

GRAZING ADVICE PARTNERSHIP - READY RECKONER

Version 1.5 - December 2008

User Guide

1) Introduction

The Grazing Advice Partnership Ready Reckoner (GAP RR) had been developed for those involved in managing and grazing sites of high nature conservation value (SSSIs, Nature Reserves etc). These sites often require specific management regimes involving low input low output agricultural systems based on traditional breeds of sheep and cattle. Ponies and goats may also be used. The costs and income streams from these sites, although they are relative to standard farm business inputs and outputs, can vary considerably from project to project. Standard agricultural costings books (ABC, Nix etc) are very useful references (and have been used to underpin the RR) but they can be hard to apply to site projects. The figures shown include 2008 prices rises and new costs e.g. bluetongue vaccine.

The RR has been designed for GAP site managers. It allows users to model and compare management proposals for each enterprise, calculate and modify their main areas of expenditure and estimate sales. The RR can also capture agri-environment and single payment scheme income plus the capital costs of project start up and development. In turn, the RR generates gross margins for individual enterprises and profit and loss figures for the whole site.

Although economic returns are not always the priority for most conservation site managers all should aim to improve their financial sustainability and business awareness. A viable project is most likely to grow and generate interest from local farmers to the benefit of environmental land management.

Version 1.5 is the first working version. We field tested trial versions on willing participants over the summer of 2008 and it is hoped that over time (with additional funding and IT input) the format, usability and figures will be further developed. Training events are also proposed. By analysing returns from individual projects the standard costs can also be refined.

Version 1.5 focuses on sheep and cattle systems, and introduces pony and goat costings. This version can be used in lowland, upland and organic or conventional systems alike.

This work was commissioned by the Grazing Advice Partnership, funded by Natural England and developed by Cumulus Consultants (see www.cumulus.consultants.co.uk)

2) Considering the Ready Reckoner

The GAP RR may look daunting at first glance - do not be put off! You do not have to use all the sheets (these will disappear if not required) and many of the columns/tables are self populating. Most of the boxes contain drop down options for you to choose and click.

Light Green Boxes	User To Complete
All Other Colours	Self Populating

You do not have to complete a 10 year budget - you may only wish to complete a year or two to gauge initial figures or compare a small number of different options. You might only use the gross margin sheets that apply to you and ignore the fixed costs and capital requirements.

However you decide to use the RR the quality of the data output depends on the quality of the information you put in. Take time to understand and quality control your figures.

Please be aware that the figures used in the GAP RR are for guidance only. It is your responsibility to check and confirm your own costings and calculations before making business decisions. Also, the GAP RR should not be used as a cash flow tool.

3) Saving and Opening

The RR will be sent to you as an attachment by email or downloaded from the web. Do not open and work on the attachment as a temporary file - always save it straight onto your hard drive. The sheet will not work if you work on it as a temporary file.

Once saved click to open. You may then see a Security Warning asking you to enable or disable macros. Click to enable - it is safe to do so (although as a precaution always ensure you have a decent security suite in operation on your computer when downloading/saving attachments). If you have problems disable the macros and try again.

Note – the macros are currently disabled in version 1.5 as they cause problems on some users' computers. You should not see the Security Warning, as stated above.

On opening you will notice a few cells have 1 or 0 figures in as a test value. As you work through the sheets you can change these. Remember to save the RR as you work and save your own versions for later reference.

Most cells are protected so that you can not change the formula behind them. You can only type into the green boxes.

4) Using The Ready Reckoner - The Basics

There are a number of key buttons and tasks you will use regularly when inputting data into the GAP RR.

By clicking on the **Info** buttons (live buttons are shown with a red flag in the corner of the gold box) alongside each line or heading you will reveal descriptive text and some explanation of the terms and figures used.

