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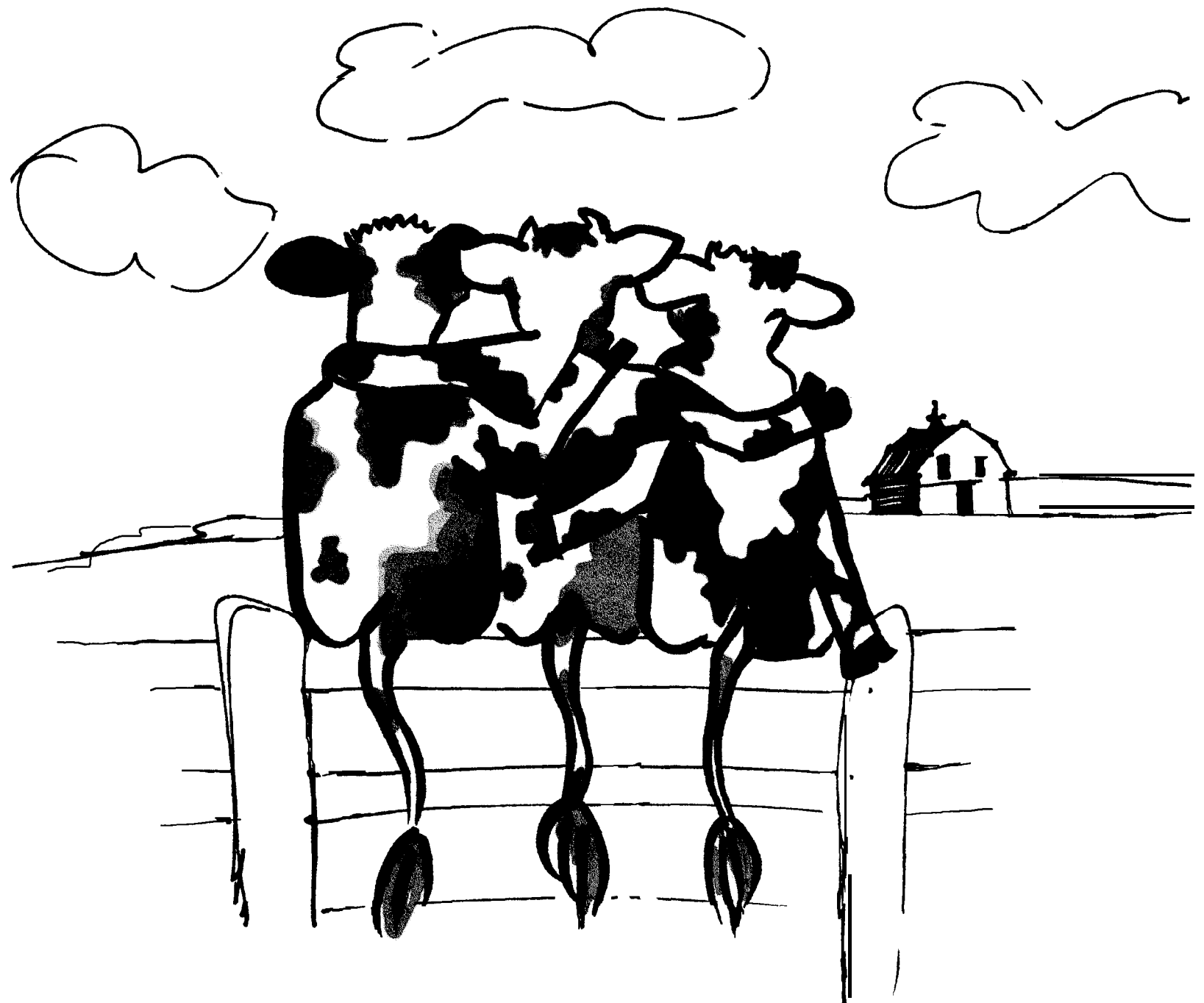


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# Local Cooperatives' Role in the Emerging Dairy Industry



## **Abstract**

Structural changes in the dairy industry such as the adoption of Total Mixed Rations in place of manufactured complete feeds and declines in milk production in the areas served by locals are bringing these cooperatives to a crossroads where they must decide who will be their core customer. The ramifications of this choice are increased through market segmentation which enables cooperatives to more precisely meet the needs of producer-members but simultaneously increases diversity among members and, potentially, among locals themselves. Survey results from 247 locals indicated small producers (<100 cows) made up 80 percent of their clientele. The production practices of these producers appeared to lag significantly behind the innovators and large producers (>100 cows) observed by locals as well as the small producers studied on a nationwide basis by USDA's National Animal Health Monitoring System. To survive themselves, locals will need to take a more aggressive and informed approach to sustaining small producers.

Key words: cooperatives, local cooperatives, dairy production, feed

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## **Local Cooperatives' Role in the Emerging Dairy Industry**

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Rural Business-Cooperative Service

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## Highlights

Local supply cooperatives are finding that the “traditional” dairy producer on which their business was built either no longer exists or is changing in significant ways that demand a similar response. Structural changes in the dairy industry such as the adoption of Total Mixed Rations (TMR) in place of manufactured complete feeds and declines in milk production in the areas served by locals have brought these cooperatives to a crossroads where they must decide who their core customer will be.

The ramifications of this choice are increased through market segmentation which enables cooperatives to more precisely meet the needs of producer-members, but simultaneously implicitly increases diversity among members and, potentially, among locals themselves.

In a 1995-96 survey conducted by USDA’s Rural Business-Cooperative Service, member locals of six Midwestern regional cooperatives identified traits associated with small (<100 cows), large (>100 cows), and innovative producers within their marketing territories; the current and future services needed for dairy producers; and potential problems from this transition.

Innovators constantly searched for greater efficiency. Exhibiting a “business manager” approach, they routinely considered alternative goals for their dairy enterprise, usually with the help of a consultant. High on their list was trying to stay on top of amino acids and other specialized supplements, using TMR, expanding, and increasing preventative herd health.

The latter, along with record keeping, was identified by USDA’s National Animal Health Monitoring System (NAHMS) as characteristic of producers with high-producing herds. Since innovators were only beginning to pursue strategic alliances (e.g., with milk processors and input suppliers) and contracting (e.g., contract heifer production), it appears the dairy industry has not yet reached the interpersonal/interorganizational complexity of the vertically integrated and coordinated pork industry.

More than 80 percent of respondents felt small producers did not know what to do in response to industry changes. Although locals could identify many characteristics of innovators, they had a much less detailed picture of the small producers who represented 80 percent of their clientele.

Coupled with survey findings that the small producers served by locals were less likely to use TMR, adopt a business-manager approach to dairying, etc., than their nationwide counterparts described by NAHMS, it appears locals may not have adequately prepared their member-owners to weather structural change. Instead, locals use the volume business of large producers to sustain themselves. The short-term benefits of this decision may put the long-term survival of locals at risk because, according to respondents, innovators and large producers were using locals less, leaving them to serve primarily small producers.

# Local Cooperatives' Role in the Emerging Dairy Industry

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## Overview

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Like other local cooperatives, those serving dairy producers grind feedgrains for producer-members, sell manufactured feeds and other farm supplies, and provide nutritional, record keeping, and other forms of business services. These activities have served the dairy community well for many years. But their relevance is being challenged by significant structural changes in the dairy industry and carryover from new forms of ownership and coordination emerging in the pork industry.

The fundamental change affecting locals is a decrease in their customer base from a shift in milk production away from the Midwest. Producers who remain are, like others across the United States, shifting to total mixed rations (TMR), a feeding process which does not require manufactured feeds or conventional feedstuffs. Locals are finding that the "traditional" dairy producer on which their business was built either no longer exists or is changing in significant ways that demand a similar response.

This report examines issues involved in redefining locals' core customer, particularly in the context of market segmentation, a technique developed by marketing researchers to identify subgroups of customers (producers) with unique characteristics and needs. By highlighting diversity among customers, segmentation allows agribusinesses, including cooperatives, to more precisely identify and meet these needs, and conceivably, for dairy locals, reverse member loss. At the same time, locals may find such diversity makes the choice of core customer more difficult.

Because this project is also an outgrowth of a study on the role of local cooperatives in the emerging

pork industry<sup>1</sup>, selected findings are compared to suggest whether both industries are proceeding along the same path and if locals face similar problems irrespective of members' commodity specialization.

Also considered are the impact of innovation and distribution on producer-members' perceptions of locals. It's commonly said that cooperatives represent an extension of members' farms. How does members' response to technical and structural change carry over to shape the adaptability of locals as organizations? Are locals well positioned to meet the goals they have set for themselves?

Evidence for these diverse topics comes primarily from a survey developed and analyzed by USDA's Rural Business-Cooperative Service (RBS), supplemented by interviews with regional cooperative managers.

During 1995-96, six regional cooperatives<sup>2</sup> selected member locals to be surveyed, generally choosing those serving a large proportion of dairy producers ("dairy locals"). Ninety percent of the respondents were managers (including feed sales) and the remainder were directors. Of these, 7 percent were current or former dairy producers.

These locals ranged from selling no dairy feed to completely specializing; the median level was 45 percent of total feed sales. Sales of swine, beef, and specialty feeds like pet foods and horse feed also varied widely. The median sales levels for swine, beef, and specialty feeds were 10, 14, and 9 percent, respectively.

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<sup>1</sup>Hogeland, Julie A. **Role of Local Cooperatives in Emerging Swine Industry.** USDA/Rural Business-Cooperative Service Research Report 144, November 1995.

<sup>2</sup>Regionals were Countrymark, Inc., Growmark, Farmland, Land O'Lakes, Southern States, and Tennessee Farmers Cooperative.

The principal economic activity for 56 percent of dairy locals was selling farm supplies. Another 37 percent marketed grain and sold farm supplies. For 7 percent, grain marketing was the dominant activity.

Although about the same percent of locals serving pork producers ("pork locals") were equally involved in grain marketing and farm supplies, fewer specialized in farm supplies in favor of grain marketing.<sup>3</sup>

Thirty-five percent of dairy respondents reported sales of \$1 million to \$4.9 million for 1994; 22 percent, \$5 million to \$9.9 million; 18 percent, \$10 million to \$14.9 million; and 26 percent, \$15 million or more.<sup>4</sup> By comparison, pork locals appear to be a more robust group, as evidenced by the fact that 43 percent had at least \$15 million in sales.

As members of regional cooperatives, surveyed locals were organized as federated cooperatives. Locals owned by Agway, a regional cooperative based near Syracuse, NY, were not included, so the sample was not drawn from the total population of dairy locals.

Nevertheless, irrespective of cooperative organization, all dairy locals face a similar economic environment. In her 1994 report, *The Changing Structure of U.S. Dairy Farms*, Perez observed, "Almost 44 percent of U.S. milk production is still concentrated in the Lake States and the Northeast, but their combined share of total U.S. milk output has been declining during most of the last 9 years."<sup>5</sup>

Milk production has shifted to mega-dairies in the West and Southwest, notably New Mexico and Idaho<sup>6</sup>, away from areas where farm supply cooperatives are prominent. Such large-scale operations appear to have more in common with the vertically integrated pork industry than with the smaller family-circumscribed dairies they are replacing.

## Pork and Dairy Industry Evolution

### *Vertical Integration in the Pork Industry—*

During the 1970s and early 1980s, the reigning technology for pork production was farm-integrated, single-

site, farrow-to-finish production units. Although poultry production offered a potential model of vertical integration, animal health and other problems unique to the pork industry stalled the application of this model to the pork industry.

As the 1980s progressed, the pork industry developed techniques based on specialization and division of labor to control the spread of disease in large herds. The increase in animal health offered by all in, all out production (AIAO), segregated early weaning, multiple site production, artificial insemination, and other techniques freed the industry to pursue economies of scale.<sup>7</sup>

Compared with the autonomous and self-contained farrow-to-finish technology, such specialization led to, and indeed, required partnerships, alliances, and new patterns of ownership between producers, packers, and other industry participants. Margins previously captured by marketing intermediaries became costs that could be eliminated by linking successive stages of production or marketing through ownership or coordination—the process defined as vertical integration and coordination.<sup>8</sup>

The evolution of the pork industry is not finished: the logical outgrowth of such vertical integration is a systems approach embracing multiple production units and regions to meet export demand on a world-wide scale. And, in fact, export demand has absorbed the growth in output from the restructuring of the pork system. As global interdependence and interconnectedness increase, however, the next level of competition is expected to occur through information systems integration, based on the growth and spread of knowledge triggered by widespread computerization.<sup>9</sup>

If this scenario is correct, the scale economies fostered by the technological rigidities of vertical integration will be superseded by more flexible production methods capable of responding quickly to market intelligence. For cooperatives, this implies that link-

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These innovations are described in Hogeland, 1995.

The term "vertical integration" generally refers to a highly organized, tightly coordinated production and marketing arrangement, based on common ownership, and generally covering the entire span of activities from breeding or genetic selection to processed consumer products. "Coordination," on the other hand, implies a less formal arrangement, or one covering a subset of the span of the activities covered under vertical integration.

