

Instructions for using the BIBBA Stud Book

Please read before using the program

The programming was done by Stephen Loughborough to create this very useful bee breeding tool and beekeepers are indebted to Stephen for his hard work and the inspirational ideas he has introduced into the program.

This program was originally called the BIBBA Record Card/Stud Book but this seemed to be too much of a mouthful so it has been renamed BIBBA Stud Book.

This is an Excel based program and of course the user must have Excel to be able to use it. It may be possible that a version will be created that will allow it to be used by those who do not have Excel, but this will be some time in the future.

A brief description of the program

Record cards are created and stored on the computer. Colony assessments made during inspections are entered on a "Last Visit Sheet", these are automatically transferred to the record cards when the "Update Record Cards" option is used. A Stud Book works in conjunction with the record cards and certain information contained in the record cards is automatically transferred to the Stud Book when the "Update Stud Book" option is used. There the data is sorted so that the best colonies appear at the top of the list and the worst at the bottom.

What the program does

1. It allows you to modify the record card template to choose the 6 breeding traits you wish to record from a drop down list of 17 traits, and to create the number of record cards you want based on the modified template.
2. It enables you to select the order of importance of the 6 traits you chose so that the Stud book will sort them in your order of preference.
3. It provides a simple means of entering the data into the record cards from a sheet called Last Visit Sheet. This sheet is used to enter all the assessments made during the colony inspections, then at a touch of a button the record cards are automatically updated.
4. It provides a facility for importing the morphometry results of Cubital Index (C.I.) and Discoidal Shift (D.S.) automatically inserting these into the record cards. It does this by searching the chosen directory, finding files with the same reference numbers as your record cards, extracting the two values of C.I. and D.S. and putting these into the respective record cards.
5. It allows the Stud Book to be updated whenever one wishes to do so.

In spite of its comprehensive facilities, it is an easy program to use, and takes much of the work out of record keeping. Of course it needs to be used in the way it has been designed to do, but if these instructions are followed carefully one should have no trouble in using it. (see also the diagrammatical guides to using the program)

The first step in using this program is to save the file to a suitable location such as Desktop or My Documents. Use a file name that is easy to remember such as EM Group Stud Book, this being the one we use for the East Midlands BIBBA Group)

The program is an Excel file that has been programmed to carry out functions with the minimum of input by the user. It comprises of interrelated worksheets: a Last Visit sheet, a set of individual colony Record Cards, and a Stud Book. Before using the program the Record Card template and Stud Book Sheet have to be set up to your requirements, and the required number of Record Cards have to be created (more Record Cards can be created at any time later).

To try out the program it is useful to create say 5 record cards and use the program by putting in imaginary assessment data. This can be saved say as Test 1 so that later you can reuse it if you wished to do so.

Modifying the Template

Open the program file by clicking on the icon BIBBA Stud Book. One is presented with a panel, click on 'Enable Macros'. Now a screen appears showing a template. This has to be modified to suit the user by selecting the breeding traits one wants to select for. It is worthwhile giving this some thought by carefully studying the 17 traits available shown in the next step. This is done by clicking on **BIBBA** in the tool bar, then "**Set up Record Card Template**": a drop down list of 17 traits will appear, click on '**Clear Traits**' then click on the down arrow on No.1 and select one of the traits. Repeat this process until you have selected the six traits you want, and then click on '**Set Traits**'. You will now see the template has the six traits you chose listed as the breeding traits.

Setting up the Stud Book

The next step is to set up the Stud Book. Click on **BIBBA** in the tool bar and click on '**Set up Stud Book**'. You are now presented with a panel headed 'Stud Book Traits' with the 6 traits you chose in the template. You can re-order these traits at any time in the importance you want to give them in your breeding preferences. If they are already in the order you want then click on '**Set Traits**'. If you wish to change the order click on '**Clear Traits**' and then click on the down arrow of No.1 and you will see the 6 traits you chose for the template listed, choose the one you want as the most important. Repeat until all six have been re-ordered, and then click on '**Set Traits**'.

