

agement team, past operating experience, potential exposure to financial risk, current and past members' perceptions and satisfaction, and compatibility with their short-term and long-term farm or ranch objectives.

Alliance Performance Evidence

Two questions can be asked about beef industry alliances. First, are they worth the effort for producers? Second, have they led to industrywide improvements as originally thought? Some evidence exists regarding the first question, but producers must be careful about using or interpreting some industry-reported data. Evidence to answer the latter question is hard to find and may be more difficult to attribute directly to alliances.

Several alliance organizations report average premiums paid or received by alliance members for Beef magazine's annual alliances list. Care must be exercised in relying on these numbers and comparing them across alliance organizations. How each alliance computes their average premium may differ. Occasionally, an average premium is reported that appears extreme relative to others. When that occurs, we opt to discount the reported premium. With that caveat, average reported premiums have ranged from about \$25 to \$35 per head for many alliances. There is usually a relatively large variation among those reporting their average premium. In nearly all cases, average premiums exceed out-of-pocket costs of joining an alliance; refer to the discussion of costs above. However, producers must recognize these reported premiums do not account for any changes required in management practices, which could entail substantial investment or operating costs.

One alliance organization reported its first-year average premium paid/earned at \$6.19 per head in 1998. Since then, its reported premium has trended upward, reaching a high to date in 2008 of \$27.42 per head. Unlike some other alliances, this organization requires a substantial investment from its members. Market value or appreciation of the initial stock purchase is not included in the annual reported premium. Our purpose in citing this one case is to illustrate that success of an alliance may be tied to long-term commitment. It often takes time to penetrate markets, build a marketing infrastructure, and develop buyer confidence as a reliable supplier.

A second point should be made. Success is not guaranteed. Several alliances on the Beef magazine list in early years are no longer present in 2008 as the same organization. Some have merged with others to gain efficiencies or to just survive. Some have changed their name and purpose, and some have failed. Whipple and Frankel (2000) report that a key-determining factor of alliance success is participants' perceived benefits of the relationship. Raper, Black, and Hilker (2008) reported 59 percent of alliance participants surveyed perceived their alliance was "successful," given how they defined success.

Has the beef industry changed appreciably as the result of alliances? Many analysts would say yes. However, hard evidence is difficult to document, especially finding a direct link to alliances. Anecdotal evidence suggests coordination has improved with the increased exchange of information, product offerings in the meat case have better matched consumer preferences, and some

adversarial relationships between buyers and sellers seem to have moderated.

Summary and Conclusions

This fact sheet updates information about alliances that was previously based on earlier research. There are several motives for organizing alliances. Most important to producers is adding value to cattle and receiving price premiums for their efforts. Volume marketed through alliances continues to increase slowly, but growth of new organizations has slowed sharply. Most alliances operating in 2008 involve a beef packer but considerable variation exists in supply chain levels involved in alliance organizations.

In general, there appears to be a slow trend toward more stringent requirements to participate in alliances. One example is the move toward more specific genetics requirements. However, costs of joining an alliance and size requirements have not changed appreciably.

Have producers accomplished their primary motivation? The answer would appear to be yes. Average premiums reported by alliances easily outweigh the added cost of belonging to an alliance. Although, a producer must recognize that our assessment does not consider what might have to be invested to change genetics or the added cost of using specified management practices. Success is not assured. While several alliance organizations appear to be thriving, examples can be found of those no longer in operation.

References

- Estrada, Tanya. "Analysis of Strategic Alliances and Vertical Cooperation in the Beef Industry." Unpublished master of science thesis, Oklahoma State University, 1999.
- Lalman, David, and Robert Smith. "Effects of Preconditioning on Health, Performance and Prices of Weaned Calves." Oklahoma State University, Extension Fact Sheet, ANSC-3529, 2002.
- Raper, Kellie Curry, J.Roy Black, Michael Hogberg, and James H. Hilker. "Assessing Bottlenecks in Vertically Organized Beef Systems." *Journal of Food Distribution Research* 36,1(2005):151-155.
- Raper, Kellie Curry, J. Roy Black, and James H. Hilker. "Perceptions of Vertical Marketing Arrangement Performance: Cow/Calf Producers versus Multiple Production Level Operators." Selected Paper presentation at American Agricultural Economics Association annual meeting, Orlando, Florida, July 2008.
- Rust, Steve. "Retained ownership-How much will it save?" *Michigan State University, Animal Science Paper* 341, 1996.
- Schroeder, Ted C. and Joseph Kovanda. "Beef Alliances: Motivations, Extent, and Future Prospects." Stephen R. Koontz, Ed. *The Veterinary Clinics of North America Food Animals Practice*, July 2003.
- Whipple, J.M. and R. Frankel. "Strategic Alliance Success Factors." *Journal of Supply Chain Management* 36(Summer 2000):21-30.



