

faoswsStandardization: pullDataToSUA plugin

Cristina Muschitiello

Food and Agriculture Organization of the United Nations

31 May 2018

Abstract

This vignette provides a description of the data Pulling Procedure: it is the module that pull the data from different data-sets of different domains, inside the table **sua_unbalanced**, starting point of the overall Standardization and Balancing procedure.

Contents

Disclaimer	2
The Data flow	3
Plug-in	3
1 Log-in in the SWS	4
2 Open a new Session	4
3 Define dimendions of the session	5
4 Make an run the query	6
5 The session	9
6 Open the plug-in window.	10
7 Launch Plug-in.	12
8 Session updated	13
9 Save back to the database	13

List of Figures

1	Data pulling	3
2	Log-in in the SWS	4
3	Open a new Session	4
4	Select Domain	5
5	Select Dataset	5
6	Select Country/ies	6
7	Select all Elements	7
8	Select items and years	8
9	Run query	8
10	Execution run	9
11	The new Session	9
12	Plug-in botton	10
13	Plug-in window	10
14	Select Plug-in	11
15	Select other parameters	11
16	Launch plug-in	12
17	End of plug-in run	12
18	Updated session	13
19	Save to Database	13

Disclaimer

This Working Paper should not be reported as representing the official view of the FAO. The views expressed in this Working Paper are those of the author and do not necessarily represent those of the FAO or FAO policy. Working Papers describe research in progress by the authors and are published to elicit comments and to further discussion.

This paper is dynamically generated on May 31, 2018 and is subject to changes and updates.

The Data flow

This is the first step of the Standardization and Balancing, the step in which data coming from all output dataset are combined in another dataset, which will be the starting point of the following step. It is represented in figure 1

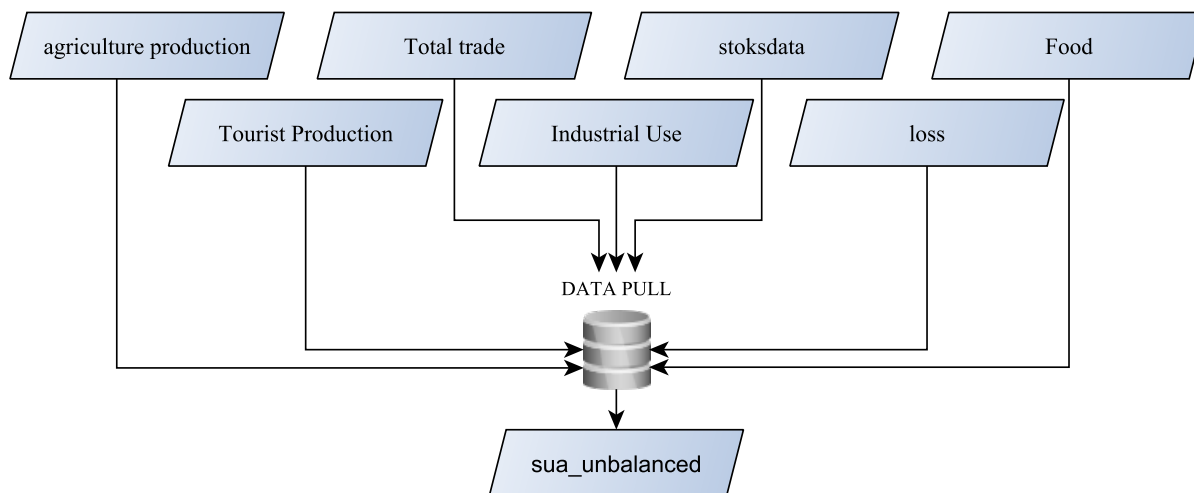


Figure 1: Data pulling

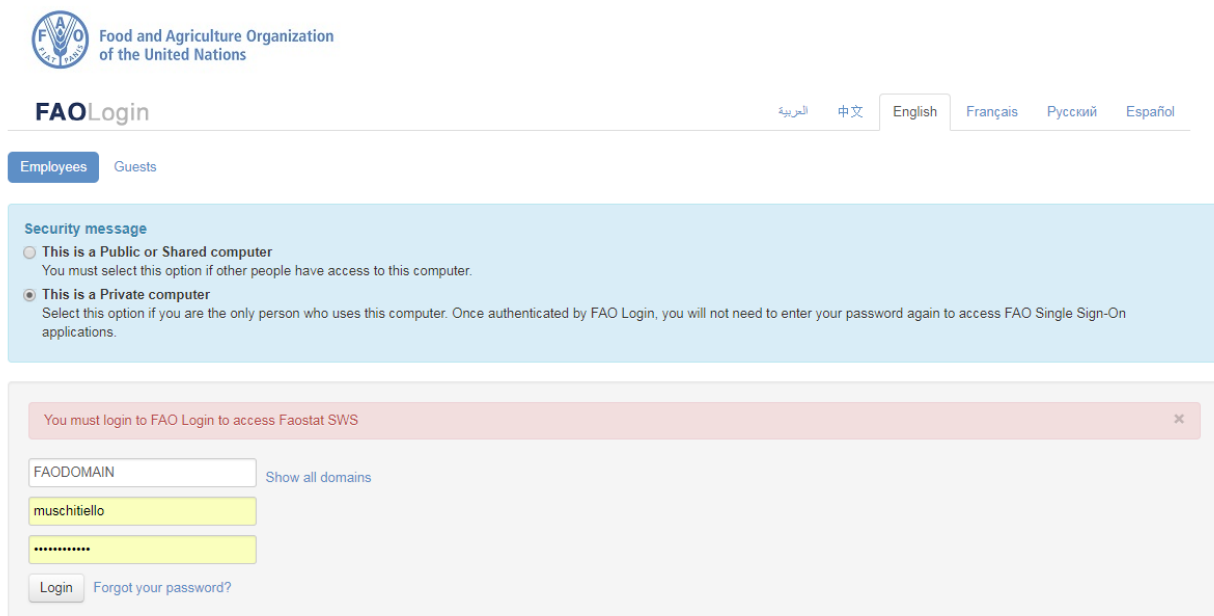
Notice that, from *agriculture production* the following Data are pulled:

- crop production,
- livestock,
- milk and eggs,
- production of derived commodities,
- seed,
- feed.

