animals screen to select animals that meet the criteria.
 - The My Animal Data Reports can be used to set up your own layout for certain reports, e.g. Animals per Camp or Group, Herd List, Pedigree or Progeny Summary.
 - Remember to make a backup of your own reports' layouts. [File > Backup and Restore > Backup My Saved Report Layouts].
 - The My Animal Data Reports have certain limitations in terms of the columns available to include in a report. Another option is to create a report on the main window's Herd View with the required columns. To do this, see paragraph 5.

86. **Herd Analysis:**

Averages and trends:

- The purpose of the Averages and Trends report is to graphically compare the average measurement/calculated value of a selected trait(s) for the herd concerned for a selected period, e.g. to display the average weaning weight of calves per year of birth for a selected period. **Please note:** By default, only active and non-active animals *with the relevant herd's herd mark* are included. This function can also be used to compare sires' progeny averages.
- **To create an Averages and Trends report**, go to Reports > Herd Analysis > Averages and Trends. Use the **Help** function if necessary.

Herd Production

- The purpose of the Herd Production Summary is to calculate the total and average production of the herd concerned for a specific period (e.g. for a certain year) for a number of parameters, e.g. total and average weaning weight and compare it with a long-term period.
- **To create a Herd Production Summary report**, go to Reports> Herd Analysis> Herd Production Summary. Use the **Help** function if necessary.

Expenditures recording in BenguFarm:

- It is recommended that costs and prices be recorded *without* VAT.
- **Stock purchases:** The *total* purchase price can be recorded on the following screens:
 - Health > Vaccines, Remedies and Supplements Stock.
 - Health > Medicines Stock.
 - Other Data > Miscellaneous Stock (e.g. lick, feed, concentrates).
 - Reproduction > Semen Stock.
- **Expenditure per animal:** Certain expenditures can be recorded in BenguFarm per animal. The following expenditures can be recorded per animal on the following screens:
 - Reproduction > Synchronisation.
 - Reproduction > Matings > Artificial Inseminations/Laparoscopies. **Please note:** The straw cost per animal AIed is calculated automatically from the Semen Stock, provided the Semen Type is selected as Frozen on the AI window and the purchase price was recorded on that the Semen Stock window.
 - Reproduction > Pregnancy Tests.
 - Reproduction > Embryo Implants. **Please note:** The cost per animal is *not* automatically calculated from the Embryo Stock.
 - Health > Disease Tests.
 - Health > Vaccinations, Dosing and Supplements. **Please note:** The cost per animal is calculated automatically from the Vaccines, Remedies, Dips and Supplements Stock, provided the batch number is entered. If a batch number is not entered, the last purchase's unit price (total price / # units) will be used.
 - Health > Diseases, Injuries and Treatments. **Please note:** Provision is made for the recording of both veterinarian and/or medicine expenditures. The medicine cost per animal will be calculated automatically from the Medicines Stock, provided the batch number is entered. If a batch number is not entered, the last purchase's unit price (total price / # units) will be used.
 - Other Data > Procedures. Expenditures for procedures (e.g. fertility tests, DNA analyses, ear tags, etc.) that are done per animal can be recorded here.
 - Other Data > Purchases. Costs at purchase not included in the purchase price (e.g. transport costs) can be recorded in the Cost per Animal field.
 - Other Data > Sales Deaths and Culls. Costs at sales not included in the sale price can be recorded in the Cost per Animal field.
- **Expenditure per Camp:** Certain expenditures (e.g. lick put out, camp de-bushed, camp burned, fences erected, etc.) cannot be recorded per animal, but it can be recorded per camp. Considering the number of animals in the camp, an average cost per animal can be calculated. This type of expenditure per camp can be recorded on the Camp Activities screen [Other Data > Camp Activities]: **Please note:** If the item concerned, e.g. winter lick, was recorded at Miscellaneous Stock *and* the relevant stock item selected on the Camp Activities screen, the expenditure will be calculated automatically. Otherwise, the expenditures can be recorded on the Camp Activities screen.
- **Expenditure per Herd:** Certain expenditures (e.g. labour, fuel, breeders' society fees, etc.) cannot be recorded per animal or per camp but can be recorded as general expenditures for the herd concerned. These types of expenditures per herd can be recorded on the General Herd Expenditures Screen [Other Data > General Herd Expenditures]. **Tip:** If you have more than one herd on the same database, general expenditures can be recorded in the ALL herd, where applicable. Expenditures that can be recorded per animal (e.g. fertility tests, pregnancy tests, DNA analyses) but not being recorded per animal, can be recorded here as a total expenditure for the relevant herd.

Herd Income and Expenditure Summary:

- The purpose of the Herd Income and Expenditure Summary report is to calculate the income and expenditures for the herd concerned per item for a specific period (e.g. for a financial year).
- **To create a Herd Income and Expenditure Summary report**, go to Reports > Herd Analysis > Herd Income and Expenditure Summary. **Please note:** Stocks purchased (see above) will *not* be shown as an expenditure on this report. It will only be shown as expenditure if its use was recorded per animal, camp or herd.

Data Send/Import

87. Send animal photos to Logix: (Only applicable to herds which are members of SA Stud Book's Logix Beef)

- Breeders of breeds that use SA Studbook as a service provider can send photos of animals directly from BenguFarm to Logix. This photo is then uploaded to the animal's Logix profile and is available to prospective buyers, among others.
- **To send a photo of an animal directly from BenguFarm to Logix**, go to Data Send/Import > Send > Studbook/ARC > Animal Photos. Use the **Help** function if necessary. The default photo of the selected animal(s) will be sent. If no photo is marked as a default photo in BenguFarm, a photo will be randomly selected from the available photos of the animal in question.

88. Send Phase C / D performance test application to service provider:

- See paragraph 67.

89. Import feed intakes from feeding system:

- To import feed intakes from a feeding system in BenguFarm BEEF, you must create a file (in CSV format) with the numbers of the animals concerned and feed intakes in the feeding system.
- **To import the CSV file with feed intakes**, go to Data Send/Import > Import > Feed intakes from Feeding System. Click at the top right of the screen and select the CSV file to be imported. Select the import options applicable and click Import.
- If the layout of the feed system in question has not been set up and saved before, a layout must be done first. **To set up the layout of the feed system in question**, click at Select Electronic Format on the Add and Edit Electronic File Formats (red notebook icon). To set up a new format, click on New and complete the details. At Columns in Electronic File, specify what data is in which column in the CSV file. This is done by clicking on the "+" at the bottom right of the screen. Now click under the column heading "Data in this Column" and select the data that appears in column no. 1 (or column A). Repeat for all the columns you want to import. If the data of a specific column is not to be imported, select the option "Not Applicable Column". Save. Contact your BenguFarm agent for assistance, if necessary.
- **To create a feed usage report**, go to Reports > Weights, Measurements, Performance Testing and Breeding Values > Feed Usage.

Settings

90. My animal fields:

- You can define your own fields if you want to record data for which there is no provision elsewhere (e.g. Eye Pigment Percentage). To setup these fields, go to Settings > My Animal Fields.
- To record data in these fields, go to Animals > Edit Animals (Table Layout) **OR** go to Animals > Add & Edit Animals (Single Animal Layout) > My Fields.
- To view data recorded in these fields on the main window, go on the Animal View to the My Fields view screen. To display it on the Herd View, go on the main window's Herd View to Display Options, select the appropriate field(s) under the My Columns section, and click Save Options as Herd Default. Close and re-open BenguFarm, then go on the main window's Herd View to the My Columns section.
- My Fields can only be included in the My Animal Reports by going to Reports > My Reports > Animal Data. Click on Report Columns (Layout) and then select My Fields.

Options

91. View/update my account details:

- To check your BenguFarm account information online and/or update certain information, go to Options > View / Update My Account Details. This screen can also be used to request the latest license invoice if you have not received it or have lost it. **Please note:** This feature only works if the computer is online, the BenguFarm account number (BPU) is recorded in BenguFarm and the account number and the relevant database's Computer Identification Code are recorded on the BenguFarm admin system. If your computer does not allow you to connect, de-activate your computer's anti-virus program temporarily and try again.

92. Action Keys

- The purpose of action keys is to quickly insert certain info that is used frequently, e.g. your herd's herd designation mark letters, when an animal is searched by ID number. Suppose your herd's herd designation mark letters are ABC. You can then set these letters as an action key.

- **To set an action key**, click on the "+" at the bottom right of the Define Action Keys screen, enter the relevant letters (e.g. ABC) in the Value to Display column, select an F key (e.g. F2) in the Key column and Save.
- When an animal's number has to be entered, press the Function (Fn) and the relevant F key (e.g. F2) on the keyboard at the same time. In the example above, the ABC will then be typed.

93. Empty database:

- This feature is used only in exceptional circumstances to empty a database. Your BenguFarm agent will refer you to this function when necessary and provide you with the passwords to access this function. **Please note:** It is strongly recommended that a backup is made of the relevant database before this function is used.

Add-Ins

94. Feedlot manager:

This is a one-window function where Management Period groups can be created, animals in a specific kraal/pen linked to and, if needed, moved between pens. Pen activities, including quantities of feed put out, can be captured. Individual animal records can be kept for purchase information, vaccinations, health entries, weights and sale/slaughter data. Per animal calculations are provided for weight gain, last two ADGs, expenditures, income and net profit. Management Period group summaries are provided for total feed quantities, average feed conversion ratio, average ADG, total Expenditures, income and net profit. Use the **Help** function if needed.

95. Veterinary Network:

Veterinary Network is a network of veterinarians that focus on the maintenance and improvement of livestock health, production and welfare in South Africa. All participating members own and operate independent veterinary practices providing livestock health services, but these veterinarians spend most of the day rushing around to help and save sick animals. There is never enough time to provide the livestock owner with information on disease prevention plans and cost-effective livestock remedies. Veterinary Network was set up to provide support to the network of participating rural veterinary practices and their livestock clients. This is done by monitoring livestock disease trends, supplying relevant livestock health information and a structured computer program for the development of cost-effective disease prevention management plans for each livestock client.