Clement E. Ward

Professor Emeritus

Kellie Curry Raper

Associate Professor and Extension Economist

Update on Beef Industry Alliances

Oklahoma Cooperative Extension Fact Sheets are also available on our website at: <http://osufacts.okstate.edu>

Extent of Beef Industry Alliances

The decade of the 1990s was a major development period for beef industry alliances. About two-thirds of those operating in 2008, and reported by Beef magazine, were organized in the 1990s. The earliest alliance in the Beef magazine list for 2008 dates back to 1978, and the most recent alliance on the list was organized in 2004.

No reliable data exists on the volume of cattle marketed through alliance-type programs. Using Beef magazine's annual list, about 3.3 million cattle were marketed through alliances in 2000 and that number has increased to nearly 4 million head based on the 2008 data. Again, it should be noted these are rough estimates. However, it suggests 15 percent or more of fed cattle that are marketed annually pass through some type of alliance organization.

Some alliances are quite small and primarily local in nature, while others involve large cattle operations and are national in scope. Most published lists by magazines or industry groups fail to account for the many local community or county alliances that exist throughout the U.S. These smaller, more localized alliances may consist of several beef producers providing beef to local restaurants, retail grocers or directly to consumers. While each such alliance may not be large based on either number of producers or number of cattle, they can have a positive influence on the local demand for beef, beef quality and producer returns.

Motives for Alliances

The motivation for organizing alliances varies and involves industrywide motives in some cases and individual producer or company motives in others. Industrywide, alliances are thought to help reduce a two-decade decline in U.S. beef demand by enabling producers to respond better and more quickly to changes in beef demand. This could be accomplished by sharing information between supply chain participants, which is from cow-calf producers to retailers; also by relying less on market prices to signal demand changes from consumers to retailers, packers, cattle feeders and cow-calf producers. Alliances have the potential to reduce the segmentation and adversarial relationships between buyers and sellers in each of the supply chain stages, thereby creating a more cooperative atmosphere.

A part of improving beef demand is having beef compete more effectively with pork and poultry. It is thought alliances could facilitate a move to value-based marketing where producers would receive prices that matched the quality and consistency of what they brought to the marketplace. Some producers have long thought they have superior genetics and produce superior beef products. Alliances could enable them to be rewarded for

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, the Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0313 Revised GH.

those superior product characteristics. As a result, the quality of beef products would increase and the consistency of higher quality beef products would improve.

For producers, the bottom line from the expected improvements in beef demand and increased competitiveness with other proteins is increased profits. Improved profitability may occur through premium prices, reduced risks and reduced costs of producing and marketing cattle and beef products in an alliance framework.

Research suggests the number one motive for joining an alliance is adding value to cattle, enabling producers to obtain premium prices (Raper et al., 2005; Mulrone and Chaddad, 2005). Premium prices might occur due to improved quality components of beef products, such as USDA quality grade, yield grade and tenderness. Premium prices also might arise from a specific production process, such as producing natural beef, for which demand appears to be increasing. Additionally, price premiums may result from beef export marketing programs, such as source and age verification programs.

Another high ranking motive is higher producer profits from the cattle enterprise. These may occur from premium prices, though it needs to be recognized that to get some price premiums, higher costs of production may be required. For example, to improve herd quality, a producer may have to invest in better quality heifer replacements and breeding bulls. To receive a price premium for natural beef, producers must recognize the higher cost of producing natural beef compared with producing conventional beef because physical performance is lower without such practices as growth implants. There also are costs associated with maintaining source and age records for verification. Premiums, in some cases, more than cover the added investment and added costs. However, producers need to understand that receiving “a” premium does not ensure higher profits, depending on the higher costs incurred to receive the premium.

