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# 1997 Survey of Former Iowa Hog Producers: Motivations of Exiting and Incentives to Return

## **Abstract**

Over 14,000 Iowa farmers quit raising hogs between December 1992 and December 1996. This exodus represents 40 percent of the report number of farms with hogs in 1992. This five year period also represents a time of enormous change in the pork industry; rapidly changing technology, emergence of mega operations, regional shifts of hog production, record high corn prices, and the lowest hog prices in over 20 years; There has been a great deal of speculation about why Iowa farmers quit raising hogs, but little is known about what type of individuals and operations left the industry, why they quit, and if they would return to the business. This report summarizes a survey of these ' producers that provides insight to better answer these questions.

## **Disciplines**

Agribusiness | Agricultural and Resource Economics | Agricultural Economics | Meat Science

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Motivations of Exiting and Incentives to Return**

**John D. Lawrence**

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# 1997 Survey of Former Iowa Hog Producers: Motivations of Exiting and Incentives to Return

John D. Lawrence<sup>1</sup>

## Introduction

Over 14,000 Iowa farmers quit raising hogs between December 1992 and December 1996. This exodus represents 40 percent of the reported number of farms with hogs in 1992. This five-year period also represents a time of enormous change in the pork industry: rapidly changing technology, emergence of mega operations, regional shifts of hog production, record high corn prices, and the lowest hog prices in over 20 years. There has been a great deal of speculation about why Iowa farmers quit raising hogs, but little is known about what type of individuals and operations left the industry, why they quit, and if they would return to the business. This report summarizes a survey of these producers that provides insight to better answer these questions.

In August and September 1997, trained interviewers at the Iowa Agricultural Statistical Service (IASS) conducted a telephone survey of 849 Iowa farmers who had quit raising hogs since 1992. The survey (Appendix 1) was a random sample by crop reporting district of farmers who, prior to 1992, had reported raising hogs to the IASS. Table 1 shows the number of respondents, average age of farmer, and size of hog enterprise, stratified by crop reporting district.

Table 1. Number of Respondents, Average Age of Farmer, and Size Hog Enterprise by Crop Reporting District.

Crop District	Number of Surveys	Operator Age	Annual Marketings
10	101	49.8	783
20	90	49.2	828
30	100	48.8	680
40	105	48.4	709
50	87	53.2	743
60	118	51.0	741
70	83	49.9	794
80	81	52.0	591
90	84	51.4	788
State	849	50.0	745

At the time of the survey, the average age of the farmers was 50 years old; they were 48 years old on average when they decided to quit raising hogs. The range in age when they quit was from 15 to 83 years old. Approximately 30 percent of the farmers were 35 - 44 years old and 25 percent were 45-54

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years of age (Figure 1). Annual hog marketings averaged 745 head, with a range of 5 to 6,000 head a year. Just over half of the producers sold 500 head of hogs or less during their final full year of production (Table 2). Approximately 90 percent sold 1500 head of hogs or less while the remaining 10 percent marketed between 1500 and 6000 head. Sixty percent of the producers surveyed had farrow-to-finish operations, 11 percent were feeder pig producers, and 29 percent finished feeder pigs. In addition, one-tenth of one percent of the farmers had a seedstock operation.

