FlockFiler Pro v1.1.2 User Guide Draft

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Introduction

FlockFiler Pro is a powerful tool for you to store and use the records for your sheep farm. It is not a complete solution on its own. FlockFiler Pro relies on three components to work in concert. These three are components are you, your FlockFiler installation, and your computer.

FlockFiler Pro can only be as useful as the information you enter. This is the "garbage in, garbage out" principle. The most important aspect is ensuring you are doing consistent data entry. Keeping your records up-to-date in FlockFiler Pro is a necessary chore. Missing or incomplete records will limit FlockFiler Pro's usefulness, but it isn't a show-stopper. FlockFiler Pro does not require you to fill in all of the data fields. FlockFiler Pro will attempt to make the best interpretation of the data that you do provide.

FlockFiler Pro relies on your computer working properly. FlockFiler is a file-based database solution that needs to have dependable access to its data files. While it is running FlockFiler uses a combination of the computer's short-term memory (RAM cache) and long-term memory (hard drive) to deliver very fast performance even when working with very large databases. If your computer is unreliable and fails abruptly, the FlockFiler files won't be closed properly and the information in its short term memory will be lost instead of being saved to the long-term memory. The database files will have to auto-repair themselves the next time you start up FlockFiler. Most of the time this auto-repair will succeed, but if FlockFiler was busy automatically saving the short-term memory as long-term memory when the computer failed, FlockFiler may not be able to recover those files, and FlockFiler Pro will not be able to start up properly. In that case you will need to revert to using a backup copy (Section 10.4).

Getting Started

2.1 Evaluation Mode

Until you enter a valid license, FlockFiler Pro will run in Evaluation Mode. This is to give you unlimited access to FlockFiler Pro's features prior to purchasing. Run FlockFiler Pro for as long as you need to figure out if FlockFiler Pro meets your needs. None of the features are disabled or limited while running in Evaluation Mode.

While running in Evaluation Mode FlockFiler Pro adds three things: a 15 second countdown on launch, watermarked printouts, and a periodic pop-up dialog reminding you that you are in Evaluation Mode.

After you have entered data, examined FlockFiler Pro's features, and evaluated FlockFiler Pro long enough to determine that you want to purchase a license, surf over to www.flockfiler.com. The license you purchase there can be entered into your current installation of FlockFiler Pro to transform it into a fully licensed version. There is no need to reinstall FlockFiler or reenter your data.

2.2 Navigating and Viewing

2.2.1 Viewing

After starting up FlockFiler and choosing to "Run FlockFiler Pro", you will land at the FlockFiler Pro Home screen. Push the "Sheep" button on the Core tab of the Master Navigator to browse your sheep records.

You can view each sheep one at a time using the Form viewor in a list with the List view (using the List button). While on the List view you can navigate back to the Form view with the Form button to view the current record in Form view. Select the green magnifying glass to the left of any record in the list to navigate to and see it's Form view.

The controls at the top of the window let you navigate forward and back one record at a time in the current list of records using the buttons with the triangles. The small slider lets you move quicker down the list of records.

If you are not browsing all of the records, you can push the "Show All" button to view all of them.

2.2.2 Visual Conventions

The white sections on the Form screens designate places where you can enter information. Items on a grey background are calculated for you automatically and cannot be edited directly. Both the grey items and the white items can be used when searching for records.

The Green magnifying glass is used to navigate to a related record. For example clicking on the green magnifying glass to the left of the Sire on the Basic screen will bring you to the sire's Basic screen.

The grey magnifying glass is used to navigate to a data entry section that expands on the topic the grey magnifying glass is close to. FOr example clicking on the grey magnifying glass close to the Photo field will display a screen that lets you view the photo larger.

On the Form view there is a large rectangle that surrounds the data entry fields. This rectangle changes to a darker color if you are in Browse mode but are not browsing any records. If you are in Find mode, the rectangle turns red. Keep these these visual cues in mind so that you won't be attempting to enter records in Find mode when you should be in Browse mode.

Most buttons and tabs in FlockFiler Pro are programmed to display a descriptive message when you let your mouse linger on them (without clicking). This "mouseover" text is intended to let you know the purpose of the button or tab.

2.3 Entering Information

2.3.1 Editing Records

Enter information on each record by filling in the white data fields. There is no "Save" or "Submit" button for the record's data. The data on each record is automatically entered once you exit the field.

Similarly there is no "Save" button needed for the data file. All of your session's data is saved to the database file automatically as you go. There is no option to "exit without saving". If you need to revert back to a previous session's data because you discovered that you've been entering data incorrectly or deleted a bunch of records that you needed, you need to use the "Erase and Import from Pro Backup" choice in the File menu to revert to the data stored in the backup file automatically created the last time you quit FlockFiler Pro.

The data entry fields in FlockFiler are presented in different ways.

Edit Boxes

You type text, a date, or a number into an edit box as appropriate for the type of data field it is. While a text field permits you to enter an many lines of text, if the box on screen is only one line tall, FlockFiler expects you to enter only one line (don't hit the return key) when you are typing into the field.

Checkboxes

Click into the checkbox to make an X mark to "check" the box. Click again to clear the mark. When the checkbox field is active you can use the space bar to check or uncheck the field.

Radio Buttons

Fields presented as radio buttons will give you a set of options where you can select only one. The Sex field on the Basic screen (the one displayed on a white backround) is an example of a radio button.

Click on the choice you want in the radio button. Any other choices will be unselected when you click on a new choice. If the radio button already has a choice selected and you need to make the field empty, hold down the Shift key on the keyboard while you click on the selected choice to unselect it. ¹

Pop-up menu

A pop-up menu is similar to a radio button control in that you choose only one item on the menu by selecting it with your mouse. If you need to undo an existing selection, click on that choice while holding down the Shift key on the keyboard to unselect it.²

When the pop-up menu is active you can type the first letter of the menu item to navigate to it in the list. This is useful when a pop-up menu list is long enough that you have to scroll up and down along it.

Drop-down list

A drop-down list is like a pop-up menu except that you can also type in your own entry directly. Click once in the field to display the list of menu options below the field. Click a second time in the field to change it to the format of an Edit Box where you can type in your entry directly.

Most of the drop-down lists in FlockFiler are designed to automatically populate the drop-down list menus with the items that already appear in that field in all of your records.

¹The Shift key can also be used to select more than one choice in a radio button. Don't do that though. The data entry fields displayed as radio buttons are intended to have only one selection made.

²Like with the radio button the Shift key can also be used to select more than one choice in a pop-up menu, but this is not encouraged.

Like the drop-down list, when the pop-up menu is active you can type the first letter of the menu item to navigate to it in the list.

2.3.2 Creating New Records

Click the "New Record" button at the top of the window to create a new, empty record. You can also use the equivalent menu item "New Record" in the Records menu.

Each sheep in FlockFiler needs its own record. This includes sheep that you specify as the sire, dam, any entry on the pedigree, and any lambs that are produced. If you specify a sheep, it has to have its own record in FlockFiler. Records that are only entered to satisfy a pedigree and that you have never owned are designated automatically as "Reference" in their Record Status.

All of the data entry fields are optional, but FlockFiler Pro will let you know using a Record Quality message at the bottom of the Sheep Form if you have left some of the fields blank which are usually filled in. You are free to ignore the Record Quality message.

You may find that even though this is a brand new record some of the fields are already filled in. This is because some of the fields have default values configured on the Data Entry Preferences aspect of the Customize screen. These default values are designed to help you do data entry faster and with better consistency.

Sire and Dam Selector

On the sheep's Basic form use the "Select" buttons to the right of the Sire or Dam to choose what other FlockFiler Pro you want to designate as the Sire or Dam of the current record. The "Select" button to the right of the Sire field will open up a new selector window that lets you locate the Sire. The top part of this selector specifies how to restrict the selection list. By default the Sire selector limits the list to Sex=R. If you want to limit the selection to sheep marked as breeders, check the box for "Breeder?" at the top of the selector window. Similarly you can enter in a "Record Status" or specify dates to limit the birthdate of the sheep in the selector list.

When the Sire selector dialog window first opens it puts your cursor in the box for "Only show choices that start with". Start typing the ID or name of the ram you want to select. The selector will limit your choices to those sheep who match the ID or name you are typing. As soon as you see the ram appear at the top of the selector list you can hit the Return (or Enter key) on your keyboard to choose that sheep as the sire. If you prefer you can scroll along the list to find the sheep and click the "Choose" button to the right of the sheep.

If you do not find the sire you seek in the list, you have two options: click the "Cancel" button in the lower left to close the sheep selector window or click the "+New" button at the upper right (above the topmost "Choose" button) to create a new sheep record and assign that record as the sire. Before using the "+New" button be sure that you do not already have the sheep in your

database. The goal is to create cross-references between existing records and avoid creating duplicate records. If two sheep have the same sire, they should both be connected to the same sire record.

Assigning the Breed

The "Assign Breed" button on the Basic screen will try to assign the breed of the sheep using the default behavior you have assigned on the "Data Entry Preferences" aspect on the Customize screen. The "Automatic" option for the 'Behavior Preference for "Assign Breed" Button' will cause FlockFiler Pro to try to assign the breed based on the breeds of the parents you specified. If there is insufficient information to do that it will assign the "Default Breed" you provided.

FlockFiler Pro can keep track of an unlimited number of breed names and an individual sheep can have an arbitrarily complex breed composition. If the "Assign Breed" button does not provide the level of control you need, you can specify the complete breed composition manually using the "Breed %" screen.

2.4 Finding Information

One of the things that makes FlockFiler so powerful is its ability to find specific records for you. You can easily home in on exactly the records you need.

You do your search using the same screens as you do your data entry. Simply push the Find button to enter Find mode which presents you with an empty form. Fill in the fields to match what you want to see in the records you find. For example: push Find, choose Current for the Record Status, choose E for the Sex, then push the Perform Find button to find all of the current ewes.

If more than one record is found, FlockFiler Pro will display them in a List. If only one record is found it will show that record's Form view.

2.5 Comparing FlockFiler Lite to FlockFiler Pro

If you are moving to FlockFiler Pro from FlockFiler Lite you will find many things in common between the two databases.

FlockFiler Pro's Log entry section is very similar to that of FlockFiler Lite. FlockFiler Pro adds a calendar view. Unlike FlockFiler Lite breedings are recorded in a dedicated Breeding section instead of Log entries. The Breeding data in FlockFiler Lite stored as Log entries are automatically converted to FlockFiler Pro's Breeding Exposure records when you import data from FlockFiler Lite.

In the following areas FlockFiler Lite is limited whereas FlockFiler Pro expands to have unlimited storage for a greater variety of values and/or keeping the history of measurements.

• breed names

- weight measurements
- ullet evaluation scores
- fleece scores
- locations
- photos

FlockFiler Pro adds new sections to store the following.

- $\bullet\,$ Results of showing your sheep at a fair
- FAMACHA and fecal egg counts
- Body size and carcass measurements
- \bullet health tests
- breeding activity/marking harness measurements
- pregnancy tests
- ram evaluations
- feed mixes and nutrient values
- financial records
- contact address book

Customizing

3.1 Entering Your License

Prior to entering a license, FlockFiler Pro will run in Evaluation Mode. In this mode, there is a 15 second countdown delay after launching, watermarks will appear on your printouts, and a dialog will pop up periodically to remind you that you are in Evaluation Mode.

After you purchase a license, you can enter it by pushing the License button on the Home screen. Push the "I Agree" button on the following screen to agree to the license terms and proceed to the License screen.

For a full FlockFiler Pro license (not an upgrade from Lite), enter the three pieces of the license (Full Name, Organization, License Code) under the "FlockFiler Pro License" tab to match exactly the license that you were issued. These pieces are keyed together.

For your convenience in avoiding typos and tedious typing, you can use the box at the right hand side of the license screen to copy and paste the license information that you received in e-mail message after your purchase. After pasting in the contents of the license e-mail message, push the "Fill in License from this Info" button to have the important pieces of the license information filled in for you automatically.

Once the license is entered, push the "Apply License" button to have the license activated for this session. Each time FlockFiler Pro is launched, the license info entered on this screen will be reevaluated and automatically activated. Note that this process does not use an Internet connection.

If you are upgrading from FlockFiler Lite enter your license information into the fields on the "Upgrade From FlockFiler Lite" tab. FlockFiler Pro requires both the FlockFiler Pro Upgrade license and your FlockFiler Lite license. If you have imported your FlockFiler Lite data, the FlockFiler Lite license should already be entered since it was imported along with the FlockFiler Lite data. You will then need to enter just your FlockFiler Pro license information and push the "Apply License" button.

For your convenience in entering either the FlockFiler Lite license information or FlockFiler Pro upgrade license information, you can use the boxes at the right hand side to enter the corresponding text from the license e-mail messages as described above for the full FlockFiler Pro license information.

After you have successfully entered your license, the personalized parts of your license will appear on your Home screen. You can customize the Home screen further with a one-line message. This is handy if you have multiple FlockFiler Pro installations and want to have an easy on-screen label to help you keep track of which one you are currently running. Navigate to the License screen (using the "View License" button on the Home screen) and enter your custom message into the "Custom Message for Home Screen" field under the "FlockFiler Pro License" tab.

3.2 Labeling Custom Fields

3.2.1 Sheep

To accommodate the unexpected and provide flexibility for users, FlockFiler Pro contains some fields on the sheep forms that do not have a preassigned role. You can use these to store whatever you need and relabel them to describe the new purpose. By default these are labeled Custom #1 through Custom #12. Custom #1 through Custom #4 and Custom #7 and Custom #8 are found on the Basic screen. On the Custom tab of the Measuring form you can find Custom #5, Custom #6 and Custom #9 through Custom #12.

When you want to provide your own choice of label for any one of these fields, you can edit the labels on the "Custom Data Entry Fields" tab of the Customize form. Simply enter a new label in the "Custom Field Label" field for the corresponding numbered custom field. The new label will be displayed immediately on all instances of that custom field. Note that this label is a cosmetic change only. It has no effect on the data you have placed into the custom field bearing this new label.

There are an additional twelve numeric fields on the Evaluation tab of the Measuring aspect of the Sheep form which are used to store six EPD/EBV values and their corresponding accuracy assessments. These are customizable in that you can specify to what traits these six values correspond. By default these are labeled Trait #1 through Trait #6.

Customize these trait labels by specifying a "Trait Name" on the "EPD/EBV Traits" tab of the Customize aspect of the sheep form.

3.2.2 Address Book

In the same fashion as the custom fields in the Sheep section, there are eight custom fields in the Address Book section. These fields appear on the Custom Fields tab of the Address Book form. The data entry, display, and searching is

done on the Values tab of the "Custom Fields" tab. You can edit the labels of these fields on the Customize tab of the "Custom Fields" tab.

3.3 Data Entry Preferences

3.3.1 Global values

The gestation length and the units for weight measurements are settings that are each used in many places in FlockFiler Pro.

The weight units are essentially a label (e.g. "lbs" or "kg") reminding you how to interpret the numbers entered into the weight measurement fields. Enter your choice of weight units on the "Data Entry Preferences" tab of the Customize aspect of the sheep form.

The gestation length ("Breeding to Lambing Days") is set by default to be 145 days. This value is used by an assortment of FlockFiler Pro calculations. If your records are for a different species or you have a better value for your sheep genetics, you can enter your choice of gestation length (in days) on the "Date Planning" calculator. The "Date Planning" calculator is found via the "Date Planning" button on the Extra tab on the Home screen. Note that the value you enter for the gestation length will be used throughout FlockFiler Pro so if your records have very different genetics (or different species), you will have to pick the one gestation length that will best work for you.

3.3.2 Primary Flock Manager

While it is not used specifically in any of the built-in report, FlockFiler Pro provides a global setting for the primary flock manager. This setting designates which entry in the Address Book table corresponds to the flock manager. Future versions of FlockFiler Pro may include the flock manager information in specific reports. Use the "Select" button on the "Primary Flock Manager" tab of the Customize aspect of the sheep form to designate your primary flock manager.

