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# Western Economics Forum Journal



*In This Issue:*

*Agricultural Cooperatives*



# Western Economics Forum

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**WEF**

Western Economics Forum

# Letter from the Editors:

The agricultural sector is complex due to the interactions of the biological, ecological, economic and institutional systems associated with it. WEF focuses on these issues with relevance and importance to the Western United States. To this end, the WEF provides a forum for economists and other thought leaders to participate in such discussions with articles related to food, farms, ranches, resources, institutions, communities and other related and applicable topic areas.

Guest editors are invited on an issue-by-issue basis. WEF is a semi-annual publication with each issue intended to address a specific topic area. Individuals and groups are encouraged to contact any member of the WEF editorial team with their ideas or proposals for an upcoming issue. If you know a group or want to become a guest editor, please call, email or visit with us at a meeting. We, the editors, are excited to work with you to help you be a guest editor, develop your topic and produce an issue. Topic areas must be relatable and relevant to the Western United States. This does not mean that the research, case study, or work occurred in the region, but that it has applicability and connectivity to Western US agricultural and natural resource issues. For instance, a series of papers about water might include the impact of various water policies throughout the world and how they relate to similar challenges in the Western US.

Individual papers may be submitted and are referred to as guest submissions. These guest submissions are welcomed but subject to space availability and the editorial team's approval. Individual submissions must be accompanied with at least two viable recommendations for potential referees including their contact information.

Authors should generally follow the formatting guidelines for the Journal of Resource and Agricultural Economics, <http://www.waeaonline.org/publications/jare/submission-guidelines>). Submissions must be in MS WORD with authorship only identified on a cover page. All submissions are subject to double-blind review. Reviewers may receive a PDF version, a cleaned MS WORD document or other format with authorship removed. Guest editors are responsible for making sure the papers authored by their group are peer reviewed.

Articles are normally expected to be approximately 2,500 words (maximum and minimum length is at the discretion of the editors). There is no fee for submissions or publication. Papers and topics may cover any issue related to agriculture and natural resources including but not limited to production, marketing, financial, business, institutional, food and specialty crops, regulatory issues etc. All works of the journal should be created to appeal to a wide audience of many different backgrounds, education and disciplines. As a professional forum, it is implicit that all works are original, professional and defensible based on current scientific standards.

# Foreword

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The first two decades of the 21st century have seen a rapid realignment of the food and agriculture sectors with significant implications for cooperatives (co-ops). The pace of these changes are remarkable in terms of their breadth and depth. Consolidation has accelerated at each link in the value chain, from the producer all the way to the retailer; international markets have become the destination for an ever-growing share of U.S. agriculture; and consumer demands are driving change all the way down to the farm gate.

Co-ops have not been immune to any of these trends. As we look toward the 100th anniversary of the Capper-Volstead Act in 2022, co-ops are evolving as rapidly now as at any point in the past century. However, throughout this period, providing value to their producer-owners remains at the core of the co-op model. The essays in this volume put a spotlight on how co-ops are accomplishing this in the 21st century and form a valuable resource to help guide co-ops and their members going forward.

# Livestock Marketing Cooperative Benefits in the 21<sup>st</sup> Century

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## **Abstract**

The formation of livestock marketing cooperatives occurred in response to market failures. This article features the benefits these cooperatives have generated in their recent operations. Pork, beef, and lamb cooperatives are described. Open and closed membership cooperatives are considered. The structure and services of livestock marketing cooperatives demonstrate the flexibility of cooperatives as a mechanism to respond to changes in the livestock market, including food safety and trade concerns.

JEL codes: D23, L66, P13, Q13

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## **Introduction**

Livestock producers began forming marketing cooperatives in the early part of the twentieth century to provide greater competition, bargaining power, and market access. These cooperatives occupy various positions in the value chain in order to provide services to their members (Katz & Boland, 2002). Services provided may include marketing via auction or electronic means, sales to farmers for feeder stock, procurement services for slaughter livestock, credit, and a mechanism to communicate consumer preferences for product quality. Cooperatives help members increase control over how the market for their production develops by allowing them to bypass one or more layers of the marketing channel. In this way, and by virtue of operating in portions of the value chain closer to the consumer, livestock marketing cooperatives capture a greater share of the value of their output that would otherwise go to other members of the value chain. Depending on the desired economic benefits, membership size, and the geographic market they serve, livestock marketing cooperatives are organized using either a closed or open membership structure.

