

Murray Dairy

Murray Dairy Business Tool

User Manual

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**Murray
DAIRY**



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1 Introduction

1.1 Purpose

The purpose of the Murray Dairy Business Tool is:

to provide a suite of simple analytical tools that allow the dairy farmer to test the impact of likely changes in water allocation, milk price, and grain and fodder prices on their budget and the decisions they face.

1.2 Background

The key to making sound farm business decisions is “*sophisticated thinking and simple arithmetic*”¹.

Murray Dairy identified that there would be a benefit to farmers from the development of a business analysis tool that could assist them with some of the operational decisions they are making in the current environment of low milk prices and low water allocations.

The intent was to provide a simple spreadsheet based tool that could be used on farm without the need for outside assistance. The tool would not only help with the analysis required for a particular decision (i.e. the simple arithmetic), but would also provide a process to follow that would help farmers identify the issues that need to be considered for each decision (i.e. the sophisticated thinking).

The spreadsheet developed has two independent components. They are:

1. A Seasonal Impact Tool, which demonstrates the impact of the current water allocation, milk price and grain and fodder prices on the farm business
2. A series of budgets, which address specific strategies the farmer may employ to improve their farm business profitability.

The purpose of this manual is to both support the use of the spreadsheet tool and to act as a stand alone reference for those who do not wish to use the spreadsheet, but want to understand the concepts behind the budgets and have a go at manually crunching the numbers for those strategies that they are currently considering.

Both the spreadsheet tool and the manual have been developed in consultation with farmers and advisors in the region. The concept is based on a range of specific tools that are already being used by some advisors with their clients. The aim was to bring them together and facilitate broader access to them.

¹ Malcolm, L.R. (2004) “Farm Management analysis: a core discipline, simple sums, sophisticated thinking”, [Australian Farm Business Management Journal](#), 1(1):45-56.

2 How to use this manual?

2.1 It depends!

How you use this manual depends on what you want to use it for!

This section presents a model of how to think about and plan for change. It will help you decide whether this manual and its accompanying tool are the right tool for your job, and whether it is worth reading on. Assuming it is, it will then help you decide, which part of the tool you want to use and where to start.

2.2 Thinking about change

When we think about making changes to our farm business, we can simplistically split those changes into two major categories.

The first involves minor changes to our farming system that are designed to tweak the system and improve its profitability. The second involves major changes to our whole farming system, which will not only affect the business' profitability, but also affect the way we farm and often requires significant investment and time to fully implement.

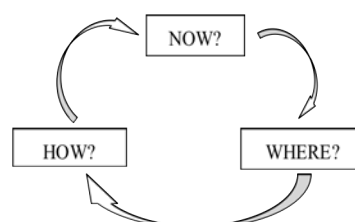
The Murray Dairy Business Tool is designed to assist dairy farmers address the first of these, i.e. minor changes to tweak the system. Dairy farmers considering major changes to their farming system should seek independent professional advice.

2.3 Planning for change

Making any change to your farming system, no matter how minor, requires planning. As the old saying goes, "*a failure to plan, is a plan to fail.*"

The simple questions to ask yourself are:

1. Where am I NOW?
2. WHERE do I want to get to? and
3. HOW do I get there?



The Murray Dairy Business Tool has two independent components. One for each of questions one and three!

Whilst you may seek professional, peer or family support, only you and your business partners can decide WHERE you want to take your business. However, the Murray Dairy Business Tool can help you work out where your business is "NOW?" (or where it will be this season under current water allocations, milk prices, and grain and fodder prices if you farm the same way as last year) and whether the "HOW?" you are thinking of will improve your profitability.

2.4 Which part do I want to use?

As was just discussed, the Murray Dairy Business Tool can help with the “NOW?” and/or the “HOW?” for tweaking your farm system. Thus, this manual and its accompanying spreadsheet tool are split into two independent and complementary parts.

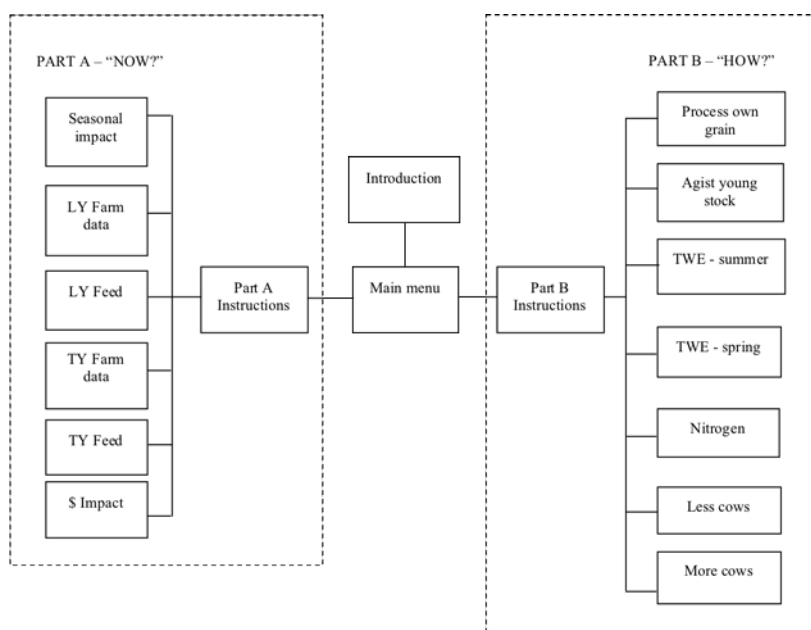
We recommend you work out the “NOW?” first, so as you more fully understand where you stand and what will be the most likely impact of low water allocations and milk price on your business this season. Thus, read on through Part A.