Plug-in

A general description of all the objects of the SWS is given in the document *Food Balance Sheet workflow in the Statistical Working System*. A plug-in, in this framework, is an executable process. In this document, the steps for executing the *pullDataToSUA* plugin are explained:

1 Log-in in the SWS



The image shows the FAO Login page. At the top is the FAO logo and the text "Food and Agriculture Organization of the United Nations". Below this is the "FAOLogin" header. On the right, there are language links: العربية, 中文, English, Français, Русский, and Español. Below the header, there are two tabs: "Employees" and "Guests". A "Security message" box contains two radio buttons: "This is a Public or Shared computer" and "This is a Private computer". Below this is a red error message: "You must login to FAO Login to access Faostat SWS". At the bottom, there is a login form with fields for "FAODOMAIN" (containing "muschitiello") and "Password" (masked with dots). There is a "Login" button and a "Forgot your password?" link.

Figure 2: Log-in in the SWS

2 Open a new Session



Figure 3: Open a new Session

3 Define dimendions of the session

For the Pulling of the data, a session has to be opened in the *target* dataset, which is the *suaafs:sua_unbalanced*. Therefore *SUA/FBS* domain and *sua_unbalanced* have to be selected from the screen:

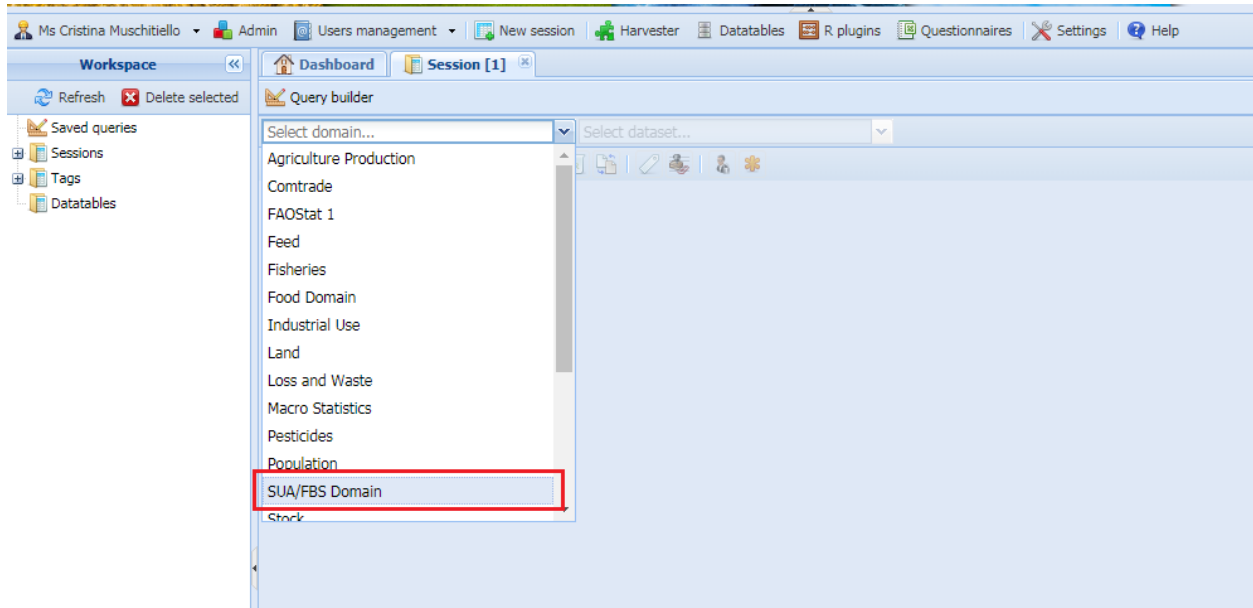


Figure 4: Select Domain

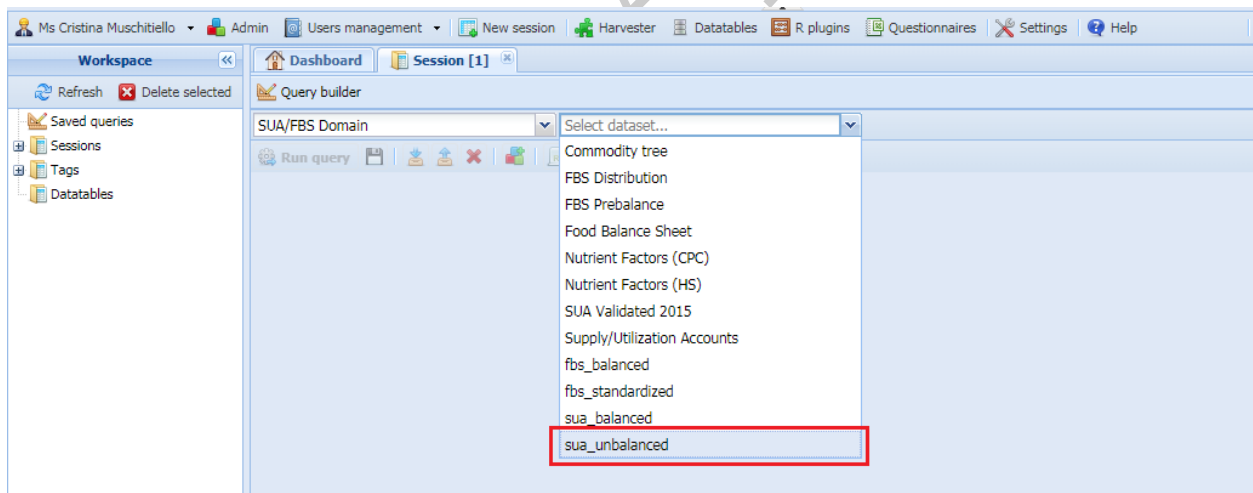


Figure 5: Select Dataset

4 Make an run the query

The query has to be done only on the country for which the Pull data has to be performed. Indeed the plugin could be performed on one of the two following set of countries: *session Countries* or *all countries*. In this example *China, Mainland* is selected.

