

## Returns and Costs of Niche Pork Production in 2006

### A.S. Leaflet R2363

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### Summary and Implications

Production of niche pork has been expanding in response to growing demand. Little information is known about the costs and returns from niche pork production. This report provides information on cost and returns for 41 niche pork producers.

Return levels show that the average return to capital, unpaid labor and management for the top 15 producers was \$17.43 per hundred pounds of pork produced, while this average was \$2.17 for the bottom 15 producers and \$10.08 for all 41 producers. The average margin over all costs on a per head sold basis was slightly below breakeven (-\$2.36) for all 41 producers. The average return per hour of labor after all costs was \$13.17 for all 41 producers, but \$22.66 per hour for the top 15 producers and \$3.02 for the bottom 15 producers.

The average total cost per hundred pounds of pork produced for all producers was \$52.05, while the top 15 third had average total costs that were \$11.17 less than the bottom 15 producers (\$46.05 vs. \$57.22). The main contributor to cost differences between the top third and bottom third producers was operating costs, which included feed and other operating expenses but not labor. These costs represented 96 percent of the total cost difference, with 56 percent of this difference being in other operating costs and 40 percent in feed costs.

### Introduction

In recent years the production of niche pork has expanded in response to increased demand for products with specific attributes, such as pork from animals produced without use of antibiotics, using bedded pens with outdoor access, etc. This growth has occurred, in many situations, from the ground up. Entrepreneurial producers have identified market demands and opportunities for new products. These producers then set out to develop products to satisfy this demand and systems to get these niche products to the consumer.

However, little information is known about the costs, returns, and financial performance of niche pork production systems. As demand expands for niche pork, accurate information on these topics needs to be available for producers to evaluate opportunities in niche pork

production. Additionally, niche pork producers do not have sufficient information to benchmark their own operations and evaluate how they are performing and where they can look for improvements. For those thinking about entering niche pork production, information needed to develop expected production levels, costs, and potential returns is limited.

Given the lack of information, a project was undertaken to obtain production, cost, and return information for niche pork production. This information is needed to assist niche pork producers in determining their production potential and assist them in improving their production efficiencies. In turn, this will improve niche pork production and lead to increased returns and improved survivability of niche pork producers.

### Materials and Methods

To assist in obtaining niche pork production cost and efficiency information, a focus was placed on working with niche pork producers in establishing financial record systems for their pork production operations. Area livestock extension (swine) specialists in Iowa and Nebraska, a farm management specialist in Minnesota, and several Iowa Farm Business Association consultants worked directly with participants to establish and maintain the record system in 2006. They also worked with producers in providing year end summaries and analysis. The specialists' direct contact provided uniformity to data recording and analysis.

This report provides a summary of the costs, returns, and financial performance for participating niche pork producers for the year 2006. There were 41 niche pork farrow-to-finish producers who completed records for 2006. Five of these were certified organic producers, four were purebred Berkshire producers, and 32 were 'natural' producers, meaning their pigs were raised without antibiotics using bedded pens with outdoor access. An initial evaluation of the data showed that the average production efficiencies were similar between the organic, purebred Berkshire and other operations. Thus, all are combined for this analysis.

For the analysis, information such as corn price, interest on capital, and pig inventory was standardized between cooperators. The corn price utilized was \$2.19 per bushel. This represents the monthly average Iowa corn prices for the year 2006. It is recognized that the corn price increased dramatically during the last quarter of 2006, but these increases are reflected for the respective months in determining the average annual price. The value for other grains and supplement was included at the values provided by the producers with the assistance of the extension specialists. The inventory values for breeding livestock was placed at \$150 per animal and remained the same for the beginning and ending inventory. Nursery pig inventory

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values were placed at \$40.00 per head for a 25 pound pig, and finisher pig inventory values were placed at \$50 per hundred pounds, with these values the same for the beginning and ending inventory. Interest on operating capital and fixed capital was calculated at 5 percent. Labor value was standardized at \$15.00 per hour.