Participating veterinarians can assign a standardized management plan(s) to a client or can, in consultation with the client, set up a custom management plan. Management plans are e-mailed to clients by participating veterinarians at the start of each month.

By means of the Veterinary Network functionality in the BenguFarm BEEF and SHEEP & GOATS modules, clients of participating veterinarians can integrate the management plans into BenguFarm as an interactive Veterinary Network Calendar. This calendar also includes performance test dates and custom diary entries you may have created in the standard BenguFarm calendar. A user can click on an item in the Veterinary Network Calendar. This will display information such as the group of animals to which the action is applicable, age, cycle stage, description of the action, how often the action should take place and where applicable, which treatment or action should be applied together with suggested dosage. In some cases, additional information is available in the form of a PDF document that can be downloaded and viewed. The Veterinary Network Calendar will also list the animals which are currently applicable to the action. The user can then print work lists, linked the animals to groups or open them in a My Animal Data report. It should be evident that the Veterinary Network Calendar is an alternative to the build-in BenguFarm Management Calendar. The two is not meant to work interactively, with the Veterinary Network Calendar supplying more functionalities and information. The Veterinary Network Calendar will also be in upcoming versions of the Veterinary Network Daily Observation Card (DOC) app. The DOC app is available for Android phones and tablets from the Google Play Store.

You need to log in to be able to use the integrated Veterinary Network Calendar. To log in, use the same username and password as you use on the Veterinary DOC App. You can register for free with Veterinary Network with the DOC app. As stated above, to be able to use these integrated functions, your veterinarian has to set up a custom management plan(s) for your herd(s) or either assign one of his/her default practice plans to you. For help on this, please contact your local veterinarian. If your veterinarian isn't a Veterinary Network member, please contact Dr. Danie Odendaal (vnet@absamail.co.za) for assistance.

Help

96. Teamviewer remote support:

- The BenguFarm agents use TeamViewer software to provide online support directly to your computer.
- If you do not have TeamViewer software on your computer, you can download and install it from www.teamviewer.com. If during installation you choose "Personal" at type of use, use of the program is free.
- If Teamviewer is installed, it can, when required for online support, be opened directly from BenguFarm on the main screen at Help > Teamviewer Remote Support.
- To update the Teamviewer software to the latest version, click Download Latest Teamviewer.

Appendix A

Summary of Basic Tasks to Perform in BenguFarm BEEF (Chronological order)

1. Before the Mating Season:

- 1.1. Set up the new Calving Season [Settings > Calving Seasons].
- 1.2. Ensure that all the cows, heifers and breeding bulls (including AI bulls) are on record in BenguFarm BEEF. If necessary, import the animals' Logix data [Data Send/Import > Logix Direct > Import Animals] or create the animal records by hand [Animals > Add Animals Wizard]. Mark the breeding bulls as "Breeding/AI Bull" [Animals > Add and Edit Animals (Single Animal Layout)].
- 1.3. Print a list of breedable heifers and cows [Reports > Matings, Pregnancies and Calvings > Breedable Heifers and Cows (recording list)].
- 1.4. Calculate the inbreeding percentages of progeny for planned matings [Reproduction > Inbreeding Calculation for Planned Matings], OR
- 1.5. Use the BenguFarm GENETICS breeding module to determine the best matings for your specific breeding objectives [Reproduction > BenguFarm GENETICS Breeding Management Module].
- 1.6. If heifers and/or cows are synchronised, record the synchronisations [Reproduction > Synchronisation].

2. Beginning of Mating Season:

- 2.1. Print a list, if necessary, to record actual, observed mating details (date, cow, bull, etc.). [Reports > Matings, Pregnancies and Calvings > Matings (recording list)].
- 2.2. Record the matings AIs on BenguFarm BEEF [Reproduction > Matings > Natural Mating or Artificial Inseminations/Laparoscopies].
- 2.3. Print a report of existing matings [Reports > Matings, Pregnancies and Calvings > Existing Matings (Mating Lists)].

3. End of Mating Season:

- 3.1. STUD BREEDERS: Send the mating data in electronic (csv) format to SA Stud Book or the ARC [Data Send/Import > Send > Stud Book/ARC > Matings].

4. Pregnancy Tests:

- 4.1. Print a list to record the pregnancy test results [Reports > Matings, Pregnancies and Calvings > Cows & Heifers for Pregnancy Test (recording list)].
- 4.2. Record the pregnancy test results on BenguFarm BEEF [Reproduction > Pregnancy Tests].
- 4.3. Print a report of matings and pregnancies [Reports > Matings, Pregnancies and Calvings > Matings and Pregnancies].
- 4.4. Print a report with a summary of matings and pregnancies per bull and/or season, go to Reports > Matings, Pregnancies and Calvings > Mating Summary per Bull and/or Season].

5. Before the Calving Season:

- 5.1. STUD BREEDERS: Set up new birth contemporary groups [Settings > Birth Contemporary Groups].
- 5.2. Print a report of heifers and cows near calving [Reports > Matings, Pregnancies and Calvings > Heifers and Cows near Calving (recording list)].

6. During the Calving Season:

- 6.1. Record the calvings (and calves) [Reproduction > Calvings].
- 6.2. STUD BREEDERS: Send new births in electronic (csv) format to SA Stud Book or the ARC [Data Send/Import > Send > Stud Book/ARC > Birth Notifications].
- 6.3. Import the file (BIRTHS...) with the computer numbers received from Logix into BenguFarm BEEF [Data Send/Import > Logix Direct > Import Missing Computer Numbers].

7. End of Calving Season:

- 7.1. Print a report of heifers and cows that have calved or not calved yet [Reports > Matings, Pregnancies and Calvings > Heifers and Cows Calved/Not Calved Yet (recording list)].
- 7.2. Print a report of calves born in the calving season [Reports > Matings, Pregnancies & Calvings > Births].
- 7.3. Print a report with a summary of matings, pregnancies and calvings per bull and/or season [Reports > Matings, Pregnancies and Calvings > Mating Summary per Bull and/or Season].
- 7.4. Print a report of cows which performed poorly according to certain reproduction and pregnancy minimum standards [Reports > Inspections and Selections > Reproduction and Pregnancy Selection].
- 7.5. If not already automatically calculated by BenguFarm, calculate weigh dates for performance testing for calves born in this calving season [Performance Testing > Calculate Valid Weigh/Test Dates].

8. DNA Parentage Verification (STUD BREEDERS, when necessary):

- 8.1. Print a DNA service request form that should accompany the applicable animals' biological samples to the DNA laboratory [Data Send/Import > Send > DNA Profiling Service Forms and select the applicable laboratory you use].
- 8.2. Print labels for the marking of the envelopes in which biological samples of animals are placed for submission to a biobank or a DNA laboratory [Data Send/Import > Send > DNA Profiling Service Forms > Print Biological Sample Labels].
- 8.3. Import the parentage report file received from SA Stud Book (via the DNA lab) in BenguFarm BEEF for recording of the DNA numbers and updating the relevant animals' correct parents according to the parentage results [Logix Direct > Import DNA Parentage], **OR**
- 8.4. Record the applicable animals' DNA numbers in BenguFarm BEEF when you receive the parentage report from the DNA laboratory [Animals > Edit Animals (Table Layout)].

9. Vaccinations, Dosings, Dip and Supplements given:

- 9.1 Print a list for recording vaccinations, dosings, dip and supplements [Reports > Diseases - Prevention & Treatment > Vaccinations, Dosings, Dip, Supplements & Procedures (recording list)].
- 9.2 Record vaccinations, dosings, dip and supplements, [Health > Vaccinations, Dosings, Dip and Supplements].
- 9.3 Create a report of vaccinations, dosings, dip and supplements [Reports > Diseases - Prevention & Treatment > Vaccinations, Dosings, Dip and Supplements].

10. Weigh Animals:

- 10.1. Print a list for recording animals' weights at weighing [Reports > Weights, Measurements, Performance Testing and Breeding Values > Weigh List (recording list)].
- 10.2. If applicable, import weights from the scale into BenguFarm BEEF (where applicable) [Data Send/Import > Import > Weights from Scale or Tru-Test XR5000 Integrasi] **OR**
- 10.3. Record and process the weights for performance test purposes [Performance Testing > Weights for Performance Testing].
- 10.4. STUD BREEDERS: Send the performance test data in electronic (csv) format to Stud Book/ARC [Data Send/Import > Send > Stud Book/ARC > Performance Test Data].
- 10.5. STUD BREEDERS: Import the file (BEEFTEST...) with the official performance test data received from Logix into BenguFarm BEEF [Data Send/Import > Logix Direct > Import Official Performance Test Data].
- 10.6. Print a report of animals' processed weights (indexes, etc.) [Reports > Weights, Measurements, Performance Testing and Breeding Values > Performance Test Results].
- 10.7. Print a report of animals' weights and gains (for regular weighing, e.g. in a growth test or feedlot) [Reports > Weights, Measurements, Performance Testing and Breeding Values > Weights and Gains].

11. Before Weaning: (STUD BREEDERS, if applicable)

- 11.1. Complete the necessary On-farm (Phase D) and/or Central (Phase C) Performance Tests application forms and send it to the ARC or Stud Book. [Data Send/Import > Send > ARC/Stud Book > Phase C/D Performance Test Application].

12. When new Breeding Values (EBVs) become available: (STUD BREEDERS only)

- 12.1. Import new breeding values with the Logix Direct option [Data Send/Import > Logix Direct > Import Breeding Values].

13. Before Inspection of Animals: (STUD BREEDERS only)

- 13.1. Create an inspection report of animals which will be inspected. [Reports > Inspections & Selections > Inspection List].

14. After Inspection of Animals: (STUD BREEDERS only)

- 14.1. Import the file (INSPECTIONS...) with the inspection data received from Logix into BenguFarm BEEF [Data Send/Import > Logix Direct > Import Inspections].

