Iowa and Regional Analysis of the Pork Industry

John D. Lawrence, associate professor; Marvin Hayenga, professor; Department of Economics
Glenn Grimes, professor emeritus, University of Missouri

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Summary and Implications

Based on a nationwide survey of pork producers, Iowa producers are competitive with and, in many cases, comparable to other Corn Belt pork producers. Although Iowa operations grew more rapidly from 1996 to 1998, producers actually plan to reduce numbers between 1998 and 2000. They are also less likely to produce at prices in the low $40s than other regions. Compared with other Corn Belt regions, Iowans use a similar amount of packer contracts, but favor a higher percentage of formula contracts over risk-sharing contracts. Iowa producers use marketing and pig-producing networks more than the national average, but use other types of networks less. One bright spot is that Iowa producers are younger than producers in other regions. There are still more producers over age 60, however, than there are under age 30 in the state.

Introduction

Over 8,300 U.S. pork producers were surveyed to examine regional differences in management and marketing practices. The responses from operations marketing fewer than 50,000 hogs annually were sorted by primary state of production. Approximately 145 operations marketing 50,000 or more hogs a year were included in the analysis but were not designated by state of production, as most were multistate operations. Employees and contract growers were excluded from the analysis to eliminate duplication.

Materials and Methods

The mailing list of *Pork* magazine was used to identify producers and categorize them by annual marketings. Two separate but nearly identical surveys were used to collect information from producers from February through May 1998. Approximately 145 operations marketing 50,000 or more hogs a year were contacted by telephone. If they confirmed that they marketed over 50,000 hogs annually, they were faxed a survey and returned it by fax. All 18 operations marketing 500,000 hogs a year or more participated in the study, as did 88 of the 127 operations marketing between 50,000 and 499,999 head annually. A random sample of operations marketing between 1,000 and 50,000 hogs annually by size category was mailed a survey and asked to complete it and return it in a self-addressed, stamped envelope. Approximately 25% of the mail surveys were returned. Employees and contract growers were excluded from the analysis to eliminate duplication.

Results and Discussion

Table 1 shows the survey response by region. Iowa was treated separately. The western Corn Belt, not including Iowa (WCB-IA), is comprised of Minnesota, Missouri, South Dakota, Nebraska, and Kansas. The eastern Corn Belt (ECB) is Wisconsin, Illinois, Indiana, Michigan, and Ohio. "Other" is all other states outside the Corn Belt.

Table 1. Regional surveys returned.

Region	Observations
Iowa	420
WCB-IA	375
ECB	427
Other	250
Nation	1,472
50–500	88
500+	18

Structure and planned growth. The average farm size of those responding to the survey is larger than the simple average obtained by taking a state or region's annual marketing and dividing it by the number of farms with hogs. These farms also are growing (Table 2). Iowa's farms were smaller than those in the other regions. Iowa operations grew rapidly in 1997 and 1998, but plan slower growth to the year 2000 (Table 3).

Table 2. Average annual marketings per farm by region.

Region	1996	1997	1998	2000
Iowa	3,512	3,860	4,736	5,549
WCB-IA	4,601	4,942	5,741	7,055
ECB	4,726	4,921	5,533	7,281
Other	5,493	6,001	6,619	8,910
Nation	4,457	4,777	5,518	6,942
50–500	113,276	133,860	169,649	281,951
500+	1,122,315	1,332,045	1,504,876	1,910,487

Table 3. Growth and planned growth in annual marketings per farm by region (%).

Region	1996–1997	1997–1998	1997–2000
Iowa	10	23	17
WCB-IA	7	16	23
ECB	4	12	32
Other	9	10	35
Nation	7	16	26
50–500	18	27	66
500+	19	13	27

Forecast profits are the largest limitation to further expansion in Iowa (Table 4); however, in the other regions, environmental regulations are as important as, or more important than profits. Iowa producers scored availability of employees, local opposition, environmental regulations, and fear of large producers as less of a limitation to expansion than the other regions, yet these producers planned less growth than the others.

Producers were asked to identify their minimum “stay-in” price, defined as the hog price they would need to stay in business for the next 3–5 years if the central Iowa corn price was $2.50 per bushel. Their response probably reflects their variable cost of production and their perceived opportunity cost for resources used in pork production. A smaller percentage of Iowa producers would stay in business at prices below $40 than in the other regions (Table 5). These differences begin to narrow at $40–42 and higher prices. In spite of the wider corn basis in Iowa compared with those of the ECB, Iowans would produce fewer hogs than the ECB at lower hog prices. Ninety-eight percent of the production from the over 500,000 head producers would continue at $43–45 but 10% of Iowa producers would exit.

Business Arrangements

The use of marketing contracts between producers and packers has grown rapidly in recent years, and Iowa is no exception. Forty-one percent of the Iowa hogs were marketed under a prearranged procurement agreement in 1997 (Table 6). That compares with 42% in WCB-IA, 35% in ECB and 75% in the other states. The higher degree of contracting outside the Corn Belt is probably a reflection of limited market access. Contracts are often needed to ensure “shackle space” in these regions. Most of the agreements in all regions and size groups are formula contracts. The cost-plus risk share contract is more common in WCB-IA than it is in other regions. The Window risk share is more common with the 50–500 thousand head producers. The over 500,000 producers use either formula contracts or “other” which is typically internal transfer prices for vertically integrated firms.

