

# A 1974 Survey of Large-Scale Hog Production in the U.S.

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#### INTRODUCTION

Questions relating to the organization and control of agriculture are matters of much economic analysis as well as popular concern. Livestock and poultry have received particular attention. Poultry has largely moved into vertical integration and/or into larger-than-family-size production units. Cattle feeding has moved recently, with amazing speed into large-scale commercial lots and into a significant amount of control by off-farm interests.

Hogs are most often cited as the major farm commodity which may be next to shift along a route similar to cattle feeding. Difficulties of management, particularly the control of disease, are usually cited as the greatest deterrent to major concentration in hog production. Although it is known widely that there are some large-scale hog units around the country, systematic information concerning them has not been available. The top classifications in the U.S. Census indicate a minimum of 200 litters farrowed or annual sales of 1000 head. This study represents an attempt to survey large units to determine their number, size, production history, type of organization, and other items of interest to the swine industry.

#### SOURCE OF DATA

The USDA Statistical Reporting Service maintains a list of large hog operations in the 14 major hog producing states. These units are defined as having had, in the past year, inventories of 3,000 plus hogs. Through a cooperative agreement and University of Missouri financing, brief personal interviews were conducted by SRS personnel during late February 1974.<sup>1</sup>

The SRS list included 204 operations. However there were only 141 usable schedules. A breakdown of the "fall-out" may be enlightening. SRS was unable to obtain schedules from 22 operations. Reasons given were: 3, out of business; 6, inacessible to repeated efforts to contact; and 13, refusals. From the 182 schedules obtained, 41 more were screened out. First, nine schedules had no data on marketings, a major focus of the study. Second, one schedule was obtained from a feeder pig trader who neither farrowed nor fed out. Finally, 31 schedules were discarded as too small to be classified in this study as large hog operations. Recall that the SRS definition was a minimum inventory of 3,000. Our minimum cut-off was 4,000 marketed in any one of the years 1971 to 1973.

<sup>&</sup>lt;sup>1</sup> The data were analyzed at the University and the results and viewpoints presented here are those of the authors, not of SRS. See the appendix for a copy of the questionnaire.

#### NUMBER OF OPERATIONS

Our first finding, then, is that the U.S. has something more than 141 hog production units marketing 4,000 or more per year. There are presumed to be more than 141 for these four reasons: (1) some or all of the 13 survey refusals and 6 inaccessibles were of this size; (2) some of the 31 discarded schedules may have understated marketings rather than overstated inventories; (3) we learn from the trade press that some large operations exist in states other than the 14 in the survey; (4) we know from other sources that SRS coverage is not always complete—especially of fairly new operations. In fact, we have other information on several operations in a Corn Belt state that were missed in this survey. Our estimate is that there were a total of 180-200 such large hog operations in the U.S. which had been in operation one or more years.<sup>a</sup>

Since this survey neither covers the complete population nor is a probability sample of that population, the analysis applies only to the 141 operations surveyed, and no attempt is made to project to the population.

We attempted to obtain annual marketings for the past decade. This marketing data gave some evidence on date of entry and age of the operations. This evidence is curcumscribed. First, since we are dealing with the survivors, we of course, missed any operations which entered and left before the survey. Second, we cannot date the entrants before 1964. Third, in a few cases in this survey there were definitional or informational problems in determining when "this operation" began.

Of these 141 operations, 44 percent began in 1964 or previously, which means they are 10 or more years old. Entries were 5 or less per year in 1965-67 and 1972-73, but there was a large bulge in entries 1968-1971 (Table 1). In fact, 78.5 percent of the entries

Table 1. Beginning Dates of Large Hog Operations

Year Began	Number Operations	Percentage
1973	1	0.7
1972	4	2.8
1971	21	14.9
1970	18	12.8
1969	10	7.1
1968	13	9.2
1967	4	2.8
1966	5	3.6
1965	3	2.1
1964 or	earlier 62	44.0
Total	141	100.0

<sup>&</sup>lt;sup>a</sup> See the section "Current Developments" for comments on additional new operations.

in the 9 years after 1964 occurred in this 4 year period. It seems possible that this large increase was a lagged response to a quite favorable profit situation in 1965-1970.