Armed with that knowledge, you will be better able to quantify “WHERE?” you want, or need, to get to this season, in terms of a financial outcome. You can then crunch the numbers on some of the possible “HOW?” (Part B) to see if they can help you get to “WHERE?” you want or need to be.

Of course, some farmers may have already done a few budgets for this season and be fully aware of their “NOW?”. Their interest may be in working out if any of the possible “HOW?” can help them improve their profitability. In this situation, they should go straight to Part B.

2.5 Where do I start?

The structure of the spreadsheet tool is shown below. Each box represents an individual worksheet within an MS Excel workbook. The “Introduction” will appear on your screen when you open the workbook. This will give you an outline of the model. To start the program click the “start” button.



You then have two options:

1. To address the “NOW?” first, click on the “Seasonal Impact Tool” button, which will take you to the “Instructions” worksheet, and read on through Part A; or
2. To go straight to the “HOW?” click on the relevant button of the change you wish to examine and read the relevant section of Part B to help you use this tool.

PART A – SEASONAL IMPACT TOOL

3 What is the Seasonal Impact Tool?

The Seasonal Impact Tool is a simple MS Excel workbook that will help you work out where your business is “NOW?” or more precisely, where it will be this season under current water allocations, milk prices, and grain and fodder prices if you farm the same way as last year.

3.1 Why do I need to know the “NOW?”?

The first step in any planning process is to understand your current position. In this case your current financial position. Where you are “NOW?” financially will have a huge impact on what might be a feasible “WHERE?” for you, and your ability and desire to implement the “HOW?” necessary to get there.

Low water allocations and low milk prices will have a different impact on every dairy farm. Whilst milk income per cow will be down, those with bigger or smaller herds, more or less equity, or different systems, which rely on more or less bought in feed, will each experience different impacts.

In short, quantifying the likely financial impact of the current low water allocations and low milk prices on your business will help you define the size of your challenge. Is it as big a challenge for me as others? How much do I need to change to get the financial result I want or need?

3.2 What exactly can it do?

The Seasonal Impact Tool can calculate your likely cash surplus and farm profit for this season, assuming you farm the same way as last year. That is, it calculates what economists call the “without change”, “do nothing”, or “status quo” scenario.

It answers the question, “if I farm the same way as last year, but the water allocations, milk prices, and grain and fodder prices are different, what will be my likely cash surplus and farm profit?”

It also answers this question for a number of “what ifs?” That is, what if water allocation is slightly higher than first thought, or I get a step up in milk price, or grain prices go up again after harvest. These “what ifs?” are also know as sensitivity analysis. That is, how sensitive is my likely cash surplus and farm profit to changes in water allocation, milk price, and grain and fodder prices.

Reading a sensitivity table

| | | MILK PRICE | | |
|--------------|--------|------------|--------|-----------|
| | | LOW | MEDIUM | HIGH |
| WATER ALLOC. | LOW | OH NO!!! | BAD | OK |
| | MEDIUM | BAD | OK | GOOD |
| | HIGH | OK | GOOD | EUREKA!!! |

Choose a milk price and a water allocation and the impact is where they intersect in the matrix. If both water allocation and milk price are high, then it’s “EUREKA!!!”. Whilst if they are both low, the impact is “OH NO!!!”. Combinations in between can be “GOOD”, “OK”, or “BAD”.

To further assist you understand where your farm business is at, it also calculates the Whole Farm Break-Even Milk Price, i.e. the milk price required for your farm business to record a Cash Surplus = \$0, or a Profit = \$0.

The cash surplus calculated by the tool is your total cash income less your total cash costs. It includes all farm income and operating costs, as well as your non-farm income, capital expenses and living expenses. Therefore, it shows the impact on your bank balance!

This cash surplus figure is then adjusted for all the non-farm, capital and inventory items to provide an estimate of your likely farm profit (or loss?).

3.3 What can't it do?

Simulate change

The Seasonal Impact Tool is not a simulation model. It is not designed to analyse different farming systems, or test what impact different strategies will have on your business. Its simple purpose is to see what impact the current environment will have on your existing farming system.

Thus, the production and feed assumptions are relatively simple. These simple assumptions will work well for your current system, but are not designed to take into consideration what economists call the "law of diminishing returns". That is, as you spend more and more on an input, you receive less and less in return. Thus, you have to consider the extra cost of each new action, rather than the average cost of your past actions.

Part B is designed for analysing changes (or the "HOW?") to your farm. Use it after working out the "NOW?"

Quantify Risk

Risk can be defined as "*the threat or opportunity of an uncertain outcome*". As such, it is a function of both the likelihood of an event occurring and the impact that event will have if it occurs.

The sensitivity analysis provided in the Seasonal Impact Tool quantifies the impact of an event (e.g. higher or lower milk price) if it occurs. However, the tool cannot quantify how likely it is that the event will occur. The decision-maker (you!) need to consider whether you think it is highly likely or unlikely and make your decision accordingly.

