

## Gross Margin Comparison Tool for Vegetable Growers

The program, developed specifically for the vegetable industry to help growers make informed decisions about potential profitability on their farms, provides a systematic method for comparing different vegetable crop gross margins. The development of the program was led by horticultural consultant Lauren Thompson, of Scholefield Robinson Horticultural Services, in Adelaide as part of a National Vegetable Levy funded project.



### The bottom line

- ▶ A new computer program, available to vegetable growers enables producers to compare vegetable crop gross margins and make informed decisions about what to grow on their farms.
- ▶ The user-friendly program has been developed specifically for the vegetable industry, and allows growers to make simple comparisons of different crop production scenarios.
- ▶ The program, identified as an industry need outlined in VegVision 2020, provides growers with a simple tool to develop gross margins for specific vegetable crops and allow comparisons of various scenarios.





## Gross margin comparison tool for vegetable growers

The tool, which is free to all National Vegetable Levy paying growers, is a simple, Excel-based program that allows growers to select from a large 'drop-down' list of vegetable commodities, whilst also allowing growers to manually enter their own crops. Other details can also be entered into the program that defines each grower's different scenario, such as cultivar or market destination. Growers are also able to work in units they are familiar with, when it comes to yields and areas (for example, acres can be selected instead of hectares) and different scenarios may be saved for future reference.

The program allows growers to alter the scenarios to reflect real or potential changes, such as increasing costs of water or changes in market prices, while keeping all other variables the same. This feature allows growers to proceed with growing particular crops, with a greater understanding of the potential for profitability, and also understand the potential risks involved.

"There is a concern within the industry that some growers might be disrupting the market by entering into production of a particular crop following abundant prices for that particular commodity in previous years, without considering the impact of increased supply on future commodity prices," Lauren said.

"With a tool such as this one, producers are able to work through the scenario, and, in conjunction with advice from a professional financial analyst, make better decisions about which crops are likely to generate sufficient gross margin returns and result in profits for their business."

## How does the tool work?

The free Excel-based program will be available to download via the AUSVEG website in the Grower Portal section <[www.ausveg.com.au](http://www.ausveg.com.au)>. If growers have limited internet access, they can request a copy of the program to be mailed to them on a CD-ROM. Please refer to the Further reading section on page four to order a copy of the CD-ROM.

The AUSVEG website will also feature updated versions of the software. Growers are encouraged to visit the Grower Portal for information or future versions of the software.

Growers will need to have access to Microsoft Excel on their computer to use the new tool.

Once the software is installed on the computer hard drive, growers can begin using the tool.

## Enter crop and income details

To start, users must enter three critical details before calculations can begin. These are the **season**, the **crop type** and a **scenario description**.

These three pieces of information are necessary to save the scenario and allow comparisons to be made later in the process. In order to save and compare, users are required to change one of these three variables, so that they know what they are comparing against.

Next, users are required to define the harvest units they wish to use, as well as details of the area being planted.

The software is easy to use and allows growers to define their own units. If growers are accustomed to describing their yields in terms of numbers of crates, then they can do so by selecting '**crates**' from the drop-down list, and then define the crate weight in kilograms. Growers can also define their growing area in units that they feel comfortable with, and if they choose 'greenhouse', 'bed' or 'patch', they are then prompted to enter the dimensions in metres so the crop area in hectares can be calculated to enable comparisons later in the process.

Finally, growers are required to enter yields and prices, using the units defined in the earlier steps. At this stage, growers are able to split up data to reflect different vegetable grades and associated prices for those grades. This area of the program also allows growers who have sequential harvests from a crop, e.g. the expected yields and prices for the first, second and third pick of parsley.

The capacity to split the crop into grades and cater for sequential harvests is also available and allows growers to input data which more accurately reflects the variations in crop quality and market prices achieved for those variations.

Once income determinants are complete, growers can then move onto the next section where they input their costs.



## Enter operating costs

In this section, growers are required to enter their operating costs.

The program will automatically prompt a list of ten cost categories, including the cost of seed and/or plants, fertiliser, fuel, chemicals, water, labour, electricity, packaging and transport, as well as an 'other' category. The program is set up to allow growers to directly input their total costs for each category, or alternatively, growers can go through a series of worksheets to help them work out costs.

As growers input this data, a financial summary table is populated with values based on decisions made throughout each step of the process.

"Once the user is happy with all the information that they have put into the table, it is as simple as pressing the 'Copy' button, and this scenario is placed on the 'Comparison page'," Lauren said.

## Saving and comparing scenarios

Lauren explains that the power of the program lies in the next step, which allows growers to consider an alternative scenario (a new scenario name), without having to input all the data again.

Depending on the variable being investigated, growers then go back to step one to alter their income or yield figures, or to step two to alter a cost item, and a new scenario is created.