3.3.3 Default Values

For your convenience and to assist in rapid data entry, FlockFiler Pro has some settings to control how certain data entry fields will be filled in automatically for new records. These settings are adjusted on the Customize sheep form under the "Data Entry Preferences" tab.

The following fields on the Customize screen will automatically enter the default values specified into the corresponding fields on any new Sheep record.

Default Tag Type
Default Location (General)
Default Group
Default Owner
Default Horn Status

Make any of the default fields listed above blank if you don't want a default value assigned to the corresponding sheep field.

On the Basic form and on the "Breed %" form there is an "Assign Breed" button. The field 'Behavior Preference for "Assign Breed" specifies the behavior of that button. The "Automatic" option specifies to assign the breed logically from the breeds you have entered for the sheep's parents and to use the "Default Breed" choice otherwise. Using "Automatic" is usually the best choice. If the breeds of the parents are not entered well or are unreliable, you might choose one of the other options.

The "Scrapie ID Auto-prefix" field provides a way for you to save typing in the farm-specific prefix of the scrapie tags. This would be the USDA premesis ID. Anything you enter into the "Scrapie ID Auto-prefix" field will be automatically entered into the "Scrapie ID Tag" field for you when you are entering a Sheep's Scrapie ID. It isn't automatically entered for all new records. The prefix is only entered when you click into an empty "Scrapie ID Tag" field in Browse mode.

3.4 Screen Zoom

If you would like to magnify or "zoom in" the contents of the FlockFiler window, you can do this up to a magnification of 4 times normal. You might want to do this if your computer display is set to a very high resolution and the FlockFiler window is a small fraction of your total screen. To magnify, push the "big mountain" button at the lower left corner of the window. Similarly to de-magnify, you can push the "small mountain" button to zoom out (down to 25%).

The number to the left of these buttons is the current magnification percentage. The default is 100. The number display is also a button. Click on it to jump you back to 100% percent. Click again to jump back to your previous magnification level.

You can also change the Zoom level in the View Menu using "Zoom In" and "Zoom Out".

3.5 Available Colors

FlockFiler Pro lets you enter color codes for sheep records and for Log Entries to display in different colors on your calendar. There are 14 default color choices on the color selection menu. If these 14 are not enough (or too many), you can edit which of the built-in 148 colors in FlockFiler Pro will appear on this menu.

To edit the menu, push the Colors button on the Extra tab on the Home screen. You will be presented with a list of all 148 colors that are known to FlockFiler Pro. Check the "Show On Menu?" checkbox field for that color to have it appear on the normal color selection menu. Uncheck the box for any colors you want to remove from the menu.

3.6 Available Breeds

When specifying the breed name for a sheep on the "Breed %" sheep form, you choose the name from a menu of available breeds. If the breed name you need is not on the list, select "Add New Breed" to bring up a dialog where you can add a new breed name to the list.

The names on this list come from FlockFiler Proś Breeds table. The "Add New Breed" menu choice adds a new record corresponding to that new breed name to this Breeds table. An alternate way to add breed names to the list is to edit the records in the Breeds table directly. You can access the Breeds table by pushing the Breeds button on the Extra tab on the Home screen. By editing Breed record directly, you can change an existing breed name or delete any unneeded breed names. If you have already assigned a breed name to one or more sheep, you should not delete the breed record for that breed name it since it would cause those sheep to lose their breed specification. You can see on the Breed record Form how many sheep are using that breed name by looking at the number provided by "# of Sheep Using this Breed".

3.7 Log Entry Phrases

To make it faster and easier to enter common data entry items into the Description field of the Log Entry form screen, you can set up a library of custom phrases that can be inserted by selecting them from the "Append Phrase to Description" menu. Push the "Edit Phrases" button to bring up another window where you can add new phrases and edit or delete existing ones to customize the menu.

Note that only the first line of your phrase will appear in the menu on the Log Entry form. When the phrase has multiple lines, the number of lines of the phrase will appear in parentheses at the end of the menu item to remind you how long the phrase is.

The defined phrase can contain the special keyword text "__CURSOR__". When present, that keyword will be replaced by the data entry cursor after the phrase is inserted. Thus you can do something like "Injected with __CURSOR__ cc of penicillin." After this phrase is inserted the phrase "Injected with cc of penicillin." and the cursor will be positioned inbetween "with" and "cc".

Screens (unfinished)

4.1 Sheep Forms (unfinished)

4.1.1 Breeding

Data entry is usually done on the Ewe tab of this form. The Ram tab can be used to add a Breeding Exposure in the same fashion as the Ewe tab. As you visit differents sheep records, this form will automatically display the Ewe, Ram, or Wether tab as appropriate to that sheep's Sex. Since this form is for breeding, the Wether tab displays no relevant information.

Breeding Exposures

When you want to document that you exposed some ewes to a ram for a specific period of time for breeding, you need to create a new Exposure Record for those sheep. First find those ewes so that you are browsing just that breeding group. If convenient, you can also include the breeding ram in the list of sheep you find. Then push the "New Exposure Record" button when browsing one of those records. Choose "Many" to create a single Exposure Record connected to all of those sheep. You will be taken to the form for the new Breeding Exposure record.

If you had a ram in the list of sheep, it will be automatically selected as the Ram on the Breeding Exposure record. If not, you can push the "Select" button on this form to choose a ram.

Fill in the Start Date and the End Date describing the duration of the exposure to the ram.

If you need to edit which ewes are part of this breeding exposure, you can edit the list of ewes using the red X button to remove a ewe or the "Add a Ewe" button to put a ewe onto the list.

Sometimes the breeding season of your ewes is more complicated than simply having one ram continuously in with your ewes for a specific length of days. These situations may give rise to multiple Breeding Exposure records for those

ewes during the breeding season. You might put in a second ram to follow up after the first ("clean up" ram). For whatever reason, you might for example have a circumstance where the primary ram is in with the ewes for two weeks, is out for two weeks, and is back in for three weeks resulting in two breeding exposure records covering the two exposure sessions. The breeding statistics calculations of FlockFiler Pro will count the Breeding Exposure records to figure out how many times the ewe has been bred (or attempted breeding). This is intended to tally how many seasons you have tried to breed the ewe. To avoid having these extra breeding records skew the statistics, you will need to check the box labeled "Don't count as a separate breeding in stats" on those extra Breeding Exposure records.

There are a few buttons on this Breeding Exposure form that allow you to add specific dates onto the Calendar: "Add Exposure to Calendar", "Add Vaccination to Calendar", and "Add Lambing to Calendar". These automatically create Log entries designed for display on the Calendar to help remind you of these events.

Breeding Activity

A new Breeding Activity record for a ewe is generated using the "New Breeding Activity" button. It is to document specific events when the ewe was serviced. This could be data collected using a marking harness on the ram, a shepherd's observations, or it might be specific activities like artifical insemination (AI) or embryo transfer (ET). When it is AI or ET, you can change the Type from "Natural" to be "AI" or "ET" as appropriate.

When a Breeding Exposure record is present, for your convenience the servicing ram is automatically selected from the Breeding Exposure record. To change the Ram or do additional data entry, navigate to the Breeding Activity form using the green magnifying glass next to that Breeding Activity record in the list. Like the Breeding Exposure form, the Breeding Activity form has buttons to add dates onto the calendar: "Add Activity to Calendar" and "Add Due Date to Calendar".

Pregnancy Tests

In terms of data entry, Pregnancy Tests are similar to how weight measurements are handled. If you are browsing more than one sheep when you use the "New Pregnancy Test" button, it will ask you if you want the Pregnancy Test to be for "One" or "Many" sheep.

A response of "One" will create an entry for just the sheep record you are visiting. You can fill in the details on its entry on the sheep form. A respose of "Many" will take you to a form that asks for more information that will be common to all of the Pregnancy Test records: Test Date and Test Type. If you desire, you can also add the same entry in the Note field on each Pregnancy Test record. Push the "Create the Pregnancy Tests For These X Sheep" button (where "X" is the number of sheep you are browsing) to create one pregnancy

test for each sheep in your list. You will be brought to a list of Pregnancy Test records that are ready to be filled out. This could be a worksheet that you print out and take to your ultrasound session to record your results. You can then bring the worksheet back to your computer and transcribe the results onto the screen.

Note that when you are using the "New Pregnancy Test": "Many" feature, you should be browsing only a list of ewes since you are requesting that pregnancy test records are to be created for all of the sheep you are browsing. If you have any non-ewes in your current found set, they will be ignored when the pregnancy tests are created so that only the ewes will get pregnancy tests added.

Application Menus

The main menus in FlockFiler Pro adapt somewhat to what is being displayed in the frontmost window. For example there are fewer menus available on the Home screen than on the screens in the Sheep section.

5.1 File Menu

5.1.1 File Options...

This brings up a dialog that lets you customize the behavior of the built-in spell checker.

5.1.2 Page Setup.../Print Setup...

This is the familiar Setup dialog for printing. This menu selection is labeled "Page Setup..." on Macintosh systems and "Print Setup..." under Microsoft Windows[®]. In this dialog you specify the paper size and the paper orientation (portrait versus landscape).

5.1.3 Print...

Print anything displayed on your screen to the printer. You can see what will be printed out by using Preview Mode.

FlockFiler provides some "FileMaker Pro"-specific features to the Print dialog. These let you control the number of records being printed (e.g. one record or the entire set of records you are browsing). Recheck these settings if your printout is not what you are expecting.

5.1.4 Import Assistant...

The Import Assistant is an additional powerful tool to make it easy to import records from spreadsheets. This tool supports importing into either Flock-

Filer Lite or FlockFiler Pro. Documentation for the Import Assistant is available separately.

It is recommended that you use the Import Assistant instead of using the Advanced Raw Import feature. Only use the Advanced Raw Import feature if you need features that the Import Assistant does not have such as importing into a FlockFiler Pro table not supported by the Import Assistant.

5.1.5 Erase and Import from Pro Backup

This feature will erase all of the records you currently have in FlockFiler Pro and replace them with data that is imported from a backup file created previously by FlockFiler Pro. When you use this command, FlockFiler Pro will look inside the "Backups" folder located inside your FlockFiler installation folder for a file named "FlockFilerProBak112.FFP". (The number in the name of the file corresponds to the version number of FlockFiler Pro so it will be a higher number if the version is later than 1.1.2.) If there are multiple backup files corresponding to different versions of FlockFiler Pro, the one with the highest version will be used (up to the current FlockFiler Pro version number).

5.1.6 Erase and Import from Lite Backup

This feature is similar to the "Erase and Import from Pro Backup" feature except that it will load in and convert data from a backup file created by Flock-Filer Lite. This feature is designed to make it easy to allow users of Flock-Filer Lite to evaluate FlockFiler Pro using the data that they have already entered into FlockFiler Lite.

5.1.7 Advanced Raw Import

"The Advanced Raw Import" feature enables you to import information from a spreadsheet into any data entry table. As this feature gives you direct raw access into editing the internal FlockFiler Pro database without the safety net of the usual user interface, this feature should be exercised with extreme care. Proper use of this feature requires a good working knowledge of the internal FlockFiler Pro data format. Improper use of this feature will damage the data in FlockFiler Pro to the extent that you will need to abandon your current data and revert to a backup copy.

In most cases it is recommended that you use the "Import Assistant..." instead.

Before importing using the "Advanced Raw Import" feature, you first need to navigate to a Form or List scrren associated with the database table which is the destination for your import. You will be asked to import into the fields of this table and create or update records in this table so it is important to be familiar with the roles of these fields, the internal format of these fields, and their internal names which may be different than their on-screen labels. An easy way to check the internal name of a data entry field is to select the field

in Browse Mode and choose "Replace Field Contents..." in the Records menu. The dialog that pops up will name the field when it asks for confirmation (hit Cancel).

The "Advanced Raw Import" command will require you to select an import file (usually a spreadsheet file), connect the fields/columns in that file to the fields in the FlockFiler Pro table, and specify if FlockFiler Pro should "Perform auto-enter options while importing". It is very important for the data integrity of the FlockFiler Pro records that the "Perform auto-enter options while importing" checkbox should have a checkmark in it so that the internal record numbers will be automatically generated for each new record.

5.1.8 Advanced Raw Export

This feature will allow you to export any or all data from any of the data entry tables in FlockFiler Pro. The only exception is that it won't export from Container fields which are the ones where you would enter a Photo or a file (Photo on the Sheep records or Photo in the Library records).

Unlike the "Adanced Raw Import" feature, the "Advanced Raw Export" feature is safe to use, but if your export needs are simple, you may find it faster and easier to use the Copy All Records feature in the Edit menu. After copying, paste into a spreadsheet. This avoids all of the steps needed to set up and perform the export, but the Copy All Records feature does limit you to just the fields being displayed on the Form or List screen you are on when you used the "Copy All Records" command.

Before using the "Advanced Raw Export" command, you will need to navigate to a Form or List screen associated with the database table from which you will perform the export. The export operation will export the current found set of records in that table so you will need to be browsing those records prior to selecting the "Advanced Raw Export" command.

Like the "Advanced Raw Import" command, you will be asked to select from the fields in the database table using the internal names for the fields. Thus this requires you to be familiar with the internal names and the roles of these fields so that you can properly decide which fields to export.

Note that the Microsoft Excel 95-2004 ".xls" format for export from Flock-Filer Pro is not available for Mac OS X 10.7 and later. It is available for Mac OS 10.6 which still has support for the Rosetta library required by the ".xls" export libary under Mac OS X. The newer Microsoft Excel Workbook format ".xlsx" is fully supported for export from FlockFiler Pro in all versions of Mac OS X. Both the ".xls" and ".xlsx" formats of Microsoft Excel are available in all versions of Windows on which FlockFiler Pro will run.

5.1.9 Save/Send Records As

Using this menu you can export your records to a file in Microsofts Excel format. You can choose to save as the old Excel 95-2004 workbook format (.xls) or the newer .xlsx format. This is a simplified form of the "Advanced Raw Export"

function. The fields to export are automatically chosen by selecting all fields that appear on your current FlockFiler Pro screen.

5.1.10 Mail

This feature enables you to generate an e-mail message that contains information from the current record. It can also send one e-mail message for each record you are browsing.

The Mail feature will either use an e-mail client application or an SMTP (e-mail server) directly.

5.1.11 Save a Copy As

This feature saves a copy of the current database file to a location of your choosing with a name of your choosing. This feature can be useful in making backup copies in some situations if you are careful about how you named the file. FlockFiler Pro requires that its working files be named exactly and be located exactly same as the original files you installed. If you save a copy under a different name, you must rename it back to the original name and put it back to the original location in the FlockFiler folder in order to use it without problems. The backup files in the FlockFiler "Backups" folder are the result of using this "Save a Copy As" feature and naming the backup file in a specific way.

The "Save a Copy As..." dialog has three choices for the format of the copy.

copy of current file

This saves a copy in the normal format identical to the working file.

compressed copy (smaller)

This takes longer than a normal save. It does some optimizations and eliminates unused space in the file. This extra cleaning effort is more work and the save process takes longer, but the file is usually smaller than what you achieve with a normal save.

5.1.12 clone (no records)

This makes a blank copy. This saves a copy that has all of the records removed. This selection is of no practical use for FlockFiler Pro. The empty clone will lack the records required by FlockFiler Pro's administrative and user interface tables. If you want to revert to having an empty FlockFiler Pro database, you can install a fresh copy of FlockFiler and delete the sample records..

5.2 Edit Menu

5.2.1 Undo

When available, Undo will reverse the previous action. Only one level of Undo is available. The Undo selection will adapt to the circumstance and provide a different wording depending on the thing it would undo. If you type in a field, it will say "Undo Typing". After pasting text into a field it will say "Undo Paste", and so on. This menu selection will be disabled and say "Can't Undo" if FlockFiler cannot Undo the previous action.

5.2.2 Cut, Copy, Paste, Clear, Select All

These are the standard editing selections to edit text or graphics.

