

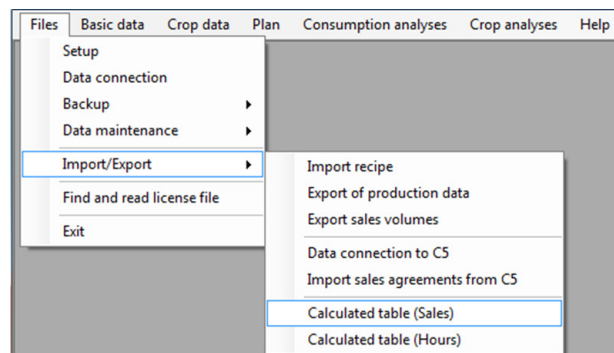


This is an accumulated description of changes made to GreenPlan recently, which are all contained in version 1.43.

The new functions and facilities are mostly developed on basis of wishes from current users.

Calculated data tables for external use in dashboards/cockpits:

The expected number of plants for sale and the expected number of hours for labor can now be saved in permanent tables within the database. This makes it possible to obtain these data and use them as budget data in e. g. a dashboard showing actual sales and confirmed orders compared to expected sales. The dashboard can then give you an overview of remaining quantities yet to be sold.



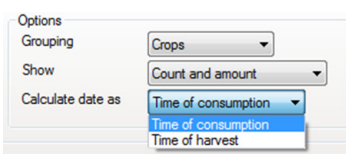
If interested then contact NB-Data in order to get the technical specifications.

Days between pinching and sticking a cutting:

In the nursery file on the variety tab, a new column has been added: "Cutting days".

The column contains the number of days that has to pass from the day a cutting is pinched/harvested until it can be used. This information is used in the analysis "Crop cuttings consumption", where a new option has been introduced.

No.	Description	Short description	Cutting days	Color
1	Simone	Simone		Click
2	Loren	Loren		
3	Taos	Taos		
4	Ariel	Ariel		
5	Gabor	Gabor		
6	Megan	Megan		



If the option is "Time of harvest" then the number of "cutting days" will be subtracted from the starting day. In this way you can produce a pinch/harvest list rather than a starting list.



Instant calculation of selling price for special orders.

Sometimes a customer calls asking whether the nursery can produce a special order, and what the selling price for that will be. Such orders may involve special packing and added value. GreenPlan is already capable of handling such a situation, but that includes a new recipe especially for this.

Instead of having the trouble of making an alternative recipe, it is now possible to calculate such a sale on the fly.

In the price calculator you enter the crop and the sales date and the number of plants to be sold. Then the rest is calculated for you.

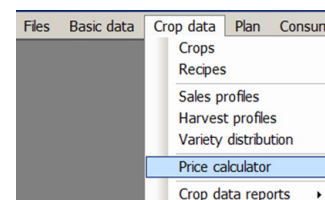
The calculated selling price is shown in the bottom of the upper half the form.

You can change either the contribution ratio or the profit margin per year m² in order to find a satisfying selling price. If the customer wants additional packing and added value then these can be added to the list of materials.

An addition will be immediately reflected in the selling price that will be recalculated. Additional packing will probably influence the time needed for packing, and the number of hours must be changed according to that. Again the change is reflected in a recalculated selling price.

The key figures in parenthesis are the corresponding figures in the recipe.

In the above example each plant are placed in a "Bear pot", which is added value. This changes the time needed for packing, the number of pots per tray and the number of trolleys for freight.



Price calculator

Crop: 905 9 cm Gabor
 Recipe: 1 Standard recipe
 Batch: 27/2019
 Sales week: 45-2019
 Sales count: 1000
 Discount%: 0.00

Sales price: 1.599 (0.846)
Turnover: 1.599 (846)

Key figures
 Method: Contribution ratio
 PM per year m²: 96.5 (76.6)
 Contribution ratio%: 30.0 (45.0)
 Profit margin: 480
 Prod. costs: 317
 Materials (Sales): 704
 Operations (Sales): 99
 Others (Sales): 0
 Start count: 1.031

Material	Count	Status
201 Freight 1	5,550	Changed
10900 9 cm tray	66,685	Removed
11020 Bear tray	125,000	Added
20900 9cm Sleeve	1,000,000	Removed
23110 Bear pot	1,000,000	Added

Operation	Hours	Status
80 Packing	2.22	Removed
80 Packing	3.70	Added



Calculation of outsourced labor.

