BioStone ELISA

Version - Beta 0.93

Quick Guide

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1. Introduction

The BioStone AsurDx™ ELISA Analysis Software is a comprehensive analysis software developed exclusively for AsurDx™ ELISA Test kit users, who can safely store and analyze AsurDx™ ELISA test results. The software provides multiple templates for four different kinds of test kits (ruminant, poultry, swine, and equine). It can read data directly from some readers (such as BioTek reader), or users can manually input data. The software can generate data including OD values; titers; sample types; CV values; mean values; group number; and positive, negative, or doubtful test results. The software also supports five different languages.

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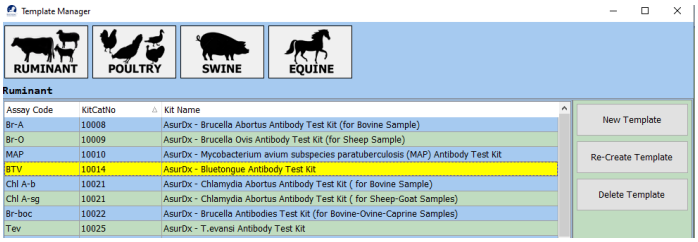
2. Template Preparation

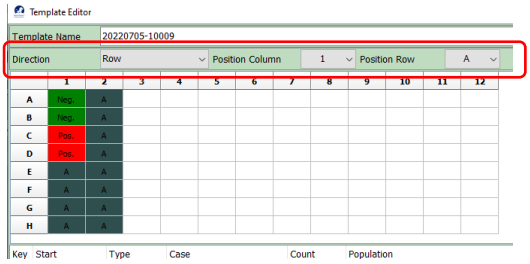
The template determines how you place the sample samples on the plate. So it's a compass that defines each pit. The creation of each template begins with an assay selection. So each template is only one kit and the sample test to be doneusing for. Before starting the Elisa test processes, it is important to create the template on the program and to make the physical layout suitable for this template. Some fields are required to be entered in the preparation of the template. Template Name, Owner, Case and Count fields.



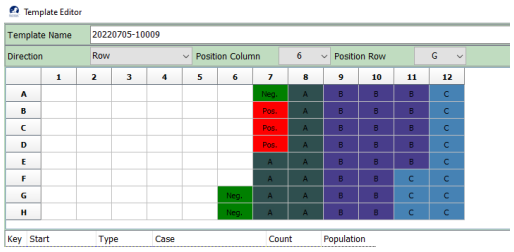
First choose a Kit Name. You can start preparing a template with the New Template button. Each template is associated with the selected kit.

2.1 Template Position selection

The Biostone ELISA program provides you with a flexible plate design. You can select the plate vertically or horizontally with ***Direction*** selection. With the ***Position Columb*** and ***Position Row*** selections, positive and negative controls, samples can be started from the desired coordinate. There may be cases where a whole plate is not used, or there may be cases where a plate is used several times.



Field Name	Entered Value
Direction	: Row *(Default)*
Position Column	: 1 *(Default)*
Position Row	: A *(Default)*



Field Name	Entered Value
Direction	: Row *(Default)*
Position Column	: 6
Position Row	: G

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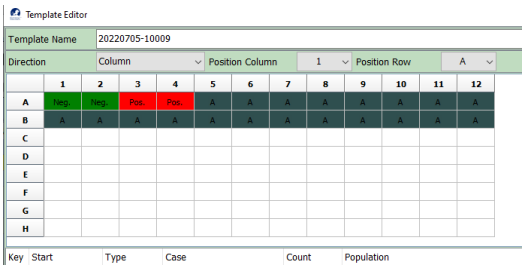
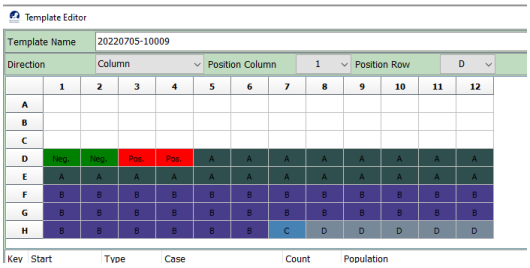


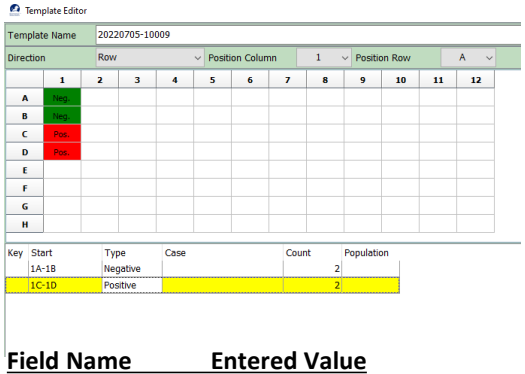
Field Name	Entered Value
Direction	: Column
Position Column	: 1 *(Default)*
Position Row	: A *(Default)*



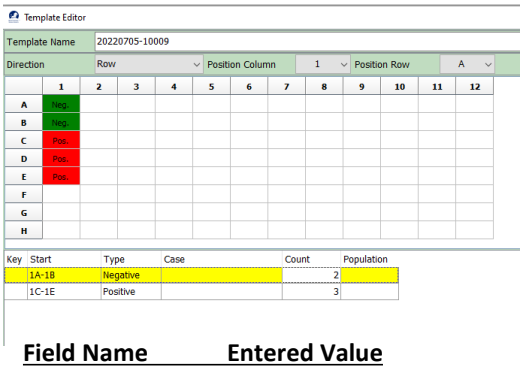
Field Name	Entered Value
Direction	: Column
Position Column	: 1 *(Default)*
Position Row	: D

2.2 Template of Positive and Negative Controls

The controls are always positioned at the available head of the plate. At least 1 negative and 1 positive control must be defined. By default, the program recommends working with at least 2 positive and 2 negative controls. The desired number can be entered in the count fields of the controls. Here are a few examples:



Field Name	Entered Value
Negative Count	: 2 *(Default)*
Positive Count	: 2 *(Default)*



