

PURDUE AGRICULTURAL ECONOMICS REPORT

MARCH 1993

Cost Structure and Control: The Dominant Issues in Farm Management

Michael Boehlje, Professor

Many farmers and analysts have spent considerable time, money, and energy on policy concerns and marketing strategies for farmers, and time spent on these areas can be financially rewarding. But the importance of cost and cost structure on bottom line performance should be the manager's primary concern. This discussion will emphasize the importance of a fundamental and essential understanding of how costs affect profitability and detail the management strategies to enhance profitability.

Agriculture is essentially a commodity business where product differentiation is not impossible, and difficult. Porter's discussion of competitive strategy indicates that there are three fundamental approaches to acquiring a sustainable competitive advantage: a cost leadership approach, a product differentiation approach, and a focus or specialization approach (Porter). Because of the commodity nature of agriculture, the differentiation strategy is difficult to implement. Consequently, most farms must develop a competitive advantage through cost leadership or focused specialization; even specialization will not be an effective long-term strategy if costs are not competitive. It may not be too strong

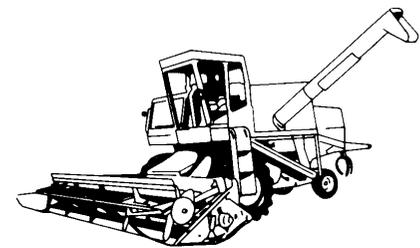
a statement to conclude that, because agriculture is a commodity business, the low-cost producer will be the survivor.

Although such a conclusion may be accurate and useful, it does not go far enough in assessing how costs and cost structure affect management strategies. In contrast to many manufacturing and nonfarm businesses, the cost structure in production agriculture is characterized by a relatively large proportion of total costs that are fixed and a low proportion that are variable. Fixed costs do not vary with output and are commonly defined to include depreciation, interest, insurance, and taxes. These costs are incurred whether or not a crop is planted (the costs are sunk) whereas variable costs will increase or decrease as a function of output. Land rent may present a special case; with cash rentals the rent payment is obligated for the season and payable irrespective of output, so it is a fixed cost. With share rentals, the rental payment does adjust with the amount of output produced, so it is a variable cost. The length of lease may also affect its fixity, although the rental market is sufficiently thin that it is difficult for a producer to be "in and out" of that market, so many leases are in

reality long-term in nature and the lease payments are a fixed cost.

The cost structure has significant and powerful implications for management decisions in production agriculture.

(1) The first implication of the high-fixed-cost structure of production agriculture is that plant "shut-down" decisions are much less responsive to price decreases than in most industries. For example, in the automobile manufacturing business, where a large proportion of the total cost of production is variable, modest declines in automobile prices will result in shut-down of the factory because prices won't cover variable costs. Recall that in the short-run, the plant shut-down decision occurs when prices or revenues do not cover variable costs; fixed costs and total costs are irrelevant in the plant shut-down decision. In contrast,



with a much smaller proportion of total cost being variable, as is the case in production agriculture, prices and revenues will decline substantially more before plant shut-down occurs. Consequently, farmers are more inclined to produce themselves into a surplus situation than are their counterparts in the manufacturing sector.

(2) A second implication is that traditional "cost control" strategies are less effective in a high-fixed-cost industry. If a large proportion of the costs are fixed, traditional strategies that by their very nature focus on variable costs have less potential impact because variable costs are a lower proportion of the total cost. Cost control in production agriculture should focus on fixed costs not only because they are a larger proportion of the total, but also because there is typically substantial variation in fixed costs between high- and low-profit farms, and thus significant opportunity to affect profitability.