Achrol, Ravi S., "Evolution of the Marketing Organization: New Forms for Turbulent Environments," *Journal of Marketing* (55), October, 1991, 81.

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<sup>3</sup> Hogeland, 6. Reports are based on 1993 for pork locals.

<sup>4</sup> Survey totals may not add to 100 for this and subsequent results due to rounding.

<sup>5</sup> Perez, Agnes. *The Changing Structure of U.S. Dairy Farms*. USDA Economic Research Service, AER-690, July 1994, 2.

<sup>6</sup> Part II: Changes in the U.S. Dairy Industry: 1991-1996, National Animal Health Monitoring System. USDA/Animal and Plant Health Inspection Service, September, 1996, 9. See also, "Here's why milks moving west," by Richard Fallert, Mark Weimar and Terry Crawford, *Hoard's Dairyman*, January 10, 1994.



ages with producers and markets will become tighter, eliminating any vestige of an arms-length retailer of farm supplies.

**Concurrent Changes in the Dairy Industry-** In comparison with the pork industry, the dairy industry has been relatively quiescent. Facing significant competition from Europe, Australia, and New Zealand, the domestic dairy industry has not been revitalized like the pork industry, which has shrugged off maturity to resemble, in many ways, an emerging industry.<sup>10</sup>

Neither export nor investment demand have provided much stimulus in part because debate over milk support prices has preoccupied the industry.” While the pork industry has attracted new entrants through outside investment, new investment in the dairy industry largely occurs from the inside, through reallocations of existing investments (i.e., dairy farms). Although some scale economies exist, technical change<sup>12</sup> has not yet created a basis for the web of interdependencies defining vertical integration or coordination, leading some to dismiss integration as a “nonissue.”

When price supports are phased out in 2000, the industry will be better positioned to set the stage for vertical integration by aligning the milk producer with final demand. This may mean closed cooperatives, as in the pork industry, to ensure producer-members meet specifications for particular market segments.<sup>13</sup> It may also lead to market orders allowing cooperatives to increasingly control upstream or downstream components of the marketing channel, such as bottlers, to guarantee a market for members’ milk. In the pork industry, producer cooperatives follow a similar course by scheduling shackle space in packing plants to eliminate overfeeding and maintain the continuous flow production needed for vertical integration.

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<sup>10</sup> The term “emerging” is based on the Product Life Cycle, a concept used to describe sales growth over time as a new product is introduced (or emerges), then proceeds through successive stages of growth, maturity (flat sales), and finally, decline. See Hogeland, Julie A., *Cooperatives’ Role in the Artificial Insemination Industry*, USDA/ACS Research Report 90, March 1990. See also Hogeland, 1995.

<sup>11</sup> “Next century holds much potential for dairy industry,” *Feedstuffs*, March 10, 1997, 23.

<sup>12</sup> Specific technical changes affecting dairy producers are discussed in the context of survey results.

<sup>13</sup> Defining milk as a beverage whose flavor, protein, fat, and vitamin content can be tailored to appeal to different age groups is one basis for market or segment definition.

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## Locals’ Core Customer

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**Locals’ Perceptions of Change-** How much do locals perceive the dairy industry is changing? A regional cooperative spokeswoman writing to RBS voiced regionalists’ concerns:

- **Changes are occurring in the dairy industry but are not as well documented as those in the swine industry. As a result, many local cooperatives may not be prepared when the pace of change accelerates. We, at our regional cooperative, believe that contracting will eventually be a major part of dairy milk production. Contracting is already occurring in the raising of heifer calves.**
- **Changes in the dairy market are important issues because they affect resource allocations at the local level. Many cooperatives are faced with obsolete feed facilities, but are unsure whether they can get the best return on the cooperative’s money if they replace those feed mills.**

Based on these changes, this regional estimated the dairy industry was only 5 years behind the pork industry.

Asked about the industry’s rate of change, 60 percent of surveyed locals agreed with the statement, “The dairy industry is changing very fast; it won’t be the same in 5 years.” Almost 40 percent said, “The dairy industry is changing at a moderate pace. It could look quite different 7 to 10 years from now.”

Pork locals responded in exactly the same proportions to a similar question- which suggests changes at the producer level are beginning to have an impact on dairy locals.

**Variations in Producer Progressiveness—** Regional cooperatives summarized how producers served by locals were changing.

“High-tech” dairy farms (dairies) driven by the bottom line are replacing “low tech” dairies, the core clientele of many local cooperatives. High-tech dairies use computerized ration building to slash costs while significantly expanding yield per cow. Personal computers also help these producers access the cheapest source of energy for formulating a total mixed ration (TMR)<sup>14</sup>.

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<sup>14</sup> By mixing all ingredients fed to cows (or group of cows), TMR replaces individual, often specifically timed feedings of corn silage, hay, pellets, etc. Because TMR is the only ration given to the cows, they cannot pick and choose what to eat, but must consume exactly what will maximize milk production.

To serve this class of producers, locals have resorted to sourcing cheap and nontraditional feeds such as rice bran, cottonseed hulls, and bakery waste for TMRs. By acting more as a commodity broker than a feed supplier, the local gets much smaller margins. Producers using TMR can bypass the feed mill because many need only a superconcentrate<sup>15</sup> for a balanced ration,

As such producers take a more decisive role in their dairy operation, they need fewer services from cooperatives. Full service packages are rejected as too expensive, forcing cooperatives to consider how the service mix for this new class of dairy producers should be combined (or bundled) and priced.

Low-tech dairies typically rely on a standard ration based on complete feeds<sup>16</sup>, a product staple of local cooperatives. Often, the regional cooperative's brand name is sufficient to reassure users about nutritional content and performance. High-tech producers are more exacting. Borrowing from the pork industry, they are adjusting the energy and protein content of TMR's to the age, productivity, and potential of cows. Complete mixed feeds are not specific or cheap enough to meet the narrow criteria of their nutritional and veterinary consultants.

## Profile of Producers

What kinds of dairy producers do local cooperatives serve? Survey results revealed locals have found a niche with small producers by default or design: 80 percent served producers with fewer than 100 cows; 19 percent, large producers, primarily in the 101- to 200-head group.

From a list of 22 traits, locals described the characteristics of those they considered innovative, large (>100 cows), and small (<100 cows). The survey did not link innovation to a particular size of producer to avoid biasing results in favor of large producers. Since technologies like bovine somatotropin and computerized record-keeping require relatively small capital investments<sup>17</sup>, the terms "high- and low-tech" were also not used in the survey.

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<sup>15</sup> Feedstuffs Reference Issue 1997 defines concentrate as "a feed used with another to improve the nutritive balance of the total and intended to be further diluted and mixed to provide a supplement or complete feed."

<sup>16</sup> Ibid. Complete feeds are "a nutritionally adequate feed for animals. . . by specific formula compounded to be fed as the sole ration and capable of maintaining life and/or promoting production without any additional substance, except water, being consumed."

<sup>17</sup> Lazarus, W. F. and T. R. Smith, "Adoption of Computers and Consultant Services by New York Dairy Farmers," *Journal of Dairy Science* (1988) 71, 1674.

Nevertheless, survey findings placed innovators, and to a lesser extent, large producers, in a class apart from the small producers served by locals. The extent of this gap becomes particularly apparent when innovators are contrasted with small producers.

## Characteristics of Innovators

Figure 1 shows the characteristics of innovators arranged according to the frequency observed by locals. Characteristics noted by at least 48 percent of locals were:

- [innovators are] seeking new sources of expansion capital (48 percent);
- using bST routinely or experimentally (52 percent);
- rethinking goals, i.e., maximum vs. efficient milk production (57 percent);
- increasing preventative herd health through additives, premixes (57 percent);
- improving labor utilization (58 percent);
- increasing dairy operation's size (58 percent);
- ordering bulk feed to contain costs (62 percent);
- concerned about feed composition and milk component pricing (64 percent);
- using TMR (65 percent);
- viewing dairy farm as business, not way of life (66 percent);
- using consultants for business planning, other aspects of dairy enterprise (68 percent); and
- trying to stay on top of amino acids, other specialized supplements (71 percent).

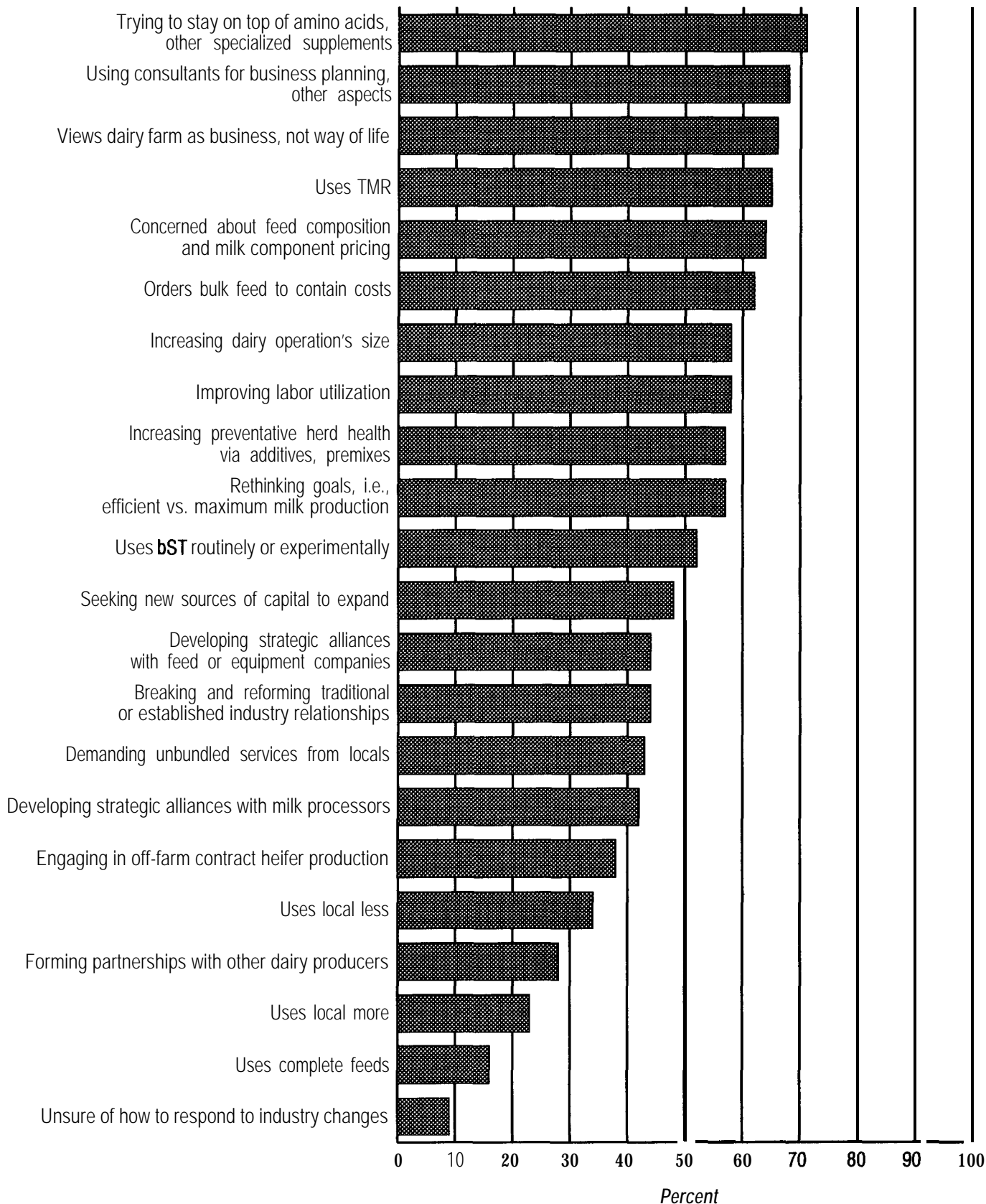
Because only one of these traits refers to persons other than the innovator (consultants), it appears that innovators are pursuing a largely self-reliant course toward greater efficiency, comparable with farrow-to-finish pork producers.

Partnerships with other dairy producers, off-farm contract heifer production, strategic alliances with milk processors or input suppliers, and reevaluation of established industry ties were less evident to locals. From this, it appears that the dairy industry has not yet reached the level of interpersonal/interorganizational complexity characteristic of contemporary pork production, where strategic alliances and partnerships underwrite the economics of the industry.

Yet this area will very likely be the next watershed for innovators because:

- 38 percent of locals saw innovators engaging in contract heifer production;
- 42 percent saw strategic alliances with milk processors;
- 44 percent saw breaking and reforming of traditional industry ties;

**Figure 1— Characteristics of Innovative Producers Identified by Locals**



- and perhaps most important for supply cooperatives, 44 percent saw innovators developing strategic alliances with feed or equipment companies.

Sources of **innovative behavior**- Figure 1 may also offer clues to the cause(s) of innovative behavior among producers. For example, if seeking new (alternative) sources for expansion capital is taken as the initial trait (or objective) of an innovator, then it and those that follow in sequential order portray producers who systematically scrutinize each component of production-labor, capital, feed composition, animal health products, biotechnology, and even their own motivation and aspirations-to achieve greater efficiency.