Field Name	Entered Value
Negative Count	: 2 *(Default)*
Positive Count	: 3

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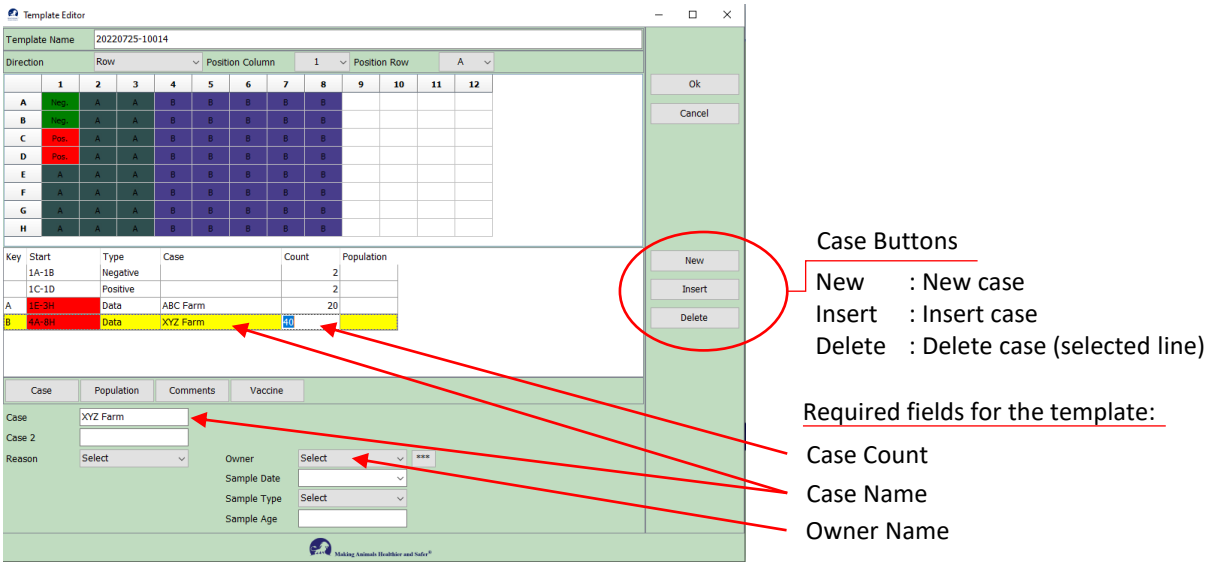
2.3 Case entry, change and delete

Samples should be grouped arbitrarily and each group should be expressed as a case. The number of samples belonging to the case is specified in the count field. No entry of a digit over the remaining number of wells on the plate is allowed. A case must contain at least 1 hole/area. Case name entry and Owner fields are required. The program does not allow to create a case if no data is entered in these two fields. Creates a new case line with the "New" button. It opens a blank line between "Insert" and two lines (case). The case selected with "Delete" is deleted.



2.4 Population, Comments and Vaccine data entry

The Case, Population, Comments and Vaccine tabs under the template contain the footer information of the selected case. This information is stored differently and specific to each case. It is reflected in the reports. Therefore, it is recommended that you create a separate Case for each of your test group samples and check the accuracy of the information in the tabs.

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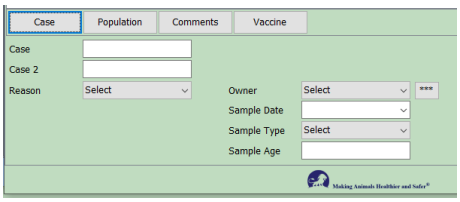
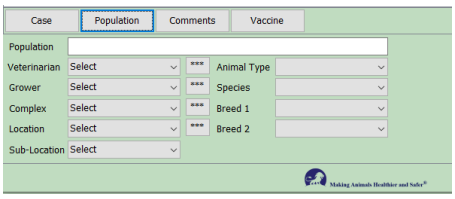
2. Template Preparation



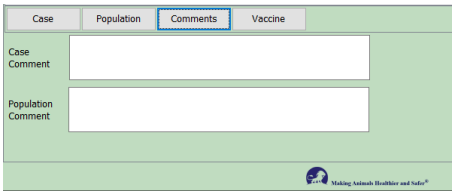
Case Tab :

Case	**: text**	**Owner**	**: select**
Case 2	: text	**Sample Date**	**: select**
Reason	: select	Sample Type	: select
		Sample Age	: text



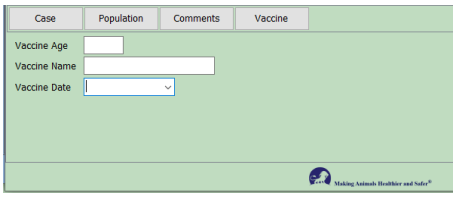
Population Tab :

Population	: text	Sub-Location	: select
Veterinarian	: select	Animal Type	: select
Grower	: select	Species	: select
Complex	: select	*Breed 1*	: select
Location	: select	*Breed 2*	: select



Comments Tab :

Case Comment	: text
Population Comment	: text



Vaccine Tab :

Vaccine Age	: text
Vaccine Name	: text
Vaccine Date	: select

Note : Bold texts are mandatory data entry fields. Other fields are optionally entered.

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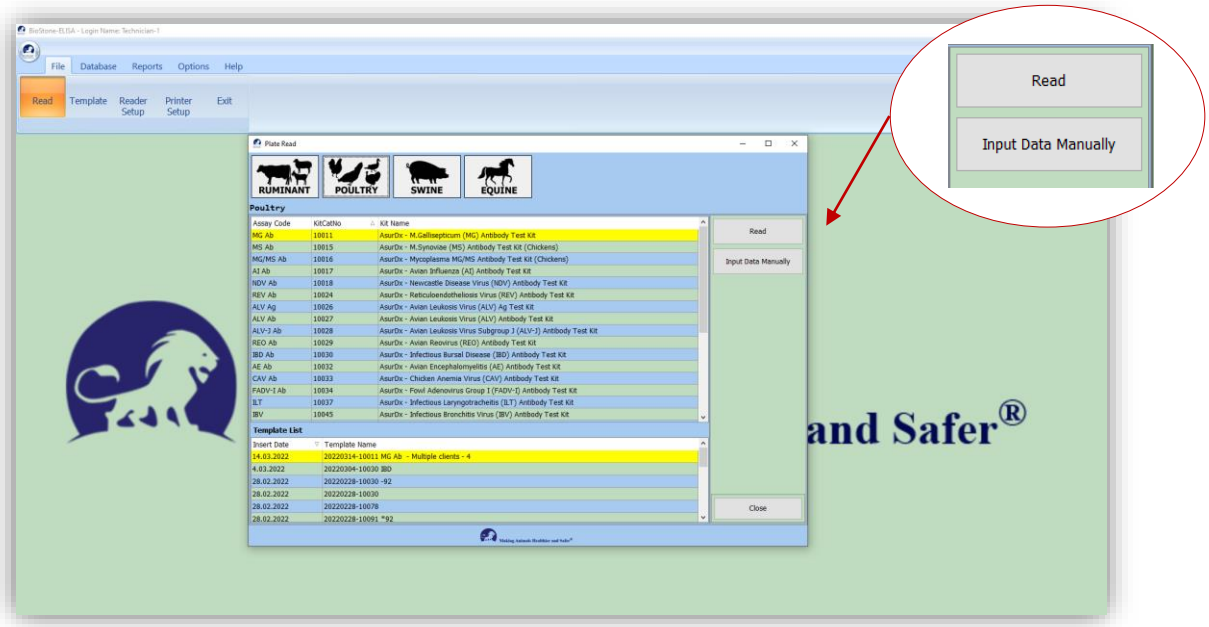
3. Reading and Saving

