

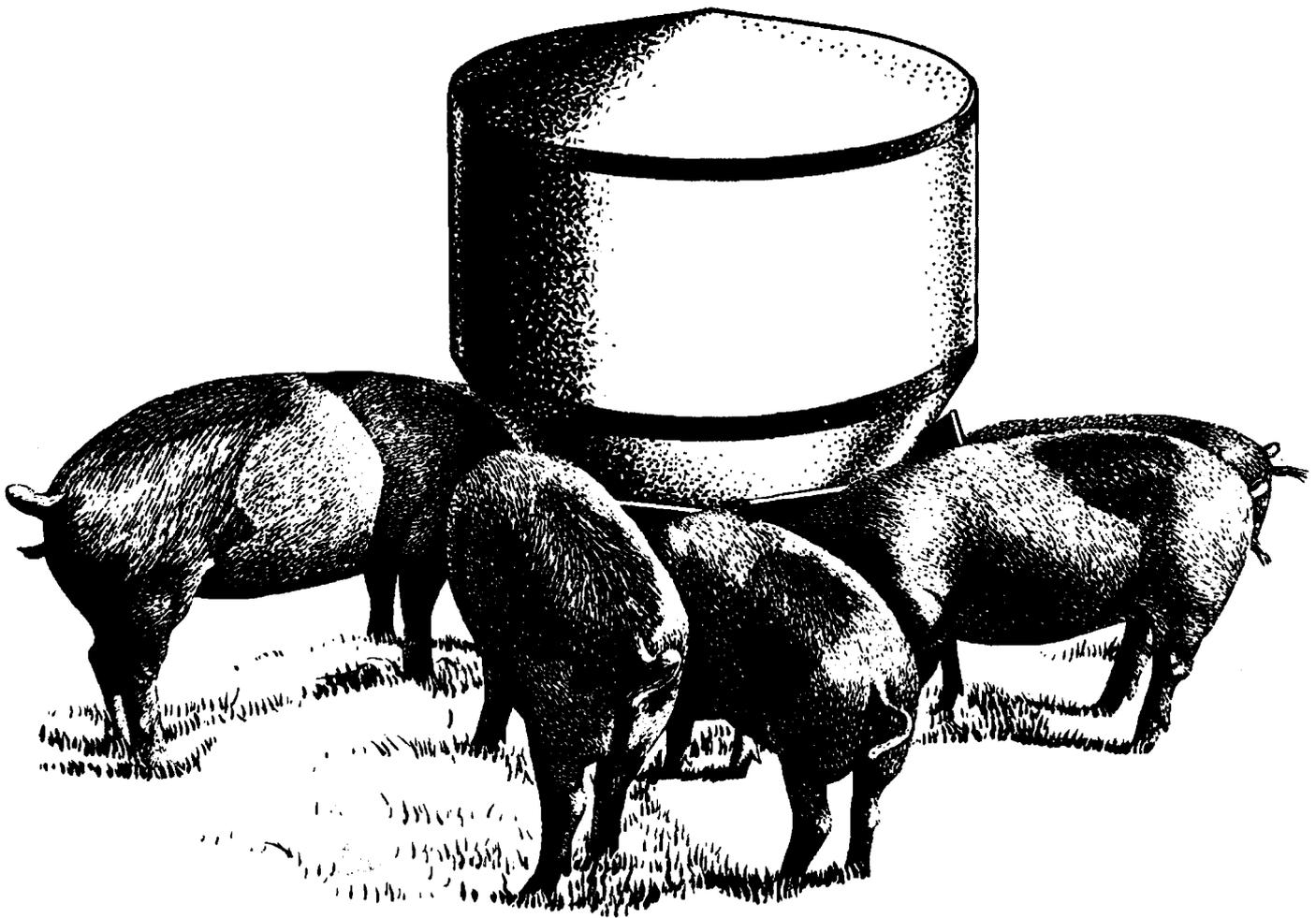


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Role of Local Cooperatives in Emerging Swine Industry



Abstract

At least **12 reasons** could propel cooperatives into a greater role in the swine industry; among them, protecting their market share in feed and offering a cooperative alternative to existing marketing channels. Yet, the industry offers a special challenge during the mid-1990s because structural upheaval is completely redefining traditional methods of production and marketing. As a foundation for future efforts, the Cooperative Services program of USDA's Rural Business and Cooperative Development Service and 5 regional cooperatives surveyed 1,314 local cooperatives in 1993. Results indicated local cooperatives urgently wanted greater direction and leadership from their regionals. They also wanted financial backing to offer member swine producers financing for operations and facilities. Without new facilities, producers cannot capture the benefits from such technological advances as all-in, all-out production, and split-sex feeding. Locals also indicated cooperatives had a special responsibility to work with small- and medium-size swine producers to avert circumstances which led to complete integration in the poultry industry.

Key words: cooperatives, pork, hogs, swine, integration

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Highlights

The federated system of organization linking regional and local cooperatives in the Midwest could provide the basis for an expanded role in the swine industry. Yet, debate over the future role of cooperatives is complicated by the massive structural change overtaking the industry.

In completely redefining production and marketing as they have traditionally been known, the swine industry is assuming characteristics of a completely new (or emerging) industry, notably, a high degree of uncertainty. For example, no single production technology, breed, or marketing approach has been sufficiently proven to become the industry standard.

Greater involvement in the swine industry will cut across commodity lines, and the financial stakes, already high, are further increased by uncertainty. Consequently, the typically automatic assumption that both regionals and affiliated locals share compatible objectives could lead to severe strategic miscalculations, with ramifications for many types of producers and cooperatives.

For this reason, 5 midwestern regional cooperatives—Countrymark, GROWMARK, Farmland Industries, Harvest States, and Land O'Lakes—and the Cooperative Services program of USDA's Rural Business and Cooperative Development Service (RBCDS), surveyed 1,314 local cooperatives. All were members of one or more regionals. The survey covered how locals are adjusting to changes in the swine industry, how they are helping producer-members adjust, and the services locals would like from regionals in this endeavor. The response rate was 34 percent, representing 670 locals.

Affiliation with regional cooperatives through a federated system typically gives locals access to technical expertise, manufacturing services, and financial resources, encapsulated by the unique identity and goals of the regional. Survey results confirmed that locals receive these benefits. Yet, results also indicated locals urgently wanted greater direction and leadership from their regionals. Absent such leadership, the motivation for the federated relationship evaporates.

Local cooperatives also wanted financial backing to offer their member-swine producers financing for operations and facilities. Without new facilities, producers cannot capture the benefits from such technological advances as all-in, all-out production and split-sex feeding. Locals also indicated cooperatives had a special responsibility to work with small- and medium-sized swine producers to avert circumstances which led to complete integration in the poultry industry.

Because the swine industry changes have thus far had a largely beneficial impact on cooperative feed sales, failure to make such adjustments could undermine the economic position of both local cooperatives and independent hog producers, and, in the long run, regional cooperatives.

The Role of Local Cooperatives in the Emerging Swine Industry

Julie A. Hogeland

An economic tidal wave of change is rolling through all levels of the swine industry—production, slaughtering, processing, and retailing. This wave is eroding the traditional or historical foundation of the industry, small- and medium-sized independent farmers typically supported by local Midwest agricultural cooperatives. Pushing that wave are the competitive forces of changing technology, economies of size, and consumer preferences. These forces are providing new incentives and inducing change in ways that have significant effects on the patterns of ownership, methods of production, economic relationships, and social structure of the hog farming community.

Although the changes driving the swine industry are largely economic, the struggle over the outcome has taken on a distinctly political character. Indeed, the struggle has become one where some perceive themselves as beneficiaries and others regard themselves as victims.

In this conflict, the economic interests of firms integrating backward into swine production have been pitted against an array of interests who favor a conventional, independent and dispersed farming structure for a variety of social, cultural, and economic reasons. These interests and preferences have often been unreconcilable.

In several States, the struggle has resulted in contentious debate and legislation designed to prohibit various forms of ownership associated with industrialized business structures. Thus, the events in the political arena have direct and significant influence on the environment in which economic decisions concerning the swine industry are being made.

The parties interested in the swine industry debate are many and varied. Among them are farmer-owned cooperatives that provide hog production supplies and marketing services. These cooperatives are examining how best to position themselves in the evolving swine industry in light of both their interests as agricultural businesses and as vertical extensions of their farmer/owners. These dual interests of cooperatives make decisions on strategy even more complex.

Harvard Business School's Michael Porter defines emerging industries as "newly formed or re-formed indus-

tries that have been created by technological innovations, shifts in relative cost relationships, emergence of new consumer needs, or other economic and social changes that elevate a new product or service to the level of a potentially viable business opportunity."¹ To Porter, the problems of an emerging industry are also present when such environmental changes, coupled with growth in scale, reestablish the competitive rules for an older, established business. Arguably, the magnitude of change accompanying the contemporary swine industry's transition to high-lean genetics in a search for new and expanded markets qualifies the industry as one of Porter's emerging industries. To simply describe the swine industry as "changing" or "restructuring" minimizes the fact that the changes occurring in the swine industry of the mid-1990s will have a profound and likely irreversible impact on small- and medium-sized hog producers in particular, and, by extension, their local cooperatives. Cooperatives and producers cannot rely on the production and marketing methods of even so recent a period as 5 to 10 years ago; they must adapt to new competitive rules if they want to survive.

