TUTORIAL FOR THE INSPIA PLATFORM

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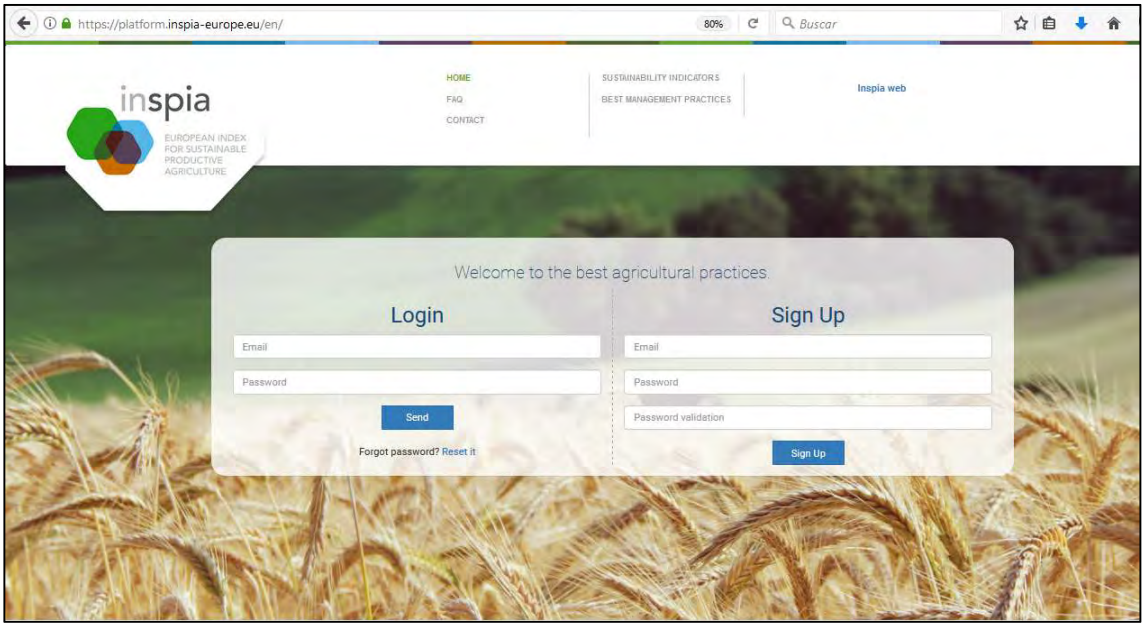
Tutorial for the INSPIA Platform. Workflow.

The INSPIA Platform is based upon the entry of basic farm monitoring data, providing farmers an easy-to-interpret graphical representation of the relative sustainability of their practices. This tool allows farmers to easily assess the status of sustainability and identify those areas that would benefit from improved delivery of best management practices (BMPs).

To begin the process, go to: https://platform.inspia-europe.eu/en/

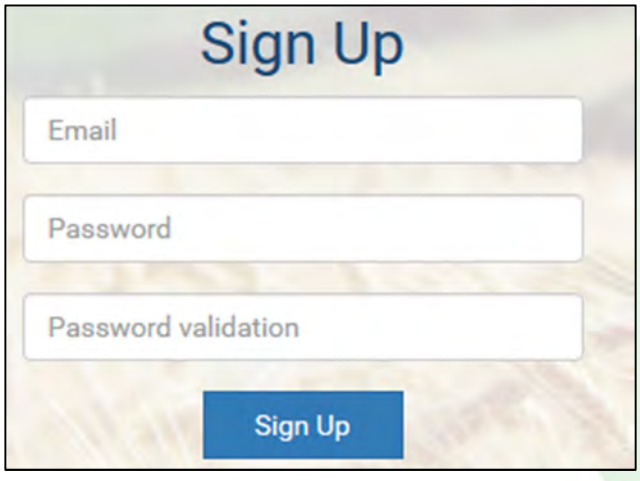
This is the welcome page when you access the platform:



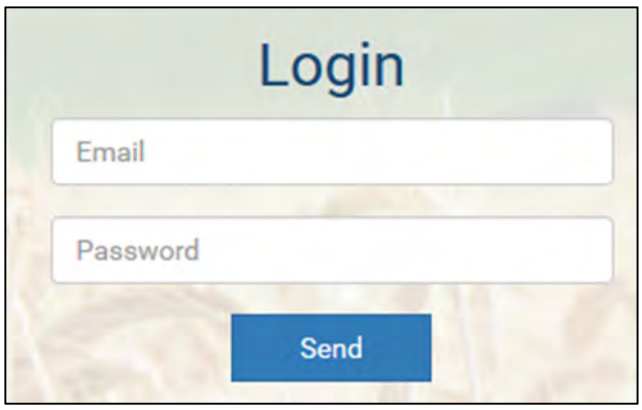
The first thing you have to do to have access to the platform is signing up.

For signing up you need to provide an email address and to create and confirm your password.

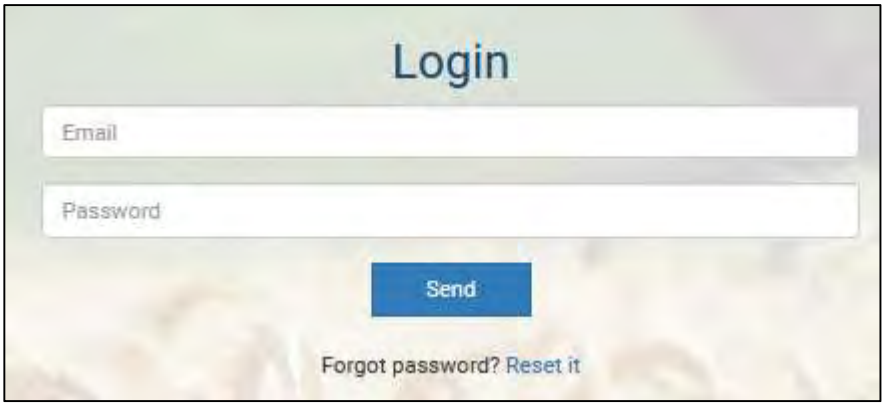
Then, click the button “Sign up”.



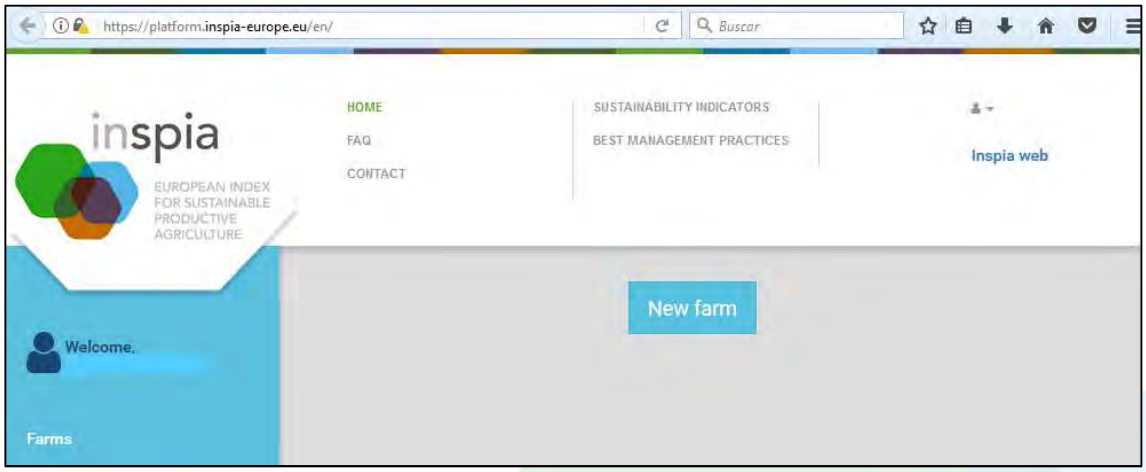
Once you are a member, you can login providing your email and password and by clicking the button “Send”.

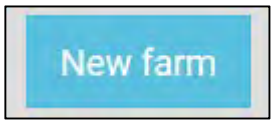


If you forget your password you can reset it by clicking the link “Reset it”



To start working in the platform, click the button “New farm”





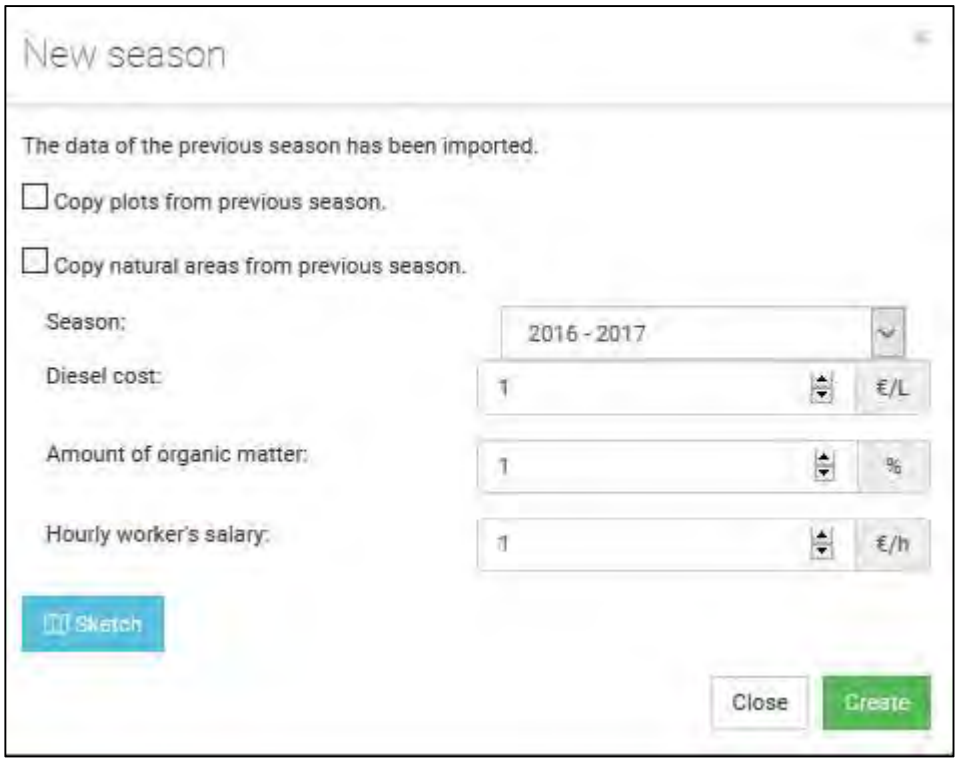
A new window is opened.

In this window you fill out the spaces with the name of the farm, the country, the region and the postal code. Then, click the button “Create”.

See a sample chart below:

Now, you can introduce the data for a season by clicking the button “New season”

In the window for the "New season" you add the following data of your farm: the season, the diesel cost, the amount of organic matter and the wage per hour. You can also copy the previous season data for plots and/or natural areas.



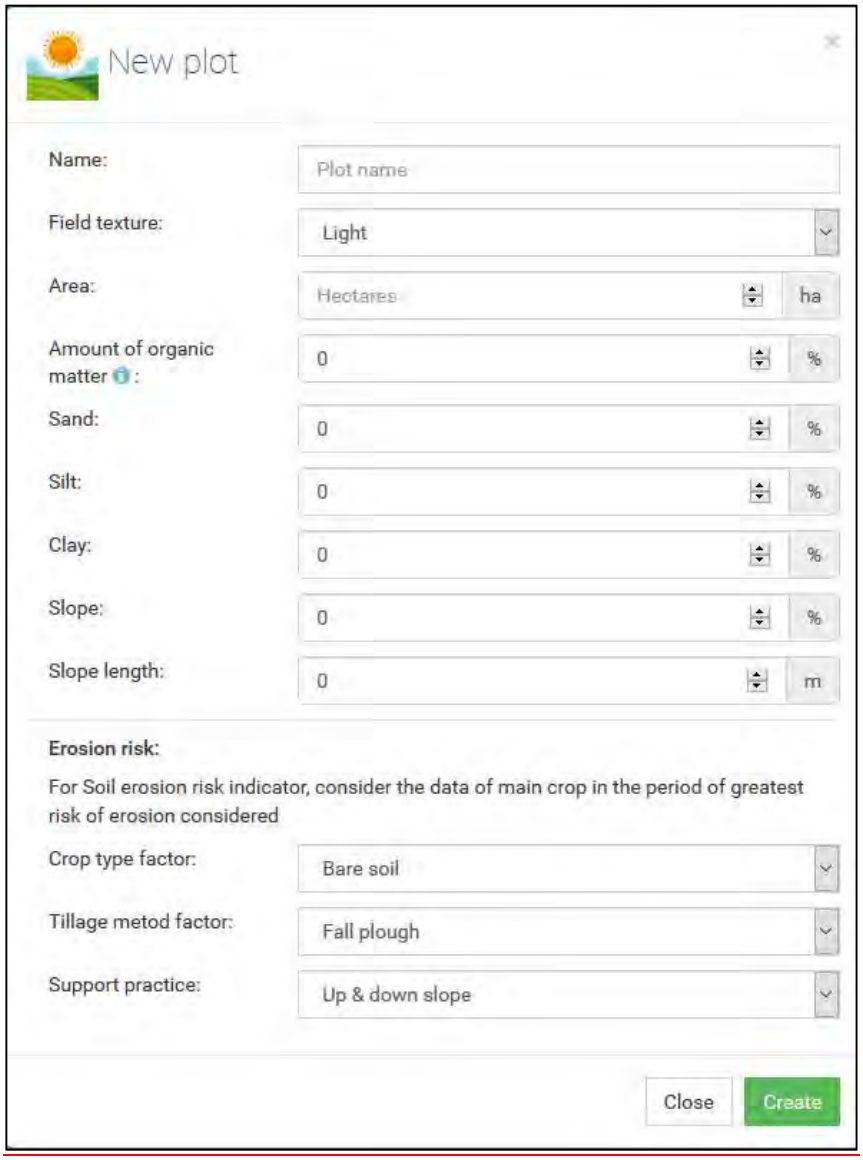
In addition, you can upload a sketch of your farm by clicking the button "sketch" and by browsing your computer for it.

By clicking the button "Create" you will see the screen below. It contains the sketch of the farm by clicking the map icon on the top left; a compilation of the data you have added before; and the 3 next steps.

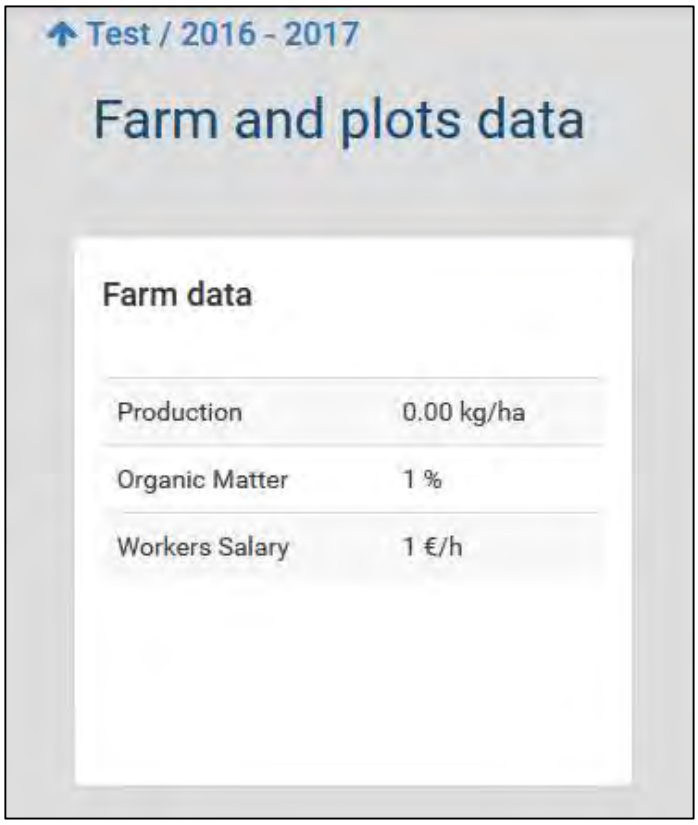
Click "Farm and plots data".

Then, click the button "Add plot" to add information about the plots of the farm.