The level of fixed capital varied dramatically between producers, with some values appearing to be exceeding high. As a result we looked at the capital cost for pasture pig production as provided in the Iowa Swine Enterprise budgets for 2006 and used one-half of the new pasture pig production building and equipment value as the comparison value. That capital cost value was \$43.97 per pig. This was established as the capital cost level for those operations where capital cost per pig exceeded that level. Thus, farms with higher capital cost levels had these values reduced to this level for the record analysis.

### Results and Discussion

#### Returns

Returns from producing niche pork are provided in Table 1. Averages are included for all 41 producers. These producers were sorted based on return to capital, unpaid labor and management per hundred pounds of pork produced. Averages are also included for the top 15 producers and the bottom 15 producers as sorted this way.

The return levels were quite different between the top 15 and bottom 15 herds. On average, the return to capital, unpaid labor and management per hundred pounds of pork produced was \$10.08 for all 41 farms, but \$17.43 for the top 15 herds and was \$2.17 for the bottom 15 herds. The total return to capital, unpaid labor and management for the pork production operation was \$17,740 for the average operation, almost \$30,000 for the top herds and slightly below \$6,000 for the bottom herds.

The average return to labor for all farms was \$13.17 per hour. This was \$22.66 for the top herds and \$3.02 for the bottom herds. Thus, after all costs were paid the average per hour wage earned by all 41 producers was \$13.17, while the top 15 producers earned \$22.66 per hour and the bottom 15 producers earned \$3.02 per hour. Note that prices received for market hog sales were similar between the groups: \$50.09 for the top group compared to \$49.92 for the bottom group. Thus, prices received for hogs sold by the top and bottom groups had little impact on the differences experienced in their returns.

The margin over all costs, including labor valued at \$15 per hour, averaged \$4.86 per hundred pounds of pork produced for the top group and -\$4.37 for the bottom group, which is a difference of \$9.23 per hundred pounds of pork, or about \$25.00 for a 275 pound hog. For all 41 producers, the margin over all costs, including labor valued at \$15 per hour, was essentially breakeven: -\$0.85 per hundred pounds.

#### Cost of Production

Data on the cost of producing niche pork are provided in Table 2. The method of categorization is the same as for the return information shown in Table 1.

Table 2 shows that the average total cost per hundred pounds of pork produced was \$52.05 for all 41 farms. The average total operating cost (excluding labor) for all 41 farms was \$35.79 per hundred pounds of live hog, with feed costs comprising \$26.28 of this total and other operating costs (excluding labor) making up the remaining \$9.51. Average fixed costs were \$3.54 per hundred pounds, and average labor costs were \$12.72. These numbers translate into total costs of about \$140.00 per market hog produced.

Table 2 also shows that the top 15 producers had average total costs of \$46.05 per hundred pounds produced, while the bottom group averaged \$57.22, which is a difference of \$11.17, or about \$30.00 per hog produced. This represents an increase of about 24 percent. Average feed costs for the top producers were \$4.49 per hundred pounds below the average for the bottom group (\$23.59 vs. \$28.08). Other operating costs (excluding labor) for the top group were about half the total for the bottom group (\$6.75 vs. \$13.01). Fixed costs for top producers averaged \$3.12 per hundred pounds of pork produced, while this number for the bottom producers was \$4.07; an increase of 30 percent. Interestingly, labor costs were lower for the bottom producers as compared to the top producers (\$12.06 vs. \$12.59). However, this difference was not large. The bottom producers also purchased supplement at higher costs: \$15.06 per hundred pounds purchased for the bottom group compared to \$11.48 for the top group.

#### Cost Differences

Table 3 compares cost differences between the top and bottom producers. These data show that 96 percent of total cost differences are in operating costs, which included feed and other operating expenses, but not labor. Note also that differences in feed costs represented about 40 percent of the cost difference between the top and bottom producers, while the differences in other operating costs (excluding labor) represented 56 percent of the cost differences. Thus, while operating costs other than feed and labor made up only about one fifth of the total production costs, they contributed more than half of the cost differences between the top and bottom producers. Thus, close attention to controlling other operating costs appears to be important in niche pork production. Close attention to controlling feed costs is also important as its represented 40 percent of the cost difference.