Emerging industries and the swine industry of the mid-1990s share a climate of technological uncertainty and, consequently, strategic uncertainty. No production or marketing alternative has emerged as the industry standard. Further, the steepness of the learning curve for different configurations of swine genetics, production techniques, and pork products raises the cost of entry into the industry, offset by the hope of significant cost reduction in the future. The pork production arena is peppered with new, aggressive companies, affecting the strategic outlook for established industry participants like cooperatives. Yet Porter also observes that the overriding strategic issue in emerging industries is the ability of the firm to shape industry struc-

¹Porter, Michael E. *Competitive Strategy*. New York: The Free Press, 1980. p. 215. Most of the characteristics of an emerging industry are derived from Porter.

ture. From this perspective, cooperatives have an opportunity to redefine their own role and the role of swine producer-members.

Consequently, this report uses the characteristics of emerging industries as a framework for evaluating the results of a survey of local cooperatives conducted by Midwest regional cooperatives and the Cooperative Services program of USDA'S Rural Business and Cooperative Development Service (RBCDS). The attitudes and opinions of the local cooperative managers and directors expressed in the survey provide a basis for assessing the future direction for cooperatives in the swine industry.

This report does not indicate how the conflicting interests in the evolving swine industry ought to be resolved. Rather, it illustrates how one component of the swine industry—the local farmer-owned cooperative—views the situation. Although there are differences of opinion even within this narrowly defined segment, the overall findings should provide some guidance to cooperatives as they establish their strategies and plans for future participation in the swine industry.

Strategic Choices Facing Cooperatives

The growth of Midwest hog production integrated by ownership or contract has led to debate within the cooperative community over whether cooperatives should integrate backward into ownership of livestock.

While this issue is being addressed at all levels, a particular focus of the debate is the future role of regional cooperatives, whether they should move toward a fully integrated and centralized system, a more tightly coordinated but still federated system, or a different adaptation of the present system based on open markets.

In response, some Midwest regional cooperatives have advocated a more tightly coordinated production-to-packer system, which prizes the independence of hog producers while striving to attain the reputed production efficiencies of integrators.

Depending on their assumptions about the future course of swine production, this stance has been accompanied by various degrees of contractual or ownership integration; among them: (1) relatively small-scale experimentation with supply contracts to packers based on hogs raised in state-of-the-art facilities; (2) providing seedstock to producer-members' farms and bargaining with packers over the resulting market hogs; or (3) contracting with producers to raise hogs owned by the cooperative. These different approaches are unified by the fundamental requirement of an integrated marketing system: a steady flow of consistent and high-quality hogs required by packers.

Overall, regional cooperatives have remained on the periphery compared with large-scale integrators like Premium Standard Farms and Murphy Foods. The variety of strategic positions adopted by cooperatives also reflects the

uncertainty inherent in emerging industries when no single production technology, breed, or marketing approach has been sufficiently proven to become the industry standard.

Nevertheless, many reasons exist why cooperatives might decide to enter the swine industry— (1) providing competition in an otherwise noncompetitive market (the competitive yardstick argument); (2) providing market access for producers; (3) preserving supply markets; (4) becoming a “total food company”; (5) complementing core business through pork production; (6) increasing rural welfare or employment through pork production or marketing; (7) responding to growth in consumer demand; (8) improving coordination in production and marketing; (9) adding processing value to commodities produced by members; (10) stabilizing returns across commodities or products (i.e., pork cycle complements poultry cycle); (11) adding a cooperatively owned marketing channel to the industry; and (12) improving demand for commodities directly or indirectly produced by members.

The interpretation of any of these reasons for entering the swine industry will require a strategic assessment by cooperatives.

Strategic Market Orientation

Strategic market assessment has three dimensions: (1) the target market, (2) competitors, and (3) the internal structure of the firm itself.² The first two represent areas external to the firm or cooperative. Previous research conducted by Cooperative Services, notably *Cooperatives' Role in Hog Contract Production*, focused on the competitive situation.³ Here, the focus is on the internal structure of cooperatives.

Through the federated system of ownership prevalent among Midwest cooperatives, the internal structure of any one cooperative is intrinsically tied to a network of cooperatives and cannot be analyzed in isolation. Indeed, strategic options available to any one component of this three-tiered system have ramifications for the entire system.

In the traditional federated cooperative system, agricultural producers own and patronize local cooperatives. In turn, local cooperatives jointly own a regional cooperative that supplies wholesaling, manufacturing, and marketing services.

Although local cooperatives may invest in and use the services of more than one regional, they typically assume the identity and operating style of a particular regional. When that regional embarks upon a new strategic course, the identity and functions of its affiliated locals are likewise affected.

In defining a strategic market orientation, cooperatives are challenged to build on their strengths to respond to

² Day, George. “The Capabilities of Market Driven Organizations,” *Journal of Marketing*, Vol. 58 (October 1994), p. 43.

³ Rhodes, V. James. *Cooperatives' Role in Hog Contract Production*. U.S. Dept. of Agriculture, Agricultural Cooperative Service, ACS Research Report 116, April 1993.

potential opportunities. Within the internal structure of any firm or cooperative, both tangible and intangible assets combine to form the organization's *capabilities*, or how it conducts activities such as service delivery, filling orders, and developing new products. Capabilities are so deeply embedded in the organizational culture and practices that competitors have difficulty understanding and imitating them.⁴

Capabilities which span and define multiple lines of business are considered core *competencies*. These resources can facilitate or constrain how well the cooperative adapts to changes in the business environment, affecting both cost effectiveness and the value of organization as perceived by customers, owner-users, suppliers, and others.

Undoubtedly, the salient core competency of cooperatives is the identity with their farmer-members. This member-owner, member-user characteristic cannot be duplicated (or necessarily fully understood) by competitors of the cooperative. Their responsiveness to producers, necessitated by their legal and operational identity as organizations owned by those who depend on them for production and marketing services, is an intangible asset that not even cooperatives fully exploit.

A second core competency is the broad range of commodities and supplies handled within the federated cooperative network. This system-in-place is built on an efficient distribution network, established business relationships, and a proven ability to provide consistently high-quality goods and services. These attributes of Midwest agricultural cooperatives uniquely differentiate them from competing feed manufacturers and others invested in the hog industry and, as such, become the basis for a competitive strategy within the industry.

In contrast to the customer orientation of such strategies as Total Quality Management, capabilities-based change emphasizes the power of a coherent and shared *vision from the top down* as a basis for developing a market orientation.

Can a top-down approach define a role for cooperatives in the swine industry? For a long time, regionals have routinely worked with their local cooperative affiliates in ways that could provide a basis for a more significant role in the pork sector. These include providing strategic direction and planning assistance, financing feed mills and other enterprises, researching new products and market segments, providing marketing expertise, bargaining power, technical expertise, bulk purchasing of supplies, capturing scale economies in feed manufacturing, and for some, a **branded-product** identity extending into the meat case.

These roles and expectations are generally understood and supported at all levels of the cooperative system. Yet, aside from a few locals who have taken a highly visible stance by constructing hog multiplier units for members, little is known about the opinions and preferences of locals regarding greater involvement in the swine industry. The

tremendous capital requirements to enter pork production on an efficient scale mean that the resources of hog producers by themselves will be insufficient to establish a web of pork cooperatives across the Midwest. Crop and other livestock producers must be willing to apply the expertise and even equity within their local and regional cooperatives to the swine industry.

Because greater involvement in the swine industry will cut across commodity lines and the financial stakes are high, the typically automatic assumption that both regionals and affiliated locals share compatible objectives could lead to severe strategic miscalculations with ramifications for many types of producers and cooperatives.

On the other hand, although emerging industries are often confronted by the absence of necessary infrastructure, the established linkages between commodities and services within the federated cooperative system could ease the transition to swine production and marketing. Nearly a third of cooperative feed manufacturers store, merchandise, and handle grain, often as their major source of income.⁵ Marketing grain through hogs provides a complementary alternative to other domestic and export marketing opportunities.

Indeed, without hogs as the traditional "mortgage lifters," many rural communities become unduly dependent on grain prices established by international commodity markets. And, as the world's leading producer of pork, the United States is ideally positioned to supply the substantial markets expected to develop within the next decade, particularly in the Pacific Rim.

By any measure, feed is the largest and costliest supply element in swine production. In 1988, feed represented 80 percent of the total variable cost of producing hogs and in 1992, 70 percent of the dollars/cwt. of gain for hogs.⁶ Moreover, more than 75 percent of swine feeds were commercially manufactured in 1984, a benchmark which reveals feed as an important value-added product.⁷

Cooperatives have been important suppliers of feed for the past 25 years, accounting for 22 percent of all feed produced in the United States in 1984.⁸ Protecting this market share is an important rationale for maintaining a cooperative presence in the swine industry, however it might evolve.

Potential Directions

Although the political debate over integration tends to cast the alternatives available to cooperatives in terms of

⁵ Brainich, Eric and E. Eldon Eversull, *Feed Manufacturing by Cooperatives*, U.S. Dept. of Agriculture, Agricultural Research Service, ACS Research Report 89, April 1990, p. 4.

⁶ Economic Research Service, U.S. Dept. of Agriculture.

⁷ Ash, Mark, William Lin, and Mae Dean Johnson. *The U.S. Feed Manufacturing Industry, 1984*. U.S. Dept. of Agriculture, Statistical Bulletin 768, December 1988, p. 9.

