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Farm enterprises rates of return and cost of production

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At AgStar, we have the opportunity to review the cost of production from operations and systems ranging in size of 1,000 sows to 150,000 sows or more. We have a relationship with over 60% or the largest 30 producers as listed in *Successful Farming*. These operations are farrow to finish, farrow to wean, and wean to finish units. They are independently owned, owned by investors and owned by shareholders, which purchase weaned pigs from Isowean units.

As you can tell by the diverse group of individuals/companies we work with, we also see various reporting methods. Very few of these operations have the same reporting and allocation of costs at the various stages of growth in their operations. This has made benchmarking the cost of production extremely difficult. However, with the vast amount of information we do receive, we are able to put together benchmark costs for farrowing, nursery, and finish operations. The benchmarking categories we have used cover the majority of the cost within most producers operations. **Tables 1-4** are typical of the cost structure we see for the abovementioned operations.

Not all producers have the lowest wean pig, nursery, and finisher costs. The driver for higher breakevens for 2004 has been feed costs. With higher feed costs during 2004 average production costs have been $123 per head or $47 per cwt. This compares to $106.55 per head cost for 2005. Some of the obstacles to getting to lower breakevens are PRRS and other diseases, environmental concerns, labor, inflation (costs continue to rise), and not everything always goes as planned. As we learned during this year it is imperative that producers know there breakeven costs so they can implement a marketing strategy that provides adequate margins by protecting against higher input costs. The next driver in higher overall costs are increased energy cost which will push up utility and trucking costs and new construction costs which have increased by 38%

Table 1: Farrowing operations

Items	Cost	Ranges
Feed	$7.50	$6.00 - $9.00
Breeding	$2.00	$1.75 - $2.50
Vet Med	$2.00	$1.50 – $3.00
Ins., Sup. Util.	$3.00	$2.50 – $5.00
Labor	$6.50	$5.25 – $9.00
Repairs, Taxes	$1.50	$1.00 – $2.50
Replacement	$2.00	$2.50 – $5.00
P & I[A]	$6.50	$5.50 – $8.50
Mg't fee	$1.00	$1.00 – $2.25
Totals	$32.00	**$27.00 – $46.75**

[A] $7.00 with new construction at $1,000 per sow space borrowed. When including cost of capital per pig cost is $10.00 with total cost of $1,450 per sow space and using 20 P/S/Y.

Table 2: Nursery operations (10 lbs. – 50 lbs.)

Items	Cost	Ranges
Contract Fee	$5.00	$4.50 – $7.00
Death Loss	$1.00	$0 .50 – $1.75
Feed Cost[A]	$6.80	$5.50 – $8.00
Vacc. / Vet Med	$0.75	$ 0.50 – $2.00
Trucking	$1.00	$ 0.75 – $1.50
Totals	$14.55	**$11.75 – $20.25**

[A] Corn @ $2.20 & meal @ $190/ton

Table 3: Finish Operations (50 lbs. – 260 lbs.)

Items	Cost	Ranges
Contract Finish	$14.33	$12.75 – $16.00
Feed Cost[A]	$35.70	$33.00 – $42.00
Vet Med	$2.00	$ 1.50 – $5.00
Death Loss	$1.40	$ 1.25 – $3.00
Trucking	$2.25	$ 1.50 – $5.00
Interest	$1.30	$ 0.00 – $2.50
Gen. Admin.	$3.00	$ 2.50 – $5.00
Totals	$59.98	**$$52.50 – $78.50**

[A] Corn $2.20 meal at $190/ton or $.17 per pound of gain.

Table 4: Summary of the costs on a per head basis to 260 lbs.

Items	2004	2005
Farrowing	$29.00 – $48.75	$27.00 – $46.75
Nursery	$14.25 – $22.25	$11.75 – $20.25
Finishing	$65.00 – $80.00	$52.50 – $78.50

since 1997 on a 3,000 sow farrowing unit ($1,050 per sow vs. $1,450 per sow). Finish barn costs have by 24% ($185 per space to $230 per space).

When benchmarking costs, the most important factor to keep in mind is the production performance of an operation. For example, a 3,000 sow Isowean unit that produces 22.33 pigs weaned per sow with a $31 cost per pig could be considered competitive. If production falls by approximately 10% or to 20 P/S/Y, the breakeven of the operations would increase to $34.62 with all costs remaining unchanged. This typically does not hold true when reduced production is the factor of health problems as you will most likely see increased vet/med needs for the operation.

This will also apply to nursery/finish operations when death loss is excessive. Typically, decreased performance will have a detrimental impact on the cost of production through lower throughput and increased costs of an operation. This is the number one reason why a producer should know all costs of their operation, with detailed enterprise analysis completed on the farrowing, nursery, and finish aspects of their operation. To continue to be competitive in the future, producers will need to know these costs so they know where they are proficient and where they need improvement.