(3) In a high-fixed-cost industry, fixed asset utilization is critical, because fixed assets are the basic source of fixed costs. This is particu-

larly the case for producers under financial stress. For most producers in financial trouble, the problem is excessive fixed costs rather than variable costs such as seed, fertilizer, chemicals, or feed. And excessive fixed costs are reduced in only two ways, either 1) selling or disposing of the fixed assets that are resulting in the fixed costs, or 2) increasing through-put (increased volume with the same asset base) to spread the fixed costs over more output. Though-put can be increased by tighter scheduling of building use using flow scheduling techniques, operating machinery and equipment more hours per day or days per year, by custom operations, or renting land, etc. Traditional cost containment strategies are generally ineffective for many firms under financial stress because the cause of that stress is excessive fixed costs, not excessive variable costs.

(4) Cost structure also affects the sensitivity or responsiveness of profitability to sales volume and level. Figure 1 illustrates the implications of different cost structures for a business venture. To make the analysis easier to understand, it is assumed that *total costs* for Firm A and Firm B are both equal to *total revenue* at the same break-even level of sales. Note the significantly greater change in profit and loss angle as one deviates from the point of break-even sales volume when fixed costs comprise a higher proportion of total costs (Firm A), compared to the narrow profit and loss angle when variable costs dominate the cost structure (Firm B). Sales volume above the break-even level has a much larger impact on profits for the high-fixed-cost firm (Firm A), compared to the low-fixed-cost firm (Firm B), and likewise volume below break-even results in a larger loss. Consequently, maintaining volume above break-even has a much higher payoff for the high-fixed-cost firm, and volume below break-even results in more risk of loss. In essence, the low-fixed-cost firm is not hurt as much by volume declines, nor does it benefit as much from volume increases — there is a

higher payoff for a firm like this to emphasize cost control rather than volume to increase profits. For the high-fixed-cost firm, volume is paramount.

(5) A high-fixed-cost firm is less flexible — less adaptable. It is more difficult for such a firm to respond to changing economic conditions, adjust to new market realities, or adopt new technologies and ways of doing business. With the rapid change occurring in production agriculture, a firm that has more capacity to respond to that change, to adapt, and to be flexible has a higher chance of surviving. The challenge becomes flexibility at what cost? If flexibility results in inefficiency and high costs — it may not be worth the "price" that is being paid.

High-fixed-costs result in high risk (particularly if those fixed costs are also cash costs) and reduced flexibility, so one strategy that should be considered to reduce risk for firms with high-fixed-costs is to convert fixed costs into variable costs. Such conversion is difficult in production agriculture, but not impossible. Most of the fixed costs in agriculture are a result of strategies to obtain the use of fixed assets such as machinery, equipment, real estate, and facilities through ownership. Obtaining the use of these same resources through such arrangements as leasing, rental, custom farming, etc., or other contract-for-services strategies (i.e., custom feeding in a commercial feedlot) will convert fixed costs to variable costs. Clearly, this conversion should not be done without evaluating the implications for quality and availability of the service and the comparative cost of obtaining the service/resource with various strategies.

(6) A high-fixed-cost industry is also an industry with a high "entry fee." This means it is more difficult for new entrants to acquire the resources and financial backing to enter the industry, which is certainly the case in agriculture. In a market with few producers who are producing differentiated products, a

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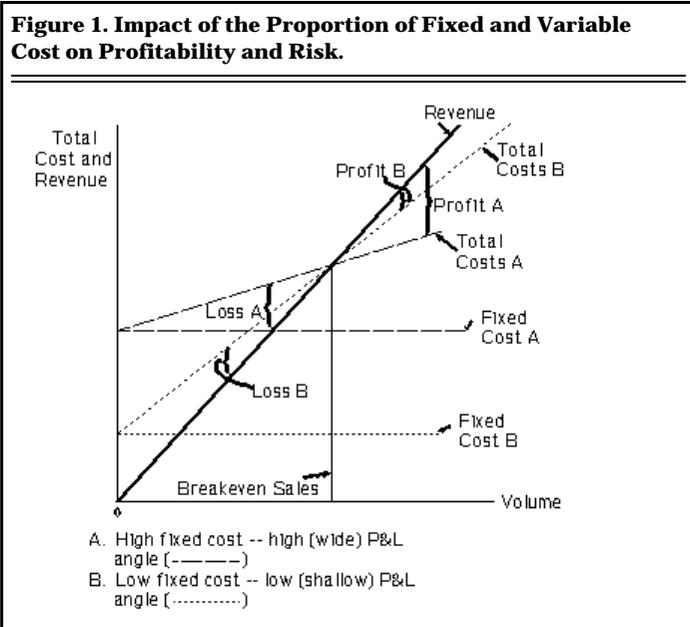
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high “entry fee” would also provide some protection from competitors who are less likely to enter and take market share. Thus, there is generally less competition and lower risk of losing market position, power, or share if the “entry fee” is high because of the dominance of fixed cost. But in agriculture, which is a commodity business (i.e., little product differentiation) with a number of producers worldwide, this argument doesn’t apply.