For the reading process, the kit to be used is selected first. (The selected kit is yellow).
As the second step, the template you have prepared before is selected under the screen. The prepared plate is placed at the entrance of the reader device. After checking and making sure of these steps, the 'Read' button is pressed and it reads. The Biostone ELISA program selects the correct filter according to the selected kit. The user is warned by giving the selected kit, template and filter value on a warning screen. With the confirmation to be given to the warning, the reading starts. If the device is not set to the correct value or if there is a problem, the program will not continue reading. Gives a warning. As a result of the reading made under the right conditions, the values read are displayed on the screen.

For alternative situations, the program also has a manual data entry option. Readings made with the OD value reading programs of the reader manufacturers can be entered by copy/paste from the manual entry section of the program.

If a wrong kit or template was selected, repeat the reading with the correct selections.



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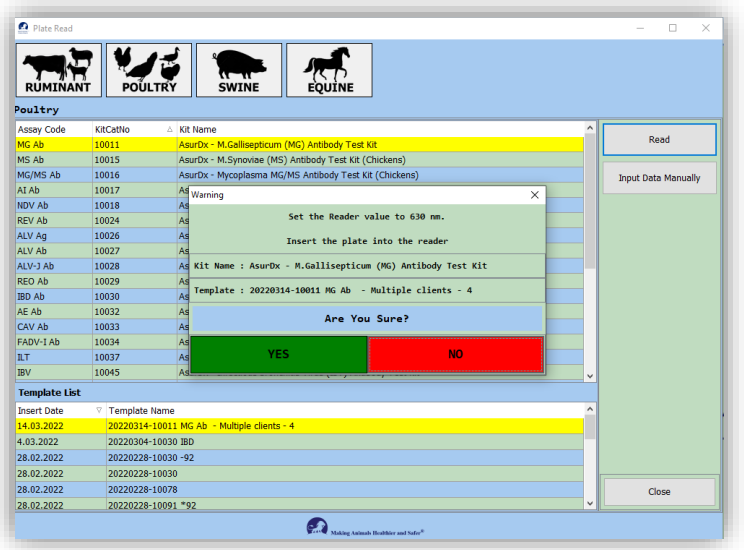
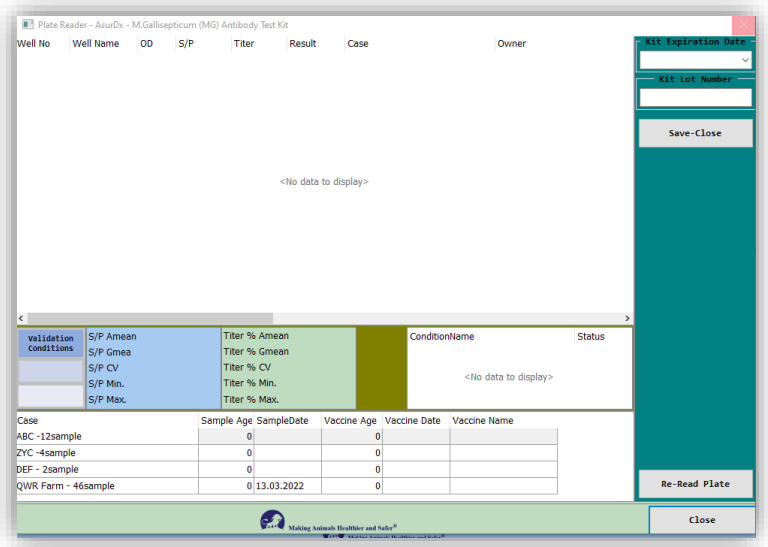
3.1 Reading with a reader device:

Step-1

- The reader is turned on and the plate is placed in the reader.
- Assay group is selected. (Ruminant / Poultry / Swine / Equine)
- The kit to be used is selected. (In the example 10011 MG Ab was selected.)
- The template selected. (In the example 20220314-10011 MG Ab.. was selected.)
- Press the 'Read' button.
- The program displays the selected Kit and Template name and asks for confirmation.
- If your selections in the warning message are correct, the reading is started by clicking the YES button. If you want to make corrections in your selections, NO is selected.



- The scanning process may take 1 minute or more.
- The following screen is displayed while reading.
- In case of error or problem, it can be read again with the 'Re-Read Plate' button.



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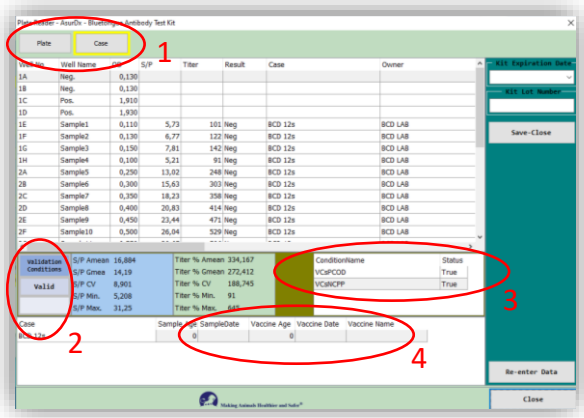
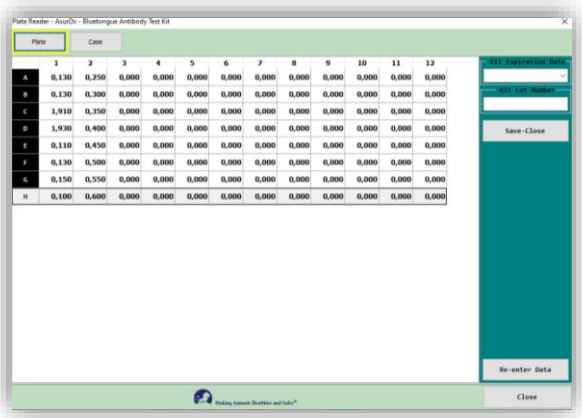
3.1 Reading with a reader device:

Step-2 OD values read from the reader can be examined here.
See the readings on the plate design figure. (Plate button) (*1*)
If the test validation is correct, "Validation Conditions : Valid" is displayed. (*2*)
Vaccination information for each ''Case'' can be optionally entered at the bottom of the screen. (*4*)

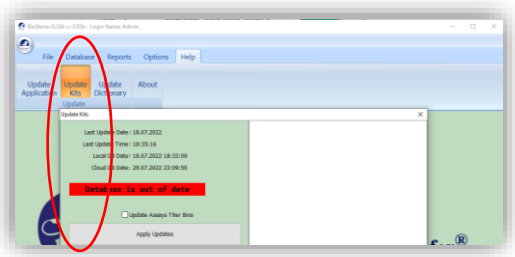




CAUTION :

''Validation Conditions: Valid'' and ''Control Conditions: True'' (2-3).
The following checks are made for different situations and the reading is repeated:

- Check the template design and check that the Pos-Neg controls are in the correct wells.
- Is the Reader working normally? See warnings on the Reader screen.
- When was the last time you updated the kit? Work with the latest updates by 'Kit Update' (5) with the admin user in the program.



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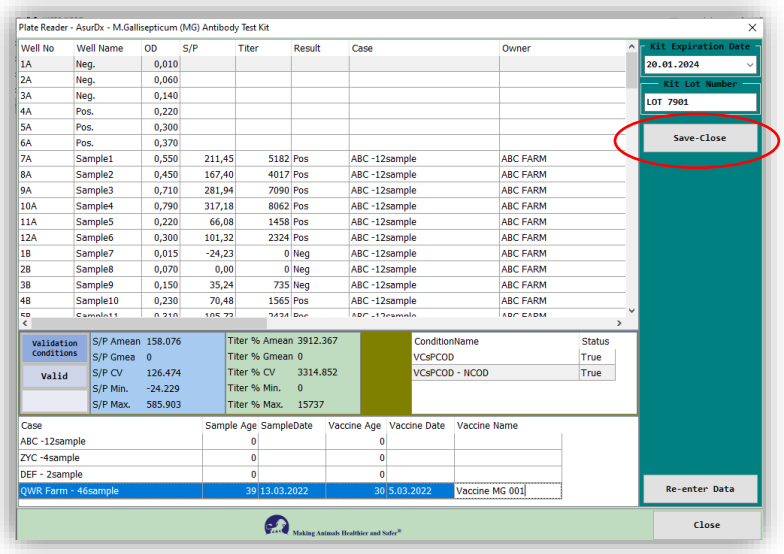
3.1 Reading with a reader device:

Step-3 ‘Kit Expiration Date’ and ‘Kit Lot Number' fields must be filled in mandatory. Press the ‘Save-Close' button to save the transaction.



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3.2 Manual Read – Copy/Paste :

Step-1 Copy the data in the Excel or other file.
Select the cells of the plate (Green fields). Save it with Ctrl+C.

AsurDx™ M. Gallisepticum (MG) Antibody Test Kit

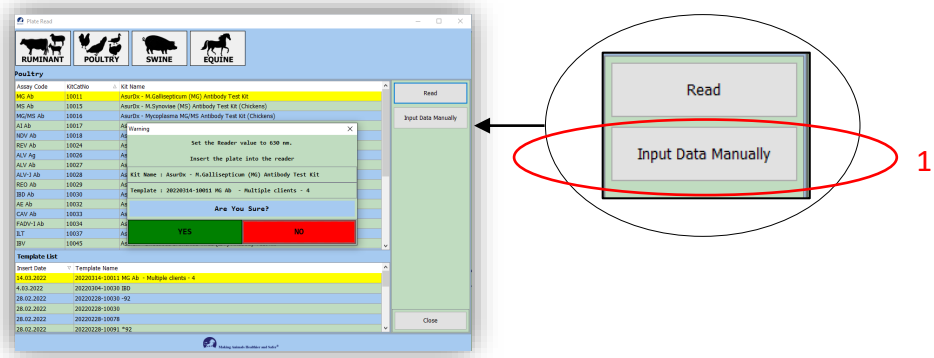
PLATE LAYOUT DIAGRAM

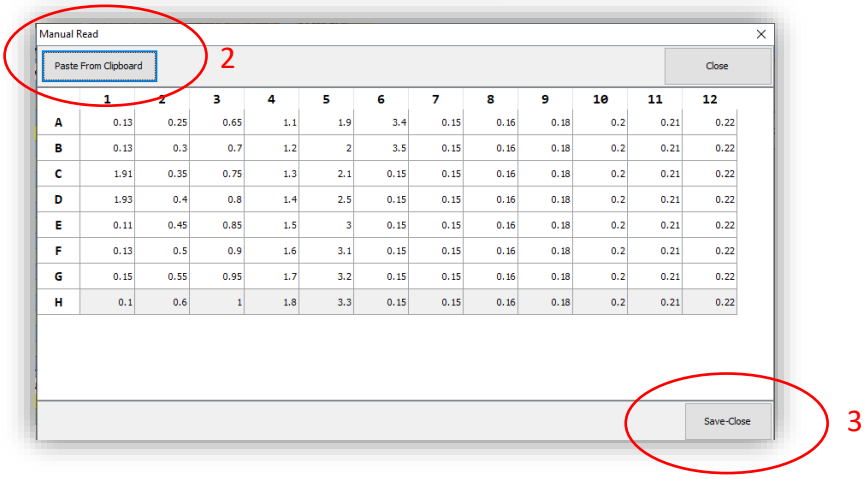
	1	2	3	4	5	6	7	8	9	10	11	12
A	Neg1	Sample5	Sample13	Sample21	Sample29	Sample37	Sample45	Sample53	Sample61	Sample69	Sample77	Sample85
B	Neg2	Sample6	Sample14	Sample22	Sample30	Sample38	Sample46	Sample54	Sample62	Sample70	Sample78	Sample86
C	Pos1	Sample7	Sample15	Sample23	Sample31	Sample39	Sample47	Sample55	Sample63	Sample71	Sample79	Sample87
D	Pos2	Sample8	Sample16	Sample24	Sample32	Sample40	Sample48	Sample56	Sample64	Sample72	Sample80	Sample88
E	Sample1	Sample9	Sample17	Sample25	Sample33	Sample41	Sample49	Sample57	Sample65	Sample73	Sample81	Sample89
F	Sample2	Sample10	Sample18	Sample26	Sample34	Sample42	Sample50	Sample58	Sample66	Sample74	Sample82	Sample90
G	Sample3	Sample11	Sample19	Sample27	Sample35	Sample43	Sample51	Sample59	Sample67	Sample75	Sample83	Sample91
H	Sample4	Sample12	Sample20	Sample28	Sample36	Sample44	Sample52	Sample60	Sample68	Sample76	Sample84	Sample92