⁸ Brainich, p. 1

⁴ Day, p. 40.

polar opposites—full integration versus independent farms—in fact, there is a middle course with a range of options.

To some observers, the massive infrastructure of packing plants and efficient hog farms existing in the mid-1990s could preclude complete integration, while vertical integration in poultry arose unimpeded from an industry of backyard farms. Integration enabled poultry production to expand beyond seasonal limits to meet year-round demand. Pork is already produced on an ongoing basis.

For these reasons, among others, the swine industry could evolve into a multi-segment hybrid of the dairy and poultry industries, composed of both independent producers and contract growers.

This scenario opens up a variety of contracting and financing arrangements to cooperatives and pork producers. Options include giving new producers a foothold in the industry.

Besides gains from swine marketing, such arrangements could offer cooperatives and their members advantages from providing supplies and services such as feeds, genetics, management advice, recordkeeping, and financial assistance to either contract growers or independent producers. Such flexibility is a strategy frequently adopted by firms with limited resources in emerging industries, and is increasingly a primary strategy of firms in a wide variety of agricultural industries.

The success of a middle course will depend on how effectively cooperatives and their members can prevent or overcome the conditions which might otherwise lead to complete integration. In both the poultry and swine industries, the trigger for integration has been the availability of superior (i.e., cost-reducing) technology. In the poultry industry, decentralized decisionmaking and inadequate access to financing prevented poultry and egg producers from keeping up technologically with integrators. As integrators gained control, they instituted safeguards, such as performance standards and accountability among contract growers, to counter lapses like declining standards of husbandry within the industry.⁹ At the same time, many traditional cooperatives were too slow in developing parallel competitive structures for their members.¹⁰

⁹ In the contemporary swine industry, Sierd "Sid" Tilma found "too many instances in the Midwest and in the industry as a whole. [of] crowding of animals; lack of cleanliness, inadequate cleaning between groups, or perhaps no cleaning at all; unsuitable facilities, especially during the winter months. [and] high levels of medication being required to keep the animals alive [where] medication becomes a substitute for management." See 'Risk and the Emerging and Meat Industry,' *Livestock Industry Forum*, Congress '86, Livestock Marketing Association, Kansas City, MO.

¹⁰ Rogers, George B. "Small poultry producers, cooperatives did not adopt technologies fast enough," *Feedstuffs*, 52 (14) April 7, 1980, pp. 28-31.

Need for Financing

Typically, new and untested approaches to production and marketing make financing a special problem for emerging industries. As the lynchpin for the production and marketing changes occurring in the industry, swine genetics is an area of special concern.

The market for swine genetics is dominated by corporate seedstock suppliers, both foreign and domestic, who compete with individual producers operating as purebred breeders. Each claims unique genetic and performance attributes for their lines and as a marketing strategy often use high prices to indicate quality.

But the erratic product quality typical of emerging industries nonetheless forces swine genetics to be evaluated on a case-by-case, trial-and-error basis. This increases the overall cost of genetic improvement for cooperatives and others. The cost of failure is increased still further when an entire integrated system is built around a specific genetic line.

A specific example of the limitations of product and technological standards within emerging industries is the recent appearance of a genetic defect causing pale, soft, watery pork, particularly among high-lean hogs. This defect, which makes the meat unmarketable, initially was apparent only after hogs were slaughtered. While DNA testing can now eliminate the gene within individual herds, the procedure is expensive, \$30 to \$50 per animal, according to one source.

Technological Pressures on Producers

As in the poultry industry, technological pressures have combined with financing limitations to circumscribe the options for swine producers. Indeed, in response to technological pressures accelerated by integration in the pork industry, a certain fatalism may have pervaded Midwest pork-producing communities—an attitude of, "In the long run, we won't be able to compete with the big guys, so why even try to keep up?"¹¹

A 1993 survey of the management practices of Iowa pork producers revealed that only half had adequate records to calculate their cost of production, particularly among those marketing less than 2,000 head annually.¹² Without such records, it is difficult to know whether the hog enterprise is making money and harder still to obtain financing to expand.

In the early 1980s, the reigning technology for hog production was farrow-to-finish in self-contained confinement

¹¹ Smith, Rod. "Iowa alliance sews together state's 'fabric' to create climate to expand pork production," *Feedstuffs*, October 24, 1994, p. 9.

¹² Lawrence, John D., Daniel Otto, Seth D. Meyer, and Steven Folkerts, "A Profile of the Iowa Pork Industry, Its Producers, and Implications for the Future." Iowa State University, Ames, IA. Staff Paper No. 253, June 1994.

units. Integration transformed broiler production into a multi-site process, between the breeder farm for egg production, the hatchery, and the growout farm where chicks reach market weight. As hog production has become similarly specialized in two- or three-site production (i.e., a feeder pig production unit, nursery, and finishing floors), the technical dimension of raising hogs has increased.

Multiple sites lend themselves to all-in, all-out production (AIAO), where hogs of the same age are moved as a group from one site to another to allow complete cleaning and disinfection between litters.

AIAO reduces disease potential inherent in the mix of ages and weights associated with continuous flow management. Like another facility-dependent innovation, split-sex feeding (feeding barrows and gilts separately), AIAO reduces variability in marketing weights not attributable to genetic diversity.

More consistency in slaughter weights enables packers to automate part of the kill line. For some companies, it has served as an incentive to integrate hog production.

AIAO has caught on among all sizes of Iowa producers at the nursery stage, but only about a third of those surveyed used this practice in the grow-finish phase of production. To capture the advantages of AIAO or split-sex feeding, the typical Midwest farrow-to-finish facility needs remodeling through adding walls and pit dividers to make finishing rooms, adding new ventilation systems, etc.

Despite these technological advances and widespread perceptions that Iowa's infrastructure is aging, more than half of the surveyed producers had no plans to remodel or build new facilities.

Further evidence of a subtle demoralization is the lack of encouragement and financing for young producers to enter pork production. The legacy of the agricultural crisis of the mid-1980s has been a fundamental reluctance by lenders to support capital-intensive ventures like pork production.¹³

Thus, the pressure on cooperatives to quickly determine a course of action to respond to swine industry changes is tremendous. The survey of Iowa pork producers revealed that they were already bypassing smaller rural agribusinesses which could not provide the competitive prices or specialized expertise of larger and more distant suppliers.¹⁴ Although not cited in the Iowa survey, undoubtedly some local cooperatives will fall into that category.

Other competitive pressures will be added by larger producers who may also bypass the services offered by cooperatives in favor of networking arrangements between two or three partners who specialize in different aspects of the pork enterprise.

Those who do use their local cooperative may demand sizeable volume discounts, anticipating the cooperative will

make its margin from other, smaller customers. Although a greater proportion of volume discounts may be required in the future, ultimately many cooperatives may not be able to give away the value embodied in their products and services simply to retain a few large customers.¹⁵

As the swine industry evolves, cooperatives will discover new roles to define the scope of their activity. One role may represent a cooperative response to those disfranchised by structural change in the swine industry. Another may involve building on the unique cooperative-producer relationship to address the heightened needs of those independent producers less able to cope with the competitive pressures released by integrators.

The dwindling number of hog producers also means that cooperatives will increasingly confront an industry polarized between those producers seeking the lowest possible price for a particular transaction, who resist bundling of products and services, and those who have potential for a more collaborative relationship, anchored by strong and extensive economic, service, and technical ties over time.

It is also possible that implementing a particular course of action in the swine industry may require cooperatives to choose among or make tradeoffs between groups of producers.

Time Constraints on Cooperatives

Some industry observers have assumed the growth of integrators in the swine industry will proceed unchecked. Consequently, they have argued that cooperatives' window of opportunity to take a significant position in the swine industry is narrow, open only for the next 3 to 5 years. Otherwise, cooperatives risk being locked out.

Such an assessment presumes that current swine production technology will not change. Yet, as the industry grows and matures, new technologies will inevitably appear and change the competitive equation. The transition from single-site farrow-to-finish production to multi-site production within the last decade is a striking example of how swiftly perceptions regarding the most efficient technology can change.

Poultry industry experience also offers a cautionary tale. As it consolidated, many integrators disappeared, unable to compete. Such turnover is not unusual; many large corporations eventually retreated from farming investments made during the 1970s. It seems likely such instability will also occur in the swine industry, opening the door to entry at various times and in various ways.

If so, the critical issue for cooperatives is not so much a limited window of opportunity, but the commitment to the swine industry. Typically, within emerging industries, the technologies and products which confer an edge in the opening phase of an industry are not sufficient to carry a firm through later stages of industry development.

¹³ Lawrence, John D. "The U.S. Pork Industry in Transition," Iowa State University, Ames, IA. Staff Paper No. 240, May 1992, p. 4.

¹⁴ Lawrence, "A Profile," p. 17.

¹⁵ Anderson, James C. and James A. Narus, "Partnering as a Focused Market Strategy," *California Management Review*, Spring 1991, p. 105.

For cooperatives, the many commodities handled through the federated system can be an advantage when starting new enterprises. At the same time, such diversity can be the source of competing claims on investment funds, which could cause cooperative commitment to the swine industry to waver in the future.

Local Cooperative Survey Results

Survey Design

To begin to redress the lack of information about locals' preferences, RBCDS Cooperative Services designed a survey with the assistance of cooperative management in feed, livestock production, market development, and strategic planning from five regional cooperatives: Countrymark, Farmland Industries, GROWMARK, Harvest States, and Land O'Lakes. Each had a large number of member-locals that could be affected by the changes in the swine industry.

