ATTITUDES TOWARD PRECONDITIONED CERTIFIED CALF SALES AMONG SELECTED BEEF INDUSTRY STAKEHOLDERS IN OKLAHOMA

By

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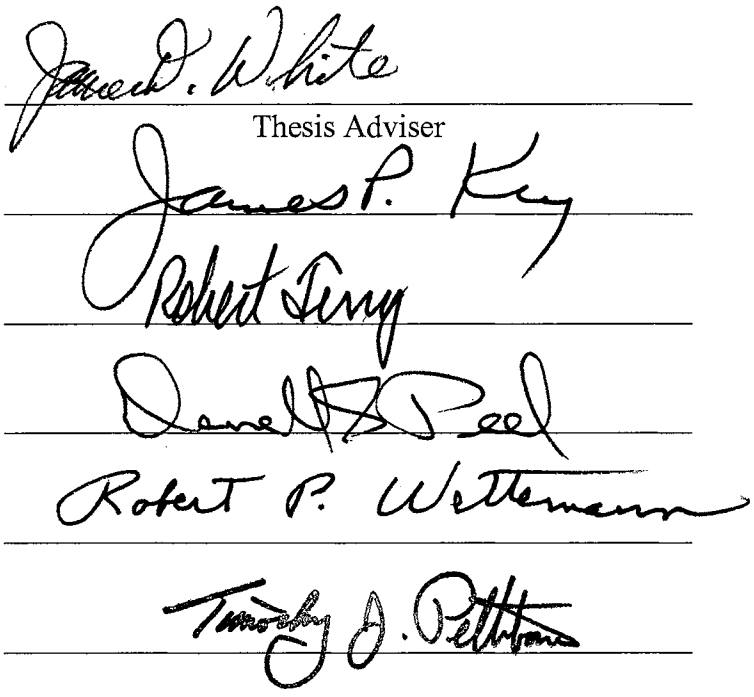

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In memoriam to my Father Manuel Corro.

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CHAPTER I

INTRODUCTION

To find its place in a modern society the beef industry is under pressure to make dramatic changes in the cattle it produces. Structural change has been occurring in the beef industry during the past 20 years. According to Henderson (1999), educational programs and industry publications are stressing the need to consider change from an animal oriented industry to a product oriented business.

Beef consumption per capita in the United States has changed dramatically during the past twenty years. In 1979, beef consumption per capita was ninety-five pounds, whereas in 1999 it was sixty-three pounds. Such a decline in consumption has affected the entire beef industry. Cow-calf producers were not the only ones suffering economic losses. Other segments of the industry, such as the processing trade, as well as distribution and marketing channels were affected by a declining consumption. Unfortunately, many beef operations were forced to liquidate or curtail their operations during this critical economic squeeze and decline in beef demand. Many of these businesses were family operated cow-calf, stocker, and feedyard operations (Taylor and Field, 1999).

In order to improve beef quality and remain competitive with alternative protein sources, the beef industry will require improved communication and coordination among all segments of the industry. The packing industry, stocker operations and feeding firms have already become more concentrated, integrated and more efficient. In addition, they are looking for high quality and low cost cattle. Those cattle are currently supplied largely by a cow-calf production system dominated by many small and unorganized producers. In addition, the quality of a high percentage of weaned calves does not meet the expectations of modern beef industry standards. In general, there is more integration and coordination among beef packing and the feeding and stocker operations than the cow-calf production sector. According to Bailey, Bastian, Menkhaus & Glover (1995) the cow-calf sector currently remains highly dispersed with few opportunities for integration with other sectors of the industry.

Although Oklahoma ranks fourth in the number of all cattle produced in the United States, third in the number of beef cow operations and among the national leaders in the number of high quality pedigreed beef cattle, it ranks fifth in gross receipts from beef cattle production (Oklahoma Department of Agriculture, 2002). Oklahoma producers, in many cases, receive a smaller return per head than producers in other states with fewer beef cow herds. Furthermore, Oklahoma cow-calf producers have traditionally been more comfortable with production-oriented management practices than thinking in terms of product-oriented practices or adding-value to the product they produce. For instance, breeding and nutrition generally attract more attention among producers than animal health or the development of a marketing plan (Popp, Faminov, & Parsch, 1999). Consequently, the final product, weaned calves, is often poor performing

cattle that are inconsistent in uniformity and quality. This situation leads to the development of a poor image of the product, weaned calves, and reduced economic returns to producers.

In Oklahoma, 62 % of the total cattle population is in hands of small producers with typical herd size being 50 head or less (Oklahoma Beef, 1999). Most cow-calf producers sell their calves at auction to a local sale barn; however, the quality and uniformity of the calves is often inconsistent. The Oklahoma Cooperative Extension Service reported 40 % of the calves sold in Eastern Oklahoma received discount prices because of the lack of quality and uniformity. Even though the concept of improving the quality of weaned calves is not new, the adoption of those practices has been extremely slow (Lalman & Smith, 2001; OCES, 2000).

The National Cattlemen's Beef Association in conjunction with USDA and land-grant universities have developed educational programs to help producers meet the needs of their customers by adding value to their final product. The Oklahoma Beef Industry Council has launched several programs to help beef producers enhance the quality and consistency of the final product. One of these programs was the Oklahoma Beef Quality Assurance (OBQA) program launched in 1999. Another program developed by the Oklahoma Cattlemen's Association was the Oklahoma Quality Beef Network (OQBN) program, unveiled during their 2001 Annual State Convention (Oklahoma Beef, 1999; Smith, 2001).

The Oklahoma Quality Beef Network (OBQN) program is an aggressive grassroots initiative developed by beef producers. The primary objective of the program was to enhance the confidence of stocker and feedlot operators that the product, weaned

calves, were healthy, efficient and ready to perform. The core of the OBQN program was an extensive information and educational program for cow-calf producers. It focused on day-to-day management practices that influenced the production of healthy, uniform and efficient cattle. The OBQN program emphasized that everything done on the farm and ranch ultimately affected the quality of the beef product purchased by the consuming public. (Oklahoma Beef, 1999)

The future of the beef industry in Oklahoma might depend on the integration of all the sectors involved. Cow-calf producers could meet the requirements of their highly integrated customers, feedyards, stocker operators and backgrounders, if they would apply a few intensive management practices to produce healthier calves with heavier weaning weights which have been preconditioned for stocker and feedlot conditions. Therefore, if producers were better organized in a cooperative effort, they could expect and command higher gross returns. The future of the beef industry in Oklahoma ultimately depends upon the knowledge and attitudes held by producers toward the information and opportunities available. Oklahoma beef producers now have the opportunity to make the decision to become more efficient if they adopt proven production practices. Farmers who produce healthier calves with heavier weaning weights, and who have preconditioned their cattle to meet the demands of stocker and feedlot operators can expect to be compensated for their investment.

The adoption of the Oklahoma Quality beef Network (OBQN) program might depend upon the knowledge and attitudes held by cow-calf producers and other selected stakeholders in the industry. Those who have positive attitudes and perceptions toward

the OBQN program will likely adopt it and have the potential of a positive economic impact on the beef industry and Oklahoma's economy as a whole. On the other hand, negative attitudes toward the OBQN program could be useful in evaluating possible weaknesses of the program that could be improved or adjusted.

Statement of the Problem

In Oklahoma, beef producers' profits or losses depend on the type premium price they may receive at the time of sale. Educational programs, such as the Oklahoma Quality Beef Network (OQBN) program, were designed to assist cow-calf producers in applying preconditioning management practices to add value to their weaned calves and receive a premium price when sold in a certified calf sale. The Cooperative Extension Service needs to know the attitudes and perceptions of the beef industry stakeholders toward preconditioning programs and certified calf sales in Oklahoma so that it can determine the strengths and weaknesses of the programs to better serve their clientele.

Significance of the Study

The study will bridge the gap between the knowledge of stakeholders' attitudes toward the Oklahoma Quality Beef Network (OBQN) program and preconditioning cattle for certified calf sales, and whether or not the stakeholders perceived they were rewarded by the industry for their participation. Stakeholder responses should be useful in modifying information delivery by the Oklahoma Cattlemen's Association (OCA) and the OQBN program. Total producer participation would improve the uniformity,

performance and consistency of calves marketed and ultimately strengthen customer confidence in Oklahoma cattle moving through the production chain as stockers and feeders to the processing and retail industry.

Purpose of the Study

The purpose of this study was to determine attitudes and perceptions of selected beef industry stakeholders in Oklahoma as they pertain to certain aspects of preconditioning for adding value to weaned calves marketed through the Oklahoma Quality Beef Network (OQBN) Program.

Objectives of the Study

In order to accomplish the purpose of the study, the following specific objectives were established with regard to the study.

1) To determine stakeholder awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN) as they pertain to beef producers participating in certified sales.
2) To determine stakeholder attitudes and levels of agreement regarding preconditioning programs for certified calf sales and changes in the beef industry.
3) To determine selected factors that influence beef stakeholder decisions to participate in preconditioned certified calf sales.
4) To determine management and marketing practices conducted by beef producers that would normally apply if not participating in an OQBN certified sale.

5) To determine selected demographic characteristics of beef stakeholders who participated in preconditioned certified calf sales.
6) To determine selected sources of information and describe their level of perceived importance to beef stakeholders participating in preconditioned certified calf sales.

Scope of the Study

The scope of this study included beef industry stakeholders participating in the Oklahoma Quality Beef Network (OQBN) Program certified sales during the 2001 calendar year.

Definitions of the Terms

The following terms are defined as they apply to this study:

Oklahoma Quality Beef Network: Educational program organized by producers in conjunction with the Oklahoman Cattlemen's Association (OCA), Veterinarians, Extension Educators and Oklahoma State University. The purpose of the "OQBN program "is to disseminate information concerning preconditioning programs and marketing weaned calves through certified sales". (Smith, 2001)

Beef industry stakeholder: Individuals who are involved in the beef industry: cow-calf producers, cattle buyers, stocker and feedyard operators and auction barn operators. For the purpose of this study, the following stakeholders were identified: *Beef Producers*- cow-calf producers who applied preconditioned practices required for the OQBN

program and sold cattle at the certified calf sale. *Buyers*-stakeholders who bought preconditioned cattle at the certified calf sales.

Cow-calf producer: A beef producer who manages brood cows and raises the calves from birth to weaning. Weaned calves are the primary source of revenue for the producer. (Taylor and Field, 1999)

Value-added practices: Management practices that help producers to improve the quality of their final product. (King and Odde, 1998).

Preconditioning practices: Management practices implemented at weaning time intended to fortify the animal's immune system and nutritional status while minimizing stress. The ultimate goal is to develop high quality cattle and add value to the entire beef production and marketing system. (Lalman and Smith, 2001a)

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter was to provide background information relative to the economic importance of the beef industry in Oklahoma and the preconditioning of calves for certified sales for the purpose of adding-value to weaned calves. In order to accomplish the intent of the study, this review of literature was partitioned into four major areas and a summary for the purpose of organization and clarity. The major topics reviewed were: 1) Importance and Structure of the Beef Industry in Oklahoma; 2) Adding Value through Preconditioning Programs; 3) Producer Educational Programs; 4) Disseminating Information and Adopting New Technologies; and 5) Summary.

Importance and Structure of the Beef Industry in Oklahoma

The cattle industry has been a very important part of the agricultural industry in Oklahoma. The beef industry represents a major economic activity in the Oklahoma economy. According to the Oklahoma Department of Agriculture (2002) "Cash receipts for all Oklahoma commodities sold in 2001 totaled $4.03 billion. Receipts from livestock and related products, which accounted for 78 % of the total cash receipts,

totaled $3.15 billion. Receipts for cattle and calves sold were $1.87 billion" (p. 72). Cattle and calves represented 59.4 % of livestock and poultry marketing. These percentages have increased over the past decade as cattle values increased while crop prices and production levels in Oklahoma have fluctuated very little. In recent years, profitability in the Oklahoma agricultural economy has been directly related to performance in the livestock sector.

J. Lawrence and Otto (2001) in a National Beef Cattle Association report, looked at the economic importance of Oklahoma's cattle industry and emerging issues facing the beef industry that are taking place, stated:

> In addition to the aggregate economic effects of cash receipts from marketing, the cattle industry generates a large economic impact through its forward and backward linkages in the economy. The backward linkages include purchased inputs, supplies, and services used by cattle producers. The forward linkages include further value-added economic activities occurring beyond the farm gate such as meat preparation and processing.
>
> The beef industry is also slowly transforming from a commodity to a production orientation with increased interest in value-based marketing and retained ownership. These trends will place greater value on superior cattle and information systems that will accurately relate value trough the marketing channel. New products will have to meet the requirements for fresh, processed, hotel, restaurant, and institutions, retail and international markets. This communication, either formal via specification contract or informal, will coordinate to deliver cattle with specific characteristics for a given product

line and synchronize production flow to more efficiently utilize processing capacity. (p. 2, 5)

The Beef industry in Oklahoma is broadly distributed in all Oklahoma counties (See figure 1). According to the Oklahoma Department of Agriculture (2002) 41 % of beef cow inventory was located in the central area of the state, while 36.7 % of beef cows were in the eastern region. Although, the Panhandle area had one of the largest inventories of beef cattle, it accounted for only 5 % of the state's beef cow inventory. The top five counties with the largest beef cow inventories include: Osage county in the Northeast, Grady, Caddo and Garvin counties in central Oklahoma, and Le Flore in Southeast Oklahoma. However, as it was described in an Oklahoma Cooperative Extension Services (OCES) publication (1999), "Almost two thirds of the state's cow herd is found in the eastern one-half of the state. In addition many stocker cattle graze warm season forages in this region". (p. 1)

The state of Oklahoma ranks fourth in the number of all cattle produced in the United States, third in the number of beef cow operations and among the national leaders in the number of high quality pedigreed beef cattle. In addition, it ranks fifth in gross receipts from beef cattle production (ODA 2002). A large proportion of small operators characterize the cattle industry in Oklahoma. As it is shown in Figure 2, 79 % of the total cattle population is in hands of small producers with the typical herd size of 99 head or less (ODA, 2002). However, 23 % of cow inventory is in hand of operators who had more than 1000 head.

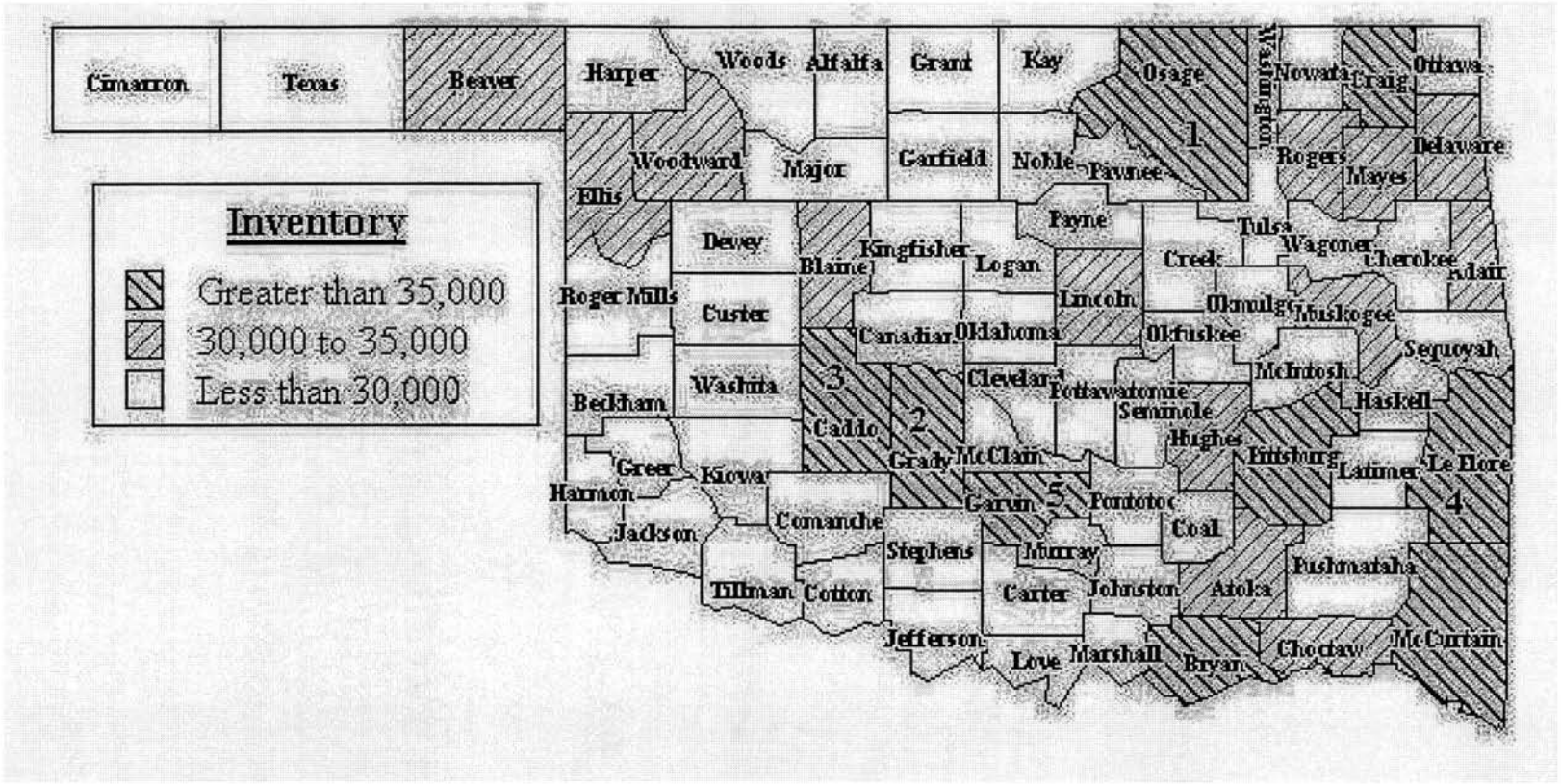


Figure 1: Distribution of Beef Cow Population in Oklahoma (ODA, 2002)