This paper provides an overview of three livestock marketing cooperatives. These cooperatives show how variations on the cooperative corporation can be used to respond strategically to changes in the livestock industry. Information was gathered through direct conversations with leadership of each cooperative. A discussion of their functions and rationale for participating in the market is given. The ability of a cooperative to link more closely how livestock producers and final consumers affect food safety is presented.

## **Producers Livestock Marketing Association**

Founded in the 1920s, Producers Livestock Marketing Association (PLMA) in Omaha, Nebraska, was formed to provide marketing services of fed beef cattle for slaughter. By organizing larger lots of animals for sale, members obtained increased bargaining power with packers for terms of sale. Today, the cooperative provides marketing, risk management, and credit services for beef and pork producers. Marketing services include nationwide connections to identify feeder beef cattle for sale to its members who then purchase animals in quantity. Services also include monitoring the development of member animals to assure timely sales and market-based pricing. The cooperative coordinates sales with livestock processors nationwide and obtains terms of trade with suppliers or packers. Members may choose to use the cooperative's sale price risk management tools, including hedging contracts. The cooperative also provides financing services for members, which provide funds for the financing of animals, feed or other operational expenses. Members benefit by having regular access to suppliers or buyers and competitive terms of sale. No patronage is paid; market access and a favorable negotiating position are the core financial benefits members receive. On-farm benefits include reduced operations costs through reduced procurement or marketing effort, availability of risk management tools and competitively priced financing.

The cooperative is organized as a non-stock cooperative, which was a common structure for cooperatives formed prior to the Capper Volstead Act of 1922 (Suhler & Cook, 1993). Producers who transact with the cooperative are eligible for membership after three continuous years of using any of the cooperative's services. Membership is achieved after the third year of transactions and grants voting rights in cooperative governance. A majority of the cooperative's members operate within 200 miles of Interstate 29, a north-south roadway extending from the Canadian border to Kansas City, MO, USA. Total membership, which consists of pork and beef producers, has averaged around 1,200.

PLMA sold over 900,000 cattle and over 900,000 swine in 2018. The cooperative is funded through commission charges incurred through using the cooperative's services. Charges are set at a flat rate per hundredweight for beef cattle and hogs. The cooperative is a member of National Livestock Producers Association (NLPA), a federated cooperative. NLPA provides educational programming to improve member operations, represents member interests for legislative purposes, facilitates marketing and financing ventures among member cooperatives. PLMA is the largest member of NLPA in terms of livestock marketed and gross revenue, accounting for nearly half of total sales by all NLPA members.

Member production practices are affected by membership in the cooperative. The cooperative maintains a team of sales agents who make regular visits to each member. Agents are familiar with the production conditions at each member's operations and provide feedback about likely demand conditions for animals of various quality. The cooperative has developed a reputation of accurately presenting the condition of animals in the lots sold to packers. In turn, packers provide information to the cooperative about desired animal attributes for their customers and anticipate accurate descriptions of quality when animals are aggregated. The cooperative arranges both open market sales as well as sales based on grade and yield. The cooperative also circulates a bimonthly newsletter that includes regular sales visits, informal communication with members, systematic information to apprise producers about animal health issues, operations practices, and preparation for successful animal marketing, including risk management.

The cooperative also, through its financing operations, provides a rationale for maintaining product quality. Although operational requirements are not part of any loan agreement, the cooperative has a team of inspectors, separate from sales agents, who inspect member operations to verify the marketability of the livestock, including animal quality and quantity. Members have an incentive to obtain financing through the cooperative since it provides an alternative to local community banks or other financing options, which already may have approached loan limits for agricultural loans.

The cooperative also facilitates member attention to food safety practices (Klementina Kirezieva, Bijman, Jacxsens, & Luning, 2016; Klementina Kirezieva et al., 2013). The cooperative interacts with packers based on the requirements of the Beef Quality Assurance (BQA) protocol. The BQA provides information about proper production practices that affect animal health, product quality, and on-farm or processing/fabrication practices that affect food safety. Cooperative sales agents assist members in their certification by making certification forms available and linking them with needed training. Agents are tasked to maintain a relationship with the member to ensure that the production environment facilitates a successful sale.

