

Reducing Animal Health Costs

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■ Introduction

The pig industry is a commodity industry with producers having:

- Little control over market price.
- Little to no control over swings in macro-economic factors like currency, export levels, competitive protein costs and major input costs.
- A cost control culture.
- Generally poor production and financial analysis which inherently means poor assessment of return on investment (ROI) for interventions and little focus on opportunity cost. The definition for opportunity costs, as it is discussed in this paper, is the potential benefit that is foregone from not following the best financially optimal alternative course of action.

The challenging business model described above, leads to, in a down market, cash preservation, even if it means reducing input costs that generate short term ROI as measured by opportunity cost analysis.

Therefore the focus of this paper is on how to deliver ROI on animal health products. The ultimate goal of our industry is to have a long term health management strategy that delivers lowered input costs with corresponding improved performance, and thus better margin than the industry norms (Dufresne, 1999).

In no particular order of importance the following points are, in my opinion, worth spending some time reviewing if your business is to achieve this long term goal.

■ Measure, Analyze and Make Decisions Based on Opportunity Cost

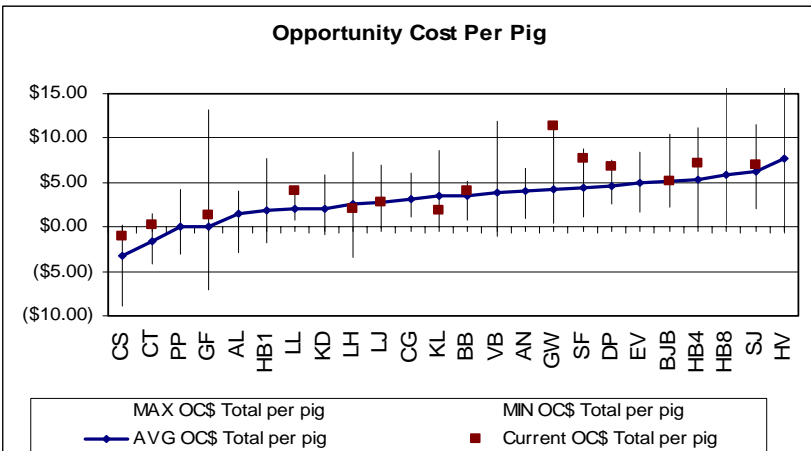
Table 1 shows an example of a production system analysis for finisher groups over five years comparing the opportunity cost of one week filled finisher sites versus multi-week finisher sites with all sites all out. The bottom line is multi-week filled groups have \$3 per pig poorer opportunity cost.

Table 1. Production system analysis for finisher groups

5 Year Average	Single Week Fill	Multi-Week Fill
FCR	2.64	2.67
ADG, g	910	860
Mortality, Lights & Culls	7.1%	10.9%
Net Opportunity Cost \$/pig	-1.56	-4.59

Figure 1 shows a different production system with finishing pig group opportunity cost data summarized by site, averaging the last 5 crops and sorted by site variance. Opportunity cost in this system is calculated on mortality, culls and feed conversion to target. The bottom line is that the best to worst site varies by \$11 per pig. The widest variance per site is \$34 per pig. This is, in my experience, representative of this industry, not economically sustainable and for an individual herd to improve on this delivers a significant competitive advantage.

Figure 1. Variance in opportunity cost across 24 farms



■ Be Critical of Product Technical Information

Be critical of general mass marketing of product technical results and ROI analysis from the animal health industry. Individual herds vary considerably in disease status, prevalence of disease (as opposed to the prevalence of the pathogen), disease stressors and need for animal health product “insurance”. Some cost saving examples are:

- Use ELP (erysipelas, leptospira, parvovirus) vaccines in gilts only
- stop *E.coli* vaccines (or if required use in gilts only)
- de-worm gilts only
- implement a monitoring program to ensure parvovirus seroconversion and effective parasite control.

Table 2 details the cost analysis of these decisions.

Table 2. Potential cost savings of altered animal health program

Action	Savings
Removal of ELP to sows at weaning	-11¢
Removal of <i>E. coli</i> vaccine pre-farrow sows	-10¢
No deworming	-8¢
Monitoring – parvovirus serology/fecal flotation 3 X per year	+1¢
Total savings per pig weaned	28¢

Fractionated PCV2 vaccine use may also reduce costs. **Table 3** shows one herd example analysis that gives assurance of the correct decision for this herd at this time.