GreenPlan is now capable of calculate the cost for work that is outsourced (piece work). This facility is primarily interesting for vegetable growers, who ship thier production to a distribution company where it gets packed. The cost for packing e.g. 1000 units is agreed, and it has no impact for the grower how long time it takes.

Operations file

No.	Description	Short desc.	Consumed by
20	Batch start	Start	Production
40	Maintenance	Maintain	Production
50	Spacing	Spacing	Production
60	Back spacing	Back Space	Production
80	Packing	Packing	Sales (Piece)

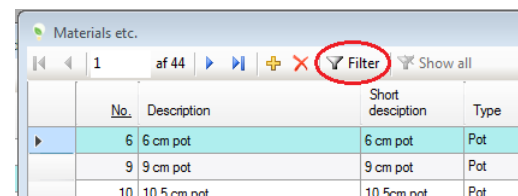
Dropdown menu for 'Consumed by':
 Sales (Piece)
 Production
 Sales
 Production (Piece)
 Sales (Piece)
 Production (Per m²)



Material types:

A new material type has been introduced: “Internal transport” and it should be defined exactly as “Freight (trolley)”. That is as one plant per trolley, which then can be scaled in the material profile using it. The internal transport is meant to be used where plants are moved from one location to another during the production. If “day in phase” is set to one and the transport is used in the first phase in the receiving location, then the increase of stock value is done in the receiving location. If “day in phase” is set to a large number (e.g. larger than the phase) and the use is in the last phase in the sending location, then the increase of stock value is done in the sending location.

In the material file there now is a filtering function making it possible to select which material type(s) that is displayed.

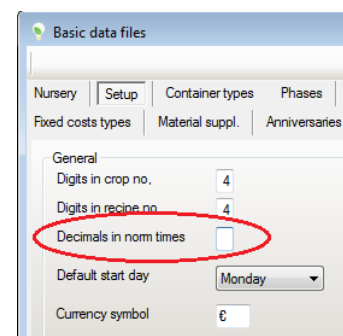


No.	Description	Short description	Type
6	6 cm pot	6 cm pot	Pot
9	9 cm pot	9 cm pot	Pot
10	10,5 cm pot	10,5cm pot	Pot

In the analyses “Crop material consumption” it is now possible to select one or more material types as filtering criteria for the output. This is not the most elegant feature, as the selection is done using the until now hidden internal number used as material type identification in GreenPlan.

Decimal places in norm times:

The possibility of defining the area unit as acres or hectares has resulted in a new setting. If you are plowing or sowing, which is area—and not crop—dependent, you will need a number of decimal places in the norm time in order to enter the correct norm time. However, this is confusing when working with pot plants on a square meter basis. Therefore an option has been introduced in the nursery file, where you can define the number of decimal places, that suits your needs. Pot plant growers using m² or ft² will normally not have a need for decimal places and the default value is therefore 0 (zero).



Basic data files

Nursery | Setup | Container types | Phases

Fixed costs types | Material suppl. | Anniversaries

General

Digits in crop no. 4

Digits in recipe no. 4

Decimals in norm times

Default start day Monday

Currency symbol €



New machines file:

Parallel to the materials file and the operations file a file containing machines have been added. Here you can specify potting machines, spacing machines, packing machines etc. The machines are applied just like materials and operations using machine profiles and/or defining the usage directly in a recipe.

This makes it possible to include the costs for machines directly into the budgets. It also makes it possible to spot any bottlenecks, as machines are not as flexible as operations and can only run max. 24 hours per day.