If the chain reaction of behaviors defining an innovator begins from the opposite direction, i.e., seeking alternative expansion capital is the result of pursuing efficiency through every means available, then another interpretation emerges.

Take, for example, the second most noticeable trait of innovators, their use of consultants for business planning and other aspects of the dairy enterprise, noted by 68 percent of locals. Do consultants “train” producers to view the dairy farm as a business rather than a way of life (the third most important trait), and behaviors like using TMR or improving labor utilization follow? Or, do producers decide to expand and the prospect of additional debt from alternative financing disciplines them to cut costs and improve efficiency?

If, indeed, consultants are the catalyst for transforming producers into innovators, locals need to increase their roster of specialists for such things as nutrition, facilities, and milk quality. If the decision to expand is the trigger, then locals need to be a source of alternative financing for producers. In fact, locals serving pork producers often do both.

### Small Producer Characteristics

While question design was prompted by the assumption that small as well as large producers could be innovators, such was not supported by survey evidence. The primary attribute of small producers (and the trait least characteristic of innovators), was that they do not know how to respond to industry changes (Figures 2 and 3). Only a small percent used consultants or viewed the dairy farm as a business, while innovators, according to locals, viewed these as their second and third highest priorities, respectively.

Compared with innovators, small producers were more identifiable by what they didn't do than by

what they did. Only four traits were observed by at least 48 percent of locals, compared with 12 such traits for innovators:

- [small producers were] concerned about feed composition and milk component pricing (48 percent);
- uses complete feeds (56 percent);
- orders bulk feed to contain costs (58 percent); and
- unsure of how to respond to industry changes (81 percent).

Even though small producers represent 80 percent of their clientele, locals had difficulty describing them, beyond being struck by their confusion and lack of direction.

Why locals did not have a fuller or multidimensional understanding of small producers is unclear, because 35 percent of respondents noted these producers had increased their use of locals.

Moreover, fewer than 10 percent of locals perceived these producers wanted products and services priced on an item-by-item basis (unbundled). Although bundling has been commonly used by locals, this variation on “one-stop shopping” has been resisted by large producers seeking whatever supplier will give them the best deal. Because small producers are willing to buy the way locals like to sell, locals may find them receptive to packages of inputs and consulting services.

### Producer Priorities

Figure 4 shows how locals viewed large producers. A fuller understanding of the implications of these results can be obtained from grouping the traits used to describe producers into three areas, feed cost/composition, improving efficiency, and industry relationships, to illustrate priorities by size of producer (Figures 5 to 7). To facilitate comparison, within each area the traits of innovators are arranged in descending order. A difference of 10 percent or more was taken as a substantial difference between producer groups.

Using this criteria, across all traits, large producers were less likely than innovators to:

- monitor developments in amino acids and other specialized supplements,
- increase preventative herd health via additives, pre-mixes,
- use bST,
- use consultants,
- reevaluate established industry connections,
- develop strategic alliances with milk processors,
- form partnerships with other dairy producers, and
- view dairy operation as business, not way of life.

Figure %-Characteristics of Small Producers Identified by Locals

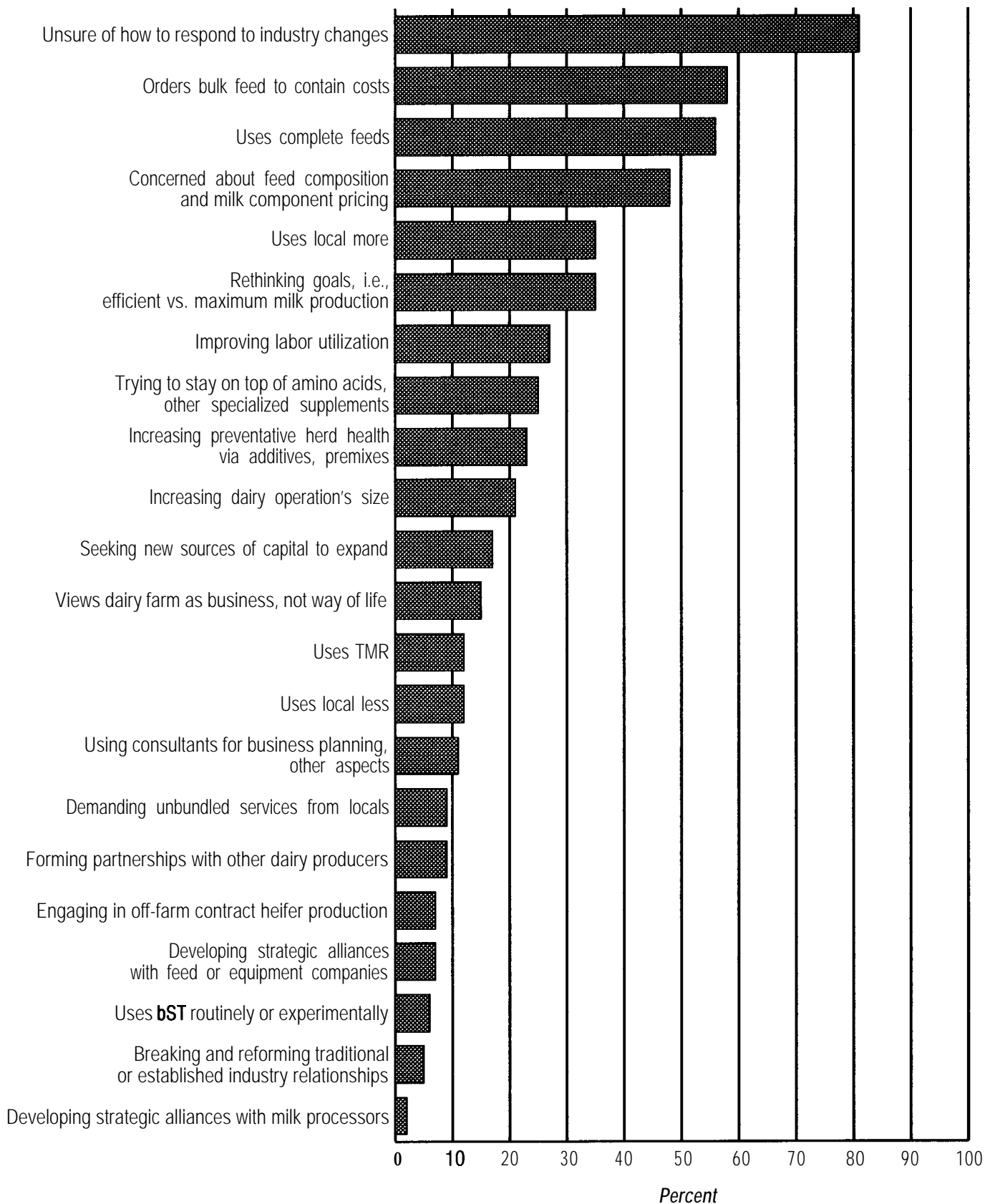


Figure 3— Innovative and Small Producer Characteristics Compared

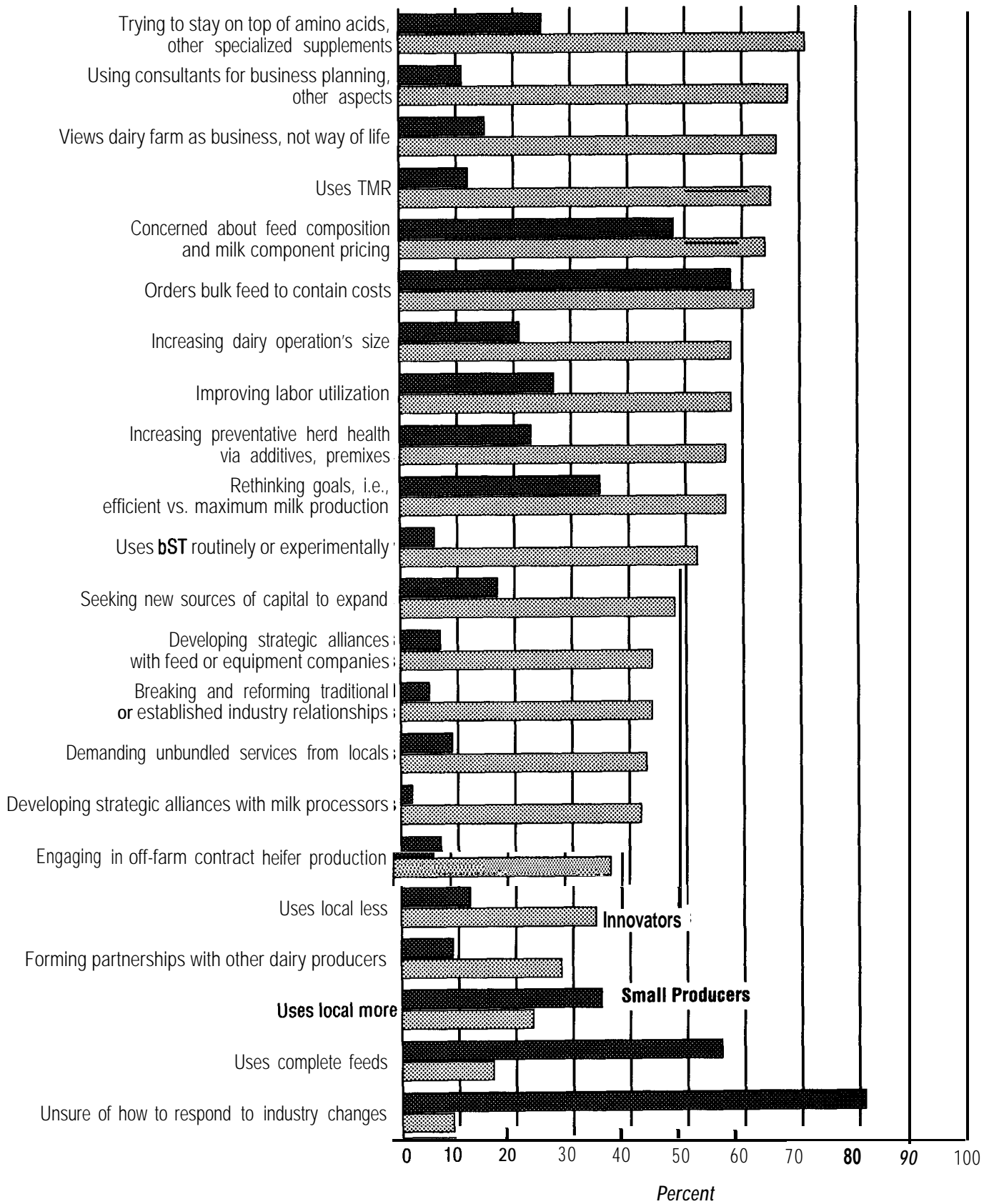
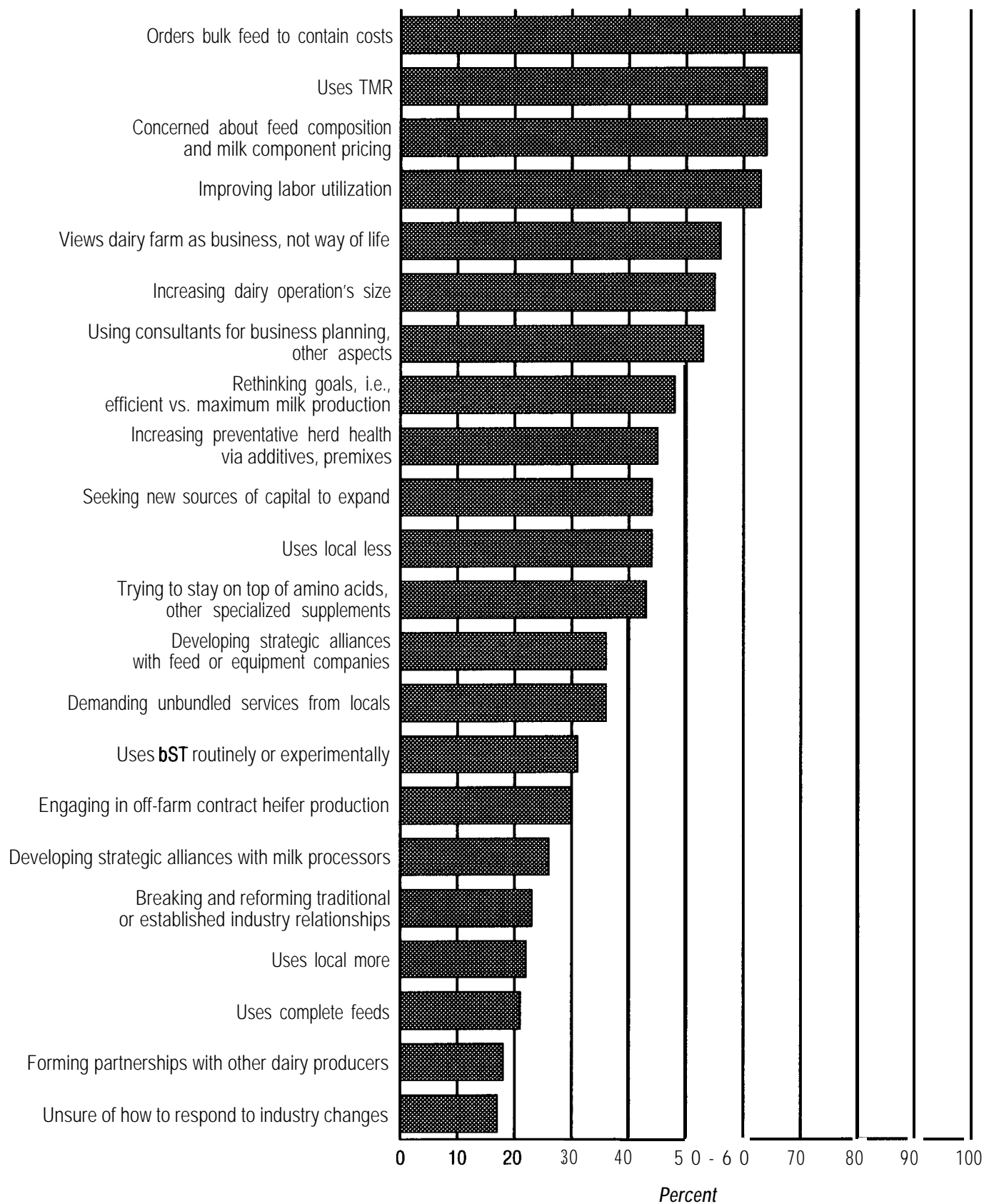
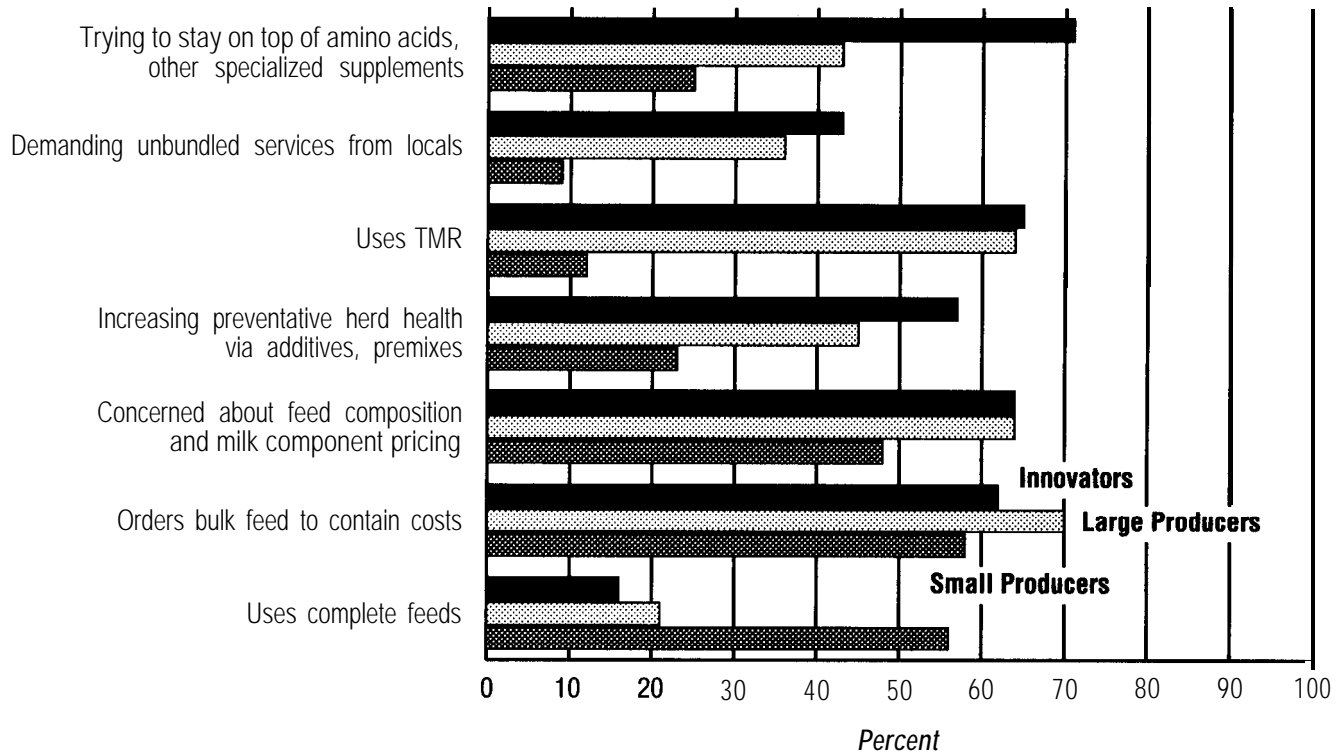


