

Farm Business Management

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Assessments of agricultural resources typically focus on natural resources (like land and water) and physical inputs (like fertilizer and pesticides). Assessments of farm diversity commonly focus on aspects of farm structure (like output and organization) and farm household characteristics (like farm and off-farm sources of income and wealth). Relatively unexplored are farms' management resources, which are a key input into agricultural production in their own right and also help shape decisions about the availability and use of other resources, including land and water. This chapter examines the wide range of stakeholders who control farm resources and influence management decisions about agricultural resource use.

Introduction

This chapter examines the management structure of farms to ascertain who controls the use of farm assets, including land and water. Management units that make decisions for farms are described, extending information about how farmers control and guide their businesses. The chapter also examines decisions of farmers from the perspective of how production, marketing, finance, and human resources are used to form farm businesses.

Characteristics of Farm Businesses' Managers

A farm's management unit consists of the individual or group responsible for decisions about how a farm will be operated. How a farm is legally organized is often viewed as being the same as its management. A proprietor makes decisions for proprietorships, partners for partnerships, and elected directors and officers for corporate farms. However, a farm's management unit may not be synonymous with its ownership. For example, land owners may or may not participate in management decisions. The Census of Agriculture reported in 1999 that 14 percent of landlords either made or shared in decisions related to selection of fertilizer and chemicals, while 13 percent helped decide cultivation practices (USDA, 1999).

Legal organization, while helpful in indicating a farm's governance structure, may not reveal who participates in farm management. Even on proprietor farms, more than one person may participate in management decisions (see box, "Farm Business Management"). Of the 2.1 million U.S. farms reported by the Census of Agriculture, over 121,000 reported three or more operators (USDA, 2004). Together, farms reported 2.7 million operators. In 2003, the primary operator made crop decisions on 52 percent of farms, two

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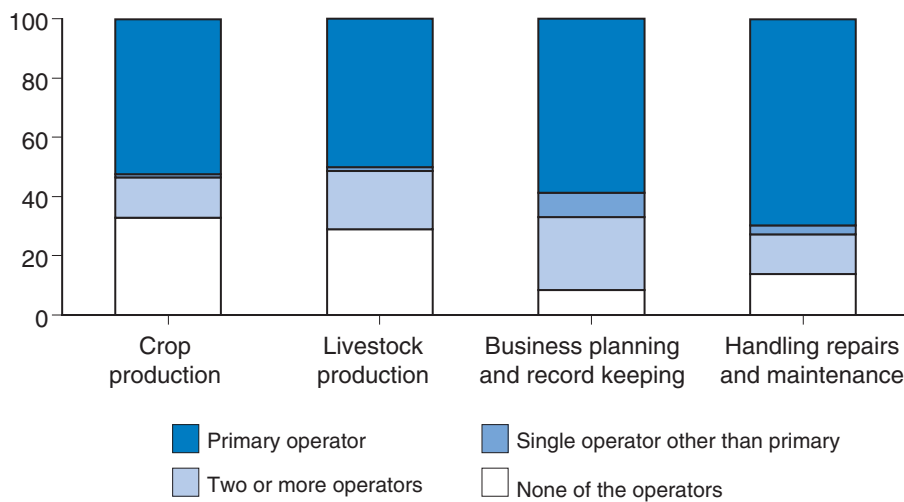
operators made joint decisions on 12 percent of farms, and a third operator was involved on 1.3 percent of farms (fig. 4.1.1). For the remaining 33 percent of farms, crop production was likely not a part of production activities. In the last decade, involvement by persons other than the primary operator has remained an important aspect of farm management.

Operator and operator-spouse management teams controlled 59 percent of farms in 2003. When paid or informal advisors are considered, the share rises to 89 percent (table 4.1.1). These farms were, by far, the smallest in terms of acreage and value of production. Management that featured more than two people or outside hired/informal assistance operated larger busi-

Figure 4.1.1

Participation in farm management decisions by operators of farms, 2003

Percent of farms



Source: 2003 Agricultural Resource Management Survey.