These cost difference results for niche pork production are different than what is seen for the more traditional confinement commodity pork producers. While feed costs are important for both system types, for commodity producers the fixed costs of facilities are relatively more important, which in turn means that facility use, or adequate 'through-put' of hogs, is very important for these producers.

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The lower relative significance for fixed costs for niche pork producers is perhaps not surprising. Many niche producers in the record system had low investment in production facilities. Thus, the need to get pork out the door to keep fixed cost under control was not as pressing.

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**\$ Table 1: Returns from Producing Niche Pork – 2006, Sorted by Return to Capital, Unpaid Labor and Management, /cwt.**

Item	Average	Top 15 Farms	Bottom 15 Farms
Number of producers	41	15	15
Hundred pounds of pork produced	2191	1667	3114
Return to capital, unpaid labor and management per farm	\$17,740	\$29,875	\$5,886
Return to capital, unpaid labor and management per cwt.	\$10.08	\$17.43	\$2.17
Return per hour for all hours of labor and management	\$13.17	\$22.66	\$3.02
Percent return on capital	-1.27	26.69	-24.00
Average price per cwt of cull breeding stock sold	\$31.94	\$30.06	\$32.15
Average price per cwt. Of market hogs sold	\$49.97	\$50.09	\$49.92
Average price per cwt of all animals sold	\$48.36	\$49.88	\$47.32
Return per \$100 of feed fed	\$186.06	\$213.20	\$159.38
Margin over all costs/cwt. Produced, including inventory	-\$0.85	\$4.86	-\$4.37
Margin over all costs per head sold, including inventory	-\$2.36	\$15.15	-\$12.82

**Table 2. Cost of Producing Niche Pork – 2006, Sorted by Return to Capital, Unpaid Labor and Management, \$/cwt.**

Item	Average	Top 15 Farms	Bottom 15 Farms
Number of producers	41	15	15
Hundred pounds of pork produced	2191	1667	3114
<b>Operating costs per cwt. Produced</b>			
Feed cost	\$26.28	\$23.59	\$28.08
Other operating cost (except labor)	\$9.51	\$6.75	\$13.01
A. Utilities and fuel	\$2.26	\$1.58	\$3.03
B. Injectables, vaccines, etc.	\$1.08	\$0.73	\$1.32
C. Maintenance, repairs and supplies	\$1.69	\$1.14	\$2.34
D. Misc. machine hire/trucking	\$1.07	\$0.78	\$1.38
E. Capital charge on operating costs	\$0.91	\$0.75	\$1.10
<b>Total operating costs per cwt.</b>	<b>\$35.79</b>	<b>\$30.34</b>	<b>\$41.09</b>
<b>Fixed costs per cwt. Produced</b>			
Depreciation, taxes and insurance	\$2.96	\$2.64	\$3.36
A. Equipment depreciation	\$1.15	\$1.10	\$1.16
B. Housing depreciation	\$1.28	\$1.23	\$1.46
C. Property insurance and taxes	\$0.50	\$0.33	\$0.65
Capital charge on fixed investment	\$0.58	\$0.48	\$0.71
<b>Total fixed costs per cwt. Produced</b>	<b>\$3.54</b>	<b>\$3.12</b>	<b>\$4.07</b>
Cost of labor (all) per cwt. Produced	\$12.72	\$12.59	\$12.06
<b>Total cost per cwt. Produced</b>	<b>\$52.05</b>	<b>\$46.05</b>	<b>\$57.22</b>
Price/cwt of purchased supplement	\$13.34	\$11.48	\$15.06

**Table 3. Comparison of Niche Pork Production Costs Between Top and Bottom Producers.**

Item	Group			Percent of Difference
	Top 15	Bottom 15	Difference	
Operating costs (feed and other)	\$30.34	\$41.09	+\$10.75	+96.2%
Fixed costs	\$3.12	\$4.07	+\$0.95	+8.5%
Labor costs	\$12.59	\$12.06	-\$0.53	-4.7%
Total costs	\$46.05	\$57.22	+\$11.17	100.0%
Feed costs	\$23.60	\$28.08	+\$4.50	40.2%
Other operating costs	\$6.75	\$13.01	+\$6.26	56.0%