



Making More From Sheep

MODULE 1

Plan For Success



A joint initiative of Australian Wool Innovation and Meat & Livestock Australia

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1

Plan for Success

Failing to plan is planning to fail

What does this module do for you?

Careful planning always increases your chances of being successful. However, setting objectives and making decisions are very individual tasks. Some people like to write detailed plans, while others prefer to keep it all in their heads. On most grazing properties, the planning process is fairly informal, perhaps sometimes a little too informal for such complex systems.

Successful businesses navigate through their challenges because they plan for success. Effective planning delivers the following benefits:

- Concentrates effort and investment on the important things – the importance of something is determined by its relevance to your objectives and its ability to deliver on those objectives.
- Saves wasted effort and investment on the distractions – distractions are a cost to the business and only a disciplined approach to identifying them will prevent this waste.
- Job satisfaction – through clear progress towards your goals and objectives, and confidence in your ability to adjust to new challenges.
- Avoids losses from the real risks to your business – adverse circumstances cannot be avoided but, if you are prepared, they can be managed to minimise their impact.
- Avoids lost opportunities as a result of perceived risks – aversion to risk, or overestimation of individual risks, can lead to inertia, which, in turn, leads to missed opportunities.

Procedure 1.1

Establish business objectives and plans



Background information



There are four key steps in creating your business plan:

- Analyse your current situation. Identify how your business is currently operating and consider the key profit, social and environmental issues and drivers.
- Set the goals. Building from your current situation, decide where you want the business to go and what objectives need to be set. Begin to identify any trade-offs and clarify priorities. Any objectives that are set need to be as explicit, measurable and time-specific as possible.
- Implementation. What are the stepping stones towards the goal? What are the tasks? Who is responsible for each, and over what time-frame? Implementation must be feasible with the skills and resources that are either currently available or that can be realistically obtained.
- Monitor progress. Identify any critical milestones. How will you know if things go wrong? Is progress as expected? What actions will be taken if things do not progress according to the plan?

This procedure focuses on setting the business objectives because success in an enterprise is the result of meeting these objectives. The business objectives must consider the personal, social, environmental, and financial components of the business and will be unique to your business.

Key decisions, critical actions and benchmarks

Formal business planning can be a challenging proposition for many sheep producers. To assist, a ‘starter’ tool is included – a SWOT analysis (tool 1.1), the objective setting (tool 1.2) and ‘How to Prepare a Business Plan’ (tool 1.3).

Many sheep producers find that engaging professional or outside assistance is the best way to start developing formal business plans and provides a good return on the investment.

Documenting business objectives

The extent to which objectives and plans are documented is a personal and business choice. However, best practice is to write down these plans and objectives because there are some significant advantages:

- Writing down plans and objectives gives the process more rigour, forces a deeper level of thinking and clarity and can impose a discipline that might otherwise be lacking.
- While the business owner(s) may have the final say, inputs from family

AT A GLANCE



- Plan, and then annually review, business objectives to check they are still appropriate and achievable — for this, some level of documentation is needed
- The objectives must consider the personal, social, environmental, and financial components of the business

members, staff, suppliers and advisors can be sought more easily and incorporated if the plans are written and, therefore, easily shared. Documented objectives are evidence of agreement at a point in time.

- Accountability, including tracking progress towards the objectives, is more straightforward when the objectives have been recorded.
- Objectives need to address the short term (this year), medium term (next 3 years) and long term (next 10 years) and this is difficult to clarify without a written plan.
- Determining and balancing priorities, including conflicting objectives, is easier when the objectives are documented.
- A more formal process is helpful if objectives need to be set and decisions made in an area where you do not have extensive experience.

Planning doesn't have to be all hard work. Tool 1.4 outlines a simple process to let everyone with a stake in the business get involved in the planning process. Tool 1.5 is a fun technique for everyone who is old enough to hold a camera (or to instruct someone to hold it for them) to have their say in shaping the farm's future.

Writing down plans and objectives gives the process more rigour, forces a deeper level of thinking and clarity and can impose a discipline that might otherwise be lacking

Signposts



Read

The National Farm Business Plan workbook from the National Australia Bank is a handy template to use to write down your farm business plan: www.nab.com.au/download/bus_pln.pdf

Attend

The MLA *EDGEnetwork*[®] program is coordinated nationally and has a range of workshops to assist sheep producers. Contact can be made via:

- Phone: 1800 993 343
- Email: edgenetwork@mla.com.au
- Website: www.mla.com.au/edgenetwork

Include your family in your business planning



Procedure 1.2

Calculate your cost of production per kg of meat or wool



Background information



In the grazing industries, knowing your cost of production (\$ per kg of meat or wool) is one of the most important pieces of financial information you can use to assess your business performance. Comparing your performance against other businesses (procedure 1.3 of this module) is more meaningful if you know your costs per kg. Making sense of prices and marketing (see procedure 2.3 in *Market Focused Wool Production*, and procedure 3.1 in *Market Focused Lamb and Sheepmeat Production*) is also much easier.

Simply comparing your cost of production with your average sale price will give you a quick check of your business health, and show the likelihood of the difference between the two being sufficient to meet your overhead costs, interest expenses and taxation liabilities.

Key decisions, critical actions and benchmarks

Determine your cost of production

Because calculating cost of production is such an important step in analysing business performance, a specific set of tools is included with this module to make the job as easy as possible. These include:

- Tool 1.6 – the MLA-developed cost of production calculator for lamb enterprises
- Tool 1.7 – the AWI-developed cost of production calculator for wool enterprises can help you work out your wool production costs to help determine the right time and price to market your wool. It is critical to know what it costs to produce a kilo of wool so you can decide when and how to sell your clip. You can also use the Elders Wool Cost of Production Calculator (see signposts).
- Tool 1.8 – the MLA-developed cost of production calculator for beef enterprises (included in this module because it will allow sheep producers who also run some cattle to see how that enterprise is going).

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- Calculate your cost of production to give a better picture of the financial health of your business
 - Knowing your cost of production enables you to rate your annual performance and compare against industry standards
- Tool 1.13 - Making More From Sheep cost of production calculator for sheep enterprises. This calculator is intended to be used for only one enterprise at a time, for example a specialist prime lamb flock. If you have a Merino wool flock and you join a percentage of the ewes to a terminal sire and the rest to Merino sires, break that flock into two enterprises:
1. A dual purpose lamb flock that includes the ewes joined to a terminal sire
 2. A wool flock that includes those ewes joined to Merino sires, and all Merino wethers.

Note – printed copies of the MLA and AWI calculators are included in the tools section but they are more suited to electronic use. The calculators can be downloaded from the Making More from Sheep website (www.makingmorefromsheep.com.au) or run from the Making More from Sheep CD.

Signposts



Attend

The MLA EDGEnetwork® program is coordinated nationally and has a range of workshops to assist sheep producers. Contact can be made via:

- Phone: 1800 993 343
- Email: edgenetwork@mla.com.au
- Website: www.mla.com.au/edgenetwork

View

MLA, AWI, Making More From Sheep and Elders websites to download the **cost of production calculators**

→ **MLA Lamb Cost of Production**

Calculator: www.mla.com.au – click on “Publications Tools & Events” then choose “Tools & Calculators” and select your Cost of Production Calculator

→ **AWI Wool Cost of Production**

Calculator: www.wool.com/Fibre-Selection_Woolcheque_Cost-of-production.htm

→ **Tool 1.13** – Making More From Sheep cost of production calculator for sheep enterprises http://www.makingmorefromsheep.com.au/plan-for-success/tool_1.13.htm

→ **Elders Wool Cost of Production**

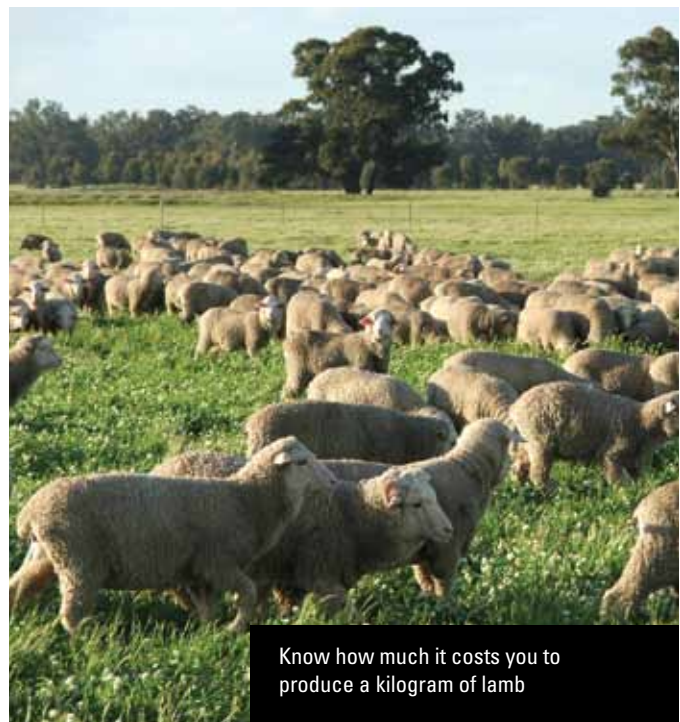
Calculator: <http://elders.com.au> – click on “Rural Services” and then “Livestock & Wool” then click on “online wool tools” for the CoP calculator. <http://livestock-wool.elders.com.au/wool/cost-of-production-calculator>

Or visit the **Making More from Sheep** website (www.makingmorefromsheep.com.au) and follow the links to these signposts.

Knowing your cost of production enables you to rate your annual performance and compare against industry standards



Know how much it costs you to produce a kilogram of wool



Know how much it costs you to produce a kilogram of lamb

Procedure 1.3

Compare your business performance against industry benchmarks



Background information



To accurately determine the financial health of your business is beyond the scope of this manual. However, readily available industry benchmarks provide a point of reference to indicate how your business is performing compared to others in the industry. These benchmarks allow you to do one or all of the following:

- Quickly check your business health
- Identify opportunities for further improvement in your business (comparing your benchmarks to others)
- Monitor the progress of your business over time (comparing your benchmarks between years).

Key decisions, critical actions and benchmarks

Benchmarking in the sheep industry

Benchmarking can be either indirect — where sheep producers calculate their own performance indicators and compare them against published industry benchmarks; or direct — where sheep producers contribute their farm information into a service which generates the benchmarks for comparison with other sheep producers.

Indirect benchmarking

To determine which benchmarks will be relevant to your business, start with the primary benchmarks in tool 1.9. At the whole-farm or business level these will tell you how healthy your business is and, at the enterprise level, they will identify those areas of the business with the greatest opportunity for improvement.

Once the overall health of the business is determined and opportunities for improvement identified in individual enterprises, secondary enterprise benchmarks (also in tool 1.9) can be applied selectively as a guide to make specific changes and monitor progress. Guides to performance are not provided here because these will differ considerably depending on location, sheep enterprise, genetics used, farm enterprise mix and many other variables. These benchmarks are best tracked internally to improve specific areas of enterprise performance.

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- Know how your business is performing against industry benchmarks
- Undertake sufficient monitoring and reporting to be able to effectively update your short, medium and long term objectives using results from the previous year.

More specific business and enterprise benchmarks can be obtained from the Victorian Farm Monitor Project that has been operating for more than 20 years (see signposts).

For indirect benchmarking, it is widely considered that cost of production (\$/kg of meat or wool produced for sale) is the most useful benchmark as it integrates many aspects of the business. If you don't know your cost of production per kg of lamb or wool, return to procedure 1.2 of this module and use the cost of production calculators as discussed.

Active benchmarking services

Both public and private service providers carry out active benchmarking. These services are very useful because they:

- Calculate the more complex benchmarks
- Provide a consistent methodology between years
- Cover financial and physical aspects of the whole business or sheep enterprise
- Provide direct comparisons to other businesses, highlighting opportunities
- Often provide professional services to help interpret the information generated and identify the best course of action

Benchmarking services are available in all states, either through local farm management consultants or accountants, or through larger service providers (see signposts).

Monitoring and reporting

All businesses undertake some level of monitoring and reporting. Some of it is legally enforceable such as the reporting associated with the Australian Tax Office, Occupational Health and Safety (OH&S) and stock sales. In addition, some markets require a level of reporting, such as wool sales by description. However, this compulsory monitoring and reporting is seldom sufficient to be accepted as good practice, let alone best practice.

Best practice requires some level of reporting of progress against the objectives that have been set for the business, at least annually (see procedure 1.1 in this module). In the corporate world, annual reports are compulsory and must come with an independent audit by a qualified accounting firm. This is rarely an appropriate approach for small businesses, where tax returns are often the only 'Annual Report'. These give no indication of progress towards objectives, and are usually structured to minimise tax rather than to provide a useful summary of the financial health of the business.

The extent of reporting is a personal and business choice, but minimum best practice must be to document progress against objectives and to update short, medium and long term objectives in the light of the past year.

Signposts



Read

Australian Association of Agricultural Consultants (AAAC) National – search this website to find accredited consultants and advisers in agri-industry and allied natural resource areas that meet the Specialist Consultant Standards for entry into the AAAC Register: www.aginstitute.com.au and click on agricultural consultants register.

Australian Association of Agricultural Consultants (AAAC) WA – www.aaacwa.com.au. Search this site for consultants and advisers in WA.

The annual **AgInsights** publication from Holmes Sackett and Associates contains a good summary of clients' benchmarking analyses. Subscribe to AgInsights at: <http://www.holmessackett.com.au/home.aspx>

Local **Rural Financial Counsellors** can help you:

- Identify financial and business options for your enterprise
- Find private training and agricultural service providers across Australia who deliver training courses and offer advice on the incorporation of new technologies or new enterprises into farming businesses.