When the Stud Book is updated a sort is performed on the first three columns so it is important that the first three traits are the most important to you. The order of the traits in the Stud Book does not necessarily have to be the same as in the Record Cards. One can try different orders from time to time to suit one's inclination; of course one can only juggle with the six traits one has chosen in the record cards.

The BIBBA Stud Book should either be run on it's own or be the ACTIVE workbook (ie. visible) when BIBBA menu items are chosen.

Creating record cards

The next step is to create as many record cards as required as per the template. Click on **BIBBA** in the tool bar, then '**New Record Card**' and fill in the "Set up Hive & Queen" form with the details of the first colony. It is not necessary to fill in all the details as some information may not be known such as Cubital index (C.I.) and Discoidal Shift (D.S.), but information can be added at any time in the future. It is essential though to fill in Apiary Location and Queen Ref. No. otherwise you would not be able to distinguish one record card from another. When finished, click "**Create Sheet**" and a new Record Card is created and its queen reference number will now appear on a tab along the bottom of the spreadsheet alongside the "Last Visit" tab or the tab for the previously created record card. You will find that the form has been cleared except for the apiary name and you can now enter the details for the next colony. If you wish to change the apiary name simply over write it. Repeat this process until you have as many record cards as you have colonies. One can always add more record cards later as new colonies are set up, or delete record cards not now used. The information in this form will be inserted in the record card above the replica of the template you modified. You can toggle between the worksheets using the tabs at the bottom of the screen or using the **Control Panel**, this is visible by clicking on **BIBBA** and selecting it from the drop down list.

The set up is now complete.

Using the system.

One can use a tape recorder to record the assessments and management details during colony inspections or use a manual method of scoring. A convenient way of doing this is to print out a blank of the 'Last Visit Update' sheet, to do this click on **BIBBA** then on **Last Visit Update**, click on **Cancel** and then print out this sheet, repeat until you have enough sheets to cover all your colonies, one sheet will suffice for 40 colonies. With these sheets on a clipboard one can fill in the details using one line per colony.

If you decide to use a tape recorder, have a small card to take with you when you go to the apiary to carry out inspections. This card should have the column headings as per your record card and

in the same order as on the record card. This is your reminder on how to record the traits observed during inspections.

Scoring Breeding Traits

Assessments of the Breeding Characteristics should be scored in a 1 to 5 order, 5 being excellent and 1 being very poor, it is important that you use to this scale of scoring as the system is based on scores of 1 to 5 and calculations are made by the program using this scale.

Recording the assessments

This information can now be entered on the computer by clicking on **Last Visit** tab at the bottom of the screen. Now click on **Cancel** and enter the details as recorded on your last inspection using one line per colony. If you have not done full brood box inspections you should not record anything in the breeding traits columns, but you can record other management items that would be worthwhile recording, using the columns designed for this. At this stage you should print a copy of this sheet if you want to have a copy, if you move on to the next step and then return to the Last Visit Sheet you will find it has been cleared ready for use the next time you have assessment data to enter. A print out of the Last Visit Sheet could be useful for reference the next time you visit the apiary. The next step is to update the record cards with the data you have entered in the Last Visit Sheet, so click on:-

BIBBA then on **Last Visit Update**, on the panel that appears click on **Update Record Cards**, this will now transfer all the information entered on the Last Visit sheet into each individual record card.

Note that some of the breeding traits may have to be entered retrospectively, if you chose such as Productivity, Thriftiness, Supercedure and Low Swarming, the scores for these would have to be entered say at the end of the season retrospectively against every full brood box inspection. Obviously such entries will only be made in the rows that have an entry in the 'No. of Frames of Brood' column when a full brood box inspection has been done. However do not be deterred from using the program for recording mundane management events as these can be very useful records. The Stud Book Sheet itself will only contain the factors relating to breeding traits and the various details such as queen ref. numbers etc.