(7) Finally, as reflected in Figure 1, in a high-fixed-cost industry with a high profit and loss angle, increasing revenues by increasing product price has an identical absolute but smaller relative or percentage impact on profitability for a given level of sales. Similarly, a decline in product price because of a less effective marketing strategy and/or price discounts results in the same absolute but smaller relative decline in profitability for a high-fixed-cost industry. Consequently, relative to other means of enhancing profit margins such as increasing efficiency or reducing costs, price enhancement is less critical for the high-fixed-cost firm and more critical for the low-fixed-cost firm. In fact, for a low-fixed-cost firm, a significant decline in prices or price discounting to maintain market share can quickly result in losses and financial failure. Price declines or discounts are relatively less painful for a high-fixed-cost firm.

In summary, the cost structure in agriculture has significant and powerful implications for management decisions. As indicated in Figure 2, the high-fixed-cost structure of the industry affects cost control strategies, pricing decisions, and risks, and reinforces the critical nature of maintaining through-put. The cost structure also has policy implications — a high-fixed-cost industry will tend to overproduce and frequently will need some form of output control by an industry group or the government to maintain industry stability.

Figure 2. Characteristics, Consequences, and Management Strategies for a High-Fixed-Cost Firm.

Characteristic	Consequence/Management Strategy
Output adjustments are less responsive to price reductions.	Industry tends to overproduce. Output control by industry group or government may be essential for industry stability.
Reducing variable cost has relatively small impact on profit or loss.	Traditional cost control strategies are relatively ineffective. Focus should be on fixed costs.
Reducing fixed cost has a relatively large impact on profit or loss.	Fixed cost control is critical to profitability. Average fixed costs can be reduced by increasing through-put or selling fixed assets.
Sales above (below) break-even have large impact on profit or loss.	Maintaining or increasing output or sales is critical. Sales below break-even results in high risk of failure.
Flexibility and adaptability are reduced.	Flexibility can be increased and risks reduced by converting fixed costs to variable costs.
Entry Fees are high.	Fewer new entrants; less competition.
Price impacts have relatively small impact on profit or loss.	Marketing strategies should receive less emphasis than fixed cost control and maintaining/expanding output or sales.

Government Program Decisions for 1993

Chris Hurt, Don Pershing, Lee Schrader, and Bob Jones, Extension Economists

Program Provisions

The 1993 government program is similar to last year's, but some key provisions, which may alter some farmers' decisions, have changed. The set-aside level is 10% for corn, compared to 5% last year. Wheat has a zero set-aside requirement, compared to 5% last year. The wheat loan rate is \$2.45 per bushel this year, up from \$2.21 last year, while the corn loan rate is unchanged at \$1.72. Target prices remain at \$2.75 per bushel for corn and \$4.00 for wheat.

Compared to the 1992 program, the increased corn set-aside reduces the incentive to be in the 1993 program. However, lower market prices anticipated for the 1993 crop favor program participation. The government program is designed to protect farmers from low-price years like those in 1992 and, as it now appears, 1993.

Again for 1993, corn and wheat programs allow for alternative crops on 15% Normal Flex Acres (NFA) and 10% Optional Flex Acres (OFA). Since crops on the NFA do not receive deficiency payments, farmers will want to plant their most profitable crop with no government payments to those acres.