15. Animals Sold, Slaughtered, Culled, Died or got Lost:

- 15.1. For auctions or out-of-hand sales, print a sale catalogue [Reports > Purchases, Auctions, Sales, Deaths and Culls > Sale Catalogue].
- 15.2. Record the sales and left-herd data of animals that left the herd for reasons other than sold [Other Data > Sales, Deaths and Culls].
- 15.3. Print a report of animals that were sold or that left the herd for other reasons [Reports > Purchases, Auctions, Sales, Deaths and Culls > Sales, Deaths and Culls].
- 15.4. STUD BREEDERS: Send the transfer and/or cancellation notifications in electronic (csv) format to SA Stud Book or the ARC [Data Send/Import > Send > Stud Book/ARC > Transfers and Cancellations].

Appendix B

Importing data recorded in Excel

What data can be imported?

With this feature certain animal data recorded in an Excel file, can be imported into BenguFarm. This feature is specifically for herds that cannot import data from another source (e.g. Logix).

To see a list of all the data which can be imported from Excel into BenguFarm, see the table at the end of Appendix B.

For the program to function optimally, try to **import at least the following data**: Animal ID No, Sex, Date of Birth, Breed or Specie Code and Status Code. If the exact date of birth of the animal is unknown, choose an approximate date, for example 01-10-2018 for animals born in 2018.

Steps to prepare and import the data:

1. **NB:** First make sure the "List Separator" and "Decimal Symbol" settings in Windows are correct. Go to Control Panel > Region > Additional Settings > List Separator. The "List Separator" should be a comma ",". If it is a semicolon ";", change it to a comma ",". The "Decimal Symbol" should be a point ".". If it is a comma ",", change it to a point ".". Click Apply and OK. **Preparation of data to be imported:**
 - 1.1. Create a separate Excel file for each herd.
 - 1.2. For each animal in the herd (cows, heifers, calves and bulls) of which you want to import data into BenguFarm BEEF, you should ensure that all the **available data** (e.g. Animal ID No, Date of Birth, Sex, Dam ID No, Sire ID No) is in the same Excel file and sheet. If you need to **import data from more than one sheet**, it should be ensured that the Animal ID Nr and Sex is exactly the same on all sheets to prevent that duplicate animal records are created in when importing the additional sheets into BenguFarm.
 - 1.3. Except for the column headings, remove all lines which do not contain animal data, e.g. blank lines, summaries, etc.
 - 1.4. For data where there can be **more one record for a specific type of data** (e.g. weights recorded on more than one date), each additional record (e.g. weigh date and weights) should be created on a separate line in the Excel sheet to import all the records.
 - 1.5. Ensure that the **dates** in the Excel file are stored in one of the following two formats, viz. dd/mm/yyyy or yyyy/mm/dd. E.g. 30 Nov 2010 should be stored as 30/11/2010 or 2010/11/30. The "/" can be any character, e.g. "-". You can use Excel's Cell Formatting functions to change incorrectly formatted dates. This should correct the dates' format, depending on how the dates were originally entered into Excel. If a date is not specified or is not in the correct format, those dates will be created/changed as 01/01/1980 when the data is imported.
 - 1.6. For dams and sires to be correctly linked to an animal, the **ID No of dams and sires** must EXACTLY match the ID No where they are listed in the file as animals. (Small letters will automatically be converted to uppercase). If a dam or sire is not listed himself as an animal, an animal will be created with default values. If the dam or sire is unknown, simply leave the applicable field in the Excel file empty.
 - 1.7. To import **Breed Code, Status** (A = Active – Alive in herd or na = Non-Active - Dead/Sold/Not in herd) **and Appearance Remarks**, the Status, Breed and Remark Codes in the Excel file should match the Status, Breed and Appearance Remarks Codes in BenguFarm.
 - 1.8. To import **Camps**, the particular camps should already be set up in BenguFarm (Settings > Farm Camps). In the csv file to be imported, the Camp **codes** should be recorded and it must match the Camp Codes in BenguFarm.
 - 1.9. Replace all ` symbols (if any) with ` (left of the 1 on the keyboard).
 - 1.10. **Calculations** (such as age, inter-calving period and growth rate) cannot be imported – it will be calculated in the programme after the data has been imported, provided the necessary data for the calculations is available.
 - 1.11. **There may be no commas in any fields. All decimals should be points and in the notes field there may not be any commas.**
 - 1.12. Save the Excel (xls or xlsx format) file in **CSV (Comma Delimited) format**. To do this, open the file in question in Excel, go to File > Save As... and select File Type "CSV - Comma Delimited" format and click on "Save". If there is more than one sheet in the Excel file, each sheet must be saved in a separate CSV file and imported separately, because different Excel sheets cannot be saved in one CSV file.

- 1.13. Open the CSV file in Notepad (not Excel) and **check the following**:
 - 1.13.1. The List Separator is a comma (,) not a semicolon (;). If necessary, the List Separator setting can be changed at Computer > Control Panel > Regional > Additional Settings > List separator.
 - 1.13.2. Ensure long numbers (especially DNA numbers) were not converted into exponent format when saving the file in CSV format.
- 1.14. Make a note in which **line/row in the CSV data file the data starts**. For example, in the first row there can be column headings.

Example of data format for importing into BenguFarm:

ID No	Sex	Date of Birth	Breed	Status	Camp	Dam	Sire	Weight	Weigh Date
130124	M	15-10-2013	BON	A	K1			235	01-05-2014
140020	F	01-10-2014	BON	A	K1			210	03-05-2015
150001	F	01-10-2015	BON	A	K1			195	03-05-2016
150002	F	01-10-2015	BON	A	K1			215	03-05-2016
150025	F	01-10-2015	BON	A	K1			220	03-05-2016
160011	F	03-09-2016	BON	A	K1			205	15-05-2017
160036	M	27-09-2016	BON	A	K1			233	15-05-2017
160036								450	20-11-2017
160123	F	11-11-2016	BON	A	K1			182	15-05-2017
170001	F	01-09-2017	BON	A	K2	140002	130124	210	02-05-2018
170002	F	03-09-2017	BON	A	K2		130124	225	02-05-2018
170003	F	05-09-2017	BON	A	K2		130124	218	02-05-2018

2. Import the data from the CSV file into BenguFarm:

- 2.1. Go in BenguFarm to the specific herd (specie) for which you want to import data.
- 2.2. Data should preferably be **imported on an empty database**. If you import a file a second time into the same database, BenguFarm BEEF will check whether there are already animals with EXACTLY the same ID No and sex. Thus, please ensure that the Animal ID Nr and sex is exactly the same to prevent that duplicate animal records are created. To further prevent duplicate animals from being created, uncheck Create Animal if it does not Exist under Import Options.
- 2.3. **Go to** Data Send/Import > Import > Database > Open File Format (CSV).
- 2.4. Click on "Browse" in on the top of the window and **choose the csv file** of the specific herd you want to import.
- 2.5. Import Options:
 - 2.5.1. At "Data Start on Line #" **choose on which line in the csv file the data starts**. (Column headings should not be imported).
 - 2.5.2. Choose the applicable import. If unsure, keep the default options.
- 2.6. **Specify what data is stored in what column in the CSV file**. To do this, click on the "+" at the bottom of the window. Now click *below* the column heading "Data Stored in this Column". A list of all the data which can be imported are now displayed. Choose the data that is stored in column 1(or column A). Repeat this for all the columns you want to import. If you don't want to import a specific column's data, choose the option "skip – do not import".
- 2.7. In "Sex, Male=" in the "True/Yes" column (far right) fill in what is in the **sex** column in the csv file for male animals, e.g. "M". Only the animals with "M" in that column will be imported with sex as male, the rest automatically as female.
- 2.8. When all the columns you want to import have been specified and checked, click on **"Import"**.
- 2.9. Please note that **animal names** are changed to capital letters when the data is imported.
- 2.10. If the animal records are for some reason imported incorrectly, then the incorrect records must first be removed before the data can be imported again. The data can be removed as follow:
 - 2.10.1. Go to Animal > Edit Animals (Table Layout)
 - 2.10.2. Click on Load a New Selection of Animals (top right of the window), switch on the Non-active filter (right on top of window) and select all animals (use the Help function if necessary).
 - 2.10.3. Click Remove records (right below on the window) and save.

Data that can be imported from a CSV file into BenguFarm

<p>General Animal Data: Animal IDnr (visual) Registration number Birth Date Birth Date Uncertain Calving Season (code) Birth Status (Single, Twins) Sire ID no Sire HDM, Year, Sequence no Sire EID (microchip) no Dam ID no Dam HDM, Year, Sequence no Dam EID (microchip) no Recipient Cow ID no Mating Type (code) Breed (code) Sub-breed (code) Section Colour (code) Sex Herdmark Year (of Birth) Sequence Number Animal ID (officially) Animal Name Family Line Not for registration Inspected Inspection Date Approved Microchip Number (EID) Microchip Place Implanted Microchip Date Implanted DNA Number Book value Market Value Scale Number Traceability Number Appearance Remarks (code) Notes Status (code) Breeder Owner Groups (kode) Castrated (Yes/No) Castration Date</p> <p>Camp Movement Data: Camp (code) Date moved Reason moved (code)</p> <p>Diseases & Treatments Data: Date Ill Veterinarian Name Illness/Injury (code) Medicine/Treatment (code) Remark</p>	<p>Vaccinations, Dosing and Supplements Data: Date Vaccinated Vet Name Vaccinated Against (code) Vaccine (code) Dosage Cost Remark</p> <p>Veterinarian Visit Data: Veterinarian Visit Date Veterinarian Name</p> <p>Matings: Calving Season (code) Mating Type (Nat=1; AI=2; EI=3) Bull ID no Bull 2 ID no Multi Sire Date In Date Out</p> <p>Pregnancy Data: (Females) Testing Date Pregnant (Yes/No) Period Pregnant Period Type [(W)eeks / (M)onths] Cycle (code) # Fetuses (1, 2, 3) (code)</p> <p>Weights & Traits Data: Birth Weight Dam Weight at Calving Pre-wean Weigh Date Pre-wean Weight Wean Weigh Date Wean Weight Dam's Weight at Wean 12 Month Weigh Date 12 Month Weight 18 Month Weigh Date 18 Month Weight General Weight Weigh Date General Weight</p> <p>BreedPlan Weights Data: BreedPlan 200 Days Weight 200 Day Weigh Date BreedPlan 400 Days Weight 400 Days Weigh Date BreedPlan 600 Days Weight 600 Days Weigh Date</p> <p>Purchase Data: Date Purchased Seller Price Original ID no Date Arrived on Farm</p>	<p>Sales, Deaths and Culls Data: Sell/Death Date Sold (Yes/No) Reason for left Herd (code) Sold To Price Carcass Weight Dressing Percentage Carcass Classification Remarks Date Left Farm</p> <p>Animal Sightings Data: Animal Sighting Date Seen By Seen in Camp (code) Remarks GPS Longitude GPS Latitude</p> <p>Body Measurements Data: Body Measurements Date Shoulder Height Hip Height Head Length Ear Length Scrotum Circumference Pelvic Height Pelvic Width Front Pelvic Width Back</p> <p>RTU Measurements: Measurement Date Rump Fat Depth Rib Fat Depth Eye Muscle Area Marbling</p> <p>Manure Samples Data: Date Samples Taken Parasite Type (code) Parasite Count (# Eggs / gram) Remarks</p> <p>Tooth Data: Dentation Type (code) Number of Teeth Teeth Condition (score)</p> <p>Rainfall Data: Date Location Amount (mm) Remark</p>
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Appendix C