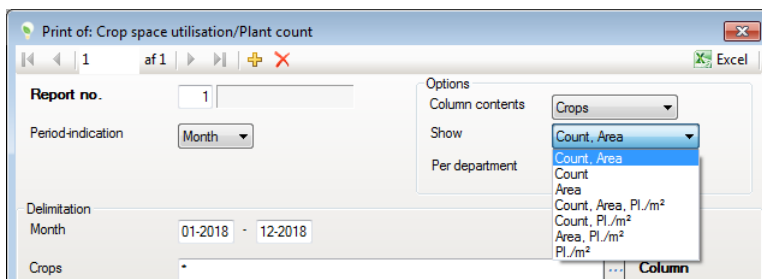
Profit margin demand:

In the department file a new field has been introduced: "Demand for PM/year-m²". For the moment being, it is only used for scaling the distribution of profit margins in the location budgets. It is the intention that it in a future version will be used for calculating a minimum selling price for a batch, based on its placement in different departments during the production.

No.	Description	Demand for PM/year-m ²	Location
1	Propagation	75.00	Nursery
2	Old department	50.00	Nursery
3	New department	100.00	Nursery

Space utilization report extended:

The analyses for "Crop space utilization" has been extended with plant count and average plants per m². The extension is optional and any combination of "Count", "Area" and "PI./m²" can be selected.



New keyboard shortcut:

In the recipe file it is now possible to stay in a fixed position within the phase table while shifting to another recipe period. Until now it has been necessary to do the repositioning manually each time a new period was chosen. That made it troublesome to do corrections of e.g. the duration of a phase in multiple periods.

Now you can shift to the next period using the key combination [Shift]-[Ctrl]-[Arrow down] while staying in the exact same field in the phase table. Shifting to the prior period is done using [Shift]-[Ctrl]-[Arrow up].



Filters in recipes:

In the recipe file you can now select which materials, operations or machines you want to focus on. This is a facility for those preferring not to use profiles for defining costs in each phase. Especially when having very long production times this can be handy, in order to overview whether one or more e.g. operations are defined correctly in all phases. In the example below (Danish data) production of apples on trees lasting 15 years must be fertilized regularly. In order to get a proper overview, all other materials have been filtered out, and it is now much easier to proofread, whether the amount of fertilizer is correct each year.

Recipe file [1310: Æbler 15 år økologisk omlæg 3.år]

af 1 af 1 Lock sales Filter Show all Phase costs Recipe description

No.	Description	Material profile	Operation profile	Machine profile	Treatment-profile	As crop
300	Økologiske æbler		As crop	As crop	As crop	As crop

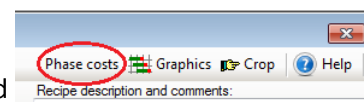
Start weeks From	To	Crop time Weeks	Days	sales weeks From	To
1	1	779		46	51
2	53			2	52

Phases	Materials	Operations	Machines	Analysis
Phase no.	Start week	Day in phase	Material	Quantity Consumption
20	væPs1	19	2220	GoBlad/Eb 11,111 = 11,11 kg. Per week-ha.
20	væPs1	19	2210	Gødnl/Ebl 250,000 = 250,00 kg. Per ha.
38	væPs2	10 (2)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.
38	væPs2	10 (2)	2210	Gødnl/Ebl 250,000 = 250,00 kg. Per ha.
48	væPs3	9 (3)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.
48	væPs3	9 (3)	2210	Gødnl/Ebl 250,000 = 250,00 kg. Per ha.
58	væPs4	9 (4)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.
58	væPs4	9 (4)	2250	ØGødnl/Ebl 550,000 = 550,00 kg. Per ha.
68	væPs5	9 (5)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.
68	væPs5	9 (5)	2250	ØGødnl/Ebl 550,000 = 550,00 kg. Per ha.
78	væPs6	9 (6)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.
78	væPs6	9 (6)	2250	ØGødnl/Ebl 550,000 = 550,00 kg. Per ha.
88	væPs7	9 (7)	2220	GoBlad/Eb 12,500 = 12,50 kg. Per week-ha.

Phase costs in recipes:

As the above example indicates it can be confusing to define very complicated growing protocols. You can easily loose track of things, as the costs in a single phase are defined in several different places. It therefore also simplifies proofreading, when you can focus on one phase alone. In the upper right corner of the recipe file there now is a button "Phase costs" that displays a window showing the materials, operations and machines applied to the current phase. In this example (same data as above) it is shown which materials and which operations and how much are applied to phase 15. The rightmost column shows where each cost is defined. In this example it is purely within the recipe itself, but it could as well be in profiles or a mix of both.