The survey addressed these areas:

- (1) perceptions of the speed and intensity of change within the swine industry;
- (2) changes in employment, grain production, packing plant slaughter, technical services, and financing for hog producers;
- (3) locals' influence on hog production and the impact of the swine sector on their survival;
- (4) trends in size of operation, marketing, and innovation among hog producers within the trade area of each local;
- (5) how locals were currently helping producer-members adjust to changes in the hog industry and additional services needed;
- (6) benefits and limitations to working with regional cooperatives in responding to the changes in the swine industry; and
- (7) the impact of the swine industry on locals' feed sales and pricing.

After a pretest, each regional cooperative distributed from 200 to 600 questionnaires to member-locals during March 1994, targeting managers of locals and feed departments or board directors of those cooperatives potentially most affected by the restructuring of the swine industry.

Of the 1,314 locals surveyed, usable responses were received from 670, a 34-percent response rate. Both open-ended and multiple-choice questions were used (see Appendix for questionnaire). For all but one of the multiple-choice questions, locals chose as many responses as described their situation or preferences.

Characteristics of Respondents

Of 601 respondents identifying their background, 24 percent were directors and 76 percent were managers of local cooperatives. Of these two groups, 12 percent were current or former hog producers. Most respondents were from States where traditional family farm production overshadowed corporate swine production (Table 1).

Another identifying characteristic was the principal economic activity of the local cooperative during calendar year 1993. Twenty-four percent indicated grain marketing; 35 percent, farm supplies; and for 41 percent, both were equally important in sales volume.

Consequently, the locals surveyed represent a diversified group linked primarily by production and marketing of corn and soybeans, as reported by 72 percent of respondents. Any other combination of grains, such as wheat/barley, represented between 6 and 8 percent of respondents.

Feed and farm chemicals/fertilizer were handled or sold by 27 percent. Other products were petroleum, handled by 19 percent; seed, 18 percent; hardware, 7 percent; and for 3 percent, miscellaneous products such as bins and buildings, tires, lumber, and animal health products.

For calendar year 1993, 17 percent had sales from \$1 million to \$4.9 million; 41 percent, \$5 million to \$14.9 million; and 43 percent, at least \$15 million in sales.

Although respondents were not asked to indicate further financial details, prior Cooperative Services' research on

Table 1-Question 31. States represented in local cooperative survey

	<i>Respondents</i>	<i>Percent¹</i>
Colorado	6	1
Illinois	86	12
Indiana	63	9
Iowa	192	26
Kansas	29	4
Michigan	9	1
Minnesota	96	13
Missouri	17	2
Montana	15	2
Nebraska	42	6
North Dakota	32	4
Ohio	41	6
Oklahoma	12	2
South Dakota	53	7
Texas	3	1
Wisconsin	32	4
Wyoming	2	1

¹ Some locals served more than one State. On all tables, percentages are rounded and may not sum to 100.

grain cooperatives, which frequently handle farm supplies, provided an idea of the relative financial strength of each category of respondents. At the close of 1983-84, average total equity capital available to the smallest associations (up to \$4.9 million of sales) was \$727,543. The \$5 million to \$14.9 million sales group averaged \$1,801,248 in total equity, and those with \$15 million and more averaged \$4.6 million.¹⁶

Another identifying criteria was whether the changes in the swine industry in the locals' trade area could threaten their survival within the next 5 years. Although almost a third of locals considered themselves vulnerable, the majority were confident they would survive irrespective of the changes in the swine industry (Table 2). Respondents commented that survival generally depended on the vulnerability of feed sales and the willingness of the local to anticipate changes in the swine industry and adjust accordingly.

Two questions on the speed and scope of industry changes showed locals' sensitivity to the swine industry

(Table 3). Responses suggest cooperatives believe they have some room to maneuver in the future because only about a third of locals believed the hog industry would become locked up through integration. Respondents were twice as likely to simply say the swine industry would not be the same in 5 years than to anticipate complete integration.

Environment Served by Locals

Trends in the General Environment-The leading indicator of change in the swine industry is an explosion of technical services for hog producers, observed by 76 percent of respondents (Table 4). To a lesser degree, locals noticed

¹⁶ Cummins, David E. and Francis Yager. *Comparative Financial Profile of Cooperatives Handling Grain: First Handlers With \$1 Million or More in Sales*. U.S. Dept. of Agriculture, Agricultural Cooperative Service, ACS Research Report 63, June 1987, p. 5.

Table n--Question 7. Are the changes in the hog industry in your trade area likely to threaten the survival of your local cooperative within the next 5 years?

	Percent
yes	14
no	70
not sure	16

Table s-Question 4 and Question 5

	Percent
Q 4. From your perspective as a manager or board member of a local cooperative, how fast is the hog industry changing?	
The hog industry is changing very fast. It won't be the same in 5 years.	61
The hog industry is changing moderately. In 7-10 years it could look quite different.	36
The more things change, the more they remain the same. The hog industry is not changing substantially	2
Q 5. Will the hog industry eventually become as integrated as the broiler industry, and basically eliminate a role for independent hog producers?	
	Percent
yes, definitely	27
no	18
maybe	55

packing plant slaughter and financing for hog production by area banks had also increased.

In some European countries and Canada, government involvement has been the catalyst for genetic improvement. In the market-driven U.S. industry, in contrast, locals perceived packers were forcing a change in the genetics used by producer-members. Consequently, locals also reported producers were looking for new genetic lines.

Trends in Size of Operation—Among the salient trends affecting the swine industry are an increase in size of operations and group marketing or production approaches typically called “networking,” “partnerships,” or “strategic alliances.” Such terms reflect the fluid transitional structure that exists among feed companies, meat packers, cooperatives, food companies, and hog producers as the industry advances toward greater integration.

To identify the impact of these trends on local cooperatives, the survey asked respondents to identify changes in marketing practices and size of operation among hog producers marketing at least 2,000 head/year, and those marketing less.

These criteria were chosen because data from USDA’s National Agricultural Statistics Service indicates half of the hogs marketed annually are from farms with an inventory of 1,000 head, corresponding to 2,000-head annual production. Although larger enterprises, especially those producing

5,000 head, are considered the leading indicator of changes in the hog industry, 2,000-head enterprises had the advantage of representing a moderate-sized one-person commercial operation using family labor, similar to the core clientele of many locals. Perhaps more important, annual sales of 2,000 head is fast becoming the boundary between hog farms that decline and those that grow.¹⁷ Nevertheless, a fairly common comment by locals was that there were no operations of this size among their patron base.

Almost 50 percent of locals perceived producers marketing at least 2,000 head/year to be increasing the size of their operation and almost 20 percent believed they were seeking new sources of capital to expand (Table 5). Only 5 percent said large producers were scaling back production or getting out of the hog business.

Because locals chose as many categories as applied to producers in their area, the predominant trend among large producers was *growth*, either realized or intended. In contrast, locals perceived those marketing less than 2,000 head annually to be not *changing* (reported by 41 percent) or *scaling back or exiting the industry* (27 percent).

Trends in Marketing-Participation in either contracting, strategic alliances, or group-marketing

¹⁷ Rhodes, V. James. Structural Trends in U.S. Hog Production, University of Missouri, Columbia MO. Agricultural Economics Report 1990-5, p. 1.

Table 4—Question 9 and Question 29

Q 9. In the last 2 years (1992/93), how has the rural community containing your local cooperative been affected by changes in the hog industry?

a. The community has	jobs gained-i 7%	jobs lost-l 8%	no change-66%
b. Grain production has been	depressed-22%	stimulated-l 6%	no change—63%
c. Packing plants are killing	more-34%	less-l 6%	no change—50%
d. Technical services for hog producers are	decreasing-5%	expanding-76%	no change-l 9%
e. Financing for hog production by area banks has	increased-36%	decreased-24%	no change-41 %

Q 29. How are farmer-producers reacting to developments in swine genetics?

	Percent
a. Producers are looking for new genetic lines.	39
b. Producers are trying to standardize genetic lines.	12
c. Producers are not making noticable changes in genetics.	8
d. The packer is forcing a change in genetic of our members.	40

Table **s-Questions 10 and 12. Trends in size of operation among hog producers served by local cooperatives**

	Annual Hog Production	
	Less Than 2,000 Head	More Than 2,000 Head
	<i>Percent</i>	
a. Scaling back production or getting out of the hog business.	27	5
b. Increasing the size of their operation.	20	45
c. Not changing substantially.	41	27
d. Seeking new sources of capital to expand.	9	19
e. Other.	3	4

associations represents a mutually exclusive decision for hog producers insofar as any one option precludes the other. This, plus widespread differences in genetics, nutritional programs, and management regimes accompanying various marketing options, can lead to confusion and indecision among producers. For this reason, the category, “they [producers] are unsure of how to respond to the changes in the hog industry,” was added to the question on marketing trends (Table 6).

Porter remarks, “The overriding aspect of emerging industries is great uncertainty, coupled with the certainty that change will occur.”¹⁸ Locals perceived large and small producers alike as equivocating when confronted with the array of marketing choices generated by an industry in structural turmoil. Thirty percent of locals chose the category “they are unsure of how to respond” when describing producers marketing at least 2,000 head per year and 37 percent viewed small producers similarly.