Figure 4— Characteristics of Large Producers Identified by Locals



**Figure 5— Locals' Observations of Producer Behavior Regarding Feed Cost/Composition**



**Figure 6— Locals' Observations of Producer Behavior Regarding Improving Efficiency**

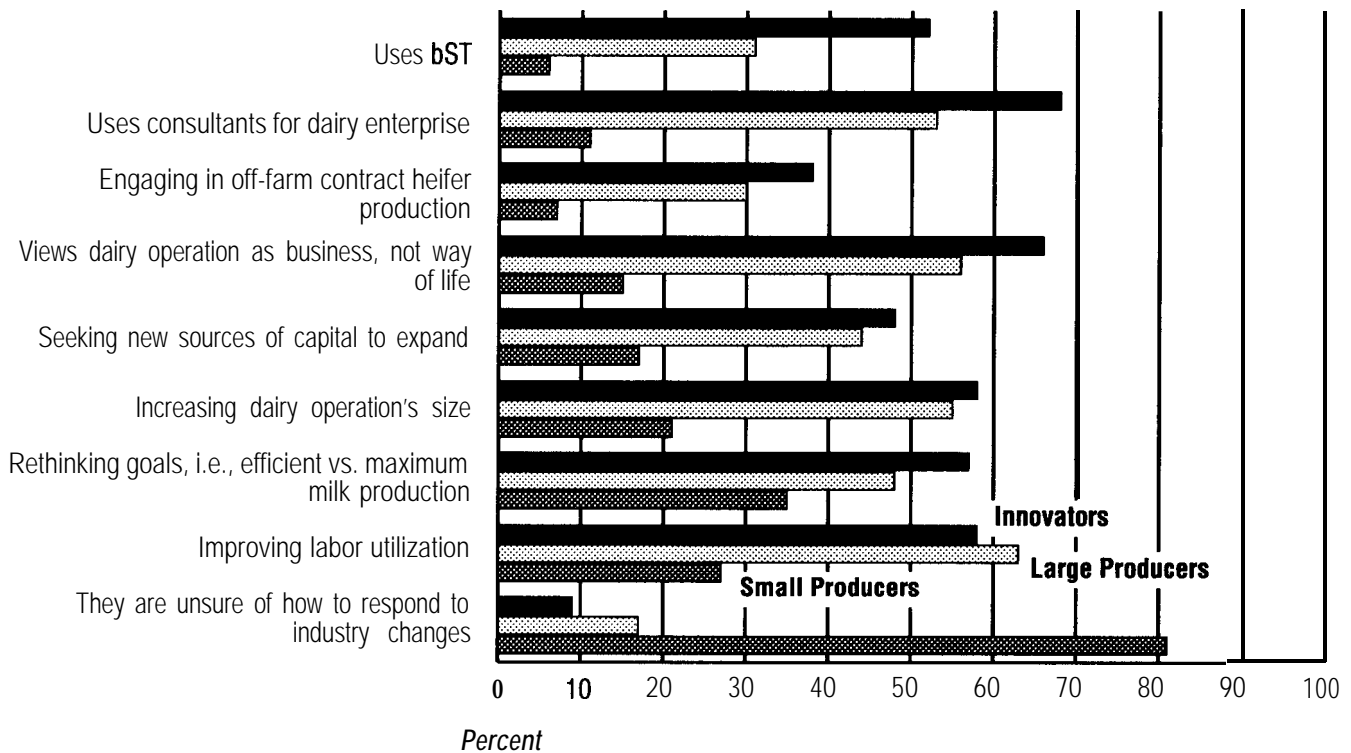
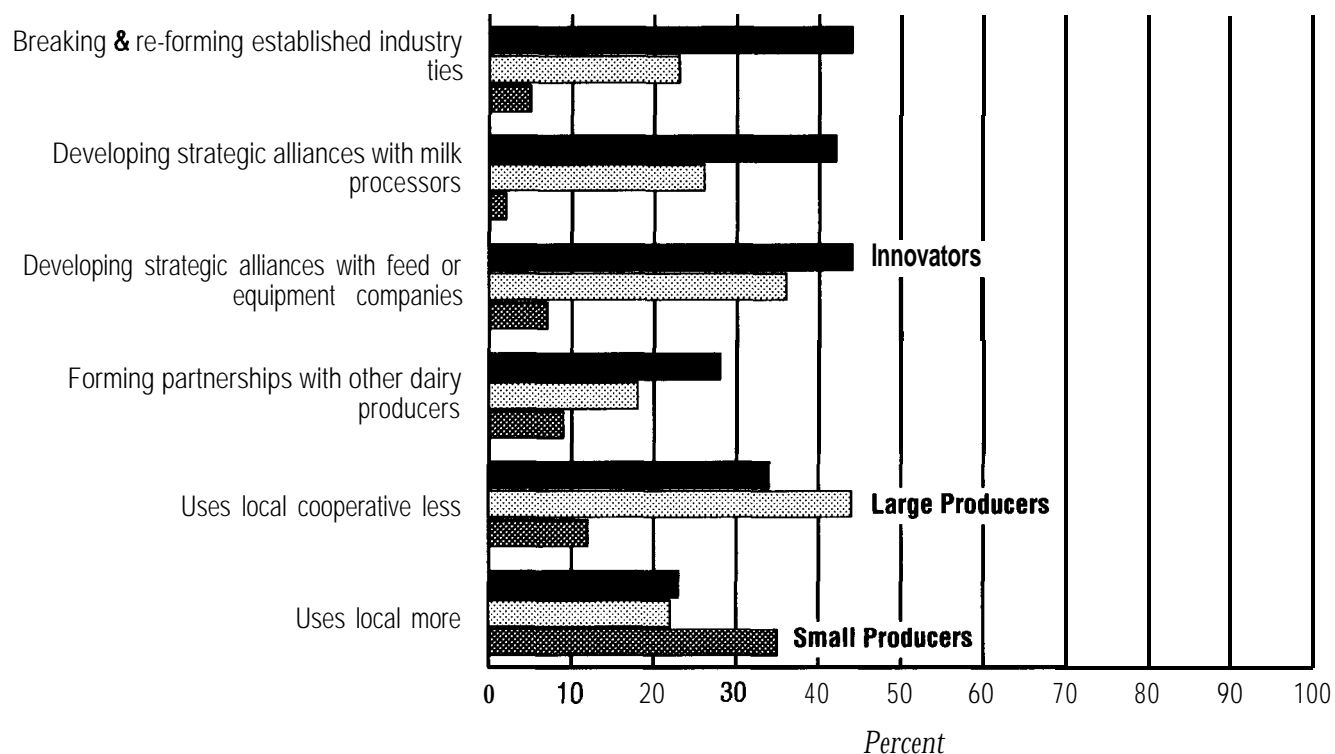




Figure 7— Locals' Observations of Producer Behavior Regarding Industry Relationships



As large producers become more sophisticated, it seems inevitable that these areas will increasingly engage their attention. It would be easy to suggest that local cooperatives should anticipate this interest and respond accordingly, however, 44 percent of respondents observed that large producers had decreased their use of locals.

All three producer groups were similar insofar as they ordered bulk feed and were concerned about feed composition and milk component pricing. Overall, however, small producers—the core clientele of local cooperatives—were more unlike both innovators and large producers than they were alike. Consequently, there appears to be two distinct populations of producers, small and progressive, where progressiveness is defined as a continuum across the traits considered in this analysis. And, analysis suggests locals are not, by and large, serving the progressive segment.<sup>18</sup>

<sup>18</sup> In the remainder of the report, the terms, “large,” “innovative,” and “progressive” are used interchangeably.

## Service Adjustments

**Impact of TMR**— Over the 1993-94 reference period used in the survey, the impact of changes in the dairy industry on locals' feed product sales by tonnage was mixed, overall, but clearly reflected the growth of TMR. Sales of complete feeds declined for 56 percent of respondents and commodity sales increased for 67 percent—a remarkable result for a 2-year period. These trends have undoubtedly strengthened since the survey (Table 2).

Not surprisingly, three of the most commonly offered services by locals reflect dairy producers' endorsement of TMR: on-farm feed specialist, commodity or ingredient sales, and commodity/custom blending (Figure 8). TMR has also caused locals to increase staff expertise, begin bulk commodity sales, and compete more intensively (Table 3).<sup>19</sup>

<sup>19</sup> Other commonly offered services, consulting for nutrition management and production, and feed record analysis may be considered core services of locals, irrespective of members' commodity specialization.