					Info			
					Suggested Values			
Info		Variable Costs	2008	2009	Low	Medium	High	Your Own
Info	2	Herd replacements - cows	87.50	87.50	60.00	87.50	120.00	0.00
Info		Concentrates - cows	22.00	22.00	22.00	41.18	55.00	0.00
Info		Concentrates - calves	18.00	18.00	18.00	32.50	40.00	0.00
Info		Forage - hay, haylage & silage	8.00	8.00	8.00	18.00	20.00	0.00
Info		Minerals	7.20	7.20	3.00	7.20	10.00	0.00
Info		Straw/bedding	8.00	8.00	8.00	19.00	25.00	0.00
Info		Vet & medicine	20.20	20.20	15.00	20.20	30.00	0.00
Info		Pedigree registration	0.00	0.00	0.00	20.00	30.00	0.00

Throughout the sheet you will see **Suggested Value** tables containing **Low - Medium - High** figures. These figures show the typical range of values for each line. You choose which figure you want the sheet to use by clicking on the green boxes on the line/year you are currently working on to reveal the low - medium - high values within a drop down box. Click a figure from the drop down to accept.

The Suggested Values have been modified from the standard costs from existing texts and conservation grazing experience. If you have accurate figures from your own calculations or experiences you can, and should, input these instead of the suggested values. Type your value into **Your Own** box on the appropriate line. It will then appear in the drop down box and you can select it as above. This figure can be changed and then clicked into any year without altering previous entries.

Do not try and alter the **blue box figures** or any formula as you may lose data and important links (these cells will be are locked in version 1.4). Remember to save the GAP RR as you go along as your own file and keep the original version.

5) Contents

The RR (Version 1.5) contains the following:

1. Front Page
2. Enterprise Gross Margins For Lowland Sheep
3. Enterprise Gross Margins For Suckler Cows
4. Enterprise Gross Margins For Suckler Calf Finishing
5. Enterprise Gross Margins For Ponies
6. Enterprise Gross Margins For Goats
7. Enterprise Gross Margins For Grassland Management
8. Gross Margin Summary
9. Agri-Environment Grants & Single Payment Scheme Income
10. Fixed Costs
11. Capital Costs
12. Capital Costs - Amortisation
13. Profit & Loss Summary

6) Front Page

The front page allows users to input background information and site details. It also captures the scale of the public benefits the site offers i.e. high biodiversity value.

Choose the sheets you would like to view/use by clicking Show or Hide arrows. Unused sheets will be hidden.

Note, this feature is disabled in version 1.5 as the macro caused some problems to some users. All sheets are therefore on display and can not be hidden.

7) Enterprise Gross Margins For Lowland Sheep

This sheet allows users to build up a gross margin (income minus variable costs) for a lowland sheep enterprise. Do one year at a time (max 10 years).

	Your Sheep System	2008	2009
Your Flock	Breeding Ewes	1	1
	Retained Shearlings (non breeding)	1	1
	Rams	1	1
	Culling Percentage	20%	20%
Lamb Output	Lambs Reared Per Ewe	1.5	1.5
	Total Lambs Reared	2	2
	Lambs Finished and Sold Fat	1	1
	Lambs Sold As Stores	0	0
	Lambs Sold As Shearlings	0	0
	Lambs Sold As Rams	1	6
	Lambs Retained As Flock Replacements	0	0
	Total Lambs Sold/Retained	2	7

- Input your core flock numbers and culling policy (% per year)
- Input reared lamb numbers per ewe - this will give you the number of lambs you have to sell/retain
- Outline your output - number of lambs fattened, sold as stores, retained etc. Note that the total cell will appear red if your numbers reared does not match the numbers sold!
- Work through the marketing columns selecting weights and prices etc from the drop down boxes. Use your own figures if preferred.
- This will now give you your sales figures
- Work through the variable costs line by line. Again use your own figures if preferred.
- This will now calculate your gross margin for the year/s inputted.

You must ensure that you account for any flock number increases either as retained lambs (within the gross margin) or purchased (within the capital budget). If you move from 150 ewes to 500, they have to come from somewhere!