Local cooperatives perceived that among large producers no clear consensus has emerged regarding the best marketing alternative. *Contracting, strategic alliances with packers, group marketing,* and maintaining the status quo (*no significant change*), were each selected by at most 20 percent of locals as they considered the changes made by large producers.

In contrast, small producers clearly stuck with the familiar. Only 4 percent of locals observed small producers developing strategic alliances with packers, and about a tenth of the locals noted contracting or group marketing.

Small producers appear to be paralyzed by indecision: 38 percent of locals observed no significant change among this group, while only 17 percent said the same about large producers. Although larger producers may have doubts

about participating in strategic alliances, contracting, or networking, their greater readiness as a group to experiment with alternative marketing arrangements implies that they are more likely to gain the knowledge and skills needed to survive in an emerging industry.

These results raise the question of whether small producers will lose a place in the pork industry because they are small, unwilling to change, or without resources (technical and financial) to do otherwise.

Inherent in the movement toward larger sized farms has been an explosion in technological knowledge encompassing areas such as genetics, building design, nutrition, and waste management. Increasingly, these technologies are becoming less and less accessible to managers of smaller farms, especially those who tend to be less progressive than others.¹⁹ Similar circumstances contributed to the spread of integration within the poultry industry. In their comments, some survey respondents indicated cooperatives have a special responsibility to avert this outcome:

• “Try to design programs to benefit the small-to-medium producer, not all the time the big producers. The hog industry will become integrated like broilers if all people involved ignore the small-to-medium producer in favor of big producers.”

• “Small producers are not valued by the regional. They are the ones who built the cooperative system; who paid for the research; who we have failed to keep up with changes in the industry. Sometimes I feel the attitude at the regional is, “Sell them feed until they’re gone, then forget them.”

• “Many of our swine producers, nearing 100 sows farrow-to- finish, need help with marketing to go to 500 sows.

¹⁸ Porter, p. 234

¹⁹ Hurt, Chris and Kelly Zering, “The Pork Industry: Restructuring the Nation’s Pork Industry,” NC *State Economist*, North Carolina Cooperative Extension Service, North Carolina State University, Raleigh, NC, September 1993.1994.

Table 6—**Questions 11 and 13. Marketing trends among hog producers served by local cooperatives**

	Annual Hog Production	
	Less Than 2,000 Head	More Than 2,000 Head
	<i>Percent</i>	
a. Developing strategic alliances with area packers.	4	16
b. Either contracting with companies to produce hogs to specifications or considering such contracting.	11	20
c. Forming associations among themselves to coordinate various aspects of production or marketing.	8	13
d. They are unsure of how to respond to the changes in the hog industry.	37	30
e. No significant change.	38	17
f. Other.	2	3

Purina and Cargill have programs to carry them on. We need technical services to get management ready to go to 250-500 sows.”

Innovation Trends—Locals reported the characteristics of the most innovative hog producers in their marketing territory as well as whether member hog producers were adjusting differently than nonmembers in size of operation and marketing. Ideally, member-producers would be innovative to the point of having a unique identity encapsulated by their cooperative, as is true for commodities such as fruits, vegetables, and nuts.

However, the changes in the swine industry may be too new for cooperatives to have developed programs to differentiate member-producers from others. Some locals commented that they were just beginning to talk to producers and other cooperatives about strategic plans.

Only about one-fifth of locals perceived cooperative members were unique and distinct from nonmember producers (Table 7). Locals said the most innovative producers in their trade areas were *increasing the size of their operation, instituting all-in all-out production, or seeking financing to expand* (Table 8).

Breeding practices were also changing among innovative producers; hand-mating and artificial insemination predominated among those specified by locals. To some degree, these findings suggest producer-members of cooperatives may not be keeping pace with industry changes.

Locals Respond to Swine Industry

The slower adjustment by some producer-members of local cooperatives may reflect the local cooperatives’ somewhat limited role in the swine industry. Asked what role the

local cooperative has in influencing hog production, almost a quarter of respondents said first, *“although the impact of their local on hog production was small, it could increase in the future,”* and second, *“their local needed more help from its regional cooperative”* (Table 9).

Considerable variation in the priorities and attributes of regional cooperatives appeared to account for the different approaches used by locals to help producer-members adapt to the changes in the swine industry²⁰ (Table 10). No one service was offered by more than 20 percent of locals.

Overall, responses suggest locals focus on a wide variety of what might be considered basic services augmented by a small amount of supplementary services. Among the basic services were on-farm technical advice/information, production recordkeeping services, educational seminars on a variety of topics, or business plans. Services less frequently offered included production contracts, pooled marketing services, single-sourced feeder pigs, and purchases or identification of desirable breeding stock.

When identifying additional services or programs needed to serve hog producers, locals were constrained to 3 out of a possible 21 choices (Table 11). Again, no one service or program dominated the responses, suggesting both the complexity of the desired programs and the corresponding flexibility demanded of regionals as service providers.

Priorities for locals were *financing members’ hog facilities* (requested by 11 percent of respondents); *financing members’ hog operations* (10 percent); and *adding member-owned feeder pig production units* (also 10 percent).

²⁰ Such differences were apparent when data was analyzed by regional affiliation. These differences are not reported here.

Q 14. In general, are hog producer-members of the local cooperative adjusting to changes in the industry differently than nonmembers?

<i>Percent</i>	
23	yes
77	no

Q 15. If yes, how are they adjusting?

	<i>Percent</i>
a. Scaling back production or getting out of the hog business.	9
b. Increasing the size of their operation.	23
c. Not changing substantially.	7
d. Seeking new sources of capital to expand.	16
e. Developing strategic alliances with area packers.	6
f. Either contracting with companies to produce hogs to specifications or considering such contracting.	10
g. Forming associations among themselves to coordinate various aspects of production or marketing.	12
h. Unsure of how to respond to hog industry changes.	9
i. Other.	7

Table s-Question 16. In the general market area of your local cooperative, how are the leading or most innovative hog producers adjusting to changes in the hog industry?

	<i>Percent</i>
a. Not changing substantially.	6
b. Increasing the size of their operation.	21
c. Seeking new sources of capital to expand.	12
d. Developing strategic alliances with packers.	7
e. Either contracting with companies to produce hogs or considering such contracting.	9
f. Forming associations with other producers to coordinate various aspects of production or marketing.	8
g. Using all-in, all-out production.	15
h. Using multiple-site production.	10
i. Changing breeding practices.	10

Table 9—Question 6. What role does your local cooperative have in influencing hog production in your area?

	<i>Percent</i>
a. The local has a key role in maintaining hog production in our area.	13
b. The local has some influence over hog production in our area, but packers/other feed companies are more influential.	14
c. The local has some influence over hog production but the regional cooperative is more influential.	5
d. The local plays a role in maintaining hog production in our area, but it needs more help from the regional.	23
e. Although the impact of the local on hog production is small now, it could increase in the future.	24
f. The local affects hog production only to a small degree and this is not expected to change.	13
g. The local is shifting its focus to serving other categories of producers.	5
h. Other.	3

Table 10—Question 17. How is your local cooperative currently helping members adjust to changes in the hog industry?

	<i>Percent</i>
a. Providing long-term credit for producers who wish to expand.	7
b. Offering production contracts.	3
c. Identifying hog breeds suitable for geographic area.	5
d. Helping producers develop business plans for their operations.	11
e. Providing educational seminars where producers can get market outlook, financial, or technical information.	13
f. Providing production recordkeeping services.	14
g. Providing pooled marketing services.	2
h. Bulk purchasing of genetic seedstock.	1
i. Locating trained swine laborers and herdsmen.	1
j. Providing generic, adaptable building plans.	9
k. Providing on-farm technical advice/information.	20
l. Providing single-sourced feeder pigs.	5
m. Other.	2
n. The local is not presently offering services in this area.	7

Table 11—Question 18. What are the three additional services or programs that your local cooperative needs to adequately service hog producers?

	<i>Percent</i>
a. Present services are adequate.	7
b. Retail salesperson.	4
c. Feed program.	2
d. Grind and mix service.	2
e. Feed delivery.	1
f. Animal health products beyond those already in feed.	3
g. Provide financing for hog facilities of members.	11
h. Provide financing for hog operations of members.	10
i. Record collection and analysis for members' hog operations.	4
j. An on-farm specialist in production.	5
k. An on-farm specialist in marketing.	4
l. An on-farm specialist in records, budgets, cash flow, profit and loss projections, and other financial topics.	8
m. Feeder pig sourcing.	6
n. Member-owned feeder pig production unit.	10
o. Member-owned finishing unit.	6
p. Source genetic breeding stock.	4
q. Enter hog contracting business.	4
r. Recommend a reputable hog contract company for members to use.	3
s. Provide feed to integrators.	3
t. Facilitate use of AI in hog breeding on members' farms.	2
u. Other.	2

Differences between actual and desired services suggest that there is a sequence followed by local cooperatives as they vary their service mix in response to the needs of the swine industry. Locals initially emphasize on-farm technical advice, with the focus gradually becoming more personalized and rigorous through production record-keeping services, educational seminars, and business plans for producer-members.