Alliances can contribute to profits for some producers in other ways. Rather than seeking premiums, alliances may be able to reduce cost duplication in areas such as animal health vaccinations at the cow-calf, stocker and feedlot stages. Some transportation and transaction costs may be reduced also, which can reduce coordination costs between sellers and buyers. Rust (1996) estimated these savings to be \$59.32 per head.

In addition to citing higher prices, added value and improved profitability as key motives for forming alliances, several producers cited quality-related motivations (Raper et al., 2005). Alliances are expected to assist producers in improving cattle quality and improving quality consistency. One means of doing this is by gaining access through alliances to carcass data, which producers can use to guide herd improvement and management decisions. Direct access to production and carcass performance data and information, enables producers to respond more quickly and efficiently to demand signals, thereby more rapidly improving cattle quality and ultimately improving supply chain coordination.

Characteristics

Characteristics of alliances could be categorized in several ways. Here, we discuss alignments or cooperating stages, production requirements, and marketing and pricing programs.

Alignments

The definition we chose for an alliance indicates firms at two or more stages of the vertical supply chain work together for their mutual benefit. In some cases, an alliance may consist of cow-calf producers and one or more cattle feeders. In other cases, it

may be cattle feeders and a beef packer. Thus, some alliances involve just two stages in the vertical supply chain. A few alliances include partners or participants at virtually all stages from the production stage, which is seedstock and cow-calf producers, to the final distribution stage, which is retailers and food service distributors. However, nearly all alliances involve some sort of partnering arrangement with a beef packer.

Many alliances involving producers, feeders and packers are facilitating development and growth of branded beef products, though some still involve marketing cattle largely as a commodity. Those alliances that involve the final stage in the supply chain typically are marketing branded-beef products. In those instances, the concept is to target a consumer segment with branded beef from the beginning of the breeding program and at each stage through the supply chain stages.

Production Requirements

A key to joining or participating in an alliance, involves knowing the required production practices. These range from specific genetic requirements to size of operation.

Over the years that we have had access to information about beef industry alliances, there has been a noticeable trend toward specifying genetics to participate in a given alliance. In the first research on alliances (Estrada 1999), more than one-half of the alliances in the study specified some genetic requirements. In the 2008 Beef magazine list, all but two alliances indicated some specific genetic requirements. Exactly how genetics are specified differs. Examples of genetic requirements include: 50 percent or greater Angus; 100 percent British; less than 25 percent Bos indicus; high percentage Continental; and Wagyu. The most obvious implication for beef producers as potential alliance participants is the need to match their production system, in terms of breeding program, with a specific alliance.

Size of operation is important, also. About one-third of all alliances in the 2008 Beef magazine list specified no minimum size or just one head. These could be called size neutral because they are open to smaller producers, as well as larger producers. Another one-third of the list indicated the minimum size is one or more truckloads, or equivalent number, of cattle. Usually, this minimum also will mean marketing a single-sex of cattle in truckload size lots. The implication is pretty clear for beef producers: many smaller producers are excluded from these alliances. A cowherd size of about 100 cows would be required to market a truckload of single-sex cattle from a feedlot. Even larger cow numbers would likely be required to ensure a uniform lot of cattle in terms of age, weight and carcass characteristics.

To participate in alliances requiring larger numbers of similar cattle, producers need to give consideration to commingling cattle with neighbors or others with like cattle. Some local groups of producers have been organized to coordinate the breeding program, both bull genetics and breeding timing, to produce more uniform calves that can be commingled for marketing.

Each alliance specifies a target or standard for carcass characteristics. Most still target Choice quality grade, yield grade 3 carcasses weighing 600 to 900 pounds. Several alliances target yield grades 1 and 2 carcasses, and a very few allow yield grade 4 carcasses. Some alliances allow Select quality grade carcasses with Choice carcasses, and a few target Select carcasses. Carcass weights may be as heavy as 1,000 pounds in some cases and as light as 550 pounds in others. Producers need to know how their cattle match in carcass form to the standards or target characteristics of the alliance.