Find your local Rural Financial Counsellor by calling 1800 686 175 or visiting the website: www.daff.gov.au/agriculture-food/drought/rfcs

View

The **Victorian Farm Monitor Program** has detailed benchmarks for Victorian sheep producers: www.new.dpi.vic.gov.au/home and search for farm monitor.

Attend

The MLA **EDGEnetwork**® program is coordinated nationally and has a range of workshops to assist sheep producers. Contact can be made via:

- Phone: 1800 993 343
- Email: edgenetwork@mla.com.au
- Website: www.mla.com.au/edgenetwork

Website link not working?



Go to the Making More From Sheep website:

www.makingmorefromsheep.com.au and follow the links to updated signposts

Procedure 1.4

Quantify risks and develop a risk management plan



Background information



The most obvious risks for sheep enterprises are seasonal and price risk. Less obvious, but just as important, are human resource, demographic, environmental and economic risks.

The degree to which any one of these is a threat to a business will vary according to location, production system, financial position, farm size, and so on. It is critical that each business does its own risk assessment and quantifies the relative importance of these risks.

Key decisions, critical actions and benchmarks

The risk that external factors pose to the business is a combination of:

- The probability of the event
- The size of the loss, should it happen, and
- The longer-term implications for the business.

These things change with time and therefore must be constantly under review. For instance, after a few good years there may be a higher probability of a drought, but if fodder or cash reserves have been built up the implications for the business will be much less than for a drought that follows a few poor years.

A farm business risk assessment template (tool 1.10) is provided to help identify the major risks. It covers the 12 most common areas of risk and asks the questions you should answer when considering these risks.

Planning to manage risk

Because drought is common to *all* sheep producers, it is used in tool 1.10 as an example of how the principles should be applied. Many of the other risks assessed in tool 1.10 require a more subjective approach, but the same principles (likelihood and potential impact) apply.

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- Assess the likelihood of major risks and their potential impact on your business
- Identify strategies to best manage risks or threats
- Review risk management policy regularly



Photo: Colin Stacey

Signposts



Read

Managing Fodder Price for Droughts – useful reference material for calculating the cost-benefits of storing fodder in preparation for a drought. For your free copy:

- Call the AWI helpline on 1800 070 099 or
- Download a copy from: www.wool.com.au/ Click on Grow > Environment > technical resources and look through the publication links.

Attend

The MLA *EDGEnetwork*[®] program is coordinated nationally and has a range of workshops to assist sheep producers. Contact can be made via:

- Phone: 1800 993 343
- Email: edgenetwork@mla.com.au
- Website: www.mla.com.au/edgenetwork

Stockplan[®] – a workshop to help sheep (and cattle) producers explore management options in the preliminary stages and during drought. Three computer software decision support tools are available to help answer questions such as: ‘How much will it cost to feed stock for a specified time?’ ‘Should I feed, sell or agist?’ To find out more, visit the NSW DPI website www.dpi.nsw.gov.au/ and type stockplan into the search function

Farmer’s Guide to Managing Climate Risk — this one-day NSW DPI PROfarm workshop helps land managers reduce risk by monitoring and effectively incorporating weather and climate information into farm decision-making. Find out more by:

- Visiting: <http://www.dpi.nsw.gov.au/agriculture/profarm>
- Calling 1800 025 520 in northern NSW or 1800 628 422 in southern NSW.

View

MetAccess[®] — a program for displaying and analysing daily weather records. Available through Horizon Ag. Order your copy by:

- Calling (02) 9440 8088
- Emailing: horizonag@hzn.com.au

Rainman - a CD-based software package containing historical, long-term daily and monthly rainfall data for 3700 rainfall locations around Australia. It allows users to calculate chances of monthly and seasonal rain, display historical data as tables or graphs, and use the SOI to forecast seasonal rain, dry periods and effective rain at your location. To order a copy, contact the Department of Primary Industries and Fisheries in Toowoomba Queensland:

- Telephone: (07) 4688 1200
- Website: www.dpi.qld.gov.au/home.htm and search for rainman

The MLA Rainfall to Pasture Growth Outlook Tool estimates pasture growth for different locations around Australia. Visit the website: www.mla.com.au/ click on Publications, tools and events > Tools and calculators and select from the list.

Grazclock is a spreadsheet-based tool that matches animal feed requirements with pasture growth throughout the year. It allows sheep (and cattle) producers to select key management times to correspond with feed demand. Contact the NSW Department of Primary Industries:

- Email: Douglas.alcock@dpi.nsw.gov.au

Procedure 1.5

Assess enterprise change and new technologies



Background information



Being able to quantify the benefits of change is integral to committing to that change. Changes likely to be implemented will range from simple modifications to an existing enterprise (for instance, a change in ram source) to complex changes affecting the whole enterprise (for instance, moving the focus from wool production to lamb production).

It is not uncommon for potential returns from on-farm investment to vary from 10% to more than 30%, so it is worth identifying the better investments.

Introduction

Assessing competing investment options for a farm's scarce resources involves quantifying or qualifying:

- Net change in expenses — taking account of any increased costs (cash and non-cash costs such as additional owner-labour requirements or depreciation on plant and equipment) and reduced costs.
- Net change in income — accounting for increased income and any trade-offs, such as lower wool income if there is an increased focus on lamb production.
- Scale of the investment — for example, an investment in pasture improvement will need to be accompanied by an often greater investment in additional livestock and may require increased management inputs.
- Likely repayment period — for the investment and the cash flow implications, taking account of the climatic and production risks involved.
- Life span of the expected benefits from the investment — for example, an investment of \$50,000 in a change that produces a benefit of \$15,000 p.a. over 10 years (\$150,000 in total) is better than an investment of the same amount with the same benefit but only for 5 years (\$75,000 in total).
- Nature of, and additional exposure to risk associated with any new or alternative enterprise.

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- Assessing the financial, social and environmental impacts of enterprise change and new technologies requires significant analysis and planning
- Determine the life of the investment in any large and complex changes to assess how long it will take to break even
- Seek professional help

Key decisions, critical actions and benchmarks

Farm businesses most often involve multiple enterprises with complex interactions between them. To ensure that returns are improved over the whole farm, the calculations are best done on a whole-farm basis.

Two planning tools are provided in this procedure.

The partial budgeting (tool 1.11) is most suited to significant investment decisions (buying more land, embarking on a new enterprise, re-fencing the farm, or embarking on a major revegetation program) where a more rigorous planning process is required. It is often demanded if significant borrowings are needed. Such significant decisions do not happen often on most properties. There may be only one or a few per decade.

Tool 1.11 shows a worked example of a partial budget and the subsequent return on investment calculation. This can be used as a template for analysing straightforward adjustments to the business. Additional references are listed in the signposts.

If the partial budget in tool 1.11 is not appropriate to the situation, or to the level of information or skills at your disposal, the SGS one-page planner (tool 1.12) might be more suitable. It is a less formal tool that allows quantitative and qualitative information to be included. This tool is most suited to important decisions that affect the operation of the farm – you might make several of these a year.

The focus is on decisions that can have flow-on effects across the system, or decisions in areas where you lack confidence to do something ‘off the top of your head’. Examples of such decisions might include, for example, fertiliser applications, changing grazing strategies, selecting different rams, re-sowing a pasture, etc.

Tool 1.12 provides a planning template and a worked example (assessing a decision to renovate a pasture) and provides the opportunity to incorporate non-financial information (such as environmental impacts). The tool can also be used to assess environmental projects that may have little financial analysis.

Potential returns from on-farm investments can vary by 10-30%, so it is worth identifying the better investments

Seek professional assistance if you need tools for whole-farm analysis across multiple enterprises to quantify the complex interactions between:

- Marginal costs
- Marginal income
- Discounted cash flow analysis
- Time to break even
- Lifespan of the investment and
- Relative return on capital invested.



Seek professional advice for solutions to complex farm enterprise issues

Signposts



Read:

Towards Sustainable Grazing, the professional producer's guide (2003) Edited by W. Mason, L. Warn and G. Cahill, Meat & Livestock Australia. To order a copy, phone 1800 675 717, or visit www.mla.com.au/publications.

The Farming Game – Agriculture Management and Marketing, 2nd Edition (2005) Bill Malcolm, Jake Makeham and Vic Wright, Cambridge University Press – to help determine comparative return on investments.

Attend:

The MLA *EDGEnetwork*[®] program is coordinated nationally and has a range of workshops to assist sheep producers. Contact can be made via:

- Phone: 1800 993 343
- Email: edgenetwork@mla.com.au
- Website: www.mla.com.au/edgenetwork

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Australian Association of Agricultural Consultants (AAAC) National – search this website to find accredited consultants and advisers in agri-industry and allied natural resource areas that meet the Specialist Consultant Standards for entry into the AAAC Register: www.aiast.com.au/ click on AAAC tab at home page of AIAST then use “find a consultant” at left.

Australian Association of Agricultural Consultants (AAAC) WA – www.aaacwa.com.au. Search this site for consultants and advisors in WA.



Tool 1.1

SWOT analysis

A SWOT analysis is a simple framework into which an individual or a group can organise some thoughts – specifically, the pros and cons associated with an enterprise or action. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. Using this simple framework will help you clarify these issues and gain a more strategic understanding of your current situation. However, a SWOT analysis does not lead directly to new goals or objectives – you’ll need to go to tool 1.3 for that step.

A SWOT analysis can be done for the whole sheep production enterprise (eg, “let’s have a look at where we think our sheep enterprise is going over the next 5 years”), or for selected parts of it, eg, the breeding program, or even to assess the pros and cons of an action such as re-sowing a pasture.

A SWOT analysis can be done by an individual, but the tool is much more powerful if more than one person is involved because different people will see the enterprise in different ways.

SWOT analysis template

Strengths

List all the strengths you can think of and when you have finished, go back and arrange them in priority order:

1

2

3

4

Weaknesses

List all the weaknesses you can think of, and when you have finished, go back and arrange them in priority order:

1

2

3

4

Opportunities

List all the opportunities you can think of, and when you have finished, go back and arrange them in priority order:

1

2

3

4



Threats

List all the threats you can think of, and when you have finished, go back and arrange them in priority order:

1

2

3

4



Tool 1.2

A simple process for setting goals and objectives

If you already undertake formal strategic and operational planning within your sheep production enterprise, then you will already have goals and objectives set, probably for both the short and long term.

Alternatively, if you have a less formal planning process, or if you keep all the farm plans in your head, then setting goals and objectives is a critical business activity for improving your enterprise.

If you have undertaken the SWOT analysis (tool 1.1) you will have a good idea of the strengths, weaknesses, opportunities and threats in and surrounding your enterprise. This needs to be combined with an understanding of the value and vision you have for the enterprise (for help with determining these, see tool 4.4 (developing shared values, personal and business goals) in *Capable and Confident Producers*).

Setting goals

Setting goals is relatively easy. Goals are a general target for medium to long range accomplishments, or just a direction which your farm business might want to follow. An example of a goal might be to change your current focus on fine wool production to an emphasis on a mixed wool and prime lamb system.

Goal statements usually begin with an action verb (create, change, increase etc), followed by a more specific and desired outcome, eg, to create a safer work environment on the farm. The biggest difference between goals and objectives is that goals are not as concrete. Goals imply a purpose or a direction, unlike objectives, which must be measurable. Often to achieve a goal will require several specific objectives to be met.

If you have multiple goals (almost everyone does), then you will need to prioritise them. For the goals which you want to proceed with, you will need to ask “What specific objectives must be undertaken to achieve this goal?”

Setting objectives

Objectives describe what needs to be done to achieve a goal. They must be relatively short-term, practical statements about what needs to be done. For example, if a goal is to improve the look of the farm by protecting and enhancing the condition of the remnant native vegetation, then a specific objective might be to fence off the 10 ha of remnant vegetation in paddock XX by autumn next year. Another objective might be to plant 500 trees and shrubs in the fenced-off area by the following spring.

One way to ensure that your objectives are well focused is to follow the SMART system. Good objectives are described as having the following features:

- Specific** be very clear about the action. In the previous example, “fence off” and “paddock XX” provide the clarity needed for the objective to be specific
- Measurable** how much? how many? etc are included in the objective. In the previous example, “10ha” provides the measurable target.
- Achievable** do you have the time, skills and resources to achieve this objective? How much do you rely on factors outside your control? The degree to which an objective is achievable is a personal assessment. In the example above, fencing off 10 ha by autumn next year seems achievable.
- Realistic** will meeting this objective make a significant contribution to the goal? Will it give you the return you are looking for on your investment and time? Again, this is a personal assessment but in the previous example, fencing off a 10 ha patch of remnant vegetation to allow more specific management should make ‘realistic’ progress towards the goal.
- Time-bound** be as clear as possible about the time lines. In the previous example, “by autumn next year” provides the clear time line.

As with goals, you will need to prioritise the various objectives. One way to determine the priorities across objectives is to do a quick analysis of the consequences if the objective is not achieved.



Tool 1.3

How to prepare a business plan

Before embarking on any new enterprise or undertaking major changes to the farm business, prepare a detailed business plan. This is a formal plan that brings together the physical, financial and human resources needed for the operation, and examines the costs, risks and possible rewards from the enterprise.

How to prepare a business plan

Identify what you want to achieve

- What is the purpose of the enterprise?
- What is the scale of the operation?
- What resources do you have or require?
- What are the critical factors for achieving the desired product and level of profitability?

Identify clients and customers

- Which clients will provide the services, collaboration and expertise your business will need?
- What are the requirements and product specifications of your customers?

Identify the key financial and production risks

- How will you first know if things are going wrong?
- What can be done to minimise the risks?

Write your plan using available information, practical experience, financial and market research

- Prepare a detailed operational plan to account for the scale of the operation.
- Outline the procedures, labour requirements, target market specifications and financial involvement to be used.
- Prepare a detailed budget to include the likely variables in costs and returns.
- Specify targets to be achieved.
- At critical stages in the production cycle, have a back-up plan to include possible exit strategies.
- Determine an appropriate recording system to enable on-going monitoring and financial analysis.