### **Allied Producers Cooperative**

Pork producers in Iowa, Kansas, Minnesota, and Nebraska formed Allied Producers Cooperative (APC) in 2006. Other livestock cooperatives were formed during this period (Kenkel & Holcomb, 2009). APC organizes the lots of swine from among its members for processing. Additionally, APC monitors the development of swine herds among its members and allocates a quota of production to each member. By owning processing resources, the membership is able to capture an increased



fraction of the value of final production and market-based terms of sale regardless of the size of their operation. Profit is distributed as patronage in proportion to the number of animals marketed.

Concentration in the pork processing market, and pork price variability in the 1990s and 2000s, encouraged a group of 30 to 40 pork producers to form the cooperative as a means of purchasing pork processing and fabrication facilities. The cooperative is organized as a closed, or value-added, cooperative (Grashuis & Cook, 2018). The founding members, who are still active today, purchased equity in the cooperative in proportion to their desired portion of the total processing capacity. Members then sign a contract with the cooperative granting them the right to market their swine production through the cooperative in exchange for an obligation to deliver their assigned quota to the processing facility. Under this structure, the cooperative benefits by maintaining stable processing costs at volume to approach minimum average operating costs. Processing capacity of the original processing facility, located in St. Joseph, MO, USA, remains unchanged since operations began in 2006. No additional shares were available until the recent completion of a Sioux City, IA, USA facility. The St. Joseph and Sioux City facilities process approximately 18,000 swine per day. Members may exchange shares among themselves, with each exchange creating its own terms of trade. The value of shares has increased since 2006. The additional capacity generated by the opening of the IA facility allowed the cooperative to generate new shares. Initially, these shares were offered to existing members who purchased all available shares.

Equity available from original members was insufficient to fund the entire cost of constructing the original processing facility, located in St. Joseph, MO, USA. The cooperative formed a joint venture with other, non-cooperative, pork producers named Triumph Foods (TF). Triumph owns the processing assets with APC being a partial owner and having representation on TF's board of directors. TF receives the proceeds from sales and proportionally distributes them to all partners based on number of animals provided. APC then distributes revenue; profits generated during the year by TF sales are distributed as an additional payment to members at the end of the year. Total profits distributed to members since the beginning of operations have been in excess of \$1 billion.

Despite the APC contract requirements, members have some flexibility in marketing decisions. Members are allocated a weekly delivery quota based on their annual delivery requirement. APC makes weekly deliveries of member output to the TF-owned facility, which, by virtue of the APC joint venture with other pork producers, is owned indirectly by the members of APC. The financial benefits of membership allows individual members to expand their operations. Members are able to sell their output to the APC to meet their quota and still have excess production, which is sold elsewhere. In addition, TF purchases from non-member producers as well. These purchases, made on the open market, tend to stabilize pork prices in the region and provide a pro-competitive benefit to all producers.

Despite the supply of swine from member and non-member producers, TF closely monitors the quality of incoming animals. TF's wholly owned marketing subsidiary, Seaboard Foods, coordinates with its customers to identify desired quality attributes. Seaboard Foods coordinates with TF to write a series of requirements for animal characteristics and associated production requirements. Among these requirements are descriptions of nutrition, handling, animal welfare, veterinary standards, and transportation requirements. Members agree to these requirements and confirm their compliance through annual certification. On-farm contact by TF representatives

verifies compliance and TF employees inspect animal shipments upon arrival at the processing facilities. Members also participate in regular, on-farm training for members and their employees. Food safety requirements vary by country and both APC and TF weigh the benefits and costs of compliance. TF documents compliance with any sales claim and, by virtue, can show full compliance along a value chain owned by producers through vertical integration among producers and their ownership of the processed facility (Ji, Jin, Wang, & Ye, 2019; Mérel, Saitone, & Sexton, 2009).