5.2.3 Copy All Records

This copy operation will copy information from the fields being displayed on screen from every record you are browsing. The Photo field is not copied. Some internal calculation fields are also not copied since they are presented on-screen only for managing the user interface and do not contain data useful to the end user.

The data in each field is in a separate column. Each column is separated by a tab character. Information from each record will go in a different row of text. The first line of the text contains the names of the fields. This can be very handy if you want to work with the information in a spreadsheet to edit it for a special printout or even graph it. Paste this directly into a spreadsheet and it will automatically distribute it into separate columns in the spreadsheet.

This special Copy All Records operation is a one way trip out of Flock-Filer Pro. You cannot paste information back into all of the records at once this way.

The internal unique record id number is automatically added as the first column of the copied information. This is to facilitate importing the information back into FlockFiler Pro to update records when matching on the ID.

5.2.4 Find/Replace

This menu selection provides a method of searching for and replacing pieces of text similar to what you might find in a word processor. You can choose to search and replace across multiple data entry fields and multiple records.

5.2.5 Spelling

The Spelling menu lets you customize what language and spelling dictionary file you want to use. You can edit entries your "User Dictionary" to add or

¹If you want to copy the Photo field on every record you need to do it on at a time using Copy.

remove words from a list that is used in conjunction with the primary language dictionary.

From the Spelling menu you can check spelling on one record or all records.

5.2.6 Export Field Contents...

When you click in a field and choose "Export Field Contents..." from the Edit menu, you can save the contents of a field into a file. Most commonly this will be a text file. If you do this for the Photo field, it will save an image file or whatever you saved in Photo.

Reports

6.1 Built-in Reports

6.1.1 General

Single Sheep Reports

Each of the "Single Sheep Reports" will display the report for the single sheep you are actively browsing.

Basic Info On 2 Pages: This is a two-page report displaying the basic info, the pedigree, some weights, and the most recent general and wool measurements. This report is designed for letter-sized paper printed in portrait mode.

Log Entries: This displays all of the Log entries for the current sheep in date order (oldest to newest). Note that none of the Log entries that are marked as "Private?" will appear in this report. This report is designed for letter-sized paper printed in portrait mode.

Health Tests: This displays all of the Health Test records for the current sheep in reverse date order (newest to oldest). This report is designed for letter-sized paper printed in portrait mode.

Measurements: This displays all of the Measurement records (Scores) for the current sheep in reverse date order (newest to oldest). In addition to the scores that you have entered, the most recent deworming date prior to measuring those scores is displayed. This prior deworming date is automatically calculated from finding an appropriate Log entry with a category of "Deworming". This report is designed for letter-sized paper printed in landscape mode.

Multiple Sheep Reports

Each of the "Multiple Sheep Reports" will display the report's information for all of the sheep that you are currently browsing. These are designed so that you can print out sets of records. This might be for archival purposes or to provide to a the new owner of breeding animals you have sold. Basic Info On 2 Pages and all Logs: This is a report displaying two pages of information about each sheep containing the basic info, the pedigree, some weights, and the most recent general and wool measurements. Additional pages containing all Log entries not marked as Private will be displayed for each sheep. This report is designed for letter-sized paper printed in portrait mode.

Basic Info On 2 Pages: This is the same report as the "Basic Info On 2 Pages and all Logs" except that the Logs are not displayed.

Basic Info On 1 Page. This is the same report as "Basic Info On 2 Pages" except that only the first page of content is displayed for each sheep.

Basic Info On 3x5 Card: This report displays identifier information and parentage of each sheep. This report is intended to make it easy to carry a pocket reference of the sheep in your flock in the form of a set of 3x5 cards.

Sheep and Dam (3x5 Card): This report enables you print out a stack of 3x5 cards containg 24 sheep per card. In particular this is designed to be useful during or soon after lambing so that you can carry around the IDs of the lambs and their dams to make it easy to reunite separated lambs with their dams.

Pedigreee (5 generations): This report prompts you with a dialog asking if you want to show the pedigree for one sheep or all of the sheep you are browsing. If you choose "One", then this report behaves like a Single Sheep Report. This report displays 5 generations (the sheep plus 4 generations of its ancestors) in landscape mode for letter-sized paper. The photo of the sheep along with any photos of the sire and dam are displayed on this pedigree.

Registration Pedigree (5 generations): This report is like the "Pedigree (5 generations)" report except that the Registry ID field is displayed to label each sheep instead of the more general ID and/or Name.

Barn Lambing Sheet: Do a search for your breeding ewes prior to running this report. This displays one line per sheep in a list with some of the information filled in and some left blank for you to fill in as a printed worksheet. The blank pieces give you space to document the sex, tag ID, and birth weights of the lambs that were born to the ewe (up to triplets). The due date and sire bred to each ewe are calculated from the entries you have made in the Breeding section.

Find Common Sheep Groups

Each of the buttons under the "Find Common Sheep Groups" tab will perform a pre-programmed Find. These are tasks that you can easily perform yourself using the "Find" button, but these buttons can serve as a convenient shortcut.

6.1.2 List Formats

Each of the buttons on the "List Formats" tab will navigate to a different List screen showing different columns of information for your sheep records. The "List" button at the top of the Sheep screens will memorize the and use the "List Format" choice you make on this screen.

The "User Customize: choose 4 fields" list goes beyond simply showing a preconfigured selection of columns. On this list you get to pick which four columns are displayed in addition to the sheep "Tag ID and/or Name". Make your column choices using the menus at the top of the list. Not all FlockFiler Pro fields are on these menus. If you need to build a custom list that goes beyond what these four columns can do, you can find more flexibility on the "Advanced Custom List" tab.

There are twelve lists dedicated to showing each of your custom labeled fields. These are designed not only to display information, but also for you to do data entry on these custom labeled fields on the List screen.

6.1.3 Inventory

The display on the "Inventory" tab of the Sheep reports screen gives you a breakdown of the sheep records that you are currently browsing. You can see itemized how many of the sheep are ewes, rams, wethers, and how many are marked as breeders or non-breeders.

The report button labeled "Printable summary including breakdown by age class" will show the same breakdown but will also show how these divide into lamb, yearling, and adult.

To make it easy to track by Scrapie Tag ID which sheep have entered, which are currently in your flock, and which have been removed, FlockFiler Pro provides buttons for "Sheep Aquisition", "Sheep Grouped by Specific Location", and "Sheep Removals". These display the sheep that are currently being browsed in different ways. Before you push these report buttons, you should do a Find to locate the sheep that should be displayed in each report. "Sheep Aquisition" groups the sheep in the order of their Acquisition Date. "Sheep Grouped by Specific Location" groups the sheep by their Specific Location. "Sheep Removals" groups the sheep in order of their Removal Date. In each case the records in their groups are sorted by their Scrapie Tag ID.

The "Guide Me" button will take you to a screen that has the three inventory report buttons plus additional search buttons to assist you in locating the records to display.

6.2 Defining Your Own Reports

6.2.1 Simple Custom List

The "User Customize: choose 4 fields" is a List Format you can choose on the List Formats tab of the Sheep Reports screen. It lets you create your own list

containing the sheep ID/and or Name along with four columns of information that you choose. View the list and then select the four choices from the menus in the header.

6.2.2 Advanced Custom List

The Advanced Custom List tab of the Sheep Reports screen gives you the ability to define simple or complex lists of sheep containing up to 10 columns.

Defining the List

On the Advanced Custom List tab of the Sheep Reports screen, select one of the tabs (from "01" to "10") to define the corresponding column. Unlike the "User Customize: choose 4 fields" list, the Advanced Custom List doesn't predefine the first column as the "Tag ID/Name". You will need to define a column for your sheep identifier explicitly.

Like the 'User Customize: choose 4 fields" list, you can select a field from a menu (the Append Merge Field menu) and it will insert the calculation for you into that column definition. If you select "Tag ID/Name", FlockFiler Pro will insert "Tag ID/Name" into the Custom Label box and "<<cTagAndName>>" into the Field Calculation box.

Unlike the simpler "choose 4 fields" list format, these columns are not limited to menu selections. You have the ability to type in any valid FlockFiler Pro calculation into the Field Calculation box. Inside the Field Calculation box you can type in text and merge calculations. Merge calculations are enclosed in "double angle brackets" which are "<<" and ">>". (Those two less than symbols and two greater than symbols not the special angular quote bracket typographical symbols). Anything that you write in between those double angle brackets will be evaluated as a calculation. The double angle brackets and everything enclosed by them will be replaced with the results of the calculation. Anything outside the double angle brackets will be written into that column directly without being interpreted as a calculation.

For example you could enter "<<2+2>>= Four" into the Field Calculation box. The column would then display "4= Four". The "= Four" part was copied directly. The part inside the "<<>>" was evaluated as a calculation and yielded "4".

The most common usage for the merge calculation is to simply insert a FlockFiler Pro field, but you can enter mathematical and or logical expressions for the calculation engine to evaluate for you. Usually these involve doing mathematics or logical manipulations of FlockFiler Pro fields. A complete reference of all of the FileMaker Pro database functions can be found online at http://www.filemaker.com/help/11/fmp/html/help_func_cat.29.1.html.

This is similar to writing a calculation into a spreadsheet cell. In a spreadsheet calculation you write an expression involving references to the cells. In this FlockFiler Pro merge calculation you use the names of the FlockFiler Pro fields. Note that the names used in the calculation are the internal database names of these fields.

The "Summarize Using" menu lets you add a summary of that column at the bottom of the list. This is usually only useful when the value in the column is a number.

When a merge field expression inside the double angle brackets cannot be evaluated due to some problem, the result for that column will display an error message.

Beneath the 10 tabs containing the column definitions is a representative rendering of the columns that you have defined. This only shows the column labels and the values for the current record. This gives you immediate feedback for you to work out not only the specifics of the Field Calculations but also the formatting and spacing of the columns. Due to space limitations on the form, the columns for the record are shown in two rows. The sixth column is duplicated so that you can see how it fits after the fifth column and before the seventh on the next row.

While some of the available functions in the underlying FileMaker pro function calculations are designed to change the text color, font, or the text style, the FlockFiler Pro merge calculation will not display these changes. The FlockFiler Pro merge calculation results will always be the same font, font size, font style, and font color.

Viewing the List

Push the "View Custom List" button to view the records you are browsing with the 10-column list you have defined.

The "2 Col." and "4 Col." buttons will show only the first four of your 10 defined columns. The "2 Col." list will show your records to fill down the left half of the page and then start again at the top right. The "2 Col." list will thus show twice as many records per page as the "View Custom List" list.

The "4 Col." list is twice as compact as the "2 Col." list. It still shows the first four of your defined columns but it shows them a total of four times so that you can view four times as many records per page as the "View Custom List" list.

Archiving and Sharing

The "Save Current as a New List" will store your currently defined 10-column list along with the List Title and List Description that you have entered into an archive of your previously defined and stored lists. This stored version will appear in the scrolling list to the left of the button. Once you have stored a list in this way, you can copy back its definitions to replace the active list by pushing the saved list's "Use" button. You can save an unlimited number of defined lists.

If you want to share your set of saved lists with another FlockFiler Pro user you can use the "Export" button. It will present a dialog asking you where you

want to save this XML file. Once it is saved you can send that file to another FlockFiler Pro user to be opened using the "Import" button. The imported lists will be added to that user's saved list definitions.

6.2.3 Custom Page

The Custom Page tab on the Sheep Reports screen is similar to the Advanced Custom List allows you define a report that fills out a page instead of being constrained to a column-oriented formatted list with one record per line.

Defining the Page

The Page Title field provides a title for your report.

The Page Merge Text is where you specify what is to appear in the report. You are essentially defining a block of free-form text where you can intersperce FlockFiler Pro merge calculations. These are expressions enclosed in "double angle brackets" ("<<" and ">>"). These are exactly the same as those you define in the Advanced Custom List. The primary differences are that there is only one block of text to define in the report, it spans the width of the page, and it can span across many lines of the page (even multiple pages). This block of text will be repeated for each record.

Like the 10-column Advanced Custom List, you can use the Append Merge Field menu to add a merge calculation into your Page Merge Text. The menu selection will be appended to any text you already have in the Page Merge Text field.

Viewing the Page

The Custom Page that you have defined can be viewed in a variety of ways depending on how you want the information formatted. "One Per Page" will start a new page for each record. "Many on a Page" will start a new record right after the previous and on the same page letting you fit many records on a page. The "2 Col." and "4 Col." will display your custom report in two or four columns on a page with many records in a more compact format.

6.2.4 Lua Script

The most advanced analysis and reporting capability of FlockFiler Pro is found in its ability to run custom scripts written in the Lua scripting language (www.lua.org) via the LuaFy plug-in (www.luafy.com) for FileMaker Pro. These scripts can assemble and process FlockFiler Pro data and deliver the results on-screen, to the computer's copy clipboard ready to be pasted somewhere, or save directly to a file.

Lua is not a very difficult scripting language as far as scripting languages go, but it is a real programming language with all of the attendant complexities and pitfalls. Using the Lua scripting feature is recommended only for users who are comfortable designing, writing, and debugging computer programs. That being said, the implementation into FlockFiler Pro is designed so that a skilled person can write the Lua script and easily share it with other FlockFiler Pro users who know nothing about programming. Third-parties can write specialty reports that all users can easily add to their FlockFiler Pro installations.

FlockFiler Pro is already configured to look for and run Lua scripts contained in five files inside the "FlockFiler" folder. To make it run your Lua script, put your Lua code into a file named "task01.lua" inside the "Scripting-Support" folder located inside the "Tools" folder inside the "FlockFiler" installation folder. There is already a file called "task01_default.lua" present in this folder. If you prefer, you can rename that existing file and edit it to contain your own Lua script.

To invoke your Lua script from within FlockFiler Pro choose the menu item Scripts-->Utilities-->Lua Scripts-->Run Script: task01.lua.

There are a total of five files, task01.lua through task05.lua, that can be located in the "ScriptingSupport" folder and run using the corresponding five menu commands.

The file named ''LuaConfig_default.lua'' contains Lua script commands that FlockFiler will run when you first open it. These will set up the Lua environment with predefined functions. This default script is primarily designed to disable some standard Lua functions instead of add new ones. The default script disables functions that can create or modify files, run operating system programs, or otherwise interact with your system outside of FlockFiler. This is done to provide a saftey net so that Lua scripts you obtained from a third-party will have a very difficult time doing any significant mischief.

If you want to customize the configuration script to add new functions or enable the ones the default script removes, put your configuration into a file named ''LuaConfig.lua''. If present, FlockFiler will use this file instead of ''LuaConfig_default.lua''. Using this new file is preferable to editing the default file since the default one will be overwritten by the installer when you update to a newer version. Your ''LuaConfig.lua'' file will be left alone.

From within the Lua script, you can control where the script's results will go when the script returns them to FlockFiler Pro by assigning a specific value to a variable that FlockFiler Proś built-in scripting will check after the Lua script is run.

FlockFilerProParameter['luascript_output_method'] = 'text' will tell FlockFiler Pro to display the results as a simple block of text inside a Flock-Filer Pro window.

FlockFilerProParameter['luascript_output_method'] = 'file' will cause FlockFiler Pro to open up a standard Save File dialog (titled "Export Field to File") prompting you to choose a filename and a location where the results of the script will be saved. At this point the script has already finished running. If you choose to Save, the data will be written as a UTF-16 text file. If you choose to Cancel, the data will be discarded.

FlockFilerProParameter['luascript_output_method'] = 'copy' will make the results appear on the computer's copy and paste buffer/clipboard. You can

then paste the results where you want them to appear. For example if your script generates a series of columns for a spreadsheet (data separated by tabs and carriage returns), you can paste it into your favorite spreadsheet program.

FlockFilerProParameter['luascript_output_method'] = 'web_viewer' will tell FlockFiler Pro to display the results in a web page viewer on-screen inside a FlockFiler Pro window. This lets you use HTML, XHTML, JavaScript, SVG, or whatever languages your operating system's built-in browser library supports. FlockFiler Pro uses WebKit/Safari on MacOSX and Microsoft's Internet Explorer library on Windows. By using a web page language for display, you can have extensive control over the appearance of your report.