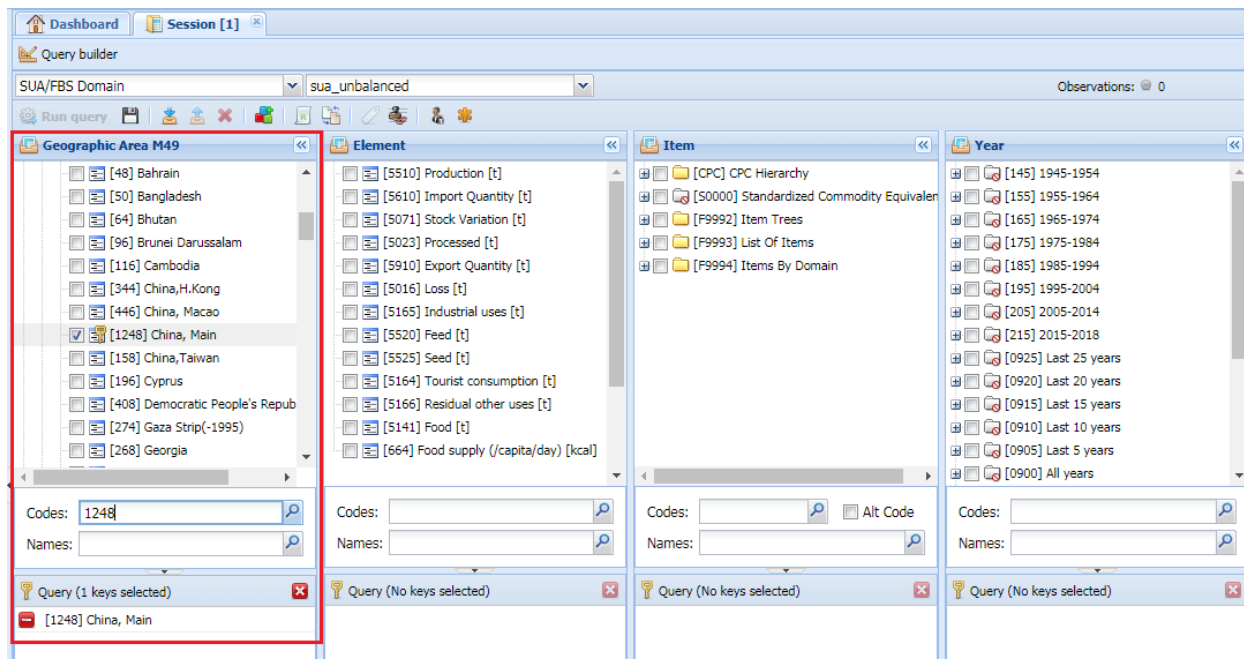


Figure 6: Select Country/ies

All elements here have to be selected (figure 7) and all items(8). The years to be selected depend on the interest of the user.