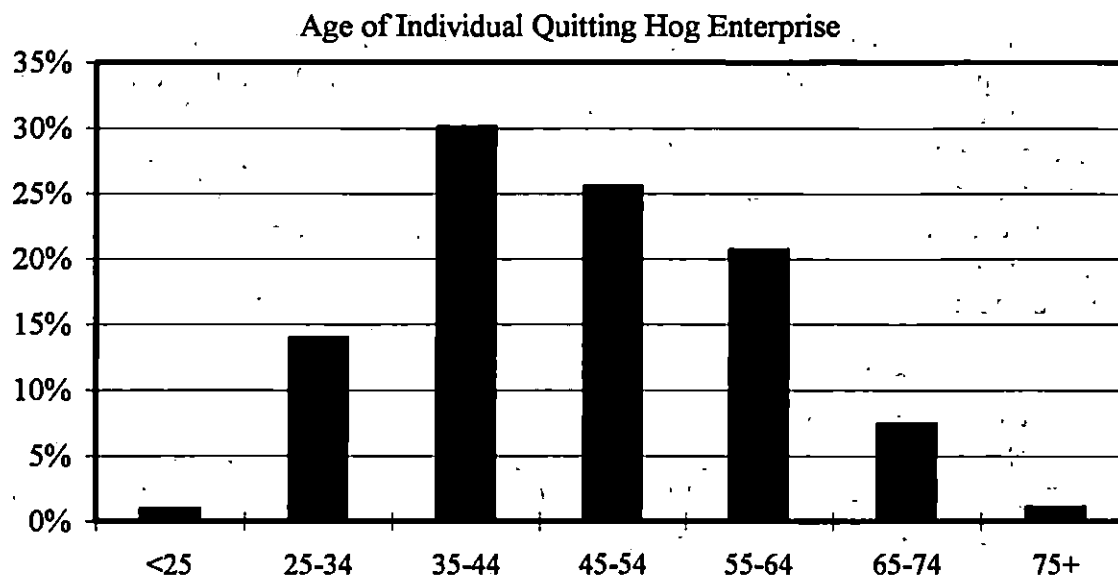


Figure 1

Table 2. Distribution of Annual Marketings of Former Iowa Pork Producers.

Annual Marketings	Percent	Cumulative Percent
100 or less	9.5	9.5
101-200	12.4	21.9
201-300	10.3	32.2
301-400	7.7	39.8
401-500	12.3	52.1
501-750	10.7	62.8
751-1000	15.6	78.4
1001-1500	11.4	89.8
1501-2000	5.4	95.3
Over 2000	4.7	100.0

The producers who terminated their hog enterprise reported that an average of 40 percent of their farm income came from hogs; approximately one-third received 25 percent or less from hogs; and 46 percent received 26 - 50 percent of their farm income from hogs. In spite of the important contribution of hogs to the farm's income, only six percent reported that they quit farming altogether. What are these farmers who used to raise hogs doing with their available time and how are they replacing the

income that once came from hogs? Approximately one-third of the respondents reported an increase in the crop or other livestock enterprises or worked more off the farm (Table 3). Forty-five percent reported working fewer hours on the farm.

**Table 3. Change in Other Activities Since Quitting the Hog Enterprise (percent of respondents).**

	Increased	No Change	Decreased	N/A
Crop enterprise	29.5	60.6	7.5	2.5
Other livestock enterprises	31.4	43.8	8.9	15.9
Amount of custom farming you do	9.7	31.0	3.2	56.2
Time spent working on farm	11.5	41.1	45.8	1.7
Time worked off-farm by family members	33.6	39.9	4.8	21.8
Hours worked by hired workers	1.1	11.8	8.7	78.3

Most of the farmers who stopped raising hogs had relatively little money invested in facilities. Table 4 shows the percent of hogs raised in each type of facility by phase of production. Not all operations had all phases of production. Over 80 percent of the breeding-gestation facilities and the finishing facilities that were taken out of production were either open lots or open-front facilities. Producers who had invested in either naturally or mechanically ventilated breeding-gestation or finishing buildings were less likely to have quit production of hogs. The farmers surveyed also indicated an unlikelihood that the facilities will be used to raise hogs again (Table 5). Over 60 percent said that they would not use the facilities again; over 80 percent indicated that they are not interested in renting facilities to a neighbor or contracting to raise hogs for someone else. This high figure may incorporate the difficulty in renting technically obsolete facilities. Table 5 suggests that the facilities will be converted to other uses or set idle, but are unlikely to be razed.