Despite the benefits of forward integration along the supply chain, organizers of the cooperative faced an initial cultural challenge in persuading members to make downstream investments. Historically, pork packers were perceived in an adversarial position in the pork industry. Individual producers strove for fair sale terms, while packers sought to offer bids advantageous to their own bottom line. At first, producers were reluctant to consider the processing facility investment, as they feared they would be perceived negatively as the packers were in the past. Consistent education and a steady flow of financial benefits, while enforcing food safety requirements, have helped producers accept the long-term investment required to join a closed cooperative. Furthermore, benefits from certification compliance, as a group, may serve to insulate a consistent supply of swine from consumer perceptions of low output quality.

### **Mountain States Lamb Cooperative**

The Mountain States Lamb Cooperative (MSL) originated in 2001 when twenty sheep producers gathered at the Wyoming Ram Sale to discuss joining together to sell feeder lambs as a group (Boland, Bosse, & Brester, 2007). Sheep producers were frustrated with the low prices they were receiving at the time. As a result, each producer agreed to contribute the average sale price for a ram at that year's sale (\$350) as seed money to explore the idea of creating bargaining power by forming a cooperative alliance (Bensemman & Shadbolt, 2015). At the time, most of these producers did not retain ownership of their lambs into the feedlot and finishing phase. However, membership soon looked for opportunities to capture an increased percentage of the total value chain of production. By 2005, the cooperative had completed the purchase of 50% of B. Rosen and Sons, a full-service lamb fabrication, distribution, and sales company based in New York with a fabrication facility attached to the JBS USA Greeley Lamb Plant in Greeley, Colorado. In 2008, the cooperative purchased the remaining 50% ownership of B. Rosen and Sons as sales and distribution of the end product was viewed as critical to the future success of MSL. In 2015, JBS informed MSL of its intent to turn the Greeley Lamb Plant into a case-ready beef facility. MSL members decided to purchase the JBS Lamb Plant based on their need to either build their own plant or purchase the JBS Plant on which they were already paying \$500,000 in annual rent to JBS for the B. Rosen facility in Greeley. The plant officially re-opened as the Mountain States Lamb Cooperative's Lamb Plant on January 5, 2016. Thus, MSL evolved from a marketing co-op focused on bargaining power at the end of the first step in the value chain, into a cooperative capturing value from all segments of the chain. At the time of acquisition, B. Rosen and Sons was the largest distributor of lamb product in the U.S. Currently, MSL's lamb plant in Greeley handles about 28% of the slaughter lambs in the U.S. MSL recruited members across the Western United States while forming as a closed membership structure consisting of 500,000 shares. Half of those shares are classified as delivery (A) shares, which obligates the owners to deliver one lamb per year. If members sell lambs somewhere else and do not

fulfill their delivery obligations to MSL, they are fined up to \$20 per head. Over 90 percent of the producer members of MSL market all of their lambs through the cooperative so non-delivery typically is not problematic. Like most of agriculture, the average age of members is 55 to 60 years old. As members retire, member shares are sold to other members, sometimes at a discount, to make sure delivery quotas are maintained. New shares were not created but some investment (B) shares were converted to (A) shares over the years for members wanting to increase their delivery quotas.

A few feedlot owners are members of MSL but most are currently range sheep operators maintaining ownership through the feed yard. Membership has held steady since inception with about 145 total members. Approximately 100 of these members are in Wyoming with the rest spread throughout several other Western U.S. states. MSL has paid patronage dividends to members a couple of times since its formation. However, MSL has most consistently employed a re-investment strategy to acquire other companies and more segments of the marketing channel. Two primary benefits of membership in MSL are reliable access to a harvest facility and a more stable market price. Until September 1 of each year, members are provided first priority to slot lambs for delivery to the lamb plant for slaughter during the upcoming marketing year. After September 1, slots are filled on a competitive basis. Members receive grid summary information from lamb lots delivered including live weights off the truck, carcass weights, yield grade, quality grade, pelt values (and pelt value descriptions), premium and discount information compared to the market average as defined by the USDA Agricultural Marketing Service (AMS) weekly LM352 report. An objective of the market pricing structure for MSL is to provide the membership more consistent pricing. Unlike swine and beef, there are no futures market pricing tools for lamb. Market risk management tools are limited to private contracting and Livestock Risk Protection (LRP-Lamb) insurance offered by the USDA Risk Management Agency through private insurers. There have been several occasions since the inception of LRP-Lamb in 2007, when the product was not available due to unforeseen and prolonged volatility in the market place.