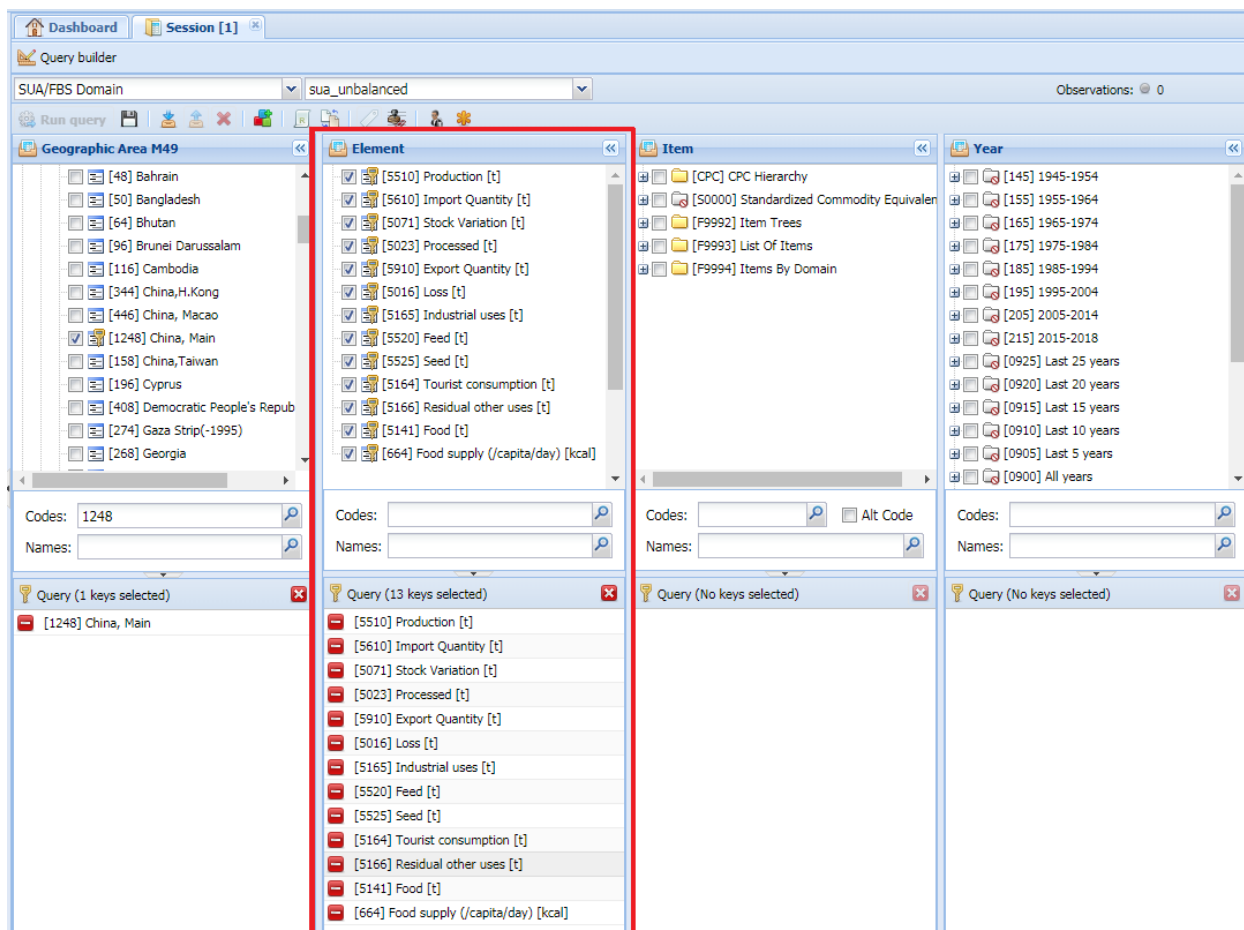


Figure 7: Select all Elements

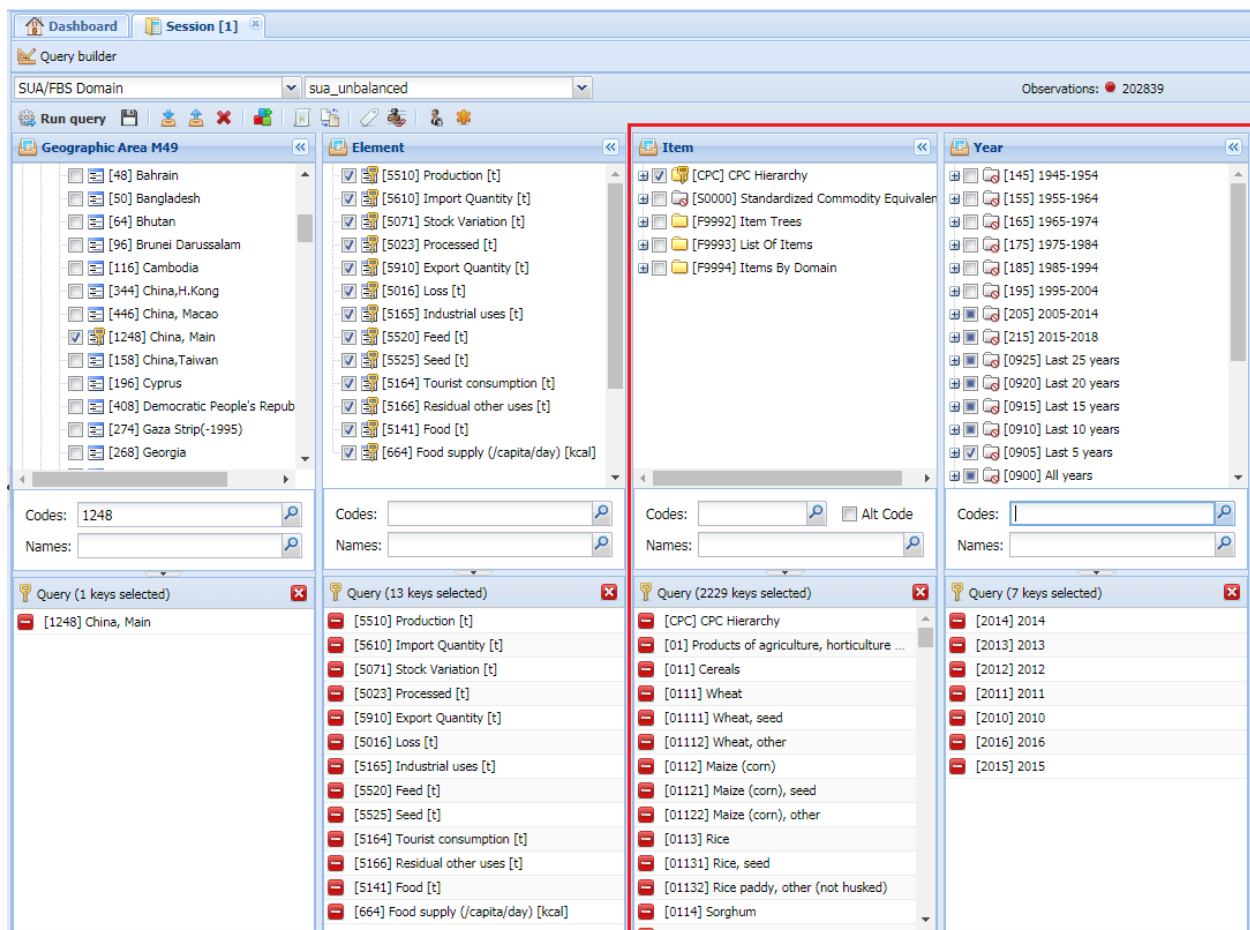


Figure 8: Select items and years

When all Variables have been defined, the query can be run:

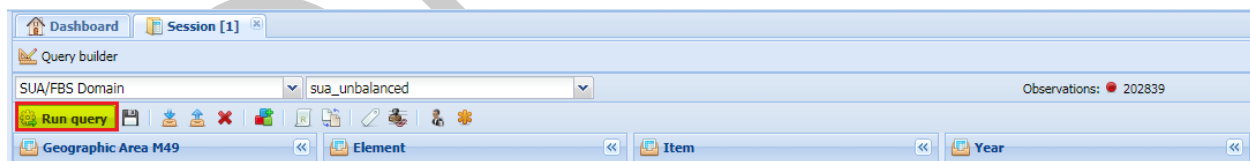


Figure 9: Run query

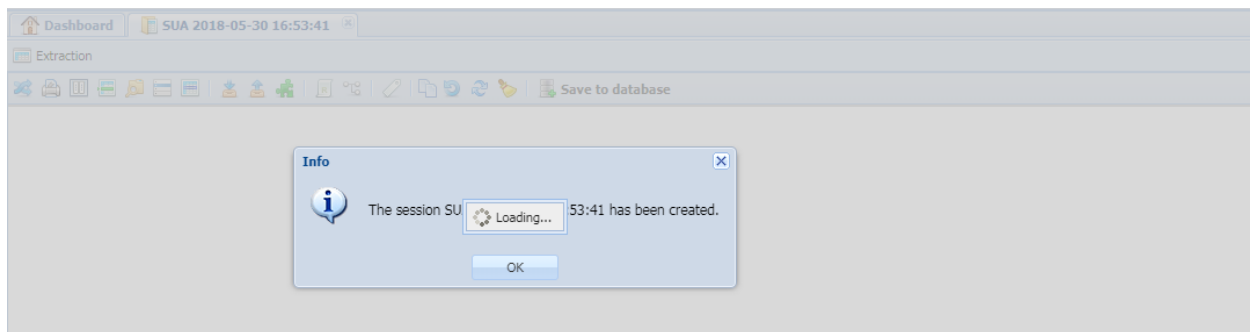


Figure 10: Execution run

5 The session

The new session is reported in figure 11. Items are in the “codelis order”, which means in the way they are stored in the SWS. This means that they have a numerical order but there might be some codes in a position not consistent with their number, just because they have been inserted in a different moment in the codelist.