Table 4.1.1

Characteristics of operators and distribution of farms by management unit, 2003

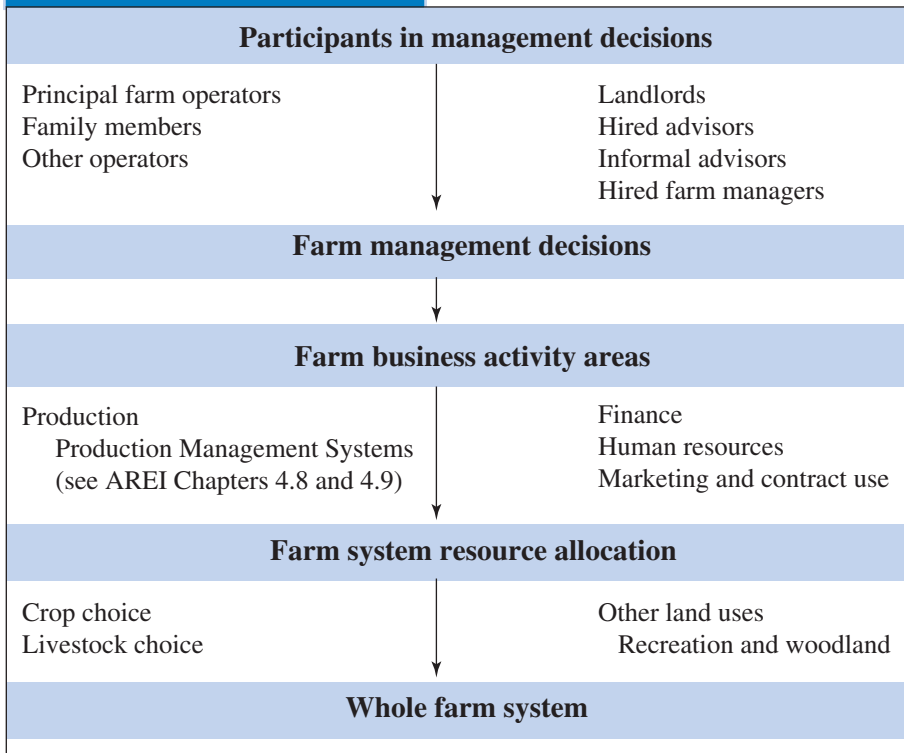
Item	Operator only	Operator with spouse and/or advisors	Multiple operators	Hired managers	All
Number of farms	773,769	1,076,427	212,773	18,515	2,081,483
Percent of farms	37.2	51.8	10.2	0.9	100.0
Percent of acres operated	16.7	48.7	31.4	3.3	100.0
Percent of production value	14.3	45.2	34.6	5.9	100.0
Average age of operators	57.4	54.9	54.2	56.2	55.8
Primary operators with college (percent)					
Some college	21.4	25.9	28.9	na	24.4
Completed college (BA, BS)	11.1	14.6	15.6	na	13.5
Graduate school	5.8	*6.2	na	na	6.0
Primary operator's major occupation (percent)					
Farm or ranch work	29.1	40.3	48.5	*70.3	37.3
Retired, but still farming	25.3	14.0	*13.4	na	18.1
Work other than farming/ranching	45.6	45.7	*38.2	na	44.6

*Indicates that CV (Coefficient of Variation=(Standard Error/Estimate)*100) is greater than 25 and less than or equal to 50.

na indicates value is not available due to no observations, an undefined statistic, or reliability concerns. Rounded percents may not add to 100.

Source: 2003 USDA Agricultural Resource Management Survey

Farm Business Management



nesses. Nearly a third of these farms were commercial farms, versus about 3 percent for operator-only units and 7 percent overall. Each management structure that included outside advisors represented a disproportionate share of commercial-size farms.

Operator-only management units had the highest average age, nearly 2 years older than the average for all primary operators. Primary operators in multiple-operator management units were youngest, age 54 on average. Primary operators that used outside assistance had the largest share of college-level attainments. This group was followed by multiple-operator teams and operators in operator-only units.

Farms managed by operators only or by a combination of operators and spouses were more common in the Eastern Uplands, Southern Seaboard, and Mississippi Portal. These regions have a larger share of smaller farms run by operators who work off-farm. Farms run by multiple-operator teams and that used outside assistance were more common in the Heartland, Northern Crescent, Northern Plains, Fruitful Rim, and Basin and Range. Multiple operators were more common on farms that specialized in cash grains and soybeans, high-value crops, and dairy.

Farm Business Management Entails a Host of Choices

Managers of farm businesses make choices about inputs and their use in producing crops, livestock, or other products and services. Production decisions focus on whether to produce crops, livestock, both, or nothing (for example, by placing land in conservation). Financial decisions center on

acquiring and maximizing the use of inputs. Do managers have sufficient funds to buy inputs like seed or fertilizer (short-term decisions) or invest in capital items like equipment? If not, is borrowing warranted?

Marketing options range from cash markets to contracts to direct sales (farmers' markets, the Internet, wholesale/retail buyers, or livestock producers.)

Human resource issues include the amount and timing of labor needed to undertake production. In 2003, 45 percent of operators reported their primary occupation as other than farming. An even larger share worked off-farm. Thus, work arrangements vary from self-sufficiency to inclusion of household members, other operators, and a variety of custom hire (person and machine), contract (crew leader), and hired workers. Farmers may even work off-farm and hire someone else to do farm work.

Classifying Farm Business Systems

The result of all the choices across all these business concerns is a highly diverse farm sector. Some farms amount to a single individual supplying all labor to produce one, or maybe even no commodities, with cash sales, and without debt. Other farms produce multiple commodities, market to various outlets, use a variety of labor sources, and take on debt from multiple lenders structured for different periods of maturation.