Table 1— Relative Characteristics of Innovative, Large, and Small Producers

	Innovative or Leading Prods.	Large Prods. (> 100 cows)	Small Prods. (< 100 cows)	Total
	<i>Percent</i>			
<b>Feed Cost/Composition</b>				
1. orders bulk feed to contain costs	62	70	58	100
2. uses total mixed rations (TMR)	65	64	12	100
3. uses complete feeds	16	21	56	100
4. concerned about feed composition, milk component pricing	64	64	48	100
5. trying to stay on top of amino acids, other specialized supplements	71	43	25	100
6. increasing preventive herd health through additives/premixes	57	45	23	100
7. demanding unbundled services from locals (priced separately from feed cost)	43	36	9	100
<b>Industry Relationships</b>				
1. breaking, reforming traditional /established industry ties or relationships	44	23	5	100
2. uses local cooperative less than in previous years	34	44	12	100
3. uses local more than in previous years	23	22	35	100
4. forming partnerships with other dairy producers	28	18	9	100
5. developing strategic alliances with milk processors	42	26	2	100
6. developing strategic alliances with feed or equipment companies	44	36	7	100
<b>Improving Efficiency</b>				
1. using consultants for business planning, other aspects of dairy enterprise	68	53	11	100
2. they are unsure of how to respond to the changes in the dairy industry	9	17	81	100
3. engaging in off-farm contract heifer production	38	30	7	100
4. improving labor utilization	58	63	27	100
5. views dairy operation as a business, not way of life	66	56	15	100
6. uses <b>bST</b> routinely or experimentally	52	31	6	100
7. increasing dairy operation's size	58	55	21	100
8. rethinking goals, i.e., efficient vs. maximum milk production	57	48	35	100
9. seeking new sources of capital to expand	48	44	17	100

Table 2— Changes in Feed Product Sales, 1993/94

Feed Product:	Net Increase	Net Decrease	No Change
	<i>Percent</i>		
Premix/Low Inclusion Feeds	47	27	26
Complete Feeds	23	56	21
Commodity Products	67	15	18
Concentrates	28	48	24

Table 3— Locals' Reactions to Feed Sales Variability

	<i>Percent</i>
The local has..	
a. started specializing sales staff	48
b. begun bulk commodity sales	43
c. expanded trade territory	40
d. intensified competition with other dealers	39
e. begun strategic planning	38
f. increased efficiency in manufacturing or distribution	24
g. coordinated activities with other locals or regional	22
h. closed small mills	20
i. begun joint ventures in feed or fertilizer with other locals	16
j. investigated software and networking ideas	12
k. reduced feed sales staff	9
l. acquired private feed dealers	7
m. built new feed mill	7
n. made no changes	7
o. downsized in response to shrunken sales territory	6
p. exited feed business	0

Note that locals have largely rejected downsizing or reducing feed sales staff. The core of their competitive strategy appears to be a sizeable, well-trained staff. This approach is not surprising given their rural community identities as employers and agricultural resource for producers. Yet the fact that 41 percent of respondents saw their community lose jobs a result of changes in the dairy industry could mean locals are unfairly pressured to overstaff when other agribusinesses are consolidating to lower overhead (Table 4).

**Figure 8— Current and Anticipated Services from Local Cooperatives**

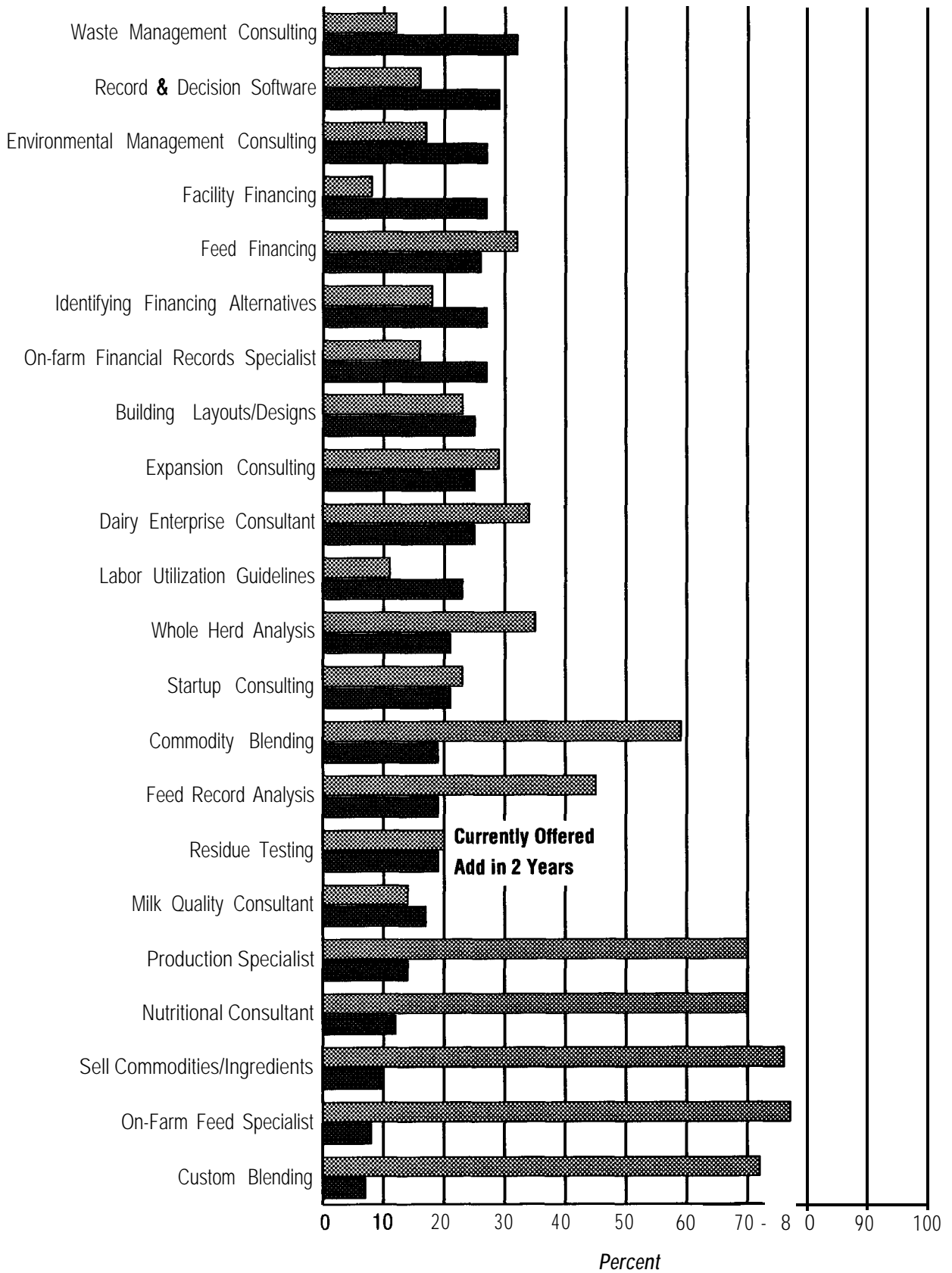


Table 4— Impact of Dairy Industry Changes on locals' Communities

a The community has	gained jobs-1 %	lost jobs-41 %	no change—48%
b Grain production has been	depressed-1 4%	stimulated-39%	no change- 47%
c Area milk processors are processing	more-22%	less-47%	no change—31%
d Technical services for dairy producers are	<b>decreasing—18%</b>	expanding-61 %	no change--22%
e Financing for dairy production by area banks has	increased-26%	<b>decreased—42%</b>	no change-33%

Table 5— Ways Regional Cooperatives Can Assist Locals

	Percent
a programs more competitive with other providers	43
b offer production credit to producers through local	27
c more specialists	27
d whole farm nutrient management	26
e give local more role in regional activities such as feed manufacturing, marketing, or product development	26
f more programs addressing producers' needs	25
g manure management and environmental services	20
h market access through value-added milk processing	20
i labor management services and information	19

Adding to this pressure is the potential for communities where dairying is a marginal enterprise to experience what has been described as very exaggerated and deleterious impacts from seemingly minor adjustments within the industry as a whole.<sup>20</sup>

As a result, rural communities and cooperatives themselves may perceive that the latter exist [solely] to provide a service-at cost, or irrespective of cost—thereby jeopardizing the ability of locals to aggressively pursue other goals like being a low-cost supplier. To reconcile these conflicting expectations, locals may attempt to shift a disproportionate amount of the burden of cost-cutting to regionals. Asked how regionals could assist them, locals primarily wanted programs more competitive with alternative providers (Table 5).

### Future Services

The choices made by locals regarding future services, i.e., those needed during the next two years<sup>21</sup>, can be interpreted by examining:

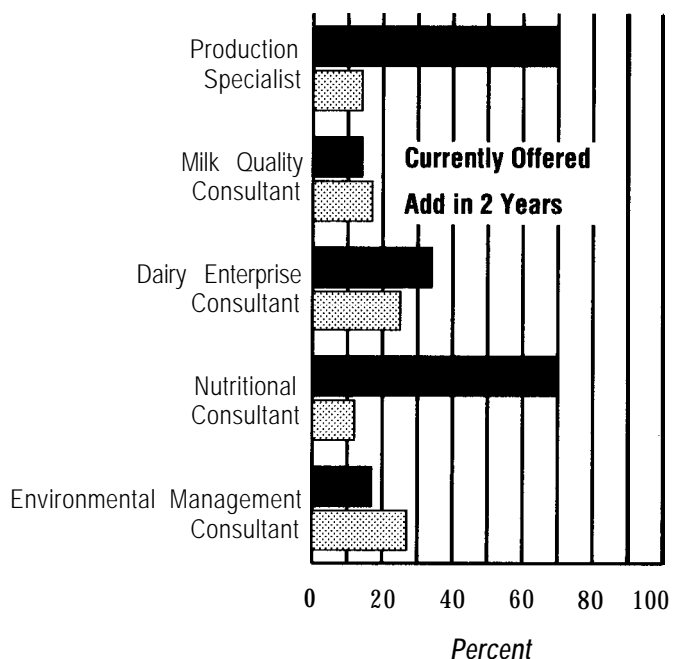
- future priorities irrespective of current choices (Figure 8);

- the extent that future service demand exceeds current demand (Figures 9-13); and
- total demand (current + future) (Figure 14).

Looking only at locals' future service priorities suggests that the future beyond TMR will depend heavily on locals' ability to offer environmental expertise and extend various forms of financing and financial analysis to producer-members, as indicated by those services desired by more than 25 percent of respondents. These services were: facility and feed financing, identifying alternative sources of financing, providing on-farm financial records specialists, environmental management consulting, and record and decision software (Figures 11 and 13). The priority was waste management consulting, chosen by 32 percent of respondents.

Because interest peaked at 32 percent, locals did not seem to be enthusiastic about adding new services, unless service interests varied widely among respondents.

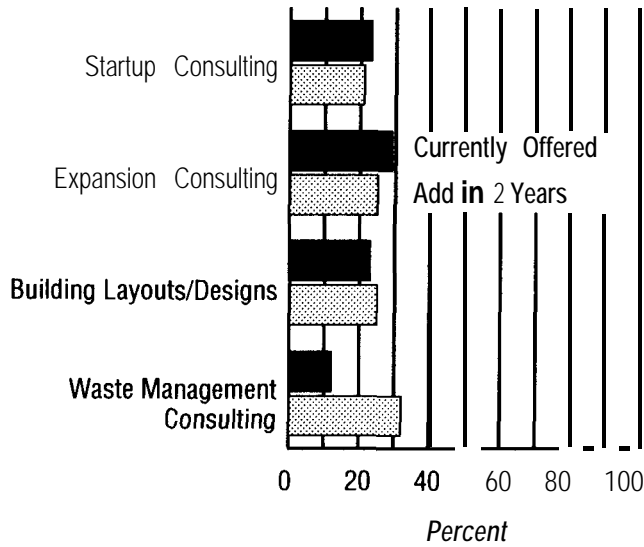
Figure 9— Consulting Services



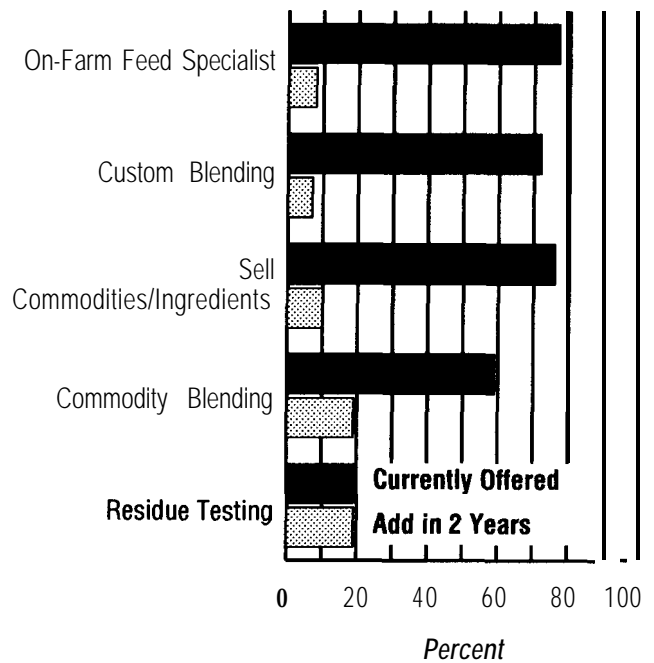
<sup>20</sup> Harry K. And Andrew P. Davidson, "Perspectives on Regional and Enterprise Marginality: Dairying in Michigan's North Country," *Rural Sociology*, 1997,160.