Here is an example of a Lua script that you can put inside the file task01.lua (or 02, 03, 04, or 05). This example script illustrates how to perform a SQL query of the FlockFiler Pro data, loop over the records, and assemble the results as an HTML table.

```
FlockFilerProParameter['luascript_output_method'] = 'web_viewer'
function HTMLEncode (s)
  if s == nil then return ', end
  -- Encode a few things that would create problems in the HTML
  s = string.gsub(s,'&', "&")
  s = string.gsub(s,'>', ">")
  s = string.gsub(s,'<', "&lt;")
  return s
end
local HTMLout = {}
local SQL = "SELECT cTagAndName, Sex, Birthdate FROM SHEEP WHERE IsBreeder = '1'"
local SQLResult = luafy.ExecuteSQL(SQL)
if (SQLResult == nil) or (SQLResult[1] == nil) or (SQLResult[1].f1 == nil) then
  error "No breeders were found."
end
table.insert(HTMLout,'<html><body>')
table.insert(HTMLout,'<h1>' .. #SQLResult .. ' Breeders</h1>')
table.insert(HTMLout,'')
table.insert(HTMLout,'ID/NameSexBirthdate')
for i=1,#SQLResult do
  table.insert(HTMLout,'')
  table.insert(HTMLout,''..HTMLEncode(SQLResult[i].f1)..'')
  table.insert(HTMLout,''..HTMLEncode(SQLResult[i].f2)..'')
  table.insert(HTMLout,''..HTMLEncode(SQLResult[i].f3)..'')
  table.insert(HTMLout,'')
end
table.insert(HTMLout, '')
table.insert(HTMLout, '</body></html>')
return table.concat(HTMLout, '\r')
```

Importing

7.0.5 From FlockFiler Lite

FlockFiler Pro can automatically import all of the information contained in a FlockFiler Lite backup file. This feature is designed to let users easily move from using FlockFiler Lite to FlockFiler Pro.

To erase all of the current FlockFiler Pro infomation and replace it with the information found in a FlockFiler Lite backup file, select "Erase and Import from Lite Backup" from the File menu. You can also do this by pushing the "Erase and Import from FlockFiler Lite" button located on the "Upgrade/Revert" tab of the Advanced sheep form.

The automatic import will search for the most recent backup file created by FlockFiler Lite located in the "Backups" folder inside the "FlockFiler" instalation folder. To ensure that your most recent active FlockFiler Lite data is saved to a backup file, be sure to quit FlockFiler Lite or push the "Save a Backup Copy" button on the "Data Management" aspect of the Advanced sheep form of FlockFiler Lite prior to importing it into FlockFiler Pro.

- 7.0.6 From a Flock-It-To-Me File (unfinished)
- 7.0.7 Using the FlockFiler Import Assistant (unfinished)
- 7.0.8 Using Advanced Raw Import (unfinished)

Exporting

8.0.9 Using Copy All Records and Paste

The "Copy All Records" command in the Edit menu provides a convenient way to copy all of the information you are browsing on screen to a spreadsheet. All of the data on screen from all of the records you are browsing will be copied. Each field will be in a separate column. Each record will be on a separate line. (The format is "tab-delimited".)

This "Copy All Records" feature is most commonly used when you are on a List screen, but it can be used on any Form screen as well.

After you have copied your information using "Copy All Records", click into your spreadsheet where you want your infomation to go and choose Paste. The info will be distributed into the columns and rows of the spreadsheet. The first row will contain the names of the fields.

The first column will always hold the internally-assigned unique record ID that FlockFiler Pro uses to track records in each table. This is provided so that you have a reliable way to reimport data that you have edited in the spreadsheet. You would do this by importing and updating records that match the record ID.

The "Copy All Records" feature can be slow when you are copying a large number of records. If you need to copy records much faster, you can use a more raw version that is faster. This is the copy feature that is built into the underlying FileMaker Pro database software. This raw version of Copy All Records is performed by holding down the Shift key (Windows) or the Option key (Mac) and selecting Copy from the Edit menu. The raw Copy All Records won't add the first line of field names. It also won't remove undesirable columns. The pasted infomation will be true to the fields you see on-screen including the extra fields that are needed by the user interface and do not contain your data.

8.0.10 To a Flock-It-To-Me File

The Flock-It-To-Me file format is designed to make it easy for FlockFiler Pro users to share sheep records with FlockFiler Pro users. You can choose which sheep and what facets of their information will be stored in this exported file. This data exchange format makes it particularly easy for you to sell sheep to another shepherd and provide their records electronically for the new owner's FlockFiler Pro.

Since the Flock-It-To-Me format is simple text-based XML database, it is easy for third-party software to read and interpret. The Flock-It-To-Me format is also designed to be easily readable and understandable by humans if it is opened in a text editor.

To create a Flock-It-To-Me file, first find which sheep you want to export in this format. When you are browsing this list of sheep, navigate to the "Import/Export" aspect of the Advanced sheep form. Push the "Export" button located in the "Flock-It-To-Me" section of this screen.

You will be prompted to customize which additional information beyond the basic sheep info will be included in the export file. If you include the "Pedigree", all of the ancestor sheep on each sheep's pedigree will also be included in the export file and designated as "reference" sheep.

When you have checked the appropriate checkboxes to clarify the info you want to share in the export file, push the "Create the File" button. FlockFiler Pro will take some time to assemble automatically the data for the export file. When it is finished, FlockFiler Pro will present a dialog for you to choose where to save and what to name the Flock-It-To-Me file.

8.0.11 All Data To ASCII Files

The Export all data to many text files button will create many new text files in the Exports folder inside the FlockFiler installation folder. These exported files will contain all of the information that you typed into FlockFiler Pro into its many tables. One file is created for each of the data entry tables. The files are saved in CSV (comma-separated values) format that any modern spreadsheet can read. The files are named "FFP_" followed by the table name (or the table abbreviation) in uppercase letters followed by ".csv". The sheep table would thus have the filename "FFP_SHEEP.csv". The first record in each exported file contains the names of the data fields (headers).

Unlike the data exported using the "Advanced Raw Export..." selection in the File menu, the data exported using this button is not limited to the records you are currently browsing. All of the data you entered in all of the records is exported, but you dont lose track of the records you were browsing when you pushed the button to export. A column named BrowsedWhenExported in each file will contain a "1" or be empty depending on whether the records was one of the ones being browsed at the time of the export.

These CSV files will always be saved into the "Exports" folder and will always be named consistently. Newer files will overwrite any older ones automat-

ically without asking permission. This predicitability in location and naming is what makes these files a good resource for doing analysis and reporting using a third-party tool. If you set up a workflow using a spreadsheet program, a database program, or other customizable tool, you can have easy access via these export files to the full extent of the FlockFiler Pro data without having to go through the multiple steps needed by the "Advanced Raw Export..." feature of the File menu. The workflow could simply be: (1) Edit data in FlockFiler Pro, (2) push the button to export the data to these CSV files, (3) use a third-party software tool to read in these files and do something new and useful. Note that only the raw input fields are exported into these CSV files. If you want to export some or all of the calculated fields that FlockFiler Pro generates, youll have to export them using the more general "Advanced Raw Export..." feature of the File menu.

8.0.12 Using Advanced Raw Export (unfinished)

Chapter 9

Updating/Upgrading

9.1 Upgrading from FlockFiler Lite

FlockFiler Pro can read in data directly from a FlockFiler Lite version 2 or later backup file located in the "Backups" folder. FlockFiler Lite creates a backup file each time you quit FlockFiler Lite normally.

If you have not entered any new sheep records into FlockFiler Pro beyond the default sample records and you have a FlockFiler Lite backup file in the "Backups" folder (e.g. "FlockFilerLiteBak209.FFP") and you do not have a FlockFiler Pro backup file in the "Backups" folder (e.g. "FlockFiler-ProBak109.FFP"), FlockFiler Pro will automatically locate the FlockFiler Lite backup file and ask if it should import data from it. If it does this, follow the dialog to erase and import the records from the FlockFiler Lite backup file.

If FlockFiler Pro does not automatically locate your FlockFiler Lite backup file, ensure that you have a FlockFiler Lite backup file in the "Backups" folder located inside your "FlockFiler" folder. It will be named "FlockFilerLiteBak209.FFP" for a backup file created by FlockFiler Lite version 2.0.9, "FlockFilerLiteBak208.FFP" for a backup file created by FlockFiler Lite version 2.0.8, "FlockFilerLiteBak207.FFP" for a backup file created by FlockFiler Lite version 2.0.7, and so on. FlockFiler Pro will only load in data from the highest numbered FlockFiler Lite backup file.

If the dialog asking about importing from FlockFiler Lite does not automatically pop up, you can initate this process using "Erase and Import from Lite Backup" in the File menu.

FlockFiler Pro cannot load in data directly from the backup files created by versions of FlockFiler Lite early than version 2. To import that data, first have FlockFiler Lite version 2.0.9 load in that old FlockFiler Lite data, then exit FlockFiler Lite v2.0.9 to have it create the backup file "FlockFilerLite-Bak209.FFP" in the "Backups" folder.

9.2 Reinstalling or Updating to a Newer Version of FlockFiler Pro

Before you reinstall or install an updated version of FlockFiler, it is critical that you quit the current installation of FlockFiler and allow it to save its backup file to the "Backups" folder inside the "FlockFiler" folder. Your primary FlockFiler Pro data file will be replaced during the FlockFiler installation process with a new one. The next time you start FlockFiler Pro after the installation it will automatically find this backup file and ask if it can import your previous data. Allow it to do this to finish your update/reinstallation.

Chapter 10

Backing Up

10.1 Automatic Backups

Each time you quit FlockFiler Pro, and it shuts down normally, FlockFiler Pro will save a copy of its database file into the "Backups" folder inside the "FlockFiler" folder. This copy is named "FlockFilerProBak112.FFP". This file is critical to being able to restore your data after you reinstall or update FlockFiler. The "Erase and Import from Pro Backup" action in the File menu will look for and import from this specific backup file in the "Backups" folder.

10.2 Doing Your Own Backups

FlockFiler is installed by default into your personal documents area on your computer. All of the FlockFiler installation is in this one folder including both the program and your database files. This makes it very easy to include the "FlockFiler" folder in your normal backup routine. The entire "FlockFiler" folder can be copied successfully when FlockFiler is not running. If you must leave FlockFiler running during your backup, the folders inside the "FlockFiler" folder can be successfully copied including the critically important "Backups" folder.

10.3 Restoring from Backup

FlockFiler Pro knows how to read in all of its data from the files stored in its "Backups" folder. When you choose "Erase and Import from Pro" backup, FlockFiler Pro will look inside "Backups" folder for a file named "FlockFiler-ProBak112.FFP". If that is not found, it will look for "FlockFilerProBak108.FFP". Lacking that it will look for "FlockFilerProBak107.FFP" and so on till "Flock-FilerProBak100.FFP". (The number in the name indicates what version of FlockFiler Pro created the file.)

If FlockFiler Pro locates a valid backup file, it will pop up a dialog to tell you and ask for your permission to proceed in erasing all of the current data and importing in all of the data from the backup file. If you tell it to proceed it will take some time to do the importing (and data conversion if necessary).

10.4 Recovering from a Hard Crash

If FlockFiler Pro stops abruptly and does not do its normal shutdown routine, the FlockFiler database files are not properly closed. The next time you start up FlockFiler Pro it will attempt to repair the damage to the files caused by the crash. If it is unsuccessful, it will inform you that the file cannot be repaired, and you will need to follow the procedure in this section to get your installation back to normal.

To return to normal, when FlockFiler is not running, remove the file "FlockFilerProData.FFP" from your "FlockFiler" folder. Copy the file named "FlockFilerProBak109.FFP" located in the "Backups" folder inside the "FlockFiler" folder. Rename this copy to be "FlockFilerProData.FFP" and put it directly inside the "FlockFiler" folder replacing the one you removed previously.

You can start up FlockFiler again. It should be back to working normally with the data from the last time you successfully shutdown FlockFiler The changes you made during the session that crashed are lost since they were in the unrecoverable file.

10.5 Moving to a New Computer

FlockFiler can be moved to a different computer at any time. The data files and the licensing are the same for both Microsoft Windows and Apple Macintosh installations, so you can move it to a different type of computer too.

Moving FlockFiler from one computer to another requires you to have some means of copying files from one computer to another. Examples of this could be a USB thumb drive, an external hard drive, or copying files across the network.

10.5.1 Install and Import from Backup - Multiplatform

The most versatile way to move FlockFiler from one computer to another is to install/reinstall FlockFiler on the new computer and import from the FlockFiler Pro backup file from the old computer. This method lets you move FlockFiler from Windows to Windows, Mac to Mac, Windows to Mac, or Mac to Windows and update to the newest version of FlockFiler at the same time.

Download and install the latest version of FlockFiler onto your new computer. After it is installed, do not run FlockFiler yet.

Copy the files in the "Backups" folder located inside the old installation's "FlockFiler" folder to the corresponding "Backups" folder of your new installation.

Copy any files in the "Images" folder inside your old "FlockFiler" folder to the corresponding "Images" folder in your new installation.

Run the newly installed FlockFiler, and push the button to run FlockFiler Pro. FlockFiler Pro should automatically locate the FlockFiler Pro backup data and offer to import it for you.

Once the automatic import is done you can use FlockFiler Pro normally on your new computer.

Moving FlockFiler in this way enables you to install the latest version on the new computer, and cleans up any minor data file corruption that may have been present if your old installation had to auto-repair itself if your computer crashed.

10.5.2 Drag-and-Drop: Same platform only

If you are copying FlockFiler between computers running the same operating system, e.g. your old computer is running Microsoft Windows and your new computer is running Microsoft Windows or your old computer is running Mac OS X and your new computer is running Mac OS X, you can copy the entire FlockFiler folder to the new computer without needing to go through the steps of importing from a backup. You should run the FlockFiler installer on the new computer once to set up the Star Menu items in Windows and to set up the correct Macintosh preference file settings. After it is installed and not actively running on either computer, you can can copy the entire "FlockFiler" folder from the old computer to the new computer. The folder from the old computer will replace the newly installed one on the new computer.

Chapter 11

How To

11.1 Enter a Pedigree

Each sheep on the pedigree needs to be a separate sheep record in FlockFiler Pro. If you do not want to methodically enter each sheep record on the Basic screen, you can fill out the entries on the pedigree directly on the "Edit Pedigree" aspect of the Genealogy screen.

Work from the left hand side and push the "Select" button next to each empty entry in the pedigree. On the sheep selector dialog locate the sheep you want to assign as that ancestor. If that ancestor record does not yet exist in FlockFiler Pro, you can push the "+New" button in the sheep selector dialog.

11.2 Enter a Lambing

When one of your ewes lambs you can record the lambing using the "+New Offspring" guided interface.

Find the ewe that lambed and navigate to the Offspring form for that ewe.

Push the "+New Offspring" button. This brings you to a guided interface that lets you fill out the details common to the lambs and have the lamb records generated automatically with one button push. Instead of using this guided interface, you can enter these directly by creating a new record for each lamb on the Basic screen, but you would be on your own to do the repetitive tasks of filling in the dam, birthdate, and so on that are common to all of the lambs. The guided interface also can generate a Log entry for you in case you wanted to describe the lambing in more detail.

Choose the "Birth Type" to specify how many lambs were born. This selection will alter the number of data entry spots you have available on this worksheet.

Enter the Birthdate. If the lambs were born on your farm you can push the "=" button to have the Birthdate copied to the "Date Acquired" field. Otherwise enter a value for "Date Acquired" or leave it blank.

Select a Sire using the Select button. The dam will be filled in for you automatically since you started from a ewe's record. If you started from a ram's record the Sire would have been filled in automatically.