The window showing the phase costs is updated with new data when the "current phase" changes in the recipe file. You can thus step through each phase and the cost window will show the appropriate data as you go along.



Phase costs: Materials, Operations, Machines

Exit

Crop: 1310 - Æbler 15 år økologisk omlæg 3.år
Recipe: 300 - Økologiske æbler
Start week: 1

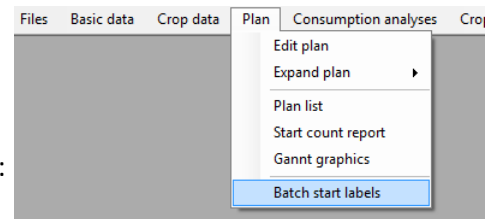
Phase	Day in phase	Type	Description	Consumption	Source
15	KuSta	1	Material	1510 pæl	500,00 stk Per ha. Recipe
15	KuSta	1	Operation	2020 Syst-nypl	0,0100 Hektar/Hour Recipe
15	KuSta	14	Material	1540 Stok-frugt	2,900,00 stk. Per ha. Recipe
15	KuSta	14	Material	1550 tråd	12,000,00 m. Per ha. Recipe
15	KuSta	28	Material	610 Frugt-træ	2,900,00 stk. Per ha. Recipe
15	KuSta	28	Operation	2030 Plantning	0,0100 Hektar/Hour Recipe
15	KuSta	42	Material	1530 dryp+slang	3,000,00 m. Per ha. Recipe
15	KuSta	42	Operation	2040 Opbl-nye	0,0400 Hektar/Hour Recipe



Batch start labels:

In the main menu under “Plan” a new item has been introduced: “Batch start labels”. Here it is possible to print out a number of labels describing the most basic information about a batch such as:

- Starting date
- Important dates during the crop time (Obs phases)
- The first day of selling
- Any remark from the planning file
- A completely free text



The form in which the batch for label printout can be selected contains all the necessary links to other resources needed for label printing: Printer definition and custom layout.

Crop		Start week	Start day	Start count	Remark
901	9 Simone	09-19	Mon	3560	
901	9 Simone	10-19	Mon	3560	
901	9 Simone	11-19	Mon	3560	
901	9 Simone	12-19	Mon	3560	
901	9 Simone	13-19	Mon	3560	
901	9 Simone	14-19	Mon	3560	
901	9 Simone	15-19	Mon	3560	
901	9 Simone	16-19	Mon	3560	
902	9 cm Loren	09-19	Mon	2136	
902	9 cm Loren	10-19	Mon	2136	

At least one label printer must be defined in order to print anything, which is done in “Label printers”

For the moment being only Zebra printers are supported, as these are a common brand in nurseries worldwide.

One field of particular importance is the “Pixels per inch” field. In this example the printer is capable of printing with 80 dots per centimeter. When calculated in inches the number of pixels are 203.

Printer no.	1
Description	Zebra420d
Short description	Zebra420d
Printer	ZDesigner GK420d
Pixels per inch	203
Remark	

How to obtain a layout is described on the next page. You get to the layout form by clicking the “Layout” button.

Another facility is the “Save label” function. Here you can save an image of the resulting label for processing in another system. You might for instance want to print your label on label sheets using a laser printer. The image can be used for that. It is also a preview tool, where you can see the resulting without actually printing it.



Label layout.

In order to get a label, that reflects the information that you want printed, you must define that using custom layout. There are two different kinds of elements on a label: Fields and fixed text.

The fields are having a pair of square brackets on each side. E. g. "[CropNo]".

This field is a placeholder for the actual crop number when printed. The same applies for all other fields. When printing they are substituted with a corresponding value/text.

Special fields are the "Obsdate" fields. Using these you can print the expected dates for "Short day" when growing Kalanchoes and you can print the expected days for first and second cut down when growing pot roses.

Another special field is "[Remark]" which prints any remark/note made on the planning line being printed. Likewise is the field "[FreeText]" which gets its value from the printing form which has a field for any "on the fly" note that you want on the label.

The other kind of label elements are fixed texts. These stay the same regardless of what is being printed.