Table 3. Comparison of performance with full or half dose PCV2 vaccine

	Full Dose	Half Dose	P-value
Finisher days	117.1	116.1	0.52
Fin In Wt, lb	46.9	50.8	0.26
Mortality, %	3.1	3.0	0.86
ADG, g	1.90	1.87	0.54
FCR	2.89	2.93	0.19
FCR adj	2.90	2.93	0.66

Feed antimicrobials, other additives. Because there is conflicting information (Stewart et al., 2008, Dritz et al., 2002) individual herds must analyze and decide based on their best assessment (empirical and objective). One large production system has reduced total animal health costs (feed medication and pharmaceuticals) in the finisher phase from a high of \$2.62 in 2005 (note this was not influenced by PCVAD at this time) to current \$0.22 per pig with improved productivity parameters (**Table 4**).

Table 4. Feed, medication and pharmacy cost/finisher pig

2004	2005	2006	2007	2008 YTD
\$1.76	\$2.62	\$1.70	\$0.73	\$0.22

- **Focus on the Primary Pathogens; the Big Bugs, not the Little Bugs.**

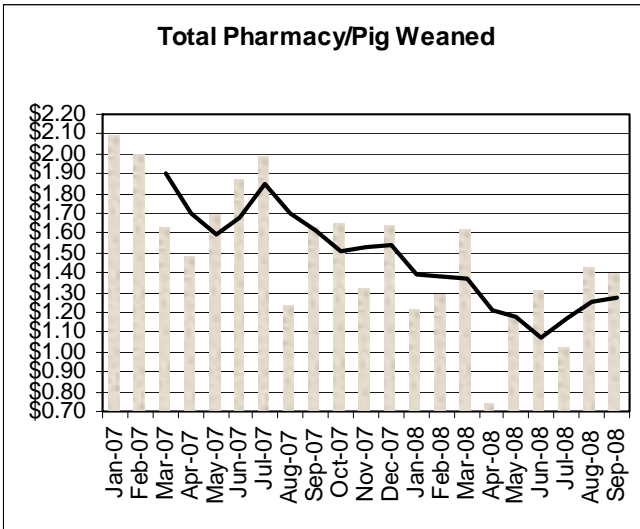
Producers must do accurate and timely diagnostics, work closely with their veterinary and diagnostic team, and remember that biology is not black and white or time static. For example: intervening with antibiotics and/or vaccines chasing nursery “suicide” bugs without addressing PRRSV circulation is a band-aid not a long term health strategy.

- **Monitor product usage.**

Other common place errors are: Wrong product ordered, wrong dosage of vaccine, accidental changes to treatment or vaccine protocols. Some measures to prevent these are:

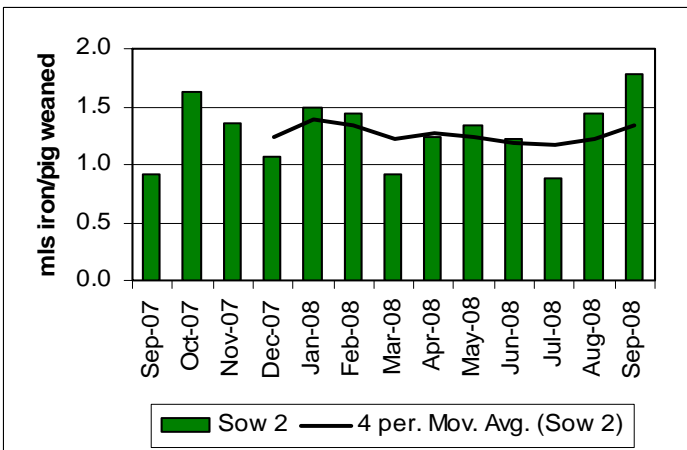
1) Pharmacy cost analysis by month (**Figure 2**). This has worked well to highlight risks of product usage or inventory errors and track trends and actual animal health costs.

Figure 2. Example of monthly pharmacy costs per pig weaned



2) Reconciliation of key products on a per pig basis. This gives management confidence the right dosage is being used (**Figure 3**).

Figure 3. Example of monitoring iron usage per pig weaned



■ Management of Lightweight Pigs in Your Herd

Focusing on this sub population that significantly influences weight gain and mortality variation will lead to more cost effective animal health product decisions, better opportunity costs and long term health management strategy. Note that sow herd pathogen stability is a piece of the lightweight, compromised pig puzzle that is often overlooked. (Larriestra et al., 2006)

■ Conclusion

The ROI to animal health products can be improved on most farms. Good production and financial analysis are required to identify and monitor areas where opportunity costs exist.

■ References

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