Producers marketing fewer than 50,000 hogs annually who were involved in marketing contracts were asked to score their experiences on a scale of 1 to 6 (Table 7). Increased prices were scored as the greatest advantages of the contracts, followed by reduced price risk. At first, these two responses appeared to be contradictory. The concept of insurance suggests that it costs something to reduce risk and you could not have both higher prices and less risk. This “best of both worlds” is possible if the risk share contracts are compared during a period of low prices such as the time when the survey was taken. Producers with risk share contracts were then receiving higher prices than the market, but they may have to pay back the difference between the market and contract prices in a period of higher market prices. Compared with the other regions, Iowa producers placed less importance on every issue than the other regions, although some of the differences may not be significant.

An estimated 57% of the 1997 marketings were sold under a packer contract, or by direct ownership and the use of marketing contracts. Estimates are that this number will be approximately 65% in 1998 and it will probably increase in the future (Table 8). Contracting is expected to increase more in Iowa than in other regions in 1998,and there is interest for additional contracts. Contracting in the WCB is

Table 4. Limitations on further expansion by region (6=greatly limits, 1=no effect).

Region	Facility Loans	Operating Loans	Good Employees	Local Opposition	Environ Regs	No one to take over	Market Access	Forecast Profits	Afraid of Big Farms
Iowa	3.33	3.02	2.95	2.84	3.57	2.80	2.91	4.18	2.80
WCB-IA	3.29	3.02	3.20	3.56	4.12	2.78	2.99	4.13	2.94
ECB	2.85	2.61	3.24	3.23	4.03	2.66	2.77	4.03	2.94
Other	3.10	2.87	3.27	3.34	4.23	2.78	3.43	4.10	2.96
Nation	3.15	2.88	3.15	3.22	3.95	2.75	2.97	4.11	2.90

Table 5. Prices needed to stay in business until the year 2002 ($2.50/bu. central Iowa corn price).

	Percent of Marketings by Region						
Region	$34-36	$37-39	$40-42	$43-45	$46-48	$48+	Quit
Iowa	7	23	32	22	7	2	1
WCB-IA	9	25	26	25	8	1	2
ECB	17	23	26	18	10	2	2
Other	6	20	27	13	7	3	0
Nation	10	23	28	20	8	2	1
50–500	6	15	40	35	5	0	0
500+	9	42	38	9	2	0	0

Table 6. U.S. hog marketings under a marketing contract in 1997 (%).

Region	Market Contract	Formula	Tied to Futures	Risk share Window	Risk share Cost+	Other
Iowa	41	26	6	2	5	2
WCB-IA	42	18	3	5	11	5
ECB	35	23	5	1	2	5
Other	75	39	13	3	6	14
Nation	49	27	6	3	7	5
50–500	82	57	3	13	3	5
500+	92	75	0	0	1	15

Table 7. Advantages and disadvantages of marketing contracts reported by producers with marketing contracts (6=very important, 1=not important at all).

Region	Access to Capital	Increased Price	Allowed for Expansion	Allowed in Business	Locked out of Higher Prices	Reduced Price Risk	Not Treated Fairly Packer
Iowa	2.80	4.05	2.57	2.84	2.46	3.28	1.96
WCB-IA	3.43	4.28	3.06	2.98	2.71	4.10	2.12
ECB	2.52	4.17	2.45	2.54	2.16	3.37	1.71
Other	3.60	3.91	3.24	3.95	2.67	3.58	2.34
Nation	3.05	4.13	2.79	2.96	2.50	3.60	2.00

more common than in the ECB, but less common than outside the Corn Belt where there are fewer hogs and fewer packers.

Networking continues to gain popularity among producers. Including the over 50,000 head producers, it is estimated that nearly one-fourth of all hogs are produced by those involved in networking of some type. Marketing, information sharing, and pig production networks are the most common, but there are some regional differences (Table 9). In general, Iowa producers are less involved in networking than producers in other regions.

One form of network is genetic networking such as with boar studs. An increasing number of pigs are sired by artificial insemination (AI). In 1997, 47% of U.S. marketings were sired by AI and it will increase in 1998. In general, larger producers use AI more than smaller producers. Regionally, the WCB has greater usage of AI than other regions (Table 10).

Iowa producers are slightly younger than producers in other regions. Although relatively few producers in any regions were 30 or younger, Iowa had fewer producers over 50 and more producers between 31 and 40 (Table 11).

Table 8. Marketings contracted in 1997 and 1998, and potential interest by size group (%).

Region	1997	1998	Not Currently but Interested
Iowa	41	46	57
WCB-IA	42	48	60
ECB	35	34	55
Other	75	75	63
Nation	49	52	58
50–500	82	NA	NA
500+	92	NA	NA

Table 9. Hogs produced by operations involved in a network by type and size (%).

	Type of Network							
Region	Inputs	Feed Mill	Market	Information	Genetic	Far-Fin	Pigs	Other
Iowa	8	4	18	9	9	5	14	1
WCB-IA	11	7	20	16	10	11	22	1
ECB	19	5	17	15	17	8	8	2
Other	6	12	12	12	8	6	9	1
Nation	12	7	17	13	11	8	13	1

Table 10. Litters sired by AI by region (%).

Region	1997	1998
Iowa	16	19
WCB-IA	23	26
ECB	18	21
Other	12	16
Nation	18	21
50–500	72	
500+	84	

Table 11. Age distribution of pork producer.

Age	Iowa	WCB-IA	ECB	Other	Nation
30 or less	6	6	7	3	6
31–40	31	27	23	28	27
41–50	35	34	34	33	34
51–60	20	23	21	23	22
Over 60	7	10	15	13	11

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