Agrident APR500 / APR600 / AWR300 EID Readers and Tru-Test XR5000 Scale Data Exchange

The BenguFarm BEEF module can integrate the Agrident APR500 / APR600 / AWR300 electronic ID reader supplied by RFID Experts. Different types of data such as registration of new animals, matings, pregnancies, calvings, weights, vaccinations & dosings, diseases & treatments, camp or management group movements, procedures, animal sightings, linear scoring (e.g. conformation scores), RTU measurements, sales and deaths can be captured on the EID reader. This data can then be imported into BenguFarm. Applicable list options such as camps, management groups, diseases/injuries, medicines, and vaccinations can also be exported from BenguFarm to the EID reader.

See the APR500 / APR600 / AWR300 Hand-reader User Manual – BenguFarm Beef (available from RFID Experts) for full instructions to use the relevant EID reader.

Before the EID reader is used:

- **The EID reader's device drivers need to be installed on Windows before BenguFarm will be able to communicate with the EID reader.** These drivers are supplied by RFID Experts together with the EID reader. If needed, please contact RFID Experts in this regard.
- **To select which types of data can be recorded on the EID reader,** go in BenguFarm to Data Send/Import > Import > RFID Experts APR500/APR600 and AWR300 Readers > Edit EID Reader Tasks. **Very important:** Tasks should NOT be changed if there is data on the EID reader that has not yet been imported in BenguFarm. A maximum of nine tasks can be set up on the EID reader at a time. Certain tasks have options so that the user can choose the option that suits his specific needs. **Please note:** The Cancellations and Camp Movements task has subdivisions:
 - Camp Movements / Management Group Movements
 - Cancellations: Transfer (sales) / Removal (died, missing).
- **To mark bulls as breeding bulls,** go in BenguFarm to Animals > Add and Edit (Single animal layout), highlight the applicable bull, make a tick mark in the field "Breeding Bull-AI-Bull" and Save. In the Mating task, only bulls that have been marked as **breeding bulls** are available.
- **To set up lists that will be used on the EID reader e.g. calving seasons, camps, management groups,** go to BenguFarm to Settings and select the appropriate item.
- **To hide items in the dropdown lists for diseases/injuries, medicines and vaccines & remedies not used and/or to add items on the EID reader,** go in BenguFarm to Settings > Diseases, Injuries and Parasites/Medicines/Vaccines, Remedies and Supplements. To remove items, remove the tick remark in the In Use and Device columns next to the items in question. To add an item, click the "+" at the bottom right and complete the details. Click Save.
- **To send the above dropdown lists from BenguFarm to the EID reader,** go in BenguFarm to Data Send/Import > Import > RFID Experts APR500/APR600 and AWR300 Readers and click on Erase and Update Reader Data. **Please note:** Make sure all data on the EID reader is already imported in BenguFarm before executing the Delete and Date Reader Data On function.

Before the XR5000 scale is used:

- The XR5000 scale drivers and software need to be installed on Windows before BenguFarm will be able to communicate with the XR5000 scale. **Please note:** The Tr-Test Link app should be *closed* for BenguFarm to be able to communicate with the XR5000 scale.
- Go in BenguFarm to Data Send/Import > Tru-Test XR5000 Integration > Scale Field Setups and make sure that the relevant scale fields are set up correctly so that the data recorded on the scale can be imported to the correct corresponding fields in BenguFarm. Use the **Help** function for step-by-step instructions.
- Ensure that, where applicable, the relevant fields (e.g. Camps) have already been set up in BenguFarm and that the relevant item's (e.g. Breed, Camp, Calving Season) *code* is entered on the scale when creating the animal records on the scale.

Record data on the EID reader (or the XR5000 scale):

- **If the animals are not yet created in BenguFarm,** the EID reader OR the Tru-Test XR5000 can be used to create animal records and import it into BenguFarm.

- It is important to record the following data create the animal's record with the needed basic data when the data is imported into BenguFarm: Visual ID No (VID) and/or Electronic ID No (EID) (if applicable), Sex, Date of Birth, Breed Code and Status Code. If breed and/or status are not recorded, the breed will be created by default from the herd's settings and the status as active.
- If the exact date of birth of an animal is unknown, select an approximate date, e.g. 01-10-2018 for animals born in 2018.
- **If no VID is recorded (e.g. where VIDs are not used)** and the relevant setting [Settings > Herds > ID Methods and Numbering> Create IDnr (Visual) from EID (Microchip Number) where no IDnr is specified] is done, the last x number of digits of the EID is automatically filled in as the VID. If not, the full EID is used as VID.
- **To register animals on the EID reader**, the Registration task must be used.
- **To register animals on Tru-Test XR5000 scale**, it is important to record the above data.
- **If the animals already have been created with VIDs, etc. in BenguFarm** and only then the EID tags are put on the animals, the registration task on the EID reader can be selected, the EID can be read with the EID reader and the VID of the animal in question PRECISELY as it is in BenguFarm recorded on the EID reader without completing all the other fields of the registration task. When the data is then imported into BenguFarm from the EID reader reader, only the EIDs in BenguFarm will be added to the existing records of the animals concerned, without changing other fields. **Tip:** The **Tru-Test XR5000 scale** can be used as an alternative to the EID reader to import EIDs into BenguFarm for existing animal records. In order to do this, the VID of the animal in question should be entered EXACTLY as it is on BenguFarm on the XR5000 at the relevant EID. When the relevant scale session data is then imported into BenguFarm [Data Send/Import > Tru-Test XR5000 Integration > Import Scale Data], select the Import Microchip Number (EID) Changes option and click Import. **PLEASE NOTE:** Make a backup of the BenguFarm database before importing the EIDs from the EID reader (or the XR5000). See paragraph 16 of the manual.
- **Recording of Calvings:**
 - The sire of the calf cannot be recorded on the **Calving** screen. Therefore, make sure that the relevant matings/ embryo implants and pregnancy test results (if applicable) have already been recorded in BenguFarm BEEF *before* the calvings are recorded, to ensure that with the import of the data from the EID reader into BenguFarm, the relevant sire is linked to each calf. If two matings (e.g. AI and natural) qualify as the possible mating, BenguFarm will by default choose the second mating as the sire.
 - **Abortions, stillborn calves and calves that died shortly after birth** should be recorded to change the pregnancy status of the applicable ewes and to make their reproduction records complete. On the Calving screen, the calf status at birth (e.g. live, abortion, stillborn) can unfortunately not be recorded. We recommend that the following procedure be followed for recording abortions and dead calves:
 - Take an EID and mark it "Dead Calf" and always keep it on hand when calvings are recorded. Use this EID for ALL dead calves. When importing calving data in BenguFarm, select the option "Mark calves with EID as Non-active" and enter the "Dead Calf" EID number in the box. All (dead) calves with this EID will then be automatically recorded in BenguFarm upon importing of the calves with calf status Died after Birth and status Non-active.
 - A **fictitious number** can be assigned to such calves, e.g. 209001 (sequence number outside the normal range) for the first dead-born calf in 2020, 209002 for the second one, etc.
- **To record sales and deaths on the EID reader**, go to the "Cancellations and Camp Movements" task and select the "Cancellation > Transfer" (for sales) or the "Cancellation > Removal" (for deaths or culls) option.

Import data from the EID reader into BenguFarm:

- Connect the EID reader to the computer with the supplied USB cable.
- If more than one herd is set up in BenguFarm and registrations are imported, go to the relevant herd in BenguFarm. **Please note:** If calvings are imported, the calf will be imported into the herd in which the cow is, except where the cow is unknown, in which case the calf will be imported into the herd you are in when the data is imported.
- In BenguFarm go to Data Send/Import > Import > RFID Experts APR500/APR600 and AWR300 Readers. BenguFarm will automatically locate and connect to the EID reader.
- Make sure the **import options** are correct.
- Click on Import Data from Reader to start the importation of the data. BenguFarm will retrieve the data from the reader and attempt to import it. If old data, that has previously been imported, is imported again, the software will notify the user, and ignore the duplicate data.
- A log of the import activity will be displayed on the screen. Go through the list and check that all records have been imported. Take a note of errors highlighted in red. In most cases it would be where an animal could not be located in BenguFarm. Animals will not be located if the EID (microchip number) of the animal is not saved in BenguFarm or if it is incorrect in BenguFarm. Microchip numbers of animals can be entered in BenguFarm at

Animals > Edit Animals (Table Layout). Once missing microchip numbers are entered, try again to import the data from the EID reader.

- After the data has been imported, animals can be selected and linked to groups or camps by clicking Link Animals to Group. In BenguFarm additional animal data can be added, if necessary, to make the animals' data more complete. See the Recording of Additional Data in BenguFarm paragraph below.
- When data is imported from the EID reader, the data file is also automatically saved (usually at C:/Program Files(x86)/BenguelaSoft/BenguFarm/ Electronic/APR/), for in case it is needed later (after data is deleted on the EID reader). These files are for control purposes only and should NOT be imported at a later stage as this may corrupt the BenguFarm database.