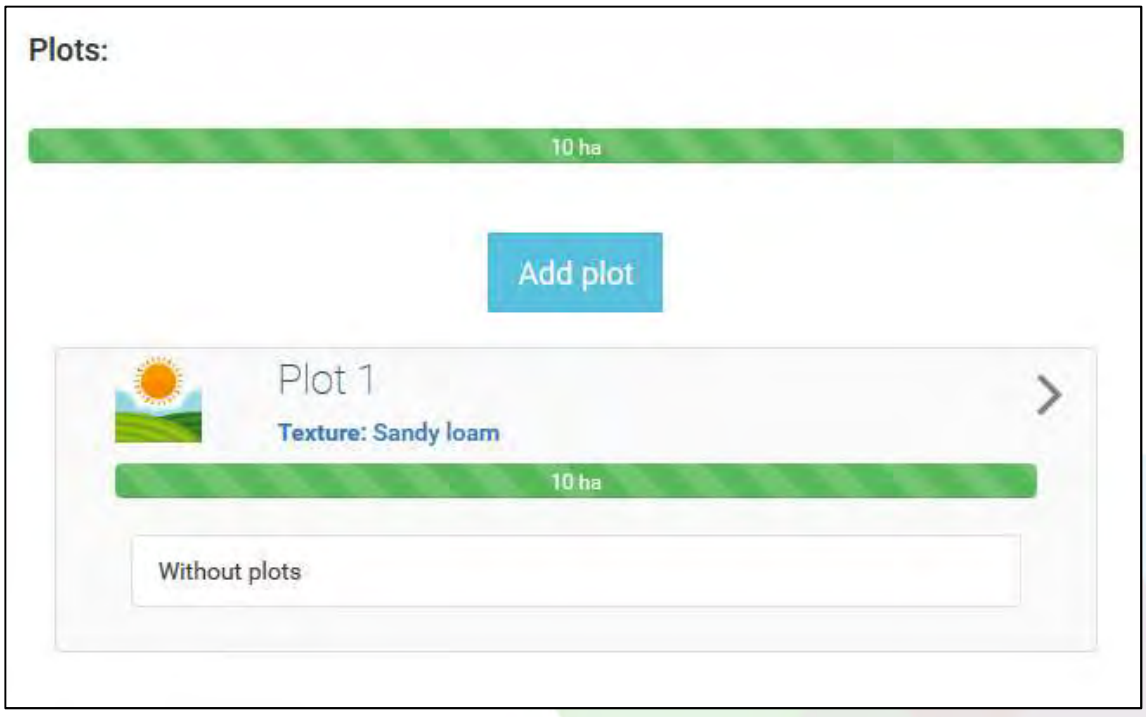
In the window “New plot”, add the name of the plot, the soil texture and the area of the plot. Then, click “Create”.



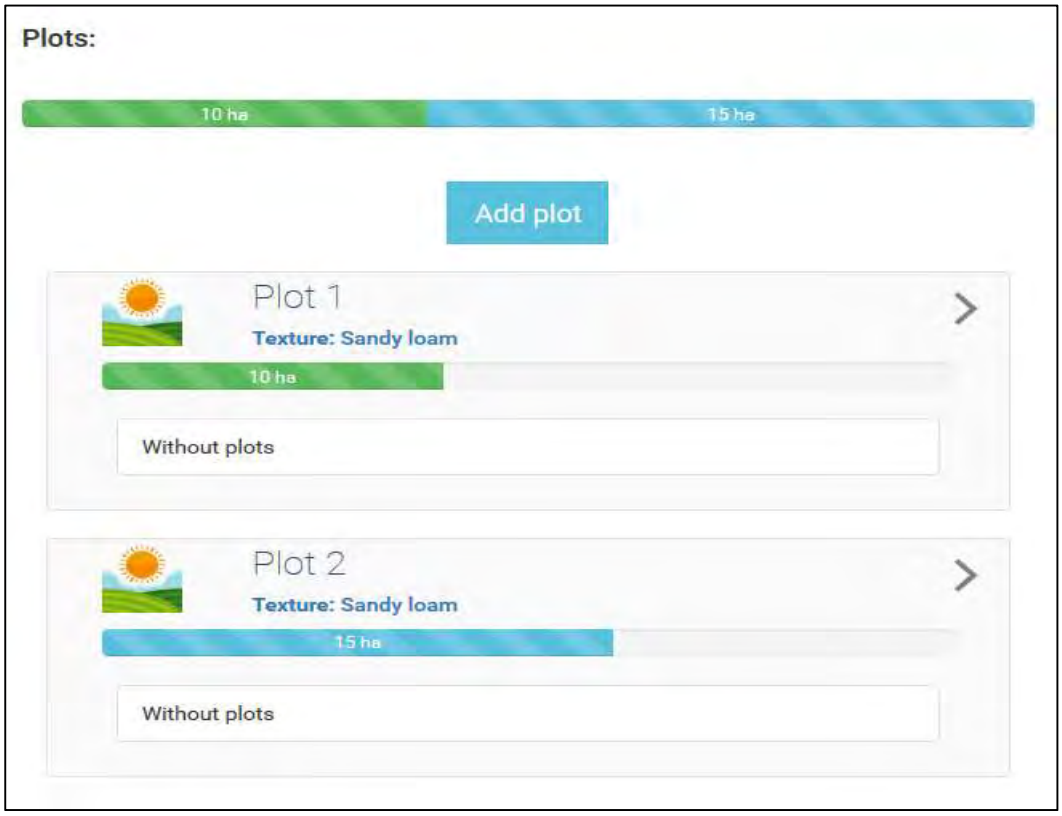
The platform creates a table with your data:



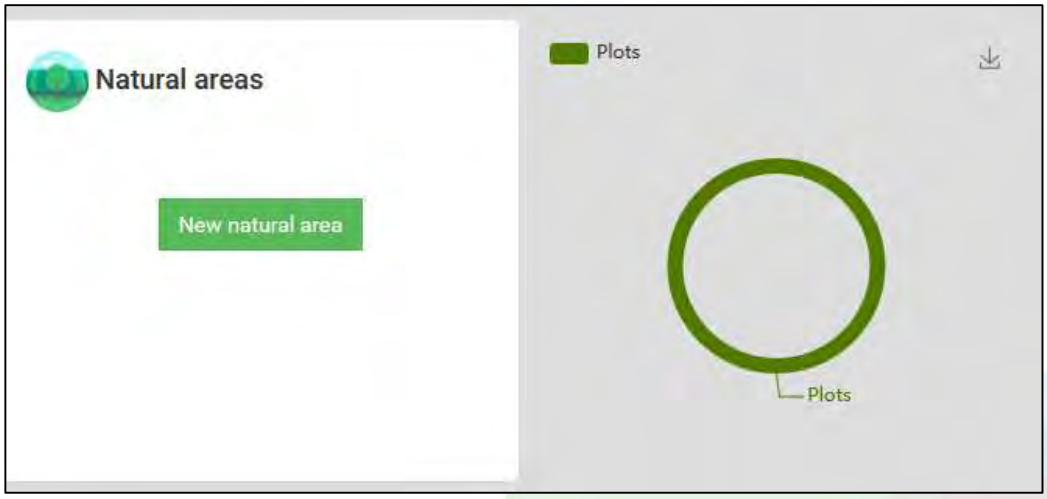
It also creates different graphs and charts with your data.



You can add as many plots as the farm has and you will have the data for all of them:

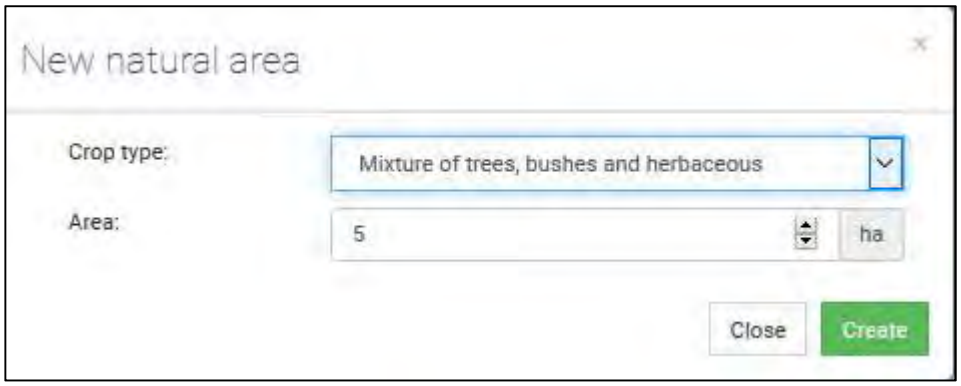


You can also add the data for the natural areas in your plot by clicking the button "New natural area" in the Natural areas section:

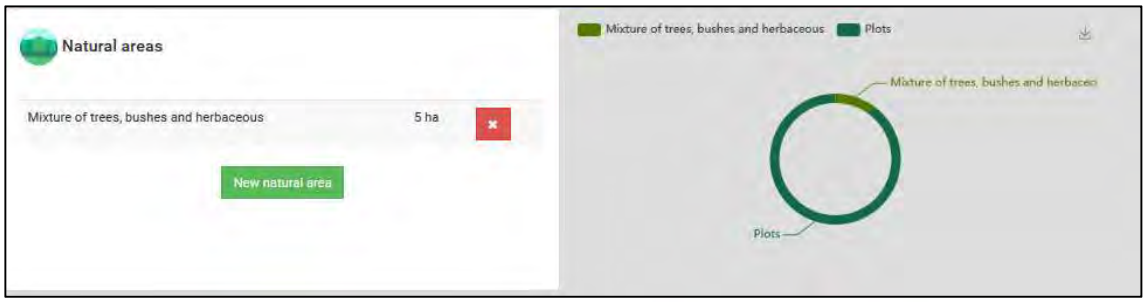


In the "New natural area" window you add the vegetation type and the area of the zone.

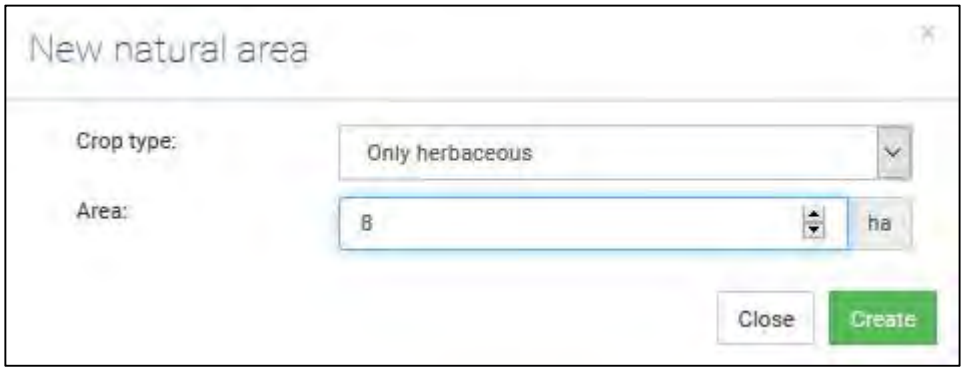
See an example below:

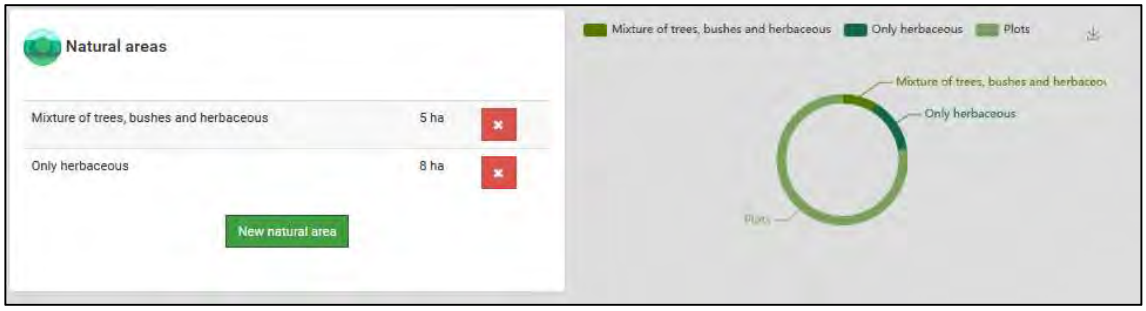


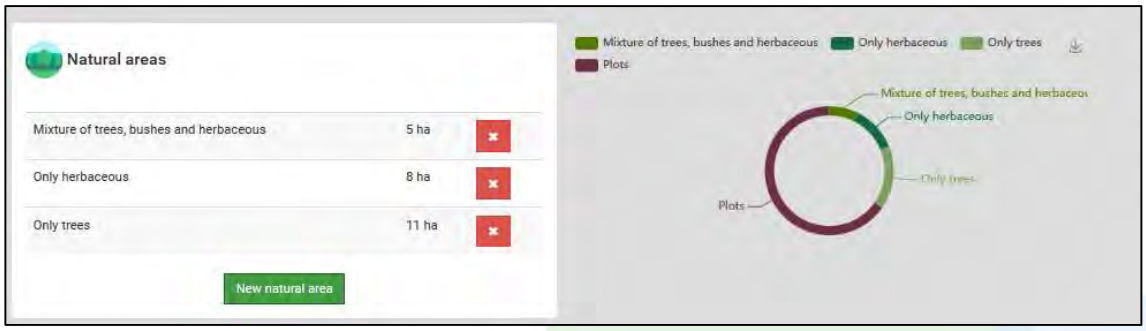
By clicking “Create” you obtain a graph of your data.



Add as many natural areas as the farm has and you will have the data for all of them:

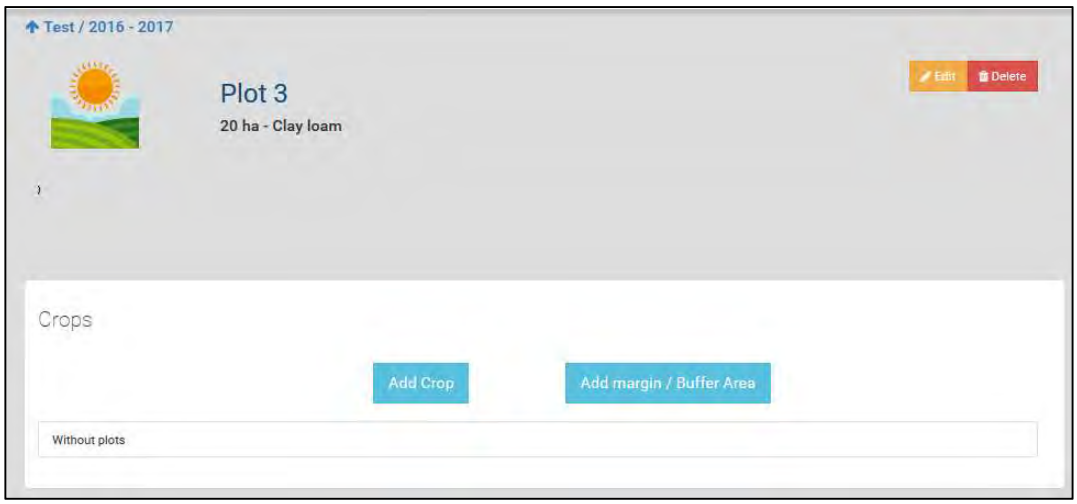






Come back above, and go to any plot, then press the symbol “>”.

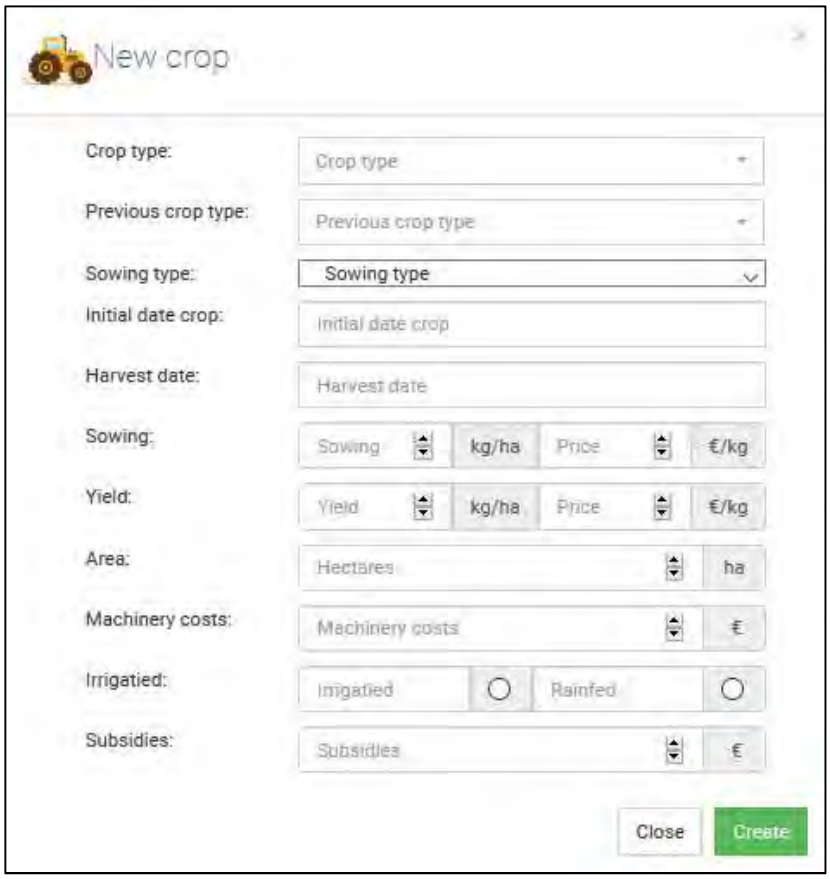
This is what you will see:



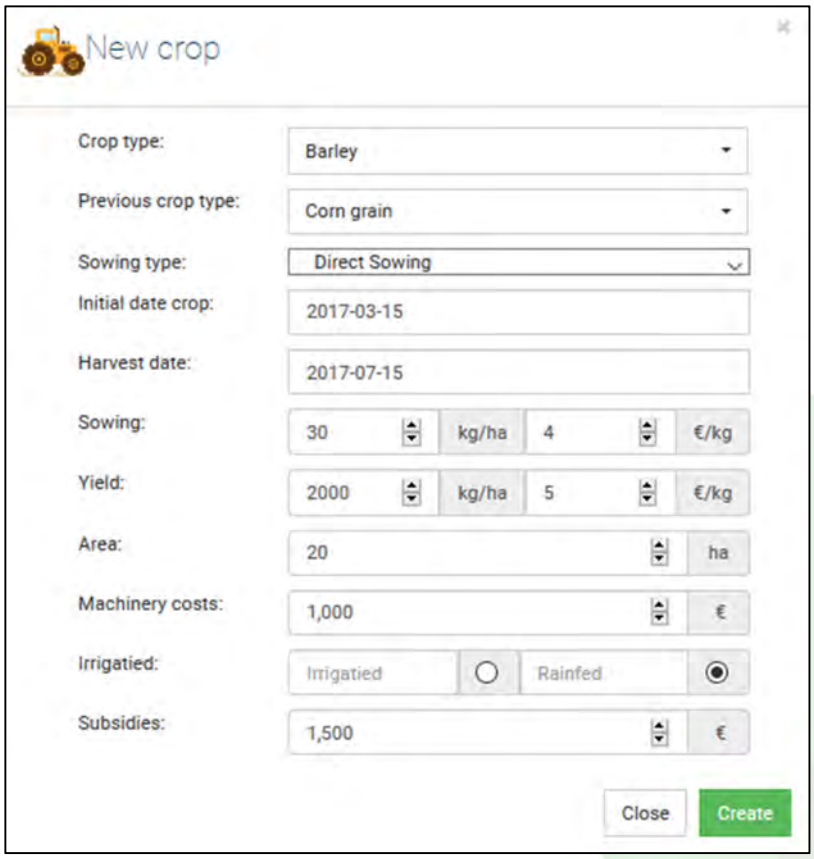
For adding crops, click the button “Add crop”:

In the window for the “New crop” you add the following data of your crop: the type; the previous crop type; the sowing type; the sowing and the harvest date; the seed quantity and its price; the yield and its price; the area of the crop; the machinery costs and the subsidies obtained.