**Table 4. Percent of Hogs Raised in the Following Types of Facilities.**

	Open lot w/ shelter	Open Front w/ Concrete	Confinement Natural Vent.	Confinement Mech. Vent.	Not Applicable
Breed-Gestation	32.2	22.6	5.4	2.6	37.1
Farrowing	13.4	12.0	21.6	23.1	29.8
Nursery	10.1	14.3	15.6	21.2	39.0
Finishing	26.5	48.7	14.1	1.5	8.9

**Table 5. Plans for Facilities Previously Used to Raise Hogs (percent of respondents).**

	Yes	No	Maybe
Return to hog production	7.6	62.6	29.8
Rent to another producer	12.4	80.0	7.6
Contract to raise hogs	2.6	88.1	9.3
Sit idle or conversion	64.1	25.1	10.8
Tear them down	16.6	73.4	9.9

Figure 2 shows the time when the producers decided to quit raising hogs. Approximately 36 percent of the farmers decided to quit in 1992, 1993, and 1994. The remaining 64 percent made the decision since 1994. The majority of these came in 1995 following the lowest hog prices in over 20 years that occurred in the fourth quarter of 1994. This timing is consistent with the reasons given for quitting the hog enterprise (Table 6). Ranked by the average score, the top four reasons given for quitting were economic reasons (i.e., prices, returns). Three of the next four most important reasons are more personal reasons, (i.e., operator health, value of time, and age). Condition of facilities, access to markets, and disease control complete the top ten most important reasons for stopping production. Pressure from neighbors, and inability to access information and technical support were the lowest ranking reason for quitting.

Even though "low returns" and "high cost" rank high for reasons to quit the hog enterprise, 82 percent of the respondents said they did not know their cost of production during their last full year of production. Of the 18 percent who did know their cost, the average cost was \$39.03, and the range was \$14-95/cwt. While these extreme high and low figures seem unreasonable, the distribution in Figure 3 shows a more typical range.

Table 6. Reasons Why Farmers Leave the Pork Industry.

	Average Score	Percent of Respondents			
		Not Important	Important	Somewhat Important	Very Important
Low hog prices	2.91	16.1	24.5	11.7	47.8
Returns not high enough	2.88	13.7	28.2	14.7	43.4
High corn or feed prices	2.67	21.0	27.6	15.3	36.1
Cost of production is too high	2.63	16.7	35.0	16.6	31.7
Operators health	2.62	24.1	26.8	12.2	36.9
Better ways to use my time	2.39	22.4	36.6	20.7	20.3
Age and condition of facility	2.37	25.9	31.2	22.5	20.4
Operators age	2.31	32.2	25.9	21.2	20.8
Lack competitive market for hogs	2.19	40.8	21.5	15.2	22.5
Disease too hard to control	2.12	41.2	22.8	18.7	17.3
Wanted more leisure time	2.05	38.4	31.3	17.5	12.8
Poor quality hogs	2.03	41.8	27.7	16.4	14.1
Children not returning to farm	2.02	48.6	20.5	11.5	19.4
Inability to access capital	1.94	48.9	21.9	15.9	13.3
Emphasize another enterprise	1.88	45.6	28.7	18.2	7.5
Increased environmental regulations	1.85	50.8	24.2	14.7	10.3
Dislike raising hogs	1.75	60.5	14.6	14.0	10.9
Inability to access technical support	1.61	61.5	20.5	13.5	4.4
Lack of information to make decisions	1.48	69.1	17.6	10.0	3.3
Pressure from neighbors about hogs	1.36	78.8	9.6	8.2	3.4

\* Not important =1, Important =2, Somewhat Important =3, and Very Important =4

Half of the farmers who quit raising hogs indicated that they had experienced health problems while raising hogs. Nearly an identical percentage rated "operator health" as a somewhat important or very important reason for quitting. Forty percent said their health problems were respiratory in nature, 17 percent said they were skeletal (back, legs, hands), and five percent said they were other types of health problems. Thirty-six percent said that their health problem had subsided since they quit raising hogs.