Import data from the XR5000 scale into BenguFarm:

- Connect the XR5000 to the computer with the supplied USB cable.
- Make sure you are in the relevant herd to which the animals must be imported.
- Go to Data Send/Import > Tru-Test XR5000 Integration > Import Data from Scale. Use the **Help** function for step-by-step instructions.
- Select the relevant Scale session and click Load.
- **To create animal records in BenguFarm for the animals which were registered on the XR5000**, check the Unknown / Create New Animal box at the bottom right of the screen and check the Create column next to the animals to be created in BenguFarm. **Tip:** Select the Unknown / Create New Animal Mode and then use the four buttons on the bottom left of the screen to easily mark the animals in the Create column.
- Click Import.

Erase data from and update lists on the EID reader:

- **Once the EID reader data is imported into BenguFarm**, make sure all the imported data is correct and complete by checking it relevant data on the main window. If all is correct and complete, the existing data on the EID reader should be deleted. To do this, click on Erase and Update Reader Data.
- **VERY IMPORTANT:** *Before EIDs are reused it is critically important to do the Erase and Update Reader Data step – see the paragraph below about the re-use of EIDs.*
- During the erase and update process the applicable dropdown list options such as breeding bulls, camps, management groups, diseases/injuries, medicines, and vaccines/remedies will be exported from BenguFarm to the APR500 / APR600 to update the applicable lists on the EID reader.
- Once the erase and update process are finished, close the RFID Experts APR500 / APR600 Reader and Exchange window and unplug the EID reader from the computer.

Reuse of EIDs:

- When an animal is sold or dies, the EID can be used again on a new animal.
- If sales and deaths are recorded on the EID reader or on the BenguFarm MOBILE application, the relevant EID numbers are automatically deleted when the relevant data is imported. If sales and deaths are recorded directly in BenguFarm and there are one or more animals with an EID on record, a warning will appear with options to remove (recommend) the EID(s) or keep it. Choose to remove the EID(s).
- **VERY IMPORTANT: Before reusing EIDs:**
 - **Make sure all animals whose EIDs have been removed are non-active in BenguFarm.**
 - **Go in BenguFarm to Animals > Delete Non-active Animals' Microchip Numbers (EIDs)** to ensure that all relevant EIDs have been removed from the non-active animals in BenguFarm. **Please note:** Before you use this function, first ensure that the status of the animals sold/died is non-active.
 - **Go in BenguFarm to Data Send/Import > Import > RFID Experts APR500/APR600 and AWR300 Readers > Erase and Update Reader Data** before using the EID reader to record registrations or calvings with the re-used EIDs to ensure the EID is linked to the new animal's record with reuse. Failure to pre-execute the Erase and Update Reader Data function to remove sold and dead animals from the EID reader will result in immediate cancellation of any new animals recorded on the EID reader. It is therefore critical that there are no old sales or deaths (transfers or cancellations) records left on the EID reader.
 - **In BenguFarm go to Data Send / Import > Tru-Test XR5000 Integration > Export Animals to Scale and click Delete Animals with Inactive EIDs from Scale** before using the scale to record registrations, weights or other data with the reused EIDs on the scale, to ensure the EID is linked to the *new* animal's record with reuse. If it is neglected to perform the Delete Animals with Inactive EIDs from Scale function beforehand to remove sold and dead animals from the XR5000, data will be recorded against the animals that previously had the EID. As a result, where scale data is subsequently imported, depending on settings, data in BenguFarm can be corrupted. Use the **Help** function for step-by-step instructions. **Please note:** If there is more than one database on BenguFarm, use BenguFarm version

7 October 2021p and later. These newer versions have a "Search in All Databases" option that is enabled by default.

- If it has been neglected to cancel EIDs and new calvings have been recorded on the APR500/600 assigned to non-cancelled EIDs, the advanced options can be used to make those animals with the relevant EID non-active and remove the EIDs from the existing animals.

Recording of additional data in BenguFarm BEEF:

Certain tasks on the EID reader do not provide for the recording of *all* data provided for by BenguFarm BEEF. The Mating task, for example, does not make provision to link matings to a specific calving season. Such data may be added, after data was imported from the EID reader, in BenguFarm by going to the appropriate type data's recording window (e.g. Natural Matings), clicking on Load Existing Records and adding the additional/missing data. To add or edit general animal data (e.g. Calving Season), go to Animals > Edit Animals (Table Layout). Use the **HELP** function if necessary.

Data that cannot be recorded on the APR500 / APR600 en AWR300 EID readers:

Depending on which task option is selected at certain tasks, the following data cannot be recorded on the EID reader:

- **Registration > New animal / Tag change):**
 - Breed
 - Date of birth uncertain
 - Camp, date moved, moved reason
 - Sire and Dam
 - Breeding bull
 - Purchase date, price, purchased from whom
- **Sinchronisation:**
 - Done By (person)
 - 1st Injection Date
 - 2nd Injection Date
 - Removed Date
 - Cost per Animal
 - Remark
- **Matings (Natural / AI):**
 - Calving season* (At import of data from the EID reader, the calving season corresponding with the mating dates will be automatically added. If no calving season is found where the mating dates match, the calving season selected on BenguFarm as the Current Calving Season will be automatically added).
 - Semen Type (AI)
 - Inseminator (AI)
 - Cost per Animal (AI)
 - Batch No (AI)
 - Remark
- **Pregnancy tests (scanning):**
 - Method (e.g. Sonar)
 - Done by (person)
 - Cost per Animal
 - Remark
- **Calving:**
 - Calving season* (At import of data from the EID reader, the calving season selected on BenguFarm as the Current Calving Season will be automatically added).
 - Camp and Camp Movement
 - Status at birth (e.g. alive, abortion, still born, died after birth) [Task 8014 provides for calf status at birth to be recorded on the EID reader].
 - Status currently (e.g. active, non-active)
- **Weighing:**
 - Change (where applicable) Weigh Type (e.g. General Weight to Wean Weight)
- **Vaccination (and dosing, dip and supplements):**
 - Vaccinated/dosed against (disease)
 - Batch No
 - Cost per Animal
 - Vaccinated/dosed by (person)
 - Remark

- **Illnesses and Injuries:**
 - Batch No
 - Medicine costs
 - Veterinarian cost
 - Remark
- **Cancellations and Camp Movements > Cancellation > Sales (transfer) / Died (removal):**
 - Price (if sold)
 - Reason
 - Official reason (only stud)
 - Date left farm
 - Income base (e.g. Per Kg Live Weight)
 - Income per kg
 - Animal Weight
 - Carcass Weight
 - Carcass Classification
 - Loss (Rand value – if died, missing, stolen)
 - Remark

Appendix D

Embryo Flushings and Implants

Procedure to record embryo flushings and -implants in BenguFarm:

1. Donor cows and AI bulls:

- 1.1. Make sure that the embryo donor cows/heifers and the AI bulls with which they will be inseminated are recorded in the stud herd on BenguFarm.
- 1.2. To ensure that the embryo donor cows/heifers are displayed at the top of the list of females on the Embryo Flushings and Stock window, go to the Add and Edit Animals (Single Animal Layout) window, find the applicable female and highlight the female's ID no. Make a tick mark in the field "Ova Donor" and click Save. This will also ensure that the embryo donor cows/heifers are uploaded onto the APR500 / APR600 EID reader (where applicable) and listed at the top of the of females.

2. Create animal records for the (commercial) recipient cows:

- 2.1. To record the embryo implants, there need to be animal records for the recipient cows in BenguFarm. To simplify the process for the recording of embryo flushings and implants, data sending to Studbook and general administration, we recommend that the recipient cows should be in the same (stud) herd as the herd in which the donor cows are.
- 2.2. If the recipient cows do not have animal records in BenguFarm, go in the stud herd to Animals > Add Animals Wizard and create animal records with the available information for the recipient cows.
- 2.3. **Note:** If the recipient cows are commercial (non-stud) cows, it must be taken into account that the creation of their animal records in the stud herd will implies that the number of animals in the stud herd will not be correct. Keep this in mind when looking at the Animal Numbers and Values report, the Herd List report and the Animals per Camp or Group report. This will also imply that when the Compare BenguFarm and Logix Herd List is created, the BenguFarm herd list will differ from the Logix herd list.

3. Record matings (usually AI) of the donor cows:

- 3.1. Go to Reproduction > Mating > Artificial Inseminations/Laparoscopies (or Natural Matings) and record the matings of the stud donor cows.

4. Record flushings:

- 4.1. Go to Reproduction > Embryo Flushings and Stock.
- 4.2. Select the cow that was flushed (top left of the screen) and click Add. Fill in the details of the flushing and click Save. **Note:** We recommend that fill in the donor cow's ID number and date of flushing (e.g. AB110025 15-11-2014) in the Group No field.
- 4.3. To create a report of embryo flushings, go to: Reports > Matings, Pregnancies and Calvings > Embryo Flushings.

5. Record embryo stock:

- 5.1. Go to Reproduction > Embryo Flushings and Implants.
- 5.2. Choose the Donor Cow (top left of the screen), select the Group Number, fill in the appropriate fields in the Multi Edit / Add New section of the screen and click Add Embryos.
- 5.3. On the small window that opened in the top right corner, fill in the embryo's details and click Create. Enter at Postfix the donor cow's number. The embryo number will then be created with the umpteenth embryo followed by the donor cow's number, e.g. **1**ABC15020, **2**ABC20150020, etc. If necessary, change the individual embryos' data (e.g. the Grade may vary between embryos). Click Save.

6. Record implants:

- 6.1. Go to Reproduction > Mating(s)/AI/Embryo Implants Wizard > Add New Natural Mating(s)/AI/Embryo Implants > Embryo Implants and record the implants of the embryos in the recipient cows.
- 6.2. Select the donor cow in the Multi Edit / Add New section of the window, select the bull by which the embryo was conceived, select the recipient cow, implant date, etc. To select an embryo to implant from the embryo stock, you need to select the particular embryo that was implanted in the embryo Group and -ID fields. Click Add Animal and if everything is correct, click Save.