Mark if it is an irrigated or a rainfed crop. If it is an irrigated crop, write the amount of water used.



See an example below:



The timeline of your crop is displayed:

A table shows the crop data, the costs and the subsidies:

Crop data

Crop type	Sunflower
Area	80 ha
Sowing	100 kg/ha
Collected	1000 kg/ha

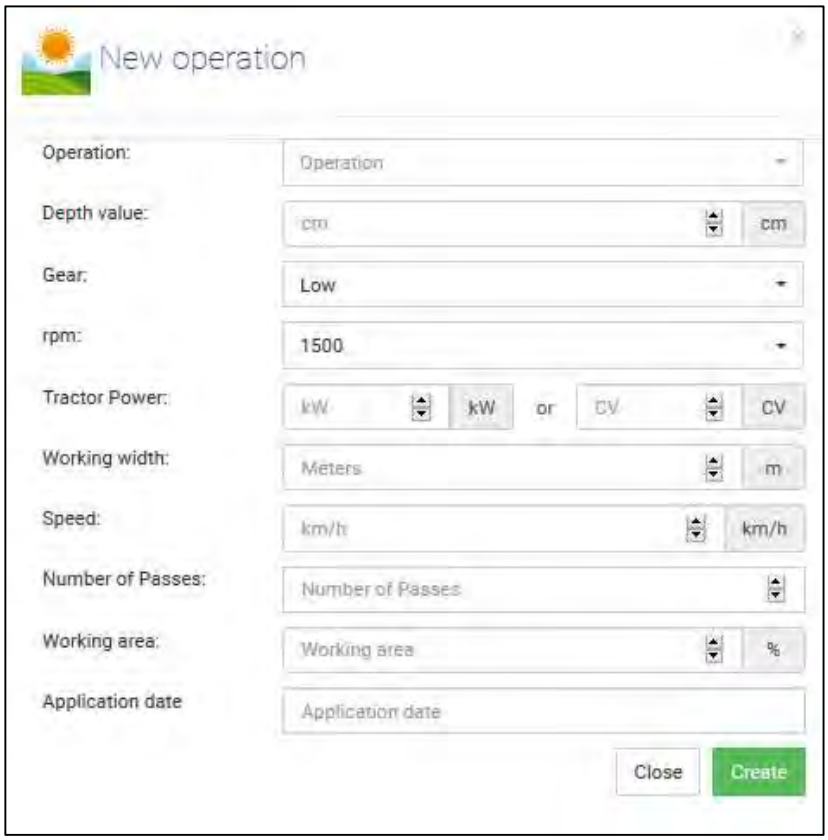
Costs

Sowing cost	100 €/ha
Machinery costs	2000 €/ha
Staff expenditure	0.00 €/ha
Fertilizers cost	0.00 €/ha
Phytosanitary cost	0.00 €/ha
Total	2100.00 €/ha

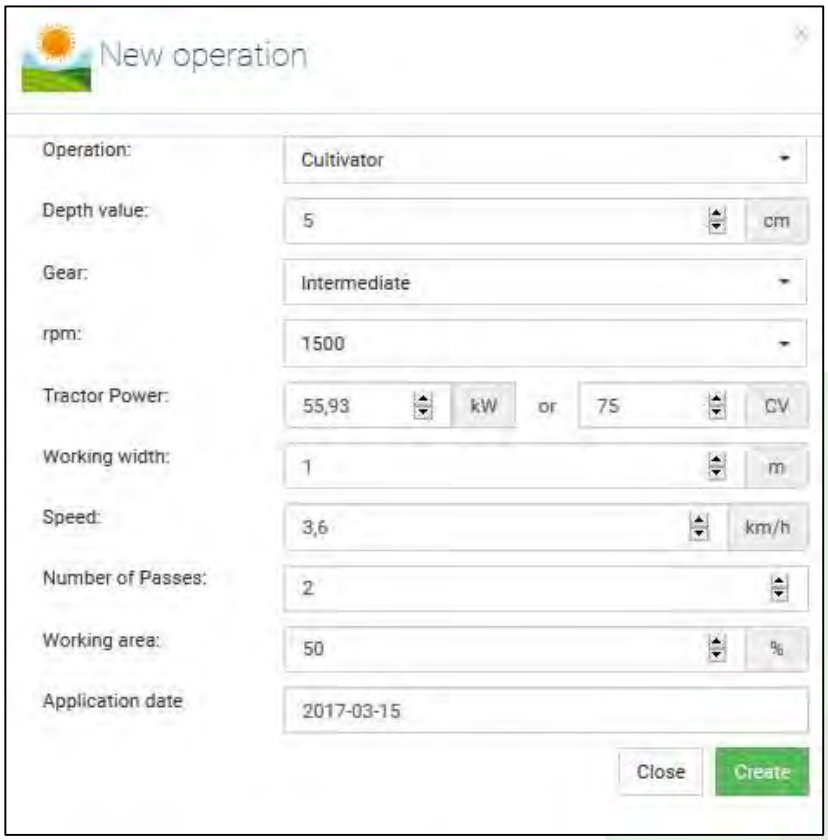
Now, you can add the info of the different operations, the fertilizers and the phytosanitary products.

Start by clicking the button "+New operation" below Operations.

In the window for the "New operation" you add the following data of the operation: the type; its depth; the gear used; the number of rpm used; the tractor power; the working width; the speed; the number of passes; the area and the date you performed the operation. Click "Create".

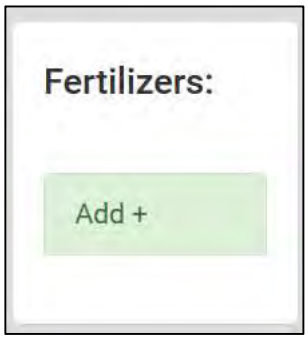


See an example below:



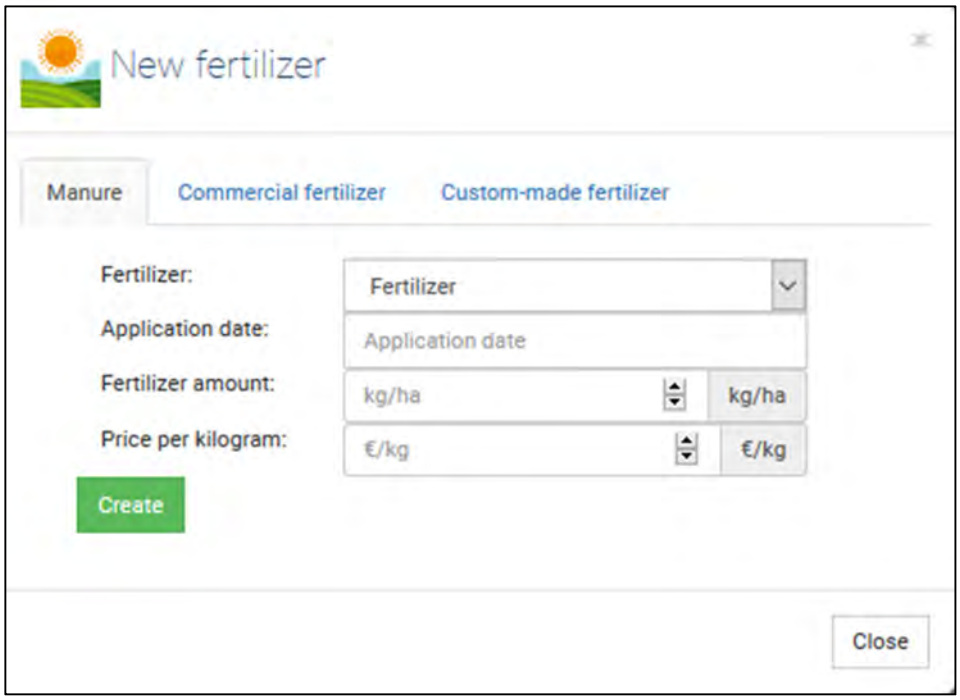
This chart showing a summary of the operation data is created:

Click the button “Add +” below Fertilizers.

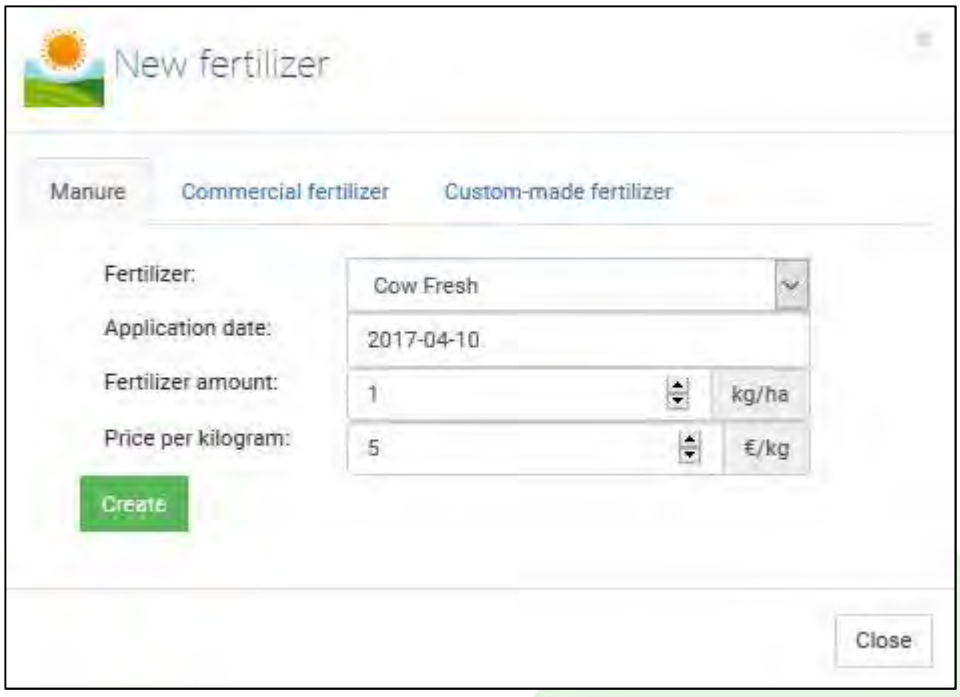


In the window for the “New fertilizer” you have 3 types of fertilizers: Manure, Commercial fertilizer and Custom-made fertilizer.

Start by clicking “Manure”. In the window “New fertilizer” you add the following data of the manure: the type; the application date; the amount used and the price. Then, click “Create”.



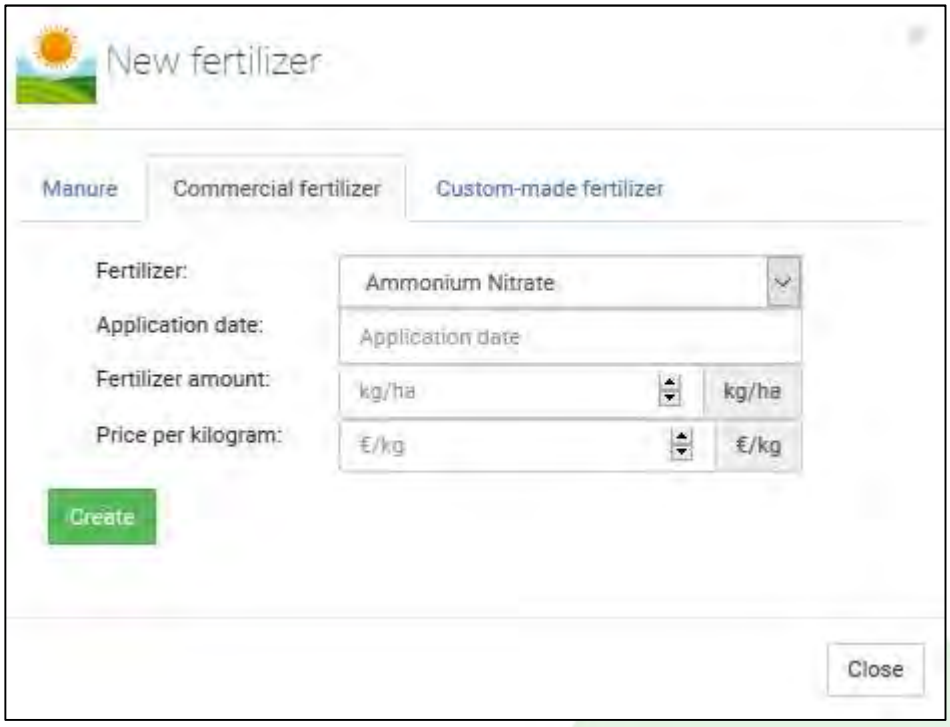
See an example below:



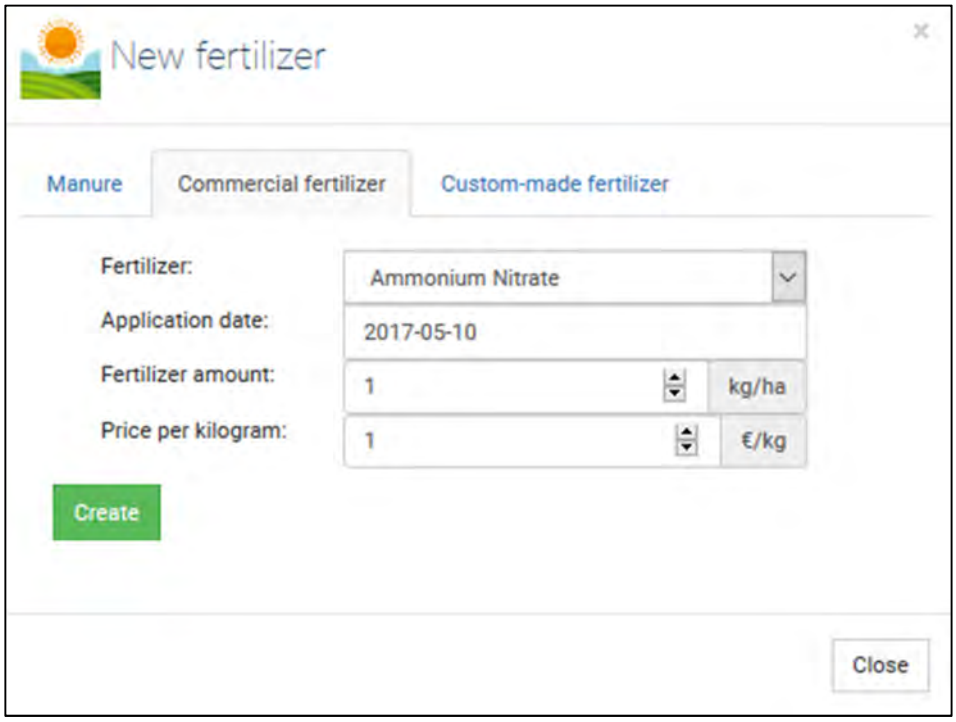
This chart showing a summary of the fertilizer data is created: (so far, they are only the manure data).

By clicking the button “Add+”, you can add either a manure or another type of fertilizer.

Click “Commercial fertilizer”. In the window “New fertilizer” you add the following data of the commercial fertilizer: the type; the application date; the amount used and the price. Then, click “Create”.