North Carolina has by far the largest number of these operations (Table 2). Texas, Kansas, and Nebraska, like North Carolina have been growing relatively in hog production in recent years and each of those states had 13 or more operations. Only 28 percent of these operations were in the traditional Corn Belt with 21 percent in the Plains and 51 percent in the South. Moreover, 85 percent of the entrants since 1965 have been outside the Corn Belt.

#### TYPES OF OPERATIONS

The corporation was the most frequent type of firm organization of these large operations (Table 3). Only one-third were individual proprietorships. These observations are consistent with the notion that the evolution of hog production into large-scale units would be accompanied by a shift to a corporate organizational form.

Table 2. State Distribution of Large Hog Operations

N. Carolina	39	27.7
Texas	17	12.1
Kansas	15	10.6
Nebraska	13	9.2
Georgia	11	7.8
Illinois	10	7.1
Indiana	10	7.1
Iowa	9	6.4
Kentucky	5	3.6
Minnesota	4	2.8
Missouri	3	2.1
Ohio	2	1.4
S. Dakota	2	1.4
Wisconsin	<u>1</u>	0.7
Total	141	100.0

Table 3. Type of Organization, 1973

			Percentage	
Туре	Number	Operations	Marketings	Farrowings
Corporation	66	46.8	46.4	60.3
Non-family	(40)	(28.4)	(34.6)	(38.7)
Family	(26)	(18.4)	(11.8)	(21.6)
Individual	50	35.5	37.1	25.8
Partnership	23	16.3	15.1	13.0
Other & undeterm	nine <u>d 2</u>	1.4	1.4	0.9
	141	100.0	100.0	100.0

The non-family corporation has appeared more frequently among recent entrants as compared to earlier entrants. Both the number of operations and the time period are considered too limited to be certain of the significance of the non-family corporation. Likewise, the non-family corporation appeared more frequently in North Carolina than in other areas. Since the North Carolina operations were a bit newer, we may be observing another side of the same coin.

While corporations accounted for slightly less than half of the operations, they did three-fifths of the farrowing (Table 3). Individual proprietors had slightly more than their proportional share of the total group marketings but less of the farrowings. This result, like several others, was affected by the largest operation in the group. This operation with more than 10% of all marketings, but no farrowing, was listed as an individual proprietor. Except for this one large individual, the average individual proprietor marketed considerable fewer than the average partnership or non-family corporation.

## VOLUME OF MARKETINGS AND FARROWINGS

Total marketings of this group in 1973 were approximately 1.5 million head (Table 4). Farrowings at 715,000 head were almost one-half of total marketings. Thus, these 141 operations marketed about 1.95 percent<sup>a</sup> of the nearly 77 million hogs slaughtered in 1973. The largest size category (the 18 operations marketing 15,000 or more) marketed 654,000 hogs or about 0.85 percent of the national total.

Approximately 58 percent of these 141 operations farrowed all pigs or hogs marketed, 23 percent solely fed out feeder pigs, and 19 percent farrowed a part of their marketings. Most marketings were of slaughter hogs but we infer from information on market channels used that about 9 percent of the total marketings were to other farmers as feeder pigs or breeding stock.

#### GROWTH OF LARGE OPERATIONS

Measurement of growth in marketings is complicated by the varying entry dates of the firms and by the large variance in the growth of some firms.

<sup>&</sup>lt;sup>a</sup> This figure is a little high because it includes sales of approximately 135,000 feeder pigs and breeding stock.