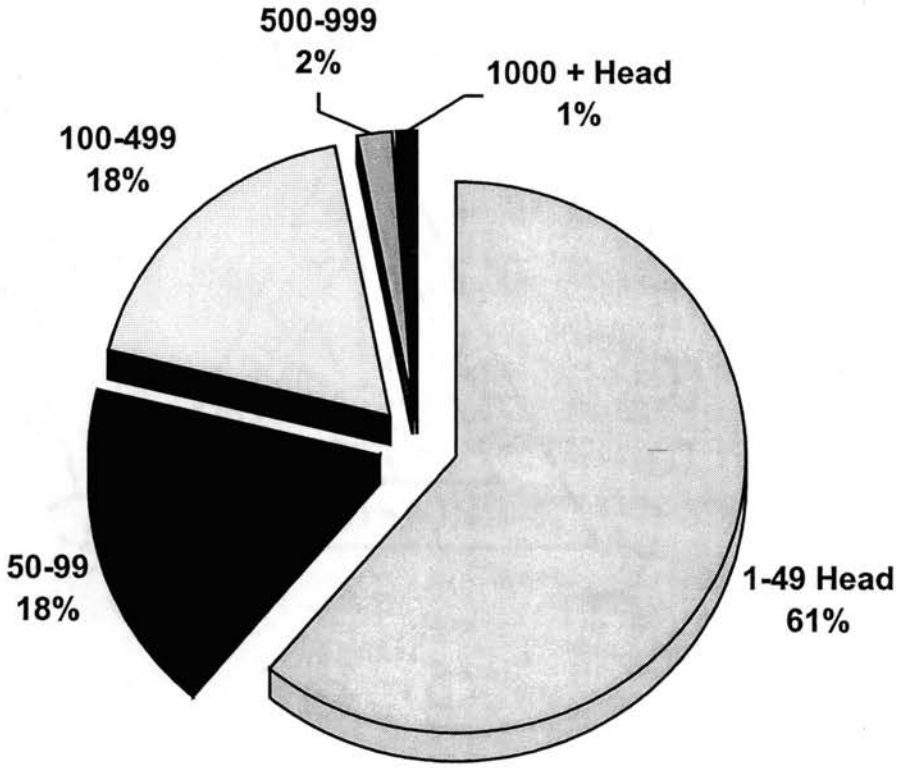


Figure 2. Percent of Cattle Operations by Number of Head Groups in Oklahoma (Oklahoma Department of Agricultural 2002)

Beef industry segments

The beef industry in Oklahoma is not a unified system regarding overall management, but several segments are somewhat independent from each other, but linked together through the beef animals and products.

Taylor and Field (1999) described the beef industry:

> The beef industry includes breeding, feeding, and marketing cattle with eventual processing and merchandising of retail products to consumers. The process involves many people and utilizes numerous biological and economic relationships. Most important, however, it is the time involved: 24 to 36 months are required from breeding time until the product can be made available to consumers.
>
> Each segment has different economic parameters, management problems, and market different products. In some cases, segments are in direct competition with one another. In some respects, the various beef industry segments can be considered separate industries because of their distinctly different characteristics. (p. 1, 6)

Purebred producers are considered as specialized cow-calf producers. They supply the genetics that can be utilized by the entire beef industry. By selling purebred sires, replacement heifers, and cows, they meet the needs of cow-calf commercial operations. The commercial ranchers maintain brood cows that are expected to produce one calf each year, and raise their calves from birth to weaning. The main revenue of commercial cow-calf producers comes from weaned calves, which are sold through

different marketing channels. According to an OCES publication (1999) most "calves produced by cow-calf operations are primarily sold at weaning in local auctions to buyers filling orders for customers" (p, 1). In addition, they are the suppliers of stocker and feeder operations. These segments provide a final product, finishing feedlot cattle for slaughter. Finally, the purveyor and retail sector are more sensitive to consumer preferences.

Bailey et al. (1995) reviewing the role of the Cooperative extension service in the changing meat industry described the major changes that beef industry is facing today.

> More market coordination in the beef industry appears certain. In the face of stiff competition from other meats, beef processors will need to keep their plants operating at efficient levels and provide the type of product demanded by consumers. This will probably be accomplished through an expansion of packer feeding or contracting. The logical conclusion of this trend will be the necessity for producers to be part of a production and marketing system involving some type of contractual arrangement. (p. 3)

Henderson (1999) explained that changes of consumer preferences during last ten years affected all segments of the beef industry, he stated:

> Such rapid decline in consumption affects much more than just cow-calf producers. Every segment of the beef industry faces the same problem trying to push product through a marketing channel which has weakened demand pulling it from the other end. Any industry with such a problem will experience consolidation as businesses close. Unfortunately, many beef businesses were forced to close during the current economic squeeze; were

> family operated cow-calf, stocker, and feedyard operations. Many family owned packing and processing companies have also closed during the past 20 years, leaving just four firms controlling more than 80 % of the industry's slaughter capacity. (p. 1)

According to Gerke (1999) the packing industry, stocker operations, and feeding firms have become more concentrated, integrated, and more efficient. In addition, they are looking for quality and low cost cattle. Those cattle are supplied by the cow-calf production system. However, the quality does not meet the requirements for a high percentage of weaned calves; calves with adequate weight and genetic potential to meet the segmented beef industry standards. In general, there is more integration and coordination among beef packing, feeding and stocker operations than the cow-calf production sector. Consequently, the cow-calf sector remains broadly diversified, with few opportunities of integration with the other sectors.

Schroeder and Featherstone (1990), studying the dynamic marketing and retention decisions for cow-calf producers, stated:

> Beef cow herds are less concentrated because they are a value-added enterprise that turns low value or unmarketable forages and crop residues into protein for the human diet, and these resources are found throughout the United States and often in relatively small quantities. The feedlot sector is more concentrated. Most of the production occurs in relatively large specialized operations that utilize intensive management and the latest technology. (p. 3)

In the state of Oklahoma the cow-calf segment is in hands of many small producers. According to the Oklahoma Department of Agriculture (ODA, 2002) Sixty-two percent of the total cattle population is in hands of producers with less than 50 head, however, 35 % of the cattle inventory is in hands of producers having more than 500 head. Most of cow-calf producers sell their calves to a local sale barn; however, the quality of the calves is inconsistent. According to the Oklahoma Cooperative Extension Service (OCES, 2000) 40 % of the calves sold in Eastern Oklahoma received discount prices because of uneven quality.

Beef cattle cycle

The cattle industry has been characterized by unstable markets that affect beef producers, and in particular, cow-calf producers who are more vulnerable to adverse market prices. However, the changes in cattle production and profits in the beef industry are cyclical, because of fluctuations in the markets that include supply and demand, environmental, and biological constraints. Mathews, Hahn, Nelson, Duewer, and Gustafson (1999) in their report about the U.S. beef industry stated:

> Many agricultural commodities exhibit cycles that have some quantifiable characteristics like size, price, or numbers that increasing to high levels, reaching a peak, declining to a low level, and then repeating the fluctuating pattern. The environment in which the cattle cycle operates includes variations in economic activities, in addition to the natural and biological factors that influence the length of cattle cycles. Earlier studies attributed

> cyclical behavior in cattle numbers to weather, grain exports, government programs, and other factors in addition to biological lags. Cyclical fluctuations in U.S. cattle numbers have been observed since at least 1867. The cattle cycle lasts about 10 to 12 years. (p. 3)

When a comparison is made about cycle length among food animals, cattle have by far the longest biological cycle of all meat animals. According to Gustafson (2000) in his ERS report:

> The cattle cycle refers to the increases and decreases in the total cattle herd over time. The cattle cycle is eight to 12 years in duration, it is determined by the combined effects of cattle process and the time needed to breed, birth, and raise cattle to market weight. (p. 1)

Henderson, (1999) in his article about changes in the beef industry stated:

> The beef industry is under pressure to make dramatic changes in the cattle produced to find its place in a modern society. Structural change has occurred in the beef industry during past 20 years that has changed the marketing systems and has forced participation in a consolidated industry focused on feedlot and processing concentration. (p. 2)

Bailey et al., (1995) in his article about the role of Cooperative Extension in the changing meat industry said:

> More market coordination in the beef industry appears certain. In the face of stiff competition from other meats, beef processors will need to keep their plants operating at efficient levels and provide the type of product demanded

> by consumers. This will be accomplished through an expansion of packer feeding or contracting. The logical conclusion of this trend will be the necessity for producers to be part of a production and marketing system involving some type of contractual arrangement.
>
> While the structure of the beef industry has changed greatly, in that degree of market coordination between the packer and feedlot sectors has increased, these changes have been less prevalent between cow-calf producers and feedlot firms. (p. 3, 5)

Changes in the role of educational programs for beef producers should be adjusted to keep pace with needs of modern industry. Bailey et al., (1995) explained "the Cooperative State Research, Education and Extension Service (CSREES) will need to redefine its role relating to producers and agribusinesses operating an integrated system" (p. 4).

The cattle industry is a very important part of the agricultural industry in Oklahoma and represents a major economic activity in the Oklahoma economy. Structural changes should be done to increase the quality of meat products. One of these changes is a major integration among beef industry stakeholders.

Producer Educational Programs

According to Seevers, Graham, Gamon, and Conklin (1997) the educational process is a critical component of adopting innovations to provide farmers with the necessary knowledge and skills for using that innovation. Recent practices and innovations that have been adopted by America's farmers have been promoted through educational programs conducted by extension practitioners in the Cooperative Extension Service, and has been one of the major organizers of educational programs among agricultural producers in the US.

Seevers, et al. (1997) describing Extension and educational programs stated:

> Extension education is an intentional effort to fulfill predetermined and important needs of people and communities. Single events or activities do not result in the types of behavioral change necessary to accomplish this mission. The word program refers to the product resulting from all activities in which professional educator and learner are involved. (p. 91)

Extension is considered as a nonformal way to educate. Etling (1993) defined nonformal education as:

> Any intentional and systematic educational enterprise (usually outside of traditional schooling) in which content is adapted to the unique needs of the students (or unique situation) in order to maximize learning and minimize other elements which often occupy formal school teachers. (p. 73)

Nonformal education is the method extension has been developed its programs to educate adults in agriculture. One characteristic of adult education is the learner centered approach and it should satisfy the needs of individuals involved in such programs.

Malcolm Knowles (1980) defined adult education as "an educational process that is often used in combination with production processes, political processes, or service processes". (p. 25)

In addition, Knowles (1980) defined the technical meaning of " 'adult education' as a set of organized activities carried on by a wide variety of institutions for the accomplishment of specific educational objectives. In this sense it encompasses all the organized classes, study group, lecture series... in which American adults engages" (p. 25).

Extension education programs are designed to meet the needs of people involved in production, processing, marketing, and consumption of food and fiber.

Seevers et al. (1997) stated:

> The main goal of the agriculture program area is to help producers earn a fair return on their efforts in an environmentally and socially responsible manner. Achieving these goals benefits not only producers but society as a whole as it promotes a stable and affordable supply of food and fiber. (p.70)

According to King and Rollins, (1995) the Cooperative Extension Service has the reputation of being a successful system for the diffusion and adoption of agricultural innovations to increase outputs of production agriculture.

Extension in the United States has four traditional program Areas: Agriculture, Family and Consumers Science, 4-H and Youth Development, and Rural Development. Those provide educational programs for agricultural producers, families, school-age children, and communities.

Over the past several years, many extension educators throughout the major beef producing areas of the United States have been working to educate cow-calf producers concerning alternatives to enhance profitability of their farms. During the last decade the meat industry has became more integrated from producers to retailers. This has affected the traditional role played by extension agents and specialists with the industry in such a way that extension has to redefine its role in an integrated system.

According to Bailey et al. (1995):

> As the meat industry continues to evolve, some of the CSREES's (the Cooperative State Research, Education and Extension Service) basic educational roles will remain. Producers will still need to be educated about the advantages and disadvantages of different types of contracts and will also need to understand the changes in the marketplace resulting from structural changes in how livestock are produced and marketed. (p. 4)

The Cooperative Extension Service has always had the challenge of looking for new ways to communicate effectively and assist clientele with their needs. In addition, the needs of new clientele are much more challenging than previously. The "new" clientele are not just the producers alone but also the managers within the industry and consumers. Jenkins, Newman, Castellaw, and Lane (2000) mentioned that "the best way to meet these needs is to provide an array of approaches, including a variety of teaching

methods, to get clients to 'buy in" (p. 1).

In addition, Jenkins et al. (2000) acknowledged that:

> Cattle producers receive a lot of information from other cattle producers on sale day, veterinarians, local farm supply/coops, and livestock market operators, as well as extension. Since extension is the educational arm for adult agricultural instruction of the university, it is suggested that extension consider these other sources as major clientele. (p. 5)

Because producers make use of many sources of information, it reveals the importance of networking and creating new partners.

Laughlin and Schmidt, (1995) in their discussion about maximizing Extension program delivery affirmed:

> Collaborative learning and /or forming strategic alliances with others may be the axiom for the next decade... Working together may be the best and wisest use of limited resources for education, government, and industry. This may be Cooperative Extension's premier opportunity to deal with federal mandates to provide equal access to educational programs. (p. 2)

The Cooperative Extension Service has to adjust its programs and services according to changes happening in a more competitive agriculture, and should help producers to enhance the value of their products. Swanson, Samy and Sofranko (2003) explaining the implications of a new agricultural economy for Extension programs acknowledged:

> The "new agricultural economy" is characterized by new relationships between producers and end-user markets, and the increased competition from

> abroad. Many producers are turning to more differentiated, value-enhanced products and away from the production of bulk commodities. These producers also are moving up the value chain by investing in value-added processing. This new agriculture demands new strategies from Extension to be able to satisfy emerging information and knowledge needs of agricultural producers. (p. 647)

Few educational programs have been established with the idea of making partners or networking among producers and the industry. One of these programs is the Oklahoma Quality Beef Network (OQBN) program. Oklahoma State University, Oklahoma Cattlemen's Association and state producers have joined to create the Oklahoma Quality Beef Network program. According to Smith (2001)

> The OQBN is an educational program organized by producers in conjunction with the Oklahoma Cattlemen's Association, local veterinarians, and extension educators. The purpose of the OQBN program is to disseminate information about preconditioning and marketing of weaned calves. In addition, the Oklahoma Quality Beef Network program will be working to assist cow-calf producers in applying management practices, which will enhance the expected production of healthy, efficient and high performing cattle. If cow-calf producers adopt the management practices recommended by the OQBN program. They will be certified and eligible to sell in an authorized OQBN sale. (p. 6)

Lalman (2001) stated, "OQBN benefits include programs that focus on weaned calves, health management, large draft, uniform cattle sorting, verifiable processes,

readily available information, from state-of-art software and OSU Extension Facts sheets, as well as feed back on producer's specific animals" (p. 36).

Cow-calf producers and potential buyers are invited to participate in an educational meeting, located in a local sale barn. Producers receive information about new management practices which apply to their operations, enrollment and certification process of the OQBN program (see Appendixes I and J for further information). Extension educators and veterinarians explain that preconditioning calves is a type of ownership retention that is applied to weaned calves. Preconditioning information includes health program, time from weaning to deliver, and rations during this period (Oklahoma Cattlemen's Association, 2001; Smith, 2001).

According to Lalman and Evans (2001) the first phase of the OQBN is a source and process verification system associated with health and management practices around the time of weaning (Figure 3). This verification system is coupled with a marketing effort, designed to capture a part of the added value. Through improved animal health, nutrition and management during this critical time, it is expected that costs associated with sickness will be dramatically reduced resulting in improved animal performance and beef product quality. Producers typically would apply these guidelines to a certified calf sale where a premium could be expected. Preconditioning certified sales are developed for cow-calf producers that applied certified calf management requirements with the goal of producing high quality market-ready weaned calves with possibilities for greater economic returns.

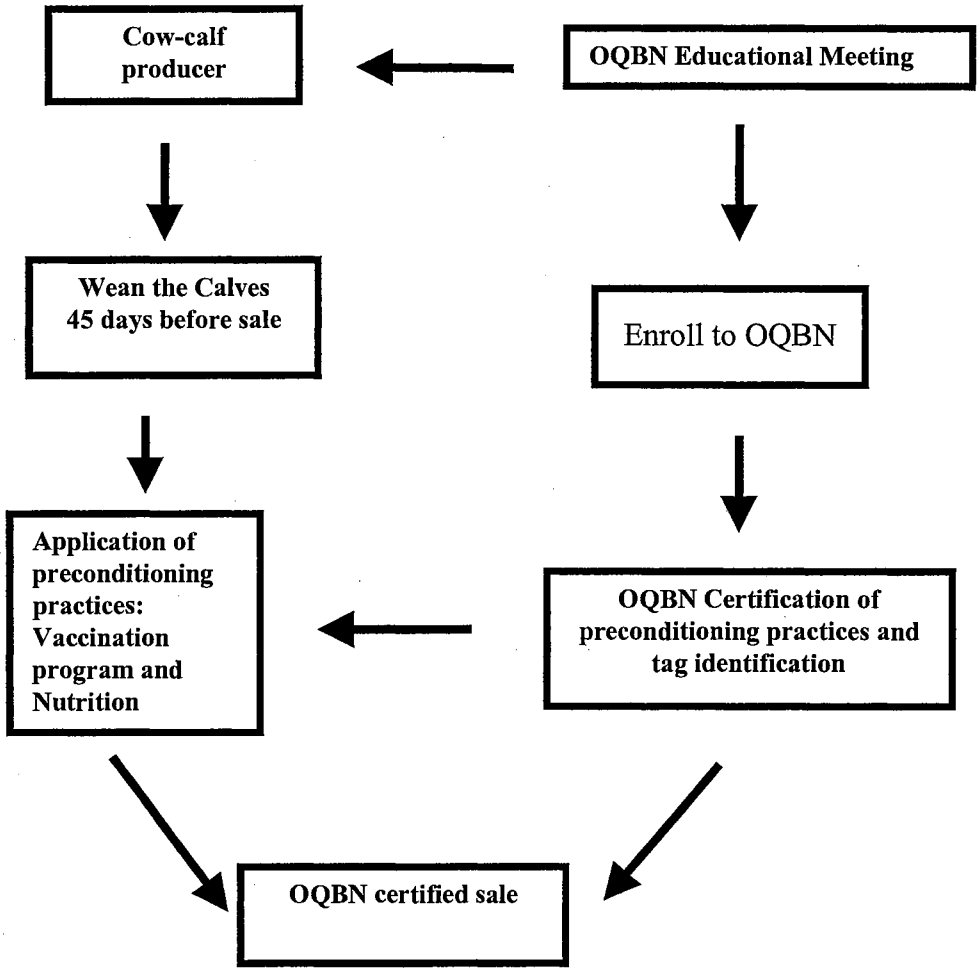


Figure 3: Flow Chart for Participating in Oklahoma Quality Beef Network Program.