Enter values for "Location (General)" and "Group/Sub-flock" or make them empty as appropriate. If you want a "Location (Specific)" value assigned to these lambs, push its Select button and choose a location.

The default identifier is "Tag" which corresponds to the "Tag ID(s)" field. If you prefer to enter the lambs' "Registry ID" or "Scrapie Tag ID", you can select one of those instead of "Tag" in the pop-up menu.

For each of the lambs enter the ID, Sex, and "Birth Weight". The weight measurment will only be visible if you have entered a "Birth Date".

If you want to have a Log entry generated and attached to the dam's record, enter your notes into the "Log Entry Description of Lambing" field. Note that this field will only be visible if you have entered a "Birth Date".

Take the time to inspect the values that you have entered on this screen and look for any mistakes. When you are ready to create the lamb records, push the "+Create the Offspring" button.

After the lamb records are created you will be brought to the form of the first of the lambs. The subsequent records are the other lambs in the litter. You can navigate among the records to add additional details as necessary to each lamb record.

11.3 Enter Weight Measurements for a Group of Sheep

You want to measure the weights of a group of sheep. For example you are going to mesure the weaning weight of your current lambs.

FlockFiler Pro provides a worksheet to assist you in the data collection and data entry.

Find the sheep in FlockFiler Pro that you are going to measure.

Navigate to the Weight tab of the Measuring screen.

Push the "+New Weight" button.

Choose "Many" in the dialog.

Enter the "Measurement Date" in the dialog and push the "Use Date" button.

A worksheet will be generated containing one weight measurement record for each of the sheep you were browsing.

Print out this worksheet. Leave FlockFiler Pro running. Take your printout to where you are working your sheep and reading the scale. Fill in the weights for the sheep you measure on your printout.

Bring your printout back to FlockFiler Pro and type in the measurements from the printout onto the FlockFiler Pro screen. You can use the tab key to navigate between the fields on screen.

If you are running FlockFiler Pro on a computer near your scale (e.g. a laptop), you can enter the measurements directly on screen as you acquire them.

11.4 Enter a Deworming, Vaccination, or Other Treatment

If you deworm a group of sheep, you can record the deworming on the entire group at the same time.

Find the sheep that you dewormed. You need to be browsing only the records that you dewormed.

View the Basic Form of one of the sheep. It doesn't matter which one.

Push the "Log Entries" button.

Push the "+New Log Entry" button.

Choose "Many" in the dialog.

Fill out the Log entry. Check the box for "Deworming". If you are documenting some other activity, check the appropriate checkbox(es). Fill in the Description with the specific treatment you performed.

You can select the "Select Sheep" tab and see what sheep are connected to this Log entry. If you need to remove any sheep from the list, click the red 'X' to the right of the sheep in the list. Add any additional sheep using the "+ Add a Sheep to the List" button.

Push the "Return to Sheep View" button to get back to browsing the sheep. You can see that the new Log entry appears in the list of Log entries on this sheep record and all of the other sheep that you are browsing as expected.

11.5 Enter Body Scores, FAMACHA, or Fecal Egg Counts for a Group of Sheep

Entering this type of measurement is very similar to entering weight measurements for a group. FlockFiler Pro provides a worksheet to assist you in the data collection and data entry.

Navigate to the Scores tab of the Measuring screen.

Push the "+New measurement" button.

Choose "Many" in the dialog.

Enter the "Measurement Date" in the dialog and push the "Use Date" button.

A worksheet will be generated containing one measurement record for each of the sheep you were browsing.

Print out this worksheet. Leave FlockFiler Pro running. Take your printout to where you are working your sheep. Fill in the scores for the sheep you measure on your printout.

Bring your printout back to FlockFiler Pro and type in the measurements from the printout onto the FlockFiler Pro screen. You can use the tab key to

navigate between the fields on screen.

If you are running FlockFiler Pro on a computer near where you are gathering the measurements (e.g. a laptop), you can enter the measurements directly on screen as you acquire them.

11.6 Replace an Ear Tag or other ID

FlockFiler Pro does not use the ear tags or other ID values for internal cross-references so you don't have to worry about breaking pedigrees or other connections with other records if you need to change the Tag or IDs due to typos or retagging.

For farm tags such as ear tags, simply add the replacement Tag as the top line in the $\mathrm{Tag}(s)$ field. This field is designed to have multiple lines to accommodate the fact that a sheep might have multiple ear tags over its history. Leave all prior ear tags in this field as successive lines. Only the top line in the $\mathrm{Tag}(s)$ field is used for display and reporting outside of the Basic screen.

Leaving the older tags in this field is important so that these prior tags can be located in a search. The old tags may still appear on written records or old printouts, and you may still need to find a sheep by using these old tags.

If you need to change any of the other ID fields, simply change the values on-screen. There are no other steps needed to update records as a result of this change. The only exception to this if you have used the Alternate Label field on the Data Entry aspect of the Advanced screen. You might need to change the Alternate Label as well if it used the info from the ID you changed.

Appendix A

Technical Reference

A.1 Table Occurrences

These are the instances of all of the tables related to the Sheep table. When using a field in a calculation, you need to prefix it with the table occurrence name and the two colons. The only exception to this is if you are using fields that are in the same table as the calculation context.

If you are browsing Sheep records, then you are using the the SHEEP table occurrence and you can use any Sheep field directly without prefixing it with "SHEEP::". Using any other table occurrence requires you to prefix the field name with it.

SHEEP:: Primary table of sheep records

sheep_AB__Owner:: The Address Book record of the owner of the sheep sheep_BBDACT_Ewe:: The Breeding Activity record connected to the ewe

sheep_BRDACT__Ewe:: The Breeding Activity record connected to the ewe's
record. (Descending by BreedingActivityDate)

sheep_BRDASGN:: The Breeding Assignment records detailing the breed(s) of the sheep and what fraction the sheep is of each breed (Descending by breed percentage (cDecimalValue))

sheep_brdasgn_BRD:: The breed records (breed names) assigned to this
sheep via the Breed Assignment table (Order of data entry into the table of
Breeds)

sheep_BRDEXP__Ewe:: The Breeding Exposure records associated with the
ewe's record (Descending by StartDate, Descending by data entry order of
Breeding Exposure record)

sheep_BRDEXP__Ram:: The Breeding Exposure records associated with the ram's record (Ascending by data entry date of the Breeding Exposure record)

 $\verb|sheep_brdexp_SHEEP__Ram|: The Ram record referenced by the ewe's Breeding Exposure record$

sheep_COLR:: The color record corresponding to the sheep's color code
sheep_FLC:: The Fleece records for this sheep (Descending by ShearingDate)

sheep_HLTS:: The Health Test records for this sheep (Descending by Test-Date)

sheep_LIB:: The Library records for this sheep (Descending by LibraryDate,
Descending by data entry date)

sheep_LOCUSG:: The Location Usage records for this sheep (Descending by ArrivalDate)

sheep_locusg_LOC:: The Location records referenced by the Location Usage
records of the sheep

sheep_LOG:: The Log entry records for this sheep (Descending by LogEntryDate, StartTime, and data entry order)

sheep_LOG__Acquisition:: Any Log entry records for this sheep where the
Log entry date is the same as the Date Acquired of the sheep (Ascending by
LogEntryDate, StartTime)

sheep_LOG__Filtered:: Log entry records for this sheep that match the Category and date filter criteria (Descending by LogEntryDate, StartTime, and data entry order)

sheep_LOG__Filtered_Public:: Log entry records for this sheep that match
the Category and date filter criteria and are not designated as private

sheep_LOG__Public:: Log entry records for this sheep that are not designated as private (Descending by LogEntryDate, StartTime, and data entry order)

sheep_LOG__Removal:: Any Log entry records for this sheep where the Log
entry date is the same as the Date Removed of the sheep (Descending by LogEntryDate, StartTime)

sheep_MEAS:: The Measurement records for this sheep (Descending by MeasurementDate)

sheep_MEAS__BodyScore:: The Measurement records for this sheep where
there is a value for Body Score (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Breeding:: The Measurement records for this sheep
where there is a value for Body Score and the Production Stage is Breeding (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Early_Pregnancy:: The Measurement records for
this sheep where there is a value for Body Score and the Production Stage is
Early Pregnancy (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Lactating:: The Measurement records for this sheep where there is a value for Body Score and the Production Stage is Lactating (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Late_Pregnancy:: The Measurement records for
this sheep where there is a value for Body Score and the Production Stage is
Late Pregnancy (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Mid_Pregnancy:: The Measurement records for
this sheep where there is a value for Body Score and the Production Stage is
Mid Pregnancy (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Other:: The Measurement records for this sheep where there is a value for Body Score and the Production Stage is Other (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Previous:: The Measurement records for this sheep where there is a value for Body Score and the Body Score measurement is the one just previous to the most recent (Descending by MeasurementDate)

sheep_MEAS__BodyScore_Weaning:: The Measurement records for this sheep where there is a value for Body Score and the Production Stage is Weaning (Descending by MeasurementDate)

sheep_MEAS__FAMACHA:: The Measurement records for this sheep where there is a value for FAMACHA score (Descending by MeasurementDate)

sheep_MEAS__FAMACHA_Previous:: The Measurement records for this sheep where there is a value for FAMACHA score and the FAMACHA measurement is the one just previous to the most recent (Descending by MeasurementDate)

sheep_MEAS__FecalEggCount:: The Measurement records for this sheep
where there is a value for Fecal Egg Count (Descending by MeasurementDate)

sheep_MEAS__FecalEggCount_Previous:: The Measurement records for this sheep where there is a value for Fecal Egg Count and the Fecal Egg Count measurement is the one just previous to the most recent (Descending by MeasurementDate)

sheep_MEAS__FootScore:: The Measurement records for this sheep where
there is a value for Foot Score (Descending by MeasurementDate)

sheep_MEAS__FootScore_Previous:: The Measurement records for this sheep where there is a value for Foot Score and the Foot Score measurement is the one just previous to the most recent (Descending by MeasurementDate)

sheep_MILK:: The Milk records for this ewe (Descending by MilkingDate)

sheep_MILK__Dryoff:: The Milk records for this ewe where the Dried Off
box is checked (Descending by MilkingDate)

sheep_PRGTS:: The Pregnancy Test records for this ewe (Descending by TestDate)

sheep_RAMMEAS:: The Ram Measurement records for this ram (Descending
by RamMeasurementDate)

 ${\tt sheep_ROS::}$ The Results of Show records for this sheep (Descending by EventDate)

sheep_SHEEP__D_D:: The dam of the dam of this sheep (granddam on dam's side); dam of sheep_SHEEP__Dam

 ${\tt sheep_SHEEP_D_D}$: The dam of the dam of the dam of this sheep; dam of sheep_SHEEP__D_D

sheep_SHEEP__D_D_D:: The dam of the dam of the dam of this sheep; dam of sheep_SHEEP__D_D_D

sheep_SHEEP__D_D_D_D:: The dam of this sheep; dam of sheep_SHEEP__D_D_D_D

sheep_SHEEP__D_D_D_S:: The sire of the dam of the dam of the dam of the dam of this sheep; sire of sheep_SHEEP__D_D_D

sheep_SHEEP__D_D_S:: The sire of the dam of the dam of the dam of this
sheep; sire of sheep_SHEEP__D_D_D

sheep_SHEEP__D_D_S_D:: The dam of the sire of the dam of the dam of the dam of the sheep; dam of sheep_SHEEP__D_D_D_S

sheep_SHEEP__D_D_S_S:: the sire of the sire of the dam of the dam of the dam of this sheep; sire of sheep_SHEEP__D_D_D_S

sheep_SHEEP__D_D_S:: The sire of the dam of the dam of this sheep; sire of sheep_SHEEP__D_D

sheep_SHEEP__D_D_S_D:: The dam of the sire of the dam of the dam of this
sheep; dam of sheep_SHEEP__D_D_S

sheep_SHEEP__D_D_S_D_D:: The dam of the dam of the sire of the dam of the dam of this sheep; dam of sheep_SHEEP__D_D_S_D

sheep_SHEEP__D_D_S_D_S:: The sire of the dam of the sire of the dam of
the dam of this sheep; sire of sheep_SHEEP__D_D_S_D

sheep_SHEEP__D_D_S_S:: The sire of the sire of the dam of the dam of this
sheep; sire of sheep_SHEEP__D_D_S

sheep_SHEEP__D_D_S_S_D:: The dam of the sire of the sire of the dam of the dam of this sheep; dam of sheep_SHEEP__D_D_S_S

sheep_SHEEP__D_D_S_S_S:: The sire of the sire of the sire of the dam of the
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of sheep_SHEEP__D_S

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sheep_SHEEP__D_S_S_S:: The sire of the sire of the sire of the sire of the dam of this sheep; sire of sheep_SHEEP__D_S_S_S

sheep_SHEEP__Dam:: The dam of this sheep

sheep_SHEEP__LambsBeingNursed:: Lambs who are actively nursing on this ewe (Ascending by ID (cTagAndName))

sheep_SHEEP__Offspring:: All offspring of this sheep (Descending by Birthdate, descending by data entry order)

sheep_SHEEP__OffspringPastWeaningAge:: All offspring of this sheep that
are weaned or are past weaning age

 $sheep_SHEEP_OtherSiblingsInSameLitter::$ Siblings of this sheep born in the same lambing

sheep_SHEEP__RaisedBy:: The dam that raised this sheep if it is different
from the birth dam

sheep_SHEEP__RaisedTogether:: Records of sheep who were raised together with this sheep (usually the same birth litter but can include lambs who were grafted onto the dam)

sheep_SHEEP__S_D:: The dam of the sire of this sheep; Dam of sheep_SHEEP__Sire
sheep_SHEEP__S_D_D:: The dam of the dam of the sire of this sheep; Dam
of sheep_SHEEP__S_D

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of sheep_SHEEP__S_S

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sheep_SHEEP__S_S_S:: The sire of the sire of the sire of the sire of this
sheep; Sire of sheep_SHEEP__S_S_S

 $\verb|sheep_SHEEP__S_S_S_S_D|: The dam of the sire of th$

sheep_SHEEP__S_S_S_S:: The sire of this sheep; Sire of sheep_SHEEP__S_S_S_S

sheep_SHEEP__Sire:: The sire of this sheep

sheep_SHEEP__WeanedOffspring:: All offspring of this sheep that survived
past weaning

sheep_WT:: Weight records of this sheep (Descending by WeighDate)

sheep_WT__AfterDay010:: Weight records of this sheep where a valid weight
is entered on or after 10 days of age and before 60 days of age (Ascending by
WeighDate)

sheep_WT__AfterDay050:: Weight records of this sheep where a valid weight
is entered on or after 50 days of age and before 80 days of age (Ascending by
WeighDate)

sheep_WT__AfterDay060:: Weight records of this sheep where a valid weight
is entered on or after 60 days of age and before 80 days of age (Ascending by
WeighDate)

sheep_WT__AfterDay090:: Weight records of this sheep where a valid weight
is entered on or after 90 days of age and before 80 days of age (Ascending by
WeighDate)

sheep_WT__AfterDay100:: Weight records of this sheep where a valid weight is entered on or after 100 days of age and before 120 days of age (Ascending by WeighDate) sheep_WT__AfterDay120:: Weight records of this sheep where a valid weight
is entered on or after 120 days of age and before 150 days of age (Ascending by
WeighDate)

sheep_WT__BeforeDay010:: Weight records of this sheep where a valid weight
is entered on or before 10 days of age (Descending by WeighDate)

sheep_WT__BeforeDay050:: Weight records of this sheep where a valid weight
is entered on or before 50 days of age and after 40 days of age (Descending by
WeighDate)

sheep_WT__BeforeDay060:: Weight records of this sheep where a valid weight
is entered on or before 60 days of age and after 40 days of age (Descending by
WeighDate)

sheep_WT__BeforeDay090:: Weight records of this sheep where a valid weight
is entered on or before 90 days of age and after 60 days of age (Descending by
WeighDate)

sheep_WT__BeforeDay100:: Weight records of this sheep where a valid weight
is entered on or before 100 days of age and after 60 days of age (Descending by
WeighDate)

sheep_WT__BeforeDay120:: Weight records of this sheep where a valid weight
is entered on or before 120 days of age and after 90 days of age (Descending by
WeighDate)

sheep_WT__Birth:: Weight records of this sheep where a valid weight is
entered and the WeighDate equals the Birthdate of the sheep

sheep_WT__ValidEarliest:: Weight records of this sheep where a valid
weight is entered with the earliest date of measurement first (Ascending by
WeighDate)

sheep_WT__ValidMostRecent:: Weight records of this sheep where a valid
weight is entered with the most recent date of measurement first (Descending
by WeighDate)

sheep_WT__Weaning:: Weight records of this sheep where a valid weight is
entered and the WeighDate equals the Date Weaned of the sheep

sheep_wt_WT__PreviousValid:: Weight records of this sheep where a valid
weight is entered with the second most recent date of measurement first; The
most recent measurement is omitted.