OD630 INPUT

	1	2	3	4	5	6	7	8	9	10	11	12
A	0,01	0,06	0,14	0,22	0,3	0,37	0,55	0,45	0,71	0,79	0,22	0,3
B	0,015	0,07	0,15	0,23	0,31	0,38	0,56	0,46	0,72	0,8	0,23	0,31
C	0,7	0,08	0,16	0,24	0,32	0,39	0,57	0,47	0,73	0,9	0,24	0,32
D	0,72	0,09	0,17	0,25	0,33	0,4	0,58	0,48	0,74	1	0,25	0,33
E	0,02	0,1	0,18	0,26	0,34	0,41	0,59	0,49	0,75	1,1	0,26	0,34
F	0,03	0,11	0,19	0,27	0,35	0,42	0,6	0,5	0,76	1,2	0,27	0,35
G	0,04	0,12	0,2	0,28	0,36	0,43	0,61	0,6	0,77	1,3	0,28	0,36
H	0,05	0,13	0,21	0,29	0,365	0,44	0,62	0,7	0,78	1,4	0,29	0,365

Step-2
- Press the "Input Data Manually" button(1) to reach the manual data entry screen.
- Paste the data by pressing the “Paste from Clipboard” button(2) at the top of the “Manual Read” screen. Or write the data in each well.
- Then finish the recording process by pressing the ’’Save Close’’ button(3).





	1	2	3	4	5	6	7	8	9	10	11	12
A	0.13	0.25	0.65	1.1	1.9	3.4	0.15	0.16	0.18	0.2	0.21	0.22
B	0.13	0.3	0.7	1.2	2	3.5	0.15	0.16	0.18	0.2	0.21	0.22
C	1.91	0.35	0.75	1.3	2.1	0.15	0.15	0.16	0.18	0.2	0.21	0.22
D	1.93	0.4	0.8	1.4	2.5	0.15	0.15	0.16	0.18	0.2	0.21	0.22
E	0.11	0.45	0.85	1.5	3	0.15	0.15	0.16	0.18	0.2	0.21	0.22
F	0.13	0.5	0.9	1.6	3.1	0.15	0.15	0.16	0.18	0.2	0.21	0.22
G	0.15	0.55	0.95	1.7	3.2	0.15	0.15	0.16	0.18	0.2	0.21	0.22
H	0.1	0.6	1	1.8	3.3	0.15	0.15	0.16	0.18	0.2	0.21	0.22

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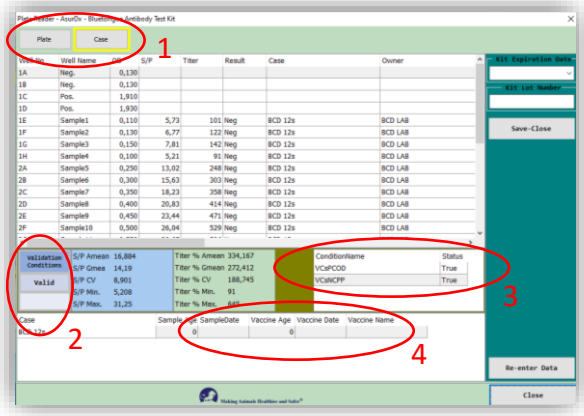
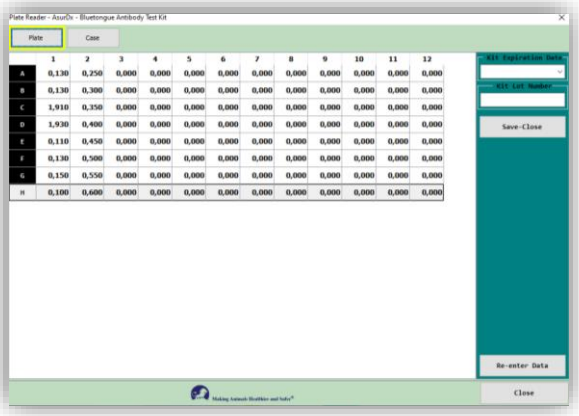
3.2 Manual Read – Copy/Paste :

Step-3 OD values read from the reader can be examined here.
See the readings on the plate design figure. (Plate button) (*1*)
If the test validation is correct, "Validation Conditions : Valid" is displayed. (*2*)
Vaccination information for each ''Case'' can be optionally entered at the bottom of the screen. (*4*)

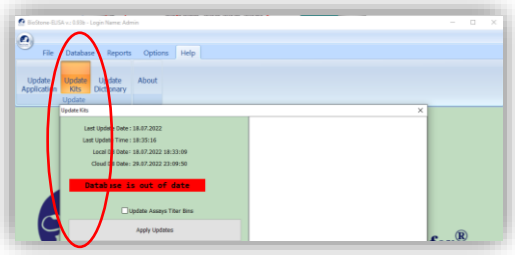




CAUTION :

''Validation Conditions: Valid'' and ''Control Conditions: True'' (2-3).
The following checks are made for different situations and the reading is repeated:

- Check the template design and check that the Pos-Neg controls are in the correct wells.
- Is the Reader working normally? See warnings on the Reader screen.
- When was the last time you updated the kit? Work with the latest updates by 'Kit Update' (5) with the admin user in the program.