Disseminating Information and Adopting New Technologies

People involved in modern production agriculture usually adopt new practices that improve the efficiency and profitability of the production system. Since Cooperative Extension Service was established, it had as a goal the dissemination of research based information among producers to promote new technologies. The process of diffusion and adoption of those new ideas has been studied by several researchers during the last three decades.

Rogers (1995) in his book about The Diffusion of Innovations stated: "Diffusion is the process by which an innovation is communicated through certain channels over time among members of a social system. It is a special type of communication, in that the messages are concerned with new ideas" (p. 5).

Producers make decisions whether or not to use a new practice. Decision process usually takes time, and is affected by several factors. Lionberger (1961) affirmed:

> People normally do not adopt a new practice or idea as soon as they hear about it. They may wait several years before trying the idea for the first time, and longer still before permanently adopting it. To be sure, some decisions are made quickly- but many others require extended thought and deliberation. (p. 3)

The adoption of new ideas and practices is affected by at least five factors: 1) the type of decision involved in adoption; 2) perceived attributes of the innovation; 3) communication channels used; 4) nature of the client system; and 5) the extent of the practitioner's effort. (Lionberger, 1961)

According to Rogers (1995), a major function of extension practitioners is to facilitate the adoption of new ideas and practices or to influence the rate of diffusion and adoption of innovations by their clientele. To enhance their effectiveness as change agents, extension practitioners must understand the unique characteristics that describe their clientele system.

Explaining how farmers used Extension, Van den Ban and Hawkins (1996) stated: "farmers must perceive that information is available. All farmers can receive impressions in the same way however, they interpret their experiences differently. Then he defined perception as "the process by which we receive information or stimuli from our environment and transform it into psychological awareness" (p. 59)

Producers that have a positive perception of Extension information are more likely to use that information. A positive attitude toward Extension programs leads to positive behavior change.

Petrzelka and Korsching (1996) in their article about attitude behavior stated the following:

> One of the most powerful intervening variables in the attitude-behavior relationship is that of social influences, such as situations, reference groups, and information sources. These social influences have been shown to intervene in the relationship, altering the consistency (increasing or decreasing) between attitudes and behavior. Therefore, when seeking to understand the attitude-behavior relationship, knowledge of attitudes is essential. (p. 39)

Bailey et al. (1995) further indicated Extension educators are under pressure as they develop programs for their changing clientele, to evaluate programs and set priorities for their clientele's needs. In addition, Laughlin and Schmidt (1995) mentioned that Extension educators are looking for new ways to diffuse ideas and information.

Adding Value through Preconditioning Programs for Weaned Calves

Each cow-calf producer has to decide what to do with theirs calves after they have been weaned. Generally, most of cow-calf producers sell their calves at weaning at a local sale barn. However, these producers have little opportunity to capture the value of superior genetics. Gerke (1999) looking at alternatives that beef producers have, stated: "Livestock production is becoming extremely competitive, placing even more pressure on traditional cattle operations to improve efficiency and enhance quality. Prospering in such a changing industry will depend on your willingness to implement some non-traditional management and marketing practices" (p. 1).

Saxowsky, Duncan, Taylor, and Koo (1997) in their article about alternative strategies for value-added cattle production stated:

> Another option to selling weaned calves is for the producers retain ownership while the calf is backgrounded. Backgrounding adds value to the animal, and for producers who background calves on their farm or ranch, it offers an opportunity to use the producers' feed and labor. (p. 4)

Retaining ownership of calves beyond weaning is a value-added process that provides cow-calf operators opportunities for additional profit. Cattlemen's associations

One way to measure attitudes as defined by Eiser and Pligt (1988):

> An attitude is not just a 'good feeling' or a 'bad feeling', but a feeling that something really is good or bad or whatever. We do not typically treat our attitude as a matter of opinion. We regard our attitude as the truth, at least until some one can introduce new facts or arguments that change our mind. (p. 1)

The ongoing debate concerning attitude-behavior research highlights the relationship of attitudes to behavior and the extent of knowing an individual's attitudes; one may be able to predict that individual's behavior. Although the debate has not produced a definite answer or a unified theory, the consensus is that a relationship does exist. However, social-psychological research reveals that attitudes, by themselves, are not sufficient predictors of behavior. Other factors need to be examined to understand this relationship.

Parrett, Faulkner, and Varner (1988) stated: "Producer needs can be determined and teaching methods necessary to achieve goals can be adjusted and adapted to current demands by evaluating programs and evolving producers, county Extension advisers, and state specialists". (p. 5).

Furthermore, Jenkins et al. (2000) addressing the needs of the clientele indicated this process has become the major challenge for Extension personnel. Producer needs can be determined and teaching methods necessary to achieve goals can be adjusted and adapted to current demands by evaluating programs, involving producers, advisory committees and opinion leaders.

and extension personnel are interesting in developing programs that will add value to cattle that are handled before and after weaning in a specific way and under specific guidelines. This kind of program is referred to as preconditioning. Preconditioning calves is another form of retaining ownership that is considerably different from longer-term backgrounding programs. Gill and McCollum (2000) determined that the value of preconditioned calves is greater to the purchaser than a "fresh weaned calf".

Preconditioning is the practice of preparing calves for the stresses encountered during the transition process from nursing to confinement feeding. Peterson, Strohbehn, Ladd, and Willham (1989) defined a preconditioned calf as one which is weaned, vaccinated, treated for grubs, dehorned and castrated before going to the feedlot. Although there is not standard period for the application of this process, preconditioning generally starts 45 days before weaning time. Those management practices are intended to optimize the animals' immune system, nutritional status and reduce stress. Other authors (Lusby, Gill, and Barnes, 1995; Lalman and Smith, 2001a) determined that goal for preconditioning practices was to enhance profitability of cow-calf producers to assure uniform quality.

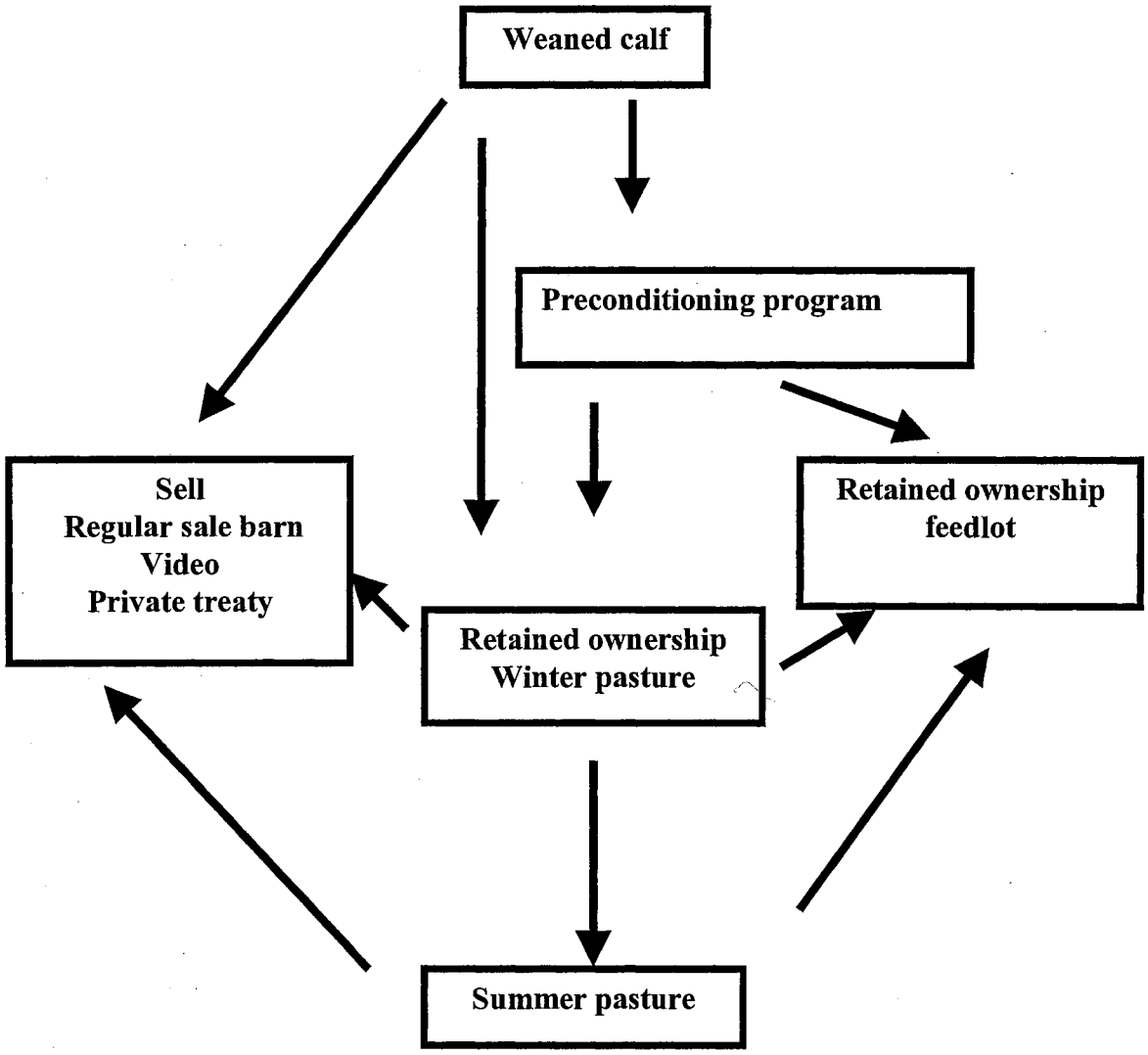
The concept of preconditioning is not new; it first appeared during the late 1950s when the large-scale feedlot industry began to develop, however, adoption has been slow. There is much debate among producers whether or not preconditioning adds value to calves and the benefits outweigh the costs. The outcome of economic analysis about preconditioning programs has been contradictory. According to Peterson et al. (1989) preconditioning was not economically viable for cow-calf producers or producers to

retain ownership through the feedlot. This is argument further extended by Lawrence (2001) who indicated:

> Few topics generate greater disagreement among cow-calf producers than the value of preconditioning (PC) calves. University research, state-sanctioned initiatives and private sector programs regarding PC feeder calf sales have been active for at least three decades and yet cattle producers still line up on both sides of the debate. Most agree that PC adds value to calves, but do the benefits outweigh the costs? The challenge for sellers is to identify what is valuable to the buyer, and then add and capture a portion of that value not just add costs. (p. 60).

Because of these contradictions, the reasons for not adopting preconditioning programs have been numerous.

Grooms (1994) stated the objective of any cow-calf producer was to produce and manage calves in a manner that will enhance beef quality while increasing profitability. The ultimate goal of any preconditioning program is to be profitable. In order to make a profit, cow-calf producers should understand that profit and loss are influenced by both market value and production cost. Cow-calf producers have several alternatives to market their weaned calves, retaining ownership and enter to a preconditioning program, or sending weaned calves off the cow to the sale barn (Figure 4).



Adapted from Gill and McCollum (2000)

Figure 4: Calf Flow Options for Selling Weaned calves

Gill and McCollum (2000) stated:

> If the cow-calf producer desires options other than selling directly off the cow, these options are available at varied levels for both spring calving or fall calving producers. The retained ownership options for cow-calf producers are 1) Sell after preconditioning. 2) Retain ownership through a (stocker) grazing program. These grazing programs can be winter or summer, or combination of the two. 3) The feedlot. Personal preference, cattle types and weights, current and future market value, weather conditions, cattle condition, understanding of the marketing options, and knowledge of production are the factors to consider with retained ownership. (p. 3)

Several authors (Peterson et al. 1989; Lusby, Gill, and Barnes, 1995; Lusby and Thomas, 1995; Lalman and Smith, 2001a, 2001b; Lawrence, 2001) have been explored the benefits of preconditioning cattle and the adoption of preconditioning practices.

Lalman and Smith (2001) in their paper about preconditioning programs stated: "Preconditioning does appear to result in a substantial reduction in sickness, death loss and medicine costs. These improvements appear to result in better animal performance and lower cost at the feedyard". (p. 73)

Numerous programs have been established for paying a premium for preconditioned calves. One of those programs is the Oklahoma Quality Beef Network (OQBN) program.

Furthermore, Popp et al. (1999) indicated the decision to adopt preconditioning programs that enhance value-added calves, are affected by social factors, risk, cash flow, labor constrains, price cycles, and seasonal variation. According to Lalman and Smith,

(2001b) the concept of improving quality of weaning calves is not new; the adoption of those practices by cow-calf producers has been extremely slow.

Summary

Oklahoma's beef industry represents a major economic activity in the Oklahoma economy. Cattle and calves were 53.3 % of the total Oklahoma farm receipts in 2000, and represented 5.8 % the total livestock value nation-wide. However, unstable markets have affected the beef industry in Oklahoma, and in particular cow-calf producers who are more vulnerable to adverse market prices. The educational process is a critical component of adopting innovations to provide farmers with the necessary knowledge and skills for using that innovation. Recent practices and innovations that have been adopted by America's farmers have been promoted through educational programs conducted by extension practitioners in the Cooperative Extension Service. Many extension educators have been working to educate cow-calf producers how to enhance profitability by adding value to their final product, weaned calves. Retaining ownership of calves beyond weaning is a value-added process that provides cow-calf operators opportunities for additional profit. Preconditioning calves is a type of retained ownership, that it is applied to weaned calves, which includes health programs, time from weaning to deliver, and feeding a "starter ration" during this period. Producers who apply these guidelines may have opportunities to participate in special sales where a premium could be expected. The success of these programs depends on positive producer attitudes toward the

program. The more knowledge they have about the program the more opportunities for enhancing profitability.

Numerous programs have been established for paying a premium for preconditioned calves. One of those programs is the Oklahoma Quality Beef Network (OQBN) program. The OBQN program is an aggressive grassroots initiative developed by beef producers. The primary objective of the program was to enhance the confidence of stocker and feedlot operators that the product weaned calves were healthy, efficient and ready to perform. The core of the OBQN program was an extensive information and educational program for cow-calf producers. It focuses on day-to-day management practices that influence the production of healthy, uniform and efficient cattle. The OBQN program emphasized that everything done on the farm and ranch ultimately affects the quality of the beef product purchased by the consuming public.

Many producers have been reluctant to act in a cooperative effort to manage their cattle in order to market uniform, healthy and growthy calves which are ready to perform under stocker and feedyard conditions. The future of the beef industry in Oklahoma ultimately depends upon the knowledge and attitudes held by these producers toward the information and opportunities available.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to describe the methods and procedures used to conduct the study. The primary purpose of this study was to determine the attitudes and perceptions of selected beef industry stakeholders in Oklahoma, as they pertained to certain aspects of pre-conditioning for adding-value to weaned calves marketed through the Oklahoma Quality Beef Network (OQBN) Program.

In order to accomplish the purpose of the study it was necessary to establish specific objectives, determine a population and develop an instrument from which information needed to fulfill the study objectives would be derived. Procedures for data collection analyzing the data were also selected. The present study was a self-selected population among participants of the OQBN program during fall 2001 Every participant had an equal opportunity to participate in the study.

Objectives of the study

In order to accomplish the purpose of the study, the following specific objectives were established with regard to the study.

1) To determine stakeholder awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN) as they pertain to beef producers participating in certified sales.
2) To determine stakeholder attitudes and levels of agreement regarding preconditioning programs for certified calf sales and changes in the beef industry.
3) To determine selected factors that influence beef stakeholder decisions to participate in preconditioned certified calf sales.
4) To determine management and marketing practices conducted by beef producers that would normally apply if not participating in an OQBN certified sale.
5) To determine selected demographic characteristics of beef stakeholders who participated in preconditioned certified calf sales.
6) To determine selected sources of information and describe their level of perceived importance to beef stakeholders participating in preconditioned certified calf sales.

Institutional Review Board (IRB)

Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators can begin their research. The Oklahoma State University Office of University Research Services (IRB) conducts this review to protect the rights and welfare of human subjects

involved in biomedical and behavioral research. In compliance with the aforementioned policy, this study received the proper surveillance and was granted permission to proceed. This research was assigned the following research project number **AG0213**. (See appendix A)

Population

The target population for this study consisted of all beef industry stakeholders in Oklahoma who participated in the Oklahoma Quality Beef Network (OQBN) Program at five certified calf sale locations throughout the state during the fall of 2001. The following stakeholders were identified as producers if they were cow-calf producers who applied preconditioned practices required for OQBN program and sold cattle at the certified calf sale. Buyers were described as those stakeholders who bought preconditioned cattle at the certified calf sales. The accessible population consisted of 161 stakeholders determined from a list of individuals attending OQBN educational meetings conducted at five regional locations at Enid, Holdenville, Idabel, OKC West and Woodward (Table I), who were enrolled as prospective participants in a OQBN certified calf sale and who either sold or bought calves in one of the five certified sales conducted in the state.