Geographic Area M49, Item	[2010] 2010	[2011] 2011	[2012] 2012	[2013] 2013	[2014] 2014	[2015] 2015	[2016] 2016
[1248] China, Main, [23511.02] Cane sugar, non-centrifugal							
[5510] Production [t]	432,000 I i	436,000 I i	440,000 I i	440,000 I i	387,084 I e	348,470 I e	32
[5520] Feed [t]							
[5141] Food [t]	432,000 I b	436,000 I b	440,000 I b	440,000 I b	387,084 I i	348,470 I i	32
[5164] Tourist consumption [t]					-99.76 I e	-161 I e	
[664] Food supply (/capita/day) [kcal]	3.116 I i	3.125 I i	3.134 I i	3.115 I i			
[1248] China, Main, [0111] Wheat							
[5510] Production [t]	115,181,000 -	117,410,000 -	120,580,000 -	121,926,400 -	126,208,400 p	130,185,000 q	128,84
[5610] Import Quantity [t]	1,218,722 -	1,248,822 -	3,688,617 -	5,506,712 -	2,971,249 s	2,971,794 s	3,37
[5071] Stock Variation [t]	6,089,710 I b	-5,990,972 I b	135,823 I b	1,782,592 I b	1,120,565 I i	614,435 I i	-14
[5910] Export Quantity [t]	12 T -	39,794 -	39,794 E t	2,520 -	957.5 s	5,296 s	1
[5520] Feed [t]	13,500,000 T -	26,000,000 T -	24,500,000 E f	25,500,000 E f	29,181,617 I e	29,776,854 I e	28,66
[5525] Seed [t]	4,690,000 T -	4,690,000 T -	4,580,000 T -	4,600,000 E f	4,277,567 I e	4,286,805 I e	4,25
[5016] Loss [t]	2,585,000 T -	2,635,000 T -	2,663,000 T -	2,678,000 T -	2,713,000 E f	2,900,000 E f	5,86
[5023] Processed [t]	86,800,000 E f	88,500,000 E f	89,500,000 E f	90,000,000 E f			
[5165] Industrial uses [t]	2,735,000 T -	2,785,000 T -	2,850,000 T -	2,870,000 T -	2,985,279 E e	3,077,089 E e	3,05
[1248] China, Main, [0112] Maize (corn)							
[5510] Production [t]	177,425,000 -	192,781,000 -	208,130,000 -	218,489,000 -	215,646,300 q	224,630,000 q	219,55
[5610] Import Quantity [t]	1,572,394 -	1,752,825 -	5,207,111 -	3,264,886 -	2,598,461 s	4,728,587 s	3,16
[5071] Stock Variation [t]	8,378,079 I b	8,395,828 I b	10,852,848 I b	8,509,260 I b	-37,733 I i	1,716,991 I i	-1,02
[5910] Export Quantity [t]	127,315 -	135,997 -	257,263 -	77,626 -	20,006 s	11,067 s	
[5520] Feed [t]	114 500 000 E f	125 000 000 E f	140 000 000 E f	150 000 000 E f	143 788 614 E e	151 117 420 E e	146 74

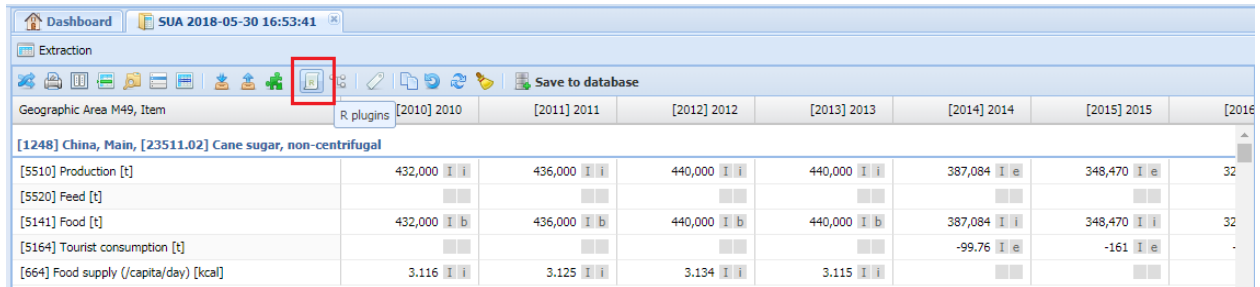
Figure 11: The new Session

At the moment this dataset is filled with data coming from the old system (dataset “suaValidated2015”), from 2010 to 2013 for **all countries**. On these set of data, some changes are made from the users when the FBS

are validated. If a data pull is performed in this time range for these countries, the data taken from old system would be overwritten. Is very important to look at the hystory of data and ask for clarofocation to the las persons who saved data.

6 Open the plug-in window.

For run the plug-in first the window for the plug-in selection and definition has to be opened (figure 12).

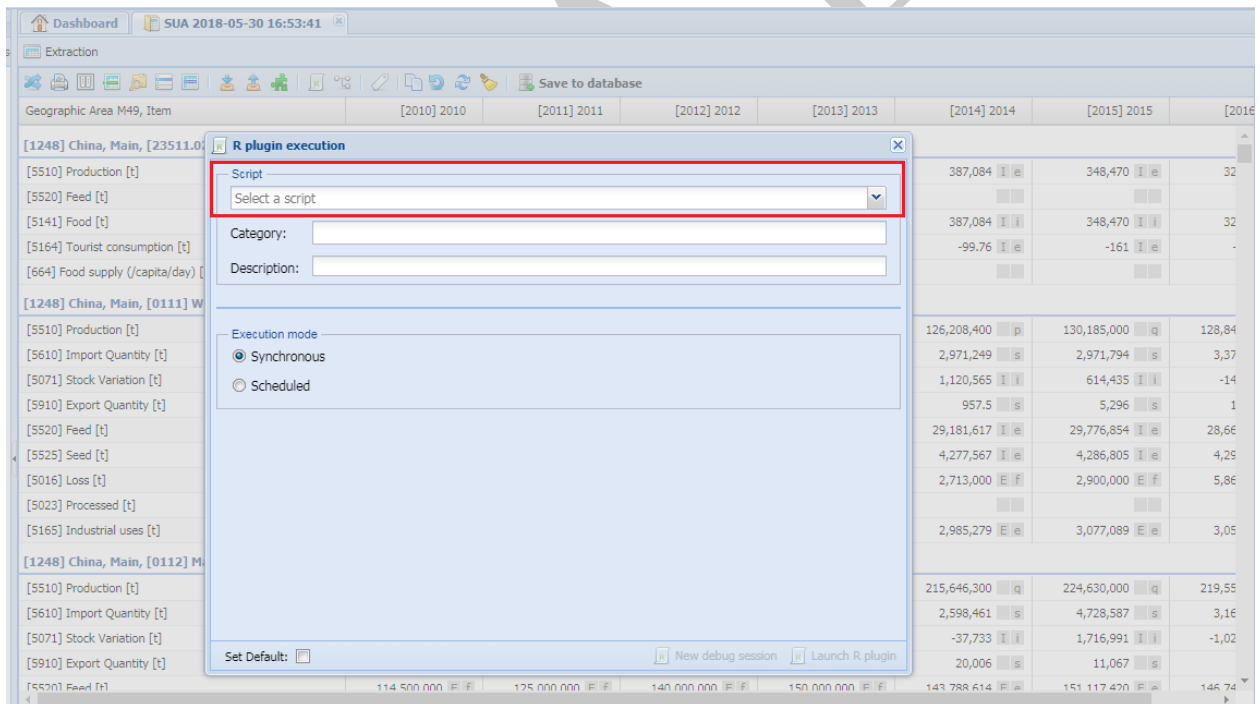


The screenshot shows the SUA 2018-05-30 16:53:41 interface. The 'R plugins' button is highlighted with a red box. The table below shows data for China, Main, [23511.02] Cane sugar, non-centrifugal.