When Farmers Decided to Quit Raising Hogs

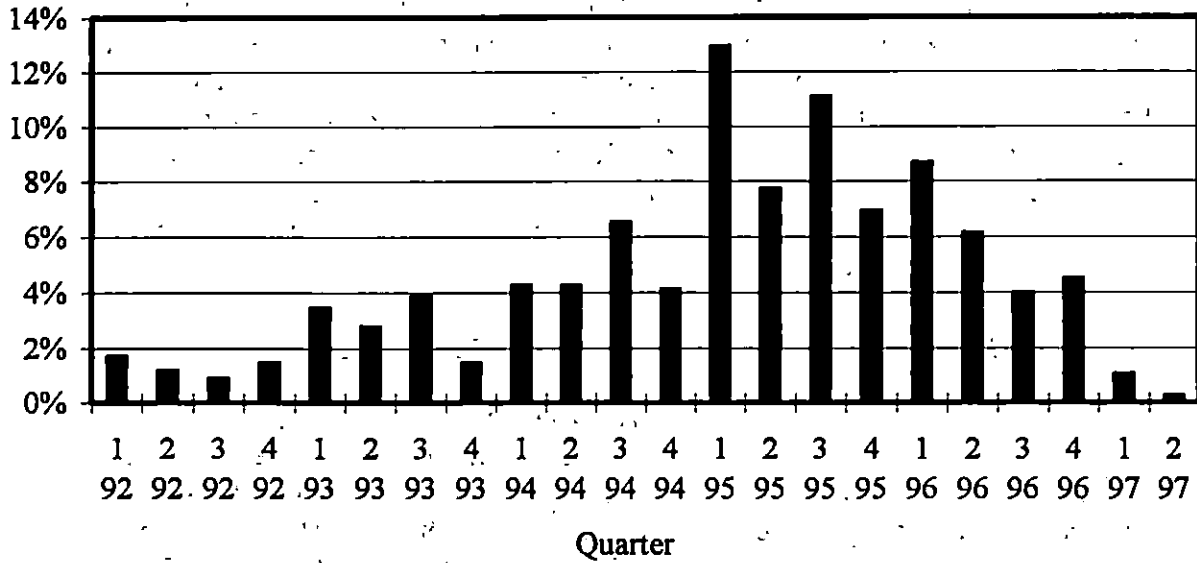


Figure 2

Cost of Production for the 18% of Producers Who Knew Their Cost

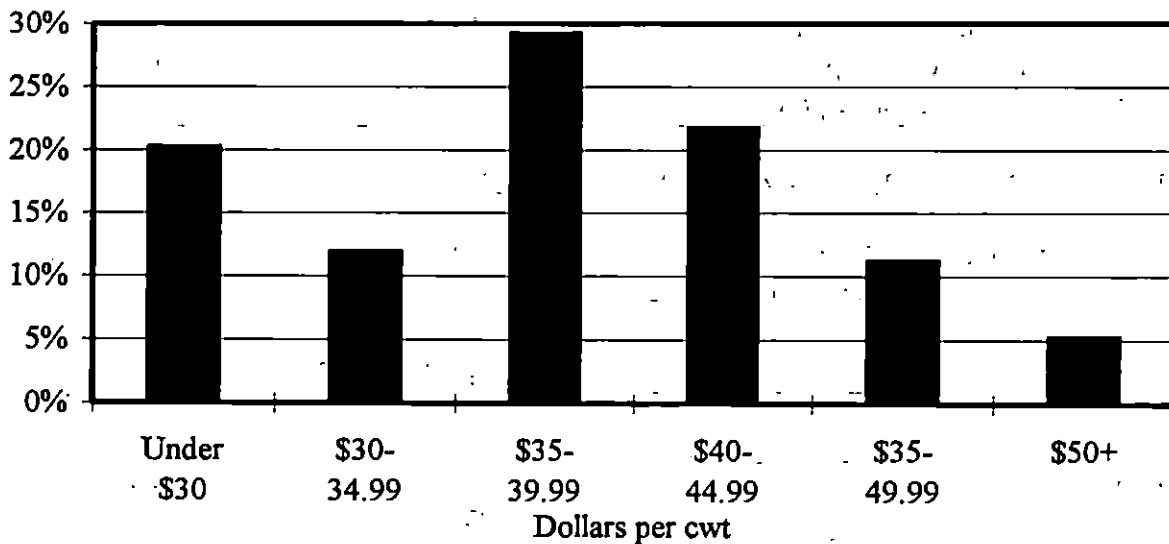


Figure 3



The farmers were also asked about their possible return to the pork industry. They were asked to rank their level of agreement with the statements in Table 7. The responses are listed according to the average score. More favorable hog-to-corn price relationship was the highest ranking factor in producers' possible return. This response is consistent with that listed in Table 6 and the desire for better returns. The second highest average ranking was for increased restriction on large hog operations. By limiting competition, increased regulations would be favorable to prices. The responses to this statement highlight the tension in the pork industry. It had the highest percent of the respondents that strongly agreed than any other condition for returning to production, but still 49 percent either disagreed or strongly disagreed with the statement. Approximately 40 percent agreed or strongly agreed that they would not produce hogs again under any circumstances. The next highest ranking statement was if the hog:corn price relationship would stay the same as in recent years. This was followed by assistance in remodeling facilities as a condition for returning to production, with low interest loans rated more popular than cost share. It is interesting to note the high degree of independence among the producers who have quit. Production and marketing networks, whether initiated by producers or input suppliers, or the use of a packer contract to share price risk, attracted relatively low interest from producers.

Table 7. Under What Conditions Would You Consider Raising Hogs Again

	Average Score	Strongly Disagree	Disagree	Agree	Strongly Agree
More favorable hog:corn prices	2.67	4.3	35.2	49.4	11.1
Increased regulations on large producers	2.62	7.8	41.2	32.5	18.5
Not under any circumstances	2.46	9.3	49.2	27.7	13.7
Hog to corn prices same as recent years	2.41	9.7	43.5	42.5	4.3
Low interest loans to modernize facilities	2.41	10.8	46.3	34.3	8.6
Cost share assistance to modernize facilities	2.33	11.1	51.2	31.3	6.3