The program crop is usually the most profitable on OFA acres. Each

OFA acre of corn base planted to corn receives a deficiency payment, but if it is planted to any other crop, the corn deficiency payment is not paid. In a similar manner, if the wheat OFA is planted to wheat, it receives the wheat deficiency payment, but if it is planted to any other crop it does not.

County Extension Ag Agents have worksheets and a computer program "1993 Crop Program Analysis," available to evaluate farmer participation. This program identifies the highest return crops for each acre in the farm, including the NFA and the OFA acres. Worksheets and the computer program can be used to evaluate returns to operations under both the corn and the wheat programs. The following observations are based on returns above direct costs per acre using direct costs from Purdue 1993 crop budgets.

Observations on the 1993 Program

Returns in the 1993 corn program are about \$33 per acre higher than out of the program for average quality Indiana land and anticipated new crop prices. It would take a price of about \$2.45 for corn out of the program to match the return over variable costs for corn in the program, given a harvest price of \$2.20 and a national average price of \$2.15. If the price available to the farm is higher relative to the

national average that determines the deficiency payment, as might be expected near the river markets, an even higher price would be needed to equal returns in the program.

Soybeans must be near \$6 per bushel to be as profitable as rotation corn on corn NFA acres. If a portion of the corn base is in continuous corn, lower yields and higher direct costs for corn favor soybeans on NFA at a lower price. Our analysis suggests that soybeans will compete well with continuous corn on NFA corn base acres. Soybeans are not likely to compete with corn on corn OFA acres because of the sacrifice of deficiency payments.

Participation in the wheat program should be strongly considered, since the set-aside is 0% and the \$4 per bushel target is nearly \$1 higher than anticipated harvest prices.

On single crop wheat, plant corn on wheat NFA, except for low-quality land or where wheat was already seeded in the fall of 1992. In areas of the state where double crop is practical, no single crop competes effectively with double cropping beans after wheat.

Use of the 0-92 option (zero planting for 92 percent of the deficiency payment) is unlikely to be the most profitable option except in very unusual circumstances.

Records Show Large Farm Income Differences

Don Pershing, Extension Economist

Analysis of Indiana farm records reveals a huge difference between the high-earning half and the low-earning half of the 101 Indiana farms who participated in the Purdue

Comparative Farm Business Summary for 1991. While the farms were not representative of all farms in Indiana, the income difference among similarly sized farms is an indication of differences in

production, marketing, and financial performance among farm managers.

Returns to labor, management, and equity averaged \$63,234 for the high-profit half compared to \$4,121 for the low-profit half. Allowing for a

6 percent return on their equity, the high-profit half had labor and management earnings of \$33,814, compared to -\$24,074 for the low-profit half. The return to total farm investment (return over the value of labor and management plus interest paid) for the high-profit half was 7 percent compared to -1 percent for the low-profit half. The high-profit half had 19 cents from each dollar of value of production to pay interest on borrowed money, reduce debt, and build up investments, compared to -4 cents for the low-profit half. Lower labor productivity on the low-profit farms appears to be a significant factor in the lower returns to this group. Part of the wide differences observed in 1991 may also reflect the wider than usual variation in crop yields that year.

The following results can be used as a benchmark to evaluate a farm business's performance. If the farm's financial performance resembles that of the lower half, some corrective actions may be needed. Just as tests for blood pressure and cholesterol may serve as a benchmark of a person's health, these financial measures indicate the health of the farm business.

For a financial analysis of a farm business, see your County Extension Ag Agent to learn what information is needed. Ag Agents can arrange to use the computer programs FINAN or FINANX to analyze the farm business. Farm operators can learn what these factors mean and how to use them to improve the farm business. Further information on the 1991 farm records analysis is available in the *1991 Farm Business Summary* (EC-666) at your local Purdue Cooperative Extension office.

Farm earnings also vary from one year to another. The following table shows the average data for the past three years. Dry weather and lower livestock prices account for much of the decrease in earnings in 1991. Since weather conditions did not affect all farms equally, variations beyond the control of the farm manager should be considered in using these data.