8) Enterprise Gross Margins For Suckler Cows

Operates as above, but focussing on suckler cows and their calves upto 12 months old.

Calves are transferred to the sucker calf finishing enterprise (see 8, below) or sold. You must ensure that your transfer value off and back into the systems are the same (selling at a high price but buying at a low price is cheating!)

This sheet can handle spring and autumn calving systems, or non breeding herds. You will need to choose the most appropriate values however to suit your system.

9) Enterprise Gross Margins For Suckler Calf Finishing

Allows users to take outside purchased or internally transferred calves (12 months old) and fatten them (at approx 24 months) You can also sell as strong stores or breeding stock, or fatten over longer period - just increase/decrease the relevant values.

10) Enterprise Gross Margins For Ponies

Allows users to analyse their pony enterprise.

11) Enterprise Gross Margins For Goats

Allows users to analyse their goat enterprise.

12) Enterprise Gross Margins For Grassland Management

This sheet covers the intrinsic costs (harrowing, spot spraying, hay making etc) of managing conservation land (mainly grassland). It also calculates income from hay sales and the letting of grass keep (or cost of paying an outside grazer - a negative rent). This is, in part, equivalent to Forage Costs in the standard texts.

- Detail your land use - how many hectares will be taken for hay etc
- What is this grassland worth (forage value/ha). This depends on grass quality, yield, how it is conserved (big bale haylage, silage etc) and local/seasonal market conditions. These values vary considerably and hence use your own known figures where possible. The suggested values should be refined in the future.
- This will now give you your forage income figures. Your stock may eat this forage (check the values in the sheep and cattle GM sheets are similar!) or you sell it.
- Detail the contractor requirements of managing the forage area i.e. 15ha of hay making. If you do it all yourself then do not include here but ensure you have shown the purchase of the necessary machinery in the capital budget (or depreciate old machinery in the fixed costs). Similarly ensure your labour for the forage management is covered by the fixed costs if you do it yourself.
- Work through the management contractor rates line by line. Again use your own figures if preferred.
- This will now calculate your gross margin for the year/s inputted.

13) Gross Margin Summary

This sheet collates all the sales and variable cost data in one sheet giving a full gross margin for the site.

11) Agri-Environment Grants & Single Payment Scheme Income

Most projects will have low or negative gross margins and hence agri-environment (AE) grant and single farm payment (SPS) income is crucial to viability.

Collect your current and proposed AE and SPS income figures and enter them manually into this sheet. Split annual and capital works AE payments where possible.

Ensure the costs of delivering the AE (and SPS) requirements are included within the end calculations. For example, if you are fencing a site with HLS support put the costs in the capital budget. If you will be making stewardship hay ensure the contractor costs (and any hay sales) are included in the grassland management gross margin or fixed costs (if doing undertaking the work yourself). Projects should try and optimise (not maximise) AE income and carefully consider the actual costs of the options chosen and the environmental benefits that arise.

Most projects will have some single farm payment (SPS) entitlement. Ensure you understand current and future SPS value taking into account the historic/area split and increasing modulation rates. There are a number of SPS calculators on the web to help you do this.

12) Fixed Costs

Fixed costs are the items that do not solely depend on stocking numbers and specific inputs, for example, your labour costs, building repairs and machinery depreciation. You would incur these costs if you had 100 sheep or 250 sheep.

The suggested values are from standard texts and relate to whole farm enterprises with buildings, the full range of machinery and other costs associated with running a business. Your project may be extensive with lower fixed inputs so choose a conservative value. In some cases, however, fixed costs may be high (warden costs, holiday/weekend cover, new vehicles, bespoke buildings etc) so try and be realistic. It is easy to underestimate fixed costs.

If you are including the cost of new machinery and buildings in the capital budget then the depreciation values in the fixed costs sheet can be set to low rate or zero. Depreciate any existing items.

Other fixed costs such as land agency, accountancy, marketing and payroll may be internalised in your organisation (Wildlife Trust, local authority etc). Include as a fixed cost if you can however.