It should be realised that this program calculates how many full brood box inspections have been made by counting the number of times an entry has been made in the No. of Frames of Brood column so if an entry has been made for number of frames then the breeding traits must also be entered. The program adds up the scores in each individual trait column and divides by the number of times full brood box inspections were made. All this is automatic and needs no input from the user. The Stud Book too carries a count of the number of brood box inspections made on each colony as a reference. The Remarks column in the Stud Book is for comments to be made manually in the Stud Book for example to point out something of particular importance such, 'This queen is 4 yrs old, breed from her' But please note: this remarks column is not sorted so when additional data is entered on the record cards via the last visit update and then the update stud book option is used the remarks could be in the wrong place. So only use the remarks column when a print out is to be done of the Stud Book, then delete the remarks.

Updating the Stud Book

The Stud Book would normally be updated once a year when all the entries have been made for a season, but of course one can do it at anytime if necessary. This transfers data from the record cards to the stud book and sorts the colonies in order of performance of breeding traits, the best colonies being at the top and descending to the worst at the bottom. Note that this sorting is only based on the scores in the first three columns, which is why it is important to have the three most important traits in the first three columns. To run the update click on **BIBBA** then on **Update Stud Book** this will bring up the Stud book and show its updated position.

Importing Biometric Data

One of the options in the drop down list in the BIBBA heading in the tool bar is 'Import Biometric Data'. This will allow the import of C.I and D.S. data from computer programs such as Beemorph and Beewings into this program and automatically insert them into the correct record cards. The morphometry files must have the same file name as the queen references used in the record cards. This operation will be much easier if a folder is set up to contain all the morphometry records, and if it has a short path such C:\My Documents\morphometry this will save on typing long paths when importing data.

Using the Import Biometric data option is remarkably easy, click on **BIBBA** then **Import Biometric Data**. Select either **Beewings** or **Beemorph** as the type of computer morphometry program you use, then click on **Locate Files** and enter the path such as C:\My Documents\Morphometry if you have all your morphometry files in a folder in the directory My Documents named Morphometry as suggested. Of course it could be any name you choose, but it pays to keep it simple and an easily remembered name.

Now click on **Import Data** and wait, then a report will appear informing you that the record cards that have been updated.

However, if you have more than 1 worksheet open and you try and run the import biometric data macro then the macro won't work if the ACTIVE workbook (the workbook you currently see) is not the BIBBA Stud Book

Queen Reference Numbers – Keep it simple

Using a simple system of queen reference numbers makes for easy entries. One can have complicated reference numbers that tell a story such as for example:- JD/GJ/02/56 this could mean a queen raised from John Dews stock mated or inseminated with drones from Griff Jenkins in the year 2002 and the queen being number 56 raised that year. But using this record card/stud book system all that information would be on a queen's record card anyway. Just using a queen reference number such as:- 02 56 for this would identify that number 56 queen was raised in 2002 and that reference would find that record card and the rest of the information would be there to see.

When entering queen reference numbers do not use / or \ or similar characters but 02 56 for example, to indicate that queen number 56 was raised in 2002. The queen could be marked with a numbered disc but this is not necessary as long the hive label has the queen reference number and there is a mark of some sort on the queen so if the queen is superseded by a new queen, it would be evident.

Examining the Record Cards

Going through the records is done by clicking on **BIBBA** then **Control Form**; this brings up a panel in the top left hand corner of the screen. Clicking on the down arrow reveals a list of record cards by Queen Ref. No.'s that can be scrolled through to find the record wanted, it also lists the stud book and the Last Visit Sheet.

Alternatively click on one of the sheet tabs at the bottom of the screen. These tabs have the queen ref. No.'s on them as tab names.

These notes have been written after carrying out the testing of the program and reporting any bugs found to Stephen.