Reduced regulations on my operation	2.22	10.5	61.9	22.7	4.9
In a producer initiated network	2.19	12.4	59.7	24.9	3.0
In an input supplier initiated network	2.05	15.8	65.2	17.2	1.7
Have a packer contract to share price risk	2.04	18.7	60.3	19.0	2.0
Be a contract grower for another producer	1.93	23.9	61.1	13.6	1.4

\* Strongly Disagree =1, Disagree =2, Agree =3, Strongly Agree =4.

The relationship between age of operator and size of operation is shown in Table 8. A higher percentage of farmers under 50 years of age had larger operations.

Table 8. Relationship Between Age of Farmer and Annual Hog Marketings.

Age (Years)	Annual Marketings	
	Under 750	750+
Under 50	27.54	22.03
50 +	33.05	17.37

Table 9 shows the relationship between selected conditions for farmers returning to the hog industry and operator age or size of operation measured in annual marketings. First, note that there is not a great variation in the responses by age group. However, younger farmers are slightly more interested in producing hogs again, and in cooperating within a producer or input supplier network, even at the same hog:corn price relationship. The same holds true for the category of low interest loans to remodel or expand facilities.. Farmers with smaller operations are more interested in producing hogs again, but less likely to do so in some type of network.

Table 9a. Relationship Between Age of Operator and Selected Conditions for Returning to Production (percent of respondents).

	Strongly Disagree	Disagree	Agree	Strongly Agree
<b>Will not raise hogs again under any circumstances</b>				
Under 50	6.88	26.26	12.22	3.79
50+	2.53	22.89	15.45	9.97
<b>As part of a producer initiated production or marketing network</b>				
Under 50	5.83	27.99	15.89	0.73
50+	6.71	31.92	8.75	2.19
<b>As part of an input supplier initiated production or marketing network</b>				
Under 50	8.22	29.66	11.89	0.44
50+	7.49	35.68	5.43	1.17
<b>At the same hog:corn price relationship as recent years</b>				
Under 50	4.55	22.03	22.61	1.17
50+	4.99	21.59	19.97	3.08
<b>With low interest loans to remodel or expand facilities</b>				
Under 50	3.22	18.16	18.74	10.1
50+	4.69	23.43	13.91	7.76

Table 9b. Relationship Between Annual Marketings and Selected Conditions for Returning to Production (percent of respondents).