Geographic Area M49, Item	[2010] 2010	[2011] 2011	[2012] 2012	[2013] 2013	[2014] 2014	[2015] 2015	[2016]
[1248] China, Main, [23511.02] Cane sugar, non-centrifugal							
[5510] Production [t]	432,000 I i	436,000 I i	440,000 I i	440,000 I i	387,084 I e	348,470 I e	32
[5520] Feed [t]							
[5141] Food [t]	432,000 I b	436,000 I b	440,000 I b	440,000 I b	387,084 I i	348,470 I i	32
[5164] Tourist consumption [t]					-99.76 I e	-161 I e	
[664] Food supply (/capita/day) [kcal]	3.116 I i	3.125 I i	3.134 I i	3.115 I i			

Figure 12: Plug-in botton

In the script session, select the plug-in *pullDataToSUA* (figures 13 and 14).



The screenshot shows the SUA 2018-05-30 16:53:41 interface with the 'R plugin execution' window open. The window has a 'Script' dropdown menu, 'Category' and 'Description' text boxes, and 'Execution mode' radio buttons for 'Synchronous' and 'Scheduled'. The 'Synchronous' mode is selected. The background table shows data for China, Main, [0111] W.

Geographic Area M49, Item	[2010] 2010	[2011] 2011	[2012] 2012	[2013] 2013	[2014] 2014	[2015] 2015	[2016]
[1248] China, Main, [0111] W							
[5510] Production [t]					387,084 I e	348,470 I e	32
[5520] Feed [t]							
[5141] Food [t]					387,084 I i	348,470 I i	32
[5164] Tourist consumption [t]					-99.76 I e	-161 I e	
[664] Food supply (/capita/day) [kcal]							
[1248] China, Main, [0112] M							
[5510] Production [t]					126,208,400 p	130,185,000 q	128,84
[5610] Import Quantity [t]					2,971,249 s	2,971,794 s	3,37
[5071] Stock Variation [t]					1,120,565 I i	614,435 I i	-14
[5910] Export Quantity [t]					957.5 s	5,296 s	1
[5520] Feed [t]					29,181,617 I e	29,776,854 I e	28,66
[5525] Seed [t]					4,277,567 I e	4,286,805 I e	4,25
[5016] Loss [t]					2,713,000 E f	2,900,000 E f	5,86
[5023] Processed [t]							
[5165] Industrial uses [t]					2,985,279 E e	3,077,089 E e	3,05
[1248] China, Main, [0112] M							
[5510] Production [t]					215,646,300 q	224,630,000 q	219,55
[5610] Import Quantity [t]					2,598,461 s	4,728,587 s	3,16
[5071] Stock Variation [t]					-37,733 I i	1,716,991 I i	-1,02
[5910] Export Quantity [t]					20,006 s	11,067 s	
[5520] Feed [t]							
[5520] Feed [t]	114 500 000 E f	125 000 000 E f	140 000 000 E f	150 000 000 E f	143 788 614 E f	151 117 470 E f	146 74

Figure 13: Plug-in window

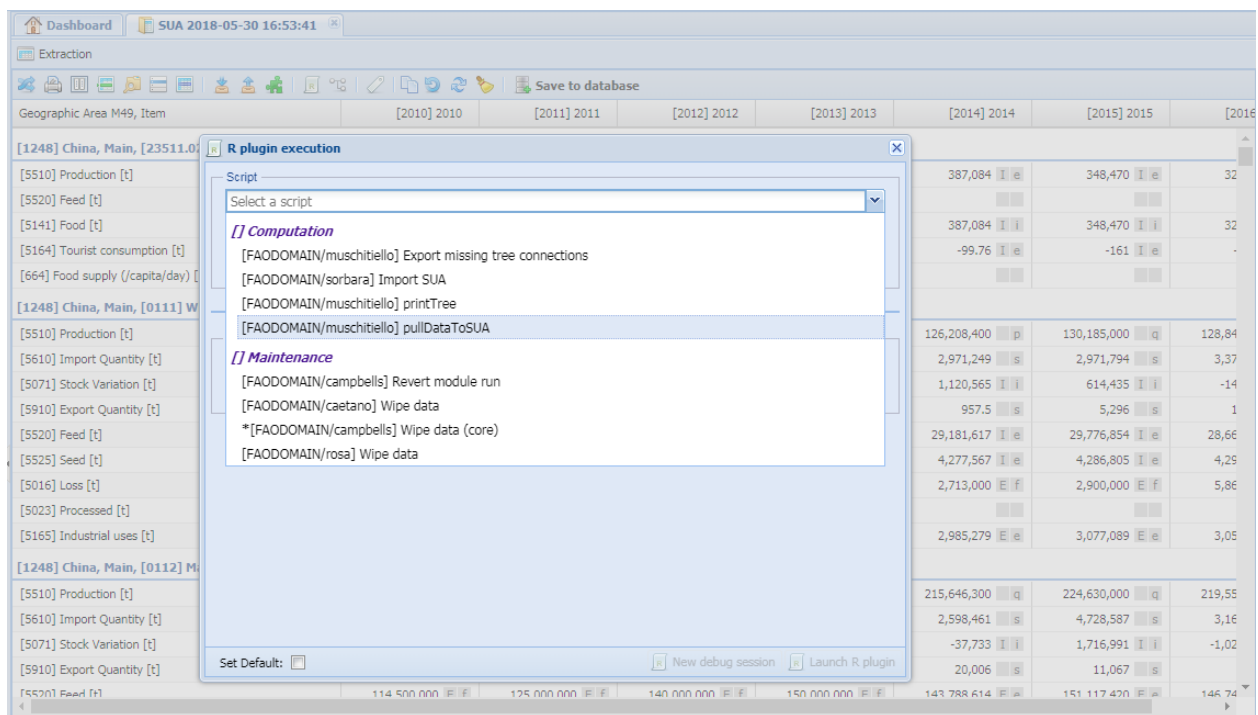


Figure 14: Select Plug-in

This will automatically bring to a sub-window where the other variables of this plugin can be selected (figure 15).