I am prepared to answer any queries on problems encountered by any BIBBA members, but not non BIBBA members. As this program is free to anyone wishing to use it, this could mean potentially a very extensive usage that could create a workload I am not prepared to undertake.

BIBBA members wishing to contact me with queries on the program should write down all the steps they carried out leading up to the point when the problem occurred, and send me an E-mail with this information.

Albert Knight

BIBBA Groups Secretary

a.knight.blackbees@talk21.com

Diagrammatic Aid to Using The Stud Book

This is a quick guide to getting started, but do read the detailed instructions for a fuller explanation. See also the Diagrammatic aid below on how to transfer the morphometry data from files stored on your computer that are the results of using either the Beewings or Beemorph computer programs.

Click on BIBBA Stud Book Icon

Click on BIBBA on Toolbar

Click on Set Up Record Card Template

Click on Clear Traits

Click on down arrow on No.1 box and select trait, repeat for all 6 boxes

Click on Set Traits and exit this panel

Click on BIBBA on Toolbar and click on Set Up Stud Book

If the 6 traits you chose are in the order of importance you want click on Set Traits

If not in the order you want click on the down arrow of No.1 and set one of the 6 traits you chose, repeat until all 6 boxes have been done then click on Set Traits. The first three choices are the most important.

Click on BIBBA on Toolbar then on Create New Record Card

Fill in known details on first colony and then click on Create Sheet do not exit this form but enter the details of next colony and click on Create Sheet. Repeat ad infinitum

System is now ready to use. Enter colony assessments on the Last Visit Sheet. Print a copy of this sheet now if you want a copy. To transfer this data to the record cards click on BIBBA then on Last Visit Update, then on Update Record Cards

Stud Book is normally updated at the end of the season, but can be done at anytime. To do this click on BIBBA then on Update Stud Book. Best colonies appear at the top of the Stud Book and graded down to the worst.

How to import Morphometry results from files stored on your computer

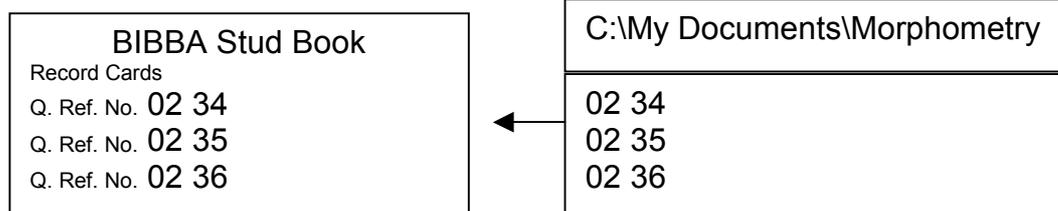
To use this facility the files containing the results of using the Beewings or Beemorph must have file names the same as the Queen Reference numbers of the record cards.

In the instructions given below an example has been used to show the morphometry files stored in a folder named Morphometry in My Documents

Import Biometric Data

Click on BIBBA
Click on Import Biometric Data
Select either Beewings or Beemorph
Click on Locate files
Type in Directory path
In this example the files are stored in C:\My Documents\Morphometry so this would mean typing in C:\My Documents\Morphometry
then click on Import Data
Now a report will come up informing you that the data that has been put in the record cards.

Example showing record cards with queen ref. numbers in the stud book with the same names as the morphometry files stored elsewhere on the computer.



The Cubital Indices (C.I.) and Discoidal Shift (D.S.) values will now have been inserted into the respective record cards.

When the Stud Book is Updated this also will have the C.I. and D.S. values shown.

Obviously if one does not use either Beewings or Beemorph programs and uses another method to obtain these values, they can be manually inserted into the record cards by clicking on the tab with the respective Queen Ref. number and entering the data in the spaces next to C.I. and D.S. This information will appear in the Stud Book when the Stud Book is updated.