	Strongly Disagree	Disagree	Agree	Strongly Agree
Will not raise hogs again under any circumstances				
Under 750	4.92	30.10	17.86	8.02
750+	4.51	8.99	10.13	5.49
As part of a producer initiated production or marketing network				
Under 750	7.43	36.59	15.16	1.46
750+	5.12	3.03	9.77	1.46
As part of an input supplier initiated production or marketing network				
Under 750	8.66	41.70	9.25	0.88
750+	7.22	3.20	8.22	0.88
At the same hog:corn price relationship as recent years				
Under 750	4.41	26.73	26.28	3.08
750+	5.29	17.18	16.15	0.88
With low interest loans to remodel or expand facilities				
Under 750	4.25	25.04	20.64	10.54
750+	3.51	15.96	12.15	7.91

### Summary

Iowa farmers who quit raising hogs in the last five years were surveyed to determine what types of operations have left the industry, why the operators chose to discontinue their hog enterprise, and what conditions might bring them back into production. The average and median age of the operators when they decided to quit was approximately 48 years old and average annual marketings were 745 head. Half of these farmers marketed 500 head a year or less. The majority of the operations were farrow-to-finish followed by finishing only with a relatively small percentage producing feeder pigs. While approximately one-third indicated that they had increased either a crop or other livestock enterprise or worked more off the farm, the majority reported no change, or a decrease in income earning activities. Over 80 percent of the breeding - gestation and finishing facilities idled were either open lots or open front buildings. While more of the farrowing and nursery facilities were confinement, farmers preferred to either convert the facilities to other uses or leave them idle. There was little interest in using them for hogs again, renting to another producer, or contracting with another producer.

The most important reason given for quitting hog production was low hog prices. While low returns, high feed costs, and high cost of production were the next three most important reasons for getting out of hog production, over 80 percent of the farmers did not know their cost of production when they quit. Behind these economic factors were personal reasons for stopping hog production. Operator health and age were highly ranked reasons for quitting. Nearly half of the respondents

acknowledged having health problems while producing hogs, and approximately one-third said that the health problems had subsided since they quit raising hogs.

Approximately 40 percent of the producers said that they would not raise hogs again under any circumstances. However, the most important factor to encourage farmers to return to hog production was a better hog:corn price relationship which would result in higher returns to the operator. The second highest ranking factor, but one with wide division, was increased regulation on large production units. While nearly one-fifth of the respondents strongly supported more regulations on large units, half of those surveyed disagreed or strongly disagreed with such regulations. Younger farmers tended to have had larger operations and are more willing to produce hogs again. However, as there was little interest in returning as part of a production or marketing network with a packer risk-sharing contract, or as a contract grower, independence of hog producers is still highly valued.

## SURVEY OF OPERATIONS THAT HAVE DISCONTINUED HOG ENTERPRISES

- |   |         |        |
|---|---------|--------|
| 1. Did the farming operation associated with the name on the label stop raising hogs anytime since 1992?  | Yes (1) | No (2) |
| 2. Did you permanently drop the hog enterprise?   | Yes (1) | No (2) |
| a) Do you own the hogs on your farm now?  | Yes (1) | No (2) |
| b) Did you make investment changes in your hog facilities when you returned to production?  |         |        |
| c) Are you part of a production or marketing network?   |         |        |
| d) Are part or all of hogs and pigs on your farm raised under contract for another producer or company?   |         |        |
| If yes, are you growing for a: 1) neighbor,<br>2) feed company, 3) integrator, 4) other   | 1       | 2      |
| e) What encouraged you to return to the production of pork?   | 1       | 2      |
| of pork?                    1            2            3            4            5            6            7            8            9                           |         |        |
| 3. a) When did you make the decision to stop raising hogs?<br>Time of Year: 1) spring, 2) summer, 3) fall, 4) winter<br>year _____                              | 1       | 2      |
| b) When did you sell your last hog?<br>Time of Year: 1) spring, 2) summer, 3) fall, 4) winter<br>year _____   | 1       | 2      |
| c) During the last year of production what was your cost of producing a hundredweight of live hogs? 1)\$000.00 cost/cwt., 2) don't know                         | 1       | 2      |
| d) What type of hog operation did you have?<br>1) farrow to finish, 2) farrow to feeder pig or weaned pig,<br>3) finishing feeder or weaned pigs, 4) seed stock | 1       | 2      |
| e) How many hogs did you market during your last full year of production?   |         | Number |
| f) How many years did you raise hogs before quitting?   |         | years  |