Review the plan with an independent person

- Seek assistance from a technical and financial adviser or industry representative familiar with the proposed enterprise.

Update periodically to retain relevance

- As technical, financial or operational changes occur the plan should be reviewed and updated.



Tool 1.4

Discussion starters for imagining the future

This set of ‘starting questions’ is designed to assist an individual or a family imagine what their farm could look like in 10 years. It’s about a vision, not overly constrained by the reality of “How are we going to afford the time and resources to make this happen”.

As you will see from the questions, there are no right or wrong answers – just a discussion waiting to happen!

Question 1:

Use the 1 (unhappy) to 10 (happy) rating scale below to record how happy different members of the farm family are with the way the farm currently looks and operates. Is the farm already in pretty good shape or are you coming off a low base? Without thinking too much about what the 10-year vision might be, do you think the farm is improving, degrading, or staying about the same? This is the ‘starting point’ for developing a 10-year vision and gives the opportunity to begin to explore the reasons for individuals’ levels of satisfaction or dissatisfaction.

My rating for how happy I feel with the way the farm currently looks and operates									
1	2	3	4	5	6	7	8	9	10

[This question is about uncovering some of the issues about urgency and priority. The less happy you and your family are about the way the farm looks and operates, the higher the priority you might give to changing some aspects of how it is managed.]

Question 2:

Regarding the way the farm currently looks and operates, are there some things you’d like to see more of, or happening more often in the future? or conversely, less of, or happening less often in the future?

[These questions are about clarifying what individual family members want to see more of or less of. It’s not about quantifying how much, just about setting the preferred direction for change. Positives and negatives are to be encouraged because it’s often easier to see or talk about something that you are not happy with, or that does not look sustainable (such as evidence of soil erosion) than something that is. Photo Voice (see tool 1.5) is an ideal way to make sure everyone has input into this discussion about the farm’s future.]

Question 3:

Is anything happening on the farm that you think is helping take you in the right direction? That is, what is already happening to shape the farm’s future that you are happy about? Conversely, are there some things happening on the farm that you think are working against you or perhaps even taking you in the wrong direction? That is, what is already happening to shape the farm’s future that you are not so happy about?

[These questions are about identifying how the things that are happening on the farm are perceived by family members as assisting progress towards their emerging 10-year vision for the farm. (Again, Photo Voice, tool 1.5, is an ideal tool to get everyone’s input into this discussion about the farm’s future). Thinking about these issues will also help you keep the 10-year vision somewhat connected to the reality of the present situation. Again, positives and negatives are to be encouraged because the full picture usually involves identifying things that you might want to stop (or reduce) doing as well as those things that are helping move you in your preferred direction. Often there will be trade-offs to consider.]



Question 4:

What is your favourite place on the farm and what makes it your favourite?

Question 5:

Is there a part of the farm (even a part of a paddock) that represents a mini version of how you would like the whole farm to look?

[These questions are about looking for clues as to what are likely to be the key elements of your 10-year vision. Discussing your 'favourite place' not only tells about the place, but also about you and what you are looking for from the farm. Finding part of the farm that you think looks good can provide clues as to what needs to happen on the rest of the farm to bring it to the 'standard' you see in the part you have identified.]

Having worked through these questions/discussion points, you are ready to start 'drawing' your vision onto the farm photo (see procedure 5.1 in *Protect Your Farm's Natural Assets*.)



Tool 1.5

Photo Voice

When trying to include the whole family in a project (such as developing a vision for how the farm could look in 10 years), it can be hard to get everyone to contribute equally. If some family members are living away from the farm it can be hard to get everyone together. It can be especially difficult to get effective input from those with the least say in the day to day running of the farm or at the bottom of the 'pecking order' within the farm and family. Often this will be the children, even though they may have the biggest stake in the future of the farm. At other times it might be partners or adult children not living/working on the farm.

Photo Voice is an ideal tool to give everyone an equal input to the farm vision. When used by a farm family, it is simply a fun technique to assist everyone who is old enough to hold a camera (or to instruct someone to hold it for them) to 'put their cards on the table.'

Using Photo Voice to help develop a vision for the farm

To use Photo Voice to develop the vision for the farm's future:

- 1 Discuss the process and make sure everyone is clear on the three simple rules:
 - a Determining a theme for the photos
 - b Everyone agreeing to take photos and talk about them at a future meeting
 - c Setting the meeting date.
- 2 Take the photos and get them developed if using film. For digital photos, putting them on the computer (or even better, the TV) can be an alternative to printing.
- 3 Meet with everyone to talk about your photos and discuss what they might mean for your family's plans to shape the future of the farm.

Like all things, practice makes perfect. Rather than trying to cover all the issues relating to the future of the farm in one go, it's often best to start simply and get everyone comfortable with the concept. A good first 'project' might be to get everyone to take a photo of their favourite place on the farm and to talk about why it is their favourite. After the 'safety' of a non-judgemental concept like 'favourite place', the family group might be ready to branch out, and have individuals take photos of what they would like to see less or more of on the farm – see tool 1.4.



Photo Voice stresses the importance of getting the prior commitment of key decision makers to at least consider proposals for change. On the farm, this simply means making sure that it is clear that everyone will participate, and all Photo Voice contributions will be considered in the eventual plan to shape the farm's future.

Photo Voice has been used very successfully in the wool industry. The Land Water & Wool program used Photo Voice to explore natural resource management issues on wool producing farms in the Traprock region of southern Queensland.

For more background about the technique and the theory, see www.photovoice.com.



Tool 1.6

MLA cost of production calculator for lamb enterprises

tips & tools

BUSINESS MANAGEMENT



Calculating cost of production for your lamb enterprise

For producers wanting to improve the performance of their lamb enterprise, a good understanding of the current health of the business is essential.

Cost of production is a key factor affecting the profitability of lamb-producing businesses. Calculating your cost of production is an important step in assessing flock performance and a first step to making change.

Cost of production

Cost of production (CoP), measured in cents per kilogram, is an indication of the outlay required to produce each kg of lamb. However, as there is more than one way to calculate CoP, and people can confuse it with other indicators, CoP may not always provide a meaningful comparison between businesses.

The MLA cost of production calculator has been developed to standardise this very common performance indicator, so you can easily compare the performance of your enterprise with others in the lamb industry. A quick comparison of your CoP will indicate whether you have great scope for improvement, or are already performing reasonably well.

CoP, is simple to calculate. It is not complicated by how you have financed the business, how much of it you own or how you acquire your land, and it only deals with one enterprise at a time. CoP does not automatically reveal what aspects of production you are in a position to improve, but it will provide a very useful start. You can use it to compare the health of your business year on year, and then compare it against other lamb producers with similar resources to your own.

In developing a standard approach to calculating CoP, care has been taken to ensure that while the easiest method has been applied at every step, the usefulness of the measure has not been compromised.

Designed as a 'do-it-yourself' tool, we hope that every lamb producer will use the MLA cost of production calculator to figure out their CoP and compare their performance annually.

Finally, knowing your CoP is just the first step. Once you have a rough idea of how you are performing, we strongly urge you to measure the performance of your business in more detail and for all enterprises. There are a number of benchmarking groups already established, run by state departments or private farm management consultants.

Key benefits

- Learn to use the MLA cost of production calculator to measure the performance of your lamb enterprise year on year
- Compare the health of your business annually with other lamb producers and find out if there is scope for improvement, or if your enterprise is already performing well

How to use the MLA cost of production calculator

The calculator is intended to be used for only one enterprise at a time, for example a specialist prime lamb flock. If you have a Merino wool flock and you join a percentage of the ewes to a terminal sire and the rest to Merino sires, then you would break that flock into two enterprises: 1) a dual purpose lamb flock that includes the ewes joined to a terminal sire, and 2) a wool flock that includes those ewes joined to Merino sires and all Merino wethers. The income and costs should be apportioned accordingly throughout the calculator. Use the most appropriate 12-month period for your situation and keep the same period for each enterprise, if you have more than one.

The CoP calculator is split into the following seven sections:

1. Total lamb production
2. Lamb enterprise income
3. Total labour costs for all enterprises
4. Lamb enterprise costs
5. Overhead costs for whole farm business
6. Calculation for allocating overheads to lamb enterprise
7. Final CoP calculation

Each section has a number of questions to be answered from your own records, with a number next to the question referring to a comment in the explanatory notes box where required.

There is a box at the end of each section with a letter beside it that refers to the figures used in the final CoP calculation.

Once you have calculated your CoP, the next section of this *Tips & Tools* gives you an idea of how your performance ranks against other lamb enterprises.

Please heed the WARNING section about the accuracy of CoP for different enterprise mixes.

WARNING

CALCULATE CoP FOR A NUMBER OF YEARS TO GET AN IDEA OF YOUR AVERAGE

CoP can vary a lot between years due to a range of circumstances. These include but are not limited to:

- Unusual rainfall
- Changes to flock management or structure, such as lambing date
- Greater than normal expenses, such as capital fertiliser applications or pasture establishment

As a general rule, the more variable the rainfall for your location, the more years you should calculate to determine your average CoP.

THIS CoP CALCULATOR IS MOST ACCURATE FOR A BUSINESS THAT RUNS PRIME LAMB ONLY

For businesses that run both cattle and wool sheep, the calculator is reasonably accurate because costs can be split reliably by using the percentage of gross income each contributes.

For cattle, sheep and cropping businesses, calculating CoP for individual enterprises requires estimating how much of some costs should be allocated to each. This is difficult and can lead to significant inaccuracies. While this calculator attempts to address this with guidelines about how to proportion costs, a full benchmarking program across all enterprises is advised.

In any case, the results will be a useful starting point for further discussion with your farm management advisor or benchmarking group.

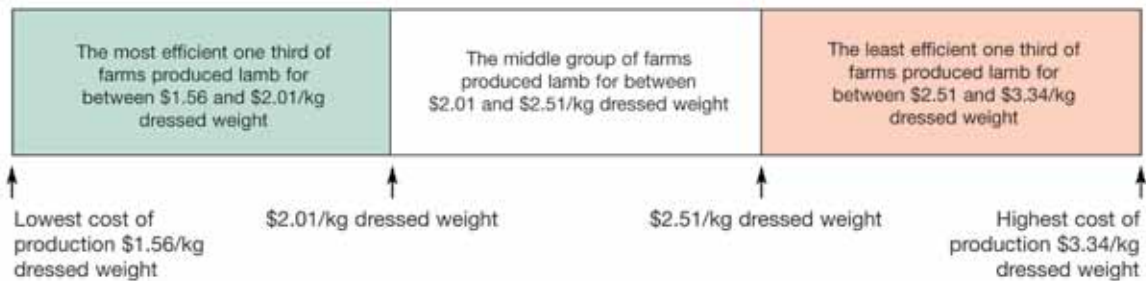
How does your CoP compare with others?

Prime lamb enterprise

By industry standards, if you have a cost of production of less than \$2.01/kg dressed weight, you are performing better than the average prime lamb producer. As shown in the diagram below, the most efficient third of producers have a regular cost of production of around \$1.50/kg dressed weight – a good goal for any producer interested in wealth creation.

A cost of production of between \$2.01 and \$2.51 per kgDW would suggest significant room for improvement.

If your cost of production is greater than \$2.51/kgDW, the future of your business may be at risk. Based on lamb prices less than \$3.00/kgDW, you will generally not be earning sufficient income to service debt. If you own all your assets your return on equity will be poor in comparison with other investment opportunities unless your land value is appreciating considerably.



Optional extras

Using the figures you have drawn on to measure CoP, there are a couple of extra indicators you can calculate. In many cases their accuracy may be limited because they require you to estimate the figures. However, should you choose to fill these extras out, the results will be a useful starting point for further discussion with your farm management advisor.

Kilograms of lamb produced per hectare (kgDW/ha)

You can calculate kgDW/ha by simply dividing the number of kilograms of lamb produced (Box **R** on the calculator) by the number of winter grazing hectares used for lamb production. If lamb is your only enterprise, this is easy to determine accurately. However, where you have a number of different enterprises, deciding on the number of hectares you allocate to the lamb enterprise as opposed to the others may be difficult, so don't rely too much on the result.



Average sale price

You should be able to get an idea of your average sale price per kilogram dressed weight from your sales records, especially if you sell over the hooks.

Margin

Subtracting your CoP from your average sale price (cents/kgDW) will give you an idea of the margin you are making from your lamb enterprise. If this figure is less than or close to 0, your business may be at risk.

Where to from here?

Congratulations! You have taken the first step. Benchmarking your CoP has given you an idea of the scope you have for improving the profitability of your lamb enterprise.

The next step is to very clearly decide the lifestyle and financial goals your business has to support, and then determine the enterprise strategy, flock structure and markets that will best achieve these goals.

Access to capital, attitude to risk, land class and rainfall are some of the factors that make your situation different to others and will govern the enterprise choices available to you.

However, all options you might take will influence either of two things – your feed supply or your feed demand.

Feed demand is influenced by the flock structure and target markets you choose. The tactical options you may choose from to change feed demand include: classes of stock, breed, time of lambing, age at weaning, target growth rates and turn-off weights. All of these factors influence the feed demand in terms of quality and quantity required at different times of the year.

On the other side of the equation, options for providing the feed required include: the pasture species grown on different land classes; the grazing rotation, which includes fencing, grazing and rest times; the use of irrigation, supplementary feeding, and fodder conservation.

Based on your current enterprise structure, you need to determine how well your feed supply matches your feed demand. There are a number of programs provided by MLA to help you do this, such as Prograze, as well as various tools and information in *The lamb guide* and its regional and finishing supplements. Alternatively, you can contact your local state department or farm management consultant for assistance.