<sup>21</sup> In the broadest sense, "future services" represent the overall direction dairy locals see themselves going.

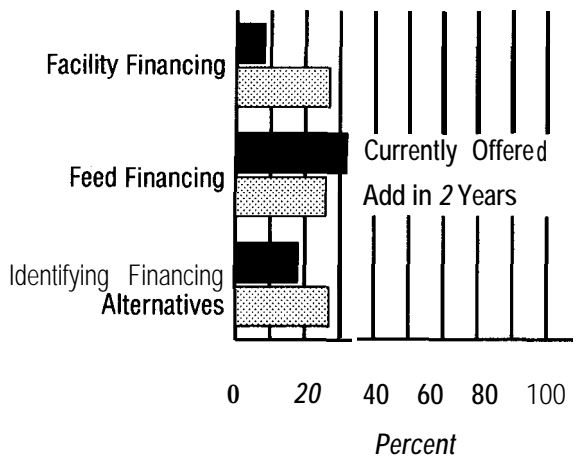
**Figure 1 0- Startup/ Expansion Services**



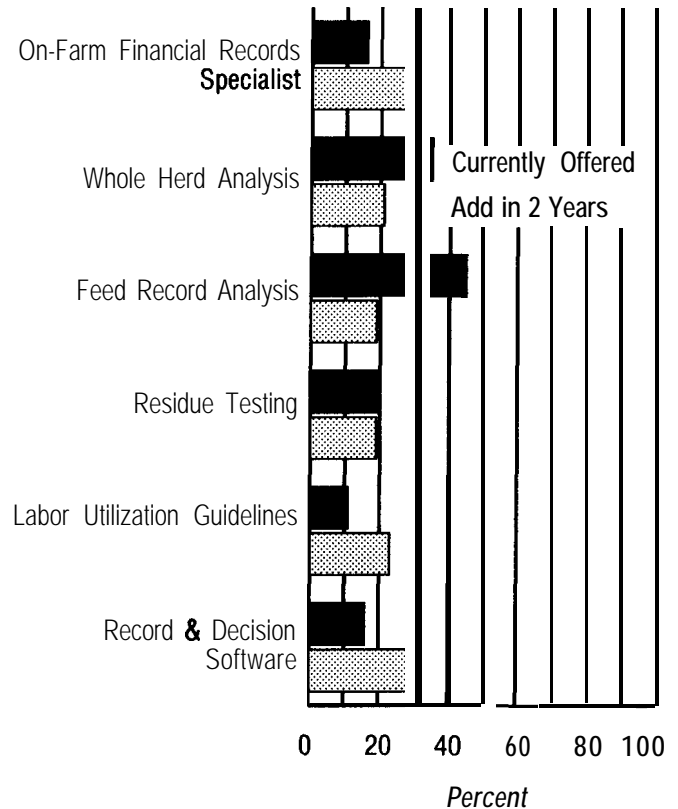
**Figure 12— Feed Services**



**Figure 1 1— Financial Services**



**Figure 13— Records Management**



This lack of enthusiasm combined with the slight preference for credit services may be complementary findings reflecting the difficulty dairy farmers experience obtaining financing.<sup>22</sup> Insofar as the areas served by dairy locals have stagnant populations and low land values, locals may feel their membership is strengthened more by financing than alternative services.

Looking at future demand relative to current demand suggests waste management consulting, facility financing, identifying alternative financing, provid-

<sup>22</sup> Schwarzweiler and Davidson, 162.

ing on-farm financial records specialists, labor utilization guidelines, and record and decision software will be areas emphasized by locals.

Combining current and future demand indicates that locals do not anticipate significant changes in their service offerings beyond the changes already exacted by TMR. Selling commodities/ingredients, providing on-farm feed specialists, production specialists, nutrition management consulting, custom blending, commodity blending, and feed record analysis will continue to be the backbone of their business (Figure 14).

Not first choice for these locals are the building layouts/design, startup consulting and environmental services and other popular services of the pork industry. In short, dairy locals do not see the vertical integration and coordination of the pork industry necessarily influencing dairy production in their area.<sup>23</sup> This result may be evidence that:

- technical change within the dairy industry has not yet reached the critical mass necessary to transform the industry, and by extension, locals;
- milk production is declining at a sufficiently rapid rate that many locals see no pressing need for new services;
- or, like their core customers, small producers, dairy locals are caught in a stalemate.

### Identifying the Future Core Customer

**Who Defines “Survivor”?**- In 1996, Feedstuffs<sup>24</sup> reported 54 percent of more than 280 feed manufacturers planned on geographically expanding their marketing territory in the next 5 years. Almost 50 percent expected to broaden their feed lines by species or feed type, and more than 40 percent intend to build or expand an existing facility. Only 10 percent planned to change current distribution methods.

These findings indicate too many suppliers will be chasing after too few customers.

Yet the drive to increase the customer base and retain existing customers goes beyond building new facilities and expanding product lines. To respond more effectively to producers, agribusinesses, including regional cooperatives, are using market segmentation techniques to classify and define their customer base.

Such techniques may be a competitive necessity, but they create unique problems for cooperatives insofar as they exacerbate member diversity and governance. Moreover, unlike investor-owned firms who can choose to specialize, cooperatives are pulled in opposite directions as they try to serve both high- and low- tech producers. This dilemma was reflected in survey comments:

- We have to offer programs that reward producers for volume purchases that help our own efficiencies, yet still service the traditional producer. How is this done?

The choice among groups is made more difficult by the fact that large and innovative producers (consistent with survey evidence, the two adjectives are usually considered synonymous) are generally regarded as the likely survivors of structural change, and therefore, the core customer of the future for most agribusinesses. In this vein, a respondent wrote, “We will lose some customers, however, (so) we are focusing our main attention on the survivors.”

But who determines what is or isn’t a survivor? Who defines the timetable for evaluating whether a particular category of producers made the grade or not? What role do cooperatives play in determining who survives and who doesn’t? Will particular producers be forced by industry attitudes into a Procrustean bed<sup>25</sup> which cripples their chances for survival? The debate over which group to focus on brings issues like these to the table:

- Low-tech producers will inevitably drop out of the industry sooner or later, so why bother investing in them?
- Established producers are too inflexible or disillusioned to conform to our production requirements and market specs; we prefer to train new people.
- We are committed to the survival of low-tech producers because they embody the reasons why our cooperative was started.
- No one in the feed business can afford to write off any customers, so let’s try to meet low tech producers on their own terms, letting them, like other members, shape the cooperative’s direction.

The difficult issues involved in this debate could lead cooperatives to place themselves on the sidelines as neutral observers watching the forces of structural

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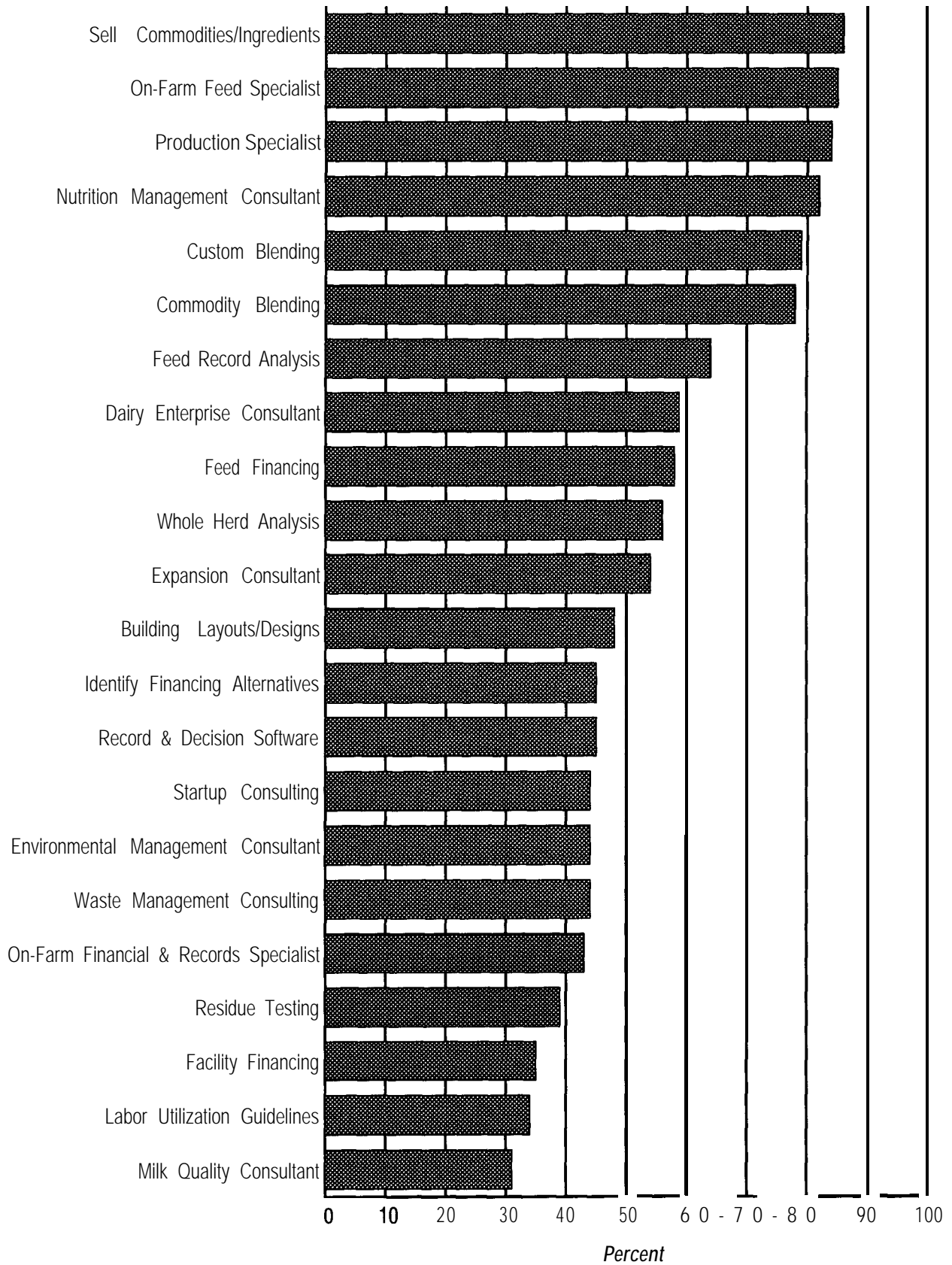
<sup>23</sup> Dairy marketing cooperatives and land-grant universities may provide services comparable to those available to pork producers. The impact these alternative providers have on locals’ choices is beyond the scope of this report.

<sup>24</sup> “Feed manufacturers look to expand market territory,” Feedstuffs, October 14, 1996, 14.

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<sup>25</sup> This mythological image of cutting off a person’s feet so they fit into a bed symbolizes the act of forcing conformity to arbitrary standards.

Figure 14— Service Priorities (Current Plus Anticipated)



change sift through their membership, much as cyclical and counter-cyclical forces affect the mix of commodities they market.

## Response to Technical Change

The choice of core customer is also fueled by concern that small producers are not modernizing and innovating, thereby self-selecting themselves out of the industry. To a degree such concern may be justified. A 1993 survey of Iowa pork producers revealed small producers were uniformly less likely than medium or large producers to use records to calculate their cost of production, nutritional or veterinary consultants, scales to sort hogs or mix feed, marketing services, multi-site production, or plan a major genetic change within a year.<sup>26</sup>

Turning to the dairy industry, facilities-tie stalls or stanchion barns for lactating cows have restricted small producers' use of TMR<sup>27</sup>, the fundamental innovation considered in this report. USDA's National Animal Health Monitoring System (NAHMS) estimated only 28 percent of operations with less than 100 dairy cows used TMR in 1996, compared with nearly 64 percent for larger herds.<sup>28</sup>

Insofar as NAHMS monitored 83.1 percent of U.S. milk cows, it appears locals may be serving (or observing) somewhat less progressive producers than the norm. Like NAHMS, 64 percent of locals observed innovators and large producers using TMR, but only 12 percent described small producers thus (Table 1).

NAHMS also found that record-keeping through Dairy Herd Improvement Association records, on-farm computers, or a combination of these was the most significant difference between high- and low-producing herds.<sup>29</sup> Low-producing herds had less than 100 cows, corresponding to the small producers of this study. Record-keeping systems allowed high producers to evaluate the effectiveness of management practices like bST, estrus synchronization, or culling healthy cows through break-even milk production levels.

If viewing the dairy operation as a business rather than a way of life represents the same diligence as record-keeping, then locals found a business-manager approach among 66 percent of innovators and 56 percent of large producers, compared with only 15 percent of small producers (Table 1).