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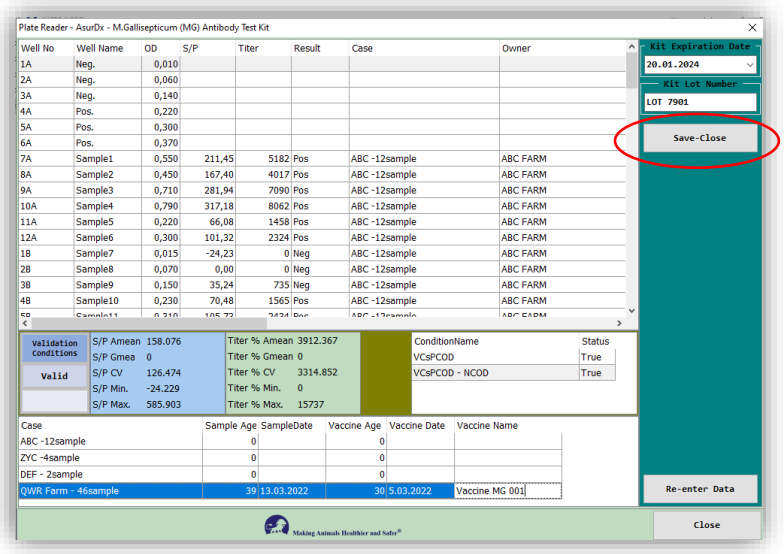
3.2 Manual Read – Copy/Paste :

Step-4 ‘Kit Expiration Date’ and ‘Kit Lot Number' fields must be filled in mandatory. Press the ‘Save-Close' button to save the transaction.



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4.Generating Reports

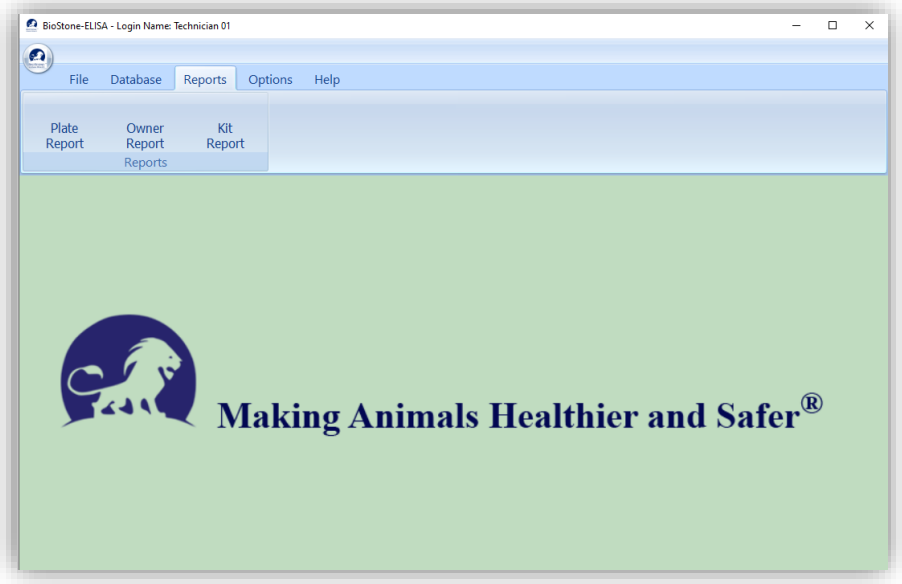
Report production is grouped under three main headings. In all report types, all readings made according to the entered date range are displayed, allowing the technician to make selections at each step.

Plate Report : Generates a special or detailed report for a plate. It does not distinguish between cases or customers.

Owner Report : Only the selected customer in the selected plate for reporting receives specific reporting. Useful when there is more than one customer sample on a plate. Recommended to avoid possible confusion. By selecting one or more customers, collective reports can be obtained in summary or in detail.

Kit Report: It is a reporting form developed for the laboratory that performs the test. It can report all the readings made for the selected kits.

New options can be added to the Biostone ELISA report section based on customer feedback. You can have the updates with the 'Program Update' option.



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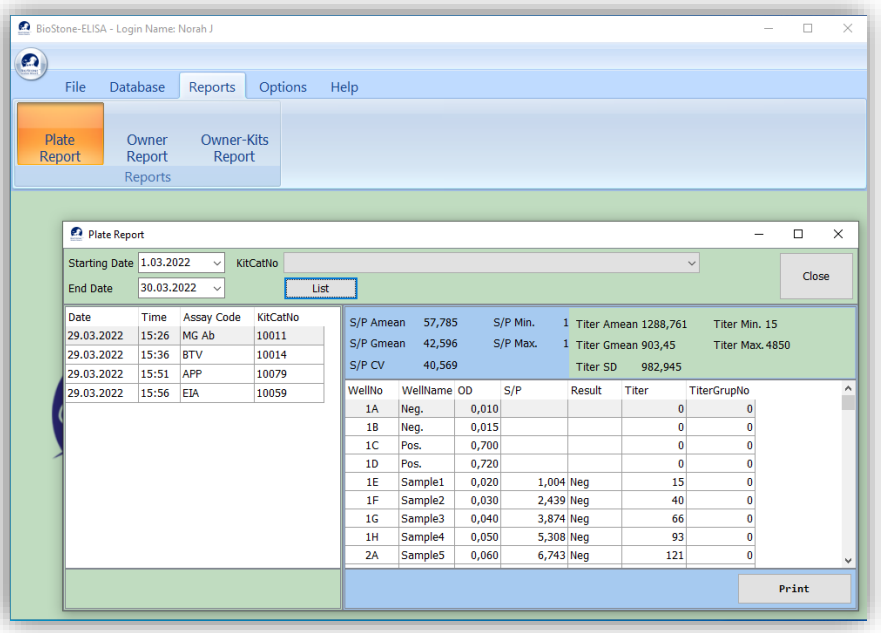
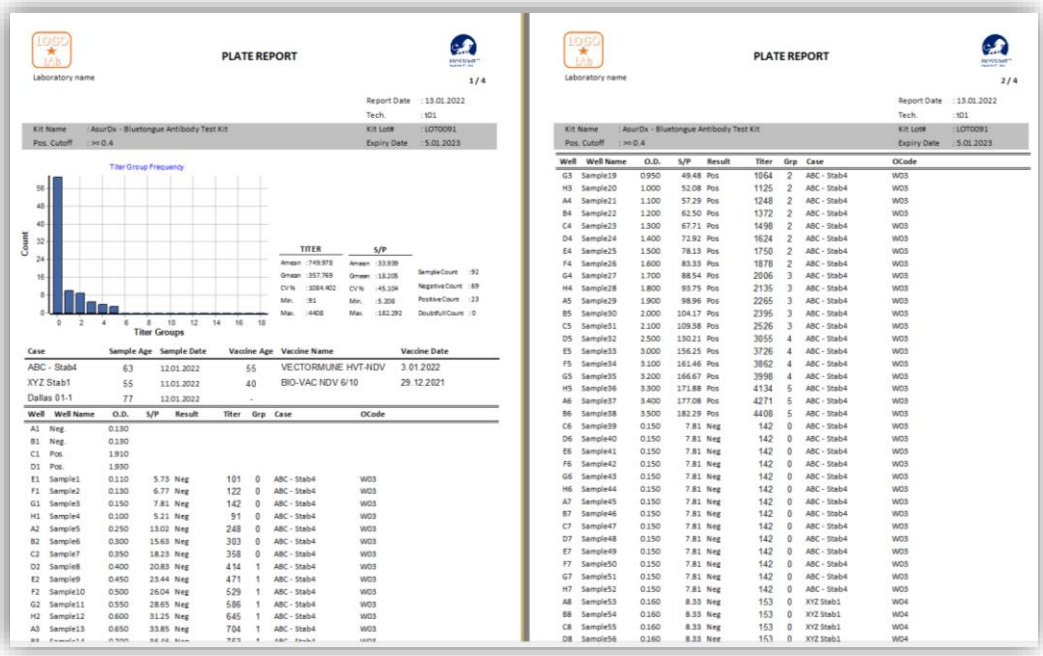
4.1 Plate Report