Table 4. 1973 Marketings by Size of Operation

1975 Size	Operations		Marketings	
	Number	Percentage	Number	<u>Percentage</u>
less than 5,000	29	20.6	101,980	6.8
5,000 - 6,999	38	26.9	217,320	14,5
7,000 - 9,999	34	24.1	273,130	18.3
10,000 - 14,999	22	15.6	247,712	16.6
15,000 & more	18	12.8	654,286	<u>43.8</u>
Total	141	100.0	1,494,428	100.0

Growth was achieved by about 84 percent of the firms. For the 135 firms with data on marketings for two or more years, the 1973 marketings were higher than first year marketings for 113 operations, the same for 8, and lower for only 14. The average increase for all firms in hogs marketed per firm was 1,312 per year of operation. For those 113 operations which grew, growth tended to be fairly regular. While 36 operations showed growth every year of operation, growth was not so continuous for most firms. Thus, there was also a set of 36 operations in each of which marketings fell by 1000 or more head for each operation between at least one pair of consecutive years. A year by year comparison indicates that two-fifths to two-thirds of the operations expanded their marketings in any given year, while usually less than one-tenth decreased marketings (Table 5).

The 53 firms supplying marketing data for both 1964 and 1973 grew from 239,812 to 649,130 head or an increase of 171 percent during the 9 years. The marketings of this oldest group of firms grew at an average rate per operation of 858 head per year. Operations beginning 1965 to 1968 showed similar or smaller average growth rates (in terms of additional numbers marketed per year). However, operations beginning 1969 to 1972 showed much higher average growth rates. While the data are hardly sufficient to be conclusive, they suggest that:

- most operations have tended to grow a bit faster during the first two or three years of operation than afterwards;
- operations starting in the latter part of the 1964-73 period have grown almost twice as fast in their first three years as the operations starting in the earlier part of the period grew in their first three years.

Another way to look at the growth of the 53 operations supplying marketing data since 1964 is in terms of the changes made in size of each firm. Of the 53 operations, two moved to a smaller size group, 19 stayed in the same size group (although they may have changed size a bit), and 32 moved to a larger size group (Table 6). Of the 37 operations below 5,000 head in 1964, only 12 remained there in 1973, while the others had moved various distances up the size class with two in the top category of 15,000 plus.

<sup>&</sup>lt;sup>b</sup> However, this average falls to 1,119 head if the phenomenal growth of the largest firm is omitted.

<sup>&</sup>lt;sup>c</sup> However, omitting the phenomenal growth of the largest firm, the group grew 104% and at an average rate of 480 head per year.

Table 5. Distribution of Operations Changing Marketings From Year to Year

Percentage of Operations Having Marketings in Later Year as Compared to Earlier Year Larger Same Smaller Total 1973/1972 24.1% 51.8% 24.1% 100% 1972/1971 66.6 19.4 14.0 100 1971/1970 63.2 31.1 5.7 100 28.7 1970/1969 64.4 6.9 100 1969/1968 61.0 31.2 7.8 100 42.2 1968/1967 50.0 7.8 100 36.7 1967/1966 50.0 13.3 100 1966/1965 44.7 48.2 7.1 100 1965/1964 54.7 3.8 41.5 100

\*All marketing rounded

to hundreds for comparison.

Table 6. Size Groupings of Same 53 Operations in 1964 and 1973

		Size	in 1973			
Size, 1964	<5,000 head	5,000-6,999	7,000-9,999	10,000-14,999	<u>15,000</u> +	Totals
<5,000 head	12	10	6	7	2	37
5,000-6,999		2	3	2	1	8
7,000-9,999		1	1,			2
10,000-14,9	99		1	1	1	3
15,000 plus			_	_	<u>3</u>	_3
Totals	12	13	11	10	7	53

#### **GROWTH PLANS**

A few operators expect to cut back or terminate their operations in the near future, but the rest were about evenly divided between maintaining or expanding marketings. Asked to project marketings, five years hence as compared to 1973, 47 percent projected increases; 48 percent, no change; and 5 percent, decreases. Reflecting the current price adversities and uncertainties they were a little more cautious about expanding in 1974. As compared to 1973, the percentages were: 42, increase; 47, no change; and 11, decrease. About two-thirds of the operations said they could not expand further without constructing more facilities.