High producers also tended to focus more aggressively on overall herd health. NAHMS found a significant difference in the number of large and small producers interested in whole-herd diagnostic services.<sup>30</sup> High producers also practiced more progressive neonatal calf care by such practices as separating newborn calves from the dam before nursing, feeding greater amounts of colostrum, etc. Similarly, small producers were less likely to undertake the pre-entry vaccinations which are the primary biosecurity measure used by producers introducing new cattle to their herd.

Survey results point in the same direction: 57 and 45 percent of locals observed innovators and large producers, respectively, increasing preventative herd health through additives/premixes (Table 1). Only 23 percent saw this behavior among small producers.

Fifty-two percent of locals saw innovators using bST routinely or experimentally; 31 percent saw such use among large producers, and 6 percent among small producers (Table 1). Although NAHMS discovered small producers used bST only sporadically even though it markedly increased milk production per cow, only 19 percent of locals anticipated their products or services would be affected by bST.

As yet, according to NAHMS, only a minority of producers, mainly with larger herds, practiced contract heifer raising (had others raise their calves), so they could specialize in milk production. Among surveyed locals, 38 percent observed innovators pursuing off-farm contract heifer production; 30 percent saw it among large producers, and 7 percent among small producers (Table 1). Although NAHMS observed such production has tripled between 1991 and 1996, more than 70 percent of locals doubted contract production would affect their services or products.<sup>31</sup>

**Locals' Role Expanding Service Awareness-** The potential for locals to interject more service awareness into their core-customer base may be circumscribed by the reluctance of small producers-the primary owners of locals-to change. Even though small producers need leadership to transcend structural change, they may lack the necessary vision to empower their coop-

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<sup>26</sup> 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*, Staff Paper 253. Ames, Iowa: Iowa State University, June 1994, 13.

<sup>27</sup> Info Sheet, *Management Practices Associated with High-Producing U.S. Dairy Herds*, USDA/Animal and Plant Health Inspection Service, January 1997, 2.

<sup>28</sup> Part I: Reference of 1996 Dairy Management Practices, *National Animal Health Monitoring System*, USDA/Animal and Plant Health Inspection Service, May 1996, 10.

<sup>29</sup> Info Sheet, 1.

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<sup>30</sup> *Ibid.*, 3.

<sup>31</sup> Part II: *Changes in the U.S. Dairy Industry: 1991-1996*, 23.



eratives to provide such leadership. For example, although NAHMS indicated producers of top-producing dairy herds were twice as likely than their low-producing counterparts to engage in low-impact manure management practices, only 32 percent of locals wanted to add waste management consulting to their roster in the next 2 years.

Nevertheless, it is evident that dairy producers themselves are interested in upgrading their production practices-61 percent of locals saw technical services for dairy producers expanding within their communities. In fact, this trend dominated all other indicators of change considered in the survey (Table 4). Here again, innovators led the way: 68 percent of locals observed this group using consultants for busi-

ness planning and other aspects of the dairy enterprise, 53 percent observed the same among large producers, and 11 percent among small producers (Table 1).

### Potential for Technical Services

Can locals be a part of the surge in technical services? Within the pork industry, local cooperatives have viewed production management and consulting services as a way to offset dependence on feed sales and services and as a channel for disseminating technical information to producer-members. Although there is concern about the longevity of small producers, pork locals do work closely with some, based on their willingness to align their operations with cooperative products and services. The industry-wide movement to networking and strategic alliances have provided a supportive environment for such relationships.

But survey results indicate these services have not become ensconced among dairy locals. For close to 50 percent of respondents, offering current and new services to dairy producers was limited by larger producers bypassing locals, the size of feed business, and the perception that present demand may not support services (Table 6). To make a successful transition to dairy management/consulting services, locals felt they needed the right people to deliver new technology, the ability to lower feed cost to compete as a low cost supplier, and a basis for determining whether to price services separately or roll into feed cost (Table 7).

The loss of large producers undoubtedly exacerbates feed mill overcapacity, making locals wary of ladling on service overcapacity. The consequence may be a vicious circle: small producers don't know how to respond to industry changes, and cooperatives, who serve these producers, don't assume a leadership role because they conclude that demand will not support service investment.

Compounding this dilemma, 42 percent of locals saw bank financing for milk production decrease, and 47 percent saw production cutbacks among area milk processors (Table 4). These figures indicate that there is a critical imbalance within locals' marketing territories. Producers are trying to become more efficient even as bankers, if not processors, are discouraging milk production. This imbalance suggests that some form of vertical integration or coordination, perhaps in tandem with milk marketing cooperatives, is needed to capture the benefits of technical services offered by supply cooperatives. Locals supplying inputs to pork producers are frequently part of a value-added chain culminating in processed meat products.

Table 6—Constraints on Locals' Dairy Services and Programs

	<i>Percent</i>
<b>Structural Change</b>	
1 Larger producers bypassing services of local	46
2 Rapidly decreasing cow numbers/dairies in our trade area	29
<b>Feed Pricing</b>	
1 Conflict between pricing services separately vs. bundling in feed cost	29
2 Deciding how to price concentrates or supplements to work with or compete with commodities	23
3 Company profitability	19
<b>Feed Sales</b>	
1 Size of feed business	45
2 Old or inadequate mill	40
3 Feed department profitability	32
4 No feed mill	6
<b>Cooperative Commitment</b>	
<b>1</b> Present demand for these services may not support them	43
<b>2</b> Limited specialized knowledge or training	22
<b>7</b> Local has other priorities	21
<b>5</b> Reluctance to risk local's equity	16
<b>9</b> Time constraints	12
<b>6</b> Not sure changes in dairy industry warrant local changing product and service mix	10
<b>2 Attitude</b> of management	9
<b>1</b> Attitude of board	8
<b>8</b> Regional has other priorities	8
<b>4</b> Leadership support and programs not available from feed supplier	<b>5</b>
<b>Social Pressures</b>	
1 Image of local cooperative among dairy producers	13
2 Negative customer reaction	7
3 Community, social, or political pressures	3

Table 7—**Areas affecting Successful Transition to Dairy Management/Consulting Services**

	<i>Percent</i>
<b>Distribution</b>	
1 Having the right people to deliver new technology	61
2 Whether to price services separately or roll into feed cost	47
2 Determining channels for distributing new technology or information	25
<b>Feed Manufacturing</b>	
1 Lowering feed cost sufficiently to compete as low cost supplier	51
2 <b>Biosecurity</b> issues affecting feed composition and delivery	7
<b>Risk</b>	
1 Encountering resistance from producer-members favoring conventional production methods	35
2 Products or services not meeting expectations of dairy producer-members	27
3 Products or services not meeting expectations of the local	11
4 Products or services having unanticipated consequences for the local	10
<b>Regional-Local Coordination</b>	
1 Local and regional have different philosophies or operating styles	25
2 Speed of information exchange between local and regional on key issues	19
3 Fuzzy organizational authority	11
4 Governance issues	5
<b>Regulations</b>	
1 Federal regulations such as OSHA, etc.	18
2 Rural community ordinances regarding zoning, pollution, etc.	9

## Core Customer Choices

Whether relationships prevalent in the pork industry are an option for dairy locals depends on how they define their core customer, the type of producer considered to be the backbone of their business. At this point in the evolution of the dairy industry, it is probably still possible for cooperatives to make some choices about the type of producer they wish to serve in the future. For example, cooperatives can focus on small producers because survey results indicate this group has chosen them, or they can try to expand their customer base among large producers, reasoning that the rate of attrition among small producers will eventually eliminate them as customers.

Whatever the rationale, fundamentally, locals **have two choices: (1) gain share among large producers; or (2) strengthen small producers.**

Among progressive producers, the pursuit of technical change, networks, and alliances demonstrate

a sensitivity to costs which will eventually allow some form of vertical integration to emerge within the dairy industry. Although small producers undoubtedly also want reduce costs, survey findings indicate they have not found a way to do so, a situation further complicated by their overall lack of focus or direction. As a result, the two groups have different agendas.

Progressive producers want to increase efficiency through further innovation and cheap inputs while small producers need direction and the services and other inputs progressives already use.

## Increasing Large Producer Share

A 1996 Harvard Business Review study concluded, "When a company is deciding which new products to add to its line, it should consider two key factors: First, which new product contenders best fit its distribution system, and second, whether the distribution system will add value to the product in the eyes of the end user."<sup>32</sup>

Getting large producers to use locals more could be difficult for the very reasons locals number among their advantages.

Figure 15 shows that locals considered their primary strength to be their wide array of products and services. At a minimum, locals carry their regional's brands and often those of other cooperatives and dealers. Next was the quick turnaround or response time, undoubtedly reflecting, to some degree, staffing policies at locals.

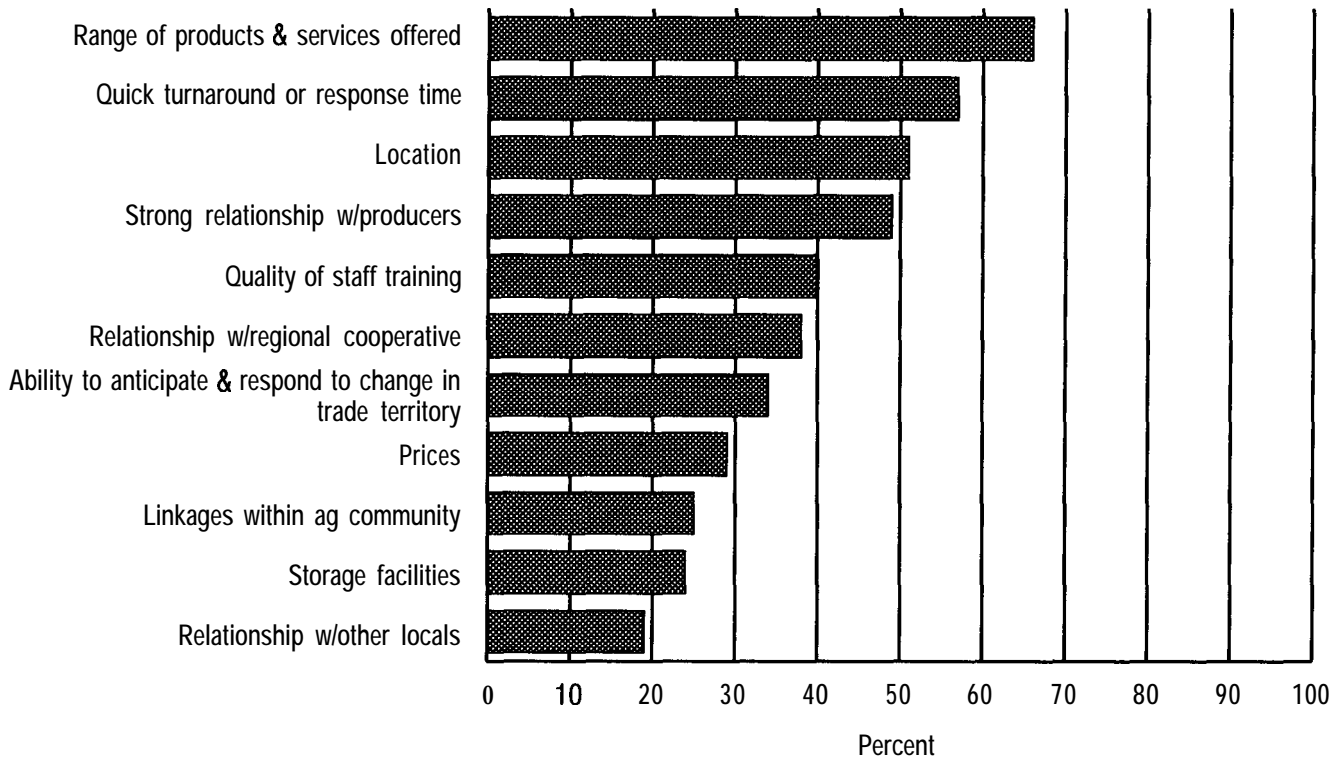
The third most important aspect of locals was location. Although consolidations have occurred through mergers or attrition, locals are still numerous throughout the Midwest. It is not unusual to find locals primarily serving a one- or two- county area.

These features of cooperative marketing boil down to a single fundamental advantage: availability. Locals are easily accessible and so are their products. Their strategy can be summarized as a mass marketing approach geared to satisfying many preferences and purchasing patterns—the "all things to all people" philosophy.

Although such availability reflects the readiness of locals, based on egalitarian cooperative principles to serve all types of producers, it could conflict with the limited availability characteristic of high status or

<sup>32</sup> Fites, Donald V., "Make Your Dealers Your Partners," *Harvard Business Review*, March-April 1996, 86.