Indiana Farm Business Summary 1991			
	Average	Low Profit	High Profit
Number of Farms	101	50	51
Average Farm Investment	\$676,913	\$634,871	\$718,131
Average Farm Debt	29%	27%	32%
Total Crop Acres	724	680	767
% of Crop Acres Owned	35%	37%	34%
Estimated Months of Labor per Farm	28.8	31.7	25.8
Value of Farm Production	\$246,960	\$215,023	\$278,271
Value of Farm Production per Person	\$102,900	\$81,500	\$129,400
Expense as a % of Income	79%	89%	71%
Net Profit Margin (Returns as a % of Production)	9%	-4%	19%
Rate Earned on Investment	3%	-1%	7%
Farm Profit (or Loss)	\$33,970	\$ 4,121	\$63,234
Labor and Management Earnings	\$ 5,157	-\$24,074	\$33,814

Indiana Farm Business Summaries for 1989 to 1991			
	1989	1990	1991
Number of Farms	85	94	101
Crop Acres Owned	256	245	257
Crop Acres Cash Rented	210	177	198
Crop Acres Share Rented	325	286	269
Total Crop Acres Per Farm	791	708	724
Average Farm Investment	\$817,797	\$717,427	\$676,913
Value of Farm Production	\$319,893	\$277,532	\$246,960
Value of FP per Person	\$123,000	\$119,600	\$102,900
Net Profit Margin	15%	20%	9%
Asset Turnover Ratio	39%	39%	36%
Expense as % of Income	76%	72%	79%
Gross Cash Farm Income	\$317,925	\$288,748	\$258,664
Total Cash Farm Expense	\$244,692	\$223,232	\$199,664
Total Inventory Change	\$ 6,784	\$ 19,185	-\$ 5,088
Total Depr. & Cap. Adj.	-\$ 29,075	-\$ 21,577	-\$ 19,942
Farm Profit	\$ 50,943	\$ 63,124	\$ 33,970
Labor and Mgt. Earnings	\$ 19,591	\$ 34,825	\$ 5,157
Rate Earned on Investment	6%	8%	3%
Interest Paid as % of:			
Gross Cash Income	9.0%	7.0%	7.0%
Total Cash Expense	11.0%	9.0%	8.5%
Percent Debt	36.0%	34.0%	29.0%
Change in Net Worth	\$ 42,068	\$ 40,353	\$ 2,892
Yield per Acre - Corn	147	131	103
- Soybeans	41	44	44
Total Persons per farm	2.6	2.3	2.4

Sources of Information For Large Cornbelt Farmers

Gerald F. Ortmann, Associate Professor, University of Natal, South Africa; George F. Patrick, Professor, Purdue University; Wesley N. Musser, Professor, Pennsylvania State University; D. Howard Doster, Associate Professor, Purdue University.

Farmers' demand for information has increased in recent years with increased market instability, more complex production technologies, and greater need for financial planning and control. A variety of sources, including consultants in various areas, have the potential to be providers of information on production practices, marketing strategies, and financial analysis.

This article reports on a survey of participants in the 1991 Top Farmer Crop Workshop that obtained estimates of expenditures on and subjective ratings of various information sources including consultants. The Top Farmer Crop Workshop is a three-day program which provides an update on crop economics and production technology as well as allowing participants to analyze alternative technologies using a linear programming model of their own farm. A questionnaire was mailed to participants about three weeks before the 1991 Workshop and participants were asked to bring the completed questionnaires to the Workshop. Eighty usable questionnaires were received.

Respondents were from eight states, with 48 percent from Indiana, 26 percent from Illinois, 14 percent from Ohio, and six percent from Iowa. The remaining farmers were from Missouri, Kentucky, Minnesota, and Pennsylvania. The average farmer operated 1,820 acres with 850 acres in corn and 652 acres in soybeans. These crops represented about 73.6 percent of the 1990 gross farm income. Only 23 percent of the farms had gross sales of less than \$250,000 and 35 percent exceeded \$500,000. The average age of the respondents was 39.7 years and they had completed an average of 14.9 years of schooling. Participants in the Workshop were

younger, had more years of schooling, and operated larger farms than the average farmer in the eastern cornbelt.