If the match between your feed supply and demand is poor, look for options to change either or both. Other producers, often from regions quite different to yours, can be a great source of new options for you to consider. Keep an open mind, listen to others and read widely.

When you have chosen a few possible options, you should do an economic analysis of each of those options to ensure they will meet the profit goals you have set.

Once you have decided on the flock structure, target markets and feed supply options you want to implement, you need to develop a transition plan to get from the current enterprise strategy to the new one. This plan needs to account for access to capital, and have defined limits for cash flow and liquidity against which you can monitor progress. If these limits are breached, action can be taken in advance to get the business back on track. This is critical to managing risk.

Developing an enterprise strategy is a complex task requiring many repetitive calculations. Most farm management consultants have a range of computer tools to automate this process, and they are aware of most of the pitfalls that may confront you. It is strongly advised that you seek professional support.

Acknowledgement

The method for calculating cost of production was developed by Holmes, Sackett and Associates for Meat & Livestock Australia.

Further information

For more information from MLA for your lamb enterprise, such as a free copy of *The lamb guide* or any of the regional and finishing supplements, call the MLA producer hotline on 1800 675 717



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The MLA cost of production calculator for lamb

Total lamb production

Day/month/year	Opening number / /	Closing number / /
Ewes*	<input type="text"/> (a)	<input type="text"/> (b)
Lambs*	<input type="text"/> (c)	<input type="text"/> (d)
Rams	<input type="text"/> (e)	<input type="text"/> (f)

Lamb production

	kgs/head lwt	Total kgs lwt
Lamb opening liveweight	<input type="text"/> (g)	<input type="text"/> (c) x (g)
Lamb closing liveweight	<input type="text"/> (h)	<input type="text"/> (d) x (h)
Total liveweight of lamb purchased	<input type="text"/> kg	
Total liveweight of lamb sold	<input type="text"/> kg	
TOTAL KG OF LAMB PRODUCED (4+2-3-1)	<input type="text"/> kg	

Explanatory notes

- * Include replacement ewes
- # These are lambs carried over from previous lambing
- Note:** All figures are GST exclusive
- 1-4** Liveweights (lwt) - from transaction records or weighing a sample; if not available, use an estimate
- 7-8, 15-18** From transaction records
- (i), (j), (k), (l), (m), (n)** These are the standard values used in Holmes Sackett & Associates Benchmarking and it is assumed that the opening and closing values are the same
- 8** Value of lamb sales includes skins
- 15** Include any ewes transferred from the Merino flock at a standard value (eg \$60/head)
- 18** Include only wool sold from this enterprise

Lamb enterprise income

Lamb trading income	\$/head	Total value (\$)	
Lamb opening value	\$ 60 (i)	\$ <input type="text"/> (c) x (i)	5
Lamb closing value	\$ 60 (j)	\$ <input type="text"/> (d) x (j)	6
Total value of lamb purchased		\$ <input type="text"/>	7
Total value of lamb sold (including skins)		\$ <input type="text"/>	8
NET LAMB TRADING INCOME (8+6-7-5)		\$ <input type="text"/>	B

Sheep and wool trading income

Lamb enterprise opening values	\$/head	Total value (\$)	
Ewe opening value	\$ 80 (k)	\$ <input type="text"/> (a) x (k)	9
Ram opening value	\$ 300 (l)	\$ <input type="text"/> (e) x (l)	10
Wool opening value		\$ <input type="text"/>	11
Total opening value (9+10+11)		\$ <input type="text"/>	C

Lamb enterprise closing values

Ewe closing value	\$ 80 (m)	\$ <input type="text"/> (b) x (m)	12
Ram closing value	\$ 300 (n)	\$ <input type="text"/> (f) x (n)	13
Wool closing value		\$ <input type="text"/>	14
Total closing value (12+13+14)		\$ <input type="text"/>	D

Lamb enterprise purchases/transfers

Total ewe purchases/transfers (\$)	\$ <input type="text"/>	15
Total ram purchases (\$)	\$ <input type="text"/>	16
Total purchase value (15+16)	\$ <input type="text"/>	E

Lamb enterprise sales

Total ewe and ram sales	\$ <input type="text"/>	17
Total wool sold	\$ <input type="text"/>	18
Total sale value (17+18)	\$ <input type="text"/>	F
NET SHEEP AND WOOL INCOME (D+F-C-E)	\$ <input type="text"/>	G

Total labour costs for full year for all enterprises

Cost of permanent employees	\$	19
Owner/operator allowance Number ____ x \$50,000 pa =	\$	20
Cost of additional family labour (not already included in above) Number ____ x \$28,000 pa =	\$	21
Total cost labour (19+20+21)	\$	22
Percentage time on lamb enterprise work	%	23
TOTAL LABOUR COST OF LAMB ENTERPRISE (22x23)	\$	H

Lamb enterprise costs

Total flock health costs	\$	24
Contractors and casual labour for lamb work	\$	25
Total quantity of home grown feed fed out: t x value/tonne \$ = \$		26
Total quantity of purchased feed fed out: t x value/tonne \$ = \$		27
Transport and cartage	\$	28
Selling costs (lambs, sheep and wool)	\$	29
Shearing and crutching	\$	30
TOTAL LAMB ENTERPRISE COSTS (add 24 through 30)	\$	I

Explanatory notes (cont.)

- 19 Include any permanent paid labour (casual labour goes in 25) and not owner/operator or family members; include all on-costs, eg workers compensation, superannuation, etc.
- 20 This is an allowance for the 'manager' of the business; if 'manager' is less than full time, pro rata the \$50,000 annual allowance, ie 50% = \$25,000 pa; exclude off-farm labour
- 21 Only include if not already included in 19, eg 1 full time and 1 part time = 1.5
- 23 Estimate if time records not available
- 24 Includes drenches, dips, vaccines and vet costs

Overhead costs for whole farm business

Repairs and maintenance: shed, yards, fences, land	\$	31
Repairs and maintenance: plant and equipment	\$	32
General insurance	\$	33
Administration	\$	34
Rates, agistment	\$	35
Fuel and oil	\$	36
Electricity and gas	\$	37
Depreciation	\$	38
Pasture costs	\$	39
Other	\$	40
TOTAL OVERHEADS (add 30 through 39)	\$	J

- 25 Includes marking, classing, mustering and casual labour used for the lamb enterprise (excluding shearing and crutching)
- 26-27 Feed should be valued at market price, not cost of production because if it wasn't fed to stock it could have been sold on the market
- 28 Include cost of all lamb, ewe and ram transport (not involved in selling costs)
- 29 For all sheep and wool sold; include freight, commissions, fees, taxes and levies
- 30 Include cost of shearing, crutching, mulesing, wool packs, emery paper, combs, cutters, and any other associated expenses
- 32 Includes vehicles, motor bikes, tractors, etc; do not include labour if already accounted for previously
- 33 Includes public liability, sickness and accident insurance
- 34 Telephone, fax, postage, general office expenses; do not include labour if already accounted for previously
- 35 Rates include shire, RLP Board and council
- 36 Includes petrol, distillate, fuel oils and lubricants exclude personal use
- 37 Exclude personal use
- 38 Use the depreciation figures from your most recent; tax return
- 39 Include chemicals, fertiliser, irrigation, seed
- 40 Include items not already accounted for

Calculating the percentage of overhead costs allocated to lamb enterprise

(Your most recent tax return may be useful. If not able to separate gross incomes, only **LAMB ENTERPRISE GROSS INCOME** and **TOTAL GROSS INCOME** are necessary)

Year _____	GROSS INCOME
LAMB ENTERPRISE (B+G)	\$ <input type="text"/>
	+
OTHER SHEEP ENTERPRISE(S)	\$ <input type="text"/>
	+
CATTLE ENTERPRISE	\$ <input type="text"/>
	+
CROPPING ENTERPRISE	\$ <input type="text"/>
	+
OTHER*	\$ <input type="text"/>
	=
TOTAL GROSS INCOME	\$ <input type="text"/>

Percentage of income from lamb = % **K**

$$\left(\frac{\text{GROSS LAMB INCOME} \times 100}{\text{TOTAL GROSS INCOME}} \right)$$

Explanatory notes (cont.)

K Overhead costs are allocated according to the income produced from the lamb enterprise

*Other Do not include off-farm contracting or labour or off-farm investment income

Calculating cost of production per kg lamb dressed weight

Overhead costs (from J)	\$ <input type="text"/>	L
Overheads attributed to lamb enterprise (KxJ)	\$ <input type="text"/>	M
Total cost of lamb production (H+I+M)	\$ <input type="text"/>	N
Proportion income lamb of total lamb enterprise (B ÷ (B+G))	<input type="text"/>	O
Total cost of lamb production (NxO)	<input type="text"/>	P
Total kg lamb produced (liveweight) (from A)	<input type="text"/> kg	Q
Total kg lamb produced (dressed weight – Qx0.46)	<input type="text"/> kg	R

COST OF PRODUCTION PER KG LAMB DRESSED WEIGHT (P÷R)

Note: This figure is inclusive of skin values and therefore is not directly comparable to over-the-hook prices. If the price you are offered is not inclusive of skins then you can compare as follows:

- 1) Multiply your cost of production by the dressed weight of lambs for which you have been offered the price. This will give you the total cost of producing the lamb with its skin.
- 2) Deduct the current skin value from the total cost to give the net cost of producing the lamb without its skin.
- 3) Divide the cost of producing the lamb without its skin by the dressed weight to give the price required per kilogram of lamb dressed weight to ensure you meet the cost of producing the lamb with its skin on.



Tool 1.7

AWI cost of production calculator for wool enterprises

Calculating cost of production for your wool enterprise

For sheep producers wanting to improve the performance of their wool enterprise, a good understanding of the current efficiency of the business is essential. Cost of production is a key factor affecting the profitability of wool producing businesses. Calculating your cost of production is an important step in assessing flock profitability and a first step to making change.

Cost of production

Cost of production (COP), measured in dollars per kilogram of clean wool, is an indication of the outlay required to produce each kg of wool. It is therefore a measure of the efficiency with which you produce wool. If you identify that there is room for improvement in your cost of production then you can look for ways to improve, which may come from either increasing productivity, decreasing costs, or both.

The AWI cost of production calculator has been developed to standardise this very common performance indicator, so you can easily compare the performance of your enterprise with others in the wool industry. A quick comparison of your COP will indicate whether you have great scope for improvement, or are already performing reasonably well.

COP is simple to calculate. It is not complicated by how you have financed the business, how much of it you own or how you acquire your land, and it only deals with one enterprise at a time. COP does not automatically reveal what aspects of production you are in a position to improve, but it will provide a very useful start. You can use it to compare the efficiency of your business year on year, and then compare it against other wool producers with similar resources to your own.

In developing a standard approach to calculating COP, care has been taken to ensure that while the easiest method has been applied at every step, the usefulness of the measure has not been compromised. Designed as a 'do-it-yourself' tool, every wool producer can use the AWI cost of production calculator to figure out their COP and compare their performance annually.

Finally, knowing your COP is just the first step. Once you have a rough idea of how you are performing, measure the performance of your business in more detail and for all enterprises. There are a number of benchmarking groups already established that can provide this service.

How to use the AWI cost of production calculator

The calculator is intended to be used for only one enterprise at a time, for example a specialist wool flock. If you have a Merino wool flock and you join a percentage of the ewes to a terminal sire and the rest to Merino sires, then you would break that flock into two enterprises:

- 1 A wool flock that includes Merino wethers and those ewes joined to Merino sires and
- 2 A dual purpose lamb flock that includes the ewes joined to a terminal sire.

The income and costs should be apportioned accordingly (pro-rata the data by number of sheep in each flock if necessary) throughout the calculator. Use the most appropriate 12-month period for your situation.

The COP calculator is split into the following seven sections:

1. Wool trading account
2. Sheep trading account
3. Total labour costs for all enterprises
4. Wool enterprise costs
5. Overhead costs for whole farm business
6. Calculation for allocating overheads to wool enterprise
7. Final COP calculation

Each section has a number of questions to be answered from your own records, with a number next to the question referring to a comment in the explanatory notes box where required. There is a box at the end of each section with a letter beside it that refers to the figures used in the final COP calculation.

Once you have calculated your COP, the next section of this calculator gives you an idea of how your performance ranks against other wool enterprises. Please heed the **WARNING** section about the accuracy of COP for different enterprise mixes.

Key benefits

Learn to use the AWI cost of production calculator to

- Measure the performance of your wool enterprise year on year.
- Compare the efficiency of your enterprise annually with other wool producers and find out if there is scope for improvement, or if your enterprise is already performing well.
- Use the cost of production information to help with wool marketing decisions.

How does your Wool COP compare with others?

Fine wool (< than 19µm) tends to have a higher cost of production than medium and strong wool. The reasons are a combination of intensity of production systems (fine wool production in higher rainfall areas) and lower fleece weights of sheep. Choose which category you fit into by comparing your average adult micron for your clip.

By industry standards, if you have a cost of production of less than \$6-7/kg clean, you are performing better than the average wool producer. As shown in the diagram, the most efficient wool producers have an average cost of production of \$5/kg clean for fine wool and \$3.50/kg clean for medium and strong wool – good goals for any producer interested in wealth creation.