Generates a special or detailed report for a plate. It does not distinguish between cases or customers.



Existing reports are displayed by selecting ''Starting Date'' and ''End Date'' and ''Kit No''.
If the ''List'' button is pressed without making any selection, the reports of the day are listed.
Press the 'Print' button for the preview report.
You can save the report as a PDF or send it directly to the printer.



'Plate Report' outputs the entire plate report regardless of customer(owner).
Use other reports for customer-specific evaluation.

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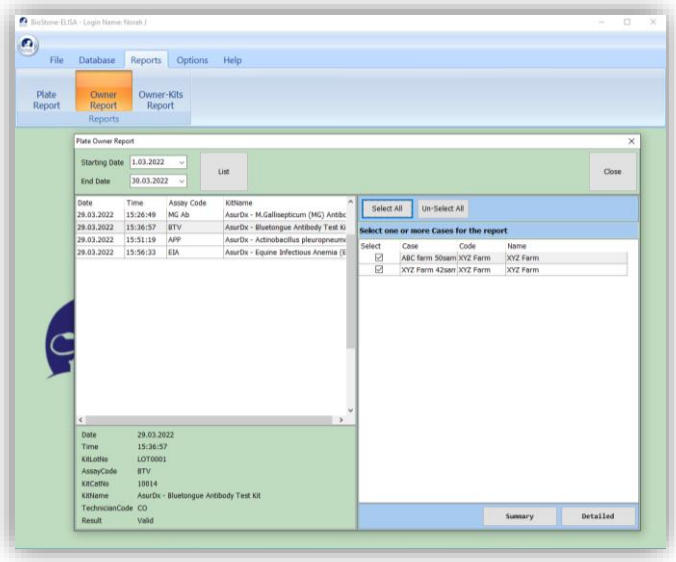
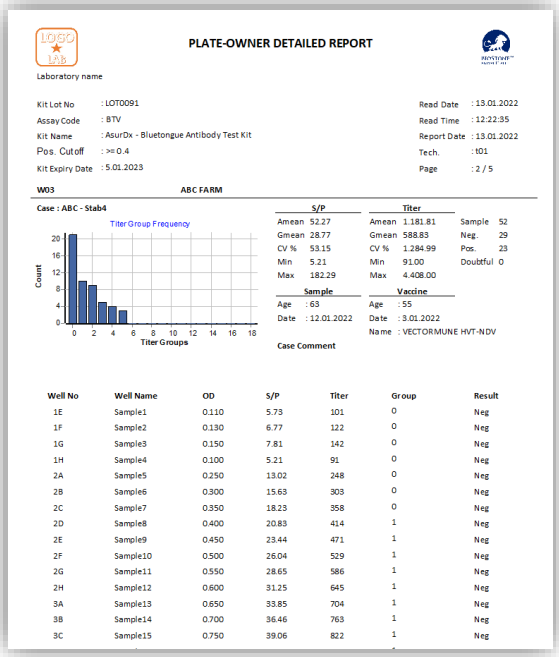
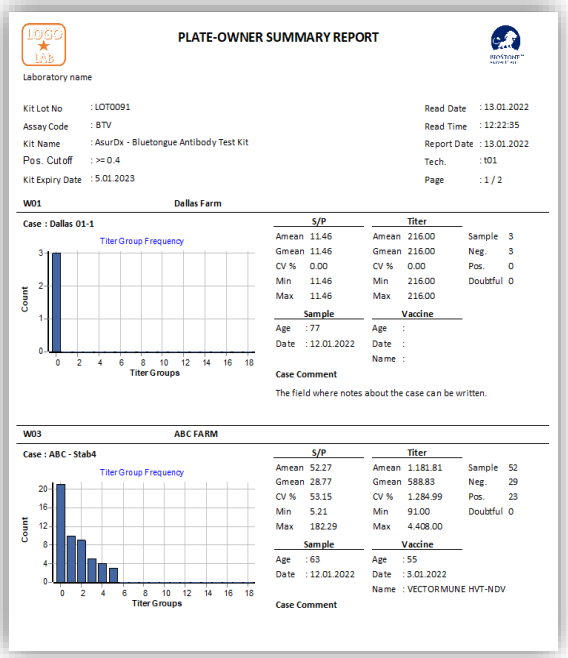
4.2 Owner Report

Only the selected customer in the selected plate for reporting receives specific reporting. Useful when there is more than one customer sample on a plate. Recommended to avoid possible confusion. By selecting one or more customers, collective reports can be obtained in summary or in detail.



Available reports are displayed by selecting “Start Date” and “End Date”. If the "List" button is pressed without making any selection, the reports of the day are listed. A report is selected from the list on the left. Customers included in the selected report are displayed on the right screen. By selecting one or more customers, the report of that customer is selected. Press the "Detailed" or "Summary" button for the report. You can save the report as a PDF or send it directly to the printer.