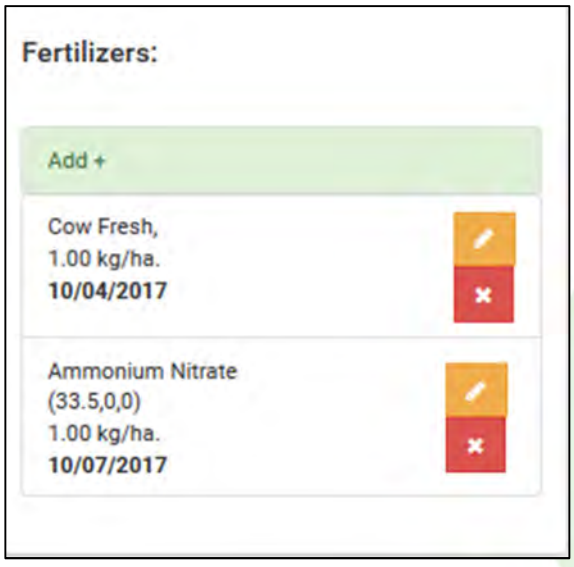


See an example below:

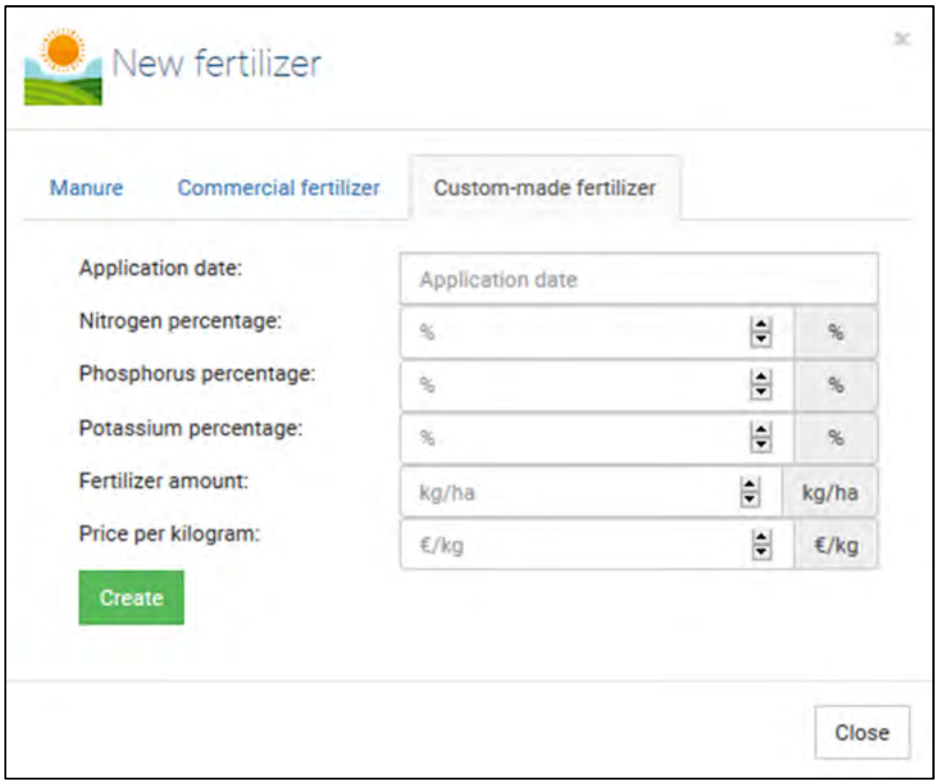


This chart showing a summary of the fertilizer data is created: (so far, they are the manure and the commercial fertilizer data).

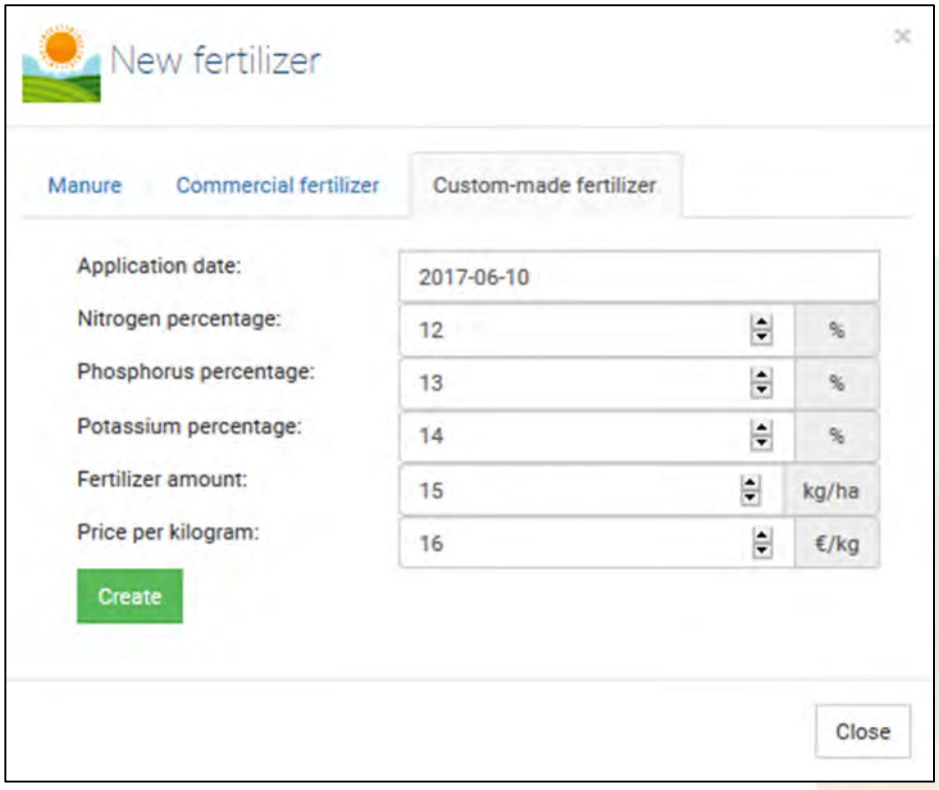
By clicking the button “Add+”, you can add either a commercial fertilizer or another type of fertilizer.



Click “Custom-made fertilizer”. In the window “New fertilizer” you add the following data of the custom-made fertilizer: the application date; the nitrogen, the phosphorus and the potassium percentages; the amount used and the price. Then, click “Create”.



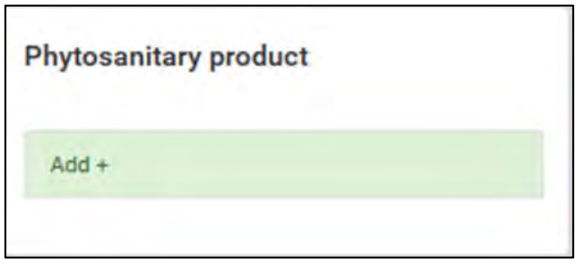
See an example below:



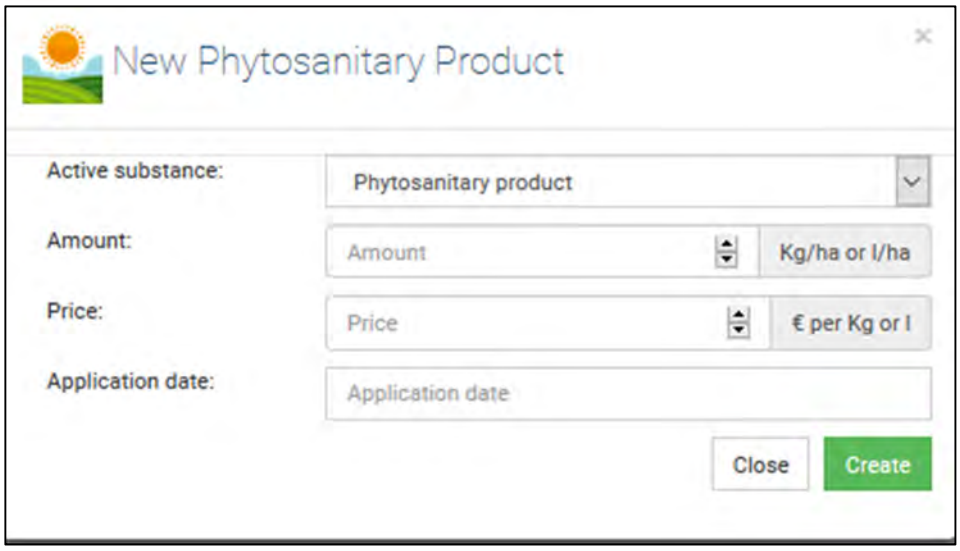
This chart showing a summary of the fertilizer data is created: (they are the manure, the commercial fertilizer and the custom-mede fertilizer data).

By clicking the button “Add+”, you can add either a custom-made fertilizer or another type of fertilizer.

Now you can add a phytosanitary treatment by clicking the button “Add +” below Phytosanitary Products.



In the window for the “New phytosanitary product” you add the following data of the phytosanitary product: the type of active substance; the amount; the price and the application date. Click “Create”.



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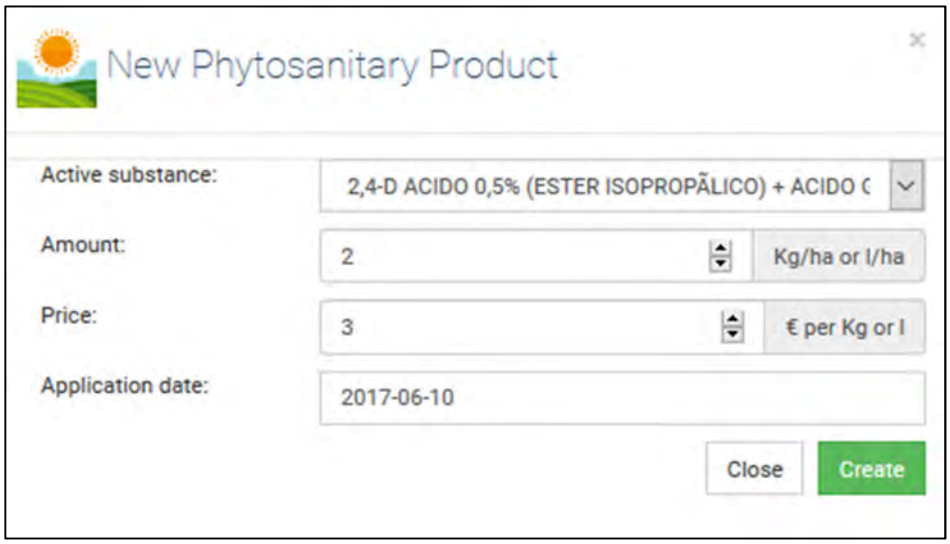
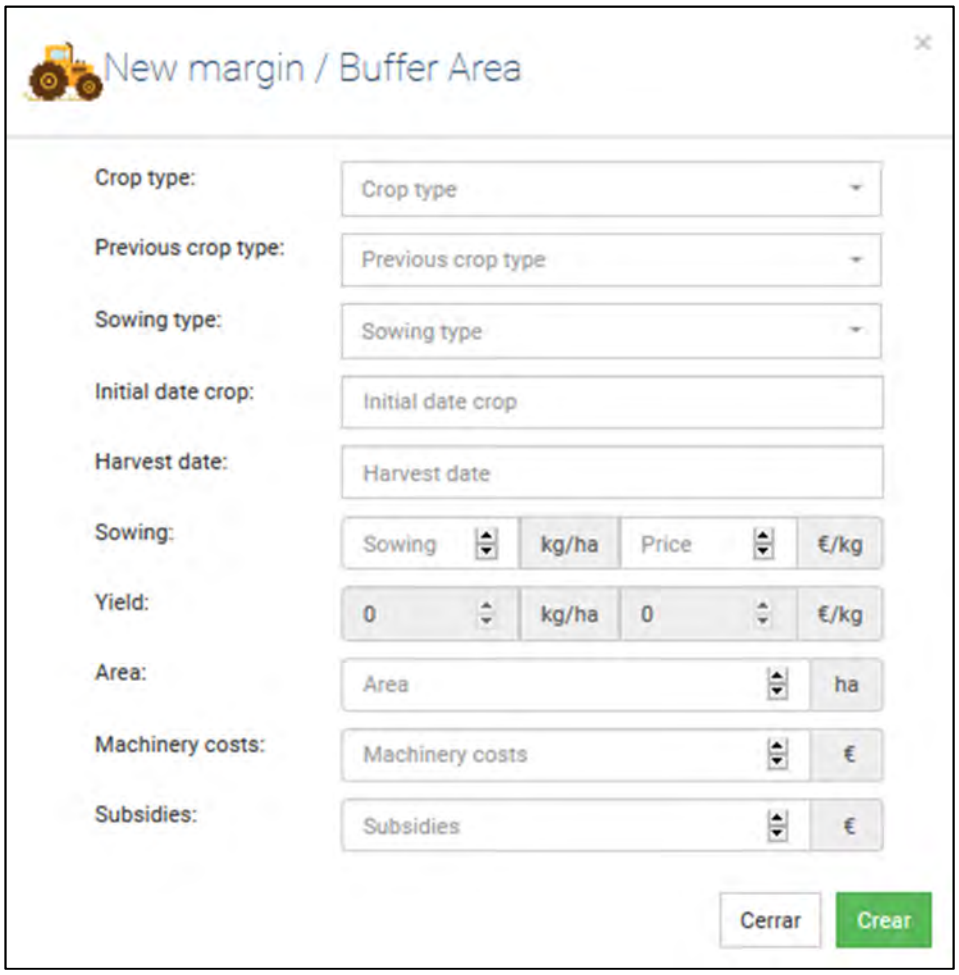


This chart showing a summary of the phytosanitary product data is created.

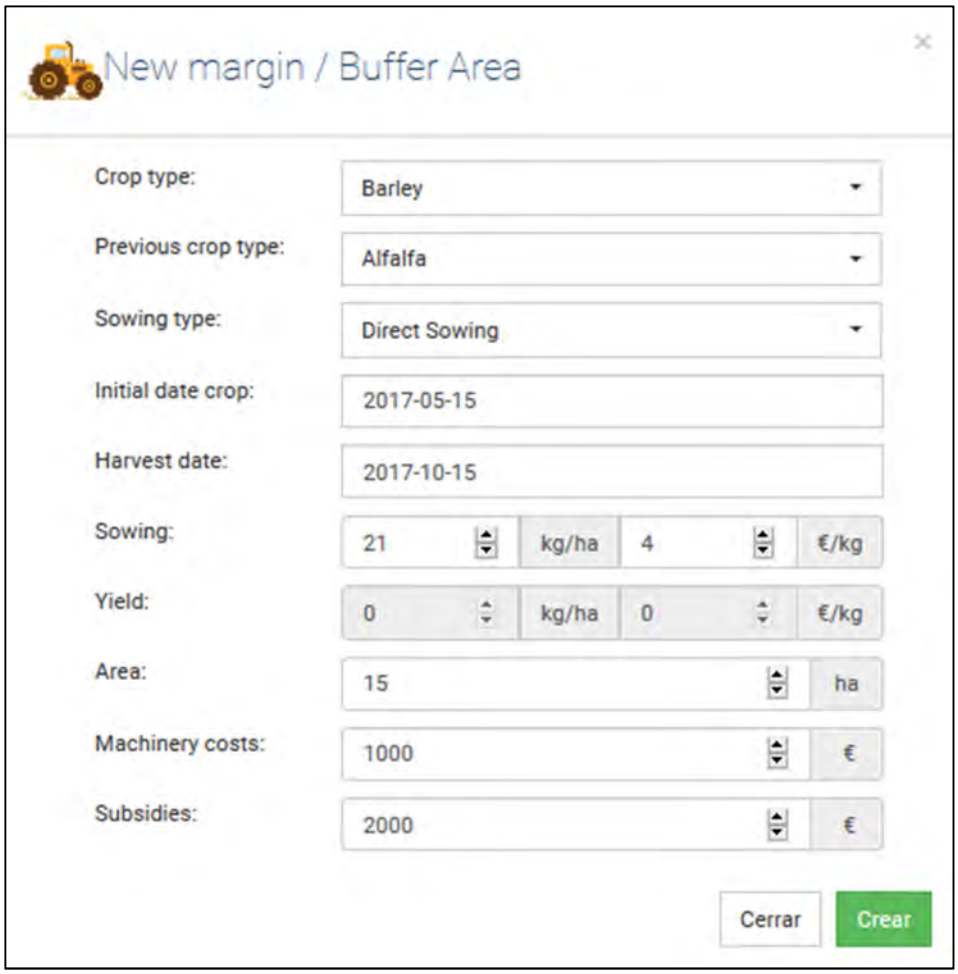
By clicking the button "Add+", you can add another phytosanitary product.