4. Please specify the *percent* of your hogs that were raised in the following types of facilities:

	<u>Open lot w/shelters or pasture</u>	<u>Open front w/concrete outside lots</u>	<u>Confinement natural ventilation</u>	<u>Confinement mechanical ventilation</u>	<u>Not Applicable</u>	<u>Sum to</u>
a) breeding-gestation	_____	_____	_____	_____	_____	100%
b) farrowing	_____	_____	_____	_____	_____	100%
c) nursery	_____	_____	_____	_____	_____	100%
d) finishing	_____	_____	_____	_____	_____	100%

5. What do you plan to do with the hog facility? Yes (1) No (2) Maybe (3)

- a) Return to hog production
- b) Rent them to another producer
- c) Contract to raise hogs for another producer
- d) Let them stand idle or convert to other uses
- e) Tear them down

6. What percent of the gross farm income came from the hog enterprise when you raised hogs? \_\_\_\_\_%

7. How many people were involved in the hog operation when you produced hogs? Family \_\_\_\_\_ Hired employees \_\_\_\_\_

8. How were your farming and other activities affected since you quit producing hogs?

	<u>Increased (1)</u>	<u>No Change (2)</u>	<u>Decreased (3)</u>	<u>Not Applicable (4)</u>
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- a) Crop enterprise
- b) Other livestock enterprises
- c) Amount of custom farming you do
- d) Time spent working on farm
- e) Time you and family members spent working off farm
- f) Hours worked by hired workers
- g) Completely ended farming operation

Yes (1) No (2)

9. While raising hogs, did you experience human health problems? Yes (1) No (2)

a) Were your health problems respiratory in nature?

Yes (1) No (2)

b) Were your health problems skeletal in nature  
(i.e., back, legs or hands)?

c) Other (specify)

d) Have your health problems subsided since you  
quit raising hogs?

10. For the following statements, please indicate your level of agreement or disagreement for each:

Strongly  
Disagree  
(1)

Disagree  
(2)

Agree  
(3)

Strongly  
Agree  
(4)

a) Will not raise hogs under any circumstances

b) The price of hogs relative to the price of corn  
would need to become more favorable

c) A production or marketing network initiated  
by producers would bring you back

d) A production or marketing network initiated  
by an input supplier would bring you back

e) Being a contract grower for another producer

f) A packer contract that shares price risk

g) The price of hogs relative to corn price would need  
to be the same as it has been in recent years

h) Cost share assistance needed to modernize facilities

i) Low interest loans needed to modernize facilities

j) Increased regulations that restrict large  
producer expansion needed

k) Reduced regulations on your hog operation

11. Following are some reasons why farm operators leave the pork industry. Which best describes your reactions to each statement?

Not Important (1)	Important (2)	Somewhat Important (3)	Very Important (4)
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- a) Operators age
- b) Operators health
- c) Cost of production is too high
- d) Quality of the hogs being produced was not adequate
- e) Pressure from neighbors about the hog enterprise
- f) Age and condition of facility
- g) Inability to access technical support to improve the operation
- h) Lack of information to make production or marketing decisions
- i) Decision to emphasize another enterprise in the farming operation
- j) Increased environmental regulations
- k) Inability to find a competitive market for the hogs
- l) Inability to access capital to remodel or expand the hog enterprise
- m) Low hog prices
- n) High corn or feed prices
- o) Returns not high enough relative to labor and investment
- p) Disease too hard to control
- q) Better ways to use my time
- r) Wanted more leisure time
- s) Dislike raising hogs
- t) Kids not returning to farm

12. How old were you on your last birthday? \_\_\_\_\_ years old