A.2 Fields

A.2.1 Sheep

Alternate_Label (*Text*) A label the user provides for this sheep to be used instead of the normal calculation for ID and/or Name (cTagAndName)

Birthdate (Date) The date of birth of this sheep

BirthType (Text) Word description of the size of the litter in which this sheep was born

 ${\tt Breed_Description}~(\mathit{Text})$ The breed of the sheep with all details of breed combinations

BreedingStat_Ewe_Adj60LitterWeightAvg (*Number*) A lambing statistic for the ewe that calculates an average over all of the ewe's lambings of the total weight of the ewe's litter at 60-days

BreedingStat_Ewe_LambingAvg (Number) A lambing statistic for the ewe that calculates the average lambing ratio for the ewe over the ewe's complete lambing history

BreedingStat_Ewe_TimesBred (Number) A lambing statistic for the ewe that counts how many seasons in which the ewe has been exposed for breeding

BreedingStat_Ewe_TimesLambed (Number) A lambing statistic for the ewe that counts the number of times/seasons the ewe lambed; This uses the presence of lamb offspring and their birthdates.

BreedingStat_Ewe_WeaningAvg (Number) A lambing statistic for the ewe that calculates the ratio of lambs weaned over the ewe's complete lambing history

BreedingStat_NumOffsprPast60 (Number) A lambing statistic for the ewe that calculates the number of offspring born at least 60 days ago

BreedingStat_NumOffsprPast60Surv (Number) A lambing statistic for the ewe that calculates the number of offspring the ewe has that have been weaned or survived to be at least 60 days old

BreedingStat_Ram_Avg60AdjWt (Number) A lambing statistic for the ram that calculates the average of the 60-day adjusted weaning weight for all of the ram's offspring

BreedingStat_Ram_AvgEweLambingPercentage (Number) A lambing statistic for the ram that calculates the average lifetime lambing percentages for all of the ewes to which the ram was bred

BreedingStat_Ram_ConceptionRate (Number) A lambing statistic for the ram that calculates the ram's lifetime conception rate

BreedingStat_Ram_LambSurvivalRate (Number) A lambing statistic for the ram that calculates the percentage of lambs that survive past weaning

BreedingStat_Ram_NumBrdExpPastWean (Number) A lambing statistic for the ram that calculates the number of times the ram has been bred and the lambs for those breedings would be at least 60 days old

BreedingStat_Ram_NumBrdExpPastWeanCaught () A lambing statistic for the ram that calculates the number of ewes the ram has successfully impregnated

BrowsedWhenExported (Number) An internal field used to support the Advanced Import/Export feature that exports all data to many text files; This field will be 1 for any record in the current found set at the time of the export.

cADG_BirthToDay100 (Number) The calculated value of the average daily gain from birth to 100 days of age for this sheep

cADG_BirthToDay120 (Number) The calculated value of the average daily gain from birth to 120 days of age for this sheep

cADG_BirthToDay50 (Number) The calculated value of the average daily gain from birth to 50 days of age for this sheep

cADG_BirthToDay60 (Number) The calculated value of the average daily gain from birth to 60 days of age for this sheep

cADG_BirthToDay90 (Number) The calculated value of the average daily gain from birth to 90 days of age for this sheep

cADG_BirthToWeaning (Number) The value of the average daily gain calculated from the birth weight and the weaning weight for this sheep

cAdjustedWeightAt50days (Number) 50-day Adjusted Weaning Weight; Uses 50-day Estimated weight and an numeric adjustment factor accounting for sex, birth type, raised type, and age of dam

cAdjustedWeightAt60days (Number) 60-day Adjusted Weaning Weight; Uses 60-day Estimated weight and an numeric adjustment factor accounting for sex, birth type, raised type, and age of dam

cAdjustedWeightAt90days () 90-day Adjusted Weaning Weight; Uses 90-day Estimated weight and an numeric adjustment factor accounting for sex, birth type, raised type, and age of dam

cAgeClass (Text) Calculated text value describing the general age of the sheep

cAgeInDays_Integer (Number) The days portion of the age of this sheep when expressed in number of years, months, and days.

cAgeInMonths_Integer (Number) The months portion of the age of this sheep when expressed in number of years, months, and days.

cAgeInYears_Integer (Number) The year portion of the age of this sheep when expressed in number of years, months, and days.

cAgeInYears_Real (Number) The age of this sheep in years expressed as a decimal number

 ${\tt cAgeOfDamWhenBorn}$ (Number) The age in years of this sheep's dam when this sheep was born

cBirthType_Number (*Number*) A numeric representation of the Birth Type for this sheep; A Birth Type of Single equals 1. A Birth Type of Twin equals 2, and so on.

cBirthType_Slash_RaisedType (Number) An expression of the birth type as a number, a slash, and the raised type as a number (e.g. 3/2 for born as triplet and raised as twin)

cBodyConditionScore_Breeding (Number) The most recent score of body condition taken when the Production Stage is Breeding

cBodyConditionScore_EarlyPregnancy (Number) The most recent score of body condition taken when the Production Stage is Early Pregnancy

 ${\tt cBodyConditionScore_Lactating}$ (Number) The most recent score of body condition taken when the Production Stage is Lactating

 $\verb|cBodyConditionScore_LatePregnancy| (Number) | The most recent score of body condition taken when the Production Stage is Late-Pregnancy |$

cBodyConditionScore_MidPregnancy (Number) The most recent score of body condition taken when the Production Stage is Mid-Pregnancy

 ${\tt cBodyConditionScore_Other}$ (Number) The most recent score of body condition taken when the Production Stage is Other

 ${\tt cBodyConditionScore_Weaning}$ (Number) The most recent score of body condition taken when the Production Stage is Weaning

 $cBreed_DecimalFractionTotal\ (Number)$ The total of all of the breed factions specified expressed as a decimal number

 ${\tt cCountOfCurrentNursingLambs}$ (Number) The number of lambs that are currently nursing on this ewe

cCustomField_05_Avg (Number) The average value of the records in the current found set for the user-defined field CustomField_05

<code>cCustomField_06_Avg</code> (Number) The average value of the records in the current found set for the user-defined field CustomField_06

cCustomField_09_Avg (Number) The average value of the records in the current found set for the user-defined field CustomField_09

cCustomField_10_Avg (Number) The average value of the records in the current found set for the user-defined field CustomField_10

 $\verb|cDamWhoRaised_SheepID| (Number) The Record Number (_kp_SHEEP_id) \\ for the dam who raised the current sheep$

cDescription_BestGuess (Text) A calculated guess at a description of this sheep formed from the Description or from the sheep color and breed

 ${\tt cEst_LambingDate}$ (Date) The current estimate for the lambing date for this ewe based on the Breeding Activity records, Pregnancy Test records, or Breeding Exposure records

cEst_Weight_Day_050 (Number) Estimate of weight at age 50 days based on existing weight measurements

cEst_Weight_Day_050_CalculationType_Msg () A series of carriage returns and asterisks used on-screen to flag which measurements are being used for the cEst_Weight_Day_050 calculation

cEst_Weight_Day_060 (Number) Estimate of weight at age 60 days based on existing weight measurements

cEst_Weight_Day_060_CalculationType_Msg (*Text*) A series of carriage returns and asterisks used on-screen to flag which measurements are being used for the cEst_Weight_Day_060 calculation

 ${\tt cEst_Weight_Day_090}$ (Number) Estimate of weight at 90 days based on existing weight measurements

cEst_Weight_Day_090_CalculationType_Msg (Text) A series of carriage returns and asterisks used on-screen to flag which measurements are being used for the cEst_Weight_Day_090 calculation

cEst_Weight_Day_100 (Number) Estimate of weight at age 100 days based on existing weight measurements

cEst_Weight_Day_120 (Number) Estimate of weight at 120 days based on existing weight measurements

cEval_CarcasMeasurements_AgeInDays (Number) The calculated age in days of the sheep when the carcass measurements were made

 ${\tt cEval_FootScore_Avg}$ (Number) The average value of the foot score measurements of this sheep

cEval_PhysicalSize_AgeInDays (Number) The calculated age in days of the sheep when the size measurements were made

cFECChangePercent (*Text*) Calculation of the percentage change between the most recent Fecal Egg Count and the second most recent Fecal Egg Count;

This can be positive or negative and includes the percent sign.

cFreshenDate (Date) The date the ewe most recently lambed

cGrandDams (Text) List of ID and/or Name values (cTagAndName) for the two granddams of this sheep

cGrandSires (*Text*) List of ID and/or Name values (cTagAndName) for the two grandsires of this sheep

 ${\tt cGreatGrandDams}$ (${\it Text}$) List of ID and/or Name values (${\it cTagAndName}$) for the four great granddams of this sheep

cGreatGrandSires (*Text*) List of ID and/or Name values (cTagAndName) for the four great grandsires of this sheep

cGreatGreatGrandDams (*Text*) List of ID and/or Name values (cTagAnd-Name) for the eight great granddams of this sheep

cGreatGreatGrandSires (*Text*) List of ID and/or Name values (cTagAnd-Name) for the eight great grandsires of this sheep

cHasPhoto (Number) A flag that indicates that the Photo field is populated cHornStatusMsg_Current (Text) A description of the current status of the horns after any dehorning

cHornStatusMsg_Inherent (*Text*) A description of the current status of the horns after any dehorning

cIsActivelyNursing (Number) Flag indicating if the current sheep is actively nursing

cIsExposedEwe (Number) Flag indicating that the sheep has recent Breeding Exposure record and is not yet past the date when the lambing would be completed

 ${\tt cIsHere}$ (Number) Flag indicating that the value of Location (General) is Here

cIsOneBreed (Number) Flag indicating that only one breed is specified for the sheep

cIsWeaned () Flag indicating that the sheep is either weaned, past weaning age, or removed from the flock

cListOfAncestors (*Text*) List of all Record IDs (_pk_SHEEP_id values) for sheep on this sheep's pedigree starting with the parents and up to the great great granddams and great great grand sires

 ${\tt cMerge_List_Text_01}$ (${\it Text}$) The calculated value for this sheep of the first column in the Advanced Custom List

 ${\tt cMerge_List_Text_02} \ (\textit{Text}) \ \text{The calculated value for this sheep of the second column in the Advanced Custom List}$

 ${\tt cMerge_List_Text_03} \ (\textit{Text}) \ {\tt The} \ {\tt calculated} \ {\tt value} \ {\tt for} \ {\tt this} \ {\tt sheep} \ {\tt of} \ {\tt third} \ {\tt column} \ {\tt in} \ {\tt the} \ {\tt Advanced} \ {\tt Custom} \ {\tt List}$

 ${\tt cMerge_List_Text_04}$ (${\it Text}$) The calculated value for this sheep of the fourth column in the Advanced Custom List

 ${\tt cMerge_List_Text_05}$ (Text) The calculated value for this sheep of the fifth column in the Advanced Custom List

 ${\tt cMerge_List_Text_06}~(\textit{Text})~{\tt The}~{\tt calculated}~{\tt value}~{\tt for}~{\tt this}~{\tt sheep}~{\tt of}~{\tt the}~{\tt sixth}~{\tt column}~{\tt in}~{\tt the}~{\tt Advanced}~{\tt Custom}~{\tt List}$

 ${\tt cMerge_List_Text_07}$ ($T\!ext)$ The calculated value for this sheep of the seventh column in the Advanced Custom List

 ${\tt cMerge_List_Text_08}$ (Text) The calculated value for this sheep of the eighth column in the Advanced Custom List

cMerge_List_Text_09 (Text) The calculated value for this sheep of the ninth column in the Advanced Custom List

 ${\tt cMerge_List_Text_10}$ (${\it Text}$) The calculated value for this sheep of the tenth column in the Advanced Custom List

cMerge_Simple_01 (*Text*) The calculated value for this sheep for the first column in the User Customize - choose 4 fields list

cMerge_Simple_01_Label (*Text*) The label for the first column in the User Customize - choose 4 fields list

cMerge_Simple_02 (*Text*) The calculated value for this sheep for the second column in the User Customize - choose 4 fields list

 ${\tt cMerge_Simple_02_Label}$ (${\it Text}$) The label for the second column in the User Customize - choose 4 fields list

cMerge_Simple_03 (*Text*) The calculated value for this sheep for the third column in the User Customize - choose 4 fields list

 ${\tt cMerge_Simple_03_Label}$ (${\it Text}$) The label for the third column in the User Customize - choose 4 fields list

cMerge_Simple_04 (*Text*) The calculated value for this sheep for the fourth column in the User Customize - choose 4 fields list

 ${\tt cMerge_Simple_04_Label}$ (${\it Text}$) The label for the fourth column in the User Customize - choose 4 fields list

 ${\tt cMostRecentBodyScore}$ (Number) The most recent body score measurement for this sheep

 ${\tt cMostRecentBodyScore_Date}$ (Date) The date of the most recent body score measurement for this sheep

 ${\tt cMostRecentFAMACHA}$ (Number) The most recent FAMACHA measurement for this sheep

 $\verb|cMostRecentFAMACHA_Date|| (Date)| The date of the most recent FAMACHA| measurement for this sheep$

 ${\tt cMostRecentFecalEggCount}$ (Number) The most recent Fecal Egg Count measurement for this sheep

 ${\tt cMostRecentFecalEggCount_Date}$ (Date) The date of the most recent Fecal Egg Count measurement for this sheep

 $\verb|cMostRecentFootScore|| (Number)| The most recent Foot Score measurement for this sheep$

 $\verb|cMostRecentFootScore_Date|| (Date) The date of the most recent Foot Score measurement for this sheep|$

 ${\tt cMostRecentWeight}$ (Number) The most recent measurement of the sheep's weight

 ${\tt cMostRecentWeight_Date}$ (Number) The most recent weight measurement for this sheep

cMostRecentWeight_When (Text) An expression in numbers and words describing the age of this sheep when the most recent weight was measured

cNumberOfOffspring (Date) The date of the most recent weight measurement for this sheep

cNumberOfRecordsInFoundSet (Number) The count of the number of records being browsed in the current found set

 ${\tt Codon136}$ (${\it Text}$) Results of the Codon 136 value from a genetic test for scrapic resistance

 ${\tt Codon154}$ (${\it Text}$) Results of the Codon 154 value from a genetic test for scrapic resistance

 ${\tt Codon171}~(\mathit{Text})$ Results of the Codon 171 value from a genetic test for scrapic resistance

 ${\tt Comments_LambingStatistics}$ (${\tt Text}$) A note field on the Lambing Stats tab of the Analysis sheep form for the shepherd to add notes, special circumstances, and interpretations of the statistics

Comments_Lineage (Text) Comments about the pedigree or the sheep's lineage

cParents (Text) The ID and Name of the Sire and Dam of this sheep

cPhotoIsLocal (Number) A flag indicating that the Photo field is populated by a photo stored inside the database instead of being a reference to a file outside the database

cPhotoStorageType () A word or phrase describing if the Photo field is populated by a photo stored inside the database, a reference to a file outside the database, or empty

 ${\tt cPreviousBodyScore}$ (Number) The next to the most recent Body Score measurement for this sheep

cPreviousBodyScore_Date (Date) The date of the next to the most recent Body Score measurement for this sheep

cPreviousFAMACHA (Number) The next to the most recent FAMACHA score for this sheep

 ${\tt cPreviousFAMACHA_Date}$ () The date of the next to the most recent FAMACHA score for this sheep

cPreviousFAMACHADeworming_Date (Date) The most recent date of deworming prior to the most recent measurement of FAMACHA score for this sheep.

cPreviousFAMACHADeworming_Description (*Text*) The most recent Log entry Description of deworming prior to the most recent measurement of FAMACHA score for this sheep.