To reap the benefits of this foundation, the next step is specialized activities demanding more resources from cooperatives and a greater commitment to the swine industry: long-term credit, production contracts, single-sourced feeder pigs. *The gap between current and desired services indicates the technical services presently emphasized by local cooperatives will not carry them through to the future.*

Primary constraints on providing desired programs were company profitability, reluctance to risk equity of the local to support contracting, and the size of the local's feed business (Table 12). The categories, "[we are] not sure that changes in the hog industry warrant changing our service

and product mix," and "leadership support and programs are not available from our feed supplier," did not appear to constrain service expansion.

Consequently, the pivotal issue for cooperatives is not whether or how to serve the swine industry, but the adequacy of financial resources to keep up with integrators, the dilemma also faced by the poultry industry in its evolution.

Role of Regional Cooperatives

Several survey questions dealt with the role of regional cooperatives: how they could help locals increase or maintain business with hog producers, and the benefits and limitations from teamwork with locals. From the responses, the mandate for regionals is, first, *helping young producers get started in hog production*, and second, *helping small-or medium-sized producers stay in business* (Table 13). These findings corroborate the latent and largely untapped potential of such producers perceived by locals. Locals also saw a natural division of labor in this process:

Table 10—Question 19. What are the factors which constrain the ability of your local cooperative to provide the services and programs circled in response to question 18?

	<i>Percent</i>
a. Size of our feed business.	14
b. Size of our trade area.	8
c. Company profitability.	15
d. Attitude of board.	11
e. Attitude of management.	5
f. Community, social, or political pressures.	12
g. Leadership support and programs are not available from our feed supplier.	4
h. Reluctance to risk equity of local cooperative to support contracting.	15
i. Not sure that changes in the hog industry warrant changing our service and product mix.	8
j. Other.	5
k. None.	4

Table 13—Question 21. What should the regional cooperative do to help your local cooperative increase or maintain business with hog producers?

	<i>Percent</i>
a. Offer market access through group marketing programs.	11
b. Offer market access through meatpacking operations.	6
c. Together with the local, offer selected producers production credit.	11
d. Together with the local, offer producers production management advice or services.	14
e. Develop programs to help small-or medium- sized producers stay in business.	19
f. Develop programs to help young producers get started in hog production.	20
g. Develop programs to help cash grain producers and others diversify into hog production.	9
h. Help local trained swine laborers and herdsmen.	4
i. Provide manure management services.	4
j. Other.	1

. “The regional cooperative will probably be dealing with the total picture while the local will have to deal with more individual problems which will occur in a given area.”

. “Different perspective on same problems. Regionals generally target large producers and our business is made of many small ones.”

Surprisingly, market access through group marketing programs or meatpacking operations was not a priority for local cooperatives, perhaps because few locals marketing grain and farm supplies also handle hogs. It is also possible regional cooperatives provide sufficient market access for their locals through bargaining, existing meatpacking operations, or other conduits.

In the mid-1980s, high concentration levels in the beef packing industry triggered alarm among producers, making market access a topic of special concern. At that time, industry observers predicted consolidation in the pork industry would follow the pattern established by beef.

Nevertheless, preliminary four firm concentration levels in pork slaughter were only 44 percent for 1992 (the most recent year available) compared with 78 percent for steer and heifer slaughter. Yet, market access may be a problem in the future. Commenting on the current state of the pork industry, one observer said, “Market access in many areas is effectively closed (to producers). In 10 years, I doubt if there will be a spot market for hogs in the Midwest.”²¹

Also low in priority was developing programs to help cash-grain producers diversify into hog production. Locals perceived a need to concentrate efforts on producers specialized in raising hogs.

²¹ Dr. Ron Knutson cited in “Report Card Blues,” Farmer Cooperatives, December 1994, p. 14.

No single advantage predominated among those that local cooperatives could gain through greater coordination with their regional cooperative. Most of the 13 potential advantages listed in the survey were rated within a few percentage points of each other (Table 14).

Again, the broad distribution of the responses suggest locals receive many advantages through the federated relationship, with technical assistance, risk-sharing, and financial backup for hog facilities heading the list.

Need To Act Now

The overwhelming concern voiced by local cooperatives was that regional cooperatives were too slow in responding to swine industry changes. Either locals said there was no disadvantage to working with their regional, thereby acknowledging the value of the federated relationship or, more often, they made comments like the following:

. “Can we move fast enough or will we always be trying to catch up?”

. “The regional moves too slow and can’t commit to a firm direction. There appears to be a real lack of leadership.”

. “The regionals need to be the innovator of programs, not just copy others’ programs. They are slow off the ball.”

. “Regionals are too slow to respond. By the time they make a decision, we are 2 years behind the leaders.”

. “We can’t wait and see. We must react to the changes as they come.”

. “If the regionals could listen to what the locals are telling them, we could get the regionals to react a little quicker to the changes that are out there. We are always the last to react and have a ‘me, too’ image.”

. “To get things started now is too late in the hog industry at this time with price of fat hogs going down. Market is getting flooded by sow cooperatives already in place.”

Table 14—Question 22. What benefits could your local cooperative gain from greater coordination with the regional cooperative?

	<i>Percent</i>
a. Access to more technical assistance.	13
b. Risk sharing.	11
c. Legal counsel.	5
d. Feed production efficiencies.	7
e. Coordinated marketing.	7
f. Source of swine breeding stock.	6
g. Producer credit.	9
h. Market research.	6
i. Management assistance.	7
j. Nutritional research.	9
k. Financial backup to support contracting.	8
l. Financial backup to support building facilities for hogs.	11
m. Other.	1
n. No benefit.	1

- “Regional leadership is needed. We have some good leaders in our regional, but need more of them to get strong locals involved. The change in the hog industry is not for everyone, but with the right group of cooperatives, the system could be just as successful as Tyson, Murphy, etc.”

To a lesser degree, but still representing a significant number of responses, locals wanted regionals to tailor swine programs to their specific needs. The democratic cooperative culture of “one-person, one-vote” undoubtedly encourages such sentiment and is evidenced by the variety of programs and services offered by locals to hog producers. Yet, paradoxically, such flexibility and scope of service may have contributed to a loss of focus among cooperatives that delays their response at this critical juncture in the swine industry:

- “It would be hard for the regional to develop a plan that would work well in all areas, so it may be too much in the middle of the road.”

- “[A disadvantage is] making sure the regional has the quality people to do all the things that may be needed (competence and confidence).”

- “Our regional has limitations getting enough information and material to the large integrators so they can be supplied with feed and other services.”

- “Regional cooperatives have to set guidelines for six States-locally we have more options.”

- “The regional reacts too slowly. Too much diversification over the regional’s territory.”

- “Co-op needs to spend equal time with other livestock, not just hogs.”

Locals were concerned that regionals were already spread too thin to compete effectively in the swine industry. At issue also was the perception that the federated relationship among cooperatives needed streamlining before it could absorb another commodity with as many uncertainties and complexities as pork:

- “We need one manufacturer, one distributor, one marketer, between the regional and local. Now we have two in some cases. We need research, marketing, coordination, and manufacturing, omitting duplication and the cost of the middleman.”

- “Large farmers are able to buy products by semi-truck loads cheaper than we can buy from our regional. We cannot sell products at cost or less than cost.”

- “Total broad programs and promotions do not meet the needs of nutrition for today’s producer. The regional is trying to decouple, but as it decouples it is not lowering feed prices, thereby keeping the local uncompetitive. This forces locals to decrease their margins to compete.”

- “Our co-op would need a major change in direction to service animal agriculture. A huge investment would be needed in facilities to service hog operations. Can our co-op finance same? Will hog production increase in our area?”

Locals attributed hesitancy to act to the different agendas pursued by regionals, bureaucratic red tape or top-heavy structures, shortages of personnel in key areas such as

financing, nutrition, or other swine specialties, and, the innate conservatism of producer-directors oriented to traditional agriculture.

The dilemma for regionals in responding to these calls for leadership reflects the uncertainty associated with an emerging industry: although the locals want the regionals to act, the extent of the desired action is not necessarily clear. On the one hand, locals want the regionals to do more than passively sit on the sidelines while the swine industry realigns itself.

On the other hand, locals were concerned that they would be bypassed as regionals went directly to large producers, or the regional would benefit disproportionately from swine ventures established through the federated relationship.

That the locals look to the regional for leadership is consistent with the framework of a shared vision which typically informs decisionmaking in a federated cooperative system. The disturbing aspect of this finding is that when regionals are unwilling or unable to provide the necessary leadership and resources, the efficacy of the federated relationship breaks down, leaving a vacuum with no way out.

A second, equally important, conclusion is that when the federated relationship works as intended, it works well. Close to a third of locals said there was no disadvantage to working with the regional cooperative. One reason why:

- “Our members came to us 3 years ago for a risk-sharing program. They looked at Murphy’s but liked Farmland’s program better because it was doing the business locally with people (the local cooperative) the producer knew and trusted. This caused a big stir among a small minority of our members (5 to 10), but it woke our community up to the changes coming in the hog industry. I think our producers are 2-3 years ahead of the rest of the area pork producers because of this.”

Competitive Factors

Typically in emerging industries, little is known about competitors, their market share and plans for expansion, and their hold on new markets. The contrast between the familiar production methods of traditional agriculture and newer industrialized methods only intensifies such uncertainty.