The amount of growth planned was clearly related to size groups. The operations in the three groups below 10,000 head were expanding more than the operations in the larger groups in 1974. The operations in the two groups below 7,000 head were projecting much greater expansion in marketings than those in the larger groups five years hence (Table 7).

Table 7. Projected marketings as percentage of 1973 size of operation

Size of Operation	Projected	marketings*as	percentage 1973
	1974	1978	1983
< 5,000	118%	137	161
5,000-6,999	110	149	155
7,000-9,999	111	109	109
10,000-14,999	102	112	110
15,000 plus	105**	112**	119**

If any increases in production above 1973 levels were projected, operators were asked: what factors do you feel might interfere with your expansion plans? Of the 110 replies:

- 42 percent low or uncertain returns;
- 11 percent lack of available labor;
- 10 percent disease problem
- 5.5 percent pollution problems
- 5.5 percent expensive building materials
- 26 percent nine other miscellaneous factors

Those operators not projecting any increases in production after 1973 were asked a similar question: what are the reasons why you plan no increase in marketings? Of the 92 replies:

- 26 percent low or uncertain returns;
- 20 percent lack of available labor;
- 17 percent already at full capacity;
- 7 percent expensive building materials;
- 7 percent no desire to expand;
- 5 percent operator's health or age;
- 5 percent pollution problems;
- 13 percent seven other miscellaneous reasons.

Note that economic factors received heavy emphasis as well as being implicit in such statements as "already at full capacity". Pollution and disease problems were mentioned but not very often.

<sup>\*</sup>Based on the percentage projections weighted by volume of the 133 operations answering for all three years.

<sup>\*\*</sup>These answers fall below 100 if the bearish projections of the group's largest firm are included.

These combined attitudes expressed about impediments or possible barriers to expansion were somewhat related to the size of the operation. The smallest operations (<5000) expressed less concern than other groups about low or uncertain returns. The largest operations (15,000 plus) expressed no concerns about disease, pollution or available labor.

The percentage growth in marketings projected for 1978 by region were quite similar if the largest operation is omitted. Since that particular Corn Belt operation projected a large decrease, its inclusion results in a small decrease in marketings projected for the Corn Belt, while the other two regions had a 20 to 27 percent increase projected.

Most operators (84 percent) planned no change in the proportion they farrowed. Those operators who farrowed either all or none were almost unanimous in planning no change. On the other hand, two-thirds of those 21 operators in 1973, who farrowed part of their marketings, planned a change in farrowings: nine to increase and five to decrease.

#### LONGEVITY OF LARGE SCALE MARKETING AND FARROWING UNITS

The conventional wisdom indicates that the management requirements are much more demanding in a large scale farrowing than in a large scale feeding operation. The marketing and farrowing patterns of these firms are consistent with that conventional wisdom. The peak number *farrowed* by one firm was 24,822 in 1972 and the same firm has averaged 20,500 for the last 4 years. In contrast, 5 firms each *marketed* 40,000 head or more in 1973.

The percentage farrowed was strongly and inversely related to the size of the operation. While 82 and 86 percent of the marketings of the two smaller size groups (below 7,000) were farrowed in those operations, the percentages fell to 74, 57, and 15 for the three larger size groups (7,000-9,999; 10,000-14,999; 15,000 and more).

We were particularly interested in those very large farrowing operations which have farrowed 10,000 or more pigs. Of the 24 operations, only four have farrowed 10,000 plus in a year for more than four years, and only one for the full ten year period.

Our evidence, while fragmentary, suggests that dropouts have been fairly numerous. For example, respondents were asked to identify other large hog operations which in the past five years had either quit production or reduced it to less than 2,000 hogs. There were 23 such operations named. As related evidence, in our 141 firms, there was one in 1972 and two in 1973 which had huge declines in marketings because of disease outbreaks.