When you are done with the crops, you can add margins or buffer areas by clicking the button "Add margin /buffer area":

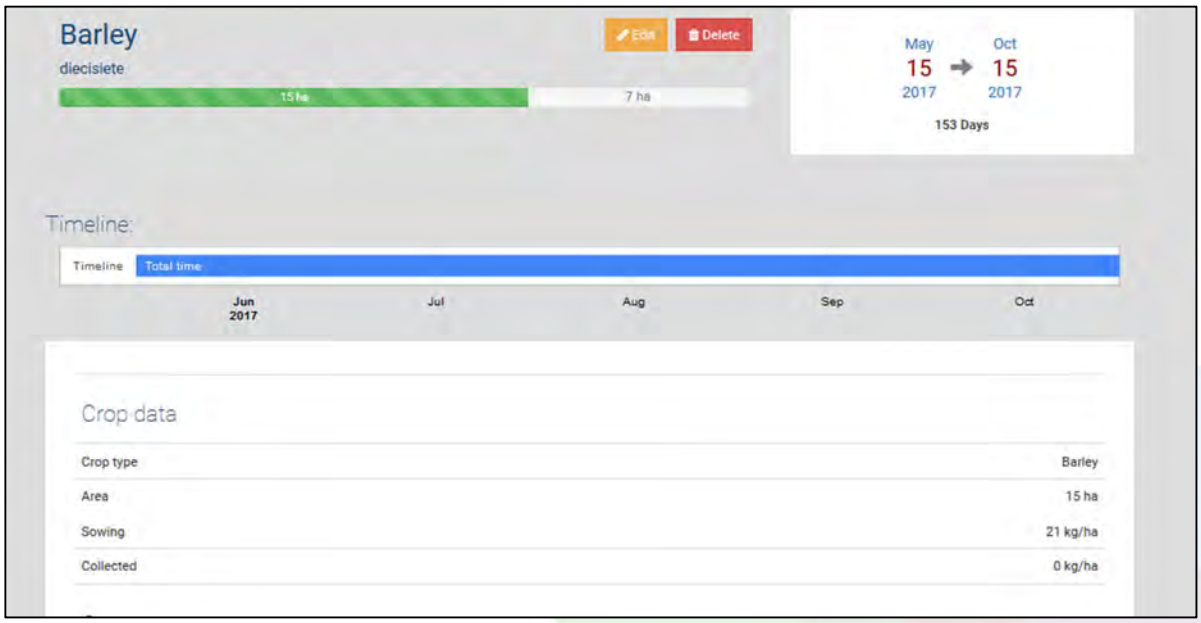


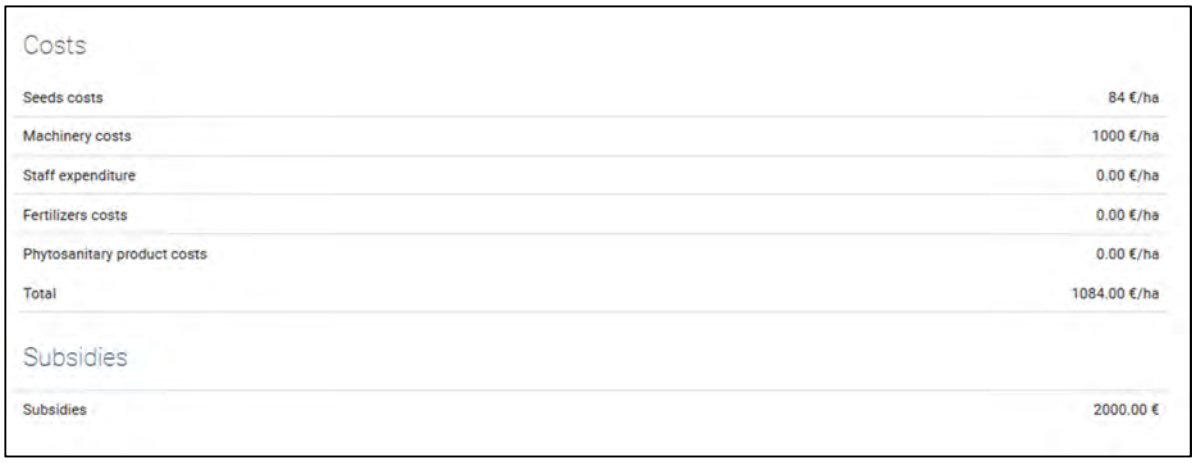
In the window for the "New margin/buffer area" you add the following data of the margin or buffer area: the crop type; the previous crop type; the sowing type; the first operation and the harvest date; the seed quantity and its price; the yield quantity and its price; the area of the crop; the machinery costs and the subsidies obtained.

See an example below:



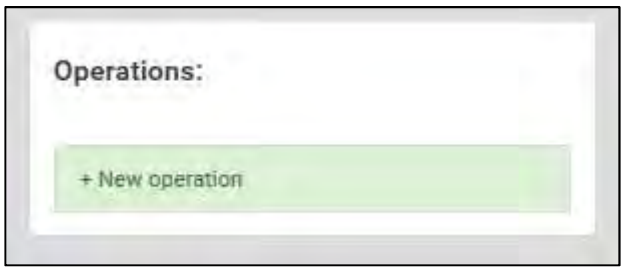
This chart showing a summary of the buffer area data is created:



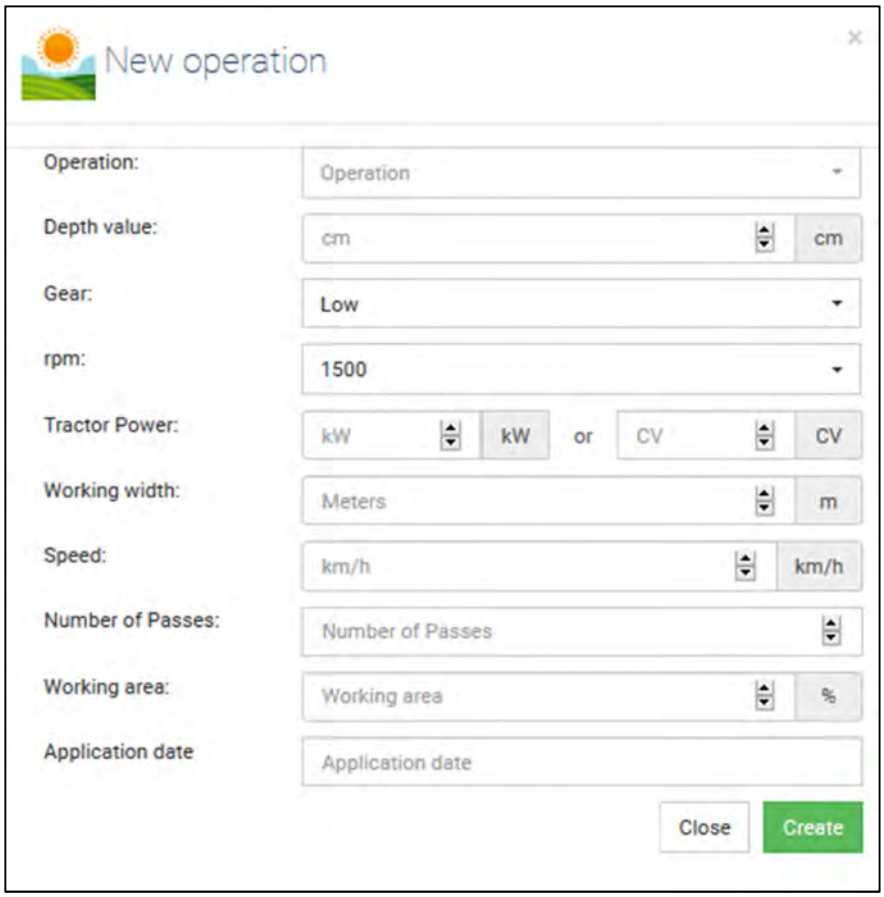


Now, you can add the info on the different operations, the fertilizers and the phytosanitary products.

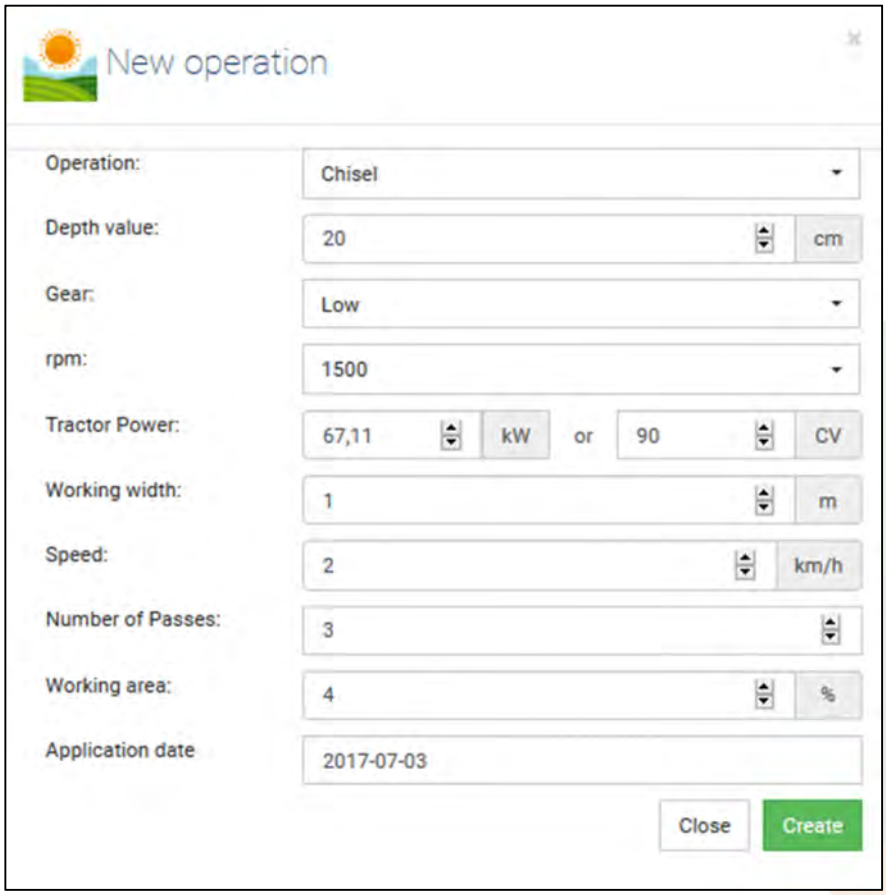
Start by clicking the button "+New operation" below Operations.



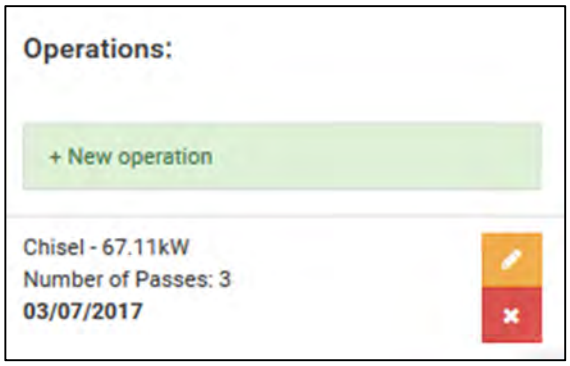
In the window for the "New operation" you add the following data of the operation: the type; its depth; the gear used; the number of rpm used; the tractor power; the working widht; the speed; the number of passes; the area and the date you performed the operation. Click "Create".



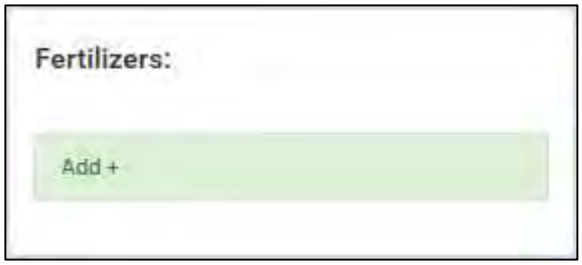
See an example below:



This chart showing a summary of the operation data is created:

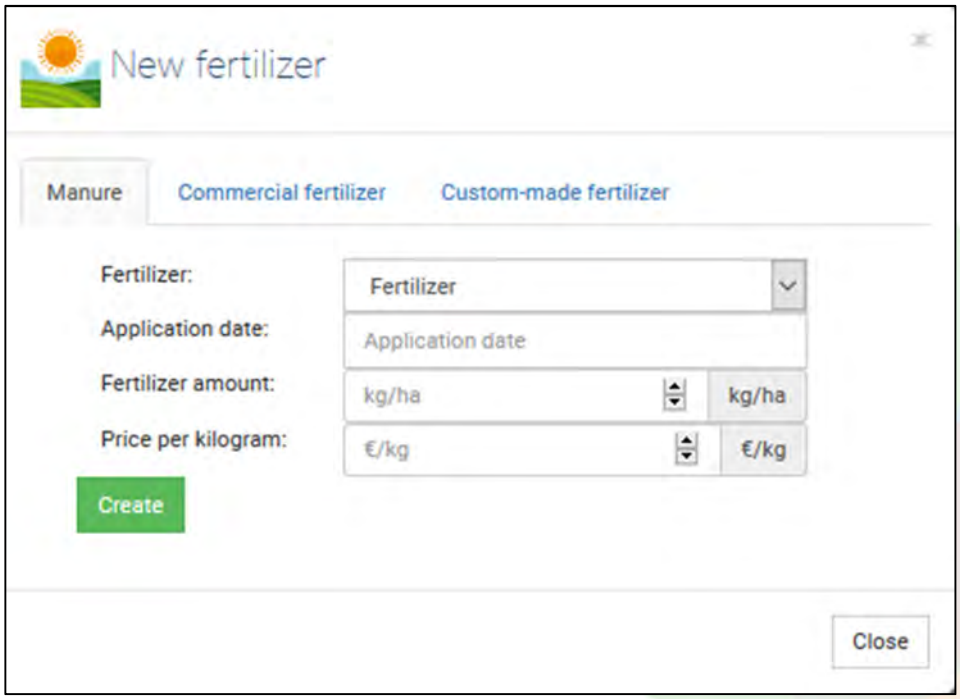


Click the button “Add +” below Fertilizers for adding a fertilizer

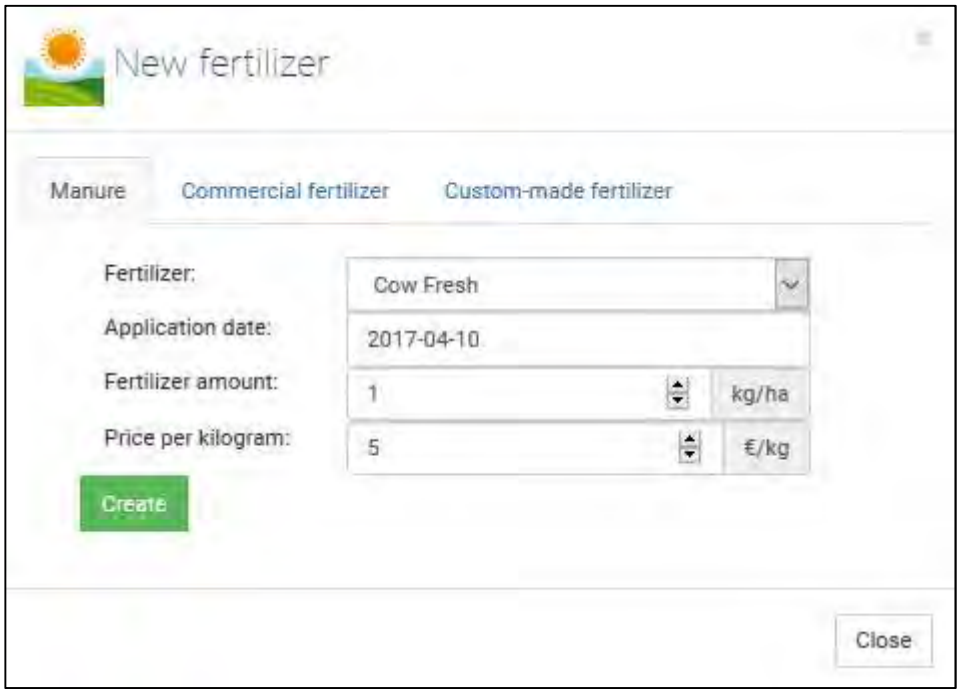


In the window for the “New fertilizer” you have 3 types of fertilizers: Manure, Commercial fertilizer and Custom-made fertilizer.

Start by clicking “Manure”. In the window “New fertilizer” you add the following data of the manure: the type; the application date; the amount used and the price. Then, click “Create”.