6.3. To create a report of embryo flushing and implants, go to: Reports > Matings, Pregnancies and Calvings > Embryo Flushings and Implants.

7. Send the implants data to Studbook:

- 7.1. Go to Data Send/Import > Send > Stud Book > Embryo Implants (Schedule O).
- 7.2. Under Selection Criteria, select the appropriate implants you want to send. Note: If you select specific animals, it is the *recipient* cow numbers will appear.
- 7.3. Click List Implants According to Selection Criteria. Check if there are any animal marked under the Errors section. If everything is correct, click Display Printout.
- 7.4. If everything is correct and complete, click at the top right of the screen on the printer button and print the report.
- 7.5. Sign the document at each implantation in sections B and D, and then send it to the data clerk at SA Stud Book working with the particular breed.

8. Record pregnancies:

- 8.1. Go to Reproduction > Pregnancy Tests and record the pregnancies of the recipient cows.
- 8.2. In the Multi Edit / Add New section of the window, select the relevant calving season at the top left of the window and complete the applicable fields. Click at the top right of the window on Add New Test.
- 8.3. Record the pregnancy periods and when everything is correct and complete, click Save.

9. Record calvings:

- 9.1. Go to Reproduction > Calvings and record the calves born from the embryo implants. Please note: Select the *recipient* cow as the cow that calved.

10. Send birth notifications:

- 10.1 Go to Data Send/Import > Send > Stud Book/ARC > Birth Notifications. Click on List Births Not Sent Before.

Procedure to record the collection of oocytes, *in vitro* fertilization and embryo implants in BenguFarm:

BenguFarm presently does not specifically provide for the recording of the collection of oocytes and *in vitro* fertilization. We recommend that the collection of oocytes is handled as if they were embryos, in other words, as if the donor cow was mated (usually AI), that fertilization occurred in the donor cow and the embryos were flushed. The steps to record it is basically then the same as above described for embryo flushing and implants.

Appendix E

Breedplan as Service Provider – Settings, Data Send and Data Import Functions

1. Settings:

- To **set up the herd**, go in BenguFarm BEEF to **Settings > Herds**:
 - Under **General**, enter at **Society Member No**, enter your breeders' society/Breedplan membership number (e.g. 0123456, without the breed code) and click **Save**.
 - **Service Providers**:
 - At **Registration, Performance and Breeding Values**, select **Breedplan** as the service provider.
 - **Note**: BenguFarm BEEF will give you an option to change the **ID format** of new animals in your herd to the Breedplan format (YNNNNHHHH). Choose **"No"**. (The default format, namely HHHHYNNNN, is accepted by most breed societies and Breedplan). [If you accidentally selected "Yes", you can change the animals whose ID numbers are now in the Breedplan format back to the old format (HHHHYNNNN), namely first the Herd Designation Mark then the Year of Birth and then the Serial number. To do so, go to File > Support > Change ID numbers and/or Names. Choose option 1 with the default format (HHHHYNNNN)].
 - At **Breeders' Society**, choose your breeders' society, e.g. SASANTA (SA Santa Gertrudis).
 - At **Email Matings, Birth Notifications, Transfers and Cancellations To**, fill in your registration authority/breeders' society's email address, e.g. susan@santagertrudis.co.za.
 - At **Email Performance Test Data To**, fill in your **registration authority/breeders' society's email address**, e.g. susan@santagertrudis.co.za and click **Save**.
 - **Performance Test Data**:
 - At **Maximum Allowable Age Difference Between Animals in the Same Performance Test Group** (days), choose 100 days
 - At the bottom of the window at **Performance Test Phases Animals are Tested In**, select the **Breedplan weights** (right hand column) that you normally record. [This setting is not critical – it is only used in the BenguFarm BEEF Diary to remind you to weigh animals on the relevant dates for the chosen weights. Click **Save**.
 - **Please note**: Please close your BenguFarm BEEF and open it again for the Breedplan functions to be displayed at Data Send/Import.
- To **set up Breedplan**, go in BenguFarm BEEF to **Settings > Breedplan** (at the bottom of the list):
 - Here you can set up **Observation Codes, Management Groups** and **Performance Test Groups** as required. (Click on the "+" on the right bottom of the window to create a new record and enter the code and name (description). Click **Save**).
 - Here you can also record the newest **Breed and Herd Averages Breeding Values** if you want it to be displayed on BenguFarm BEEF's main window together with an animal's own breeding values. Click **Save**.

Please note: If necessary, please contact your breeders' society or Breedplan for information on how to do the Breedplan settings above.

2. Import data received from Breedplan/registration authority/breeders' society:

- **Please contact your breeders' society and request them to send you the following files** for importing into farm software such as BenguFarm:
 - ANIMALS.DAT
 - WEIGHTS.DAT
 - TRAITS.DAT
 - GROUPEBV.DAT
 - COMPUTER NUMBERS.DAT

- **To import these Breedplan data files**, go to Data Send/Import > Import > Database > Breedplan. Make sure the herd and breed (the top of the window) is correct. **Please note:** If the data file is received in zip format, the DAT file should first be extracted. Click right on the zip file and select Extract All.
 - To import the **animal data** file (Breedplan main data), go **to Step 1**, click on "Browse..." and select the "..._ANIMALS_DATA.DAT" file. Click on "Import".

Please note:

 - This function will only create animal records if the animal is *not* already in BenguFarm BEEF database.
 - Existing animals are left unchanged. If existing animals' data (e.g. breeding values) should be updated, make sure the option Update Existing Animals is checked. Please note that EBVs are imported from the GROUPEBV file, not the ANIMALS file.
 - Existing animals are searched on computer numbers only. If the animal is already in BenguFarm BEEF database but the computer number is *not* completed, this function will *not* identify the existing animal with the result that a new animal record will be created, which will be a duplicate of the original animal.
 - After the ANIMALS file has been imported, go to Animals > Edit Animals (table layout). Click Load a New Selection of Animals, switch on the Non-active filter and select ALL animals. Back on the Edit Animals screen, at Select Columns to View, select Herd mark, Year and Sequence number. Check that these fields are complete and correct for ALL animals. Complete/correct where needed. Save.
 - To import the **weights** file, go to **Step 2**, click on "Browse..." and select the "..._WEIGHTS.DAT" file. Then click on "Import".
 - To import the **traits** file (if applicable), go to **Step 3**, click on "Browse..." and select the "..._TRAITS.DAT" File. Click on "Import".
 - To import computer numbers, go to Step 1b, click on "Browse..." and select the "..._COMPUTER NUMBERS.DAT" file. Click on "Import".
 - To import the **breeding values** file, go to Data Send/Import > Import > Breedplan > Breeding Values. Click on "Browse ..." and select the file "..._GROUPEBV.DAT". Click on "Import". **Please note:** The Breedplan herd and breed average breeding values are *not* included in the Breedplan EBV file. To record the newest breed and herd averages breeding values manually in BenguFarm, see paragraph 1 above.
 - To import performance test data processed by the ARC's Intergis, go to Data Send/Import > Import > SA Stud Book/ARC > Official Performance Test Data.

Please note: To import **Logix (or Intergis) data** (e.g. a BEEFDATA_ file) into BenguFarm BEEF, you need to import it at the relevant data type option under the Stud Book/ARC or Logix Direct option and *not* under the Breedplan option.

3. Send data to your registration authority/breeders' society:

- **To send data to the applicable breeders' society/registration authority**, go to Data Send/Import > Send > Breedplan and select Matings, Birth Notifications, Weights or Transfers and Cancellations, depending on what data you want to send.
- **To send Matings, Birth Notifications or Weights (including traits, where applicable)**, click on Create Electronic File to create an electronic file of the applicable data. BenguFarm BEEF will now attempt to automatically attach the electronic data file to an e-mail message and put it into the Outbox of your default e-mail programme (e.g. Outlook). **Please note the following regarding submitting Matings:**
 - In addition to the ID numbers, the relevant bulls' HDM, Year and Sequence Number fields and/or the Animal Name must be entered in BenguFarm before the electronic file is created.
 - If **multi-sire matings** are done, multi-sire groups must be registered with BreedPlan ahead of time. Contact your breeders' society for the procedure to register a multi-bull group. BreedPlan will assign a name to that multi-sire group. BEFORE matings are recorded, you must first register the group with Breedplan and get the group's name from them. Note that the section of all bulls in a group must be SP. When se multisire's name is received, you need to create a male animal with that code in BenguFarm. The easiest way to do this is at Animals > Add Animals Wizard. Enter the group name as the and IDNr (Visual) and the Official ID. You can make such an "bull" non-active (it's not a real animal). Mark the "bull" as "Breeding/AI Bull" so that he is listed at the top of the list where the bull is selected when matings are recorded. The matings will thus NOT be marked as

"Multisire" in BenguFarm. BreedPlan picks up the multi-sire because you used the name of the multi-sire group as a "bull". When recording births, you need to select the group name as the "sire".

- If, for some reason, BenguFarm BEEF cannot attach the electronic file to an e-mail, a warning message will appear. Please note where you save the file to be attached to an email (e.g. C:\BenguFarm\Beef\Exports\Herd of C:\Program Files\BenguelaSoft\ BenguFarm \Electronic\Send). Please follow the instructions on the warning message for help on how to create an e-mail with your e-mail programme (e.g. Outlook) yourself, attach the applicable file to it and send it to the applicable breeders' society/registration authority.
- **Transfers and Cancellations cannot be sent electronically.** When the applicable animals are selected, click (Print) Transfers or (Print) Cancellations depending on what data you want to send. Click Export, create a pdf format file. Note where you are saving the file. Create a new e-mail message with your e-mail program (e.g. Outlook), attach the file to the e-mail and send it to the relevant breed society/registering authority.