Once the first scenario has been processed, growers are able to save the scenario, and then go back to the first step of the program, and alter the data that they want to manipulate. For example, if growers want to go back and recalculate their margins based on increased yields, they can go back

**STEP 1 ENTER CROP DETAILS**  
Type words or numbers in the boxes, or select from a dropdown list

Season: [ ] Crop: [ ]

Scenario Name: [ ] Period from Planting to Final Harvest: [ ] weeks

Choose your Harvest Unit: [ #/N/A ]

Choose your Area Unit: [ #/N/A ]

Size of your crop area: [ #/N/A ] hectares

**Yield and Prices from this area**

1st grade or 1st pick: [ ] 0 earning: [ #/N/A ]

2nd grade or 2nd pick: [ ] 0 earning: [ #/N/A ]

3rd grade or 3rd pick: [ ] 0 earning: [ #/N/A ]

total yield: [ ] 0 0 Average price: [ #DIV/0! ] #/N/A

**FINANCIAL SUMMARY**

**Crop and Scenario Description**

Crop	0	#/N/A
Season	0	#/N/A
Scenario	0	#/N/A
Production Unit	0	#/N/A
Area (hectares)	#/N/A	#/N/A

**Gross Income and Yield for this Scenario**

Total Yield (this cr	0.0	0
Yield per hectare	#/N/A	#/N/A
Average price	#DIV/0!	#/N/A
Gross Income	\$0	#/N/A

**Operating Costs**

	#/N/A	per hectare
Seed/plants	\$0	#/N/A
Fertiliser	\$0	#/N/A
Fuel	\$0	#/N/A
Chemicals	\$0	#/N/A
Water	\$0	#/N/A
Labour	\$0	#/N/A
Electricity	\$0	#/N/A
Packaging	\$0	#/N/A
Transport	\$0	#/N/A
Other	\$0	#/N/A
<b>Total Operating Costs</b>	<b>\$0</b>	<b>#/N/A</b>

**GROSS MARGIN**

by area	\$0.00	#/N/A
#/N/A	#/N/A	per hectare
#/N/A	#DIV/0!	#/N/A
#/N/A	#/N/A	#/N/A
Weeks to grow & harvest crop	0	

**TIPS**

1. To see choices in a dropdown list, click on the white box, then click on the arrow that appears to the right of it
2. Use the TAB key to move to the next white box
3. Use the SCROLL BAR at the bottom of your screen to see tables and action buttons to the right of the Step 1 area

**CLICK HERE to Go to Step 2**  
Once you are happy with your crop details, click here to start entering your costs.

to step one and change those figures, and increase their labour costs in step two, to reflect the increased workload associated with higher yields, in this case, everything else would remain the same.

Next a new financial summary is generated for this changed scenario and again, pressing the 'Copy button' will save it to the 'Comparison page' next to the original scenario. Growers can then compare side by side, the figures in the different saved scenarios.

Growers are able to create many different scenarios, although, it is important to change the scenario name in step one and save each scenario as to what it is most relevant to (e.g. higher yields or labour costs). At the end of the process, growers can compare the scenarios side by side on the computer or from a print out of the summary table.

**Step 2: Operating Costs**

Select or type in a value here OR Read some guidelines or use a simple worksheet

Seed & Plants	[ #/N/A ]	Seed&Plants worksheet
Fertiliser	[ #/N/A ]	Fertiliser worksheet
Fuel	[ #/N/A ]	Fuel Worksheet
Chemicals	[ #/N/A ]	Chemicals worksheet
Water	[ #/N/A ]	Water worksheet
Labour	[ #/N/A ]	Labour worksheet
Electricity, gas, etc	[ #/N/A ]	Energy worksheet
Packaging	[ #/N/A ]	Packaging worksheet
Freight/Transport	[ #/N/A ]	Freight worksheet
Other operating costs	[ #/N/A ]	Other Costs

**TIPS**

Please press ENTER after you type your own costs, to avoid an 'error' message. If '#DIV' appears in a box, just type over it or select a value from the dropdown list.

When you are happy with the costs appearing in the white cells, you may wish to COPY this scenario to a COMPARISON PAGE using the top grey button to the right of the financial summary. If the buttons are not visible on your screen, use your scroll bar to reveal screen to the right.

**FINANCIAL SUMMARY**

**Crop and Scenario Description**

Crop	0	#/N/A
Season	0	#/N/A
Scenario	0	#/N/A
Production Unit	0	#/N/A
Area (hectares)	#/N/A	#/N/A

**Gross Income and Yield for this Scenario**

Total Yield (this cr	0.0	0
Yield per hectare	#/N/A	#/N/A
Average price	#DIV/0!	#/N/A
Gross Income	\$0	#/N/A

**Operating Costs**

	#/N/A	per hectare
Seed/plants	\$0	#/N/A
Fertiliser	\$0	#/N/A
Fuel	\$0	#/N/A
Chemicals	\$0	#/N/A
Water	\$0	#/N/A
Labour	\$0	#/N/A
Electricity	\$0	#/N/A
Packaging	\$0	#/N/A
Transport	\$0	#/N/A
Other	\$0	#/N/A
<b>Total Operating Costs</b>	<b>\$0</b>	<b>#/N/A</b>