Under such conditions, it is easy for those in the industry to develop tunnel vision and magnify the significance of what information they do have. One of the things cooperatives know with some certainty is the operating style and likely objectives of other cooperatives. Consequently, it is tempting to define the competition primarily as other cooperatives. Nevertheless, locals were strongly committed to the linkages offered by federated relationships:

- “For the cooperative system to survive in the hog industry, we need to see more cooperation between regionals-partnerships in processing units, cost-plus integration units-the time to act is now, not 3 years from now.”

- “There is no half-way solution to these problems. We must unite regional cooperatives to pool resources to compete long term. My regional alone will not compete with Cargill, Murphy Farms, Tyson, etc.”

- “The regional should join with Farmland in the packing business, using Farmland’s knowledge of it rather than each going into it alone.”

Should Regionals Become Meat Packers?

Considerable discussion about the potential for meatpacking by cooperatives was prompted by a 1979 report, *The Future Role of Cooperatives in the Red Meat Industry*.²² Sixteen years and some experience later, local cooperatives voiced hesitation and ambivalence about engaging in meatpacking, citing overcapacity in the meatpacking industry, priorities in other areas, and insufficient capital or expertise to move into pork processing (Table 15). Instead, local cooperatives perceived they have a comparative advantage in production-related activities, and so do not envision adopting the European style of cooperation based on producer ownership of packing plants.

Preferable activities were some combination of *updating production facilities, feeder pig sourcing, providing technical expertise, and packer partnering*. For those few locals who put meatpacking on the cooperative agenda, joining with a regional already in pork packing was seen as the best and, indeed, only approach.

Feed Program Adjustments

The changes in the swine industry during the Z-year period of 1992-93 have been largely beneficial for local cooperatives, measured by feed tonnage sales. Virtually 50 percent of respondents saw sales increase and the remainder

²²Haas, John. *The Future Role of Cooperatives in the Red Meats Industry*. U.S. Dept. of Agriculture, Economics, Statistics, and Cooperatives Service, Marketing Research Report 1089, April 1978.

were split between no change or decreased sales. Most changes were small, some 10 percent or less, although the magnitude of change for 27 percent of locals was between 11-25 percent. The positive impact of the swine industry on locals’ feed sales underscores the importance of leadership by regional cooperatives to maintain a cooperative presence in the industry.

Locals attributed these changes in their feed sales to strategic planning, expanding operations, adding staff, or intensifying competition with other dealers (Table 16). Surprisingly, within the scope of such competition, only 53 percent of locals differentiated prices according to size of producer, i.e., providing quantity discounts.

To maintain or increase feed sales to hog producers, locals wanted to offer feed financing (21 percent) or facility financing to members (19 percent); and establish a production organization for members to keep pace with integrated operations (also 19 percent) (Table 17). Offering production contracts or otherwise supporting contract hog production was important for 16 percent.

Several local cooperatives were on the threshold of changes positioning them for timely interventions by their regional cooperatives:

- “In this area, large commercial hog production has not yet arrived, yet our feed business has continued to increase. We know it’s coming, but [it] hasn’t happened yet.”

- “Hog production is on a significant rise in our area. The newest things are units producing from 5,000 to 7,000 head per year, farrow-to-finish.”

- “The new producer or units are too large and require more service and capital than the local can provide.”

- “The local cooperative and board need to get behind the hog producers and help them with the changes that are coming.”

- “Strategic planning has begun at the cooperative. However, it needs to be intensified by offering a service

Table 15—**Question 24. Farmer cooperatives can be considered an extension of the farm enterprise. What would be the impact on your local cooperative if the regional cooperative eventually entered pork processing as an extension of activities related to hog production?**

	<i>Percent</i>
a. Processing activities by our regional would help area hog producers become more competitive.	25
b. Processing activities by our regional would be no different than operations by any other meatpacker.	17
c. Not sure what impact pork processing by the regional would have on the local.	33
d. Pork processing by our regional would have a negligible impact on area hog producers.	8
e. Other activities are more important for our regional to pursue.	17

Table is-Question 27. How has your local cooperative compensated for changes in feed sales caused by the evolution of the hog industry?

	<i>Percent</i>
a. The local instituted or supported contracting to maintain market share.	6
b. The local has expanded operations/added additional staff.	19
c. The local has intensified competition with other dealers.	
d. The sales territory has shrunk and the local has downsized.	3
e. The local has begun strategic planning to adjust to changes in the hog industry.	24
f. The local hasn't changed its operation.	12
g. The local is coordinating its activities more closely with other locals or with the regional cooperative.	14
h. Other.	5

Table i-r-Question 20. What service adjustments will your local cooperative need to make in the next 24 months to maintain or increase sales of feed or other products to hog producers?

	<i>Percent</i>
a. Offer or support particular approaches to raising hogs by contract.	16
b. Hire a production specialist.	7
c. Hire a vet.	2
d. Hire a marketing specialist.	3
e. Help establish a production organization for producer-members to keep pace with integrated operations.	19
f. Invest in a production facility for producer-members to keep pace with integrated operations.	9
g. Offer facility financing to producer-members.	19
h. Offer feed financing to producer-members.	21
i. Other.	5

package that includes nutrition, production assistance, group marketing, production and financial records, and veterinary and financial services to our local producers.”

Conclusions

Firms in emerging industries often depend on others in the industry for success in overcoming problems in key areas like credibility, image, and consistency. This interdependence has long been characteristic of the cooperative system insofar as locals and regionals are linked through the federated system of organization.

Affiliation with regionals typically gives locals access to technical expertise, manufacturing services, and financial resources, encapsulated by the unique identity and goals of the regional. Most important of all, regionals provide leadership and direction for locals.

Technology, swine genetics, nutrition, and other aspects of integrated production have not yet been standardized across the emerging swine industry of the mid-1990s. New approaches to ration formulation, facility design, and other key areas are still being tested and perfected, raising the cost of investment. Within this environment, structural and strategic alternatives are also being designed and tested.

Although several hundred locals surveyed on their role within the emerging swine industry described their current involvement as limited, they clearly wanted to expand. Locals wanted to make a greater commitment to the swine industry and to producer-members by moving beyond educational and technical services to financing members' swine operations and facilities. Without new or renovated facilities, producers cannot capture the cost advantages from such technological innovations as all-in, all-out production and split-sex feeding.

Because the changes in the swine industry have thus far had a largely beneficial impact on cooperative feed sales, failure to make such adjustments could undermine the economic position of both local cooperatives and independent hog producers, and in the long run, regional cooperatives.

In the poultry industry, independent producers were unable to keep up technologically with integrators because they lacked the necessary financing or leadership to override individual limitations. Similar needs exist within the contemporary swine industry, especially among producers raising less than 2,000 head annually. Cooperatives have the opportunity to fill those needs by building upon the unique strengths and attributes made possible by federated system of organization.

Yet, locals expressed concern that the cooperative response to the swine industry would be too little and too late. Although this study did not examine why regionals might hesitate to invest in the swine industry, the instability characteristic of emerging industries offers one possibility.

Nevertheless, local cooperatives are looking to the regional for leadership and regionals understand this leader-

ship role. Their participation in the survey underpinning this study, along with their own internal research and planning, points to the seriousness with which regionals are approaching this issue.

Ultimately, it is the strength of the cooperative system, and the recognition of the linkages and interdependencies between locals and regionals, that will determine the cooperative response to the emerging swine industry, however it may evolve.

The Role of Local Cooperatives in the Emerging Hog Industry

March 1994

Regional Affiliation:

Please circle or check all responses that apply to each question unless otherwise indicated.

1. According to dollar volume of sales during calendar year 1993 what is the principle economic activity of your local cooperative?

- a. _____ grain marketing
b. _____ farm supplies
c. _____ grain marketing & farm supplies
equally important in sales volume

2. What are the principle grains (if any) handled by your local cooperative?

- a. _____ wheat/barley
b. _____ wheat/sorghum
c. _____ corn/soybean
d. _____ wheat/barley/oats
e. _____ other (specify) _____

3. What are the primary farm supplies (if any) sold or handled by your local cooperative?

- a. _____ feed
b. _____ farm chemicals/fertilizer
c. _____ petroleum
d. _____ hardware
e. _____ seed
f. _____ other (specify) _____

4. From your perspective as a manager or board member of a local cooperative, how fast is the hog industry changing?

- _____ the hog industry is changing very fast, it won't be the same in five years
_____ the hog industry is changing at a moderate pace, 7-10 years from now it could look quite different
_____ the more things change, the more they remain the same: the hog industry is not changing substantially

5. Will the hog industry eventually become as integrated as the broiler industry, basically eliminating a role for independent hog producers?

- _____ yes, definitely
_____ no
_____ maybe

6. What role does your local cooperative have in influencing hog production in your area?

- a. _____ the local has a key role in maintaining hog production in our area
- b. _____ the local has some influence over hog production in our area, but packers/other feed companies are more influential
- c. _____ the local has some influence over hog production but the regional cooperative is more influential
- d. _____ the local plays a role in maintaining hog production in our area, but it needs more help from the regional
- e. _____ although the impact of the local on hog production is small now, it could increase in the future
- f. _____ the local affects hog production only to a small degree and this is not expected to change
- g. _____ the local is shifting its focus to serving other categories of producers
- h. _____ other (please specify) _____

7. Are the changes in the hog industry in your trade area likely to threaten the survival of your local cooperative within the next five years?

_____ Yes _____ No _____ not sure

Comments? _____

8. Please check the category which indicates the dollar volume of sales of your local cooperative for calendar year 1993.