Less than 19 micron

The most efficient one third of farms produced <19 micron wool for between \$5.00 and \$7.00/kg clean	The middle group of farms produced <19 micron wool for between \$7.00 and \$9.00	The least efficient one third of farms produced <19 micron wool for between \$9.00 and \$17.00
Lowest cost of production \$5.00/kg clean	\$7.00/kg clean \$9.00/kg clean	Highest cost of production \$17.00/kg clean

Greater than 19 micron

The most efficient one third of farms produced ≥19 micron wool for between \$3.50 and \$6.00/kg clean	The middle group of farms produced ≥19 micron wool for between \$6.00 and \$7.50	The least efficient one third of farms produced ≥19 micron wool for between \$7.50 and \$12.50
Lowest cost of production \$3.50/kg clean	\$6.00/kg clean \$7.50/kg clean	Highest cost of production \$12.50/kg clean

Warning

Calculate COP for a number of years to get an idea of your average

COP can vary a lot between years due to a range of circumstances. These include but are not limited to:

- Unusual rainfall (usually to do with lack there-of)
- Changes to flock management or structure, such as lambing date or shearing time
- Greater than normal expenses, such as capital fertilizer applications or pasture establishment
- As a general rule, the more variable the rainfall for your location, the more years you should calculate to determine your average COP.

THIS COP CALCULATOR IS MOST ACCURATE FOR A BUSINESS THAT RUNS WOOL ONLY

Where multiple sheep enterprises are run, estimating how much of some costs should be allocated to each enterprise is more difficult and can lead to small inaccuracies. Note however, provided you have used a reasonably sensible measure for allocation, these small inaccuracies are unlikely to change the message. The key to using this tool is that you understand in which third of wool producers you belong, not whether your COP is \$9.45 or \$9.15. In either case it is way too high and there is significant room for improvement! A cost of production greater than \$8/kg clean for fine wool and \$7/kg clean for medium and strong wool would suggest significant room for improvement.

For businesses that run multiple enterprises ie, sheep and cropping, the calculator is reasonably accurate because costs can be split reliably by using the percentage of gross income each contributes. However, there may be instances where the farm has multiple enterprises that, due to variations in income from year to year in all enterprises, the wool enterprise will get an abnormal allocation of expenses. This may produce an answer that is either abnormally low or high.

Calculating your COP over a number of years will help to give a more accurate answers and it is also worthwhile discussing your answer with an experienced benchmarking service provider to make sure the answer is sensible and to help with interpretation.

Optional extras

Using the figures you have drawn on to measure COP, there are a couple of extra indicators you can calculate. Should you choose to fill these extras out, the results will be useful additional discussion material you might engage to help you.

Kilograms of wool produced per hectare (Kg Clean/Ha)

You can calculate kg clean/ha by simply dividing the number of kilograms of wool produced by the number of winter grazing hectares used for wool production. If wool is your only enterprise, this is easy to determine accurately. However, where you have a number of different enterprises, deciding on the number of hectares you allocate to the wool enterprise as opposed to the others may be difficult, so don't rely too much on the result.

Average sale price

You should be able to get an idea of your average sale price per kilogram clean from your historical sales records or divide the WOOL GROSS INCOME (Box E) by the total kilograms of wool sold (Box I). Alternatively you can use the AWI Woolcheque program as an indicator of your current clip value (see procedure 2.3 in *Market Focused Wool Production*, then visit www.woolcheque.com.au).

Margin

Subtracting your COP from your average sale price (cents/kg clean) will give you an idea of the margin you are making from your wool enterprise. If this figure is less than or close to 0, your business may be at risk.

The margin you have made and the margin you are likely to make is not only helpful in making production decisions but also in making marketing decisions. Your COP information and information about the value of your wool clip can help make good decisions on when to sell your wool and for what price (see procedure 2.3 in *Market Focused Wool Production*).

Where to from here?

Congratulations! You have taken the first step. Benchmarking your COP has given you an idea of the scope you have for improving the profitability of your wool enterprise.

The next step is to very clearly decide the lifestyle and financial goals your business has to support, and then determine the enterprise strategy, flock structure and markets that will best achieve these goals.

Access to capital, attitude to risk, land class and rainfall are some of the factors that make your situation different to others and will govern the enterprise choices available to you.

However, all your options will influence one of two things – your feed supply or your feed demand.

Feed demand is influenced by the flock structure and lambing dates you choose. Both of these factors influence the feed demand in terms of quality and quantity required at different times of the year (see procedure 8.2 in *Turn Pasture into Product*).

On the other side of the equation, options for providing the feed required include: fertilizer applications; the pasture species grown on different land classes; the grazing rotation, which includes fencing, grazing and rest times; the use of irrigation, supplementary feeding, and fodder conservation (see procedure 8.2 in *Turn Pasture into Product*).

Based on your current enterprise structure, you need to determine how well your feed supply matches your feed demand. There are a number of programs and tools provided by AWI such as Evergraze, Lifetime Wool, Making More from Sheep, and GrassGro from which you can get additional information to help improve the efficiency of your wool production.

If the match between your feed supply and demand is poor, look for options to change either or both. Other producers, often from regions quite different to yours, can be a great source of new options for you to consider. Keep an open mind, listen to others and read widely.

When you have chosen a few possible options, you should do an economic analysis of each of those options to ensure they will meet the profit goals you have set.

Once you have decided on the lambing date, flock structure, target markets and feed supply options you want to implement, you need to develop a transition plan to get from the current enterprise strategy to the new one. This plan needs to account for access to capital, and have defined limits for cash flow and liquidity against which you can monitor progress. If these limits are breached, action can be taken in advance to get the business back on track. This is critical to managing risk.

The AWI Wool Cost of Production Calculator

Starting Month Ending Month

Wool Trading Account

WEIGHTS			S/kg	TOTAL VALUES
Wool Sold (kg clean) <input type="text"/> A			Value (\$)	<input type="text"/> B
Average Value (\$/kg Clean) <small>(Wool sold value\$ divided by Wool sold kg clean)</small>				<input type="text"/> 1
Number at starting month	X	Estimated Fleece Weight	=	Opening Fleece Weight
Ewes	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Weaners	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Wethers	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Rams	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Opening Fleece Weight (kg clean)				<input type="text"/> a = SUM OF OPENING FLEECE WEIGHTS
Opening Shorn Wool Inventory (kg clean)				<input type="text"/> b
Total Opening Inventory <input type="text"/> c				<input type="text"/> (a+b)
Number at closing month	X	Estimated Fleece Weight	=	Closing Fleece Weight
Ewes	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Weaners	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Wethers	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Rams	<input type="text"/>	<input type="text"/>	=	<input type="text"/>
Closing Fleece Weight (kg clean)				<input type="text"/> d = SUM OF CLOSING FLEECE WEIGHTS
Closing Shorn Wool Inventory (kg clean)				<input type="text"/> e
Total Closing Inventory <input type="text"/> f				<input type="text"/> (d+e)
Value of Opening Shorn Wool Inventory (\$/kg clean)			X	<input type="text"/>
Total Value Opening Wool Inventory			=	<input type="text"/> 2
Value of Closing Shorn Wool Inventory (\$/kg clean)			X	<input type="text"/>
Total Value Closing Inventory			=	<input type="text"/> 3

Estimated Fleece Weight - An estimate of fleece weight for opening and closing numbers is necessary where there has been a change in shearing date or a significant change in sheep numbers from opening to closing which will affect the amount of wool harvested.

Opening/closing Shorn Wool Inventory - This is harvested wool that is as yet unsold at starting/closing month.

Sheep Trading Account

	Number at starting month	Number at closing month	Change (Closing minus opening)	X	Inventory Value (\$/hd)	=	Change in Livestock Inventory	
Ewes	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>		<input type="text"/>	
Weaners	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>		<input type="text"/>	
Wethers	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>		<input type="text"/>	
Rams	<input type="text"/>	<input type="text"/>	<input type="text"/>		<input type="text"/>		<input type="text"/>	
Value of wool sold on sheep's back							Total change in livestock Inventory (\$)	4 = SUM OF CHANGE IN INVENTORY
	No. Sold or Transferred	X	Clean Fleece Weight on Sales	=	Wool Sold on sheep	Gross value of sheep sales		
Ewes	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total ewe sales/transfers (\$)	<input type="text"/>	
Weaners	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total weaner sales (\$)	<input type="text"/>	
Wethers	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total wether sales (\$)	<input type="text"/>	
Rams	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total ram sales (\$)	<input type="text"/>	
Total wool sales with livestock (kg clean)						Total sales/transfers (\$)	5 = SUM OF TOTAL SALES	
Total wool sales with livestock (\$) <small>(Total wool sales with livestock multiplied by Average Value \$/kg clean)</small>						g = SUM OF WOOL SOLD ON SHEEP		
						h = g X 1		
Value of wool purchased with sheep						Gross value of sheep purchases		
	No. Purchased	X	Fleece Weight	=	Wool Purchased on sheep	Total ewe purchases (\$)	<input type="text"/>	
Ewes	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total weaner purchases (\$)	<input type="text"/>	
Weaners	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total wether purchases (\$)	<input type="text"/>	
Wethers	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total ram purchases (\$)	<input type="text"/>	
Rams	<input type="text"/>		<input type="text"/>		<input type="text"/>	Total purchases (\$)	6 = SUM OF TOTAL PURCHASES	
Total wool purchases with livestock								
Total wool purchases with livestock (\$) <small>(Total wool purchases with livestock multiplied by Average Value \$/kg clean)</small>						i = SUM OF WOOL PURCHASED ON SHEEP		
						j = i X 1		
Sheep Trading Income <small>(Total change in livestock inventory\$ plus Total sales/transfers\$ minus Total purchases\$ minus (Total wool sales with livestock minus Total wool purchases with livestock))</small>							C = 4 + 5 - 6 - (h-j)	
Change in Wool Inventory <small>(closing inventory minus opening inventory plus total wool sales kg/clean minus total wool purchases)</small>						k = f - c + g - i	Value of Change in Wool Inventory (\$) <small>(total value closing inventory minus total value opening inventory)</small>	D = 3 - 2
Total Wool Production <small>(Wool sold kg/clean plus Change in Wool Inventory)</small>						l = A + k	Total Value of Wool Production <small>(Value of change in Wool Inventory plus Total value of sold wool)</small>	E = B + D

Sheep Trading Account NOTES

Ewe Inventory Value \$/hd - Suggested standard value \$50 as used in Holmes Sackett & Associates Benchmarking and it is assumed that the opening and closing values are the same.

Weaner Inventory Value \$/hd - Suggested standard value \$40 as used in Holmes Sackett & Associates Benchmarking and it is assumed that the opening and closing values are the same.

Wether Inventory Value \$/hd - Suggested standard value \$40 as used in Holmes Sackett & Associates Benchmarking and it is assumed that the opening and closing values are the same.

Ram Inventory Value \$/hd - Suggested standard value \$300 as used in Holmes Sackett & Associates Benchmarking and it is assumed that the opening and closing values are the same

Total wool sales with livestock (kg clean) - Use the average wool price from wool sold to put a value on wool sold with livestock. This is significant particularly where sheep are sold in their wool.

Total Ewe purchases - Include any ewes transferred from the Merino flock at their market value (eg \$50/head)

Total wool purchases with livestock - Use the average wool price from wool sold to put a value on wool purchased with livestock. This is significant particularly where sheep are purchased with significant amounts of wool.

Total labour costs for full year for all enterprises

Cost of permanent employees (\$)				<input type="text"/>
	Number	Value		
Owner/operator allowance	<input type="text"/>	X	<input type="text"/>	= <input type="text"/>
Cost of additional family labour (not already included in above)	<input type="text"/>	X	<input type="text"/>	= <input type="text"/>
Total labour cost				<input type="text"/> 7 = SUM OF LABOUR COSTS
Percentage time on wool enterprise work				<input type="text"/> 8
TOTAL LABOUR COST OF WOOL ENTERPRISE				<input type="text"/> F = 7 x 8
<small>(Total labour cost multiplied by percentage time on wool enterprise work)</small>				

Total labour costs for full year for all enterprises NOTES

Cost of permanent employees - Include any permanent paid labour (casual labour should be recorded under "Wool Enterprise Costs") and not owner/operator or family members; include all on-costs, eg workers compensation, superannuation, etc

Owner/Operator Allowance Value - This is an allowance for the 'manager' of the business; if 'manager' is less than full time, pro rata the \$55,000 annual allowance, ie 50% = \$27,500 pa; exclude off-farm labour

Cost of additional family labour Value - Only include if not already included above.

Percentage time on wool enterprise work - Estimate if time records not available.

Wool enterprise costs (exclude costs from other sheep enterprises)

Wool flock health costs					
Contractors and casual labour for wool enterprise work (ie mulesing but exclude shearing & crutching)					
	Quantity (T)		Value (\$/T)		
Total home grown feed fed out to wool flock:	<input type="text"/>	X	<input type="text"/>	=	<input type="text"/>
Total quantity of purchased feed fed out to wool flock:	<input type="text"/>	X	<input type="text"/>	=	<input type="text"/>
Agistment costs to wool flock					<input type="text"/>
Transport & Cartage for wool flock:					<input type="text"/>
Selling costs for wool flock (sheep and wool)					<input type="text"/>
Shearing and crutching of wool flock					<input type="text"/>
Other costs, eg insurance, materials for wool flock					<input type="text"/>
TOTAL WOOL ENTERPRISE COSTS					<input type="text"/>

G = SUM OF ENTERPRISE COSTS

Wool enterprise costs NOTES

Wool flock health costs - Includes drenches, dips, vaccines and vet costs

Contractors and casual labour for wool enterprise work - Includes marking, classing, mustering and casual labour used for the lamb enterprise, (excluding shearing and crutching).