#### MARKETING CHANNELS AND METHODS

Slaughter hogs were marketed mainly either directly to the packing plant or to local markets (independent dealers and packer buying stations). There was limited use of terminals, auctions, and direct to other farmers. It is assumed that hogs sold through the latter two channels were mainly feeder pigs or occasionally breeding stock. These large operations made much less use of terminals and auctions for marketing slaughter animals than was true for all operations in the U.S. (Table 8). A majority of operations made sole use of one or the other of the marketing channels—mainly local markets or direct to packers. However, there was not a majority making sole use of a single channel (Table 9).

Use of market channels can be associated with region, type of organization, and size of operation. Since these latter three factors are interrelated, the association is quite complex. It appears that the local markets were most used by smaller, Corn Belt, individual proprietor and partnership operations, while the direct to packer shipments were most

Table 8. Distribution of Marketings by Market Channels

	1973 Surve	y data	1972 U.S.*
Channels	Slaughter Hogs	All Hogs	Packer purchases of hogs
Terminals	2.1%	1.9%	19.3%
Local markets	24.2	22.0	66.6
Direct to packe	r 73.7	67.1	5 00.0
Auctions		1.7	14.1
Other farmers		6.9	-
	100.0	. 100.0	100.0

Table 9. Distribution of Operations by Market Channels

<u>Channels</u> Terminals	Sole use 3.5%	Some use 6.4%	Zero use 90.1%	<u>Total</u> 100.0%
Local Market	23.4	12.1	64.5	100.0
Direct to pack	er 39.0	33.3	27.7	100.0
Auction	0.7	12.8	86.5	100.0
Other farmers	2.8	17.1	80.1	100.0

used by larger, non-Corn Belt, non-farm corporations and partnership firms. Usage of terminals declined with size of operation; it was largest in the Plains and smallest in the South. Auctions were used most in the South. Sales to farmers were most used in the Plains and were influenced by feeder pig operations owned cooperatively by nearby farmers.

These operations were asked to classify their 1973 marketings under current sales or contractual sales. It was reported that 16.1 percent of all marketings were under contract—mostly forward sale contracts. We estimate that 14.3 percent of the slaughter marketings were under contract. There were 24 of the operations which did some contracting and it appeared (from channels used) that 16 to 18 firms were contracting slaughter

<sup>\*</sup>Source: Packers and Stockyards Resume, USDA, Washington, Dec. 14, 1973.

hogs while six to eight were contracting feeder pigs and/or breeding stock.

Size of operation was directly and strongly related to the volume contracted: the <5000 size group contracted only 1.4 percent of their sales while the 15,000 plus group contracted 20.8 percent of their sales, and the 10,000 to 14,999 group contracted 24.6 percent of their marketings. However, this relationship was partly the result of heavy contracting by a few very large operators. Nevertheless, the total picture is of the most contracting by the large rather than by the intermediate sized operations<sup>a</sup>.

The non-family corporations had the highest percentage of contracting (24.1 percent) and the family corporation had the smallest percentage (5.2 percent).

While contracting was a little higher among the younger operators, it definitely included the full age range.

Regionally, the percentage of marketings contracted was quite similar. However, the usual exception must be made for the largest operation. Since it had a large volume contracted, its omission from the Corn Belt data would reduce considerably the Corn Belt percentage contracted.

Farmer hedging of some of their price risks of hog production by selling hog futures and/or buying corn futures has never been very prevalent. Operators were asked: During the past two years, did this operation do any hedging of hogs or grain on the futures market? To our surprise, nearly one-half (48.9 percent) replied: "yes".

### MISCELLANEOUS TABULATIONS

# Operators

The average age of the operator (owner, partner, manager) was 43, but the range in age was from 20 years old to 69. The average operator had been raising hogs almost 17 years, but the range in such experience was a wide one to 51 years.

The bulk (half or more) of the management was provided by the operator and his family in 79 percent of the operations. These percentages were 92 in the individual proprietorships and only 58 in the non-family corporations.

Most (75 percent) of these operations were too big for the operator and his family to provide half or more of the labor.