Figure 15— Locals' Self-Described Strengths in Dairy Management/Consulting Services Compared with Alternative Providers



newly introduced products—those likely to appeal primarily to the innovators and large producers of this study.<sup>33</sup>

In fact, status-seeking behavior appears to be an important dimension of producers' behavior: sociologist Everett Rogers calls the popular and "extremely expensive" Harvestore silos, "a spectacular example of the status-providing capacity of certain farm innovations."<sup>34</sup> Within the dairy industry, being the first to use scarce or new AI bulls confers status and prestige on producers.<sup>35</sup> Consistent with these behaviors, a survey of patrons of Oregon supply cooperatives found producers rejected egalitarian values like equal prices.<sup>36</sup>

Positioning a product as high quality typically requires a manufacturer (i.e., the regional) to limit the number of retailers (i.e., member locals) carrying the brand.<sup>37</sup> To achieve this, retailers may be screened by the manufacturer regarding their image or reputation and ability to sell and service high-end brands. "Credible commitments" or pledges made by retailers to conform to particular brand sales goals or make heavy investments to support the brand can be among the behaviors required by manufacturers.<sup>38</sup>

Under this scenario, locals would need to be proactive by "earning" the right to carry particular services or products. However, such investments would show producers who intend to be survivors that their cooperative has also self-selected itself as a survivor.

### Ramifications of Increasing Large Producer Share

Although a strategy of exclusive or limited distribution may increase share among large producers, locals may object to the violation of cooperative norms

<sup>33</sup> Status has been found to be a more important consideration for innovators, early adopters, and early majority users than for the late majority and laggards—the latter probably corresponding to the small producers of this study. See Rogers, Everett M., *Diffusion of Innovations*, 3rd ed. (New York: The Free Press, 1983), 216.

<sup>34</sup> *Ibid.*, 216.

<sup>35</sup> Hogeland, 1990, 8.

<sup>36</sup> Burt, Larry and M. E. Wirth, "Assessing the Effectiveness of Farm Supply Cooperatives: A Comparison of Farmer and Manager Viewpoints," *Journal of Agricultural Cooperation*, 1990, 24.

<sup>37</sup> Frazier, Gary L., and Walfried M. Lassar, "Determinants of Distribution Intensity," *Journal of Marketing* (60) October 1996, 40.

<sup>38</sup> *Ibid.*, 40.

implied by treating some cooperatives differently. For example, if a regional said to a local, "Look, we can both do better if we help each other out," other locals could respond, "Why did you help them and not us? We're here, too, so we deserve the same help."<sup>39,40</sup>

Yet the clock cannot be turned back. Locals themselves laid the foundation for different treatment **when** volume discounts for large producers became commonplace. Such discounts were offered by 90 percent of dairy locals. As one local said, "Everyone does it to get or keep the business."

The tradeoff between "equal" vs. "equitable" treatment inherent in such discounts reflects an economic reality that savings from the patronage of large producers enables cooperatives to continue to serve small producers, i.e., a single order from a large producer may equal the volume from a dozen small producers. As fewer employees are required to fill one large order, overstaffing is reduced. Shipping is simplified compared with the cost of serving small, dispersed farms. These lowered costs can, in turn, facilitate developing new approaches such as catalogues, which can be a more efficient purchasing method for many producers.

Nevertheless, choosing a core customer may be, for many locals, a decision equivalent to walking a tightrope. Although the economics of serving large producers may help locals serve their smaller counterparts, too much commitment to progressives could put the survival of the local itself at risk if some of these customers suddenly change suppliers in their search for cheaper inputs.<sup>41</sup> Since innovators and large producers were using locals less, it is clear volume discounts are only part of the equation affecting cooperative patronage.

At the same time, if the cumulative impact of paying higher prices puts small producers at an absolute cost disadvantage, they-locals' primary clientele-will exit the industry. Consequently,

whether they focus on large or small producers, the key issue for locals is, "Will they be responding to the needs of a group that will be there in the future?"

### Strengthening Small Producers

The seemingly straightforward business decision to offer volume discounts invariably draws cooperatives into a more complex debate regarding the relative status of small producer-members, i.e.,

- If the business of a few large producers is equal to that of many small producers, should a cooperative use the profits (savings) from these large members to postpone, if not halt, attrition among its small members?
- Alternatively, would savings gained from the patronage of large producers be put to better use by designing programs specifically for them as the likely survivors of structural change?
- Are small producers themselves responsible for their plight, or have the choices made by the cooperative system contributed to their lack of direction?
- Will rescuing small producers from the impacts of structural change distract a cooperative from developing a value-added system unifying production and processing activities?

Each of these issues is concerned with tradeoffs between ownership and control, i.e., the "ownership" of locals by small producers vs. the "control" imposed by the economic reality of large producer business.

Issues concerning ownership and control also occur at the level of federated cooperatives and are similar to those faced by investor-owned firms. Economist John Kenneth Galbraith attributed a split between ownership and control within corporations to the greater technical information possessed by corporate planners compared with stockholders.<sup>42</sup> Traditional locals serving traditional producers are also faced with the problem of keeping up with technical information, which may account for their reluctance, noted by regionals, to update services and operating methods.

Technical change on top of structural changes like geographic shifts in milk production may have led such locals to "shut down," so they are really not capable of providing direction to the regionals they own. Such locals have implicitly or explicitly decided they'll go when their market goes. This fatalism comes with a cost for the cooperative system as a whole. Because

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<sup>39</sup> This discussion refers to limiting distribution when to do so would not be a restraint of trade.

<sup>40</sup> These words represent the dilemma of regionals faced with locals who make credible commitments to carry certain products, versus those who want something just because everyone else has it. As explained by a sociologist, "Egalitarianism itself engenders and legitimizes envy. People's attitude is, 'I want to have whatever he has.'" See *The New York Times Magazine*, August 3, 1997, 29.

<sup>41</sup> Lawrence, et al., found larger pork producers were more willing to bypass local communities and travel longer distances for supplies.

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<sup>42</sup> Galbraith, John Kenneth. *The New Industrial State*, 4th ed (Boston: Houghton Mifflin Company, 1985), 104.

such locals have not assimilated industry changes, they are unable to be effective advocates for their membership in a period when small producers may have comparatively few supporters. This weakens the ability of the federated system to balance the “top down” focus of regionals with the “bottom up” perspective of locals.

### Locals’ Goals

The survey gave locals an opportunity to describe their goals?

- We want to be a leader in the dairy industry-when a producer wants to expand or needs nutritional help, they should talk to us first. We want to provide the needed services.
- To be leading the way with new technologies; be the source of information for making dairy producers profitable; and provide the best feeds and service available.

Although the responses, like those cited, correspond to an ambitious agenda, 40 percent of locals considered their survival over the next 5 years to be questionable.<sup>44</sup>

Locals with the most sanguine outlook found suburbanization and increased sales in other product categories (e.g., agronomy, pet food, etc.) had reduced their dependence on feed sales. As a result, their goal was simple: to be the No. 1 supplier, offering many and varied services. These locals also foresaw changes in the way farm inputs would be sold, predicting that regionals would sell and deliver feed direct to the farm, among other, ancillary functions.

Locals anticipating a continued role in the dairy industry were prepared to offer specialized feeds and management services complementing bST or heifer production.

**Region & Role-** One-third of respondents felt they had a key role maintaining dairy production in their area, while 19 percent indicated they needed more help from their regional to sustain this position (Table 8). Especially important benefits from regionals were technical assistance, feed production efficiencies, and risk sharing (Table 9).

<sup>43</sup> “Where would you like your local cooperative to be in 5 years within the agricultural community and the dairy industry (i.e., position, influence, goals, relationship to producer-members, etc.)?”

<sup>44</sup> Asked whether the expected changes in their trade area would threaten the local’s survival over the next 5 years, 22 percent said yes; 60 percent, no; and 18 percent, not sure.

## Discussion

Changes within the producer base served by cooperatives and use of sophisticated marketing techniques like market segmentation to profile the characteristics of various producer groups or segments combine to challenge the fundamentals of cooperative organization and practice. Segmentation increases the impact of member diversity within cooperatives by highlighting differences between groups, and most important, forces cooperatives to make explicit decisions regarding resource allocation among groups. The result may increase the adverse impact of industry changes on a particular producer group and at the extreme, may put the cooperative in the position of defining which group among its members will be more likely to survive such changes.

Table 8— Locals’ Impact on Dairy Production

	<i>Percent</i>
a Key role in maintaining production.	34
b Has a role in maintaining production, but needs more help from regional.	19
c Limited impact not expected to change.	16
d Some influence, but milk processors or other feed companies are more influential.	<b>14</b>
e Small impact which could increase.	<b>10</b>
f Local is shifting focus to other types of producers.	<b>7</b>
g Some influence, but the regional cooperative is more influential.	<b>4</b>

Table 9— Benefits from Greater Coordination with Regional Cooperative

	<i>Percent</i>
a more technical assistance	<b>51</b>
b feed production efficiencies	<b>46</b>
c risk sharing	<b>44</b>
d access to specialists	<b>36</b>
e nutritional research	<b>36</b>
f market research	<b>35</b>
g producer credit	<b>31</b>
h strategic planning expertise	<b>30</b>
l facility design and layout expertise	<b>29</b>
j environmental expertise	<b>29</b>
k management assistance	<b>23</b>
l labor/management expertise	<b>21</b>
m. legal counsel	<b>19</b>
n no benefit	<b>4</b>

This power refutes the cardinal cooperative norm of treating all alike. Yet competition between agribusiness suppliers forces cooperatives to use market segmentation and continuously amplify or refine segment characteristics to keep pace with industry change. Segmentation is not without value: it forces cooperatives to analyze their client base by risk tolerance, short- vs. long-term goals, product preferences, etc. Segmentation also reduces risk for cooperatives insofar as they can predict producer responses to various programs or initiatives.

By defining producer profiles, segmentation also implicitly creates a framework where locals themselves become less alike. Although locals have always differed to some degree because they are bottom-up organizations, the act of identifying different producer needs and classes implicitly puts cooperatives into a position of determining who among them is best qualified to meet those needs. In the example provided in this report, producer segmentation by size ultimately led to segmentation among locals through restricted distribution.

Locals themselves have created a climate where different treatment is acceptable. Ninety percent of the 247 respondents gave volume discounts to large producers. By identifying the likely needs and priorities of various groups, segmentation legitimizes and expands such practices, i.e., “If large producers ‘require’ volume discounts, we’ll provide them.” However, the net impact of segmentation may be a zero-sum game insofar as the act of defining distinct producer profiles fosters equal treatment within, but not across, groups.

Those who may be left out of this process are small producers who cannot articulate their needs or who are too overwhelmed by industry change to fit into logical and internally consistent profiles. And, in fact, more than 80 percent of respondents felt small producers did not know what to do in response to industry changes. Although locals could identify many characteristics of innovators, they had a much less detailed picture of the small producers who represented 80 percent of their clientele.

Survey findings indicate that the small producers served by locals were less likely to use TMR, adopt a business manager approach to dairying, etc., than their nationwide counterparts described by NAHMS. From this, it appears cooperatives may not have adequately prepared their member-owners to weather structural change, relying instead on the volume business of larger producers to sustain themselves. The short-term benefits of this decision may put the long-term sur-

vival of locals at risk because innovators and large producers were using locals less, leaving small producers as the cooperatives’ primary clientele.

Survey evidence suggests many locals have accepted the common belief within agriculture that large producers will be the survivors of structural change within the dairy industry. From there it is axiomatic that large producers should be the core customer of the future. Yet, the advent of TMR has significantly increased the self-sufficiency of large producers, justifying locals’ concern that these producers will continue to bypass them in the future.

As a result, locals expressed little enthusiasm for services that could attract large producers, which also may explain why these producers were using cooperatives less. For example, although technical services for dairy producers are expanding, locals hesitate to offer them, fearing demand may not cover cost. But avoiding new services increases their ties to the feed business, already a vulnerable area for many locals.

Another reason for locals’ hesitation may be that they were unable to visualize a dairy production system significantly different from the present one.

Integrated poultry production allowed pork locals to learn how genetics, specialization, facilities, experience, etc., all combined to create a revitalized system which could be replicated in the pork industry. Over time, pork and poultry production came to have significant similarities, whereas the parallels with contemporary dairy production are less clear.

Consequently, dairy locals may anticipate operating in the future much as they have in the past, where accessing and preparing feedgrains would continue to be the core of their business. This means they would maintain the traditional definition of their business, even when a new, expanded definition might better fit the direction large producers appear to be heading.

Nevertheless, the inescapable fact is that locals’ primary clientele is producers with less than 100 cows. Although locals generally saw themselves as having a key role in maintaining dairy production within their community, small, not large, producers appear to be the most likely beneficiaries of a cooperative presence in the farm inputs market for dairy producers.

It could be argued that locals should regard both small and large producers as their core customer. This can be done, at some risk of losing strategic focus, insofar as the resources and requirements to fulfill the very different agendas of small and large producers could make it difficult to serve either group well. Further, dairy locals may need to “get it right” the first

time; unlike the pork industry, the economics of the North Central and Northeastern dairy industry do not provide much latitude to fine-tune programs.

There are no easy answers for locals serving dairy producers. Regional economics and differences among producer agendas make it clear that, cast either as structural change sifting producers, or credible commitments allocating resources among locals, issues of diversity, scarcity and triage will be increasingly debated among cooperatives in the future.

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## **U.S. Department of Agriculture**

### **Rural Business-Cooperative Service**

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The cooperative segment of RBS (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. RBS also publishes research and educational materials and issues *Rural Cooperatives* magazine.

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