Total home grown feed fed out to wool flock (\$/T)- Feed should be valued at market price, not cost of production because if it wasn't fed to stock it could have been sold on the market

Agistment costs to wool flock - Cost of agistment for sheep sent away

Transport & Cartage for wool flock- Include cost of all lamb, ewe and ram transport (not involved in selling costs)

Selling Costs for wool flock (sheep and wool) - For all sheep and wool sold; include freight, commissions, fees, taxes and levies

Shearing and crutching of wool flock- Include cost of shearing, crutching, mulesing, wool packs, emery paper, combs, cutters and any other associated expenses

Overhead costs for whole farm business

Repairs and maintenance: shed, yards, fences, land		
Repairs and maintenance: plant & equipment		
General insurance		
Administration		
Rates and rents		
Fuel and oil		
Electricity and gas		
Depreciation		
Pasture costs		
Motor vehicle expenses		
Other		
TOTAL OVERHEAD COSTS		H = SUM OF OVERHEADS

Overhead costs for whole farm business NOTES

Repairs and Maintenance: plant & equipment - Includes vehicles, motor bikes, tractors, etc; do not include labour if accounted for previously

General Insurance - Includes public liability, sickness and accident insurance

Administration - Telephone, fax, postage, general office expenses; do not include labour if accounted for previously

Rate and rents - Rates include shire, council etc.

Fuel and Oil - Includes petrol, distillate, fuel oils and lubricants. Exclude personal use.

Electricity and gas - Exclude personal use

Depreciation - Use the depreciation figures from your most recent tax return

Pasture costs - Include chemicals, fertiliser, irrigation, seed

Motor Vehicle expenses - Farm usage only for all private & farm vehicles (cars, utes, 4WD, trucks, bikes) - registrations and licences, insurance, R&M

Other - Include items not already accounted for

Calculating the percentage of overhead costs allocated to wool enterprise

	GROSS INCOME
WOOL ENTERPRISE (Total sales/transfers value\$ plus total wool sold value \$)	<input type="text"/> 9 = B + 5
OTHER FARM INCOME	<input type="text"/> 10
TOTAL GROSS FARM INCOME	<input type="text"/> I = 9 + 10
% of income from wool enterprise (Wool Enterprise divided by Total Gross Farm Income)	<input type="text"/> J = 9/I

% of income from wool enterprise NOTES

% of income from wool enterprise - Overhead costs are allocated according to the income produced from the wool enterprise

Calculating cost of production per kg wool clean

Overheads attributed to wool enterprise (Total overhead costs multiplied by % of income from wool enterprise)	<input type="text"/> K = H x J
Total costs incurred by wool enterprise (Overheads attributed to wool enterprise plus Total wool enterprise costs plus Total labour cost of wool enterprise)	<input type="text"/> L = K + G + F
Wool as a proportion of total enterprise income (Total value of wool production divided by (Sheep trading income plus total value of wool production))	<input type="text"/> M = E/(C+E)
Total cost of wool production (Total costs incurred by wool enterprise multiplied by Wool as a proportion of total enterprise income)	<input type="text"/> N = L x M
Total kg wool produced (kg clean) (Total wool production)	<input type="text"/> O = I
COST OF PRODUCTION (\$/KG CLEAN) (Total cost of wool production divided by Total kg wool produced kg/clean)	<input type="text"/> P = N/O



Tool 1.8

MLA cost of production calculator for beef enterprises



tips & tools

BUSINESS MANAGEMENT



Calculating cost of production for your beef enterprise

For producers wanting to improve the performance of their beef enterprise, a good understanding of the current health of the business is essential.

Cost of production is a key factor affecting the profitability of beef-producing businesses. Calculating your cost of production is an important step in assessing herd performance and a first step to making change.

Cost of production

Cost of production (CoP), measured in cents per kilogram, is an indication of the outlay required to produce each kilogram of beef.

The MLA cost of production calculator has been developed to standardise this very common performance indicator, so you can easily compare your enterprise with others across the southern beef industry who have used this *Tips & Tools*. A quick comparison of your CoP will indicate whether you have great scope for improvement, or are already performing reasonably well.

CoP is simple to calculate. It is not complicated by how you have financed the business, how much of it you own or how you acquire your land, and it only deals with one enterprise at a time. Use CoP to compare the health of your business year on year, and then compare yourself against other beef producers with similar resources to your own.

In developing a standard approach to calculating CoP, care has been taken to ensure that while the easiest method has been applied at every step, the usefulness of the measure has not been compromised.

Designed as a 'do-it-yourself' tool, we hope that every beef producer will figure out their CoP and compare their performance annually.

Finally, knowing your CoP is just the first step. Once you have a rough idea of how you are performing, we strongly urge you to measure the performance of your business in more detail and for all enterprises. There are a number of other performance indicators that help define specific areas for improvement. There are many benchmarking groups already established, run by state departments or private farm management consultants.

Key benefits

- Learn to use the MLA cost of production calculator to measure the performance of your beef enterprise year on year
- Compare the health of your business annually with other beef producers and find out if there is scope for improvement, or if your enterprise is already performing well

How to use the MLA cost of production calculator

To help you fill out the MLA CoP calculator for your enterprise, a worked example is provided in this *Tips & Tools* with comments about how some of the costs were determined. The CoP calculator is split into the following six sections:

1. Total beef production
2. Cattle enterprise costs
3. Total labour costs for all enterprises
4. Overhead costs for all enterprises
5. Calculation for allocating overheads to beef enterprise
6. Final CoP calculation

Each section has a number of questions to be answered from your own records. Where explanation is required, a number next to the question refers to a comment in the explanatory notes box.

There is a box at the end of each section with a letter beside it that refers to the figures used in the final CoP calculation.

Once your CoP is calculated with the help of the example provides, the next section of this *Tips & Tools* gives you an idea of how your performance ranks against other southern beef enterprises.

There are a couple of 'optional extras' you may wish to calculate: kg/LWT/ha, average selling price and margin. Please heed the WARNING section about the accuracy of CoP for different enterprise mixes.

The final section of this *Tips & Tools* discusses the next steps after you have benchmarked your CoP.

To make the job of calculating CoP easier, allocate costs to enterprises as they are incurred throughout the year.

Worked example

The MLA cost of production calculator on the next two pages has been filled out using the example below.

This example was taken from a 1,600ha sheep, beef and cropping property. About 650ha is cropped and 950ha grazed at an average stocking rate of 15 DSE/ha. The financial year July 1 to June 30 was used to calculate CoP.

Total beef production

- The cow breeder numbers were increased by 10 to 360 during the year. The average cow liveweight at the end of June was 450kg.
- The herd calves in late winter so by end of June the current calf drop was around 10 months old and had been weaned, so there were no calves. The average liveweight of the weaners was 300kg. There was a decrease in weaner numbers of six between opening and closing.
- Extra heifers were retained this year with a change from opening to closing of +10. The average liveweight of the heifers was 420kg. After two years of age, the heifers enter the cow class and are included in the cow numbers.
- In most previous years, weaner steers were sold during the year. However, 50 late lighter-weight steers were kept on and these weighed on average 450kg at the end of June. They were still under two years of age so were included in the steer one to two-year class.
- A >two-year class is included for enterprises that carry steers past two years of age.
- The total liveweight of cattle sold throughout the year was 108,350kg. This included a couple of cull bulls, a dozen cull cows, 105 steers at 440kg, and 135 heifers at about 410kg.
 - Some of the steers were sold over the hooks and the records showed only their carcase weight. To convert this to liveweight, carcase weight was multiplied by two (that is, a dressing percentage of 50% was assumed). The dressing percentage (ie the proportion of liveweight that is carcase) varies with age, breed, and other factors such as gut fill at weighing, so if anything 50% is probably a little low.
- Total weight of cattle purchased was 7,000kg which included a couple of replacement bulls and 10 cows with calves at foot.

Cattle enterprise costs

- The cattle health costs were \$5,500, ie about \$16 per breeder.
- Contractors were used for calf marking and some casual mustering which cost \$5,000.
- No home-grown feed was fed out, but 30 tonnes of grain was purchased, with 20 tonnes fed out. The cost per tonne recorded is 'on-farm' so it includes freight.

Total labour costs for full year for all enterprises

- The farm has two full time employees living in quarters on the property. The cost of these employees includes salaries, superannuation of 12% and bonuses paid at the end of the year based on performance. The farm also pays for some training and education and these costs are included too. The quarters are not included in these costs as they are accounted for in overheads.
- The owner operator and her daughter both work full time on the property, and the owner's father does the books, which they estimate to be a half time job.
- The owner estimated that they spent one working day a week on cattle work, or approximately 20% of their time.

Overhead costs for whole farm business

- Rates were \$10,100 with \$5,000 spent on agistment of a small mob of steers. The agistment cost is recorded here as a whole farm overhead rather than as a cattle enterprise cost, because agisting stock out leaves land available for sheep and cropping.

Optional extras

- A total area of 943 hectares was grazed, of which 345ha was allocated to the beef enterprise, based on the proportion of total livestock income (beef, wool and lamb) earned by beef. The total kg of beef produced (130,750) was divided by 345 to give a figure of 379kg of beef per hectare.
- From their sales records, the average sale price was \$1.80 a kg/LWt. The CoP was 78 cents, giving them a margin of 102 cents per kilogram.



The MLA cost of production calculator – beef

Total beef production

	I Opening number Mth _____	II Closing number Mth _____	III II - I	IV Average kgs/head (Iwt)	V Total kgs (III x IV)	1
Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Weaners	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Steers 1yr	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Steers 2yr	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	kg	kg	
Total column V					<input type="text"/>	kg

Total weight of cattle sold (liveweight – lwt)	<input type="text"/>	kg	2
Total weight of all cattle purchased (lwt)	<input type="text"/>	kg	3
Total kg of beef produced (1+2-3)	<input type="text"/>	kg	A

COSTS SHOULD BE GST EXCLUSIVE

Cattle enterprise costs

Total herd health costs	<input type="text"/>	\$	4
Contractors and casual labour for cattle work	<input type="text"/>	\$	5
Total quantity of home grown feed fed out:	<input type="text"/>	t	
x value/tonne	<input type="text"/>	\$	
=	<input type="text"/>	\$	
Total quantity of purchased feed fed out:	<input type="text"/>	t	6
x value/tonne	<input type="text"/>	\$	
=	<input type="text"/>	\$	
Transport and cartage	<input type="text"/>	\$	7
Selling costs	<input type="text"/>	\$	8
Total cattle enterprise costs (add 4 through 8)	<input type="text"/>	\$	B

Total labour costs for full year for all enterprises

Cost of permanent employees	<input type="text"/>	\$	9
Owner/operator allowance Number _____ x \$50,000 pa =	<input type="text"/>	\$	10
Cost of additional family labour (not already included in above) Number _____ x \$28,000 pa =	<input type="text"/>	\$	11
Total cost labour (add 9+10+11)	<input type="text"/>	\$	12
Percentage time on cattle work	<input type="text"/>	%	13
Total labour cost of cattle enterprise (12 x 13)	<input type="text"/>	\$	C

Explanatory notes

- Use the most appropriate 12-month period, eg autumn calving herds may be better using 1 April–30 March. The period should coincide closely with the period used for the financial year.
Cows >2 years Heifers 1–2 years
Calves 0–7 months Steers >1 year
Weaners 7–12 months
Liveweights (lwt) – it is assumed that opening and closing are the same. Use the average liveweight of each class of stock at the opening date.
- From transaction records or weighing a sample. If not available, use an estimate. As a guide, multiply carcase weight by two to convert to liveweight.
- Includes drenches, dips, vaccines, animal identification, breeding (eg AI) and vet costs.
- Includes marking, classing, mustering and casual labour used for cattle work.
- Feed should be valued at market price, not cost of production because if it wasn't fed to cattle it could have been sold on the market.
- Include cost of all cattle transport.
- Include commissions, fees, taxes and levies.
- Include any permanent paid labour (casuals go in 5) and not owner/operator or family members. Includes all on-costs, eg worker's compensation, superannuation, etc.
- This is an allowance for the 'manager' of the business. If 'manager' is less than full time, pro rata the \$50,000 annual allowance, ie 50% = \$25,000 pa. Exclude off-farm labour.
- Only include if not already included in 9, for example one full time and one part time = 1.5.
- Estimate if time records unavailable.

Overhead costs for whole farm business

Repairs and maintenance: shed, yards, fences, land	\$	14
Repairs and maintenance: plant and equipment	\$	15
General insurance	\$	16
Administration	\$	17
Rates, agistment	\$	18
Fuel and oil	\$	19
Electricity and gas	\$	20
Depreciation	\$	21
Pasture costs	\$	22
Other	\$	23
Total overheads (add 15 through 23)	\$	D

Explanatory notes

- 14 Do not include labour if already accounted for previously.
- 15 Includes vehicles, motor bikes, tractors, etc. Do not include labour if already accounted for previously.
- 16 Includes public liability, sickness and accident insurance.
- 17 Telephone, fax, postage, book keeping, consultants, subscriptions, conferences etc. Do not include labour if already accounted for previously.
- 18 Rates include shire, RLP Board and levies (such as rural fire service).
- 19 Includes petrol, distillate, fuel oils and lubricants. Exclude personal use.
- 20 Exclude personal use.
- 21 Use the depreciation figures from your most recent tax return.
- 22 Include chemicals, fertiliser, seed, irrigation. If sheep and beef are run, allocate costs to beef based on the percentage beef income is of total livestock income.
- 23 Include items not already accounted for.
- 24 Do not include off-farm contracting or labour or off-farm investment income.
- E Overhead costs are allocated according to the income produced from the cattle enterprise.

Calculating the percentage of overhead costs allocated to cattle

(Your most recent tax return may be useful. If not able to separate gross incomes, only **CATTLE GROSS INCOME** and **TOTAL GROSS INCOME** are necessary)

Year _____	GROSS INCOME	
CATTLE	<input type="text"/>	
	+	
WOOL	<input type="text"/>	
	+	
LAMB/SHEEP	<input type="text"/>	
	+	
CROP	<input type="text"/>	
	+	
OTHER*	<input type="text"/>	24
	=	
TOTAL GROSS INCOME	\$ <input type="text"/>	
Percentage of income from cattle =	<input type="text"/>	% E
$\left(\frac{\text{GROSS CATTLE INCOME} \times 100}{\text{TOTAL GROSS INCOME}} \right)$		
Overhead costs (D)	\$ <input type="text"/>	F
Overheads attributed to cattle enterprise (ExF)	\$ <input type="text"/>	G
Total cost of beef production (B+C+G)	\$ <input type="text"/>	H
Total kg beef produced (A)	<input type="text"/>	kg I

COST OF PRODUCTION PER KG BEEF LWT (H÷I)

Further information

A *Tips & Tools* is available to help you fill out the MLA cost of production calculator for your enterprise. To order your free copy of *Calculating cost of production for your beef enterprise*, please call the MLA publications hotline on 1800 675 717.

