

BENCHMARKING... SHOW ME THE MONEY!

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ABSTRACT

Benchmarking is a process that has been happening since the beginning of time. It is a method used to measure one's strengths and weaknesses against others doing the same thing. A group of farmers who get together over coffee and discuss the costs of raising pigs or prices received per pig are, essentially, benchmarking themselves against others in the group. Even this informal setting provides an environment to compare individual results and identify ways to "keep up with the Jones".

BENCHMARKING

Why Benchmark?

In agriculture, benchmarking is a method that allows comparison of variables between producers. It helps to determine who the best is and what the average is. The result is a management tool that can be used to pinpoint what an individual enterprise is doing well and where improvements could be made. This is a learning process because if you don't know what the average is you don't know how you compare with others.

How to Get Started

It is important to determine what you are planning to benchmark and how. Will it be only production data that is benchmarked, financial data or both? Will the results be shared in a group setting or will an unbiased third party collect the data and then disseminate results? Benchmarking in a group setting can be beneficial to all involved as it allows an opportunity for discussion. Producers can ask each other what they did to achieve certain results. In this situation, however, it is important to find producers who are similar to you (i.e. similar production system), and who you are comfortable sharing your information with. It is easier to start with a small committed group who are able to work together and share information openly.

Starting with a few variables first is recommended because it ensures everyone is providing data in a similar fashion, identifies any flaws in the template, and provides an opportunity for participants to determine how comfortable they are sharing data. More variables can be added when the group is ready.

Setting Up a Benchmark Template – Things to Keep in Mind

- What will be the unit that is reported? \$/sow? \$/pig weaned or marketed? \$/ckg pork?
- How do you account for producers that may not quite fit the group criteria? For example what if a farrow to finish producer sells some weaners? This can throw off the results because the weaners have not reached full market weight. Weaner pigs can not be considered equal to a market hog in terms of cost of feed/pig, revenue/pig and etc.
- Definition of sow/breeding female – It is important to have criteria regarding when a female is counted as part of the breeding herd because this will affect all productivity numbers.
- Allocate income and expenses at the enterprise level.
- Don't give up after the first attempt. The key is to stick with benchmarking over time because trends are valuable tools. All farms go through cycles (i.e. disease) and comparing your results from one time period to another also provides insight into your operation.

Results for the Swine Enterprise

The Ontario Data Analysis Project (ODAP) can be used as a benchmarking tool to investigate Ontario's cost of production for raising market hogs¹. This data set contains farm level financial and production information from a group of Ontario farrow-to-finish farms. The participants consider themselves to be full-time farmers and they report little, if any, off-farm income. Most of the farms rely on family labour to fill additional labour needs.

This discussion focuses on the swine enterprise and does not take into account other farm activities (i.e. cash cropping). Family labour has not been included in the expenses. ODAP provides analysis on a per pig produced basis². Some of these farms had SEW or weaner pig sales as well as market hog sales.

The average number of pigs produced per farm in 2005 was 3,559. The average number of sows on these farms in 2005 was 212. Table 1 displays results for some production variables for 1995, 2001 and 2005.

Figure 1 shows average revenue per pig produced over time³. Also plotted on the graph is the average yearly market price (\$/ckg). Revenue/pig has fluctuated with events such as the price crash in late 1998. The average revenue for the time period of 1995 to 2005 was \$148.37.

¹ Participation in ODAP varies each year. Results are for discussion purposes and are not assumed to represent an Ontario average.

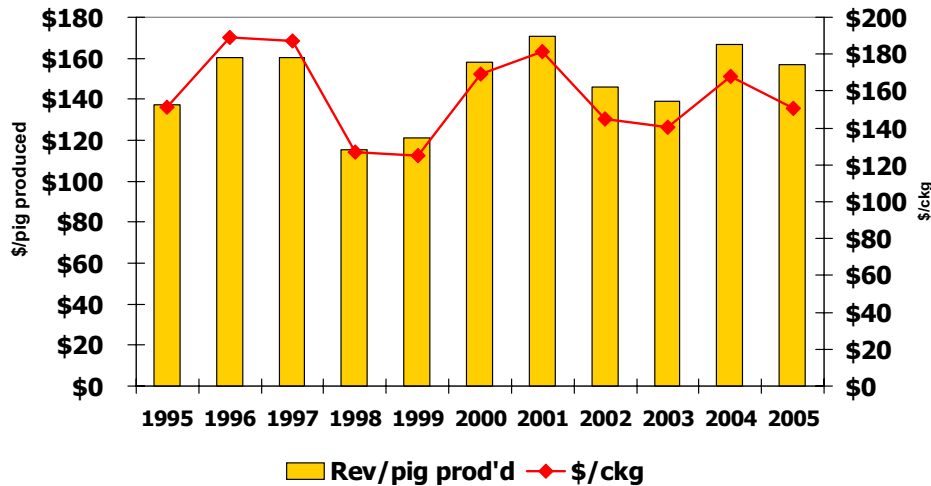
² This is a calculated number that converts all pigs produced and sold to market hog equivalents taking into account all production and inventory changes. Weaner pigs are converted to market hog equivalents using a factor of forty percent and SEW pigs are given a factor of twenty-five percent.

³ Revenue accounts for premiums/discounts, cull pig sales, and changes in accounts receivable and inventory.

Table 1. Production variables.

	1995	2001	2005	% Change 05 vs 95
Avg # of Sows	133	254	212	59%
Weaned/litter	9.1	9.1	9.14	3%
Litters/crate	9.6	12.2	12.0	25%
Litters/sow	2.24	2.33	2.31	3%
Weaner mortality	2.7%	3.0%	3.2%	19%
G/F mortality	3.0%	3.3%	4.9%	63%
Days to market	177	170	166	-6%

Figure 1. Average revenue per pig produced.