13) Capital Costs

This sheet allows users to build a capital budget covering the main purchases at start up or those made later in the life of the project.

- Detail your requirements - how many cows will you buy? Is a tractor needed? How many meters of new fencing are planned? Including AE grant aided items - hopefully you have included the capital grant in the AE income sheet.
- How much will these purchases cost (each, per meter etc)? These values vary considerably and hence use your own known figures wherever possible. The suggested values are based on standard texts and own estimations. If buying new and top of the range use the high figures; if second hand is fine use medium; if seeking older/farm sale values consider the lower rates. The suggested values should be refined in the future.
- Your total capital cost figures will be calculated and shown at the bottom of the page.

14) Capital Costs - Amortisation

It is common to spread the cost of capital purchases over the average useful life of the item e.g. livestock 5 years, machinery 10 years and buildings/infrastructure 25 years.

It is also useful to include the real *amortised* cost of borrowing the money to pay for these capital items. Even if you put the money in the bank you would be earning interest on it so no capital expenditure is free!

On the Amortisation sheet the capital costs are automatically amortised at the chosen interest rate (0, 3, 5, 7 or 9). Click where indicated to choose the correct rate for your project. Chose 0% if you just want to spread the cost out - useful if your costs are grant aided or interest charges are not applicable/internalised.

	Amortisation - Annual Cost of Every £1000			
	Rate	5 Years	10 Years	25 Years
Capital investments are usually spread over 5, 10 or 25 years. The money may be free to you at 0% interest or come at a cost such as 7%. This table shows the real annual cost of every £1000 invested (the <i>amortised</i> cost)	0%	£200	£100	£40
	3%	£218	£117	£57
	5%	£231	£130	£71
	7%	£244	£142	£86
	9%	£257	£156	£102
Choose your interest rate by clicking on the % box here				
	5%	£231	£130	£71

The tables underneath undertakes the writing down calculation. You do not need to input any data here but you can see how the spend is split over the years.

Any amortised costs to be carried over into the next 25 years are shown as a carry over figure.

15) Profit & Loss Summary

This sheet collates all the data generated and shows the final profit or loss figures.

Any amortised costs to be carried over into the next 25 years are shown as a carry over figure.

16) Frequently Asked Questions

Q. How accurate are the suggested low/medium/high values shown in the tables?

A. The figures are taken from the various industry texts (ABC, Eblex, Nix etc) and real project examples. Click on the red tabs to see any background calculations/justification. The values should be used as a guide only and use your own figures wherever possible.

Q. Do I need to complete the grassland management gross margin sheet as I do the forage work myself using our own equipment? I am not selling any hay off the farm.

A. Yes, preferably. Although your labour and basic machinery costs are included in the fixed cost sheets (or capital costs - see below) the forage you make has a value. Even if you use the forage yourself it has a positive transfer value and hence calculating its yield/worth helps to show the real income from the grassland you manage.

Q. I feed our own hay to our animals - where do I cost this?

A. Once you have calculated the transfer value of the forage you have produced you can divide it by the grazing animals you are feeding. Show it as a variable forage cost under the specific enterprise gross margin. If you don't produce your own but buy your hay in then just include this value.

Q. Why is livestock a capital cost/amortized cost when the replacement costs are included as part of the gross margins? Similarly why is machinery a capital cost/amortised if it's already being depreciated within the fixed costs?

A. The gross margin replacement and fixed cost depreciation figures only account for established businesses replacing like for like. They do not cover the initial start up or major development costs that many sites/projects encounter. For example, if you currently have one tractor and need to replace this soon with a similar one then do not include it as a capital cost as it should be covered by the fixed costs (although try working out your fixed costs to check). However, if you are requiring an additional tractor or specialist bit of machinery then consider showing it as a capital cost (and amortise if desired). By reducing the broadbrush fixed cost figures and including project expenditure in the specific capital costs you are more likely to get an accurate profit/loss figure.