**GROSS MARGIN**

by area	\$0.00	#/N/A
#/N/A	#/N/A	per hectare
#/N/A	#DIV/0!	#/N/A
#/N/A	#/N/A	#/N/A
Weeks to grow & harvest crop	0	

**COPY:** Click here to copy this scenario to a comparison page.

**COMPARE:** Click here to see your scenarios on the comparison page.

**COPY & CLEAR:** Click here to copy this scenario to a comparison page, but then clear all your work on this page.

**KEEP COMPARISONS BUT CLEAR THIS PAGE:** Click here to clear this page.

**CLEAR EVERYTHING:** Click here to clear the comparison page and your work on this page.

**SAVE & EXIT:** Click here to SAVE the comparison page and your work on this page.

**CLEAR & EXIT:** Click here to CLEAR the comparison page and your work.

FINANCIAL SUMMARY			
Crop and Scenario Description			
Crop	beetroot		
Season	Summer		
Scenario	High Yield		
Production Unit	Bed		
Area (hectares)	3.0000		
Gross Income and Yield for this Scenario			
Total Yield (this crop)	3660.0	Kilograms	
Yield per hectare	1220.00	kg per hectare	
	0.00	tonnes per hectare	
Average price	\$26.30	per kg	
Gross Income	\$96,260	per bed	
	\$32,087	per hectare	
Operating Costs			
	per bed	per hectare	
Seed/plants	\$0	\$0	
Fertiliser	\$0	\$0	
Fuel	\$0	\$0	
Chemicals	\$0	\$0	
Water	\$0	\$0	
Labour	\$0	\$0	
Electricity	\$0	\$0	
Packaging	\$0	\$0	
Transport	\$0	\$0	
Other	\$0	\$0	
<b>Total Operating Costs</b>			
	\$0		
GROSS MARGIN			
by area	\$96,260.00	per bed	
	#VALUE!	per hectare	
per kg	\$26.30	per kg	
per tonne	#VALUE!	per tonne	
Weeks to grow & harvest crop		10	

**COPY:** Click here to copy this scenario to a comparison page, but also keep all your work showing on this page

**COMPARE:** Click here to see your scenarios on the comparison page

**COPY & CLEAR:** Click here to copy this scenario to a comparison page, but then clear all your work on this page to start a fresh scenario

**KEEP COMPARISONS, BUT CLEAR THIS PAGE:** Click here to clear this page but keep your comparisons

**CLEAR EVERYTHING:** Click here to clear the comparison page and clear your work from this page

**SAVE & EXIT:** Click here to SAVE the comparison page and your work on this page and EXIT from the program

**CLEAR & EXIT:** Click here to CLEAR the comparison page and your work from this page, and then EXIT

in scenarios such as those produced by the program, it would make the consultation process much easier to navigate, and better informed decisions could come out of the process” Lauren said.

## Workshops in Production Regions

The next step will involve rolling out the tool to vegetable producers in workshops. This phase will be managed by NSW Department of Primary Industries as part of the National Vegetable Levy funded project – VG08021 VegBIZ Vegetable Enterprise Decision Support Systems. Lauren Thompson will conduct workshops as will Alison MacGregor from Scholefield Robinson’s Mildura office.

The Gross Margin Comparison Tool will be available to growers from mid-July 2009.

## Further reading

Lauren Thompson, Senior Consultant Scholefield Robinson, Horticultural Services, VG08004 - *Grower-friendly tool for comparing management and profitability of vegetable crops*, Phone: (08) 8373 2488 Email: Lauren@srhs.com.au.

To order a copy of the program, please contact: Gerard Kelly, VegBIZ Project Leader, NSW DPI – Vegetable Industry Centre, Dareton office, Phone: (03) 5019 8406 Email: gerard.kelly@dpi.nsw.gov.au.

Once sufficient scenarios have been created for a particular vegetable crop, growers can go back to step one and start over with a different vegetable crop.

## Using the information

Growers are advised to use the tool in conjunction with professional advice from their financial advisor or agronomist, to ensure they are making the right decisions, especially when considering crops with which they have limited experience. Lauren believes that the tool, although a simple one, will be a powerful resource for all producers.

The program was recently presented at the 2009 Australian Vegetable Industry Conference in Melbourne, and feedback from growers was positive. There are strong indications that existing growers will find it a valuable addition to their toolbox of resources, as well as providing newcomers to the vegetable industry with a simple-to-use tool for understanding costs of production and the potential for profitability.

Service providers to vegetable growers, such as accountants, bank managers and financial advisors, will also find the tool valuable, as growers are more likely to be aware of the financial consequences of different crops or scenarios.

“At the conference, a representative from Rabobank came up to me with positive feedback about the program. She indicated that if her growers brought

Image: Financial Summary section.

Cover image, Growers using program. p.2 Carrot crop.

p.3 Step 1 Enter Crop Details, and Step 2 Operating Costs.

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