Selected production practices are specified frequently by alliances. The number of alliances listing no specific production practices has declined in the past several years. Required

practices include weaning calves a specified number of days before marketing, following a preconditioning protocol, and source verification. Typically, source verification entails age verification and some alliances specify a third-party certification requirement. Practices related to weaning and preconditioning improve animal health and performance, reduce costs and improve carcass attributes (Lalman and Smith 2002).

Another group of specified practices are required when alliances target the natural beef market. In these cases, alliances specify never using implants, other growth promotants, antibiotics or feeding animal byproducts. More importantly, producers need to be aware of these required production practices. Many of these practices not only entail added production costs but also added marketing benefits. Producers must compare the expected added benefits from the practice to the expected added costs, then answer the question, “Do added benefits exceed added costs?”

Virtually every alliance uses grid pricing, and most alliances have both a quality grade grid and a yield grade grid. Quality grade grids put more emphasis, or larger premiums, on higher quality grade cattle, which is Choice or above. This usually occurs with some minimum yield grade standard. Yield grade grids put more emphasis on cattle with better yield grades of one or two. This usually occurs with some minimum quality grade standard. Some alliances initially targeted either higher quality grade or better yield grade cattle. Over time, most alliances moved toward accepting a broad array of cattle quality by using different grids for different carcass characteristics. Producers need to know their cattle and how they perform in carcass evaluations. This is valuable information for producers to make necessary changes to their breeding, management and marketing program for the alliance they are considering.

Costs

Costs of participating, in most alliances, are small if considering out-of-pocket membership fees. Other types of costs, which may be substantially higher, are discussed later. Remember, equity alliances have a substantially higher cost—in one case, \$3,000,

and potentially higher in other cases. However, about one-half of the alliances in the 2008 Beef list indicated there are no costs to participating. A few others specified a cost of \$5 per head or less. Thus, for many producers, membership costs should not be a constraint. The limiting factor for many would be something else, such as cattle genetics, cattle quality, production practices or size of operation.

Required Producer Changes

Common advice given to producers who are considering joining an alliance is to first understand your specific production system. Producers need to develop a sustainable production system that fits the natural resources and economic resources they have available. It also is advised that producers know the quality of calves and beef carcasses being produced, to know where breeding and management changes are needed. Ultimately, producers must make a choice between two alternatives. A producer either must look for an alliance that matches his or her current production system, or a producer must change the production system to match a specific alliance. Regardless, some management changes are likely necessary. But for the latter choice, those changes could be very significant and costly.

A survey of producers by Raper et al. (2005) asked what changes producers had to make to participate in an alliance. Their results for most frequent changes required are listed in Table 1, ranked in most frequently noted by producers. Of those making these changes, some practices were more of a challenge for producers to implement than others; some were more serious impediments to participating in the alliance than others. However, producers were able to get considerable assistance from the alliance organization. Practices rated highly as challenges or impediments are listed in Table 1, as well as those practices receiving the most assistance during on-ranch implementation. Responses for adequate assistance ranged from 50 percent to 94 percent.

Producers should ask questions about the alliances they are considering. They also should study the business plan, man-

Table 1. Producer responses to production changes required to participate in alliances

<i>Ranking</i>	<i>Most Frequent Changes Required</i>	<i>Greatest Challenges</i>	<i>Greatest Impediments</i>	<i>Most Help From Alliance</i>
1	Animal health practices	Sorting methods	Animal health practices	Feeding methods
2	Cattle tracking/information systems	Cattle tracking/information systems	Sorting methods	Animal health practices
3	Marketing schedule	Marketing schedule	Marketing methods	Cattle tracking/information systems
4	Feeding methods	Feeding methods	Feeding methods	Type of performance data collected
5	Type of performance data collected	Type of performance data collected	Type of performance data collected	New genetics
6	New genetics	New genetics	Cattle tracking/information systems	Marketing schedule
7	Sorting methods	Animal health practices	New genetics	Sorting methods

Note: Changes are listed in order of most frequent changes required.