Workshop participants were requested to provide the annual out-of-pocket costs for each information source. The various sources of information and the average annual cash costs of each are reported in Table 1.

Respondents had a wide range of expenditures on information sources. Because these are cash costs, they do not include the opportunity cost of a farmer's time to acquire the information. On average,

the respondents spent \$2,578 per year on information. The range was from \$48 to \$13,565, with a median of \$1,625. The average expenditure is more than ten times the \$217 spent by a sample of Ohio fruit producers in 1987. However, the substantial difference may be due, in part, to the procedure used to obtain the cost information. In this study, the cost of each information source was requested separately, a process which is likely to encourage recall of all expenditures.

Expenditures for farm magazines and agricultural newspapers and

Table 1. Average Annual Cash Costs of Various Sources of Information.

Sources of Information	Average Annual Costs		
	Respondents using this source ¹	All respondents completing question ²	Range
	(N = 70)		
	\$	\$	\$
Farm magazines	83 (66)	78	0-300
Agric. newspapers and newsletters	136 (57)	111	0-1279
Radio and television reports	46 (3)	2	0-102
Own farm records/budgets	809 (36)	416	0-5000 ³
County extension agent	10 (1)	0	0-10
University specialists	166 (5)	12	0-300
Field days/conferences	322 (30)	138	0-2200
Salesmen	50 (1)	1	0-50
Tax preparer/accountant	698 (43)	429	0-2000
Computerized information services (e.g., ACRES, COMPUSERVE, DTN)	358 (49)	251	0-2000
Consultants			
- marketing services	755 (33)	356	0-4000
- scouting services	1656 (14)	331	0-6000
- soil fertility	1070 (22)	336	0-4000
- management services	1246 (6)	107	0-5000
Lenders (e.g., banks, FCS)	50 (1)	1	0-50
Other - weather information	600 (1)	9	0-600
Total		2,578	48-13,565

1 Figures in parentheses are number of farmers who reported use of this source.

2 A total of 70 farmers reported costs for at least some of the sources.

3 The wide cost range may indicate that some farmers included the investment cost of a microcomputer, wages of the farm computer operator, and/or the cost of commercial recordkeeping.

newsletters were reported by the largest number of farmers, 94 and 81 percent, respectively, of the 70 responding to the question. However, consultants, including tax preparers, accounted for a large proportion (60 percent on average) of total information costs. Some 70 percent of those responding used computerized information services at an average cost of \$251.

Workshop participants were also asked to rate the value of various sources of information for making production, marketing, and financial decisions with scales ranging from one (low) to five (high).

The average ratings by respondents of various sources of information for making production, marketing and financial decisions are reported in Table 2. Their own farm records/budgets were given the highest rating (4.52) for production decisions, which also was the case for marketing (3.83) and financial (4.57) decisions. These farmers clearly rely heavily on their farm records and budgets for making decisions.

For production decisions, eight other sources of information were also rated above 3.00. The most highly ranked include soil fertility consultants (3.79), the farm's work force (3.60), university specialists (3.54) and field days/conferences (3.45). County extension agents and salesmen were rated relatively low, 2.53 and 2.42, respectively. The number of highly rated information sources may reflect the complexity of the production decisions. Soil fertility, chemical use, tillage, varietal selection, machinery selection, and enterprise combination are some of the concerns in this area.

For marketing decisions, relatively few information sources were rated highly, and ratings were generally lower than for production decisions. Farm records/budgets were rated highest (3.83), followed by computerized information services (3.63) and marketing services consultants (3.44). All other information sources had ratings of less than 3.00, with agricultural newspapers and newsletters at 2.94, and university specialists at 2.74.