Another common mistake of benchmarking analysis by producers is not accounting for all costs of operations. When a producer completes their cost analysis on their operation, they need to include any family living or draws from the company, replacement of fixed assets to keep the operation in good condition, interest costs, and any other overhead not accounted for.

By doing enterprise analysis on their operations, a producer will know exactly what their cost of production is and where they need to improve. This also gives the producer the information necessary to make informed decisions on their operation and allows them to benchmark the operations against other producers. To be cost competitive in the future, producers should strive for the following:

- Have good liquidity positions (CASH IS KING)
    - Target $300 per sow working capital with owing fixed assets
- Have above average management teams
- Maximize throughputs
- Utilize and have in place adequate risk mitigation methodology
- Have very controlled growth plans (preferably through acquisition, not new sows)
- Have a systems approach

Producers today have all types of agreements with packers that allow them shackle space, matrix or widow contracts, or other forms of contracts. In order to negotiate contracts going forward, it will be vital for producers to know their cost of production. Adding to uncertainty are future environmental concerns, the political environment, activist groups, and other external factors. As producers, it is imperative they start benchmarking so they know where they stand within the industry.

With the number of clients we work fortunate to work with at AgStar we have a very good representation of what the industry has done over past few years regarding returns. I have three sets of returns that include the following enterprises: Farrow to Finish, Farrow to Wean and Wean to Finish operations.

I will start with the Farrow to Finish operations. In the analysis, the information came from operations totaling approximately 425,000 sows. From 2003 through 2004 these operation had the financial ratios for current equity, owners equity, return on assets, and return on equity as indicated in **Tables 5-7**.

As you can see in **Figure 1**, these compare closely with the average returns by SIC Code for Hogs from 1994 through 2003 information complied by Informa Economics which averaged 9%. When compared to other industries, only beef cattle have had a lower average return and all enterprises appear to be less volatile. This would hold true as returns for Farrow to Finish operations averaged close to 33% for 2004.

Table 5: Financial ratios for farrow to finish

Farrow to Finish	3 Yr. Ave.	2004	2003	2002
Current Ratio	2.22	2.24	1.93	2.48
Owners Equity	39%	46%	36%	36%
Return on Assets	9.82%	18.83%	4.20%	6.43%
Return on Equity	16.73%	32.73%	6.93%	10.52%

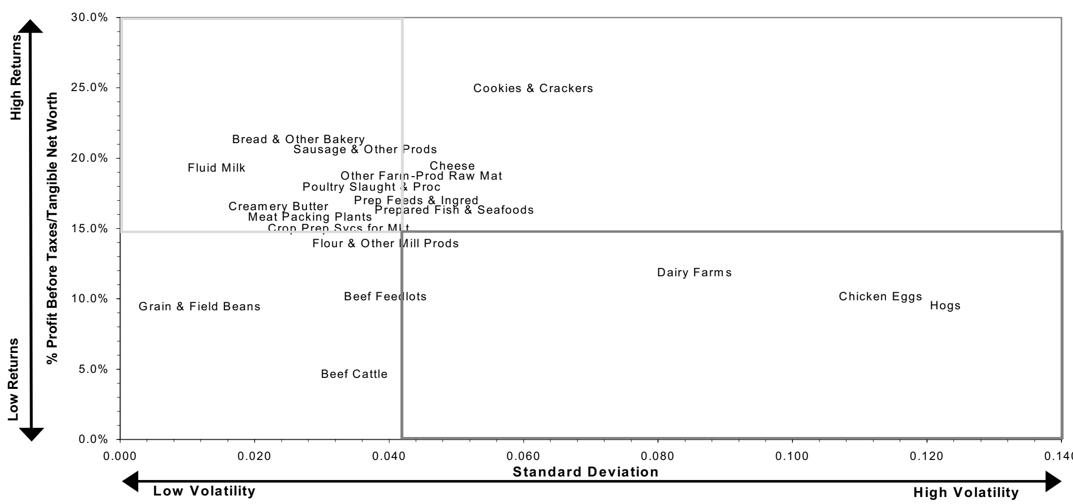
Table 6: Financial ratios for farrow to wean

Farrow to Wean	3 Yr. Ave.	2004	2003	2002
Current Ratio	1.07	1.28	1.02	0.92
Owners Equity	46%	56%	43%	39%
Return on Assets	10.35%	16.31%	7.22%	7.53%
Return on Equity	15.14%	27.17%	9.22%	9.04%

Table 7: Financial ratios for wean to finish

Wean to Finish	3 Yr. Ave.	2004	2003	2002
Current Ratio	1.53	1.60	1.41	1.57
Owners Equity	56%	58%	55%	57%
Return on Assets	6.31%	10.65%	3.05%	5.22%
Return on Equity	9.42%	18.48%	.094%	8.85%

Figure 1: Return on equity by SIC code, 1994-2003



Based on 10 years ending 2003

By Informa Economics February 2005