Table I

Distribution of Study Respondents Participating in OQBN Certified Calf Sales During The Fall of 2001 by Regional Location

Sale Location	Producers	OQBN buyers	Total
OKC West	44	21	65
Woodward	12	2	14
Enid	9	-	9
Holdenville	5	21	26
Idabel	41	6	47
Total	111	50	161

After determining the accessible population (161), it was decided to pursue the study utilizing a comprehensive survey of every individual of the accessible population. This type of procedure is also known as a census.

> Ary, D., Jacobs, L. C., & Razavieh, A. (2002) describing types of surveys stated: A survey that covers the entire population of interest is referred to as a census, an example of which is the U.S. Census, undertaken by the government every ten years. In research, however, "population" does not refer to all the people of a country. The term population is used to refer to the entire group of individuals to whom the findings of a study apply. The researcher defines the specific population of interest. (p. 375)

In order to accomplish the purpose of this study, various methods of data collection were considered and the self-administered mailed questionnaire was determined to be the most appropriate to satisfy the objectives of the study. According to Rea and Parker (1997), self-administered mail questionnaires have several advantages over telephone, and in person surveys. They stated:

> The mail-out format for collecting survey data involves the dissemination of printed questionnaires through the mail to a sample of predesignated potential respondents. Respondents are asked to complete the questionnaire on their own and return it by mail to the researcher. (p. 6)

According to Rea & Parker (1997) advantages of the mail are: low cost, convenience, ample time, authoritative impressions, anonymity, and reduced interviewer-induced bias. However, one of its disadvantages is self-selection and lower response rate.

In developing the instrument to satisfy the objectives, the first step was to review and evaluate a questionnaire developed by Rayfield (1995) for a similar type of study. Upon the completion of the review of selected questionnaires, the researcher, thesis advisor and extension specialists compiled and revised questions addressing six major issues: 1) Selected aspects of the OQBN program; 2) Beef industry stakeholders' attitudes toward preconditioning programs and certified calf sales; 3) Factors influencing stakeholders' decisions to participate in preconditioned certified calf sales; 4) Management and marketing practices of beef producers which would normally not apply if not participating in a OQBN certified sale; 5) Selected demographic characteristics of stakeholders who participated in preconditioned certified calf sales; and 6) Sources of

information and their level of perceived importance to selected beef industry stakeholders.

The initial set of questions was reviewed by a panel of extension specialists and the executive officers of the Oklahoma Cattlemen's Association. Study committee members from the Departments of Agricultural Education, Communications and 4-H Youth Development, Animal Science, and Agricultural Economics in the College of Agricultural Sciences and Natural Resources at Oklahoma State University also critiqued the instrument and offered suggested revisions.

Design of the Instrument

Two similar questionnaires were developed for each stakeholder group, producers and buyers (See appendices E and F). The questionnaires consisted of seven and six parts respectively: 1) Awareness of the OQBN program and knowledge of the preconditioning process; 2) Producers' attitudes; 3) Reason for participating in the OQBN program; 4) Management/marketing practices; 5) Selected demographic of selected stakeholders, and 6) Relative importance of sources of information. The "producer" survey consisted of 58 forced response type items and one open ended component asking for comments or suggestions for future OQBN sale activities. On the other hand, the 'buyer" survey included 42 forced response items and one open ended component asking for comments or suggestions for future OQBN.

The Producer Survey

Part I of the "Producer" survey (Appendix E) included nine items addressing awareness of the Oklahoma Quality Beef Network Program (OQBN) and knowledge of the certified calf sale participants concerning preconditioning. Seven questions in part I were developed using an interval-type scale to collect nominal data. Respondents were also ask to respond to two issues concerning their "comfort" with the enrollment, certification standards, overall process of the OQBN program and their future participation in preconditioned/certified calf sales utilizing a four-point "Likert-type" scale. The "Likert-type" scale used in question eight implicated ascertaining data regarding stakeholders' perceived "comfort": 1) "Very Comfortable", 2)"Comfortable", 3) "Uncomfortable", 4) "Very Uncomfortable". A four -point "Likert-type" scale was also used to acquire data concerning question nine, which involved the respondent's perceptions of future program participation concerning two definitive levels of "Yes" and "No". The forced choices of "Yes" and "No" on the four-point scale included: 1) "Definitely Yes", 2) "Probably Yes", 3) "Probably No", and 4) "Definitely No".

Part II addressed 18 items concerning "Participant Attitudes toward preconditioned/certified calf sales and changes in the beef industry". Data were ascertained utilizing a four-point "Likert-type" scale concerning one of four levels of "agreement": 1) "Strongly Disagree", 2) "Disagree", 3) "Agree" and 4) "Strongly Agree".

Part III involving item number 28 addressed the "Primary reason for the respondents' participation in the OQBN program". An interval type scale was used to acquire nominal data concerning their perceptions of "premium received above market price", "selling reputation cattle", etc.

Part IV included 11 items addressing the respondents' "Management/Marketing Practices" which best described operation practices normally applied if they were not participating in an OQBN sale. An interval-type scale was utilized to acquire nominal data on all eleven items.

Part V involved nine questions asking the respondents to share information concerning selected demographics about themselves and their operations. Again, an interval-type scale was used to acquire nominal data.

Part VI of the instrument addressed the respondents' perceived "importance" of selected sources of beef cattle information. The respondents were asked to indicate their replies concerning one of four levels of "importance" on a "Likert-type" scale which included the categories of: 1) "Not important", 2) "Somewhat important", 3) "Important"; and 4)"Very important".

The final part of the questionnaire included an open-ended response item asking the respondents to share their comments and suggestions concerning future OQBN program procedures and sales.

The Buyer Survey

Part I of the Buyers survey (Appendix F) addressed "awareness of the Oklahoma Quality Beef Network program (OQBN), and the buyers' knowledge of preconditioning and how cattle were handled during the sale". Part I consisted of 13 forced response items of which 11 utilized an interval-type scale to acquire nominal data. Questions number 12 and 13 involved a four-point "Likert-type scale". Item 12 addressed the Buyers perceptions with regard to how comfortable they were with the overall integrity of

the certification process. The categories of "comfort" included: 1) "Very Comfortable", 2)"Comfortable", 3) "Uncomfortable", 4) "Very Uncomfortable". However, item 13 specifically addressed the probability of the "New Owners" future participation in OQBN sales. The definitive categories of "Yes" or "No" were: 1) "Definitely Yes", 2) "Probably Yes", 3) "Probably No", and 4) "Definitely No".

Part II of the survey consisted of 13 items which addressed the buyers' attitudes toward the preconditioning process, certified calf sales and changes in the beef industry". A four-point "Likert-type" scale was used to determine the buyers level of "agreement" within the following categories: 1) "Strongly Disagree", 2) "Disagree", 3) "Agree" and 4) "Strongly Agree".

Part III linked item 27 to the buyers primary reason for participating in an OQBN certified sale. An interval-type scale was used to acquire nominal data among six choices that expressed the respondents' perceptions of the "savings offered in labor as the result of buying preconditioned cattle", "opportunity to purchase large drafts of uniform cattle", "expectation of better over-all performance of preconditioned cattle", etc.

Selected demographics describing the buyers in part IV, addressed personal characteristics and how they conducted their operations with regard to purchasing cattle. An interval-type scale was used to acquire nominal data/factual data among the five questions in this section.

Part V consisted of 10 items using a four-point "Likert-type" scale to describe the buyers perceived "importance" of selected sources of information. The categories of "importance" used to interpret the buyers perceptions included 1) "Not important", 2) "Somewhat important", 3) "Important"; and 4)" Very important".

The final part of the buyers' survey consisted of an open-ended response item asking the respondents to share their ideas concerning future OQBN processing procedures and sale activities.

To allow a more accurate analysis procedures of data, numerical values were assigned and real limits established for the items in which a "Likert-type" scale was used to ascertain data in both the Producers and Buyers surveys. Those assigned values and real limits are detailed in Tables II – V, which follow.

Table II

Comfort With The over-all Integrity of The Certification Process

Categories	**Numerical Value**	**Real limits**
Very comfortable	4	3.50 - 4.00
Comfortable	3	2.50 - 3.49
Uncomfortable	2	1.50 - 2.49
Very Uncomfortable	1	1.00 - 1.49

Table III

Definitive Levels of "Yes" Or "No" Concerning Future Participation in OQBN Sales

Categories	Numerical Value	Real limits
Definitely Yes	4	3.50 - 4.00
Probably Yes	3	2.50 - 3.49
Probably No	2	1.50 - 2.49
Definitely No	1	1.00 - 1.49

Table IV

Attitudes Toward Preconditioned Cattle, Certified Calf Sale And Changes In The Beef Industry

Categories	Numerical Value	Real limits
Strongly Agree	4	3.50 - 4.00
Agree	3	2.50 - 3.49
Disagree	2	1.50 - 2.49
Strongly Disagree	1	1.00 - 1.49

Table V

Description of Producer and Buyers Perceived Importance of Selected Sources of Beef Cattle Information

Categories	Numerical Value	Real limits
Very Important	4	3.50 - 4.00
Important	3	2.50 - 3.49
Somewhat important	2	1.50 - 2.49
Not Important	1	1.00 - 1.49

Collection of Data

The questionnaire was duplicated in booklet form and a packet was distributed through the U.S. Mail during January through February 2002 to Oklahoma beef Industry stakeholders, who participated in OQBN Program educational meetings and/or Certified Preconditioned Calf sales. The packet included a cover letter (Appendix B) explaining the purpose and the intent of the study, the questionnaire, and a postage-paid envelope for the return of the completed survey instrument. The respondents were advised of their voluntary responses to any or all of the questions in the survey instrument. A reminder postcard was mail to non-respondents two weeks following the date of the first mailing (Appendix C). A second questionnaire packet was mailed on May 31, 2002 and non-respondents were again reminded and asked to complete and return the survey. The packet included a second cover letter (Appendix D) that asked stakeholders for their

response and emphasized the importance of their participation, a questionnaire, and a postage-paid envelope for the return of the completed survey instrument. After additional attempts to increase the response rate from the beef industry stakeholder participants the cutoff date for returning survey instruments was set for June 17, 2002.

Validity and Reliability

Content Validity and reliability are two important characteristics that every survey instrument should have. Ary et al. (2002) defined "Validity is the extent to which scores on a test enable one to make meaningful interpretations. Reliability indicates how consistently a test measures whatever it does measure" (p. 242).

According to Wiersma (2000) content validity can be done by having a panel of experts review the items on the test and rate them in terms of how closely they match the objective or domain specifications. The panel doesn't need to be large but the members should be knowledgeable about the content area and target audience.

The validity of the instrument was addressed examining content validity. Unlike other types of validity, content-related evidence is not expressed in numerical form, but base on judgment coming from experts on the subject. Thus, Extension Livestock Specialists, Executive Officers of the Oklahoma Cattlemen's Association, study committee members from the Departments of Agricultural Education, Communications and 4-H Youth Development, Animal Science, and Agricultural Economics in the College of Agricultural Sciences and Natural Resources at Oklahoma State University served as a panel of experts to analyze content validity of the instrument.

Another source of threat to external validity on survey research is the non-response rate. Dillman (2000) mentioned, "non-response error occurs when a significant number of people in the survey do not respond to the questionnaire and have different characteristics from those who do respond, when these characteristics are important to the study" (p. 10).

According to Lindner, Murphy, & Briers (2001) one of the procedures for addressing non-response error as a threat of external validity is comparing early to late respondents. In this study, late respondents were considered to be those who responded in the last wave of successive follow-ups to the questionnaire.

Use of the Cronbach-Alpha test completed the reliability of the instrument. This is a model of internal consistency, based on the average inter-item correlation. Reliability analysis allows studying the properties of measurement scales and the items that make them up. The reliability analysis procedure calculates a number of commonly used measures of scale reliability and also provides information about the relationships between individual items in the scale (SPSS release 11.01, 2001).

According to George and Mallery (2003) the Cronbach-Alpha coefficient is designed as a measure of internal consistency; that is all items within the instrument measure the same thing. They (2003) also stated "alpha is a measured on the same scale as a Pearson *r* (correlation coefficient) and typically varies between 0 and 1" (George and Mallery, 2003, p. 223).

The Cronbach-Alpha coefficients of reliability for producer and buyer questionnaires were 0.71 and 0.8, respectively.

Analysis of Data

The self-selected population of beef industry stakeholders who participated in an OQBN Certified Sale all had the opportunity to participate in the study; therefore, descriptive statistics were used to analyze data. According to Ary, et al. (1996) "Statistical procedures are basically methods of handling quantitative information in such a way as to make that information meaningful. First, they enable us to organize, summarize, and describe our observations. Such techniques are called descriptive statistics" (p. 128).

Leedy & Ormrod, (2001) stated:

> Descriptive quantitative research involves either identifying the characteristics of an observed phenomenon or exploring possible correlation among two or more phenomena. In every case, descriptive research examines a situation as it is. It does not involve changing or modifying the situation under investigation, nor is it intended to detect cause-effect relationships. (p. 191)

According Fink (1995), descriptive statistics include frequency distributions, measurements of central tendency and measures of dispersion of numerical data. Measurements of central tendency describe the location of the center of distribution which includes mean, median and mode. She also mentioned, "Dispersion measurements are descriptive statistics that show the spread of numerical data" (Fink, 1995, p. 16).

Means, standard deviations, and t-tests were used to analyze information derived from items where a "Likert" scale was used to ascertain the data. A t-test was used to

determine whether a significant difference existed for each of the items in relation to their levels of "agreement" or "importance".

Ary, Jacobs and Razavieh (2002) stated:

> "The index used to find the significance difference between the means of the two samples for this purpose is the t-test for independent sample. These samples are referred to as independent because they are independently from a population without any pairing or other relationship between the two groups". (p. 185)

An alpha level of α=0.05 was used to determine statistical significance. Frequency distributions and percentages were the descriptive statistics used to interpret demographic data. All data collected as the result of conducting this study were processed using the Statistical Package for Social Science (SPSS® 11.0) computer program.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

This chapter presents the findings collected during the spring and summer of 2002. In order to facilitate the reading, descriptive and statistical analyses of data were presented in an explicit and succinct way, to determine the attitudes and perceptions of selected beef industry stakeholders in Oklahoma, as they pertained to certain aspects of pre-conditioning for adding-value to weaned calves marketed through the Oklahoma Quality Beef Network (OQBN) Program.

Seventy-four beef producers (56 producers, 18 buyers) responded from a finite population of 161 selected beef industry stakeholder participants in the OQBN program. The first part of findings of this study was dedicated to the description of population and respondents of this study. Then producers' survey findings were included, and organized according to objectives of this study. In the same way, buyers/new owners' findings were described in this chapter.

Population

The Population of this study consisted of 161 beef industry stakeholders in Oklahoma, who participated in the Oklahoma Quality Beef Network program at five

certified sale locations throughout the state during the fall of 2001. One hundred and eleven stakeholders participated as producers. Of this group fifty-six (50.4 %) responded to the survey. Fifty Buyers participated in the OQBN program and 18 (36.0%) responded to the survey.

The distribution of stakeholders, who participated in the survey, was dissimilar among the five sale locations. Data in Table VI revealed that 27 (48.2 %) of the producers and 8 (44.4 %) buyers respondents participated in the OKC West OQBN sale. Eighteen (32.1%) producer respondents participated in the Idabel OQBN sale, while 8 (44.4%) of the buyer respondents participated in the Holdenville OQBN sale. Buyers/new owners from Woodward and Enid Certified sales didn't respond to the survey.

Table VI

Distribution of Producer Respondents by OQBN Sale Sites

	Producers		**Buyers**	
Location of	Frequency	Percentage	Frequency	Percentage
the OQBN Sales	N= 56	(%)	N= 18	(%)
OKC West, El Reno, OK	27	48.2	8	44.4
Woodward, OK	4	7.1	-	-
Enid, OK	6	10.7	-	-
Idabel, OK	18	32.1	2	11.1
Holdenville, OK	1	1.8	8	44.4
Total	56	100.0	18	100.0

Producer's Survey Findings

Selected Aspects of the OQBN Program

With the purpose to determine beef producers' awareness of the Oklahoma Quality Beef Network Program (OQBN) and knowledge of the preconditioning process, seven forced response and two "Likert" type scale items were developed.

Overall the data in Table VII indicated the respondents were made aware of the Oklahoma Quality Beef Network Program (OQBN) by a wide variety of means. However, 15 (26.8 %) of the study participants stated they were made aware of the OQBN program through the Oklahoma Cattlemen's Association (OCA) meetings. In addition, 14 (25 %) indicated they became aware of the program through their OSU County Extension Office, while ten (17.9%) of the respondents revealed they acquired information about the OQBN program from "Auction Barn Operators". In addition 11 (28.9 %) respondents found rather diverse means acquiring information about the Oklahoma Quality Beef Network (OQBN) program.

Table VII

A Distribution of Producer Respondents' Selected Means of Awareness of the OQBN Program

Selected Means of Awareness	Frequency (N=56)	Percentage (%)
Oklahoma Cattlemen's' Association meeting	15	26.8
OSU County Extension Office	14	25.0
Auction Barn Operator	10	17.9
OQBN Educational meeting	7	12.5
Local Veterinarian	3	5.4
Oklahoma Cowman Magazine	3	5.4
County Cattlemen's Association	1	1.8
Friend or Neighbor	1	1.8
Noble Foundation	1	1.8
Oklahoma Ag Leadership Program	1	1.8
Total	56	100.0

A total of 6995 head of cattle were marketed in all the OQBN Certified Calf Sales conducted during Fall 2001. On the average, producers sold 63 head, however, the number of cattle marketed by any one producer through this value added management and marketing system ranged from two to several hundred cattle (Table VIII). More than 35 % of the producers sold less than 25 head of cattle. However, over 46 % of the producer participants sold between 26 and 100 head, while 18 % sold more than 100 head

of cattle. In summary 65 % of the producers sold less than 50 head of cattle in any one of the OQBN Certified Calf Sales.