In the examples on this page a layout tailormade for Kalanchoes are shown. In the preview you can see that at least one Kalanchoe specific fixed text is on the label: "Short day". All other fixed texts are pretty general and can be reused in another layout. In order to produce a layout for pot roses you do not have to design a new label from scratch. Just copy this one to a new label number and alter the fixed text "Short day" to "Cut down".

If you have more than one cut down you must also make room for the second "ObsPhase".

In the layout shown there are two columns. One with fields for planned dates and another consisting solely of fixed texts. Here it is possible to record the actual dates with e. g. a ball pen.

No.	Description	Short desc.	Format Width	Height	Left	Top	Right	Bottom
1	kalanchoe	kalanchoe	6,00	4,00	0,20	0,20	0,20	0,20
2	Pot roses	Pot roses	6,00	4,00	0,20	0,20	0,20	0,20
3	Test	Test	6,00	4,00	0,20	0,20	0,20	0,20

[Field name]/Text	Placement Left	Top	Font name	Size	Bold	Italic	Underlined
Crop	0,20	0,10	Calibri	12,0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[CropNo]	1,50	0,10	Calibri	12,0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[CropNameLong]	3,00	0,10	Calibri	12,0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Batch	0,20	0,50	Calibri	12,0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[Batch]	1,50	0,50	Calibri	12,0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Preview of the label layout:

```

Crop [CropNo][CropNameLong]
Batch [Batch]
Containers: [Containers]
Start count: [PlantsStarted]
Planned:      Realized:
Start date : [StartDate]   . -19/ .
Short day : [ObsPhase1Date]19/ .
Sales start: [SalesDay1]   . -19/ .
Remark [Remark]
    
```

Crop 902 9 cm Loren
Batch 09/2019
 Containers: 3
 Start count: 2136

	Planned:	Realized:
Start date :	09-19/Mon	. -19/ .
Short day :	13-19/Mon	. -19/ .
Sales start :	21-19/Man	. -19/ .

Remark



Overruling phase data for a single batch:

(contained in the plan follow up supplemental module)

In the planning file a new function “Override phases [Shift]-[F8]” has been introduced making it possible to let a single planning line deviate from the underlying recipe. Example: You may want to start two batches the same week but cutting them down two different days in order to have two different selling periods. This would normally require using two different recipes; one for each way of production. Now you can simply overrule one of them without having to maintain several recipes. The function may also be used as a registration tool recording the actual phase durations, as they turned out in real life.

Phase	Phase dur. Weeks	Days	Phase start Week	Day	Department		Waste %	Plants
10 Start	4	1	03-2019	Mon	1	Propagat.		
11 Short	1		07-2019	Tue	1	Propagat.	1.0	28
20 Space	12		08-2019	Tue	2	Old dep.		
99 Sale	1		20-2019	Tue	2	Old dep.	1.5	42

In the above example an extra day has been added to the starting phase, The batch is spaced in the “Old department” and the waste in the selling phase has been changed to 1.5%. Overruled data are marked as colored fields making it easy to see, where changes have been made. If the mouse is moved over a changed field, the original value will be shown in a “fly by tooltip”.

	Waste
1 Propagat.	
1 Propagat.	1.0
2 Old dep.	
2 Old dep.	1.5

When the function is called the first time for a planning line, then the small table is generated using the underlying recipe. The next time for the same planning line, it is the previously created overruling that is displayed. If GreenFlow is used, it is the durations for the phases in the adapted recipe that are displayed. When changes are saved, then these are written back to the adapted recipe and no additional records are put into the table with overruling data.

Crop	Batch start Week	Day	Status	Remark
901 9 Simone	01-19	Mon		
902 9 cm Loren	01-19	Mon	PO	Write the explanation here
901 9 Simone	02-19	Mon		
901 9 Simone	03-19	Mon	PO	
902 9 cm Loren	03-19	Mon		

On the “Miscellaneous” tab it is displayed which lines are having an overrule of the phase durations. The status field is painted pink/salmon when any special conditions are attached to the planning line. For now it is only the phase duration overruling, that is displayed. The possibilities for future informational indications are many. Suggestions are welcome.

Overrules are not copied when using any of the copying functions in the plan.