Appendix F

Calculations in BenguFarm-BEEF – Descriptions and Selection Guidelines

Phases and Traits	Description	
General		
Age of Animal	The age of animal is displayed on the main window as follow: <ul style="list-style-type: none"> • 0-634 days in Days • 635-730 days in Months • 731+ days in Years. 	
When is calf considered as being weaned?	A calf is considered weaned if: <ul style="list-style-type: none"> • A weight with Weigh Type = Wean Weight (A2) has been recorded within the minimum and maximum age range for weaning weight (151-270 days of age); AND/OR • A Wean procedure has been recorded (Other Data > Procedures). 	
Reproduction and Birth (Phase A0)		
Expected Calving Date	Expected calving date calculations in BenguFarm depends firstly on whether a pregnancy test was done or not for the particular animal: <ol style="list-style-type: none"> 1. If a pregnancy test was done, the animal was pregnant and the period pregnant was recorded in BenguFarm, the expected calving date is calculated as follows: Testing date MINUS Period pregnant on testing date PLUS Normal pregnancy period (as set up at Settings > Herds > Mating, Pregnancy and Calving). 2. If a pregnancy test was done, the animal was found pregnant but the period pregnant has not been recorded in BenguFarm: <ol style="list-style-type: none"> 2.1. The <i>earliest</i> possible calving date (if selected at Settings > Herds > Mating, Pregnancy & Calving > Calculate <i>First</i> Possible Expected Calving Date) is calculated as follows: The first mating date since the last calving date OR where several pregnancy tests have been done since the last calving date, the first mating since the previous pregnancy test PLUS Normal pregnancy period. 2.2. With the setting "Calculate Expected Calving dates without Mating Data" [Settings > Herds > Mating, Pregnancy & Calving] enabled (it is enabled by default for the GAME module), the expected calving date is calculated without any mating data or pregnancy tests recorded in the program. <ol style="list-style-type: none"> 2.2.1. For heifers older than "Minimum Age of Heifers at 1st Mating" (Settings > Herds > Mating, Pregnancy and Calving) the expected calving date is calculated as date of "Minimum Age of Heifers at 1st Mating" PLUS the "Normal Period Pregnant". 2.2.2. For cows with days since last calving date more than the "Av. Period from Calving to Mated again" (Settings > Herds > Mating, Pregnancy and Calving) the expected calving date is calculated as the last calving date PLUS the "Av. Period from Calving to Mated again" (if > 0, else the "Ovulation Period") PLUS the "Normal Pregnancy Period". This calculation is displayed on the main window and My Reports (Last Mating - No mating data but expected calving dates), Heifers and Cows Near Calving report, if "Minimum days since last calving (no matings)" is marked (default marked in the GAME module), and the Heifers and Cows Calved/Not Calved" report. This method thus calculates the earliest possible calving date. By changing the default "Minimum Age of Heifers at 1st Mating" and/or the "Av. Period from Calving to Mated again" settings, the expected calving date calculation can be made more accurate for the specific circumstances. 	
Phases and Traits	Description	General guidelines for Selection

Age First Calving (AFC)	Age (in months) when the cow calved for the first time.	Select cows with a low Age First Calving, taken into consideration when they were mated for the first time.
Age Last Calving (ALC)	Age (in months) when the cow calved for the last.	Not normally used in selection – only informative info.
First Inter-calving Period (First ICP)	Period (in days) between first and second calving dates.	Cull cows with a high first inter-calving period, taken into consideration when they were mated for the first time and the second time.
Last Inter-calving Period (Last ICP)	Period (in days) between the last two calving dates.	Cull cows with a high last inter-calving period.
Av Inter-calving Period (Av ICP)	Average period (in days) between calvings over all the calving dates.	Cull cows with a high average inter-calving period.
Days Since Last Calving (DSLCL)	The period (in days) since the last calving date.	Cull cows with a high Days Since Last Calving value.
Reproduction Index (RI)	The RI evaluates the overall reproduction performance of a cow, taking AFC and average ICP into account. Please note that DSLCL is, for technical reasons, not taken into account in the calculation of the RI. Using the RI, cows with different AFC and ICPs can directly be compared, e.g. a cow that calved at 24, 48 and 60 months of age will have the same RI as a cow that calved at 36, 48 and 60 months. Please note that the RI's standard of comparison is a national standard as set by SA Stud Book.	Cull cows with a low Reproduction Index.
Birth Weight Ratio (BWR)	The ratio of calf weight at birth divided by cow weight at calving, given as a percentage.	Select for average ($\pm 7.4\%$) Birth Weight Ratio. High (above 8.5%) Birth Weight Ratios are associated with difficult calvings.
Contemporaries (Contemp.)	A contemporary group is a group of animals born in the same year and season (thus of similar age), at the same location (same herd or farm), of the same sex, and managed alike from birth to the time of measurement (same feeding regime, date of measurement, etc.). All performance indexes (with the exception of Standardised Central Growth Tests (Phase C1 and C2) are calculated within a contemporary group. In Standardised Central Growth Tests the ADG and FCR indices are calculated on a cumulative rolling average of all bulls of that breed which have been tested over the past 10 years at that particular testing centre.	The number of contemporaries gives an indication of the reliability of the index calculations: The more the contemporaries, the more reliable the indexes. The less, the less reliable. Please note: Correctly defined contemporary groups (in BenguFarm called Performance Test Groups) are essential for proper performance testing and breeding value estimations. Contemporary groups should be defined in such a way that all significant environmental effects – except for those that are corrected for in the evaluation model, e.g. calf age and dam age – are the same for all animals within a particular group. This, combined with good genetic links between groups, will ensure that BLUP can effectively separate genetic and environmental effects within any particular group.

Pre-wean (Phase A1)		
100 Day Adjusted Weight (100D W)	Pre-wean weight adjusted (or corrected) for the age of the calf (to a standard age of 100 days) and adjusted for the age of the dam. The age-of-dam adjustment factor is an additive factor to adjust the calf's weight to a mature cow basis and is determined by the age of the dam, breed of the dam and sex of the calf.	Use the 100 Day ADA Index for selection purposes – see below.
100 Day ADA (100D ADA)	The age-of-dam adjusted average weight gain (in g) per day from birth until 100 days of age.	Use the 100 Day ADA Index for selection purposes – see below.
100 Day ADA Index (100D Ind)	100 Day ADA (Pre-wean) Index is calculated by dividing the calf's 100 Day ADA value by the average 100 Day ADA of the particular group (contemporaries) of calves, given as a percentage. Because a calf is largely dependent on its mother milk for growth at an early age, the 100 Day Index is a good evaluation of a cow's milk production.	Cull cows with two or more calves with a low (below 90) 100 Day ADA Index and/or with a low average 100 Day ADA Index on all her progeny. Do not keep heifers (or bulls) with low 100 Day ADA Indexes for replacement.
Wean (Phase A2)		
205 Day Adjusted Weight (205D W)	Wean weight adjusted (or corrected) for the age of the calf (to a standard age of 205 days) and adjusted for the age of the dam. The age-of-dam adjustment factor is an additive factor to adjust the calf's weight to a mature cow basis and is determined by the age of the dam, breed of the dam and the sex of the calf.	Use the 205 Day ADA Index for selection purposes – see below.
205 Day ADA (205D ADA)	The age-of-dam adjusted average weight gain (in g) per day from birth until 205 days of age.	Use the 205 Day ADA Index for selection purposes – see below.
205 Day ADA Index (205D Ind)	205 Day ADA (Wean) Index is calculated by dividing the calf's 205 Day ADA value by the average 205 Day ADA of the particular group (contemporaries) of calves, given as a percentage. The 205 Day Index is an evaluation of both a cow's milk production and the calf's growth rate up to weaning.	Cull cows with two or more calves with a low (below 90) 205 Day ADA Index and/or with a low average 205 Day ADA Index on all her progeny. Do not keep heifers (or bulls) with low 205 Day ADA Indexes for replacement.
Contemporaries (Contemp.)	See above.	
Cow Efficiency (CE)	Cow efficiency evaluates the weaning weight (adjusted for age to 205 days) of a cow's calf in comparison to her own metabolic or maintenance weight (weight to the power of 0.75) at calving (or weaning if not recorded at calving). E.g. a cow of 500kg weaning a calf of 250kg will be more efficient than a cow of 600kg weaning a calf of the same weight.	Use the Cow Efficiency Index for selection purposes – see below.
Cow Efficiency Index (CEI)	The Cow Efficiency Index is calculated by dividing the CE value by the average CE of the particular group of cows and calves, given as a percentage.	Cull cows with two or more low (below 90) Cow Efficiency Indexes and/or with a low average Cow Efficiency Index.
Production per Productive Year (PPY)	The Production per Productive Year calculation is the kg of wean calves (adjusted to 205 days of age) per productive year of the cow. It therefor	Cull cows with a Production per Productive Year figure of more than 10% below the herd average.

	takes into consideration the AFC, av. ICP and av. 205-day weight of a cow's calves.	
Weaning Weight Ratio (WWR)	The calf's age-adjusted (to 205 days) weaning weight divided by the cow weight at weaning of the calf, given as a percentage. If at Settings > Herds > Performance Testing the option Calculate Average Dam Weaning Weight Ratios based on Individual Animals is switched OFF the weaning weights for multiple births are added in the calculation.	Strive to have an average Weaning Weight Ratio of 45 - 50%. Cull cows with a low (below 40%) average Weaning Weight Ratio.
% Calves Weaned (for a specific cow)	Number of calves weaned divided by the total number of calves that could have been weaned. (Note: A calf is considered weaned if it has a valid weaning weight (weighed within the age limits for performance testing) AND the calf's weight type must be "Wean Weight" AND/OR the calf must have a "Wean" record in Procedures).	Cull cows with a low % Calves Weaned value.
Pregnancy %	The number of cows pregnant divided by the number of cows mated as a percentage.	
Calving %	The number of cows calved divided by the number of cows mated as a percentage.	
12 Months (Phase B1)		
365 Day Adjusted Weight (365D W)	12 Months weight adjusted (or corrected) for the age of the animal (to a standard age of 365 days) and adjusted for the age of the dam. The age-of-dam adjustment factor is an additive factor to adjust the animal's weight to a mature cow basis and is determined by the age of the dam, breed of the dam and the sex of the calf.	Use the 365 Day ADA Index for selection purposes – see below.
365 Day ADA (365D ADA)	The average weight gain (in g) per day from birth until 365 days of age.	Use the 365 Day ADA Index for selection purposes – see below.
365 Day ADA Index (365D Ind)	365 Day ADA (12 Month) Index is calculated by dividing the animal's 365 Day ADA value by the average 365 Day ADA of the particular group (contemporaries) of animals, given as a percentage. Because the 365 Day Index is calculated on growth from birth, it is a function of both the dam's milk production, the calf's growth rate up to weaning and the post-wean growth rate up to 12 months.	Cull heifers and bulls with a low (below 90) 365 Day ADA Index.