Table VIII

A Distribution of Producer Respondents by Number of Head Sold in the OQBN Sale

Number of Head Sold	Frequency (N= 56)	Percentage (%)
1-10	7	12.5
11-25	13	23.6
26-50	16	28.6
51-100	10	17.9
101-150	5	8.9
151 head or more	5	8.9
Total	56	100.0

According to the data in Table IX the perceived premium received through participation in an OQBN Certified Sale above the regular market price was quite broad, ranging from none to over $10 per cwt. Seventy-five % of the producers acknowledged that their cattle earned approximately $4 per cwt. or greater premium. Over Thirty-seven % of the producers indicated their cattle received $8 or more per cwt. However, more than 20 % of the respondents did not think that they receive a premium above the regular market price.

Table IX

A Distribution of Producer Respondents by Perception of Premium Received over Regular Market Price

Premium Received Over Market Price at Regular Sale ($/cwt.)	Frequency (N=56)	Percentage (%)
0.0	12	21.4
2.0	2	3.6
4.0	7	12.5
6.0	14	25.0
8.0	10	17.9
10.0+	11	19.6
Total	56	100.0

Almost 70 % of the respondents indicated they had no sick cattle during the preconditioning period, while 8 (14.3%) producers had less than one % of their cattle to show health problems (Table X). However, seven (12.5%) of the producers indicated 6 % or more of their calves became sick at some point during the pre-conditioning phase. Forty-seven of the respondents (83.9%) revealed that they had no death loss during the preconditioning phase, while 4 (7.1%) of the producers incurred death losses lesser than one % (Table X). In addition, four (7.1%) producers had 1-5 % of the preconditioned cattle died, while one (1.8%) producer indicated he/she had a 6-10% death loss.

Table X

A Distribution of Producer Respondents by the Percentage of Cattle Becoming Sick or died during Preconditioning Phase

Percentage of Sick Cattle)	Frequency (N=56)	Percentage (%)
None	39	69.6
Less than 1 %	8	14.3
1-5 %	2	3.6
6-10%	6	10.7
11 % or more	1	1.8
Percentage of Cattle that Died		
None	47	83.9
Less than 1 %	4	7.1
1-5 %	4	7.1
6-10%	1	1.8
Total	56	100.0

The data in Table XI showed the distribution of the producers by what information they would like prior to participating again in the OQBN program. Although, 22 (39.3%) producers did not ask for specific information, 26 (46.3%) producers believed that information about nutrition, forage management, breeding and

cow herd management were areas which would benefit them. Other perceived needs expressed indicated OCA should provide more detail about procedural information.

Table XI

Distribution of Producer Respondents by Information Needed Prior to Program Participation

Need of Other Information	Frequency (N=56)	Percentage (%)
None	22	39.3
Nutrition	11	19.6
Forage management	6	10.7
Cow herd management	4	7.1
Breeding	5	8.9
More specific procedural information from OCA	8	14.3
Other	1	1.8
Total	56	100.0

Producers were asked to respond regarding their level of comfort about the certification process for selling cattle in an OQBN certified calf sale. In general, producers had positive attitudes toward the enrollment and certification process. Table XII indicated 46 (86.8%) respondents felt comfortable or very comfortable regarding the certification process. However, seven (13.2%) respondents indicated they felt

uncomfortable with the enrollment and certification process. Overall the mean score for producers' level of comfort was 3.08, within the "Comfortable" category.

Table XII

Distribution of OQBN Program Respondents by Level of Comfort about the Certification Process for Selling Cattle in a Certified Calf Sale

Level of Comfort	Frequency (N=54)	Percentage (%)
Very Uncomfortable	-	-
Uncomfortable	7	13.2
Comfortable	33	62.3
Very comfortable	13	24.5
Total	54	100.0

Mean 3.08 SD. 0.62

In addition, producers were asked about their future participation in the OQBN program based on their first experience. Twenty-two respondents (39.39%) would definitely participate again in the OQBN program, whereas 27 (48.2%) producers indicated a "Probably Yes" with regard to their future participation (Table XIII). However, seven (11.5%) respondents indicated either a "Probable No" or "Definite No" regarding their future participation. The mean score producers level of probable future participation was 3.19 and in the "Probably Yes" category.

Table XIII

A Summary of OQBN Program Respondents by Probability of Future Participation.

Probability of Future Participation	Frequency (N=56)	Percentage (%)
Definitely No	1	1.8
Probably No	6	10.7
Probably Yes	27	48.2
Definitely Yes	22	39.3
Total	56	100.0

Mean=3.19 SD. 0.74

Beef Producers' Attitudes Toward Preconditioning Programs, Certified Calf Sales and Changes in the Beef Industry

With the purpose to learn more about the attitudes and perceptions of the producers toward the OQBN program and preconditioned certified calf sales, the researchers and extension specialists identified eleven statements including differences of OQBN with other programs, effects of the OQBN program on the producers, current situation of marketing preconditioning cattle, and additional costs in processing preconditioning cattle. The "Likert- type" scale included four levels of agreement which included "strongly disagree", "disagree", "agree" and "strongly agree". The respondents were asked to select one response that best describe their attitude toward a particular statement.

Results in Table XIV addressed the challenges of the beef industry with regard to producer attitudes, specifically toward the need to increase consistency and uniformity of their product. With regard to the producer/respondents attitudes, 55 producers responded indicating 43.6 % "Agreed", while 56.4 % "Strongly Agreed". Overall the mean score for the respondents levels of agreement was 3.56 and in the "Strongly Agree" category.

As it is shown in the Table XIV, the statement "The Oklahoma Quality Beef Network program helped me to become more knowledgeable about the future of the beef industry". With regard to the producers' attitudes 52 producers responded, indicating 13.5% of the producers "Disagreed", 63.5% producers "Agreed", while 23.1% of the producers "Strongly Agreed". Overall the mean for the producer respondents levels of agreement was 3.1 and in the "Agree" category.

Producers' attitudes toward the OQBN program as a good opportunity to make producer operations more profitable are summarized in Table XIV. Fifty-five producers responded indicating 1.8 % producers "Strongly disagreed", while 20 % "Disagreed". On the other hand, 23.1% of the producers "Agreed", while 23.6% "Strongly agreed". The overall score was an "Agree" response this statement received with a mean score of 3.0.

Table XIV

A Summary of Oklahoma Quality Beef Network Participant Attitudes and Levels of Agreement Regarding Preconditioned Certified Calf Sales By Current Changes in the Beef Industry

N=56	Categories of Agreement										
	Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N	%	N	%	N	%	N	%	Mean	SD	Category
One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product.	-	-	-	-	24	43.6	31	56.4	3.56	0.50	"Strongly Agree"
The Oklahoma Quality Beef Network program helped me to become more knowledgeable about the future of the beef industry	-	-	7	13.5	33	63.5	12	23.1	3.09	0.62	"Agree"
The Oklahoma Quality Beef Network program allowed me the opportunity to make my operation more profitable.	1	1.8	11	20.0	30	54.5	13	23.6	3.0	0.72	"Agree"
The necessity to produce industry acceptable cattle with minimal price discounts is extremely important in today's commercial cow-calf industry.	-	-	1	1.8	21	38.2	33	60.0	3.58	0.53	"Strongly Agree"

Table XIV *(continued)*

N=56	Categories of Agreement										
	Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N	%	N	%	N	%	N	%	Mean	SD	Category
I keep records on weaning dates and all vaccines administered.	-	-	3	5.5	26	47.3	26	47.3	3.41	0.59	"Strongly Agree"
The industry currently rewards cattlemen for preconditioned calves	2	3.6	29	54.7	20	37.7	2	3.6	2.41	0.63	"Disagree"
OQBN is no different from any other preconditioned program	7	14.0	24	48.0	18	36.0	1	1.8	2.26	0.72	"Disagree"
I sell reputation cattle and normally receive a premium price anyway.	3	5.5	22	40.0	26	46.4	4	7.3	2.56	0.71	"Agree"
On the average, the benefits of selling preconditioned calves are more profitable.	1	1.9	11	20.4	30	55.6	12	22.2	2.98	0.71	"Agree"
Preconditioned calves always receive a premium over "untreated" calves.	3	5.6	34	63.0	10	18.5	7	13.0	2.38	0.71	"Disagree"

Table XIV *(continued)*

N=56	Categories of Agreement										
	Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N	%	N	%	N	%	N	%	Mean	SD	Category
Sorting calves by large uniform drafts should improve the price I receive for my cattle.	-	-	2	3.6	28	50.0	26	46.4	3.42	0.57	"Agree"
One of the things that I was unsure about includes the marketing and commission charges for selling my cattle	3	5.7	30	56.6	18	34.0	2	3.6	2.35	0.65	"Disagree"
Retention of ownership positively influences cattle profitability.	1	2.1	21	43.8	22	45.8	4	8.3	2.60	0.67	"Agree"
Selling large drafts of cattle and commingling them to acquire uniformity through the OQBN program increases the possibility of not being able to identify the rightful owners.	10	18.5	24	44.4	16	29.6	4	7.4	2.26	0.85	"Disagree"
Financing additional feed and health management practices makes it too costly to consign calves to certified sales.	9	16.4	28	50.9	14	25.5	4	7.3	2.23	0.81	"Disagree"

Table XIV *(continued)*

N=56	Categories of Agreement										
	Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N	%	N	%	N	%	N	%	Mean	SD	Category
The lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma.	3	5.9	8	15.7	32	62.7	8	15.7	2.89	0.74	"Agree"
The death loss I experienced from pre-weaning was more than compensated by the premium I received from selling in a "Certified Preconditioned Sale".	10	21.7	17	37.0	11	19.6	8	14.3	2.37	1.01	"Disagree"
I would be more interested in this program if the market price was lower.	14	28.6	28	57.1	5	10.2	2	4.1	1.89	0.74	"Disagree"

Producers' attitudes toward "the necessity to produce industry acceptable cattle with minimal price discounts is extremely important in today's commercial cow-calf industry" was responded by fifty-five producers indicating 1.8% "disagreed", while 38.2 % "Agreed" and 60 % "Strongly agreed". The mean score level of agreement was 3.6 within the "Strongly agree" category (Table XIV).

With regard to the producers attitudes toward "I keep records on weaning dates and all vaccines administrated", 55 producers responded, indicating 5.5 %"Disagreed", while 47.3 % "Agreed" and 47.3%) producers "Strongly agreed" (Table XIV). Overall the mean score for the respondents' levels of agreement was 3.4 and in the "Agree" category.

Another statement (Table XIV) was "The industry currently rewards cattlemen for preconditioned calves". Fifty-three producers responded indicating 3.6 % "Strongly disagree", while 54.7% "Disagreed". On the other hand, 37.7% of the producers "Agreed" and 3.6% "Strongly Agreed". Overall the mean score for the respondents' levels of agreement was 2.4 and in the "Disagree" category.

Fifty producers responded and 14 % "Strongly disagreed", while 48 % 'Disagreed" with the statement "OQBN is no different from any other preconditioning program". In contrast, 36% of the producer respondents "Agreed" and 1.8% producers "Strongly agreed". Overall the mean score for the respondents' levels of agreement was 1.8 and in the "Disagree" category (Table XIV).

With regard to the producers' attitudes toward "I sell reputation cattle and normally receive a premium anyway". Fifty-five producers responded indicating 5.5 % "Strongly Disagreed" and 40 % "Disagreed, while 46.4% of the producer respondents

"Agreed" and 7.3% producers "Strongly Agreed". Overall the mean score for the respondents' levels of agreement was 2.56 and in the "Agree" category.

The data in Table XIV addressed producers' attitudes toward the benefits of selling preconditioned calves. Fifty-four producers responded the statement indicating 1.9 % "Strongly Disagreed", while 20.4 % "Disagreed". In contrast, 55.6% producers "Agreed" and 22.2% of the producer respondents "Strongly Agreed". Overall the mean score for the respondents levels of agreement was 2.98 and in the "Agree" category.

Fifty-four producers responded to the statement "Preconditioned calves always receive a premium over the "untreated" calves", and 5.6 % "Strongly Disagreed", while 63 % "Disagreed". On the other hand 18.5 % producers "Agreed" and 13 % "Strongly Agreed" (Table XIV). The overall mean score for the respondents level of agreement was 2.38 and in the "Disagree" category.

With regard to the producers' attitudes toward "Sorting calves by large uniform drafts should improve the price I receive for my cattle". Fifty-six producer participants responded, and 3.6 % "Disagreed, while 96.4% of the producer participant "Agreed" or "Strongly Agreed" (Table XIV). Overall the mean score for the respondents level of agreement was 3.42 and in the "Agree" category.

Fifty-three producers responded to the statement "One of the things I was unsure about includes the marketing and commission charges for selling my cattle", and 5.7 % producers "Strongly Disagreed", while 56.6 % "disagreed", and 34 % of the producers "Agreed", while 2 (3.6%) producers "Strongly Agreed". Overall the mean score for the respondents level of agreement was 2.35 and in the "Disagree" category.

The data in the Table XIV addressed the positive influence of cattle retention ownership on profitability. Forty-eight producers responded to the statement indicating 54.1 % of the producers "Agreed" or "Strongly Agreed", while 43.8% producers "Disagreed" and 2.1% producers "Strongly Disagreed". Overall the mean score for the respondents level of agreement was 2.6 and in the "Agree" category.

Fifty-four producers responded to the statement "Selling large drafts of cattle and commingling them to acquire uniformity through the OQBN program increases the possibility of not being able to identify the rightful owners" indicating 18.5 % 'Disagreed", while 44.4 % "Disagreed". On the other hand, 29.6% producers "Agreed" and 7.4% of the producers "Strongly Agreed". Overall the mean score for the respondents level of agreement was 2.26 and in the "Disagree" category.

The Data in Table XIV revealed fifty-five producers responded to the statement addressed "Financing additional feed and health management practices makes it too costly to consign calves to certified sales, indicating 16.4 % "Strongly Disagreed", while 50.9 % " Disagreed". On the other hand, 25.5%) producers "Agreed", while 7.3% of the producers "Strongly Agreed". Overall the mean score for the respondents level of agreement was 2.2 and within "Disagree" category.

Another statement shown in Table XIV was "the lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma". Fifty-one producer responded indicating 62.7 % "Agree", while 15.71 % "Strongly Agree". In contrast, 5.9% producer respondents "Strongly Disagree", while 15.7% "Disagree". The mean score for the respondents level of agreement was 2.89 and within "Agree" category.

One of the statements with a lower score for the respondents level of agreement was "The death loss I experienced from pre-weaning was more than compensate by the premium I received from selling in a Certified Preconditioned Calf Sale". According to the date shown in Table XIV fifty-six producers responded indicating 21.7 %" Strongly Disagreed", while 37 % "Disagreed". Eleven (19.6%) producer respondents "Agreed", while 14.3% "Disagreed". The mean score for the respondents level of agreement was 2.37 and within "Disagree" category.

As it is shown in the Table XIV the statement addressed attitudes toward producer's interest in the OQBN program if the market price was lower, had the lowest score level of agreement. Forty-nine producers responded indicating 28.6 % "Strongly Disagreed", while 57.1 % "Disagreed". In contrast, 10.2% producers "Agreed" and 2 4.1% of the producer respondents "Strongly Agreed". Overall the mean score for the respondents level of agreement was 1.89 and in the "Disagree" category.

Primary Reason for Participating in the OQBN Certified Calf Sales

After addressing attitudes of producers toward OQBN and the beef industry, producers were asked to indicate their reason for participation in the OQBN program. The data in Table XV revealed a range of reasons for participation in the OQBN certified Calf program. However, it was clear that the producers' most frequent reason for participating was to acquire a premium price for their calves. Twenty-three (42.6%) of the respondents mentioned premium as the primary reason for their participation. However, the potential of attracting a new clientele" was another reason to participate in the OQBN Certified Sale according 11 (18.4 %) producers respondents, while eight

(16.3%) of the producers indicated "I normally precondition cattle I sell anyway". Five (9.3%) producers indicated the "Opportunity to create a new image for the industry" as their primary reason. Another reason for participation was "Positive image created by selling reputation cattle", indicated by two (3.7%) of the producers, while 1 (1.9%) producer indicated he/she wanted information back and another producer (1.9%) pointed out to track their cattle. Three (5.6%) producers indicated other reason for participation in a OQBN Certified Calf sale.

Table XV

A Distribution of Producer Respondents by Reason for Participation in the OQBN Sale

Primary Reason of Participation in the OQBN	Frequency (N=54)	Percentage (%)
Premium received above market price	23	42.6
Potential of attracting new clientele	11	18.4
I normally pre-condition cattle I sell anyway	8	16.3
Opportunity to create new image for the industry	5	9.3
Positive image created by selling reputation cattle	2	3.7
Want to track my cattle	1	1.9
Get Info back	1	1.9
Other reason	3	5.6
Total	54	100.0

Normal Management and Marketing Practices

The next section dealt with management and marketing practices by producers that would normally apply if not participating in an OQBN certified sale. The data in Table XVI showed that all producers that participated in a pre-conditioned calf sale normally kept records of their management practices. For instance, the data revealed 36 (64.3%) of the producers mentioned having kept hand written records. On the other hand, 14 (25%) of the producers explained they normally kept both hand written and computerized records. Furthermore, five (8.9%) producers indicated keeping computerized records of their management practices, while one (1.8%) producer/respondent stated they relied on computerized records provided by a management firm.