MSL members also attribute value to being part of something bigger. They gather annually for a membership meeting in July as well as informally at sheep meetings held throughout the year including the American Sheep Industry Convention held in January. A newsletter is issued four to five times a year with market information, production education topics, grid premium information, and top producer awards covered on a regular basis. Imports continue to put pressure on domestic lamb prices and recent trade policies have put significant pressure on the export value of lamb pelts. MSL members appreciate the value of staying informed on these issues and having a collective voice that is heard within the U.S. sheep industry as a whole.

Like all marketing channels, food safety risks and compliance regulations vary by market. MSL uses the Global Food Safety Initiative (GFSI) and British Retail Consortium (BRC) certifications. MSL conducts member training at its annual meetings to inform members about basic certification requirements and recent or pending changes. MSL assesses member compliance with certification requirements by visiting member operations and requiring annual affidavits of compliance from each producer, as well as from truck drivers upon delivery (in compliance with transportation standards). MSL management regularly interacts with representatives of Colorado State University to update best practices and then inform the membership. Given the concentration of domestic lamb marketing, certification allows producers a useful means to differentiate their product vertically as

horizontal competition intensifies, especially with imports. All cooperative members, for the sake of maintaining the cooperative's reputation in the market, generate incentives to create high-quality production among the membership.

### **Conclusions**

Livestock marketing cooperatives form for many reasons. This paper provides a summary description of three US livestock marketing cooperatives operating with some degree of success over a significant period of time. These cooperatives provide members numerous benefits, some of the most important of which being market access, more consistent market prices (market risk management), and bargaining power, including access to information and a collective voice in the market place. Members of cooperatives enjoy economies of scale and collective influence. The cooperatives use that influence to encourage the livestock industry to address consumer concerns about food safety and humane treatment of livestock. A compliance protocol in each cooperative addresses these consumer concerns. The existence of those protocols is an important benefit to the membership. It improves the collective reputation of the livestock producer members and may serve to partially insulate the membership from this institutional risk.

## References

- Bensemman, J., & Shadbolt, N. (2015). Farmers' Choice of Marketing Strategy: A Study of New Zealand Lamb Producers. *International Food and Agribusiness Management Review*, 18(3), 211-243. doi:(ISSN #: 1559-2448)
- Boland, M. A., Bosse, A., & Brester, G. W. (2007). The Mountain States Lamb Cooperative: Can Vertical Integration Keep Lamb Producers from Being Fleeced? *Review of Agricultural Economics*, 29(1), 157-169.
- Grashuis, J., & Cook, M. (2018). An examination of new generation cooperatives in the upper midwest: successes, failures, and limitations. *Annals of Public and Cooperative Economics*, 89(4), 623-644.
- Ji, C., Jin, S., Wang, H., & Ye, C. (2019). Estimating effects of cooperative membership on farmers' safe production behaviors: Evidence from pig sector in China. *Food Policy*, *In Press*.
- Katz, J. P., & Boland, M. A. (2002). One for all and all for one? A new generation of co-operatives emerges. *Long Range Planning*, 35(1), 73-89.
- Kenkel, P. L., & Holcomb, R. B. (2009). American Native Beef Cooperative. *Journal of Cooperatives*, 23(1142-2016-92765), 166.
- Kirezieva, K., Bijman, J., Jacxsens, L., & Luning, P. A. (2016). The role of cooperatives in food safety management of fresh produce chains: Case studies in four strawberry cooperatives. *Food control*, 62, 299-308.
- Kirezieva, K., Nanyunja, J., Jacxsens, L., van der Vorst, J. G., Uyttendaele, M., & Luning, P. A. (2013). Context factors affecting design and operation of food safety management systems in the fresh produce chain. *Trends in Food Science & Technology*, 32(2), 108-127.
- Mérel, P. R., Saitone, T. L., & Sexton, R. J. (2009). Cooperatives and quality-differentiated markets: strengths, weaknesses, and modeling approaches. *Journal of Rural Cooperation*, 37(886-2016-64656), 201.
- Suhler, D. R., & Cook, M. L. (1993). Origins of a Current Conflict? An Examination of Stock-Nonstock Cooperative Law. *Journal of Agricultural Cooperation*, 8(1141-2016-92583), 54-62.