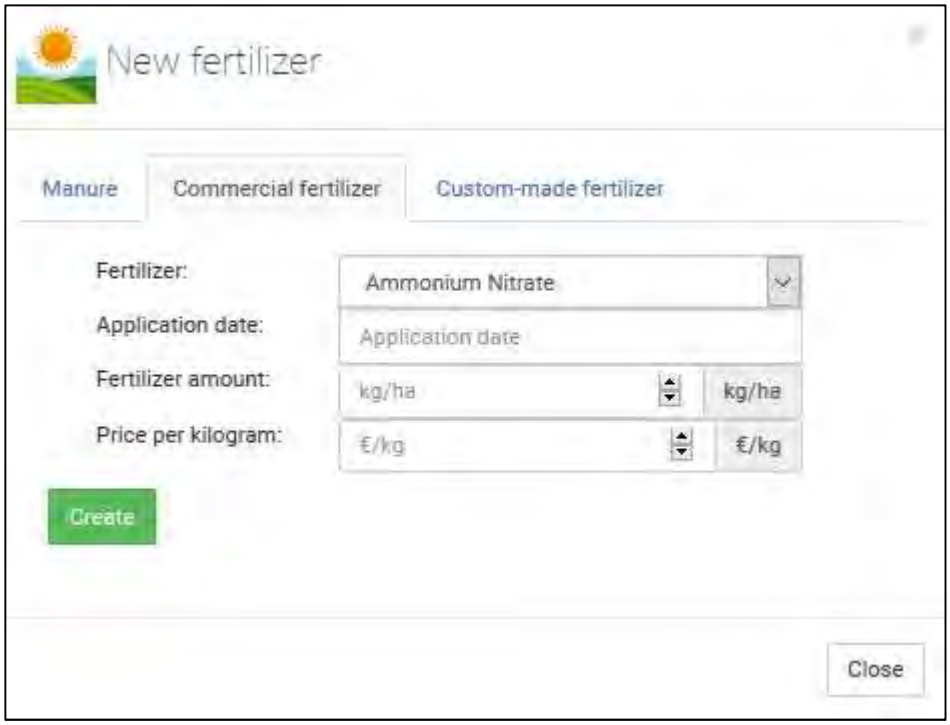
See an example below:



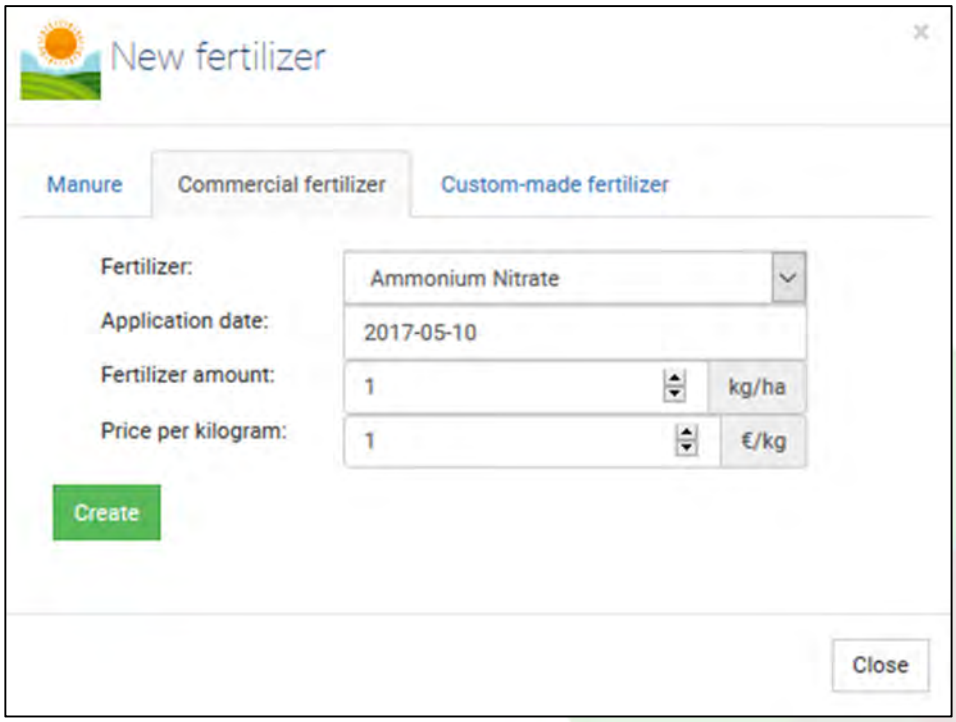
This chart showing a summary of the operation data is created:

By clicking the button “Add+”, you can add another fertilizer.

Click “Commercial fertilizer”. In the window “New fertilizer” you add the following data of the commercial fertilizer: the type; the application date; the amount used and the price. Then, click “Create”.

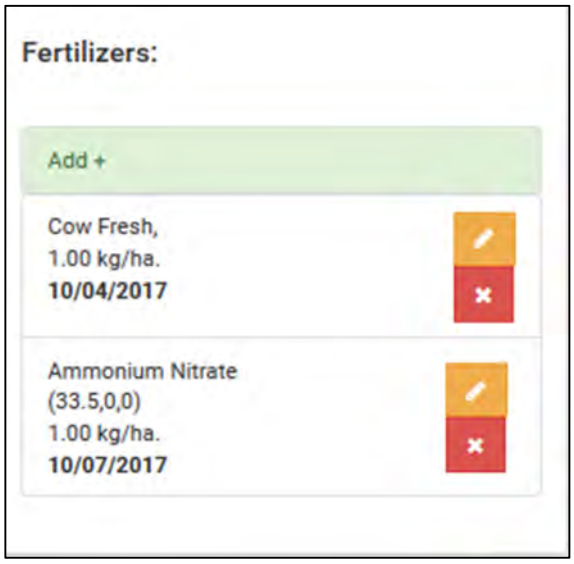


See an example below:

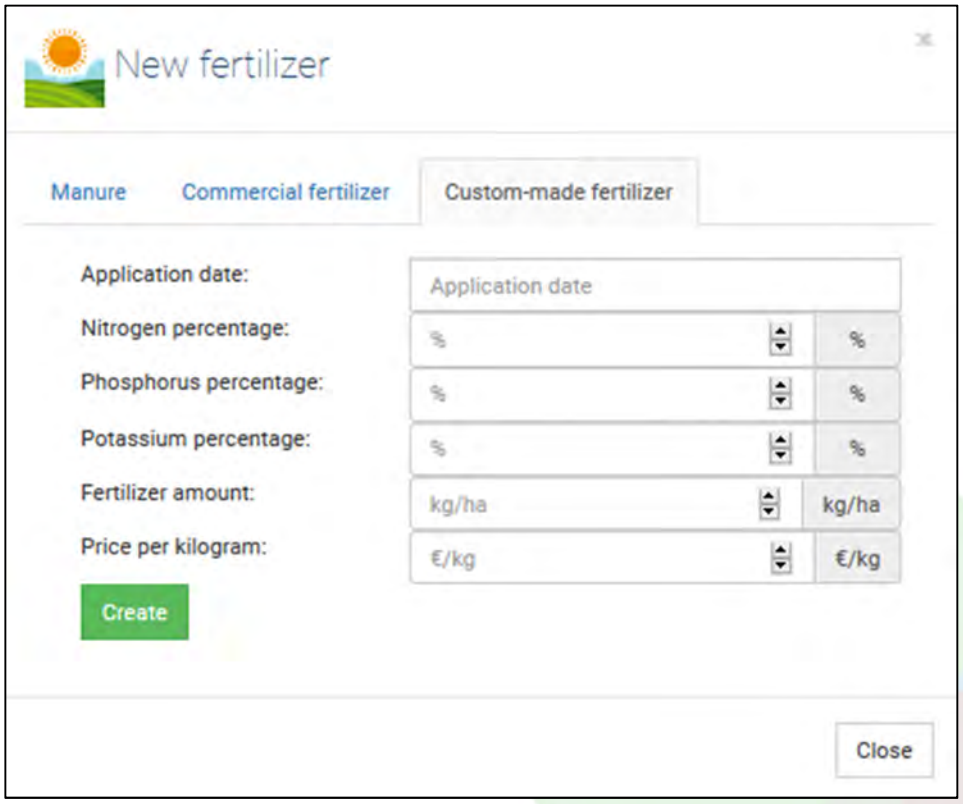


This chart showing a summary of the operation data is created.

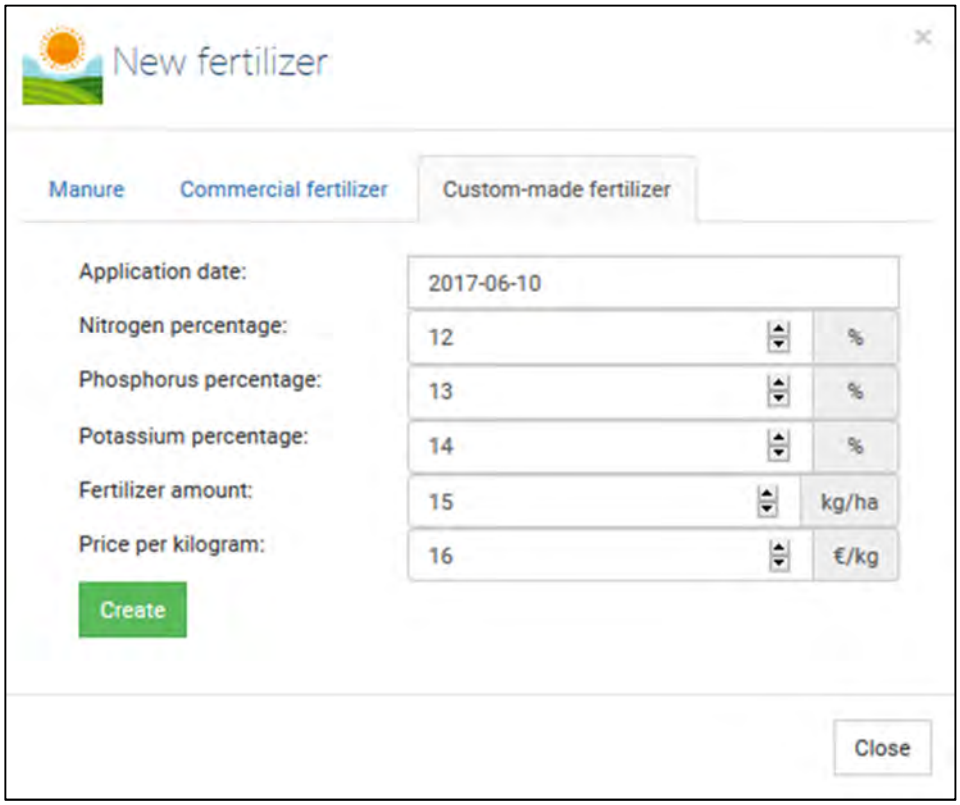
By clicking the button “Add+”, you can add another fertilizer.



Click “Custom-made fertilizer”. In the window “New fertilizer” you add the following data of the custom-made fertilizer: the application date; the nitrogen, the phosphorus and the potassium percentages; the amount used and the price. Then, click “Create”.



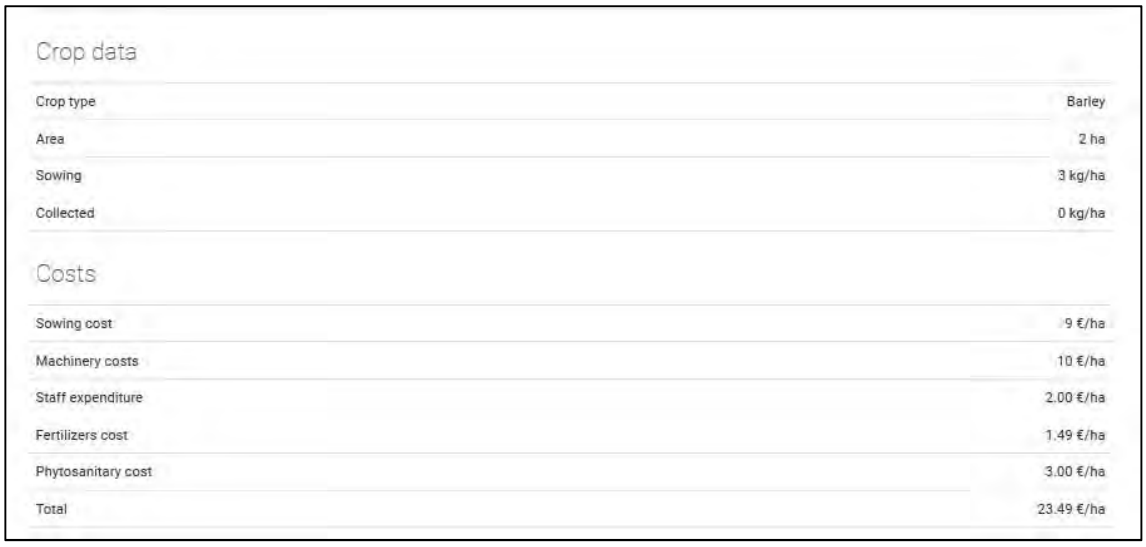
See an example below:



This chart showing a summary of the operation data is created.

By clicking the button “Add+”, you can add another fertilizer.

A chart and a summary of the data will be shown:

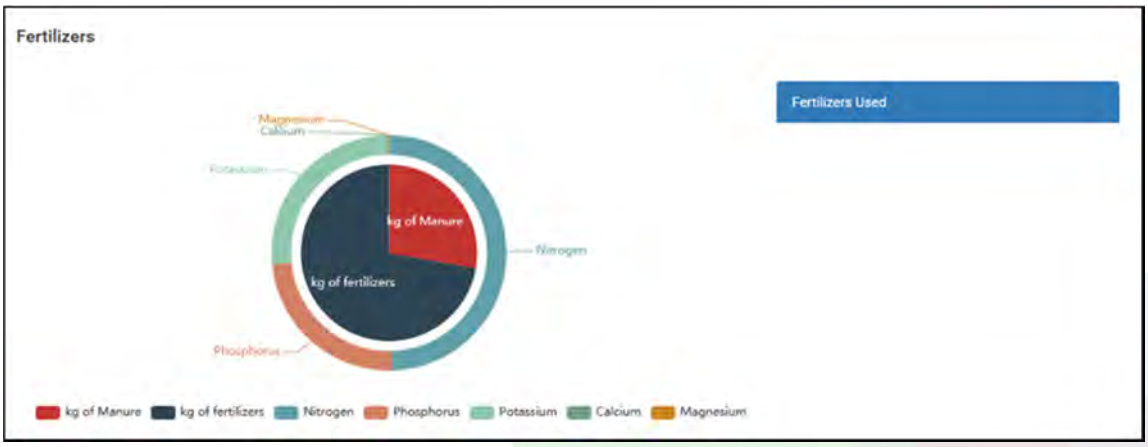


Crop data

Crop type	Barley
Area	2 ha
Sowing	3 kg/ha
Collected	0 kg/ha

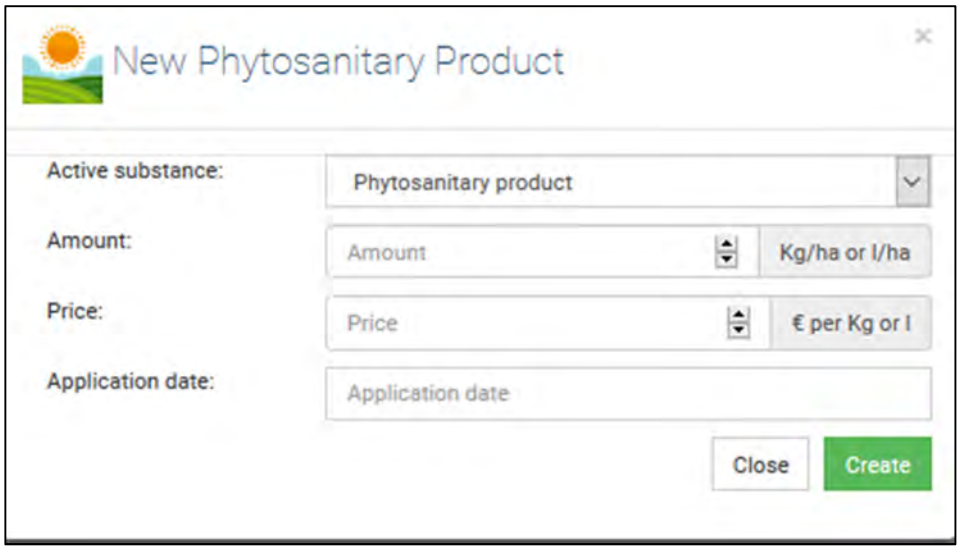
Costs

Sowing cost	9 €/ha
Machinery costs	10 €/ha
Staff expenditure	2.00 €/ha
Fertilizers cost	1.49 €/ha
Phytosanitary cost	3.00 €/ha
Total	23.49 €/ha

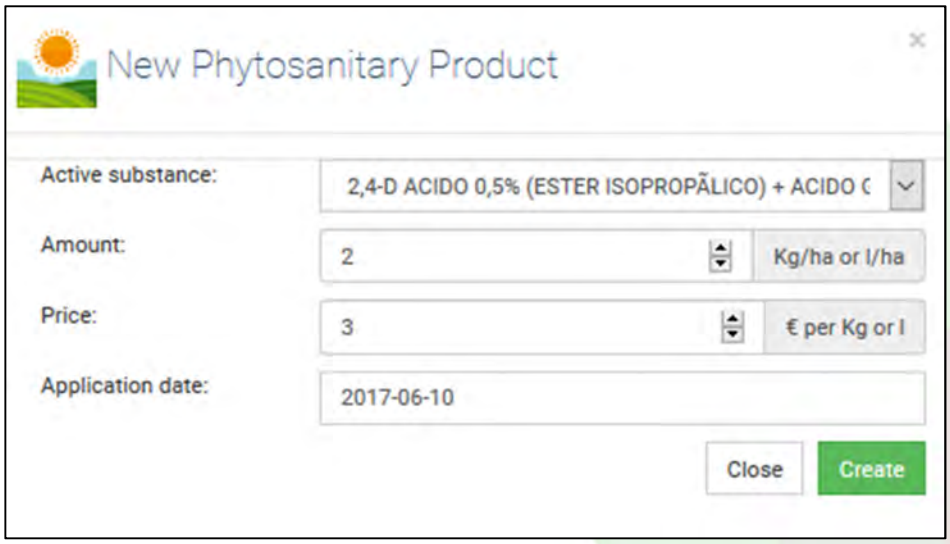


Now you can add a phytosanitary treatment by clicking the button “Add +” below Phytosanitary Products.