Table XVI

Distribution of Respondents by Type of Record Keeping Practices

Type of Record Keeping Practices	Frequency (N=56)	Percentage (%)
Hand written records	36	64.3
Computerized records of the operation	5	8.9
Both hand and computerized records	14	25.0
Computer record provided by a company	1	1.8
Total	56	100.0

The producers used a variety of software programs to maintain records system. Seven (35%) producers utilized The Cow Inventory Program in management of their operations, while five (25%) study participants indicated they used budgeting to record their management/marketing (Table XVII). A spreadsheet was used as a record keeping system by four (20%) of the study participants, while two (10%) producer respondents indicated they utilized some other computerized record keeping system.

Table XVII

Distribution of Respondents by Type of Computerized Records and Type of Software

Type of Computerized Records and Type of Software	Frequency (N=20)	Percentage (%)
Cow inventory	7	35.0
Budgeting	5	25.0
Spreadsheet	4	20.0
Angus Assoc.	1	5.0
Aims program	1	5.0
Other computerized records	2	10.0
Total	20	100.0

The distribution of study participants according to the type of calving season conducted by their operations was presented in Table XVIII. Twenty-three (42.6%) producers indicated the spring calving season was primarily utilized in their management scheme, 21 (38.9%) producers used both spring and fall calving seasons. Eight (14.8%) producer/respondents stated they conducted a year around calving season in their operations, while two (3.8%) respondents conducted a fall calving season only and a December- April calving season respectively.

Table XVIII

A Distribution Respondents by Type of Calving Season

Calving Season	Frequency (N=54)	Percentage (%)
Spring calving only	23	42.6
Spring and Fall calving	21	38.9
Year Around	8	14.8
Fall calving only	1	1.9
Dec-April	1	1.9
Total	54	100.0

Another management indicator which producers were asked to indicate was the length of breeding season. According to the data shown in Table XIX, 23 (43.2%)

producers utilized 61 to 90 day breeding interval, while 16 (30.2%) producer/respondents indicated the preferred length of their breeding season was 91days or more. However, 13 (24.5%) producers conducted 31 to 60 day breeding season, while one (1.9%) respondent indicated their operation utilized a breeding season of 30 days or less.

Table XIX

A Distribution Respondents by Breeding Season Length

Breeding Season Length	Frequency (N=53)	Percentage (%)
30 days or less	1	1.9
31-60 days	13	24.5
61-90 days	23	43.4
91 days or more	16	30.2
Total	53	100.0

An important decision producers make about management in their operations is sire selection. According to the data in Table XX, 45 (75.9%) producers selected purebred breeders as the source for herd sires in their operations. The next most common source from which to select herd sires were test station sales, as indicated by six (11.1%) producers. Four (7.4 %) producers mentioned artificial insemination as a method of sire selection, while three (5.6%) producers indicated they use bulls they bred on their ranch.

Table XX

A Distribution Respondents by Sire Selection Method

Sire Selection Method	Frequency (n=54)	Percentage (%)
Test Station sales	6	11.1
Purebred breeders	41	75.9
Use of bulls raised on his ranch	3	5.6
Artificial Insemination	4	7.4
Total	54	100.0

The data in Table XXI revealed a distribution of the producers by the percentage of calves born on their ranches without horns. Thirty-nine (70.9%) producers indicated 75 to 100 % of their calves were born without horns, while nine (16.4%) respondents had 50 to 74 % of their calves born polled. However, six (10.9%) producers indicated 25 to 49 % of their calves were born without horns, while one (1.8%) study respondent revealed less than 10 % of calves were born without horns.

Table XXI

A Distribution Respondents by Percentage of Calves Born Without Horns

Percentage of Calves Born Without Horns	Frequency (N=55)	Percentage (%)
75-100%	39	70.9
50-74 %	9	16.4
25-49 %	6	10.9
Less than 10 %	1	1.8
Total	55	100.0

The data shown in Table XXII revealed the distribution of the producer/respondents by percentage of horned calves that were dehorned in their operations annually. Twenty-eight (70%) producer/respondents indicated they dehorned 75 to 100 % of the horned calves born on their operations, while three (7.5%) producers indicated they dehorned 25 to 49 % of their calves. One (2.5%) study participant stated he/she dehorned 10 to 24 % of the calves in their operations. However, eight (20.0%) producers revealed they dehorned less than 10 % of their calves involved in their operations.

Table XXII

A Distribution Respondents by Percentage Horned Calves Dehorned

Percentage of Horned Calves Dehorned	Frequency (N=40)	Percentage (%)
75-100%	28	70.0
50-74 %	-	-
25-49 %	3	7.5
10 - 24 %	1	2.5
Less than 10 %	8	20.0
Total	40	100.0

The data in Table XXIII showed the distribution of OQBN producers by percentage of bull calves castrated prior to marketing. Fifty-one (92.7%) producers in this study indicated they castrated 75 to 100 % of their bull calves prior to sending them to the market, while two (3.6%) producers stated they castrated 50 to 74% of bull calves prior to marketing. However, two (3.6%) producer/respondents castrated less than 10 % of their bull calves prior marketing.

Table XXIII

A Distribution Respondents by Percentage of Bull Calves Castrated Prior To Marketing

Percentage Of Bull Calves Castrated Prior To Marketing	Frequency (N=55)	Percentage (%)
75-100%	51	92.7
50-74 %	2	3.6
Less than 10 %	2	3.6
Total	55	100.0

The beef producers participating in this study also indicated when they castrated bull calves. The data shown in Table XXIV revealed 28 (52.8%) producer/respondents castrated their bull calves shortly after calving, while 11 (20.8%) respondents worked bull calves 1-3 weeks prior to weaning, and eight (15.0%) producers castrated their bull calves at weaning time. Six (11.4%) producers revealed they castrated their calves at two to four months of age, one to three months after weaning, and don't castrate.

Table XXIV

A Distribution Respondents by Time of Castration of Bull Calves

Time of castration of bull calves	Frequency (N=53)	Percentage (%)
Shortly after calving	28	52.8
1-3 weeks pre-weaning	11	20.8
At weaning time	8	15.0
2-4 months of age	2	3.8
1-3 months after weaning	2	3.8
Don't castrate	2	3.8
Total	53	100.0

The data Information in Table XXV exposed a distribution of OQBN respondents by normal health practices applied in their operations. "Treatment for internal parasites" seemed to be the most common health practice applied by 52 (93%) of the producers in this study, while 49 (87.5%) producer/respondents "treated their calves . for external parasites" and 48 (85.7%) producers indicated they administer a variety of vaccines subcutaneously in the neck area" primarily to prevent blackleg. Furthermore, 47 (84%) producers stated they administered all health products according to certified calf sale regulations, while 47 (80.4%) producers indicated they dehorned/closely tipped horns healed their calves. Only 27 (48.2%) producers indicated they applied "Extra label usage of animal health products given on the advice of a licensed Veterinarian".

Table XXV

A Distribution Respondents by Normal Health Practices Applied

Normal Health Practices	Frequency (N=56)	Percentage (%)
Treatment for internal parasites	52	93.0
Treatment for external parasites	49	87.5
Administer vaccines/health products subcutaneously in neck area	48	85.7
All animal health products administered according to preconditioned certified sale regulations.	47	84.0
Dehorned/closely tipped horns healed	45	80.4
Extra label usage of animal health products given on the advice of a licensed Veterinarian	27	48.2
Total	56	100.0

Another issue producers addressed in this study was "to whom do you normally sell your cattle. As it was shown in Table XXVI producers had a variety of market opportunities to market their cattle. Forty-five (80.4%) revealed they normally market their cattle through Local sale barn/ stockyards, while 11 (19.6%) producers stated they retained ownership in their weaned calves as stockers. On the other hand, five (8.9%) indicated they sold their cattle to stocker operations, while three (5.4%) producer/respondents revelaed selling their calves to a preconditioning firm.

Seven (12.4%) of the producers sold cattle "direct to feedlot", "stockers and feedlot operations", "seedstock at ranch", "private sales" and "neighbors and friends" respectively.

Table XXVI

A Distribution Respondents by Where They Normally Sell Their Cattle

Marketing Opportunities	Frequency (N=56)	Percentage (%)
Local sale barn/stockyard	45	80.4
Retain ownership	11	19.6
Stocker operator	5	8.9
Preconditioning firm	3	5.4
Direct to feedlot	2	3.5
Stockers and feedlot	2	3.5
Seedstock at ranch	1	1.8
Private sales	1	1.8
Neighbors and friends	1	1.8

Demographic Characteristics of Beef Producers

Participants in the OQBN Certified calf sale were asked to respond to demographic questions that best describe themselves. The data in Table XXVII described the self-reported educational levels: Less than High School, High School Graduate, Baccalaureate Degree, Masters Degree, Doctorate and other. Accordingly the data showed most of the OQBN producer participants were highly educated. Collectively the High School Graduate, Bachelor's Degree, , and Master's Degree accounted for 81.9 % of respondents. In addition, three % had earned the Doctorate. Only 12 % of respondents had less than a High school education as their highest level of formal education.

Table XXVII

A Distribution of Producer Respondents by Level of Formal Education

Level Of Formal Education	Frequency (N=55)	Percentage (%)
Less than High School	7	12.7
High School Graduate	20	36.4
Baccalaureate Degree	20	36.4
Master's Degree	5	9.1
Doctorate	2	3.6
Other Level of Education	1	1.8
Total	55	100.0

The data in Table XXVIII showed the following age categories: less than 21 years; 21-30 years; 31-40 years; 41-50 years; 51-60 years; 61-70 years; and 71 years or older. Concerning age distributions, the respondents were quite diverse, twelve % of the respondents indicated they were 40 years of age or less. Almost half (47.3%) of the respondents were within the categories between forty-one to sixty years of age, while those older than sixty-one years accounted for the remaining 40 %.

Table XXVIII

A Distribution of Producer Respondents by Age

Age	Frequency (N=55)	Percentage (%)
Less than 21 years	1	1.8
21-30 years	2	3.6
31-40 years	4	7.3
41-50 years	12	21.8
51-60 years	14	25.5
61-70 years	13	23.6
71 years or older	9	16.4
Total	55	100.0

According to the data in Table XXIX, 96 % of the producers considered their cattle operation as private/family owned, and only four % considered it as a partnership type of ownership arrangement.

Table XXIX

A Distribution of Producer Respondents by Ownership Arrangement of Beef Operation

Ownership Arrangement of Beef Operation	Frequency (N=55)	Percentage (%)
Family/privately owned	53	96.4
Partnership	2	3.6
Total	55	100.0

The data in Table XXX indicated that producers participating in the OQBN certified sales described their operations in a variety of ways. Forty percent of the responding producers considered their occupation to be full time farming and ranching without an off ranch job. However, fourteen % stated they were full time ranching with a spouse holding an off ranch job. Interesting almost 42 % of the producers described themselves as a part time ranching with a combination of part time or full time off ranch jobs. Overall, 96.5 % of the full time ranchers owned had private/family operations.

Table XXX

A Distribution of Producer Respondents by Job Description of Operation

Situation Which Describe Their Operation	Frequency (N=55)	Percentage (%)
Full Time Ranching/No off Ranch Job	22	40.0
Part time ranching/full time off ranch job	11	20.0
One spouse full time ranch/one spouse full time off ranch job	8	14.5
Part time ranching/both spouses full time off ranch jobs	7	12.7
Part time ranching/part time off ranch job	5	9.1
Full time ranching with manager/Full time off ranch job	2	3.6
Total	55	100.0

Although various types of beef cattle enterprises were represented at the five OQBN certified sales, data in Table XXXI revealed that producers who participated in the OQBN certified sale were more likely to be cow/calf operator or a combination with stockers or purebred operations. Almost ninety % (89.1 %) of the producers were among these types. Furthermore, twenty % of the producers considered himself or herself as cow-calf operator combined with a stocker operation. In addition, eleven % of the producers perceived themselves as cow-calf and purebred operators. In addition, Seven % of the participants identified themselves as purebred operators. Another interesting

finding was that almost four % (3.7%) of the study participants perceived themselves as stocker or feedlot operators.

Table XXXI

A Distribution of Producer Respondents by Type of Beef Operation

Type of Beef Operation	Frequency (N=55)	Percentage (%)
Commercial Cow/calf Operators	31	56.4
Combination of Cow/calf and Stocker Operators	11	20.0
Combination of Cow/calf and Purebred Operators	6	10.9
Combination of Cow/calf, Purebred and Stocker	1	1.8
Purebred operators	4	7.3
Stocker operators	1	1.8
Feedlot operators	1	1.8
Total	55	100.0

According to the data shown in Table XXXII, the majority of Cow/calf operators that chose to participate in the OQBN can be characterized as small to mid-sized operators. About one-fourth (23.6%) of the producers participating in the five certified sales had less than fifty brood cows. Slightly less than a third of the producers had between 51 and 100 brood cows. Furthermore, about a third of the producers were in the

category of 101-300 brood cows in their operations. Slightly less than ten % (9.1%) of the OQBN calf sale producers had more than 300 cows. It is interesting to note that 52 % of respondents owned less than 100 cows, while 48 % owned more than 100 cows. According to the Oklahoma Department of Agriculture (2001) 61 % of cattle operations in Oklahoma have less than 50 head of cattle and those operations represented 14 % of total cattle inventory.

Table XXXII

A Distribution of Producer Respondents by Size of Brood Cow Operation

Size of Brood Cow Operation	Frequency (N=55)	Percentage (%)
None	1	1.8
1-25 head	2	3.6
26-50	10	18.2
51-75	5	9.1
76-100	13	23.6
101-300	19	34.5
301-600	3	5.5
601-900	1	1.8
1201 head or more	1	1.8
Total	55	100.0

The data in Table XXXIII showed the number of calves marketed annually among participants of Certified calves sales. This information coincides with the fact that most producers in Oklahoma are considered small to medium size operators. As a consequence of this situation, it was not surprisingly that more than half of the producers sells less than 100 calves per year. For instance, slightly more than quarter (27.8%) of the producers in this study normally sells less than 50 head per year. While another similar group of producers/participants (27.8%) sell among 51 to 100 head of cattle annually. Furthermore, one-third of the producers/participants sell between 101 to 300 head, while, 11.2 % of the producers/participants normally sell more than 300 calves a year.

Table XXXIII

A Distribution of Producer Respondents by Number of Calves Marketed Annually

Number of calves marketed annually	Frequency (N=54)	Percentage (%)
25 calves or less	3	5.6
26-50 calves	12	22.2
51-75	7	13.0
76-100	8	14.8
101-300	18	33.3
301-600	3	5.6
601-900	2	3.7
1201 or more	1	1.9
Total	54	100.0

Data in Table XXXIV indicated the typical producer that participated in the five Certified Calf sales had been involved in the beef industry over a period of several years. In fact, almost fifty % of respondents had been involved in the beef industry for more than 31 years and an additional third of the producers had been involved in the industry between 16 to 30 years. On the other hand, only eleven % of the participants had been in the beef industry for less than 10 years.

Table XXXIV

A Distribution of Producer Respondents by Number of Years Involved in Beef Cattle Industry

Number of Years	Frequency (N=55)	Percentage (%)
1-5 years	1	1.8
6-10 years	5	9.1
11-15 years	4	7.3
16-20 years	9	16.4
21-30 years	9	16.4
31 or more years	27	49.1
Total	55	100.0

The data in Table XXXV revealed OQBN producer participants experience on preconditioning cattle. Although, most producers demonstrated an extensive experience in the beef industry, however; few had extensive experience preconditioning cattle. Over forty five % of the producers had less than five years experience preconditioning cattle. Yet, almost a quarter (24%) of the producers responded as having more than 21 years of experience in pre-conditioning cattle.

Table XXXV

A Distribution of OQBN Participant Respondents by Years of Experience in Pre-conditioning Cattle

Years of experience	Frequency (N=54)	Percentage (%)
None	1	1.9
1-5 years	24	44.4
6-10 years	8	14.8
11-15 years	5	9.3
16-20 years	3	5.6
21 years or more	13	24.1
Total	54	100.0

Sources of Information

Producer/respondents were asked to indicate their perceived "importance" of selected sources of beef cattle information: Beef Cattle Magazines, OSU Animal Science Research Reports, Local Veterinarian, Extension Fact Sheets, Oklahoma Cooperative Extension Service, Fellow producers, Internet web sites, Breed Associations, Commission Companies and Producer Marketing Cooperatives. As shown in Table XXXVI the most important source of information among OQBN producer participants was the local veterinarian, according to forty-four producers (86.3%) respondents considered the local veterinarian as an "important" or "very important source" of information. The mean score across all categories of importance was 3.2, while the overall category indicated by the respondents was their local veterinarian as an "important source" of information.

The second two most important sources of information were OSU Animal Science Research Reports were considered the second leading source of information according to forty-three (84.3%) producer/respondents. The mean score across all categories was 3.1 as an "Important" source of information for Producer Respondents. According to the data in Table XXXVI, Extension Fact Sheets were the third leading source of information as stated by forty (83.3%) of the Producer Respondents. The overall mean score across all categories was 3.0 indicating Fact Sheets were an "important" source of information for beef producers participating in the study. Study participants perceived Beef Cattle Magazines as an "important" source of information, with an overall mean score 3.0 and the support of forty-three (79.6%) indicating they were either "important" or "very important" source of information for cattlemen. In

addition, the OSU Cooperative Extension Service was also considered an "important" source of information by the producers participating in this study. Furthermore, Fellow Producers were considered as an "Important" source of information by thirty-five (71.4%) of the producer/respondents with an overall mean score of 2.8. Breed Associations, The Internet, Commission Companies, and Producer marketing Cooperatives were considered "somewhat important" as sources of information by the Producer Respondents. The average mean score for each of these respective entities was 2.5, 2.4, 2.3 and 2.3.