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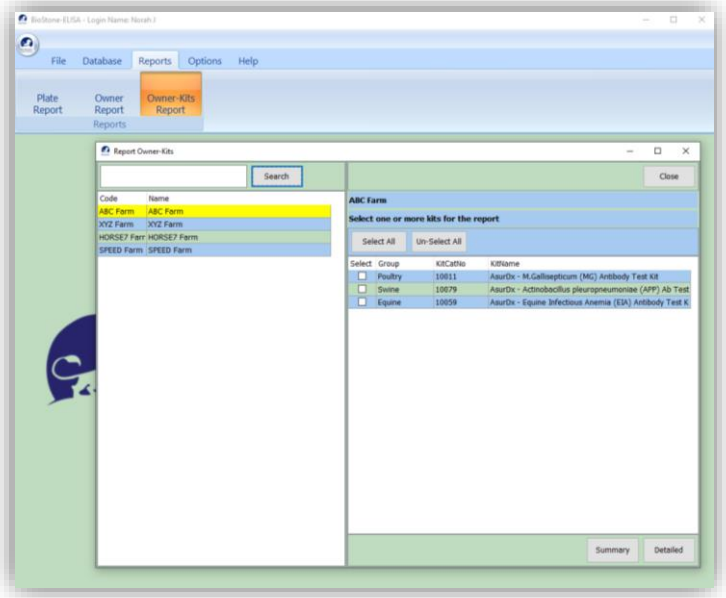
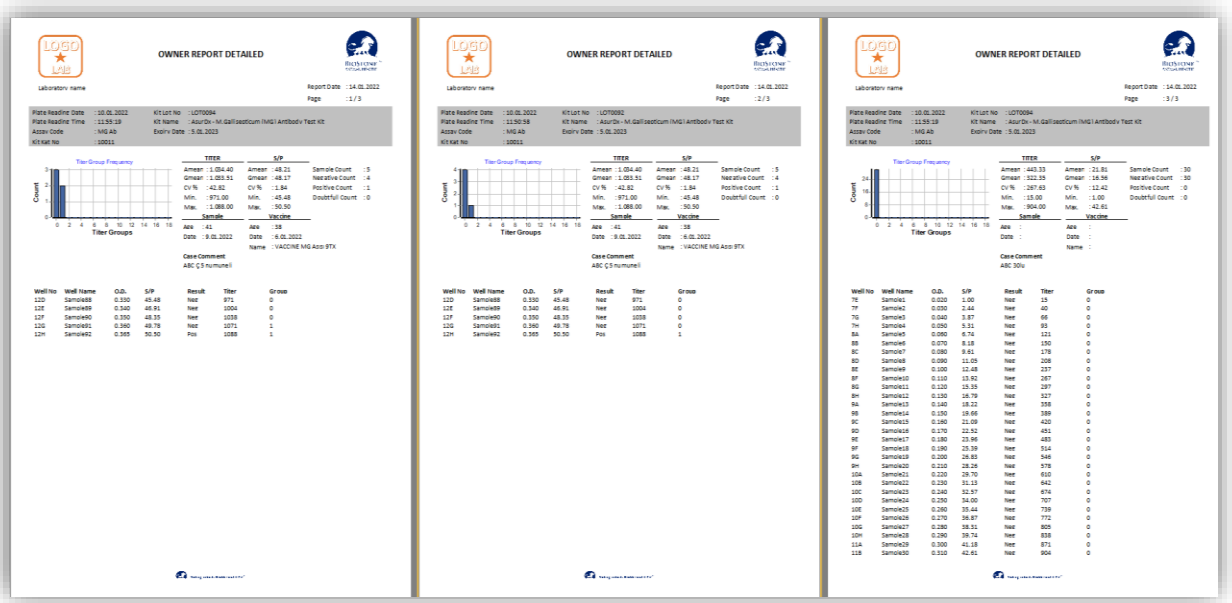
4.3 Kit Report

It is a reporting form developed for the laboratory that performs the test. It can report all the readings made for the selected kits.



As a first step, one or more customers (Owners) are selected. If there are registered tests belonging to the selected customer, the results are listed in the right section. A report can be obtained by selecting one or more of the listed results. The received report includes all reports of the selected customer and kit (If you want to report for a single scan, use the 'owner' reporting).
Press the "Detail" or "Summary" button for the report. You can save the report as a PDF or send it directly to the printer.



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5. Update & Backup

5.1 Update

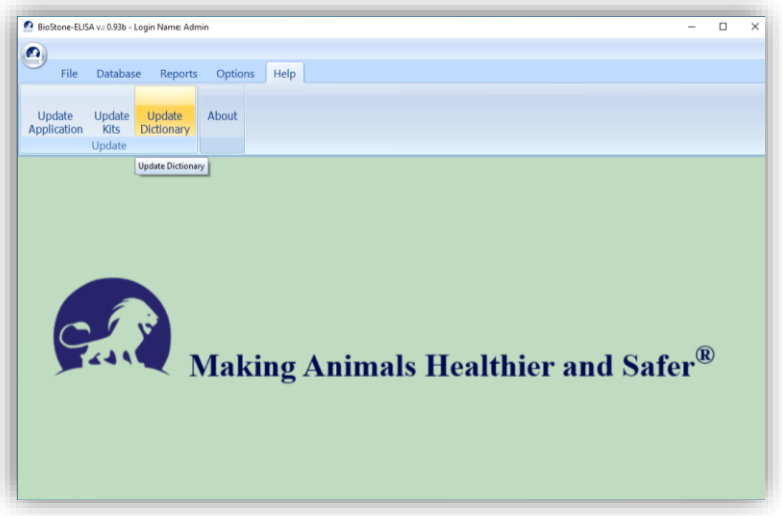
Updates collected in three main groups are made only with admin user.

Update Application: The latest changes in the program (such as menus, calculations, reader presentation) are accessed.

Update Kit: The final state of the values known as kit constants (Cutoff, formula, titer groups etc.) is reached. If the values in the manual of the kit you will use are different from the values in the program, you need to update.

Update Dictionary: The program supports five different languages. It can be used to access updates to the language library.

The Biostone ELISA program continues to work without an internet connection. However, it requires an internet connection for the latest status updates. Updates can take a minute or two at an average connection speed.



5.2 Backup

Back up the folder where your Biostone ELISA program is located by zipping (zip, rar).
Program and data will be backed up with the "**C:/Biostone**" folder.

When you want to open your backup file, you can open it by giving a new folder name in the root of your PC (Example: C:\Biostone-Backup1).

To access the data in your backup file, you will need to run the exe in the folder you just opened (Example: C:\Biostone-Backup1\Elisa\BiostoneELISA.exe).

You cannot access your backups with the program shortcut on the desktop. Backups will only work on the backed up PC. You will not be able to access your data with a restore on another PC.

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