In the window for the “New phytosanitary product” you add the following data of the phytosanitary product: the type of active substance; the amount; the price and the application date. Click “Create”.

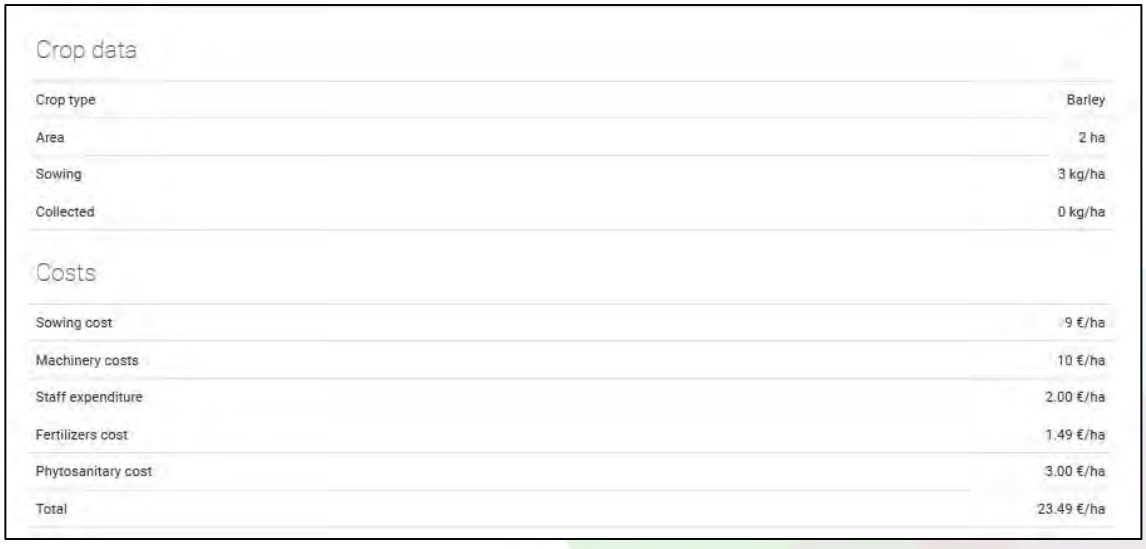


See an example below:

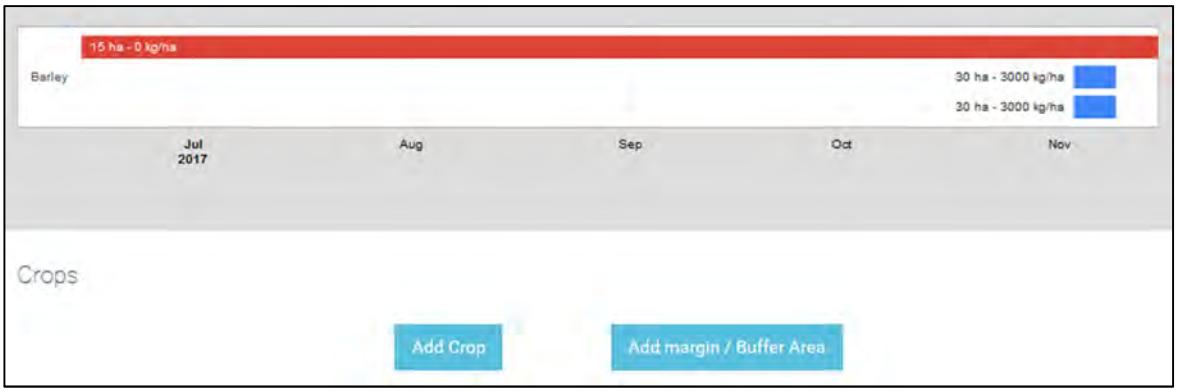


This chart showing a summary of the operation data is created.
By clicking the button “Add+”, you can add another phytosanitary.

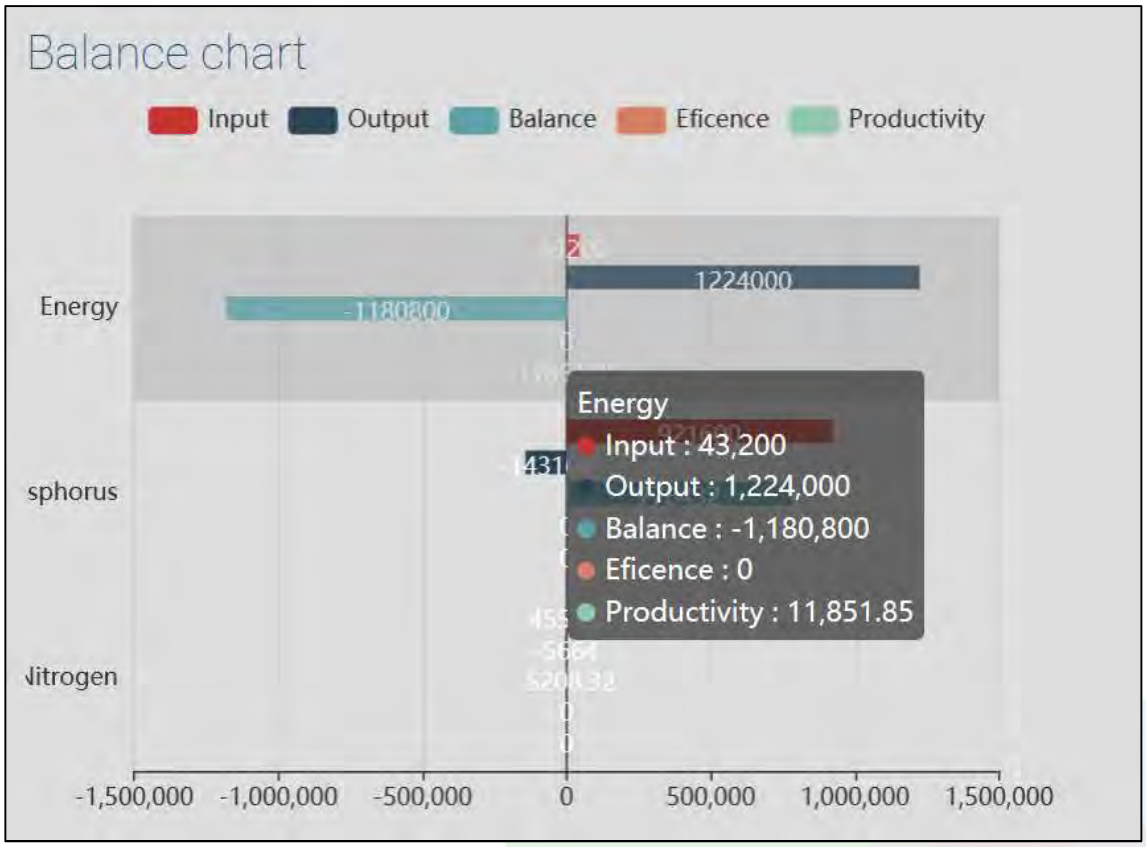
A chart and a summary of the data will be shown:



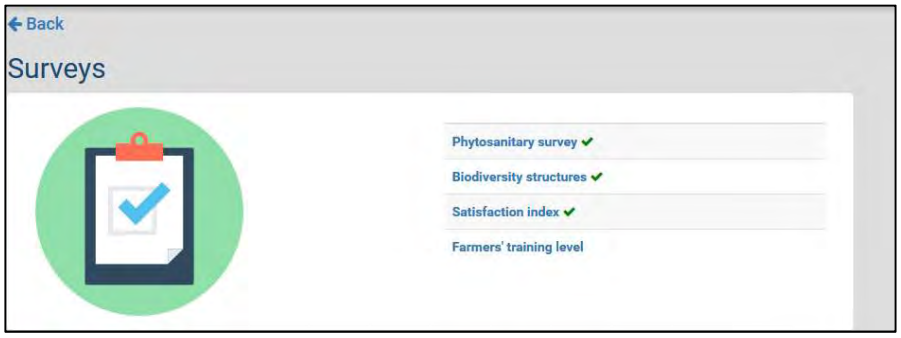
You will see a screen like this one below where you can add more crops and/or margins/buffer areas:



A balance chart with your data is created:

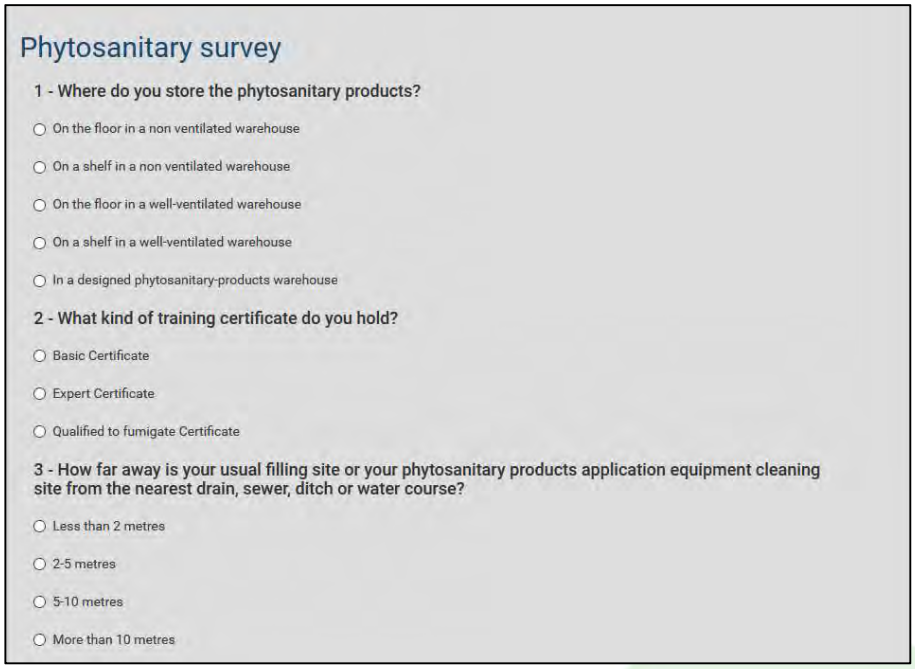


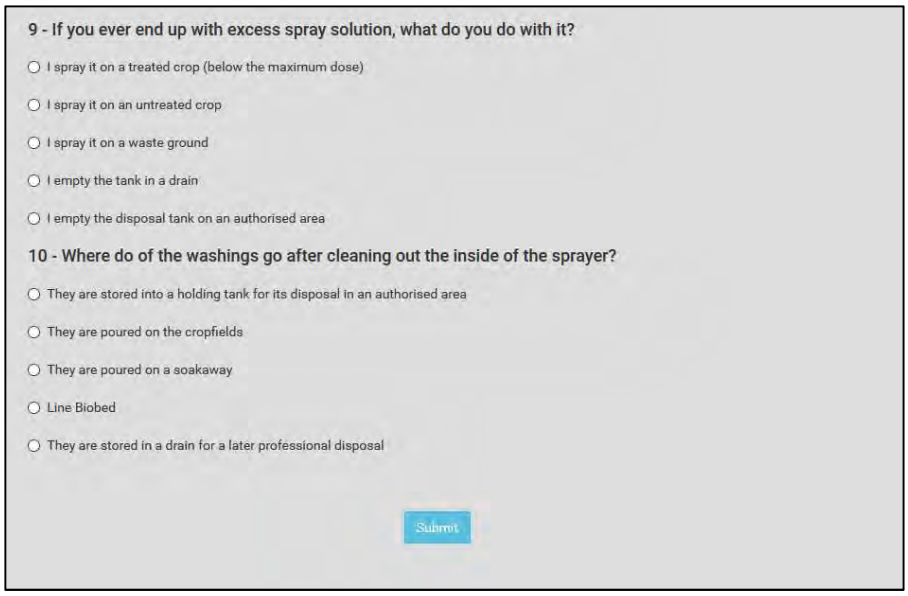
The next step is to take the surveys.



The first survey is about the phytosanitary products.

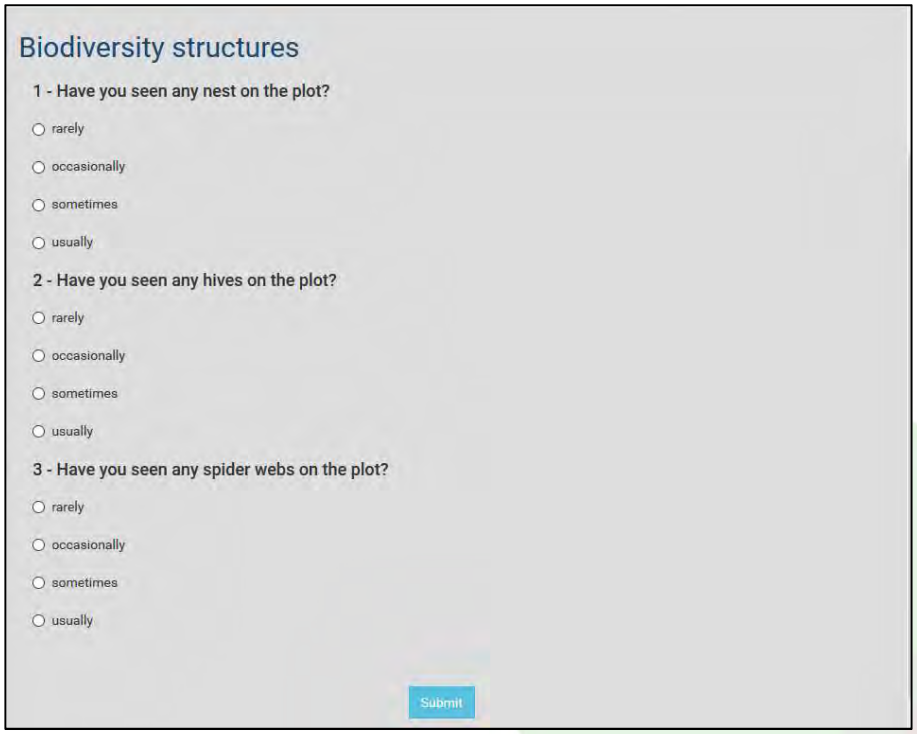
Click the option more suitable for you in the 10 questions and then click the button “Submit”





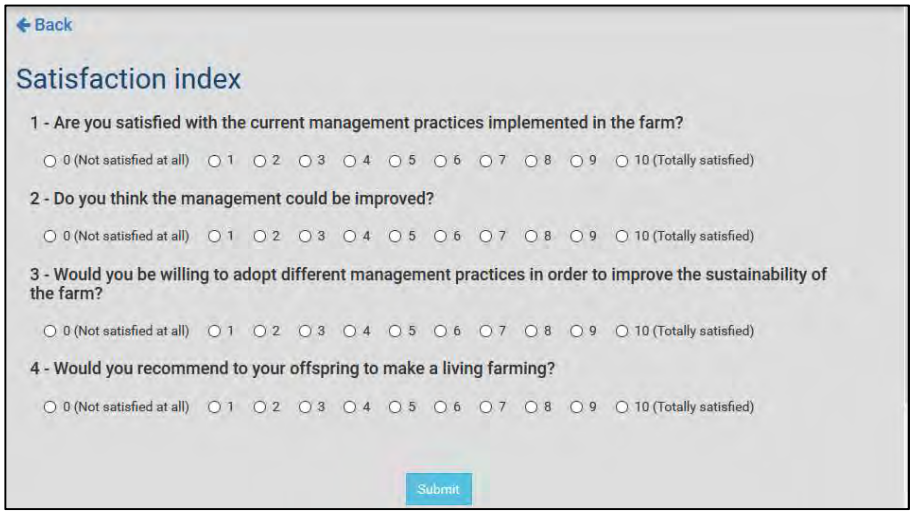
The next survey is about Biodiversity structures.

Clickthe option more suitable for you in the 3 questions, and then click the button “Submit”



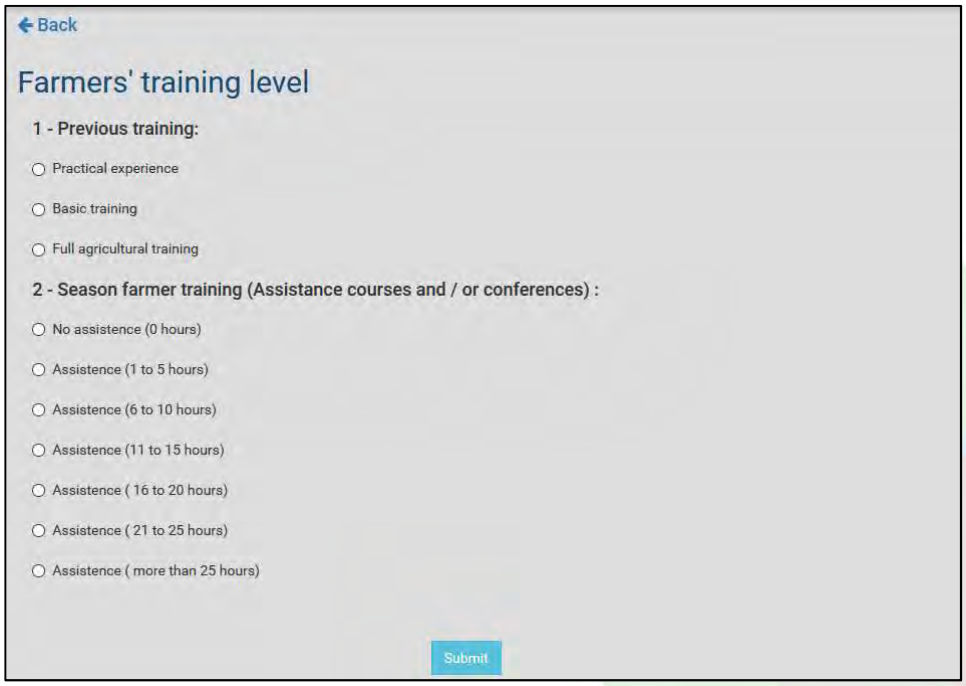
The next step is to fill out the questionnaire about your satisfaction with your management practices.