_____ \$1 million - \$4.9 million
 _____ \$5 million - \$14.9 million
 _____ \$15 million or more

9. In the last two years (1992/93), how has the rural community containing your local cooperative been affected by changes in the hog industry?

- a. *The community has ...*
 _____ gained jobs _____ lost jobs _____ no change
- b. *Grain production has been ...*
 _____ depressed _____ stimulated _____ no change
- c. *Packing plants are killing ...*
 _____ more _____ less _____ no change

- d. *Technical services for hog producers are ...*
 _____ decreasing _____ expanding _____ no change
- e. *Financing for hog production by area banks has ...*
 _____ increased _____ decreased _____ no change
10. In the general market area served by your local cooperative,
 what is the *predominant trend in size of operation* among hog
 producers who market at least 2,000 head/year?
- a. they are scaling back production or getting out of the hog
 business
- b. increasing the size of their operation
- c. not changing substantially
- d. seeking new sources of capital to expand
- e. other (please specify) _____
11. In the general market area served by your local cooperative,
 what is the *predominant trend in marketing* among hog producers
 who market at least 2,000 head/year?
- a. they are developing strategic alliances with area packers
- b. either contracting with companies to produce hogs to
 specifications or considering such contracting
- c. forming associations among themselves to coordinate various
 aspects of production or marketing
- d. they are unsure of how to respond to the changes in the hog
 industry
- e. no significant change
- f. other (please specify) _____
-
12. In the general market area served by your local cooperative,
 what is the *predominant trend in size of operation* among hog
 producers who market less than 2,000 head/year?
- a. they are scaling back production or getting out of the hog
 business
- b. increasing the size of their operation
- c. not changing substantially
- d. seeking new sources of capital to expand
- e. other (please specify) _____
13. In the general market area served by your local cooperative,
 what is the *predominant trend in marketing* among hog producers
 who market less than 2,000 head/year?
- a. they are developing strategic alliances with area packers
- b. either contracting with companies to produce hogs to
 specifications or considering such contracting
- c. forming associations among themselves to coordinate various
 aspects of production or marketing
- d. no significant change
- e. they are unsure of how to respond to the changes in the hog
 industry

f. other _____

14. In general, are hog producers who are members of the local cooperative adjusting to changes in the industry differently than nonmembers?

_____ Yes _____ No

15. If YES, in what ways are *members* unique?

- a. they are scaling back production or getting out of the hog business
- b. increasing the size of their operation
- c. not changing substantially
- d. seeking new sources of capital to expand
- e. developing strategic alliances with area packers
- f. either contracting with companies to produce hogs to specifications or considering such contracting
- g. forming associations among themselves to coordinate various aspects of production or marketing
- h. they are unsure of how to respond to the changes in the hog industry
- i. other (please specify) _____

16. In the general market area of your local cooperative, how are the *leading or most innovative hog producers* adjusting to changes in the hog industry?

- a. they are not changing substantially
- b. increasing the size of their operation
- c. seeking new sources of capital to expand
- d. developing strategic alliances with packers
- e. either contracting with companies to produce hogs or considering such contracting
- f. forming associations with other producers to coordinate various aspects of production or marketing
- g. they are utilizing all-in, all-out production
- h. they are using multiple site production
- i. they are changing breeding practices (please describe) _____
- i. other (please specify) _____

17. How is your local cooperative CURRENTLY helping members adjust to changes in the hog industry?

- a. providing long term credit for producers who wish to expand
- b. offering production contracts
- c. identifying hog breeds suitable for geographic area
- d. helping producers develop business plans for their operations
- e. providing educational seminars where producers can get market outlook, financial, or technical information
- f. providing production record-keeping services
- g. providing pooled marketing services

- h. bulk purchasing of genetic seedstock
- i. locating trained swine laborers and **herdsmen**
- j. providing generic, adaptable building plans
- k. providing on-farm technical advice/information
- l. providing single-sourced feeder pigs
- m. other _____
- n. at the present time the local is not offering services in this area

18. What are the three additional services or programs that your local cooperative needs to add to adequately service hog producers?

*please circle no more than three items so we
can identify priority services*

- a. present services are adequate
- b. retail salesperson
- c. feed program
- d. grind and mix service
- e. feed delivery
- f. animal health products beyond those already in feed
- g. provide financing for hog facilities of members
- h. provide financing for hog operations of members
- i. record collection and analysis for members' hog operations
- j. an on-farm specialist in production
- k. an on-farm specialist in marketing
- l. an on-farm specialist in records, budgets, cash flow, profit & loss projections, and other financial topics
- m. feeder pig sourcing
- n. feeder pig production unit (owned by members) to produce **40#** pigs
- o. production unit (owned by members) to finish **40#** pigs
- p. source genetic breeding stock
- q. enter hog contracting business
- r. recommend a reputable hog contract company for members to use
- s. provide feed to integrators
- t. facilitate use of AI in hog breeding on members' farms
- u. other (specify) _____

19. What are the factors which constrain the ability of your local cooperative to provide the services and programs circled in response to question 18?

- a. size of our feed business
- b. size of our trade area
- c. company profitability
- d. attitude of board
- e. attitude of management
- f. community, social, or political pressures
- g. leadership support and programs are not available from our feed supplier
- h. reluctance to risk equity of local cooperative to support **contracting**

- i. not sure that changes in the hog industry warrant changing our service and product mix
 - j. other (specify) _____
 - k. none
20. What service adjustments will your local cooperative need to make in the next 24 months to maintain or increase sales of **feed** or other products to hog producers?
- a. offer or support particular approaches to raising hogs by contract
 - b. hire a production specialist
 - c. hire a vet
 - d. hire a marketing specialist
 - e. help establish a production organization for producer-members to keep pace with integrated operations
 - f. invest in a production facility for producer-members to keep pace with integrated operations
 - g. offer facility financing to producer-members
 - h. offer feed financing to producer-members
 - i. other _____
21. What should the regional cooperative do to help your local cooperative increase or maintain business with hog producers?
- a. offer market access through group marketing programs
 - b. offer market access through meat packing operations
 - c. together with the local, offer selected producers production credit
 - d. together with the local, offer producers production management advice **or** services
 - e. develop programs to help small or medium-sized producers (xxx head) stay in business **SPECIFY # of Head** _____
 - f. develop programs to help young producers get started in hog production
 - g. develop programs to help cash grain producers and others diversify into hog production
 - h. help local trained swine laborers and **herdsmen**
 - i. provide manure management services
 - j. other (specify) _____
22. What benefits could your local cooperative gain from greater coordination with the regional cooperative?
- a. access to more technical assistance
 - b. risk sharing
 - c. legal counsel
 - d. feed production efficiencies
 - e. coordinated marketing
 - f. source of swine breeding stock
 - g. producer credit

- h. market research
- i. management assistance
- j. nutritional research
- k. financial back-up to support contracting
- l. financial back-up to support building facilities for hogs
- m. other (specify) _____
- m. no benefit

23. As a local cooperative responding to the changes in the hog industry, what are the *disadvantages or limitations* (if any) to working with the regional cooperative?

24. Farmer cooperatives can be considered an extension of the farm enterprise. What would be the impact on your local cooperative if the regional cooperative eventually entered pork processing as an extension of activities related to hog production?

- a. _____ processing activities by our regional would help area hog producers become more competitive
- b. _____ processing activities by our regional would be no different than operations by any other meat packer
- c. _____ not sure what impact pork processing by the regional would have on the local
- d. _____ pork processing by our regional would have a negligible impact on area hog producers
- e. _____ other activities are more important for our regional to pursue (specify) _____

25. How have feed tonnage sales by the local cooperative been affected by the changes in the hog industry in the last two years (1992/93)?

- _____ feed tonnage sales have increased
- _____ feed tonnage sales have decreased
- _____ feed tonnage sales have not changed

26. How much have feed tonnage sales by the local cooperative changed as a result of changes in the hog industry during the two year period 1992/93?

- a. 10 percent or less
- b. between 11-25 percent
- c. between 26-33 percent
- d. over 33 percent
- e. Feed sales have not changed

27. How has your local cooperative compensated for changes in feed sales caused by the evolution of the hog industry?

- a. the local instituted or supported contracting to maintain market share
- b. the local has expanded operations/added additional staff
- c. the local has intensified competition with other dealers
- d. the sales territory has shunk and the local has downsized
- e. the local has begun strategic planning to adjust to changes in the hog industry
- f. the local hasn't had to make any changes in operation
- g. the local is coordinating its activities more closely with other locals or with the regional cooperative
- h. other (specify) _____

28. In serving hog producers through feed services, does the local practice differential pricing according to size of producer?

_____ Yes _____ No

Comments? _____

29. How are farmer-producers reacting to developments in swine genetics?

- a. producers are looking for new genetic lines
- b. producers are trying to standardize genetic lines
- c. producers are not making **noticable** changes in genetics
- d. the packer is forcing a change in genetics of our members

30. I am responding to this questionnaire as a:

- a. _____ Director
- b. _____ Local Co-op Manager
- c. _____ Current or former hog producer

31. What state(s) are served by your local cooperative?

32. Any other comments you may have concerning how cooperatives should respond to the changes in the hog industry would be appreciated.

U.S. Department of Agriculture
Rural Business and Cooperative Development Service
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The cooperative segment of RBCDS (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs. RBCDS also publishes research and educational materials and issues *Farmer Cooperatives* magazine.

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