Marketing decisions for commodities such as corn and soybeans are, in large part, decisions involving timing. Fewer alternatives may be considered in the marketing area than in the production area. In addition, the respondents rated their marketing management skills lower than their other management skills, thus they may perceive smaller benefits from marketing information. Only a few of the information sources considered are viewed as potentially useful for marketing decisions, and apparently they do not provide critical information for farmers.

For financial decisions, only three sources of information were rated above 3.00. Their own farm records/budgets were rated highest (4.56), followed by the tax preparer/accountant (3.80) and lenders (3.16). Perhaps even to a greater degree than for marketing, farm finance decisions involve judgments with respect to the future. The sources of information rated highly in making financial decisions

provide largely historical information that may be useful in helping farmers evaluate their current situations. As a result, most of the information sources considered in this study are conceivably not viewed as especially useful for financial decisions.

These results are somewhat different from those reported by earlier studies of all farmers. A study of Ohio farmers found that salesmen were ranked first for production information, followed by general farm magazines, specialized farm magazines, and the Cooperative Extension Service. For marketing information, radio reports were ranked highest, followed by general farm magazines, commercial newsletters, and specialized farm magazines. Brokerage firms, lenders, tax preparers, and accountants did not have a major influence on marketing decisions of cash grain farmers. The lender was ranked as the most useful source of financial information, followed by the accountant, tax

Table 2. Average Ratings of Various Sources of Information.

Sources of Information	Average Ratings ⁴ for		
	Production Decisions	Marketing Decisions	Financial Decisions
Farm magazines	3.23	2.39	2.33
Agric. newspapers and newsletters	3.24	2.94	2.46
Radio and television reports	2.09	2.35	1.78
Own farm records/budgets	4.52 (1) ⁵	3.83 (1)	4.56 (1)
County extension agent	2.53	1.72	1.94
University specialists	3.54 (4)	2.74	2.66
Field days/conferences	3.45 (5)	2.37	2.35
Salesmen	2.42	1.50	1.35
Other farmers	3.10	2.14	1.96
Your farm's work force	3.60 (3)	2.23	2.51
Tax preparer/accountant	2.87	1.95	3.80 (2)
Computerized information services (e.g., ACRES, COMPUSERVE, DTN)	3.17	3.63 (2)	2.46
Consultants			
- marketing services	2.90	3.44 (3)	2.33
- scouting services	2.67	1.47	1.52
- soil fertility	3.79 (2)	1.74	1.78
- management services	2.32	1.83	2.02
Lenders (e.g., banks, FCS)	2.03	1.69	3.16 (3)

⁴ Where 1 = low value, 5 = high value. The average ratings include only those farmers who responded to the question.

⁵ Figures in parentheses show the rank of the highest rated sources.

preparer, and general farm magazines. In general, "other farmers" were rated highly. Their own records/budgets were not included as a source of information in this study.

A study of Indiana, Illinois, Iowa, and Georgia farmers indicated that farm magazines, other farmers, and family and friends had the overall highest ratings as information sources. Private and cooperative firms were the primary sources of information for the sales of farm commodities and input purchases. Family and friends were most important in cropping decisions, while lenders were most important for investment and credit decisions. They also found county extension personnel relatively unimportant, except for Conservation Reserve bid decisions.

Differences between the Top Farmer Workshop survey and other studies are probably related to the size of farm operations and the educational level of the farmers. Larger farm operations would be able to spread the costs of obtaining information across more units of production. Consultants received high ratings in this study. This specialized management information that might not be available from other farmers, personnel in agribusiness firms and general farm magazines would have a higher return for these farmers because the scale of their production. The higher educational level of these farmers would facilitate their use of this more specialized information.

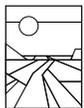
Farm Management Tour

The 1993 Indiana Farm Management Tour is set for Tuesday June 29 and Wednesday June 30 in Boone, Clinton, Tippecanoe, and Montgomery Counties. The tour will feature six outstanding farm operations and a panel of hog producers discussing ways to stay competitive in the rapidly changing swine business.

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