18 Months (Phase B2)		
540 Day Adjusted Weight (540D W)	18 Months weight adjusted (or corrected) for the age of the animal (to a standard age of 540 days) and adjusted for the age of the dam. The age-of-dam adjustment factor is an additive factor to adjust the animal's weight to a mature cow basis and is determined by the age of the dam, breed of the dam and the sex of the calf.	Use the 540 Day ADA Index for selection purposes – see below.
540 Day ADA (540D ADA)	The average weight gain (in g) per day from birth until 540 days of age.	Use the 540 Day ADA Index for selection purposes – see below.
540 Day ADA Index (540D Ind)	540 Day ADA Index is calculated by dividing the animal's 540 Day ADA value by the average 540 Day ADA of the particular group (contemporaries) of animals, given as a percentage. The 540 Day (18 Month) Index is an indication of both the dam's milk production, the calf's growth rate up to weaning and the post-wean growth rate up to 12 months. Because the 540 Day Index is calculated on growth from birth, it is not only a function of post-wean growth rate up to 18 months, but also of growth rate up to weaning.	Cull heifers and bulls with a low (below 90) 540 Day ADA Index.
Standardised Central Growth Tests (Phase C) and On-Farm Growth Tests (Phase D)		
Average Daily Gain (ADG)	The average weight gain (in g) per day during the growth test.	Use the ADG Index for selection purposes – see below.
ADG Index (ADG Ind)	ADG Index is calculated by dividing the bull's ADG value by the average ADG of the particular group (contemporaries) of bulls, given as a percentage. The ADG Index is an evaluation of a bull's post-weaning growth rate.	Cull bulls with a low (below 90) ADG Index.
Average Daily gain per day of Age (ADA)	The average weight gain (in g) per day from birth until the end of the Phase C or D test.	Use the ADA Index for selection purposes – see below.
ADA Index (ADA Ind)	ADA Index is calculated by dividing the bull's ADA value by the average ADA of the particular group (contemporaries) of bulls, given as a percentage. The ADA Index (like the 540 Day ADA Index) is a function of both pre-wean and post-wean growth rate.	Cull bulls with a low (below 90) ADA Index.
Feed Conversion Ratio (FCR) [Only Standardised Central Growth Tests]	The number of kg feed the bull consumed per kg weight gain during the Phase C test period (84 days). Please note: The lower the FCR value, the better.	Use the FCR Index for selection purposes – see below.

Feed Conversion Ratio Index (FCR Ind) [Only Standardised Central Growth Tests]	Feed Conversion Ratio Index give the average FCR of the particular group (contemporaries) of calves as a percentage of the bull's FCR value. Please note: The higher the FCR Index, the better. The FCR Index is an evaluation of the efficiency of converting feed into weight gain.	Cull bulls with a low (below 90) FCR Index.
Residual Feed Intake (RFI)	Residual Feed Intake is a measure of feed efficiency and is defined as the difference between an animal's actual feed intake and its expected feed intake based on its size and growth. It is independent of the level of production, and the lower the value the more efficient the animal is.	Cull animals with a high Residual Feed Intake value.
Residual Daily Gain (RDG) and RDG index	Residual Daily Gain is defined as the difference between actual and predicted daily weight gain based on the regression of daily weight gain on metabolic mid-weight and feed intake. Residual Daily Gain represents the amount of body weight gain not accounted for by differences in feed intake and metabolic mid-weight. In general, Residual Daily Gain is associated with faster growth rates while remaining independent of differences in feed intake.	Cull animals with a low Residual Feed Intake value.
Kleiber Ratio (KR) [Only On-Farm Growth Tests]	The bull's ADG divided by the metabolic or maintenance weight (final weight to the power of 0.75).	Use the Kleiber Ratio Index for selection purposes – see below.
Kleiber Ratio Index (KR Ind) [Only On-Farm Growth Tests]	Kleiber Ratio Index is calculated by dividing the bull's KR value by the average KR of the particular group (contemporaries) of calves, given as a percentage. The Kleiber Ratio is an indirect evaluation of the efficiency of converting feed into weight gain.	Cull bulls with a low (below 90) Kleiber Ratio Index.
Body Measurements		
Adjusted Scrotum Circumference (Adj. SC)	Scrotum circumference as measured at the end of the Phase C or D test adjusted for the body weight of the bull to a standard weight (e.g. 425 kg) per breed. Scrotum circumference is an indirect evaluation of testes volume. Larger testes are associated with a larger volume of semen production and also, to a lesser extent, with higher quality of semen.	Cull bulls with low (10% or more below average and/or below the minimum breed standard) Adjusted Scrotum Circumference (e.g. herd average = 340mm – cull bulls with an Adjusted Scrotum Circumference below 315mm).

Adjusted Shoulder Height (or Hip Height, depending on breed) (Adj. SH (or HH))	Shoulder height (or Hip Height) as measured at the end of the Phase C or D test adjusted for the age of the bull to a standard age of 365 days. Shoulder height (or Hip Height) is an indication of frame size of the animal.	Cull bulls with extreme low or high Adjusted Shoulder Height (or Hip Height).
Adjusted Body Length (Adj. BL)	Body length as measured at the end of the Phase C or D test adjusted for the age of the bull to a standard age of 365 days.	Select bulls with an above average Adjusted Body Length.
Length/Height Ratio (H:L Ratio)	Body length divided by Shoulder Height (or Hip Height) ratio.	Select bulls with an above average Length/ Height Ratio.
Tick Resistance		
Tick Resistance Index (TR Ind) [Only veld On-Farm Growth Tests]	The number of ticks at specific sites on the body of the bull can be counted at regular intervals during the Phase D test. The tick resistance index is calculated by using the logarithm of the total number of ticks on a bull in relation to the logarithm of the average number of ticks counted on the particular group (contemporaries) of bulls, given as a percentage. The tick resistance index evaluates the relative resistance the animal has against tick infestation.	Select bulls with an above average Tick Resistance Index.
Carcass Traits (RTU Measurements)		
Intramuscular Fat (Marbling) %	The % intramuscular fat (marbling) in the eye muscle, as measured by ultrasonic scanning of the live animal. Higher Intramuscular Fat % is associated with tastier and tender beef.	Use the Intramuscular Fat % Index for selection purposes – see below.
Intramuscular (marbling) Fat % Index (IMF % Ind)	Intramuscular fat is calculated by dividing the animal's IMF % value by the average IMF % value of the particular group (contemporaries) of animals, given as a percentage.	Select for an above average Intramuscular Fat % Index IF deemed important and/or of economic value for your market.
Carcass Red Meat % (CRM %)	The percentage of the carcass weight which consists of meat, including intramuscular fat.	Use the Carcass Red Meat % Index for selection purposes – see below.
Carcass Red Meat % Index (CRM% Ind)	Carcass Red Meat % Index is calculated by dividing the animal's CRM% value by the average CRM% value of the particular group (contemporaries) of animals, given as a percentage.	Select for an above average Carcass Red Meat % Index.
Muscle % (M %)	The percentage muscle in the carcass relative to the live weight of the animal. The M % calculation is live weight x dressing % x CRM %.	Use the Muscle % Index for selection purposes – see below.
Muscle % Index (M % Ind)	Muscle % Index is calculated by dividing the animal's M % value by the average M % value of the particular group (contemporaries) of animals, given as a percentage.	Select for an above average Muscle % Index.
Kg Predicted Red Meat (Kg PRM)	A prediction of the kilogram muscle the live animal will produce (in carcass form).	Select for an above average Kg Predicted Red Meat.

Retention of Progeny (only for registered/stud herds)		
Approval % (App. %) [only applicable to stud breeding herds with compulsory inspection for registration purposes]	Approval % is the number of progenies approved at inspection, divided by the number of progenies put forward for inspection, given as a percentage.	Select for cows and bulls with an above average Approval % on their progeny.
Pelvic Measurements		
Adjusted Pelvic Area (APA)	Adjusted pelvic area is calculated by multiplying the pelvic opening height and the pelvic opening width, adjusted for the animal's age and sex. Adjusted Pelvic Area is used to predict calving ease in heifers.	Cull heifers with a low Adjusted Pelvic Area or use the Adjusted Pelvic Area Index for selection purposes – see below.
Adjusted Pelvic Area Index (APA Ind)	Adjusted Pelvic Area Index is calculated by dividing the animal's APA value by the average APA of the particular group (contemporaries) of animals, given as a percentage.	Cull heifers with a low (below 90) Adjusted Pelvic Area Index.

Appendix G

Contact details

For enquiries and assistance with regards to BenguFarm BEEF, please contact your **assigned** agent.

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BenguFarm agents use **Teamviewer software for remote (Internet) support**. Teamviewer can, if installed, be opened from BenguFarm on the main screen by going to Help > Teamviewer Remote Support. If not installed, Teamviewer can be downloaded and installed at www.teamviewer.com. If you need support using Teamviewer, open your Teamviewer (make sure your Internet connection is turned on), contact your BenguFarm agent and provide your Teamviewer ID and password to him/her.

Training courses and individual training

BenguFarm BEEF users are notified by e-mail BenguFarm News of the dates, places and other details when training courses are organised. His information is also put on the website www.bengufarm.co.za > Training.

For individual or small group (1-3 persons) or online training, contact your BenguFarm agent or contact Mr. Leslie Bergh at 082 801 2026 or e-mail bengufarm@gmail.com or Mr. Johan de Jager at 083 305 1048 or e-mail jjager@mweb.co.za.