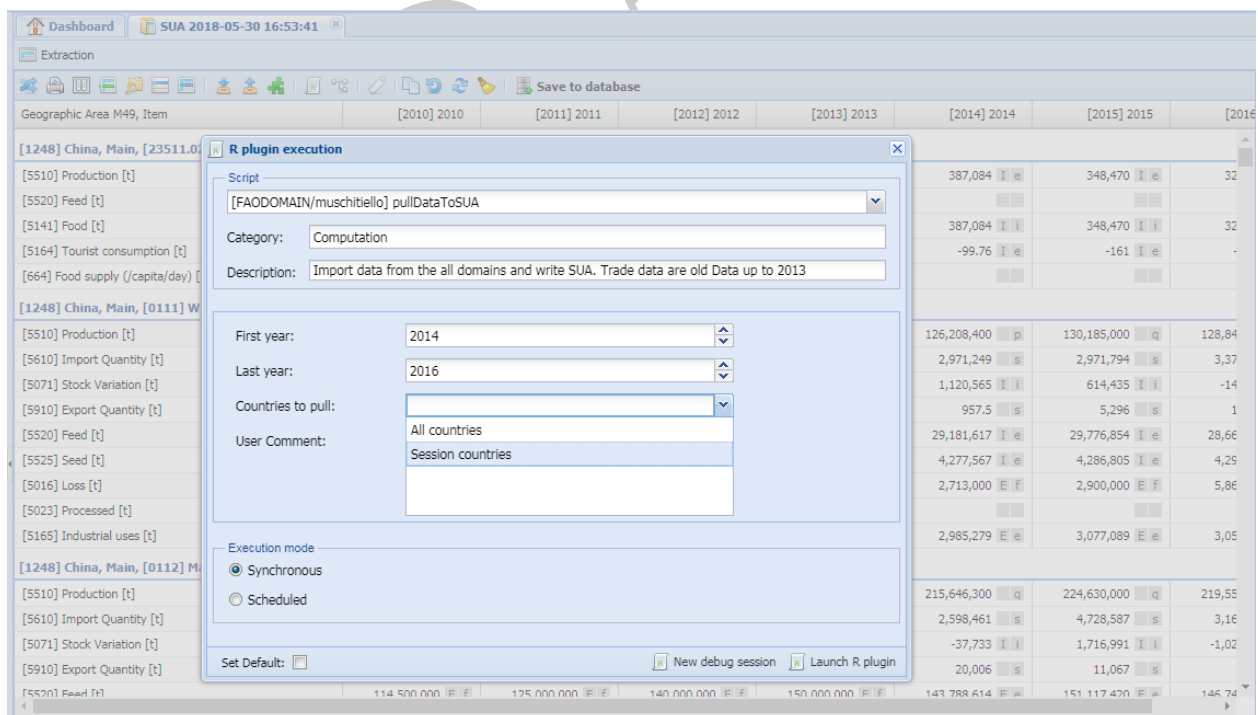


Figure 15: Select other parameters

- **First Year:** the year from which data have to be pulled. As previously said, in this dataset there are Validated and old data up to 2013, therefore in this example 2014 is selected as first year.
- **Last Year:** the last year until which the data have to be pulled.
- **countries to pull:** plugin could be run on “session countries” or “all countries”. Time of execution has to be taken into account in this case. To run this plugin on all countries might require almost an hour and generate a session so big that the SWS is not able to handle it.

7 Launch Plug-in.

In the *Execution mode* section of the window, the option **Synchronous** is selected as default. This option imply that, when the **Launch R plugin** button is clicked, the run starts immediately. The other option, **Scheduled**, imply that another window is opened for the selection of the time of execution.

When the plug-in has finished to run, a window appears on the screen and an email is sent to the user (figure 17).