Acknowledgement

The method for calculating cost of production was developed by Holmes Sackett and Associates for Meat & Livestock Australia.

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Where possible care is taken to ensure the accuracy of the information contained in this publication, however MLA cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests.



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WARNING

CALCULATE CoP FOR A NUMBER OF YEARS TO GET AN IDEA OF YOUR AVERAGE

CoP can vary greatly between years due to a range of circumstances. These include but are not limited to:

- Unusual rainfall
- Changes to herd management or structure, such as calving date
- Greater than normal expenses, such as capital fertiliser applications or pasture establishment

As a general rule, the more variable the rainfall for your location, the more years you should calculate to determine your average CoP.

THIS CoP CALCULATOR IS MOST ACCURATE FOR A BUSINESS THAT RUNS BEEF ONLY

For businesses that run both cattle and sheep, the calculator is reasonably accurate because costs can be split reliably by using the percentage of gross income each contributes.

For cattle, sheep and cropping businesses, calculating CoP for individual enterprises requires estimating how much of some costs should be allocated to each. This is difficult and can lead to significant inaccuracies. While this calculator attempts to address this with guidelines about how to proportion costs, a full benchmarking program across all enterprises is advised.

In any case, the results will be a useful starting point for further discussion with your farm management advisor or benchmarking group.

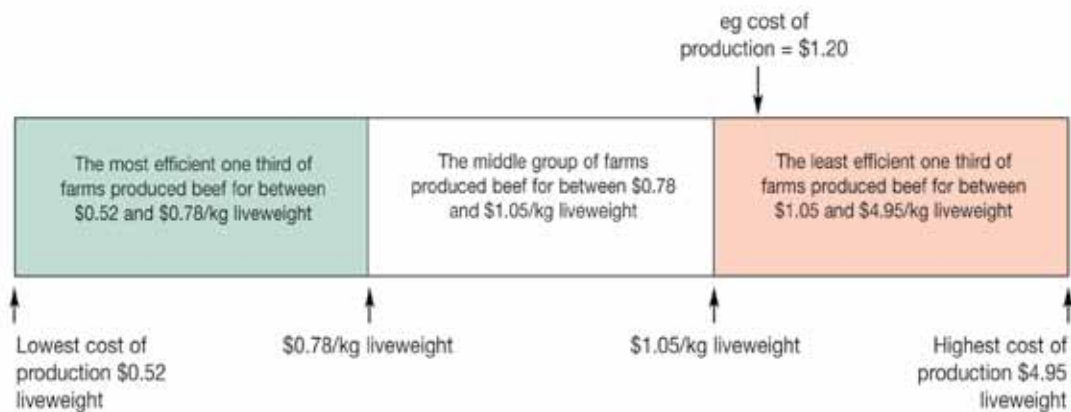
How does your CoP compare with others?

By industry standards, if you have a cost of production of less than \$1.00/kg liveweight, you are performing better than the average beef producer. As shown in the diagram below, the most efficient producers have a regular cost of production of below 78 cents – a good goal for any producer interested in wealth creation.

A cost of production of between \$1.00 and \$1.50 would suggest significant room for improvement.

If your cost of production is greater than \$1.50, the future of your business may be at risk. Based on beef prices less than \$2.00/kg/LWT, you will generally not be earning sufficient income to service debt. If you own all your assets your return on equity will be poor in comparison with other investment opportunities unless your land value is appreciating considerably.

Find out where your CoP falls on the diagram below. The bar provides an indication of the spread of CoP over a three–five-year period and represents a group of above average beef producers.



Optional extras

Using the figures you have drawn on to measure CoP, there are a couple of extra indicators you can calculate. In many cases their accuracy may be limited because they require you to estimate the figures. However, should you choose to fill these extras out, the results will be a useful starting point for further discussion with your farm management advisor.

Kilograms of beef produced per hectare (kg/ha)

You can calculate kg/ha by simply dividing the number of kilograms of beef produced (Box **A** on the calculator) by the number of hectares used for beef production. If beef cattle is your only enterprise, this is easy to determine accurately. However, where you have a number of different enterprises, deciding on the number of hectares you allocate to the beef enterprise as opposed to the others may be difficult, so don't rely too much on the result.

Average sale price

You should be able to get an idea of your average sale price per kilogram liveweight from your sales records.

Margin

Subtracting your CoP from your average sale price (cents/kg/LWt) will give you an idea of the margin you are making from your beef enterprise. Note, however, that this does not include the interest cost for cattle purchases. If this figure is less than or close to 0, your business may be at risk.

Where to from here?

Congratulations! You have taken the first step. Benchmarking your CoP has given you an idea of the scope you have for improving the profitability of your beef enterprise.

The next step is to very clearly decide the lifestyle and financial goals your business has to support, and then determine the enterprise strategy, herd structure and markets that will best achieve these goals.

Access to capital, attitude to risk, land class and rainfall are some of the factors that make your situation different to others and will govern the enterprise choices available to you.

However, all options you might take will influence either of two things – your feed demand or your feed supply.

Feed demand is influenced by the herd structure and target markets you choose. The tactical options you may choose from to change feed demand include: classes of stock, breed, time of calving, age at weaning, target growth rates and turn-off weights. All of these factors influence the feed demand in terms of quality and quantity required at different times of the year.

On the other side of the equation, options for providing the feed required include: the pasture species grown on different land classes; the grazing rotation, which includes fencing, grazing and rest times; the use of irrigation, supplementary feeding, and fodder conservation.

Based on your current enterprise structure, you need to determine how well your feed supply matches your feed demand. There are a number of programs provided by MLA and others to help you do this, such as Prograze, as well as various tools and information in the MLA More Beef from Pastures manual: *The producer's guide*. Alternatively, you can contact your local state department or farm management consultant for assistance.

If the match between your feed supply and demand is poor, look for options to change either or both. Other producers, often from regions quite different to yours, can be a great source of new options for you to consider. Keep an open mind, listen to others and read widely.

When you have chosen a few possible options, you should do an economic analysis of each of those options to ensure they will meet the profit goals you have set. The MLA More Beef from Pastures manual – *The producer's guide* – provides a partial budget template to assist with this.

Once you have decided on the herd structure, target markets and feed supply options you want to implement, you need to develop a transition plan to get from the current enterprise strategy to the new one. This plan needs to account for access to capital, and have defined limits for cash flow and liquidity against which you can monitor progress. If these limits are breached, action can be taken in advance to get the business back on track. This is critical to managing risk.

Developing an enterprise strategy is a complex task requiring many repetitive calculations. Most farm management consultants have a range of computer tools to automate this process, and they are aware of most of the pitfalls that may confront you. It is strongly advised that you seek professional support.

Acknowledgement

The method for calculating CoP was developed by Holmes Sackett and Associates for Meat & Livestock Australia.

Further information

For more information please call the MLA producer hotline on 1800 675 717.



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Tool 1.9

Indicative industry benchmarks

Primary farm business and sheep industry benchmarks:

The table (below) lists the questions answered and methodology behind these industry benchmarks, and a guide to performance using publicly available references. However, for best results, benchmarking should be done by a service provider applying a standard methodology across a large group of participating farms. Various agricultural consultants provide this service.

Whole Farm Benchmarks	Question Answered	Methodology	Guide to Performance*
Net Profit Before Tax	Will the profits meet your drawing and provisioning requirements?	Earnings before interest, lease payments and tax	>\$90,000 = strong ¹
Return on Assets Managed	Is the farm meeting its operational efficiency targets?	Earnings before interest, lease payments and tax ÷ Total assets under management	>4% = strong ²
Return on Equity	Is the farm meeting your wealth creation targets?	Earnings before tax ÷ Net assets under management	>4% = strong ³
Interest Cover	Is the farm generating enough profits to meet debt servicing obligations?	Earnings before interest, lease payments and tax ÷ Interest and lease payments	3 = strong
Peak Debt	Will your finance arrangements cover your working capital requirements?	Lowest working account balance for the year	N/A
Expense Ratio	Are you generating enough income to meet your ongoing expense needs?	Profit before interest and tax ÷ Gross income	>30% = strong ²

* These are provided as a guide only and will vary depending on rainfall (total and seasonality), growing season etc.

¹ Farm Management 500 (2006). Business Health Indicators for Professional Farmers.

² Holmes Sackett and Associates (2006). AgInsights 2005 – Knowing the Past: Shaping the Future. Holmes Sackett and Associates Pty Ltd.

³ Department of Primary industries (2005). Monitor Farm Project 2004/05. The State of Victoria, Department of Primary Industries.

Enterprise Benchmarks	Question Answered	Methodology/100mm rainfall	Guide to Performance*
Productivity	Is this enterprise as productive as it should be?	Quantity of product produced ÷ Grazed hectares	>5kg clean wool/ ha/100mm rainfall = strong ^{2,3} >15kg lamb dwt/ ha/100mm = strong ^{2,3}
Price Received	Are you getting the price for this product that you should?	Gross income for the product ÷ Quantity of product produced	N/A
Cost of Production	Is the cost of producing this product more than it should be?	Total expenses ÷ Quantity of product produced	<\$6.50 per kg clean wool = strong ² <\$2.50 per kg lamb dwt = strong ²
Stocking Rate	Are you running as many sheep as you should be?	Stock numbers as DSEs ÷ Grazed hectares	>2.0 DSE's/ ha/100mm = strong for wool. ² >2 DSE's/ha/100mm = strong for prime lamb. ²
Gross Margin	Is this enterprise as profitable as it should be?	Enterprise Gross Margin ÷ Grazed Hectares	>\$40/ha/100mm = strong for prime lamb. ^{2,3} >\$40/ha/100mm = strong for wool flocks. ^{2,3}

* These are provided as a guide only and will vary depending on rainfall (total and seasonality), growing season etc.

1 Farm Management 500 (2006). Business Health Indicators for Professional Farmers.

2 Holmes Sackett and Associates (2006). AgInsights 2005 – Knowing the Past: Shaping the Future. Holmes Sackett and Associates Pty Ltd.

3 Department of Primary industries (2005). Monitor Farm Project 2004/05. The State of Victoria, Department of Primary Industries.

Examples of Secondary Enterprise Benchmarks

Wool	Lamb
Price as a % of micron indicator	Weaning %
Kg clean/adult shorn	Sale weight
Average adult fibre diameter	kg lamb/DSE
% DSEs as wethers	DSE/labour unit
Weaning %	Enterprise size
DSE/labour unit	
Enterprise size	

Dry Sheep Equivalent (DSE) ratings:

For DSE ratings for a range of livestock and livestock classes, see tool 11.1 in *Healthy and Contented Sheep*.



Tool 1.10

A farm business risk assessment template and drought example

Adapted from Holmes Sackett and Associates AFBR Business Risk Calculator (Further information is available from Holmes Sackett & Assoc, PO Box 5757 Wagga Wagga NSW 2650 Ph 02 6931 7110)

This template is designed to help prioritise the operating risks in your farm business. Look at each of the 12 risk areas one at a time. Each risk area is split into two components. Place a score from 0-5 as per the risk assessment criteria for each component.

Risk assessment criteria

- 0 No risk or not applicable.

- 1 Very low risk. Unlikely to have any measurable impact.

- 2 Low risk. Business likely to survive impact relatively unchanged.

- 3 Moderate risk. Could cause significant temporary setback.

- 4 High risk. Could cause significant permanent setback.

- 5 Extreme risk. Has the potential to destroy the business.

1. HUMAN RESOURCE RISK

You should look firstly at yourself, the manager of the business. Are you the main problem or are you right on top of the job, constantly honing your skills? Hard question this! Can you answer it honestly? Next, look at the availability of a skilled labour pool. This can come in the form of individuals suitable for permanent or casual employment, or in the form of contractors or contract services. Is there a big pool available? How good does the pool look? What is your track record of finding, employing and retaining first class staff?

Owners/managers

Employees

2. PRODUCTION RISK

Is your production system efficient? How competitive is your cost of production? A competitive cost of production is a ticket to play if you are in the commodity business; it is a given. Unless you have it together here, the rest is irrelevant. If your cost of production is uncompetitive, why is it? Is the problem a lack of operating scale, a poor production plan, expense over-runs or what? Obviously you cannot properly address this important area of risk unless you know your five year average cost of production for each product and the volatility inherent in it. Having cost of production data for one or two years is a good start and is way better than having none. If your cost of production is uncompetitive, is it because your output is too low or your inputs are too high?

Output too low

Input too high

3. DEMOGRAPHIC RISK

This can come in two forms. The first form is associated with remote location where community infrastructure is suffering making it difficult to access essential services and attract competent staff. The second form is associated with closer settlement where a real estate premium on land values may be making it difficult to either expand operations or justify staying there. The same form of demographic risk can be created by higher value industry springing up in the district which can afford to pay a significant premium for land over and above its traditional use value.

Remoteness

Proximity

4. ENVIRONMENTAL RISK

This also comes in two forms. The first form is the environmental health of the farm. Are there any major environmental issues that are constraining production and profitability? For example, salinity, acidification, woody weeds and soil erosion are serious constraints to production. The second form of environmental risk is external. What are the prospects of government or semi-government bodies imposing constraints on your operating activities to satisfy environmental requirements?