 ${\tt cPreviousFecalEggCount}$ (Number) The next to the most recent measurement of the Fecal Egg Count for this sheep

 ${\tt cPreviousFecalEggCount_Date}~(Date)~{\tt The~date~of~the~next~to~the~most}$ recent measurement of the Fecal Egg Count for this sheep

cPreviousFECDeworming_Date (Date) The most recent date of deworming prior to the most recent measurement of Fecal Egg Count score for this sheep.

cPreviousFECDeworming_Description (*Text*) The most recent Log entry Description of deworming prior to the most recent measurement of the Fecal Egg Count for this sheep.

 ${\tt cPreviousFootScore}$ (Number) The next to the most recent Foot Score measurement for this sheep

 ${\tt cPreviousFootScore_Date}$ (Date) The date of the next to the most recent Foot Score measurement for this sheep

cPreviousWeight (Number) The next to the most recent weight measurement for this sheep

cPreviousWeight_Date (Date) The date of the next to the most recent weight measurement for this sheep

cPrimaryLocalTag (Text) The top line of the Tag(s) field

cRaisedAs_Number (Number) The numeric equivalent of the cRaisedAs_Text describing the litter size in which the sheep was raised

cRaisedAs_Text (Text) The litter size in which the sheep was raised

cRamBredTo (Text) The ram to which this ewe was recently bred according to the Breeding Exposure records; Recent in this context means before the lambs from that ram would have been weaned.

CreatedBy (Text) The user name of the person who created this sheep record CreatedDate (Date) The date this sheep record was created

cRegistryIDAndName (*Text*) The Registry ID and the Name of this sheep cSex_MF (*Text*) A calculation giving M or F depending on whether this sheep is male (ram or wether) or female (ewe)

 ${\tt cSex_Word}$ (Text) A calculation giving Ram, Ewe, or Wether depending on if the value of Sex is R, E, or W

cStatus (*Text*) The calculated Record Status of the sheep describing if this sheep record is Current (in the flock), Removed (no longer in the flock) or a Reference record (was never in the flock)

 ${\tt cSurvived30DaysOrWeaned}$ (Number) A flag that indicates that the sheep was in the flock at least 30 days or was weaned

cTagAndName (*Text*) The sheep ID tag and the name of the sheep; The sire's Alternate Label will be used if provided. The ID tag will be the farm tag ID, scrapie Tag ID, or the Registry ID.

<code>cTagAndNameSortKey</code> (Text) A calculated variation of the cTagAndName field that is easy to sort both numerically and alphabetically; All numbers in the value are padded with zeros on the left so that the entire sequence can be alphabetically sorted

cTagID (Number) The ID of this sheep record formed by the top line of the farm Tag ID, the Scrapie Tag ID, or the Registry ID

CustomField_01 (Text) User-defined field

CustomField_02 (Text) User-defined field

CustomField_03 (Number) User-defined field; boolean

CustomField_04 (Number) User-defined field

CustomField_05 (Number) User-defined field

CustomField_05_Date (Date) The date corresponding to CustomField_05

CustomField_06 (Number) User-defined field

CustomField_06_Date (Date) The date corresponding to CustomField_06

CustomField_07 (Date) User-defined field

CustomField_08 (Date) User-defined field

CustomField_09 (Number) User-defined field

CustomField_09_Date (Date) The date corresponding to CustomField_09

CustomField_10 (Number) User-defined field

CustomField_10_Date (Date) The date corresponding to CustomField_10

CustomField_11 (Text) User-defined field

CustomField_12 (Text) User-defined field

 $cWeight_Birth (Number)$ The weight measurement taken on this sheep's birth date

cWeight_Weaning (Number) The weight measurement taken on the date of this sheep's weaning

cWeightAdjustmentFactor (Number) The adjustment factor used to calculate the 60-day adjusted weaning weight; This factor depends on the Birth Type, Raised As, Sex, and age of dam

cYear (Number) Year part of the date of birth of this sheep

cYearsInFlock (*Number*) The number of years this sheep has been a member of this flock expressed as a decimal number; This considers the Acquisition Date, Removal Date, and the current date.

Dam_ImportID (*Text*) A utility field which can be used to fill in the DamID value during an Advanced Raw Import; This is deprecated. The FlockFiler Import Assistant should be used instead.

DamID (Number) The value of the database field _kp_SHEEP_id for the dam of this sheep

DateAcquired (Date) Date this sheep entered the flock; For lambs born into the flock, this is the date of birth.

DateRemoved (Date) Date the sheep was removed from the flock

DateWeaned (Date) Date this sheep was weaned

Description (*Text*) A description of the sheep containing details that does not readily fit in other data entry fields

EPD_TraitValue_01 (Number) User-defined numeric evaluation intended for EPD (expected progeny differences) or EBV (estimated breeding value)

 ${\tt EPD_TraitValue_01Acc}~(Number)~{\tt The~numeric~value~of~the~estimated~accuracy~of~the~value~in~{\tt EPD_TraitValue_01}}$

 ${\tt EPD_TraitValue_02} \ (Number) \ {\tt User-defined} \ {\tt numeric} \ {\tt evaluation} \ {\tt intended} \ {\tt for} \ {\tt EPD} \ ({\tt expected} \ {\tt progeny} \ {\tt differences}) \ {\tt or} \ {\tt EBV} \ ({\tt estimated} \ {\tt breeding} \ {\tt value})$

EPD_TraitValue_02Acc (Number) The numeric value of the estimated accuracy of the value in EPD_TraitValue_02

EPD_TraitValue_03 (Number) User-defined numeric evaluation intended for EPD (expected progeny differences) or EBV (estimated breeding value)

EPD_TraitValue_03Acc (Number) The numeric value of the estimated accuracy of the value in EPD_TraitValue_03

EPD_TraitValue_04 (Number) User-defined numeric evaluation intended for EPD (expected progeny differences) or EBV (estimated breeding value)

 ${\tt EPD_TraitValue_04Acc}~(Number)~{\tt The}~numeric~value~of~{\tt the}~estimated~accuracy~of~{\tt the}~value~in~{\tt EPD_TraitValue_04}$

 $EPD_TraitValue_05 \ (Number)$ User-defined numeric evaluation intended for EPD (expected progeny differences) or EBV (estimated breeding value)

 ${\tt EPD_TraitValue_05Acc}~(Number)~{\tt The}~{\tt numeric}~{\tt value}~{\tt of}~{\tt the}~{\tt estimated}~{\tt accuracy}~{\tt of}~{\tt the}~{\tt value}~{\tt in}~{\tt EPD_TraitValue_05}$

EPD_TraitValue_06 (Number) User-defined numeric evaluation intended for EPD (expected progeny differences) or EBV (estimated breeding value)

EPD_TraitValue_06Acc (Number) The numeric value of the estimated accuracy of the value in EPD_TraitValue_06

 $\texttt{Eval_BackfatThickness_Value}$ (Number) Measurement of the thickness of the backfat of this sheep

 $Eval_CarcasMeasurements_Date\ (Date)$ The date when the Carcass measurements on this sheep were made

 ${\tt Eval_EaseOfLambing_Date}$ (Date) The date when the Ease of Lambing score was made

 ${\tt Eval_EaseOfLambing_Value}~(Number)~A~{\tt numeric}~score~evaluating~the~ease~with~with~this~sheep~lambs$

Eval_EaseOfManagement_Date (Date) The date when the Ease of Management score was made

Eval_EaseOfManagement_Value (Number) A numeric score evaluating how easily this sheep is managed

Eval_Girth_Value (Number) Girth measurement of this sheep

Eval_Height_Value (Number) Height measurement of this sheep

 ${\tt Eval_LegScore_Value}$ (Number) An evaluation of the leg of this sheep's carcass

Eval_Length_Value (Number) Length measurement of this sheep

 $\texttt{Eval_MilkingAbility_Date}\ (Date)$ The date the Milking Ability score was made

 ${\tt Eval_MilkingAbility_Value}~(Number)$ Numeric evaluation of the ability of this sheep to be milked

 ${\tt Eval_MotheringAbility_Date}~(Date)~{\tt The}~{\tt date}~{\tt the}~{\tt Mothering}~{\tt Ability}~{\tt was}~{\tt made}$

 ${\tt Eval_MotheringAbility_Value}~(Number)~A~numeric~score~evaluating~how~well~this~sheep~mothers~its~lambs$

 ${\tt Eval_PhysicalSize_Date}~(Date)~{\tt The}~{\tt date}~{\tt this}~{\tt sheep's}~{\tt size}~{\tt measurements}~{\tt were}~{\tt made}$

 ${\tt Eval_RibeyeArea_Value}~(Number)~{\tt Measurement}~{\tt of~the~ribeye~area~of~this~sheep}$

 ${\tt Eval_Soundness_Date}$ (Date) The date this sheep's soundness was evaluated

 ${\tt Eval_Soundness_Value}~(Number)$ Numerical evaluation of the soundness of this sheep

 $\label{lem:condition} {\tt Eval_TeethWear_Date}~()~{\tt The}~{\tt date}~{\tt this}~{\tt sheep's}~{\tt Teeth}~{\tt Wear}~{\tt was}~{\tt evaluated}~{\tt Eval_TeethWear_Value}~(Number)~{\tt Numeric}~{\tt score}~{\tt evaluating}~{\tt the}~{\tt state}~{\tt of}~{\tt the}~{\tt teeth}~{\tt of}~{\tt this}~{\tt sheep}~$

Eval_Temperament (Text) An evaluation of this sheep's temperament

Eval_Udder_Date (Date) The date this ewe's udder was evaluated

 $Eval_Udder_Value\ (Number)$ Numeric score evaluating the state of the udder of this sheep

 ${\tt Eval_YieldGrade_Value}$ (Number) An evaluation of the Yield Grade of the carcass of this sheep

Fleece_ColorName (Text) The color of the fleece of this sheep

Fleece_ColorPattern (Text) Color pattern of the fleece

Fleece_LengthDescription (*Text*) An approximate description of the length of the fleece of this sheep

Fleece_TextureDescription (Text) A description of the texture of the fleece of this sheep

Fleece_WoolGrade (Text) A description of the grade of wool from this sheep gCustomField_01_Label (Text) The label for the user-defined field CustomField_02 gCustomField_02_Label (Text) The label for the user-defined field CustomField_02 gCustomField_03_Label (Text) The label for the user-defined field CustomField_03 gCustomField_04_Label (Text) The label for the user-defined field CustomField_04 gCustomField_05_Label (Text) The label for the user-defined field CustomField_05 gCustomField_06_Label () The label for the user-defined field CustomField_06 gCustomField_07_Label () The label for the user-defined field CustomField_07 gCustomField_08_Label () The label for the user-defined field CustomField_08 gCustomField_09_Label () The label for the user-defined field CustomField_09 gCustomField_10_Label () The label for the user-defined field CustomField_10 gCustomField_11_Label () The label for the user-defined field CustomField_11 gCustomField_12_Label () The label for the user-defined field CustomField_11 gCustomField_12_Label () The label for the user-defined field CustomField_12 gDefault_BreedID (Number) The internal Breed ID number (_kp_BRD_id) of the default breed choice

gDefault_Group (Text) The default value for new records of Group gDefault_HornStatus (Text) The default value for new records of Horn Status

 ${\tt gDefault_IsBreeder}$ (Number) The default value for new records of the Breeder checkbox

 ${\tt gDefault_Location_General}$ (${\it Text}$) The default value of the Location (General) field

 $\verb|gDefault_OwnerID| (Number) The default internal Address Book ID (_kp_AB_id) for new records of the Owner$

gDefault_TagType () The default value for new records of Tag Type gEPD_TraitName_01 () The label for the user-defined field EPD_TraitValue_01 gEPD_TraitName_02 () The label for the user-defined field EPD_TraitValue_02 gEPD_TraitName_03 () The label for the user-defined field EPD_TraitValue_03 gEPD_TraitName_04 () The label for the user-defined field EPD_TraitValue_04 gEPD_TraitName_05 () The label for the user-defined field EPD_TraitValue_05 gEPD_TraitName_06 () The label for the user-defined field EPD_TraitValue_06 gPreference_AssignBreed (Text) Choice of behavior for assigning breed composition to new records

 ${\tt Group}$ (Text) Group or sub-flock name to which this sheep is currently a member

HornStatus (*Text*) The inborn status of the sheep's horns

IsBreeder (*Number*) Designates that the sheep is part of the breeding stock

IsDehorned (*Number*) Specifies that this sheep has been dehorned

IsMilker (*Number*) Specifies that this sheep is part of the milking flock

 ${\tt IsPastWeaning_Survived_UserProvided} \ ({\it Number}) \ {\tt An override of the internal calculation}$

IsPastWeaningAge (Number) Flags that indicates that this sheep is 60 days or older

kf_CLR_id (Number) The internal Color ID (_kp_CLR_id) corresponding to this sheep's selected value of Color Code

_kp_SHEEP_id (*Number*) The internally-assigned record number unique to each sheep record; This is used for cross references between database records.

Location_General (*Text*) The location of the sheep in very general terms; useful when you know very little specific information about the sheep

 ${\tt ModifiedBy}$ (${\it Text}$) The user name of the person running FlockFiler when this sheep record was modified

ModifiedDate (Date) The date this sheep record was last modified

Name (Text) The individual name of this sheep

Note (*Text*) General notes about this sheep that are not associated with a specific date (dated notes should be Log entries)

Note_Breeding (Text) Notes on this sheep's breeding and reproduction

Note_Fleece () Notes about the fleece of this sheep

Note_Measurements () Notes about measurements of this sheep

Note_Milk () Notes about milking this sheep

NumberOfHorns (Number) The number of horns inherent to this sheep (prior to any dehorning)

Owner_ImportID () A utility field which can be used to fill in the OwnerID value during an Advanced Raw Import; This is deprecated. The FlockFiler Import Assistant should be used instead.

OwnerID (Number) The value of the internal record ID (_kp_AB_id) of the Address Book record for the owner of this sheep

Photo (Container) A photo of this sheep

RaisedAs_UserProvided () Designates the size of the litter in which this sheep was reared; When this is blank it is assumed that this is equal to the Birth Type.