Expenses per pig produced as shown in Figure 2 have been fairly consistent averaging \$132.89 over the 11 years. Feed makes up approximately 62% of total expenses each year. Depreciation expense has grown steadily from \$9.61 to \$19.90 during the years depicted. This is due to increased building and equipment investment that has occurred with expansion and/or renovation of these farms over time. Average interest costs were \$9.19/pig during the 11 years and “other” expenses were generally in the \$26/pig range each year. “Other” expenses reflect health costs, building and equipment repairs, hired labour and any other expenses associated with the swine enterprise.

The resulting profit per year is shown in Figure 3 below and the average over this time period is \$15.49 per pig produced. This graph shows a trend of 3 years of increasing profits followed by a year of small to negative profits. Year to year profits are very volatile due to fluctuating market prices and rising input costs.

Figure 2. Expenses per pig produced.

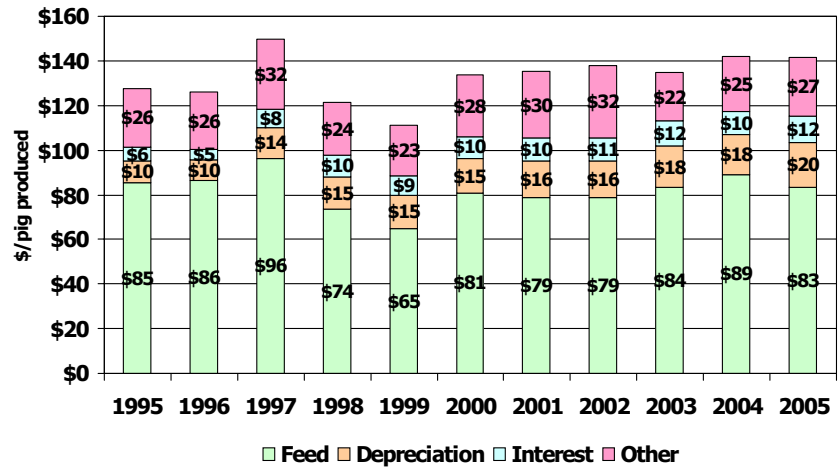
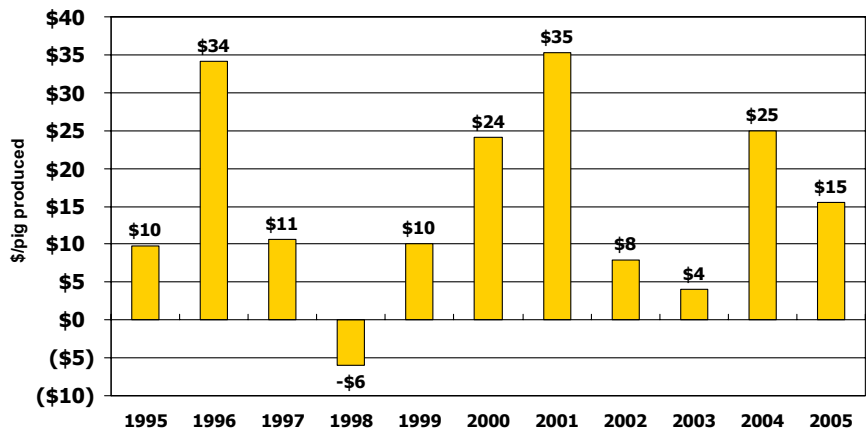


Figure 3. Average profit per pig produced.



The Balance Sheet

The average total assets per farm amounted to \$2.7 million in 2005 up from \$1 million in 1995 indicating that these farms have invested significantly in their farm businesses. Some of the growth in farm assets is due to increases in livestock and building values but much of it is due to rising land prices. Table 2 shows average balance sheet values per sow for ODAP participants between 1995 and 2005. This balance sheet summary takes into account all aspects of the farm operation. In 2005, the average total assets per sow per farm were \$12,674 and the average amount of debt per sow was \$4,206.

Table 2. Average ending balance sheet (\$/sow).

		1995	2000	2005
Assets	Market Livestock	\$590	\$542	\$736
	Breeding Livestock	306	332	327
	Buildings	1,568	2,147	2,626
	Land	2,179	2,902	5,387
	Other	2,912	2,415	3,598
	Total Assets	\$7,555	\$8,338	\$12,674
Liabilities	Current	811	740	1,059
	Medium	466	127	189
	Long Term	1,488	1,891	2,958
	Total Liabilities	\$2,764	\$2,758	\$4,206
	Equity	\$4,791	\$5,580	\$8,468

CONCLUSIONS

In summary, benchmarking is a tool to compare one farm against other farms as well as year-to-year comparisons for individual farms. It provides an opportunity to identify the areas a farm business does well, where improvements should be made and what the “average” is. ODAP results for the 11 years examined showed average expenses to be \$132.89 per hog produced, not including family labour. Feed makes up about 62% of total expenses and depreciation has doubled reflecting investments in facilities and equipment.

ACKNOWLEDGEMENTS

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ADDITIONAL SOURCES OF INFORMATION

Manitoba Agriculture, Food and Rural Initiatives – Budgets, cost of production, software
<http://www.gov.mb.ca/agriculture/financial/farm/software.html>

Kansas State University – Budgets
<http://www.agmanager.info/farmmgmt/fmg/livestock/default.asp>

Iowa State University – Budgets
<http://www.extension.iastate.edu/agdm/livestock/pdf/b1-21.pdf>