Table XXXVI

A Summary of Perceived Importance of Sources of Information among Beef Producer

	Categories of Importance										
	Not		Somewhat				Very				
N=56	Important		Important		Important		Important				
Sources of Information	N	%	N	%	N	%	N	%	Mean Score	SD	Category
Beef Cattle Magazines	-	-	11	20.4	31	57.4	12	22.2	3.0	0.66	"Important"
Commission Companies	12	25.5	13	27.7	19	40.4	3	6.4	2.3	0.92	"Somewhat Important"
Extension Fact Sheets	-	-	8	16.7	30	62.8	10	20.8	3.0	0.62	"Important"
Oklahoma Cooperative Extension Service	1	2.0	11	22.4	27	55.1	10	20.4	2.9	0.72	"Important"
Fellow producers	1	2.0	13	26.5	27	55.1	8	16.3	2.8	0.75	"Important"

Table XXXVI *(continued)*

	Categories of Importance										
	Not		Somewhat				Very				
N=56	Important		Important		Important		Important				
Sources of Information	N	%	N	%	N	%	N	%	Mean Score	SD	Category
Internet web sites	7	15.2	19	41.3	14	30.4	6	13.0	2.4	0.90	"Somewhat Important"
Breed Associations	5	10.6	17	36.2	21	44.7	4	8.5	2.5	0.81	" Somewhat Important"
Producer Marketing Cooperatives	8	17.0	16	34.0	19	40.4	4	8,5	2.4	0.87	"Somewhat Important"
OSU Animal Science Research Reports	1	2.0	7	13.7	28	54.9	15	29.4	3.1	0.71	"Important"
Veterinarian	2	3.9	5	9.8	24	47.1	20	39.2	3.2	0.78	"Important"

Open-Ended Responses

Producers and buyers were given the opportunity to provide their comments on any aspect of the OQBN Program, preconditioning, management practices, sources of information, etc. Twenty producers developed responses that were clustered into five themes: 1) Preconditioned calf sale was a great idea, 2) Premium did not compensate for preconditioning and added work, 3) Make sellers follow the rules of OQBN program, 4) I did not like my black calves mixed with other colors, 5) I need feed back on cattle we are marketing, 6) other comments. (Appendix G)

"Preconditioned Calf Sale Was a Great Idea"

"Preconditioned calf sale was a great idea" was expressed by five (8.9%) producers They reported their experience during the certification process and certified calf sale was good. Producers included comments like "OQBN is the best and only thing the small operator has to get a fair market value for his cattle". Other comments in this category included "I benefited as much from the sorting of my calves into large groups as I did from preconditioning".

"Premium did not compensate for the preconditioning and added work"

The second statement most often expressed was "Premium did not compensate for the preconditioning and added work". Almost nine % of the producers indicated that financing additional feed and health management practices made it too costly to consign calves to OQBN Certified Sales

"Make Sellers Follow the Rules of OQBN Program"

Five (8.9%) producer/participants stated "Make all sellers (producers) follow the rules of the OQBN program". The Producer Respondents also expressed that OQBN "Sales need uniform cattle and Producers need to adhere to the guidelines of the sale".

"I did not like my black calves mixed with other colors".

Three (5.3%) producers stated "I did not like my black calves mixed with other colors", and "I would not be interested in selling at any more commingled sales".

"Need to get feedback on the cattle we are marketing"

Two (3.5%) of the producers indicated the "Need to get feed back of cattle we are marketing". The Producer Respondents also indicated " we can make changes to improve our products" and " we would get information back on how my calves graded out and carcass".

Additional producer statements suggested "OQBN marketing opportunities were too limited". Another producer suggested there is a "need for having Electronic identification; a "bangle tag" with a number you can read at a distance, while another comment expressed that "small operators should be required to purchase their medicine from same place as the tags are required".

Others suggestions from producer/respondents indicated the OQBN marketing opportunities were too limited because most locations provided only one sale date between October and December where OQBN calves were featured.

Buyer/New Owner's Survey Findings

The purpose of this section was to learn about buyers' experiences during their participation in the OQBN certified sales. Buyers were asked to respond each area concerning the following: Awareness about OQBN; their attitudes toward preconditioned certified calf sales; buyers/new owners' demographics; and their sources of beef cattle information.

Selected Aspects of the OQBN Program

The data in Table XXXVII dealt with buyers/new owners and how they became aware of the OQBN program. Interestingly, the results showed that buyers were made aware by a wide variety of means. Eight (44.4%) buyers/new owners indicated they became aware through local auction barn operators, while five (27.8 %) respondents stated they became aware of the program through Oklahoma Cattlemen's Association (OCA) meetings. In addition, two (11.1 %) respondents indicated they became aware through OQBN Educational meetings and OSU County Extension offices, while one (5.6%) respondent indicated they became aware of OQBN certified calf sales through the "Oklahoma Cowman Magazine".

Table XXXVII

A Distribution Buyers/New Owners by Selected Means of Awareness of the OQBN Program

Selected Means of Awareness	Frequency (N=18)	Percentage (%)
Auction Barn Operator	8	44.4
Oklahoma Cattlemen's' Association meeting	5	27.8
OQBN Educational meeting	2	11.1
OSU County Extension Office	2	11.1
Oklahoma Cowman Magazine	1	5.6
Total	18	100.0

The number of calves purchased by respondents in the OQBN certified calf sales was a question asked to buyers/new owners. The average number head purchased by the total number of buyers was 127 head. However, the total volume of cattle purchased by any one buyer in each location was broadly distributed. For instance, buyers at OKC West OQBN certified sale purchased an average of 56 head, whereas at the Idabel OQBN sale the average was 247 head. The overall distribution of cattle purchased shown in Table XXXVIII, indicated six (33.3%) of the buyers/new owners purchased 25 head or less, while another third (33.3%) of the buyers/new owners bought between 26 and 100 head. In addition, the largest volume of cattle purchased by buyers/new owners were bought by six (33.4%) respondents fell into the categories of 101-300 and 301-600 head.

Table XXXVIII

A Distribution Buyers/New Owners by Number of Head Purchased at OQBN Sale

Number of Head Purchased	Frequency (N=18)	Percentage (%)
25 calves or less	6	33.3
26-50	1	5.6
51-75	2	11.1
76-100	3	16.7
101-300	3	16.7
301-600	3	16.7
Total	18	100.0

Furthermore, 14 (77.89%) buyers/new owners purchased cattle for their own operations. However, buyers that purchased only for a client or both were evenly distributed with 2 (11.1 %) respectively.

Another question included in this section was the type of cattle that buyers preferred to buy in a preconditioned certified calf sale. The data in Table XXXIX revealed that eight (47.1%) of the buyers/new owners preferred preconditioned cattle, while five (29.4%) buyers/ new owners indicated they preferred calves coming off of native range. However, three (17.6%) buyers/new owners preferred purchasing weaned calves and one (5.9%) of buyer mentioned they preferred buying cattle in large uniform lots.

Table XXXIX

A Distribution Buyers/New Owners by Type of Preferred Cattle to Buy

Type of Cattle Preferred	Frequency (N=17)	Percentage (%)
Preconditioned Cattle	8	47.1
Cattle Coming Off of Native Range	5	29.4
Weaned Calves	3	17.6
Large Uniform Drafts of Cattle	1	5.9
Total	17	100.0

The data in Table XL revealed the type of treatment that buyers preferred for calves prior to purchasing OQBN sale cattle. Interestingly, 12 (66.7%) buyers/new owners indicated that "normal feed and water intake" as the preferred treatment. However, three (16.7%) buyers/new owners indicated that "normal shrink" as the preferred treatment, while two (11.1%) buyers/new owners preferred cattle without feed or water 8 h prior to the certified calf sale. In addition, one (5.6%) buyer indicated "free access to water only" as the preferred treatment

Table XL

A Distribution Buyers/New Owners by Type of Treatment Preferred Prior to the OQBN Sale

Type of Treatment Preferred Prior to The Sale	Frequency (N=18)	Percentage (%)
Normal feed and water intake	12	66.7
Normal shrink	3	16.7
No feed or water 8 hr prior to the sale	2	11.1
Free access to water only	1	5.6
Total	18	100.0

The data shown in Table XLI indicated six (33%) of the respondents experienced none or less than 10 % sick cattle purchased in an OQBN certified calf sale. However, seven (38.9%) of the buyers/new owners indicated they experienced 11 to 20 % of the cattle they purchased becoming sick, while four (22.2%) of buyers/new owners had 20 to 30 % of the cattle became sick after they were purchased. One (5.6%) buyer/new owner indicated more than 30 % of the OQBN cattle they purchased to become sick after the sale.

The data in Table XLII revealed 11 (64%) of cattle buyers of OQBN indicated that they did not have any death loss. However, three (17.6%) buyers indicated they experienced two to five percent death loss, while three (17.6%) buyers/new owners revealed they had six to 10 % death loss in the OQBN cattle they purchased.

Table XLI

Distribution of Buyers/New Owners by the Percentage of Cattle Becoming Sick after OQBN Certified Calf Sale

Percentage of Sick Cattle	Frequency (N=18)	Percentage (%)
None	4	22.2
Less than 10 %	2	11.1
11-20%	7	38.9
20 - 30 %	4	22.2
More than 30%	1	5.6
Total	18	100.0

Table XLII

A Distribution of Buyers/New Owners by the percentage of Death Loss in the OQBN cattle

Percentage of Death Loss	Frequency (N=18)	Percentage (%)
None	11	64.7
Less than Two %	-	-
2-5 %	3	17.6
6 -10%	3	17.6
Total	18	100.0

Buyers/ New Owners were also asked what additional information they would like to have before buying OQBN cattle compared to what was made available during the first year. The data in Table XLIII showed 4 (23.5%) of the Buyers/New Owners indicated they would like to know whether or not the calves have been creep feeding. Interestingly, another 4 (23.5%) of the respondents required information about implants applied to the calves and when they were implanted, while 3 (17.6%) of the Buyers/New Owners indicated they required specific information on amount of feed received. However, two (11.7%) buyers/new owners specified they needed information about immunizations, while one (5.8%) Buyer indicated more specific information on amount of feed received. One (5.8%) Buyer/New Owner indicated they required information about treatment of respiratory diseases. Another one (5.8%) of the Buyers/New Owners indicated they required identified cattle as a ranch, while one (5.8%) indicated they needed info about the origin of cattle.

Table XLIII

Distribution of Buyers/New Owners by Type of Additional Information Requested

Type of Additional Information Requested	Frequency (N=17)	Percentage (%)
Whether or not calves had been creep fed	4	23.5
Whether or not the calves had been implanted and when	4	23.5
Specific information on amount of feed received	3	17.6
Immunizations	2	11.7
More specific genetic information	1	5.8
Identify as ranch	1	5.8
Treatment of respiratory diseases	1	5.8
Origin of cattle	1	5.8
Total	17	100.0

Furthermore, the data in Table XLIV revealed the places where the purchased cattle were going. Interestingly, 15 (83.4%) of the Buyers/New Owners indicated the cattle purchased were going to some kind of pasture that included wheat, native range or rye grass. However, three (16.7%) of the Buyers/New Owners stated the cattle they purchased were going either to a feedlot or receiving-growing feedyard.

Table XLIV

A Distribution of Buyers/New Owners by the Place of Cattle Are Going After Purchased

Place of Cattle Are Going After Purchased	Frequency (N=18)	Percentage (%)
Wheat pasture	11	61.1
Native grass/range	3	16.7
Commercial feedlot or feedyard	2	11.1
Receiving/growing yard or lot	1	5.6
Rye pasture	1	5.6
Total	18	100.0

Another important question included in the survey addressed the issue of premium paid over the regular price at an OQBN Certified sale. As it was shown in Table XLV, the premium paid by buyers ranged from $0 to $10 per cwt. Six % of the buyers did not pay a premium for the cattle they bought, while three (23.1%) of the Buyers/New Owners stated they paid a $2.00 /cwt premium. Furthermore, one (7.7 %) they paid $ $4.00 /cwt in premium over the perceived regular price, while three (23.1%) of the Buyers revealed they paid $ 6.00/cwt in premium over the perceived regular price. In addition, five (38.5%) of the Buyer/New Owners indicated they paid $ 8 to $10/cwt over the perceived regular sale barn price for OQBN Certified calves.

Table XLV

A Distribution of Buyers/New Owners by the Premium Paid over the Perceived Regular Price

Premium Paid over the Regular Price	Frequency (N=13)	Percentage (%)
None	1	7.7
$2	3	23.1
$4	1	7.7
$6	3	23.1
$8	3	23.1
$10	2	15.4
Total	13	100.0

Another question asked to buyers/ new owners was the perceived level of comfort with the overall integrity of the certification process. The data in Table XLVI showed that 6 (27.8%) of the buyers indicated they were very comfortable with overall integrity of the OQBN program process, while 7(38.9 %) of the buyers indicated they were comfortable with the integrity of the certification process. Five (33.3%) of the New Owners indicated they were uncomfortable. However, none of the respondents indicated they were very uncomfortable with certified calf sale process.

Table XLVI

A Summary of Buyers/New Owners Perceived Satisfaction with OQBN Program Enrollment, and Certification Standards by Level of Comfort.

Level of Comfort	Frequency (N=18)	Percentage (%)
Very comfortable	6	27.8
Comfortable	7	38.9
Uncomfortable	5	33.3
Very Uncomfortable	-	-
Total	18	100.0

In addition, Buyers/New Owners were asked if they would participate in future OQBN certified auctions. The data in Table XLVII showed that seven (38.9%) of the respondents indicated that they definitely would participate in a future OQBN sale, while nine (50.0%) expressed a "probable yes" with regard to their future participation. However, two (11.1%) buyers/new owners indicated they "probably would not" participate in another OQBN sale. None of the buyers indicated they "definitely would not" participate in an OQBN sale.

Table XLVII

A Summary of Buyers/New Owners' Involvement in Preconditioned/Certified Sales by Probability of Future Participation.

Probability of Future Participation	Frequency (N=18)	Percentage (%)
Definitely Yes	7	38.9
Probably Yes	9	50.0
Probably No	2	11.1
Definitely No	-	-
Total	18	100.0

Buyers/New Owners Attitudes toward Preconditioning Certified Calf Sales and Changes in the Beef Industry

In order to determine about buyer/new owner attitudes toward the OQBN program and preconditioned/certified calf sales, 13 statements ascertain the buyers' perceptions. Those included differences of OQBN with other programs, advantages of the OQBN program, current situation of marketing preconditioning cattle, and additional costs in processing preconditioning cattle. The "Likert-type" scale used to glean four levels of agreement, which included "strongly disagree", "disagree", "agree" and "strongly agree". The respondents were asked to select one response that best describe their attitude toward each statement. Table XLIX showed statements and levels of agreements among participants of the OQBN program.

Table XLVIII

A Summary of Oklahoma Quality Beef Network Buyers/New Owners Attitudes and Levels of Agreement Regarding preconditioned /Certified Calf Sales by Current Changes in the Beef Industry.

		Categories of Agreement										
		Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N=18	N	%	N	%	N	%	N	%	Mean	SD	Category
One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product.		-	-	-	-	9	50.0	9	50.0	3.5	0.51	"Strongly Agree"
The industry currently rewards cattlemen for preconditioned calves.		-	-	7	38.9	9	50.0	2	11.1	2.72	0.67	"Agree"
OQBN is no different from any other preconditioned program.		1	6.3	6	37.3	7	43.8	2	12.5	2.62	0.81	"Agree"
I purchase reputation cattle and normally pay a premium price anyway.		-	-	8	50.0	7	43.8	1	6.3	2.56	0.63	"Agree"

Table XLVIII *(Continued)*

		Categories of Agreement										
		Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N=18	N	%	N	%	N	%	N	%	Mean	SD	Category
On the average, the benefit of buying preconditioned calves is more profitable in the long run		-	-	2	11.1	10	55.6	6	33.3	3.22	0.64	"Agree"
I always pay a premium for preconditioned calves over "untreated" calves		-	-	5	27.8	9	50.0	4	22.2	2.94	0.72	"Agree"
I appreciated the potential of attracting a new clientele among producers; therefore, enhancing both competition and quality of the cattle.		-	-	-	-	11	68.8	5	31.2	3.31	0.48	"Agree"
Preconditioned / certified cattle normally require less management compared to "untreated" cattle.		1	5.6	2	11.1	9	50.0	6	33.3	3.1	0.83	"Agree"
Preconditioned/ certified sales tend to inflate the real value of the cattle being sold.		1	6.3	6	37.5	8	50.0	1	6.3	2.56	0.72	"Agree"

Table XLVIII *(Continued)*

		Categories of Agreement										
		Strongly Disagree		Disagree		Agree		Strongly Agree				
Changes in the beef industry	N=18	N	%	N	%	N	%	N	%	Mean	SD	Category
I prefer to process (vaccinated, castrated, etc) the cattle I purchase in my own facilities.		5	29.4	9	52.9	1	5.9	2	11.8	2.0	0.93	"Disagree"
Buying certified/preconditioned cattle requires less labor compared to non-preconditioned cattle		-	-	3	16.7	9	50.0	6	33.3	3.16	0.70	"Agree"
Certified /preconditioned cattle have a definitive advantage over non-preconditioned cattle with regard to daily gain, feed efficiency and health problems		-	-	3	16.7	8	44.4	7	38.9	3.22	0.73	"Agree"
I am willing to pay extra premium if I know that calves have been de-wormed		1	5.6	7	38.9	7	38.9	3	16.7	2.67	0.84	"Agree"

The data in Table XLVIII addressed the challenges of the beef industry with regard to Buyer/New Owners attitudes, specifically toward the need to increase consistency and uniformity of their product. With regard to the Buyers attitudes, 18 buyer/new owners responded indicating 50 % "Agreed", while 50 % "Strongly Agreed". Overall the mean score for the respondents levels of agreement was 3.5 and in the "Agree" category.

The statement "The industry currently rewards cattlemen for preconditioned calves" was rated by buyer/new owners in the following way, eighteen buyers responded indicating 50 % "Agreed", while 11.1 % "Strongly Agreed", yet 7 38.9% buyers/new owners "Disagreed". The mean score for the buyers/new owners levels of agreement was 3.0 and in the "Agree" category (Table XLVIII).