RaisedBy_SheepID (Number) The internal Record ID of the ewe that raised this sheep if it was not raised by its own dam

RegistryID (Text) The ID provided by a sheep registry service

 ${\tt RemovalReason}~(\mathit{Text})$ The reason the sheep was removed or otherwise left the flock

 ${\tt sAvg_Eval_BackfatThickness~()~A~special~summary~field~that~calculates~the~average~value~of~the~Backfat~field~(Eval_BackfatThickness_Value)~for~the~current~found~set~of~records}$

 $sAvg_Eval_EaseOfLambing$ (Number) A special summary field that calculates the average value of the Ease of Lambing field for the current found set of records

 $sAvg_Eval_EaseOfManagement$ () A special summary field that calculates the average value of the Ease of Management field for the current found set of records

sAvg_Eval_Girth () A special summary field that calculates the average value of the Girth field (Eval_Girth_Value) for the current found set of records

sAvg_Eval_Height () A special summary field that calculates the average value of the Height field (Eval_Height_Value) for the current found set of records

sAvg_Eval_LegScore () A special summary field that calculates the average value of the Leg Score field (Eval_LegScore_Value) for the current found set of records

sAvg_Eval_Length () A special summary field that calculates the average value of the Length field (Eval_Length_Value) for the current found set of records

sAvg_Eval_MilkingAbility () A special summary field that calculates the average value of the Milking Ability field for the current found set of records

sAvg_Eval_MotheringAbility () A special summary field that calculates the average value of the Mothering Ability field for the current found set of records

sAvg_Eval_RibeyeArea () A special summary field that calculates the average value of the Ribeye Area field (Eval_RibeyeArea_Value) for the current found set of records

sAvg_Eval_Soundness () A special summary field that calculates the average value of the Soundness field for the current found set of records

sAvg_Eval_TeethWear () A special summary field that calculates the average value of the Teeth Wear field for the current found set of records

sAvg_Eval_Udder () A special summary field that calculates the average value of the Udder score field for the current found set of records

sAvg_Eval_YieldGrade () A special summary field that calculates the average value of the Yield Grade field (Eval_YieldGrade_Value) for the current found set of records

sCountOfSheep (Number) A special summary field that counts the number of sheep in the current found set of records

ScrapieTagID (Text) An ID that is unique nationally; In the US the national ID is the scrapie tag coordinated by the USDA.

Sex (Text) The sex of the sheep; ewe, ram, or wether

Sheep_ImportID (*Text*) A utility field for the unique ID for the sheep that can be used in conjunction with other "_ImportID" fields; Use of this field directly is deprecated as it is used by the Import Assistant.

 $\verb|sheep_MEAS__BodyScore::BodyConditionScore| (Number) A numeric score of the body condition$

 $\verb|sheep_MEAS__FootScore|: FootConditionScore| (Number) A numeric score evaluating the condition of the sheep's feet$

 $\verb|sheep_SHEEP_Dam::Breed_Description| (\textit{Text}) The value of Breed Description for the dam of this sheep$

sheep_SHEEP__Dam::cTagAndName (*Text*) The Tag ID and Name of the dam of this sheep; The dam's Alternate Label will be used if provided.

 $sheep_SHEEP_Dam::cTagID\ (\mathit{Text})$ The value of cTagID for the dam of this sheep; This is the dam's farm ID, Scrapie Tag, or Registry ID

 $sheep_SHEEP__Dam::Name\ (\mathit{Text})$ The Name of the dam of this sheep

 $\verb|sheep_SHEEP_Dam::RegistryID| (\textit{Text}) The Registry ID of the dam of this sheep$

sheep_SHEEP__Dam::ScrapieTagID (Text) The Scrapie Tag ID of the dam
of this sheep

sheep_SHEEP__Sire::Breed_Description (Text) The value of Breed Description for the sire of this sheep

sheep_SHEEP__Sire::cTagAndName (*Text*) The Tag ID and Name of the sire of this sheep; The sire's Alternate Label will be used if provided.

sheep_SHEEP__Sire::cTagID (*Text*) The value of cTagID for the sire of this sheep; This is the sire's farm ID, Scrapie Tag, or Registry ID

sheep_SHEEP__Sire::Name (Text) The name of the sire of this sheep

 $\verb|sheep_SHEEP_Sire::RegistryID| (\textit{Text}) The Registry ID of the sire of this sheep$

 $\verb|sheep_SHEEP__Sire::ScrapieTagID| (\textit{Text}) The Scrapie Tag ID of the sire of this sheep$

 ${\tt sheep_WT_Birth::Weight}$ (Number) Weight measurement for this sheep taken on the date of its birth

 $sheep_WT__Weaning::Weight (Number)$ Weight measurement for this sheep taken on the date of its weaning

Sire_ImportID () A utility field which can be used to fill in the SireID value during an Advanced Raw Import; This is deprecated. The FlockFiler Import Assistant should be used instead.

 ${\tt SireID}$ (Number) The value of the database field ${\tt kp_SHEEP_id}$ for the sire of this sheep

SpiderGene (Text) The results of a genetic test for the Spider gene associated with spider lamb syndrome

Status_UserProvided (*Text*) An override field for the Record Status of this sheep used when the internal cStatus calculation is not accurate for some reason

TagIDs (Text) The top line of the farm Tag ID, the scrapie Tag ID, or the Registry Tag ID

TagType (Number) The type of tagging system used for the primary farm tag; The primary farm tag is the top line of the Tag(s) field.

WeaningDate (Date) The date this sheep was weaned

WIC (Number) The result of the calculation of the Wright's Coefficient of Inbreeding for this sheep; This calculation considers up to 100 generations in the pedigree

A.2.2 Log

BrowsedWhenExported (Number) An internal field used to support the Advanced Import/Export feature that exports all data to many text files; This field will be 1 for any record in the current found set at the time of the export.

Category (Text) The category or categories

Category_OtherSpecified (*Text*) A note field to provide more specific information of the category when the Other checkbox is selected

 $\mathtt{cDate_Calendar_Begin}$ (Date) The starting date on the calendar where this log entry should appear

 $\mathtt{cDate_Calendar_End}$ (Date) The ending date for the event appearing on the calendar

cDescriptiveTextForCalendar_Auto (*Text*) The descriptive text that appears on the calendar for this log entry if the log entry is to appear on the caldendar

cEndDate (Date) The calculated end date for the time span that this log entry covers; If the End Date field is empty, cEndDate is the Start Date.

cEndTime (*Time*) The calculated ending time of the event of the log entry; If no End Time is provided, this is the Start Time.

cHasConflict (Number) This event on the calendar overlaps in its time with another log entry appearing on the calendar

 ${\tt cNumberOfSheepReferenced}$ (Number) The number of sheep records to which this log entry is connected

 $\verb|cNumSheepRefText| (\textit{Text}) A calculated description of the number of sheep referenced$

CreatedBy (*Text*) The user name of the person who created this log record CreatedDate (*Date*) The date this log record was created

cSumOfTransactions (Number) A special summary field that calculates the net amount on all Transaction records connected to this weight measurement

CustomField_01 (Text) Reserved for future use

CustomField_02 (Text) Reserved for future use

CustomField_03 (Number) Reserved for future use

CustomField_04 (Number) Reserved for future use

CustomField_05 (Number) Reserved for future use

CustomField_06 (Number) Reserved for future use

CustomField_07 (Date) Reserved for future use

CustomField_08 (Date) Reserved for future use

cWithdrawalDate (Date) The date when the withdrawal period ends

<code>DaysToShowOnCalendar</code> (Text) The user's choice whether to make this log entry appear on the calendar and for what date range

Description (Text) The description of what the log entry documents

DescriptiveTextForCalendar_UserEntered (*Text*) An override of the log entry description to appear on the calendar entry instead of the standard Description field

EndDate (Date) The ending date for the event that this log entry describes EndTime (Time) The ending time for the event described in this log entry

FollowUpDate (Date) A date that a follow up activity is planned after the events documented in the log entry

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gCustomField_01_Label (Text) Reserved for future use
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gCustomField_02_Label (Text) Reserved for future use

gCustomField_03_Label (Text) Reserved for future use

gCustomField_04_Label (Text) Reserved for future use

gCustomField_05_Label (Text) Reserved for future use

gCustomField_06_Label (Text) Reserved for future use

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gCustomField_07_Label (Text) Reserved for future use gCustomField_08_Label (Text) Reserved for future use
```

IsNotForReport (Number) Flag designating that this log entry is private and is not to appear in any report

 kf_CLR_id (Number) The internal Color ID ($_kp_CLR_id$) corresponding to this sheep's selected value of Color Code

_kp_LOG_id (*Number*) The internally-assigned record number unique to each log entry record; This is used for cross references between database records.

Log_ImportID (*Text*) A utility field which can be used to fill in the kf_LOG_id value in records in other tables during an Advanced Raw Import

LogEntryDate (Date) The (starting) date of the log entry

 ${\tt ModifiedBy}$ (${\it Text}$) The user name of the person running FlockFiler when this log record was modified

ModifiedDate (Date) The date this log record was last modified

StartTime (Time) The starting time of the event of the log entry

WithdrawalPeriod_Days (Number) The number of days that is needed for a withdrawal period after the events described in the log entry; This is most often used for documenting the withdrawal period of drugs administered.

A.2.3 Measurement

BodyConditionScore (Number) The body condition score

BrowsedWhenExported (Number) An internal field used to support the Advanced Import/Export feature that exports all data to many text files; This field will be 1 for any record in the current found set at the time of the export.

 ${\tt cAgeDescription}\;(\mathit{Text})$ The age expressed in days, weeks, months, or years depending on the magnitude of the age

cAgeInDays (Number) The age of the sheep in days at the time of this measurement

cDaysSinceLastWorming (Number) The number of days since the last deworming Log entry for the sheep being measured

 ${\tt cFEC_GroupAvg}\;(Number)$ The average of all Fecal Egg Count measurements made on the same date as this measurement

```
cMerge_List_Text_01 (Text) Reserved for future use cMerge_List_Text_02 (Text) Reserved for future use cMerge_List_Text_03 (Text) Reserved for future use cMerge_List_Text_04 (Text) Reserved for future use cMerge_List_Text_05 (Text) Reserved for future use cMerge_List_Text_06 (Text) Reserved for future use cMerge_List_Text_07 (Text) Reserved for future use cMerge_List_Text_08 (Text) Reserved for future use cMerge_List_Text_09 (Text) Reserved for future use cMerge_List_Text_10 (Text) Reserved for future use cMerge_List_Text_10 (Text) Reserved for future use
```

 ${\tt CreatedBy}\ ({\it Text})$ The user name of the person who created this measurement record

CreatedDate (Date) The date this measurement record was created

 ${\tt cSumOfTransactions}$ (Number) A special summary field that calculates the net amount on all Transaction records connected to this weight measurement

CustomField_01 (Text) Reserved for future use

CustomField_02 (Text) Reserved for future use

CustomField_03 (Number) Reserved for future use

CustomField_04 (Number) Reserved for future use

CustomField_05 (Number) Reserved for future use

CustomField_06 (Number) Reserved for future use

CustomField_07 (Date) Reserved for future use

CustomField_08 (Date) Reserved for future use

Environmental Conditions (Text) The environmental conditions around the time of this measurement

FAMACHA_Score (Number) The FAMACHA score

FecalEggCount (Number) The Fecal Egg Count

FootConditionScore (Number) A numeric score for the foot condition

gCustomField_01_Label (Text) Reserved for future use

gCustomField_02_Label (Text) Reserved for future use

gCustomField_03_Label (Text) Reserved for future use

 $gCustomField_04_Label$ (Text) Reserved for future use

gCustomField_05_Label (Text) Reserved for future use

 ${\tt gCustomField_06_Label}~(\mathit{Text})~{\rm Reserved}~{\rm for}~{\rm future}~{\rm use}$

gCustomField_07_Label (Text) Reserved for future use

gCustomField_08_Label (Text) Reserved for future use

 ${\tt kf_SHEEP_id}$ (Number) The record ID (_kp_SHEEP_id) of the sheep record to which this measurement applies

_kp_MEAS_id (Number) The internally-assigned record number unique to each measurement record; This is used for cross references between database records.

 $Measurement_ImportID$ (Text) A utility field which can be used to fill in the kf_MEAS_id value in records in other tables during an Advanced Raw Import

MeasurementDate (Date) The date this measurement was made

 ${\tt ModifiedBy}$ (${\it Text}$) The user name of the person running FlockFiler when this measurement record was modified

ModifiedDate (Date) The date this measurement record was last modified Note (Text) Notes about this measurement

PriorDewormingDate (Date) The date of the Log entry for the most recent deworming prior to the date of this measurement

PriorDewormingDescription (*Text*) The Description of the Log entry for the most recent deworming prior to the date of this measurement

ProductionStage (Text) The production stage of the sheep when this measurement was taken

sAverageBodyConditionScore (Number) A special summary field that calculates the average body condition score for the current found set of records

sAverageFAMACHA (Number) A special summary field that calculates the average FAMACHA score for the current found set of records

 $sAverageFecalEggCount\ (Number)$ A special summary field that calculates the average fecal egg count for the current found set of records

sAverageFootScore (Number)

Sheep_ImportID (Text) A utility field which can be used to fill in the kf_SHEEP_id value during an Advanced Raw Import

A.2.4 Weight

BrowsedWhenExported (Number) An internal field used to support the Advanced Import/Export feature that exports all data to many text files; This field will be 1 for any record in the current found set at the time of the export.

 ${\tt cAgeInDays}\;(Number)$ The age of the sheep in days at the time of this weight measurement

Created By (Text) The user name of the person who created this weight record

CreatedDate (Date) The date this weight record was created

gWeightUnits (*Text*) The measurement unit used for of all of the weight measurements; This is a global field that has only one value shared by all of the records.

 kf_SHEEP_id (Number) The record ID ($_kp_SHEEP_id$) of the sheep record to which this weight applies

_kp_WT_id (Number) The internally-assigned record number unique to each weight record; This is used for cross references between database records.

ModifiedBy (Text) The user name of the person running FlockFiler when this weight record was modified

ModifiedDate (Date) The date this weight record was last modified

Note (Text) Notes about this weight measurement

sAverageWeight (Number) A special summary field that calculates the average weight for the current found set of records

Sheep_ImportID (Text) A utility field which can be used to fill in the kf_SHEEP_id value during an Advanced Raw Import

WeighDate (Date) Date the weight measurement was taken

Weight (Number) The weight of the sheep; The units for this measurement are specified in the gWeightUnits field.

A.2.5 BreedingExposure

 $BreedingExposure_ImportID\ (\mathit{Text})\ A$ utility field which can be used to fill in the kf_BRDEXP_id value in records in other tables during an Advanced Raw Import

cEndDate (Date) The calculated end date for this breeding exposure

 ${\tt cEwesExposedDescription}$ (${\it Text}$) A description of the ewes exposed to breeding

cExpectedLambingEnd (Date) A calculation of the end of lambing using the End Date of the breeding and the length of gestation

cExpectedLambingStart (Date) A calculation of the start of lambing using the Start Date of the breeding and the length of gestation

cExpectedVaccination (Date) A calculation of the vaccination date for the ewes based on the Start Date of the breeding and the Breeding To Vaccination Days on the Date Planning/Scheduling Calculator

 ${\tt cNumberOfEwesReferenced}$ (Number) The number of ewes exposed in this breeding

 ${\tt cNumberOfTranReferenced}$ (Number) The number of financial transactions connected to this Breeding Exposure record

 ${\tt cNumEwesLambed}$ (${\it Number}$) The number of exposed ewes that subsequently lambed

cNumLambsBorn (Number) The number of lambs born to the exposed ewes as a result of this Breeding Exposure

 ${\tt cRamExposedDescription}$ (${\it Text}$) The ID and/or Name of the ram used in this breeding exposure

 ${\tt CreatedBy}~(\mathit{Text})$ The user name of the person who created this Breeding Exposure record

CreatedDate (Date) The date this Breeding Exposure record was created cSumOfTransactions (Number) A special summary field that calculates the net amount on all Transaction records connected to this Breeding Exposure measurement

EndDate (Date) The date this Breeding Exposure ends

IsNotASeparateBreeding (Number) Flag to omit this breeding exposure as a separate breeding event in the ewe breeding statistics; This is used for clean-up rams or noncontiguous breeding sessions.

 $kf_SHEEP_id_Ram\ (Number)$ The Record ID ($_kp_SHEEP_id$) of the ram used in this breeding

_kp_BRDEXP_id (Number) The internally-assigned record number unique to each Breeding Exposure record; This is used for cross references between database records.

 ${\tt ModifiedBy}$ (${\it Text}$) The user name of the person running FlockFiler when this Breeding Exposure record was modified

ModifiedDate (Date) The date this Breeding Exposure record was last modified

Note (Text) Notes about this Breeding Exposure

Ram_Sheep_ImportID (Text) A utility field which can be used to fill in the kf_SHEEP_id value for the ram during an Advanced Raw Import

StartDate (Date) The date the breeding exposure started