Then click the button “Submit”.

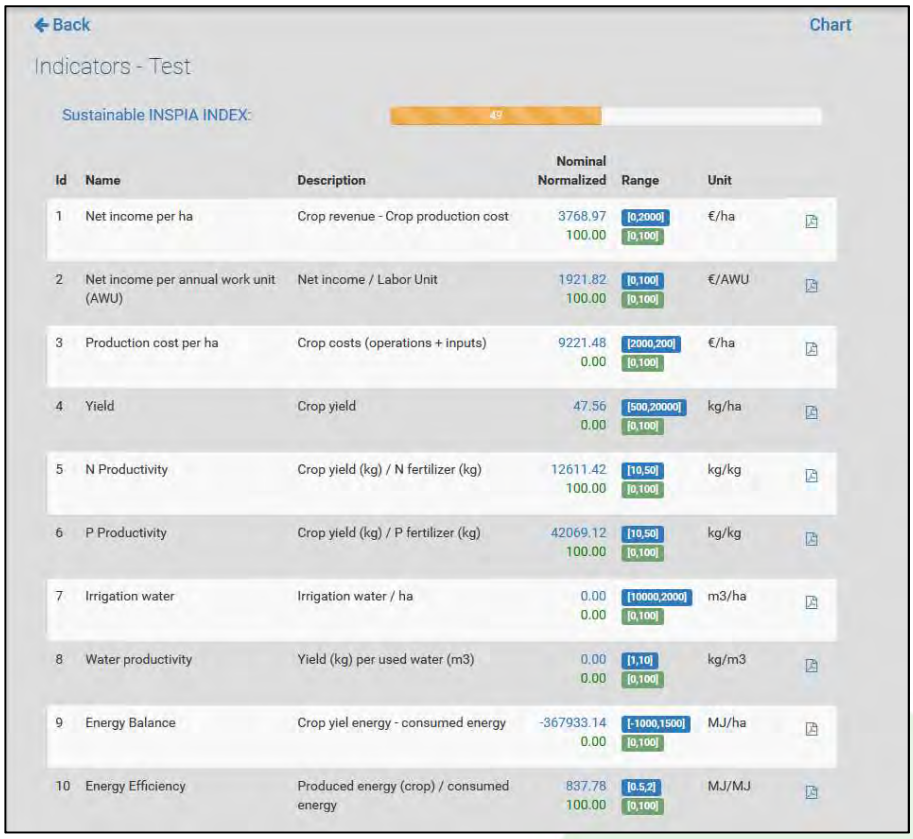


The next survey is about the farmer´s training level.

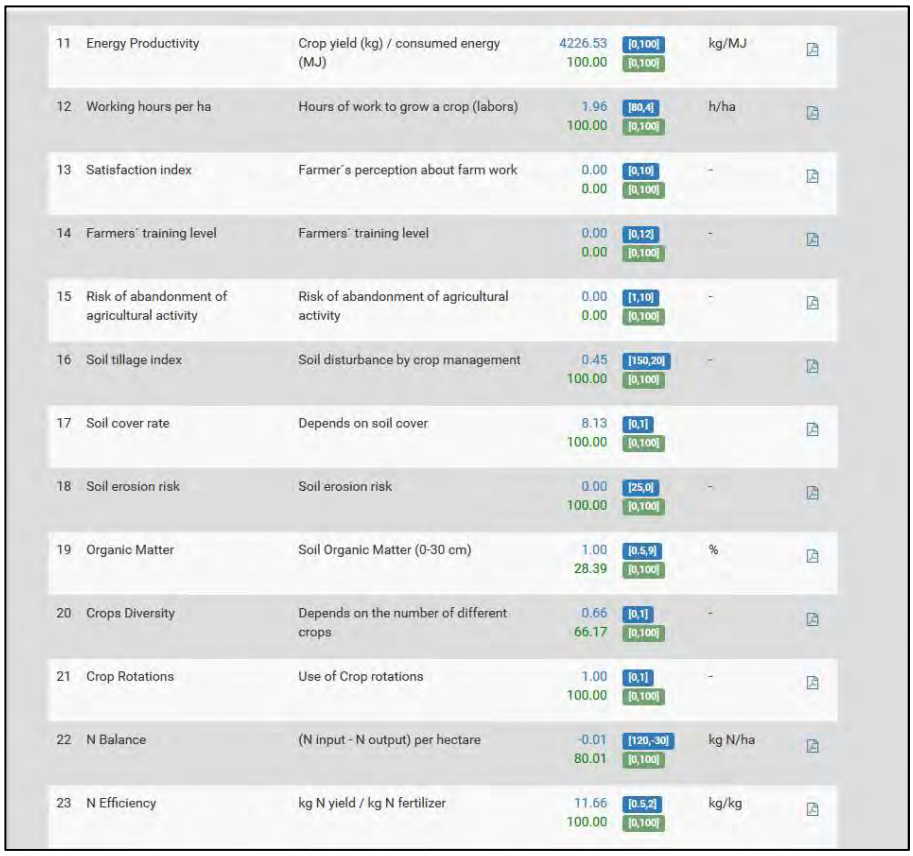
Click the option more suitable for you in questions and then click the button “Submit”.



Now you can click “Indicators” and all the indicators for your farm conditions will be displayed as shown:



Id	Name	Description	Nominal / Normalized	Range	Unit
1	Net income per ha	Crop revenue - Crop production cost	3768.97 / 100.00	[0,2000] / [0,100]	€/ha
2	Net income per annual work unit (AWU)	Net income / Labor Unit	1921.82 / 100.00	[0,100] / [0,100]	€/AWU
3	Production cost per ha	Crop costs (operations + inputs)	9221.48 / 0.00	[2000,200] / [0,100]	€/ha
4	Yield	Crop yield	47.56 / 0.00	[500,20000] / [0,100]	kg/ha
5	N Productivity	Crop yield (kg) / N fertilizer (kg)	12611.42 / 100.00	[10,50] / [0,100]	kg/kg
6	P Productivity	Crop yield (kg) / P fertilizer (kg)	42069.12 / 100.00	[10,50] / [0,100]	kg/kg
7	Irrigation water	Irrigation water / ha	0.00 / 0.00	[10000,2000] / [0,100]	m3/ha
8	Water productivity	Yield (kg) per used water (m3)	0.00 / 0.00	[1,10] / [0,100]	kg/m3
9	Energy Balance	Crop yiel energy - consumed energy	-367933.14 / 0.00	[-1000,1500] / [0,100]	MJ/ha
10	Energy Efficiency	Produced energy (crop) / consumed energy	837.78 / 100.00	[0.5,2] / [0,100]	MJ/MJ

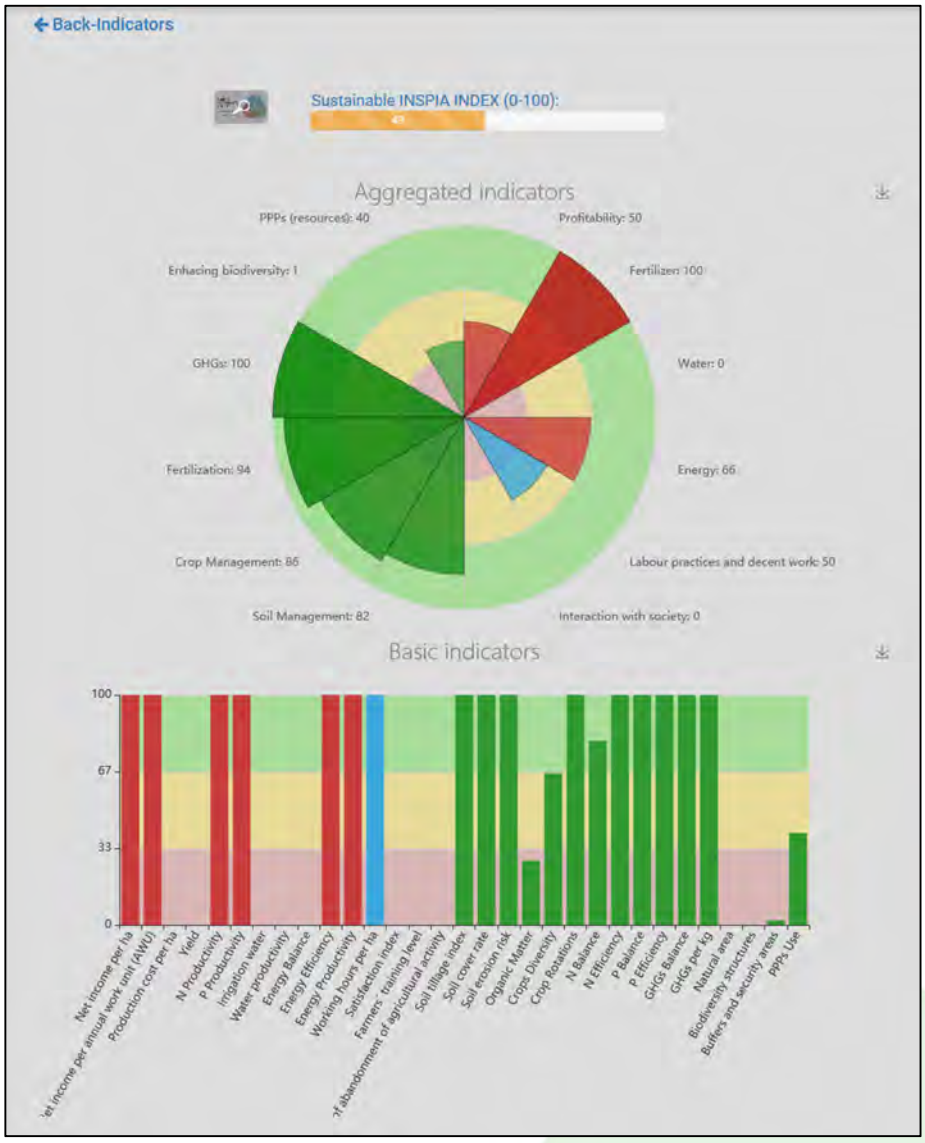


11	Energy Productivity	Crop yield (kg) / consumed energy (MJ)	4226.53 100.00	[0,100] [0,100]	kg/MJ	
12	Working hours per ha	Hours of work to grow a crop (labors)	1.96 100.00	[80,4] [0,100]	h/ha	
13	Satisfaction index	Farmer´s perception about farm work	0.00 0.00	[0,10] [0,100]	-	
14	Farmers´ training level	Farmers´ training level	0.00 0.00	[0,12] [0,100]	-	
15	Risk of abandonment of agricultural activity	Risk of abandonment of agricultural activity	0.00 0.00	[1,10] [0,100]	-	
16	Soil tillage index	Soil disturbance by crop management	0.45 100.00	[150,20] [0,100]	-	
17	Soil cover rate	Depends on soil cover	8.13 100.00	[0,1] [0,100]		
18	Soil erosion risk	Soil erosion risk	0.00 100.00	[25,0] [0,100]	-	
19	Organic Matter	Soil Organic Matter (0-30 cm)	1.00 28.39	[0.5,9] [0,100]	%	
20	Crops Diversity	Depends on the number of different crops	0.66 66.17	[0,1] [0,100]	-	
21	Crop Rotations	Use of Crop rotations	1.00 100.00	[0,1] [0,100]	-	
22	N Balance	(N input - N output) per hectare	-0.01 80.01	[120,-30] [0,100]	kg N/ha	
23	N Efficiency	kg N yield / kg N fertilizer	11.66 100.00	[0.5,2] [0,100]	kg/kg	

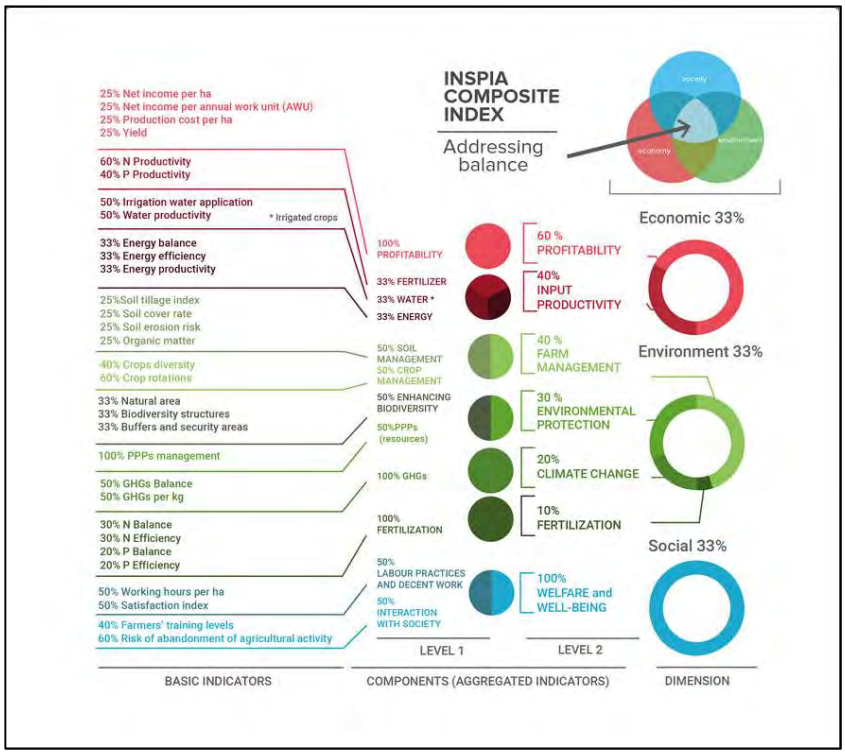
24	P Balance	(P input - P output) per hectare	-83.11 100.00	[120,-30] [0,100]	kg N/ha	
25	P Efficiency	kg P yield / kg P fertilizer	941.03 100.00	[0.5,2] [0,100]	kg/kg	
26	GHGs Balance	CO2 emissions (fertilizes,diesel,...) - CO2 fixed	108265.59 100.00	[0,100] [0,100]	CO2eq/ha	
27	GHGs per kg	kg CO2eq emissions per yield (kg)	948.24 100.00	[0,100] [0,100]	kg CO2eq/kg	
28	Natural area	Natural area / Total area	0.00 0.00	[0,20] [0,100]	%	
29	Biodiversity structures	Artificial nests, hives, artificial habitats	0.00 0.00	[0,4] [0,100]	-	
30	Buffers and security areas	Buffers, margins	0.31 1.54	[0,20] [0,100]	%	
31	PPPs Use	Based on "Check it out-pesticide handling areas"	4.00 40.00	[-125,135] [0,100]	-	

Go to the top right side and click “Chart”

Then, a diagram summarizing all the data is created:



By clicking on the magnifying glass, you will find a very detailed view of the INSPIA Composite Index, including its basic indicators and its agregated indicators.


INSPIA COMPOSITE INDEX
Addressing balance
25% Net income per ha
25% Net income per annual work unit (AWU)
25% Production cost per ha
25% Yield
60% N Productivity
40% P Productivity
50% Irrigation water application
50% Water productivity
* Irrigated crops
33% Energy balance
33% Energy efficiency
33% Energy productivity
25%Soil tillage index
25% Soil cover rate
25% Soil erosion risk
25% Organic matter
40% Crops diversity
60% Crop rotations
33% Natural area
33% Biodiversity structures
33% Buffers and security areas
100% PPPs management
50% GHGs Balance
50% GHGs per kg
30% N Balance
30% N Efficiency
20% P Balance
20% P Efficiency
50% Working hours per ha
50% Satisfaction index
40% Farmers' training levels
60% Risk of abandonment of agricultural activity
100% PROFITABILITY
33% FERTILIZER
33% WATER *
33% ENERGY
50% SOIL MANAGEMENT
50% CROP MANAGEMENT
50% ENHANCING BIODIVERSITY
50%PPPs (resources)
100% GHGs
100% FERTILIZATION
50% LABOUR PRACTICES AND DECENT WORK
50% INTERACTION WITH SOCIETY
60 % PROFITABILITY
40% INPUT PRODUCTIVITY
40 % FARM MANAGEMENT
30 % ENVIRONMENTAL PROTECTION
20% CLIMATE CHANGE
10% FERTILIZATION
100% WELFARE and WELL-BEING
Economic 33%
Environment 33%
Social 33%
LEVEL 1
LEVEL 2
BASIC INDICATORS
COMPONENTS (AGGREGATED INDICATORS)
DIMENSION