

Pork — cost of production

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This Primefact provides a brief overview of the importance of knowing your cost of production, and benchmarking to monitor business profitability plus how to use financial ratios to gauge future viability.

Introduction

Profitability and sustainability will determine the success of any piggery. If a piggery is profitable it provides employment and a return on investment.

Pork production is a business, and like any other business it makes good business sense to know the financial position, its strengths, weaknesses, opportunities and threats. When the current financial position is known, planning for the future direction of the business can begin.

Cost of production (COP)

The profitability of a piggery depends on the sale price of pigs, cost of production (COP) and piggery throughput. Of these three parameters, COP and throughput figures show the greatest variation between piggeries.

Also, it must be remembered that the COP is significantly impacted by the herd's feed conversion ratio (FCR). The lower the FCR, the more efficient pigs are at converting feed into pork. That is, the feed costs are lower for each kilogram of pork produced.

Table 1 shows very clearly the impact that changes to the herd FCR and the number of pigs produced per sow per year have on profitability per sow. Profitability calculations are particularly important when margins are tight.

Table 1. Average cost of production (COP)

Income (\$/kg DW sold)	2.20
Feed costs	1.28
Non-feed costs	0.95
COP	2.23
Margin	-0.03
FCR (DW)	4.0
Pigs sold / sow	20
DW sold / sow	1465 kg
Loss per sow	-\$44 / sow
Herd FCR changed to 3.6	
Income (\$/kg DW sold)	2.20
Feed costs	1.14
Non-feed costs	0.95
COP	2.09
Margin	0.11
FCR (DW)	3.6
Pigs sold / sow	20
DW sold / sow	1465 kg
Profit/sow @ 15 pigs / sow	\$121 / sow
Profit/sow @ 20 pigs / sow	\$161 / sow
Profit/sow @ 25 pigs / sow	\$201 / sow
Herd FCR changed to 4.4	
Income (\$/kg DW sold)	2.20
Feed costs	1.39
Non-feed costs	0.95
COP	2.44
Margin	-0.14
FCR (DW)	4.4
Pigs sold / sow	20
DW sold / sow	1465 kg
Loss per sow	-\$205 / sow

DW = dressed weight

Source: Australian Pig Annual 2003–2004



Management should always aim to improve efficiency of production and throughput for long-term viability.

COP in the pig industry is calculated by adding feed costs to non-feed costs. The margin is then calculated by subtracting costs from revenue. Profit or loss is determined by multiplying the margin by production throughput.

Throughput planning aims for efficient use of shed space. A target is for the production of more than 450 kg of live weight sold per square metre of pen area per year.

For more information on throughput planning, the Australian Pork Limited (APL) 'Mating and Reproduction' module is recommended. APL publications can be found on their website www.australianpork.com.au

Benchmarking

Benchmarking, or comparing different herds, with COP indicates the competitive position of these herds in the pig industry. If figures compare well, it confirms that practices and procedures are effective, but if trends over time don't show a business improvement, it is essential to understand what the problems are and what can be done to reverse the trend.

APL collects data on farm gate performance from their benchmarking program called Australian Pig Check (APC). Producers are encouraged to join this program to obtain a detailed breakdown of performance data.

Financial ratios

Calculating profitability financial ratios can be used to assess business performance. Figures can be taken from balance sheets and profit and loss statements to calculate these ratios. However, note that trends over time may be more important than the numbers calculated for any particular year.

Following are simple financial ratios that can be calculated from year to year that will provide an indication of how a business is performing over time.

Ratio of liabilities to income

Provides a measure of debt in relation to income and is calculated by dividing total liabilities by total income. A figure between 0 and 1 indicates a strong position, 1 to 2 is marginal and 2 to 3 is critical.

Debt to assets

Total liabilities are divided by total assets, expressed as a percentage. This indicates what portion of assets is paid for with borrowed

money. An 80% debt to assets ratio means that creditors have supplied 80 cents of every dollar of your company's assets. A ratio of more than 80% is considered marginal.

Return on assets %

Profit derived from the operation of the business (operating profit), expressed as earnings before interest and taxation (EBIT), divided by total assets. This is a measure of how well the business is performing using all its resources. This is the best ratio to use when comparing against similar enterprises or alternative investments

Equity %

Net worth expressed as a percentage of total assets. Equity of more than 65% suggests a strong position, particularly if the figure is increasing from year to year.

Return on equity %

Net profit divided by net worth (equity). This is a measure of the return on the owner's money invested in the business. A return of less than the prime lending rate may need to be investigated.

Implications of financial ratios

Examination of financial ratios gives an assessment of business viability, but the implications may need to be discussed with an accountant before changing management strategies. If the indicators are marginal it is important to act immediately, while there is still a level of control, to avoid financial difficulties.

Pork — Cost of Production Calculator

The NSW Department of Primary Industries has developed a Pork—Cost of Production Calculator (Microsoft® Excel spreadsheet), a simple and easy way to assess the cost of production (COP) and profitability in a pork enterprise.

The only details required for the spreadsheet are monthly herd size, carcass sales, feed costs and non-feed costs. The COP and margin will then be calculated automatically.

Comparative benchmark values are provided as a guide for industry best practice, or producer benchmark figures can be inserted if preferred.

The Pork—Cost of Production Calculator also includes a table for calculating profitability financial ratios.

The spreadsheet will help producers know how a business performs in terms of COP and profitability. The best opportunities to reduce COP will differ from farm to farm, but herd comparisons will help to identify weaknesses and where to focus efforts for improvement.

The calculator can be downloaded from the NSW DPI website at:

www.agric.nsw.gov.au/reader/pig-software/pork-cost-of-production

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