# Feed grain production

Nearly two-thirds of these large-scale units raised little or none of the feed grain utilized in the hog operations. Not surprisingly, larger proportions of operations in the South and the Plains than in the Corn Belt raised little or no feed grains (Table 10). It is also not surprising that self-sufficiency in feed grain declined with size of operation—from about 24 percent of < 5,000 head group self-sufficient to 4.5 percent of the 10,000-14,999 group, and none of the 15,000 plus group.

#### Feed costs

"What percent of your 1973 total hog production costs were feed costs?" Answers varied widely. The wide variance was presumably partly due to the wide range of conditions: home-produced versus purchased feed; farrowing and sale of feeder pigs, farrowfinish, and feeding out operations. In addition, there were the expected difficulties of interviewer communications, faulty memories, etc. Still the median of 70 percent and the mean (unweighted by volume) of 66.7 percent fall within the normal range of expectations. This average percentage was not related to the size of operation.

<sup>&</sup>lt;sup>a</sup> In the context of all U.S. hog operations, we can hardly designate the 5,000 head class as "small".

Table 10. Percentage of feed grain utilization home produced

## Percentage of feed produced on that unit

<u>Regions</u> Corn Belt	over 90% 20.5%	10-90% 41.0%	under 10% 38.5%	<u>total</u> 100.0% a/
Plains	0.0	20.0	80.0	100.0
South	12.5	13.9	73.6	100.0
Entire Group	12.1	22.7	65.2	100.0

# Regional size of operation

Average marketings per operation were Corn Belt 11,534; Plains 9,387; and South 10,597. However, if the largest operation is removed from the Corn Belt total, then its average falls considerably below that of the Plains.

#### CURRENT DEVELOPMENTS

It is known from the trade press and trade discussions that there have been numerous feeder pig corporations established in the past two years—particularly in Nebraska and Iowa. Two operations in our survey were identified as feeder pig cooperatives. However, by the very newness of these operations, most of them were not included in this survey. A feeder pig corporation (regular or Subchapter S corporation, or sometimes a cooperative) operates a large confinement unit which produces feeder pigs for its owners. The owners are frequently farmers who take these pigs for their own feeding operations. In some cases, some of the owners are reported to be outside investors who sell their shares of the pigs produced. Feed companies are reported, in some instances, to be active promoters of this development. Large breeding stock corporations find these new feeder pig corporations to be a market for large volume sales.

There are also six or more agribusiness corporations which are large volume sellers of breeding stock. They operate several large scale production units, and some are known to be expanding their operations.

Since only a very few of the feeder pig corporations and the breeding stock units fell in this survey, developments in both areas need to be added to this survey to obtain a total current picture of large-scale hog operations in the U.S.

#### SUMMARY

This survey included 141 operations which met our minimum size of 4,000 head marketed in one or more of the years 1971-73. Our estimate is that these 141 probably

 $<sup>\</sup>underline{a}/_{\text{These percentages pertain to the operations in each production category.}$ 

<sup>&</sup>lt;sup>a</sup> Moreover, feeder pig production has a high ratio of marketings to inventory, so that a unit of as much as 10,000 annual marketings might not exceed the minimum inventory of 3,000 necessary for inclusion on the USDA list.

included about three-fourths of such operations in U.S. About 56 percent of these firms were less than 10 years old. There was a large bulge of entries 1968-71. These operations are concentrated in non-Corn Belt areas of recent growth in hog production; about 28 percent were located in North Carolina, 12 percent in Texas, and 11 percent in Kansas, but less than 10 percent in any one of the other 14 survey states. Corporations made up 47 percent of the operations, and had 46 percent of the marketings, but 60 percent of the farrowings.

The relative importance of these large operations is shown by the fact that they marketed about 1,500,000 hogs in 1973 or almost two percent of the U.S. commercial slaughter.

About 48 percent of their total marketings were farrowed by these units. The percentage farrowed was strongly and inversely related to the size of operation.