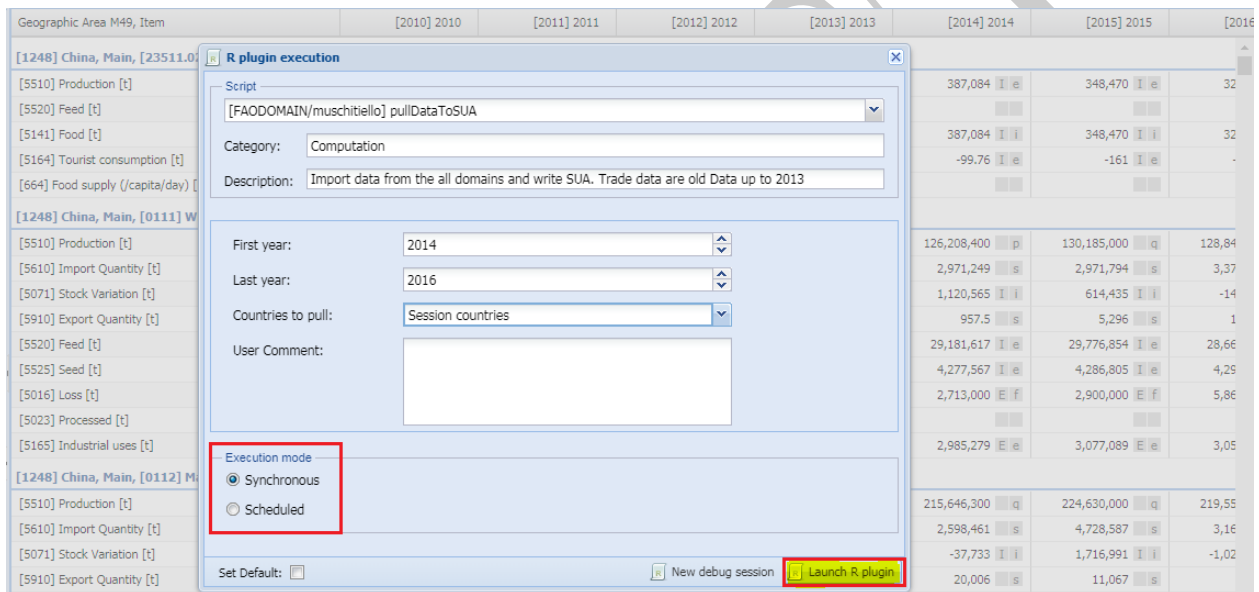


Figure 16: Launch plug-in

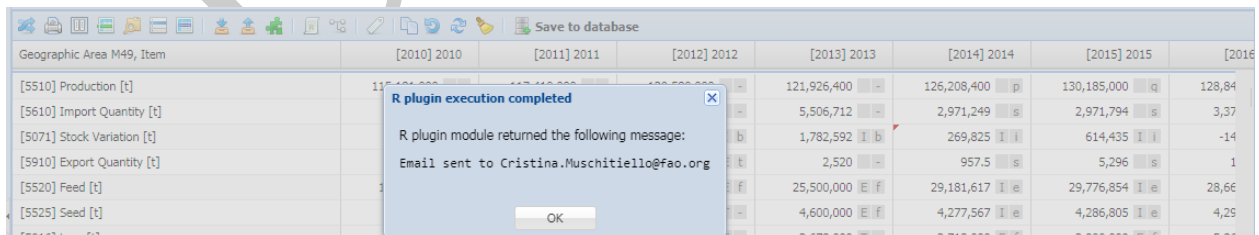
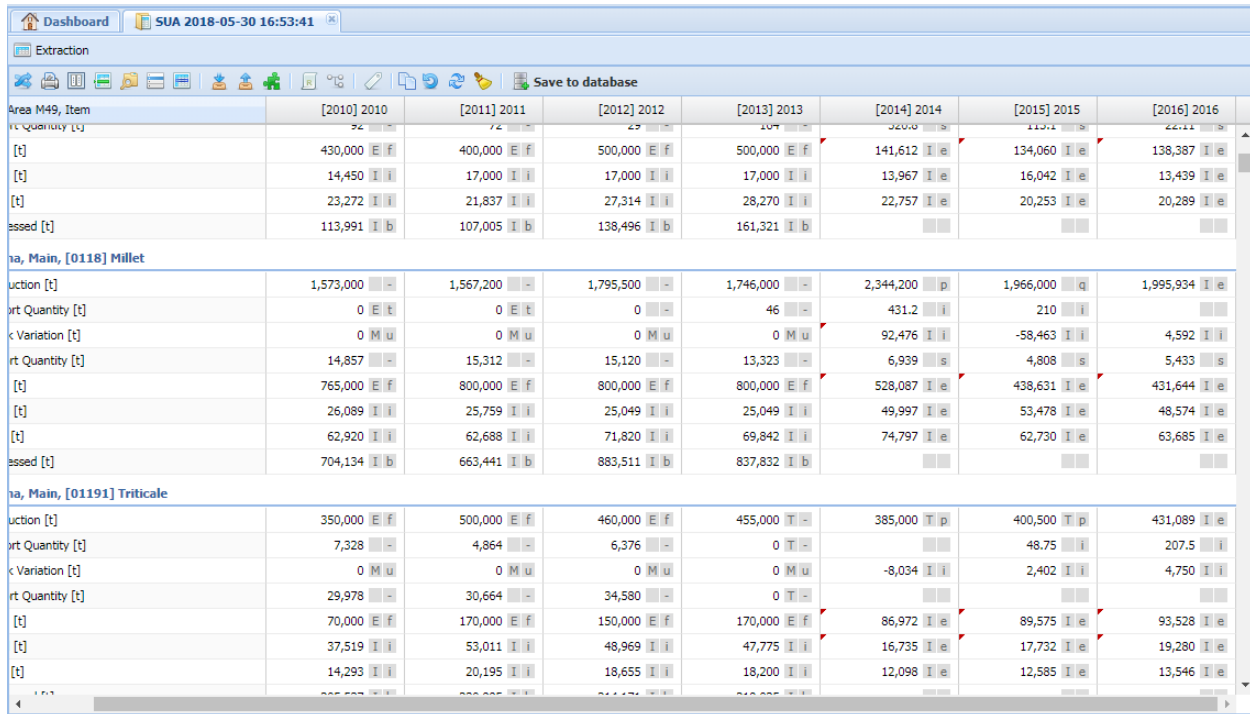


Figure 17: End of plug-in run

8 Session updated

In the session, all the figure that have been changed/added from the plug-in have a small red triangle on the top-left side of the figure box (figure 18).

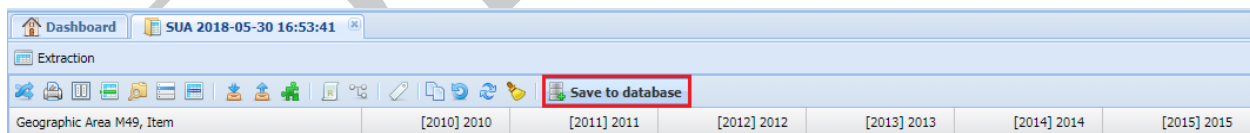


Area M49, Item	[2010] 2010	[2011] 2011	[2012] 2012	[2013] 2013	[2014] 2014	[2015] 2015	[2016] 2016
Quantity [t]	34	72	29	107	320.0	113.1	24.11
[t]	430,000 E f	400,000 E f	500,000 E f	500,000 E f	141,612 I e	134,060 I e	138,387 I e
[t]	14,450 I i	17,000 I i	17,000 I i	17,000 I i	13,967 I e	16,042 I e	13,439 I e
[t]	23,272 I i	21,837 I i	27,314 I i	28,270 I i	22,757 I e	20,253 I e	20,289 I e
essed [t]	113,991 I b	107,005 I b	138,496 I b	161,321 I b			
na, Main, [0118] Millet							
uction [t]	1,573,000	1,567,200	1,795,500	1,746,000	2,344,200 p	1,966,000 q	1,995,934 I e
rt Quantity [t]	0 E t	0 E t	0	46	431.2 I i	210 I i	
c Variation [t]	0 M u	0 M u	0 M u	0 M u	92,476 I i	-58,463 I i	4,592 I i
rt Quantity [t]	14,857	15,312	15,120	13,323	6,939 s	4,808 s	5,433 s
[t]	765,000 E f	800,000 E f	800,000 E f	800,000 E f	528,087 I e	438,631 I e	431,644 I e
[t]	26,089 I i	25,759 I i	25,049 I i	25,049 I i	49,997 I e	53,478 I e	48,574 I e
[t]	62,920 I i	62,688 I i	71,820 I i	69,842 I i	74,797 I e	62,730 I e	63,685 I e
essed [t]	704,134 I b	663,441 I b	883,511 I b	837,832 I b			
na, Main, [01191] Triticale							
uction [t]	350,000 E f	500,000 E f	460,000 E f	455,000 T -	385,000 T p	400,500 T p	431,089 I e
rt Quantity [t]	7,328	4,864	6,376	0 T -		48.75 I i	207.5 I i
c Variation [t]	0 M u	0 M u	0 M u	0 M u	-8,034 I i	2,402 I i	4,750 I i
rt Quantity [t]	29,978	30,664	34,580	0 T -			
[t]	70,000 E f	170,000 E f	150,000 E f	170,000 E f	86,972 I e	89,575 I e	93,528 I e
[t]	37,519 I i	53,011 I i	48,969 I i	47,775 I i	16,735 I e	17,732 I e	19,280 I e
[t]	14,293 I i	20,195 I i	18,655 I i	18,200 I i	12,098 I e	12,585 I e	13,546 I e

Figure 18: Updated session

9 Save back to the database

For the new figures to be used in following steps, the data have to be saved to the database.



Geographic Area M49, Item	[2010] 2010	[2011] 2011	[2012] 2012	[2013] 2013	[2014] 2014	[2015] 2015

Figure 19: Save to Database