Health

Impositions

5. CLIMATE RISK

This should be appraised on the basis of frequency and severity. Frequency is self explanatory, for example if you experience rain at harvest six years in ten, you have a frequent problem. Severity involves the failure of a particular season, drought, floods and severe frosts. Also heavy rain at harvest is a severe climate problem. Relying on memory or guessing is not good enough so, ideally you need to access 100 year records and perform an analysis. If the risk of drought or flood or frost is, say 20% that means that on average you can expect one of these events every five years. If this is the case, you are then able to factor the economic consequences into budgets and forecasts.

Frequency

Severity

6. ECONOMIC RISK

This is the risk posed to the business by general movements in the economy. For example, a change in interest rates or a recession can have financial implications for some farm businesses and the market for the products if demand is down. In general, businesses that produce commodities are more sensitive to economic risk than those businesses that enjoy pricing power. Specific economic risk is industry dependent. Is the industry deeply cyclical? When it troughs is your business still profitable?

General

Specific



7. GEOGRAPHIC RISK

This refers to your location. Is your location constraining you in any business sense? For example, if you are in a remote location, does this remoteness significantly increase your cost of production? What other constraints does geography impose? For example, if you own upper river valley country, contiguous expansion through land purchasing can be very difficult. Specific geography refers to the quality of your land. Is it swampy, sandy, steep or rocky to the point where production potential is severely constrained?

General

Specific

8. MARKET RISK

This refers to the overall trading conditions for the enterprises that you are involved in. If you are a horticultural producer, what is the inherent risk in the horticultural market? Overall, is it a local risk where there is a growing tendency for corporate agriculture to out compete individual growers for the available markets or is it from overseas?

Domestic

International

9. PRICE RISK

This looks at the degree of price volatility over a period of time. The full spectrum of volatility needs to be carefully appraised, preferably so that price deciles can be derived. If price deciles are available, they can be used in budgeting and forecasting and are valuable when doing a full assessment of the financial risk of the business. Is the long term real price trend falling faster than you can lower your cost of production? Can short term price volatility send you into the red?

Long term

Short term

10. TECHNOLOGICAL RISK

There are two forms. The first is the prospect of the current product being made redundant by technology. A classic example is the handheld calculator which made the slide rule redundant. A second form of technological risk involves the adoption of technology by the business. Does it have a good track record of adopting and using good, proven technology or, have initiatives in this area generally resulted in failure and lost productivity?

Redundancy

Adoption

11. FINANCIAL RISK

There are two forms, debt and profitability. Is the debt low and manageable or high enough to put the business at risk? Is this position planned and temporary or a long term chronic problem? How much debt can the business afford to carry and where is the current level in relation to it. Is the business profitable enough to provide working capital for all the events in its life? Most importantly, does it generate enough profit to enable adequate provisioning of major future events like succession and retirement if they are on the horizon?

Debt

Profitability

12. FAMILY RISK

How do you all get on? Do you talk openly and honestly, often enough? Is there a thorny issue serious enough to impair business performance? Can most issues be resolved sensibly and amicably through mutual respect and tolerance or is the pressure gradually building to finally explode and blow the business to bits? How about succession? Is it well planned and are all parties still talking?

Short term

Long term

Drought risk as an example

Firstly, you need to know how frequent and how severe droughts are in your area.

Historical rainfall records provide the best indication of the frequency and severity of droughts. If you don't have your own long-term records, historical rainfall records can be obtained from the Bureau of Meteorology Climate On-line web page: www.bom.gov.au/climate/data or with programs such as Rainman or MetAccess®. Reviewing rainfall records can tell you how often droughts or late seasonal breaks have been in the past and for what period of time the farm would have been without useful rainfall and therefore without pasture production.

The MLA Rainfall to Pasture Growth Outlook Tool (www.mla.com.au/growthoutlooktool/) goes further. It can provide locally relevant information, not just about rainfall, but, by assessing soil moisture, about potential pasture growth.

Once the likely frequency and severity of droughts have been assessed, the likely losses need to be identified and quantified. In the case of drought these are:

- The cost of feeding livestock through the drought
- The cost of protecting soil and pasture resources from overgrazing, resulting in erosion and loss of desirable plant species.

The cost of buying in fodder and the cost of feeding both need to be accounted for. Widespread drought conditions are invariably coupled with dramatic increases in fodder prices as the demand for grain, hay and other drought feeds escalates. It is important to use drought prices as the input cost rather than long-term average prices for fodder. This will enable you to make a rational decision during the drought about whether it is economical to feed sheep or sell them. StockPlan® (see signposts in procedure 1.4) can help.

Another large cost during drought often comes from overgrazing of improved pasture that can result in death of the sown species and/or wind and water erosion of topsoil with the associated loss of nutrients. Neither of these will be a cash cost at the time of the drought but they will affect the productivity of the farm for future years, or will require additional investment to repair. Either way, both costs can be significant and the pasture and soil resources must be protected in a drought.



Calculating the frequency and severity of drought in your region, combined with the financial stress associated with hand-feeding or sale and repurchase, plus the likely impact on the farm's pasture resources will assist you to develop the most appropriate strategy to manage the risk. When making your decisions you should consider whether:

- There is sufficient finance to fund the chosen strategy until the drought breaks
- There is sufficient management expertise and labour to implement the strategy
- There are unmanageable animal health, welfare and disease risks associated with the strategy
- The chosen strategy will deliver the best financial outcome

Sheep producers have several options to cover drought costs. These are:

- Put profits away either as savings or investments
- Farm management deposits
- Purchase or conserve and store fodder.

Seek advice on the benefits of putting profits into savings, investments or farm management deposits from professional advisers/accountants for comparison with fodder conservation. The preferred methodology is less important than the fact that you have recognised the risks and have plans in place to protect your business from them.



Tool 1.11

A partial budget template

Assemble details of what might be involved in any changes you are considering making to your enterprise, then summarise these changes using the categories in the table (below):

Change scenario 1	Example \$\$ for change 1
a1 Additional income	\$60,000
a2 Reductions in income.	\$10,000
A Net Change in Income (a1 – a2 = A)	\$50,000
b1 Additional overhead costs.	\$15,000
b2 Reductions in overhead costs.	\$0
B Net Change In Enterprise Costs (b1 – b2 = B)	\$15,000
C Increase in Gross Margin (A – B = C)	\$35,000
d1 Additional enterprise costs.	\$2,000
d2 Reductions in enterprise costs.	\$0
D Net Change in Overhead Costs (d1 – d2 – D)	\$2,000
E Increase in Profit before Interest and Tax (C – D = E)	\$33,000
F Extra Capital Invested	\$200,000
G % Return on Capital Invested (E ÷ F) x 100**	16.5%**

** Interpret this figure carefully as it is based on the marginal change in capital. This is used for comparing among the change scenarios only, not with the 'current situation'.

The return on investment in the above example does NOT account for the cost of capital used. For instance, if you took out a \$200,000 loan to cover the costs of the new scenario, this process would NOT account for at least \$14,000 in interest costs (assuming an interest rate of 7%). As long as the return on capital invested is higher than the average cost of debt, this investment is generating a positive return to the business.



Tool 1.12

The Sustainable Grazing Systems one-page planning process

The Sustainable Grazing Systems program (SGS) aimed to increase enterprise productivity at the same time as improving the environment across Southern Australia’s high rainfall zone. One of the many SGS outputs was the planning framework (below). The framework draws on your existing knowledge and aspirations to assess the benefits, potential flow-on effects and implementation challenges of any change you’re considering.

MLA publication “Towards Sustainable Grazing – the professional producers guide”

Step 1 – Deciding the Options and Priorities

Where am I now?	Where do I want to get to?
This is where you describe your current situation, and perhaps why you are not satisfied with what you are doing, or the results you are getting.	This is where you describe your vision, where you are heading, or what you want to achieve. It is important that this section highlights as specifically as possible what you want to see or achieve from any changes you plan.
What are my options?	What is the highest priority?
Can I modify my enterprise mix? Is there a pasture management solution? Are there off-farm options? There are often many different options or approaches to achieving your vision of where you want to be. List as many as you can.	From the list of options, select the one that you think is most appropriate/the best option for you. This may require some further information seeking, and/or discussion with others (advisers or co-decision makers)

Step 2 – Planning the Change

Possible impacts on the farm	Possible impacts off the farm
What are the likely impacts on (for example): Pastures and animals Finances You and your family Soils and nutrients Native or remnant vegetation	What are the likely impacts on (for example): Your customers Your community Catchment priorities for natural resources
Likely impact on profitability	Overall assessment
Profitability What is the expected impact on profitability and where will it come from? Reduced costs? Increased returns? How sure is the gain from year to year? Other key considerations What other issues have to be considered? Some examples might include: Are extra skills needed? How will the change be financed? Are additional animals required? How long before the change breaks even? How committed am I to the change?	Main advantages What are the key advantages (small number only) you expect from the change? Main disadvantages/risks What are the most critical potential downsides and risks to be considered and managed? How will you know if things are not going according to plan? Conclusion/implementation Final, and individual decision and steps for implementation

Example – “I want to increase pasture production and animal output”

Step 1 – Deciding the Options and Priorities

Where am I now?	Where do I want to get to?
<p>I don't have a lot of spare winter feed, but my current stock numbers (12.5 DSE/ha) are not high enough to generate the income I'm going to need over the next few years. I've been rotationally grazing for several years, and I have a reasonable paddock layout to handle more stock. Rotational grazing allowed me to increase my stock numbers and cut fertiliser but I seem to have hit a barrier. I've seen demonstrations that improved pastures can boost feed supply by 50% or more.</p>	<p>I think I need to increase my stocking rate by about 20% over the next 2 years in order to increase my income, but my facilities could handle an even larger increase. However, I want to make sure that as I increase my stock numbers, I do it in a sustainable way. My property has some quite steep sections that, if overgrazed, may start to erode. I would like to reduce grazing in these areas and possibly use them for NRM objectives such as trees.</p>
What are my options?	What is the highest priority?
<p>Try to manage my rotational grazing better to increase utilisation</p> <p>Increase subdivision for more intensive grazing</p> <p>Increase fertiliser use on existing pastures</p> <p>Re-sow some under-performing pastures with some of the latest perennial grasses and clovers</p> <p>Seek higher paying markets</p> <p>Buy additional land or install irrigation</p>	<p>My soil tests are moderately low, but I don't have the species in some paddocks to respond to extra fertiliser. Buying additional land is always at the back of my mind, but optimising production at home comes first.</p> <p>Resowing and fertilising a couple of paddocks seems the best option, so long as I graze them correctly and increase stocking rate to utilise the extra production.</p>

Step 2 – Planning the Change

Possible impacts on the farm	Possible impacts off the farm
<p>There will be extra pressure on other paddocks so some overgrazing is likely</p> <p>Contract labour will be needed</p> <p>Direct drilling should avoid any erosion risk</p> <p>Should not be any impacts on water use or on any remnant vegetation</p> <p>Highly productive pastures will be beneficial for soil structure and increase organic matter</p> <p>Will need capital to fund both the new pastures and more stock</p>	<p>The paddocks are already pasture, so additional impacts should be minimal</p> <p>Extra fertiliser may pollute run-off water</p> <p>Profitable farms are important for my community</p>
Likely impact on profitability	Overall assessment
<p>Profitability</p> <p>At an average gross margin of \$20/DSE, a 30% increase in stocking rate will yield about \$70 more per ha. About \$15 extra fertiliser is needed per year.</p> <p>Given \$250/ha establishment costs and say 12–15 years pasture life, the annual cost of the improvement is about \$25/ha, leaving me \$30/ha profit per year</p> <p>Other key considerations</p> <p>What is the best mixture of species for my place?</p> <p>Is my lambing time matched to the increased feed?</p> <p>How will I finance the development?</p> <p>Natural increase, buy or agist?</p> <p>Are there additional pasture pests I'll need to watch?</p> <p>Are there additional market opportunities if I have better quality pastures?</p>	<p>Main advantages</p> <p>Increase total feed supply and quality</p> <p>Economies of scale within my existing farm</p> <p>Fits my existing management skills</p> <p>Allows increased profit and NRM objectives</p> <p>Main disadvantages/risks</p> <p>Sowing pastures has a high capital cost</p> <p>Extra pressure on other paddocks, but my feed planning/monitoring systems will help avoid this</p> <p>Significant risks including, establishment failure, falling stock prices, and the fact that the extra production may not cover the costs.</p> <p>Conclusion/implementation</p> <p>Careful planning will be needed, but on balance it looks profitable, and will increase the overall sustainability of the farm operation. First step is to identify the two paddocks I will re-sow.</p>



Tool 1.13

Cost of production calculator for sheep enterprises

Calculating your cost of production is an important step in assessing flock performance and a first step to improving profitability.

The calculator is intended to be used for only one enterprise at a time, for example a specialist prime lamb flock. If you have a Merino wool flock and you join a percentage of the ewes to a terminal sire and the rest to Merino sires, break that flock into two enterprises:

1. A dual purpose lamb flock that includes the ewes joined to a terminal sire
1. A wool flock that includes those ewes joined to Merino sires, and all Merino wethers.

Use your estimate of cost of production to compare the health of your business year on year, and then compare it against other sheep producers with similar resources to your own.

- Download the Making More From Sheep Cost of Production Calculator for Sheep Enterprises to your computer (4.6 MB) - NB: To download, click save when asked.
- Download a printable version of the calculator (354 KB) to calculate your sheep enterprise cost of production by hand.

Knowing your cost of production is just the first step. Once you have a rough idea of how you are performing, measure the performance of your business in more detail and for all enterprises using the other calculators in this module.

For the most up-to-date Making More from Sheep information, including web signposts, products, publications and events, visit www.makingmorefromsheep.com.au

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