One way to overcome this complexity empirically is to devise a classification system that jointly considers management choices. To develop the farm business system classification, each of four business areas—production, finance, human resources, and marketing/contract use—was measured as a dichotomous variable (see box, “Classifying Farm Businesses”). For example, farms producing 2 or fewer commodities were assigned a score of zero, while those with 3 or more commodities were given a score of 1. The same scoring convention was used for debt, hired labor, and cash sales versus production or marketing contracts. By equally weighting each of the four business activity areas, a total score ranging from 0 to 1 was calculated to reflect the overall complexity of the operation. For example, a score of 0 indicates a farm having two or fewer commodities, no debt, operator/family labor only, and cash sales.

The scale was used to classify five groups of farms ranging from least (score of 0) to most complex organization (score of 1) based on use of business practices and arrangements. Farms are not distributed equally among the groups. Group 1, for example, accounted for 31 percent of farms in 2003, while Group 5 accounted for 3 percent (table 4.1.2).

Characteristics of Farm Business Systems

The 31 percent of farms with the least complex farm business system controlled 11 percent of acres operated and generated less than 3 percent of production value in 2003. Over 85 percent of these farms are rural residences and the rest almost entirely intermediate farms (sales below \$250,000 and the operator reports farming as his or her major occupation). Over 98 percent had sales of less than \$100,000. These farms specialized in production of field

crops other than cash grains or soybeans, beef cattle and general livestock. Operator and operator-spouses managed three-fourths of the least complex farms (table 4.1.3). They had the highest average operator age and the largest share of primary operators over age 65 years (32 percent). Over 80 percent considered their primary occupation to be off-farm and almost 29 percent were retired. This helps explain the 890 hours worked onfarm by the operator, well below the all-farm average of 1,393 hours.

The most complex farms controlled 8 percent of acres and generated 18 percent of value of production in 2003. Farms in this group were mostly commercial. Over 27 percent had over \$500,000 or more in sales (versus 3 percent of all farms). The most complex farms had a much larger share of management teams that included multiple persons. These farms were more common in the Northern Crescent, Heartland, Northern Plains, and Eastern Uplands. They tend to specialize in dairy, poultry, hogs, cash grains, and soybeans. Nearly two-thirds reported hiring other individuals and three-fourths had custom hire assistance. The primary operators in these management units were younger, averaging 49 years, nearly 7 years less than the all-farm average. On average, primary operators reported working over 3,000 hours on their farms in 2003, with spouses and other operator labor adding more than 1,100 hours to the total.

Summary

Farm managers not only have to be highly skilled at the technical aspects of farm production, but they also have to handle primary and support activities for their farms that range from input procurement to technology, finance,

Table 4.1.3

Distribution of farms by farm management team and complexity of farm business organization, 2003

Item	Least complex>>>>>Most complex			
	Group 1	Groups 2-4	Group 5	All
Activities/practices employed	0	1-3	4	
Number of farms	648,250	1,366,716	66,517	2,081,483
<i>Percent of farms</i>				
Composititon of farm management teams				
Operator only	49.1	32.6	16.0	37.2
Operators with advisors	10.5	17.7	20.6	15.6
Operator and spouse	27.1	21.9	14.7	23.3
Operator and spouses				
with advisors	6.4	15.2	27.6	12.9
Multiple operators	*5.9	5.1	6.0	5.4
Multiple operators				
with advisors	na	6.3	14.0	4.8
Hired managers	na	#1.0	na	*0.9

Coefficient of Variation = (Standard Error/Estimate) x 100. * indicates that CV is greater than 25 and less than or equal to 50.

indicates that CV is greater than 50 and less than or equal to 75.

na indicates value is not available due to no observations, an undefined statistic, or reliability concerns.

Rounded percents may not add precisely to 100.

Source: 2003 USDA Agricultural Resource Management Survey.

accounting, and human resource management (Gray et al.). Changes in crop and livestock production, including use of contract arrangements and technologically modified seed stock, mean that managers may need to interact more with both suppliers and customers. With the rising cost of inputs, particularly capital items such as machinery and equipment, managers also have to control a range of financial arrangements that transcend farm mortgages. Even land rents have become more complex, with some arrangements incorporating changes in prices and yields.

As a farm grows, expertise to handle these tasks either has to be available within the existing owner-operator-management arrangement or be acquired by adding to the management team. Survey results suggest that the size and composition of management teams align with the complexity of farm businesses. The least complex farms were most often managed by a single operator or by a combination of operator and spouse. Conversely, the most complex businesses typically involved operators, spouses, other partners, and outside advisors. Many Federal and State programs provide income and technical/other assistance to farmers, specifically a farm's decisionmaker. In today's farm sector, that person is not automatically the farm operator alone, especially on farms with the most cropland and production.

References

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