Firms of this large size are viable. While we cannot be certain, their total number seems to be growing. Certainly, the survivors have demonstrated very vigorous growth—on the average, more than 1,000 head per year per operation. Even amidst the uncertainties of early 1974, about half projected continued growth in the next 5 years. Economic factors such as low or uncertain returns were cited most often as actual or potential impediments to future expansion.

Feeding of feeder pigs is much more common than farrowing among the largest of these large operations. Thus far, only four operations have farrowed more than 10,000 pigs a year for more than four years. Giant farrowing operations may now be feasible, but we failed to find evidence that many have as yet demonstrated their long-term survival.

Large-scale operations find less need for market agencies such as terminals or auctions which serve to concentrate many small lots. Almost three-fourths of the group's slaughter hogs moved direct to packer—a considerably higher proportion than for all U.S. marketings. Most of the remainder were sold through local markets. There were differences by regions.

About one-seventh of the slaughter hogs were sold under contract. Larger operations made proportionately more use of contracts than the smaller operations.

From the structural point of view, this evidence can be read various ways. One can point to the fact that large scale corporate hog production is here and parallels can be drawn with corporate cattle feeding. On the other hand, the relative fewness of these firms, and the likely slow growth in the past decade of their numbers, although not of their total marketings, can be emphasized. Perhaps most would agree that these constitute an important group that bear watching. It is suggested that SRS might publish annually the total number and total marketings of such operations, in much the manner that it has done for cattle feedlots in recent years.

# APPENDIX

1.	☐ Indivi☐ Partne☐ Famil	dual operation		)			
2.	During the past 10 years, has there been any change in ownership or top management of this operation? (Include changes into or out of a father-son partnership or from multiple to single ownership, etc.)  YES  NO (Skip to question 3)						
		explain					
	<ul><li>a. Manager</li><li>b. Labor?</li></ul>	ment?	provide half or more				
4.	Please indic by this open	ate for the year	rs listed below, the ap	pproximate annual marketing of hogs	_		
		HOGS MARKETED		Explanation of unusual changes			
	YEAR	Total Number	Percent farrowed in this operation	or shifts in marketings			
	1973				THE PERSON NAMED IN		
	1972						
	1971				_		
	1970						
Γ	1969						
	1968	*			_		
	1967						
	1966			·			
ſ	1965						

	Do you expect the proportion farrowed as compared to 1973 within the next five years?
	YES \( \square\) NO \( \square\) Skip to question 6.
	a. Will it be increased $\square$ ; or decreased $\square$ ?
	b. Why?
	Could you expand your level of marketings above 1973 without constructing more facilities?
	YES □ NO □
7.	a. What percentage changes in the volume of marketings as compared to 1973 do you expect for:
1\	This year (1974)
	In 5 years
5)	In 10 years
	b. What factors do you feel might interfere with your expansion plans?  (1)
	(4)
	(5)
8.	Of the feed grain utilized by hogs, how much is usually grown as a part of this farming operation? (Check one)
	a. Over 90 percent
	b. 51 - 90 percent
	d. Under 10 percent

9.	What percent of your 1973 total hog production costs were feed costs?%
10.	What percent of your 1973 marketings were by each of the following methods:
	a. Terminals
	b. Dealers (Local Hog Market & Packer Buying Station)
	c. Delivered direct to packing plant %
	d. Auction
	e. To other farmers %
	f. Other (Specify) %
	g. Total <u>100</u> %
11.	Of the 1973 marketings, what percent were sold:
	a. Under current sales? %
	b. Under forward contract? %
	c. Total %
12.	During the past two years, did this operation do any hedging of hogs or grain on the futures market? YES $\square$ NO $\square$
13.	Are you acquainted with any large hog operation(s) $(3000 + \text{head inventory})$ which, in the past 5 years, has quit production or has cut back to producing less than 2000 hogs?  YES $\square$ NO $\square$ - Go to Question 14.
	If Yes, may we have the name(s) and address(es).
No	w two questions about you as manager (owner).
	What is your age? yrs.
15.	How many years have you been raising hogs?