Sixteen new owners responded to the statement "OQBN is no different from any other preconditioned program" indicating 43.8 % "Agreed", while 11.1 % "Strongly Agreed" and 38.9 % "Disagreed". Overall the mean score for the respondents levels of agreement was 2.62 and in the "Agree" category.

The statement addressed Buyers/New Owners attitudes toward purchasing reputation cattle and normally paying premium price. Sixteen buyers responded indicating 50 % "Disagreed", while 43.8 % "Agreed" and 6.3 % "Strongly Agreed". Overall the mean score level of agreement was 2.56 and in the "Agree" category.

Another statement shown in Table XLVIII addressed the benefit of buying preconditioned calves, with regard to the buyer/new owner attitudes, eighteen buyers/new owners responded indicating 55.6 % "Agreed", while 33 % "Strongly Agreed". Overall

the mean score buyer/new owner level of agreement was 3.22 and in the "Agree" category.

The statement addressed buyers/ new owners' attitudes toward "I always pay a premium for preconditioned calves over "untreated" calves". According to the buyers responses, 9 (50 %) new owners "Agreed" and 22.2% of the buyer/new owners "Strongly Agreed", while 27.8% buyers "Disagreed". The mean score buyer/new owner level of agreement was 2.94 and in the "Agree" category. Another statement with higher level of agreement among buyers/new owners addressed buyers attitudes toward the potential of attracting a new clientele among producers, specifically toward the enhancement both competition and quality of the cattle. The data in the Table XLVIII revealed 68.7% buyers/new owners " Agreed", while 31.3 % new owners "Strongly Agreed". Overall the mean score buyer/new owner level of agreement was 3.31 and in the "Agree" category.

The fifth highest buyer/new owner level of agreement was the statement "Preconditioned / certified cattle normally require less management compared to "untreated" cattle". The data in the Table L revealed eighteen buyer responses indicating 50 % "Agreed", while 33.3 % "Strongly Agreed". On the other hand, 11.1% buyers "Disagreed", while 5.6% buyers "Strongly "disagreed". The mean score buyer/new owner level of agreement was 3.1 and in the "Agree" category.

With regard to the buyers' attitudes toward "Preconditioned/ certified sales tend to inflate the real value of the cattle being sold". Sixteen buyers/new owners responded indicating 50 % "Agreed", while 6.3 % "Strongly Agreed". In contrast, 37.5% "Disagreed", while 6.3% buyer "Strongly Disagreed". The mean score buyer/new owner level of agreement was 2.5 and in the "Agree" category.

The statement with the lowest level of agreement among buyers/ new owners dealt with buyer preference to process (vaccinated, castrated, etc) purchased cattle in their own facilities. As it shown in Table XLVIII seventeen buyers/new owners responded indicating 29.4 % ""Strongly Disagreed", while 52.9 % "Disagreed". Yet, 5.9% buyers "Agreed", while 11.8% "Strongly Agreed". Overall the mean score buyer/new owner level of agreement was 2.0 and in the "Disagree" category.

Another statement with higher level of agreement dealt with buyer/new owners attitudes toward "Buying certified/preconditioned cattle requires less labor compared to non-preconditioned cattle". Eighteen new owners responded indicating 50 % "Agreed", while 33.3 % "Strongly Agreed". However, 16.7% buyers "Disagreed". The mean score buyer/new owner level of agreement was 3.16 and in the "Agree" category.

The fourth leading buyer level of agreement was the statement "Certified /preconditioned cattle have a definitive advantage over non-preconditioned cattle with regard to daily gain, feed efficiency and health problems". Eighteen buyers responded indicating 44.4 % "Agreed", while 38.9 % "Strongly Agreed". Yet, 16.7 % buyers "Disagreed". Overall the mean score buyer/new owner level of agreement was 3.22 and in the "Agree" category.

The last statement included in the survey dealt with buyer/new owner attitudes toward willingness to pay extra premium if buyers know that calves have been de-wormed. Thirty-eight percent of the buyers/new owners "Agreed", while 38.9% buyers/new owners "Strongly Agreed". On the other hand 38.9 % buyers "Disagreed", while 5.6% buyers "Strongly Disagreed". Overall, the mean score buyer/new owner level of agreement was 2.67 and in the "Agree" category.

Primary Reason of Participation in the OQBN Certified Calf Sales

After buyers were asked about their attitudes toward preconditioning programs, they were asked about main reason for participating in this kind of program. According to the data in Table XLIX reasons why buyers participated in the OQBN certified sale were quite diverse. Fourteen (77.8%) buyers/new owners primarily selected the benefits related to preconditioned cattle as main reason for their participation. For instance, slightly more than half of buyers (55.6%) indicated that "Preconditioned cattle save both labor and make me money in the long run" and "Pre-conditioned cattle have better over-all performance than untreated cattle" were the primary reason for their participation. In addition, "The opportunity to buy large draft of uniform cattle which have been treated in a similar manner" was the major reasons for four (22.4%) buyers to participate in the OQBN Certified Calf sale program. However, four (22.4%) other buyers revealed they chose to participate in the OQBN program because "The opportunity to create a new image for the industry", "I normally buy pre-conditioned cattle anyway", "Try a few and see the results" and "A Research Project" respectively.

Table XLIX

A Distribution of Cattle Buyers by Reason of Participation in the OQBN Certified Sale

Reason of participation	Frequency (18)	Percentage (%)
Preconditioned cattle save both labor and make me money in the long run	5	27.8
Pre-conditioned cattle have better over-all performance than untreated cattle	5	27.8
The opportunity to buy large draft of uniform cattle which have been treated in a similar manner	4	22.4
The opportunity to create a new image for the industry	1	5.5
I normally buy pre-conditioned cattle anyway	1	5.5
Try a few and see the results	1	5.5
Research Project	1	5.5
Total	18	100.0

Demographic Characteristics Of Buyers/New Owners

Buyers at the OQBN sponsored certified calf sales were asked to respond demographic which best fit them. According to the data in Table L, a typical buyer at the OQBN sponsored auctions was a well-experienced individual in the cattle business. Half of the buyers had been buying cattle for 21 years or more and almost one third had been

buying cattle between 10 to 20 years. Almost 80 % of these buyers purchased OQBN cattle for his/her own operation, and 20 % of the buyers purchased cattle for a client.

Table L

A Distribution of Buyers by Years of Experience in the Beef Industry

Years of experience in the Beef Industry	Frequency (N=18)	Percentage (%)
1- 5 years	1	5.6
6 - 10	3	16.7
11 - 15	3	16.7
16 - 20	2	11.1
21 years or more	9	50.0
Total	18	100.0

Interestingly, these buyers normally purchased a large number of cattle every year. According to the data in Table LI, more than half (55%) of the buyers purchased more than 1200 head annually. Over 22.2% of the buyers purchased 300 head or less. While more than 22 of the OQBN buyers purchased from 301 to 1200 head of cattle annually.

Table LI

A Distribution of Buyers by Number of Head Purchased Annually

Number Of Head Purchased Annually	Frequency (N=18)	Percentage (%)
51-75	1	5.6
101-300	3	16.7
301-600	1	5.6
601-900	2	11.1
901-1200	1	5.6
More than 1200 head	10	55.6
Total	18	100.0

The data in Table LII showed that buyers went to a broad variety of stocker-feeder auctions to acquire the cattle they needed. However, almost 80 % of the OQBN cattle buyers normally purchase cattle from local sale barns. While over 20 % of the buyers responded that their major sources of cattle were from private operators, other certified sales and video auctions.

Table LII

A Distribution of Buyers by Place Where Most of the Cattle Is Purchased

Place Where Most of the Cattle Is Purchased	Frequency (N=18)	Percentage (%)
Local Sale Barn	14	77.8
Private operators	1	5.6
Certified sale	1	5.6
Video auction	1	5.6
Commission Company	1	5.6
Total	18	100.0

The typical buyer at the OQBN sponsored auctions was a well educated individual with a bachelor degree or higher. The data in Table LIII showed that 72 % of the new owners of OQBN cattle had at least some college. Specifically, almost seventeen % (16.7%) had less than high school diploma, while 11 % graduated from high school. Five % had Junior College experience, while 33 % had a Bachelor of Science or Arts degree. Slightly over 20 % of the new owners held Masters Degree, whereas 11 % had earned Doctorate.

Table LIII

A Distribution of Buyers by Level of Formal Education

Level of Formal Education	Frequency (N=18)	Percentage (%)
Less than High School diploma	3	16.7
High School Graduate	2	11.1
Junior College	1	5.6
BS/BA Degree	6	33.3
MS Degree	4	22.2
Doctorate	2	11.1
Total	18	100.0

Another demographic question was age. Results in Table LIV showed that new owners of cattle that purchased wean calves through certified calf sales were from a broad range of age groups. Sixteen % were 40 years old and under, while another sixteen % were between 41 to 50 years of age. Thirty-three % were between 51 to 60 years of age, while the oldest group of new owners was sixty-one years of age and older, made up 33 % of those responding..

Table LIV

A Distribution of Buyers by Age

Age	Frequency (N=18)	Percentage (%)
21-30 years	1	5.6
31-40	2	11.1
41-50	3	16.7
51-60	6	33.3
61-70	5	27.8
More than 71 years	1	5.6
Total	18	100.0

Sources of Information for New Owners of OQBN Cattle

The data in Table LV revealed the perceived importance of the selected source of information among OQBN buyers. Interestingly, the two most important sources of information among buyers were OSU Animal Science Research Reports and Fellow Producers. Almost 95 % of the buyers considered the Animal Science Research Reports as "important" or "very important sources of information. The mean score was 3.3 for OSU Animal Science Research Reports as "important" source of information overall. Furthermore, 17 (94.4%) Buyer/New Owners stated their Fellow Producers were either "important" or "very important" sources of information for their operations.

Table LV

A Summary of Buyer/New Owner Perceived Importance of Source of Information

		Categories of Importance										
	N=18	Not Important		Somewhat Important		Important		Very Important				
Sources of Information		N	%	N	%	N	%	N	%	Mean Score	SD	Category
Beef Cattle Magazines		1	5.6	4	22.2	12	66.7	1	5.6	2.7	0.67	"Important"
Commission Companies		4	22.2	3	16.7	10	55.6	1	5.6	2.4	0.85	"Somewhat Important"
Extension Fact Sheets		1	5.6	1	5.6	11	61.1	5	27.8	3.1	0.76	"Important"
Oklahoma Cooperative Extension Service		1	5.6	2	11.1	12	66.7	3	16.7	2.9	0.75	"Important"
Fellow producers		-	-	1	5.6	13	72.2	4	22.2	3.1	0.51	"Important"

Table LV *(continued)*

		Categories of Importance										
	N=18	Not important		Somewhat important		Important		Very Important				
Sources of Information		N	%	N	%	N	%	N	%	Mean Score	SD	Category
Internet (web sites)		1	5.6	13	72.2	4	22.2	-	-	2.1	0.51	"Somewhat Important"
Breed Associations		6	33.3	9	50.0	3	16.7	-	-	1.8	0.70	"Somewhat Important"
Producer Marketing Cooperatives		1	5.6	6	33.3	9	50.0	2	11.1	2.6	0.77	"Important"
OSU Animal Science Research Reports		-	-	1	5.6	10	55.6	7	38.9	3.3	0.60	"Important"
Veterinarian		1	5.6	2	11.1	11	61.1	4	22.2	3.0	0.77	"Important"

The mean score for Fellow Producers was 3.1, also in the "important" category overall. Sixteen (88.1%) of the respondents considered Extension Fact Sheets as "important" or "very important" sources of information with a mean score of 3.1. Local veterinarians, The Oklahoma Cooperative Extension Service, Beef Cattle Magazines, and Producer Marketing Cooperatives were all considered as "important" sources of information with mean scores of 3.0, 2.9, 2.7, and 2.6 respectively.

The sources of information indicated as "somewhat important" among the buyers were Commission Companies, Internet and Breed associations, with mean scores of 2.4, 2.1 and 1.8 respectively.

Open-Ended Responses from Buyers of OQBN Cattle

Buyers/New Owners of OQBN cattle were given the opportunity to share their comments about the OQBN Program and their opportunities to purchase Certified preconditioned cattle. Eight producers provided responses that were clustered into four themes: 1) Consistency of certification process, 2) Identify raised vs. purchased calves going through certified sales, 3) I treated too many sick calves, and 4) Improve the sorting process before the sale begins. (Appendix H)

"Consistency of Certification Process"

Four (22.2%) buyers/new reported the certification process should be improved, because they observed a lack of uniformity in many of the lots sold during OQBN certified calves sales.

Identify Raised vs. Purchased Calves Going Trough Certified Sales

Three (16.6%) Buyers/New owners indicated "cow-calf operators did not sell calves but backgrounding producers", while statement expressed that " cattle should be identify as ranch calves (first time to be sold) or calves that were put together from multiple owners/producers and backgrounded for the OQBN sales".

"Treated Too Many Sick Calves"

In addition, three (16.6%) Buyers/New Owners claimed there were " no differences were found between preconditioned calves and non-preconditioned calves", because they "treated too many sick calves".

Improve the sorting process before the sale begins

Two (11.1 %) Buyer/New owners claimed "Some of the cattle that are in deals made up of different owners cattle are not sorted very good" and they suggested "convince sale barn operators to be more strict in sorting"

CHAPTER V

SUMMARY, CONCLUSIONS & RECOMMENDATIONS

Introduction

The purpose of this chapter was to present a summary of the study problem, the design and conduct of the study, and the major findings. Also conclusions and recommendations were presented based upon analysis and summarization of the data collected and upon observations and perceptions resulting from the design and conduct of the study.

Purpose of the study

The purpose of this study was to determine attitudes and perceptions of selected beef industry stakeholders in Oklahoma as they pertain to certain aspects of preconditioning for adding value to weaned calves marketed through the Oklahoma Quality Beef Network (OQBN) Program.

Objectives of the study

In order to accomplish the purpose of the study, the following specific objectives were established with regard to the study.

1) To determine stakeholder awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN) as they pertain to beef producers participating in certified sales.
2) To determine stakeholder attitudes and levels of agreement regarding preconditioning programs for certified calf sales and changes in the beef industry.
3) To determine selected factors that influence beef stakeholder decisions to participate in preconditioned certified calf sales.
4) To determine management and marketing practices conducted by beef producers that would normally apply if not participating in an OQBN certified sale.
5) To determine selected demographic characteristics of beef stakeholders who participated in preconditioned certified calf sales.
6) To determine selected sources of information and describe their level of perceived importance to beef stakeholders participating in preconditioned certified calf sales.

Population

The population of this study consisted of 161 beef industry stakeholders in Oklahoma, who participated in Oklahoma Quality Beef Network program at five certified locations throughout the state during fall 2001. Stakeholders were identified as producers if they

applied the preconditioning practices required for OQBN certification and sold cattle at the OQBN sponsored auctions. Buyers were identified as those individuals who bought OQBN certified cattle at these auctions. A total of 161 stakeholders were identified. One hundred eleven stakeholders participated as producers, from those 56 (48.6 %) responded to the questionnaire. Fifty Buyers participated in the OQBN program, and 18 (36.0%) of them responded to the questionnaire.

Design of the Instrument

Upon the completion of the review of selected questionnaires, the researcher and thesis advisor and Extension Specialists compiled and revised questions addressing six major issues: 1) Selected aspects of the OQBN program; 2) Beef industry stakeholders' attitudes toward preconditioning programs and certified calf sales; 3) Factors influencing producers' decisions to participate in preconditioned certified calf sales; 4) Management and marketing practices of beef producers which would normally not apply if not participating in a OQBN certified sale; 5) Selected demographic characteristics of beef producers who participated in preconditioned certified calf sales; and 6) Sources of information and their level of perceived importance to beef industry stakeholders.

A panel of Extension Specialists, and Executive Officers of the Oklahoma Cattlemen's Association reviewed the initial set of questions. Study committee members from the Departments of Agricultural Education, Communications and 4-H Youth Development, Animal Science, and Agricultural Economics in the College of Agricultural Sciences and Natural Resources at Oklahoma State University also critiqued the instrument and offered suggested revisions.

Two similar questionnaires were developed for each stakeholder group, producer and buyers. The "producer" survey consisted of 58 forced response type item and one open ended component asking for comments or suggestions for future OQBN sale activities (Appendix C), while the 'Buyer" survey included 42 items.

Collection of Data

All of the producers in the population were mailed a questionnaire and self-addressed, stamped envelope. A follow-up post card was mailed to non-respondents approximately three weeks after initial mailing. The study population of beef industry stakeholders all had the opportunity to participate in the study; therefore, descriptive statistics were used to analyze these data.

Frequency distributions and percentages were the descriptive statistics used to interpret demographic data. The t-test was used for statistical comparisons. All data collected as the result of conducting this study were processed using the Statistical Package for Social Science (SPSS® 11.0) computer program.

Major Findings

Producers

The distribution of the fifty-six producer stakeholders, who participated in the survey, was dissimilar among the five sale locations. Almost half (48.2 %) of the producer respondents participated in the OKC West OQBN sale, while almost a third (32.1%) of the producer respondents participated in the Idabel OQBN sale.

Means of Awareness of Selected Aspects of the Oklahoma Quality Beef Network Program

Objective one was to determine stakeholder awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN) as they pertain to beef producers participating in certified sales.

Producers became aware of the OQBN program by different means. As shown in the Figure 5, most producers (70%) used the Oklahoma Cattlemen's Association (OCA) meeting, County Extension Office, and Auction Barn Operators as the major way to become aware of the OQBN program. Even though educational meetings about OQBN programs were organized in every sale location, only 13 percent of producer respondents chose OQBN Educational meeting as a means of awareness.

On the average every producer sold 63 head in any of the OQBN Certified Sales conducted. However, as shown in Figure 6, a majority of producers sold less than 50 head of cattle in any one of the OQBN Certified calf sales, while slightly less than one fifth of the producers sold more than 100 head.

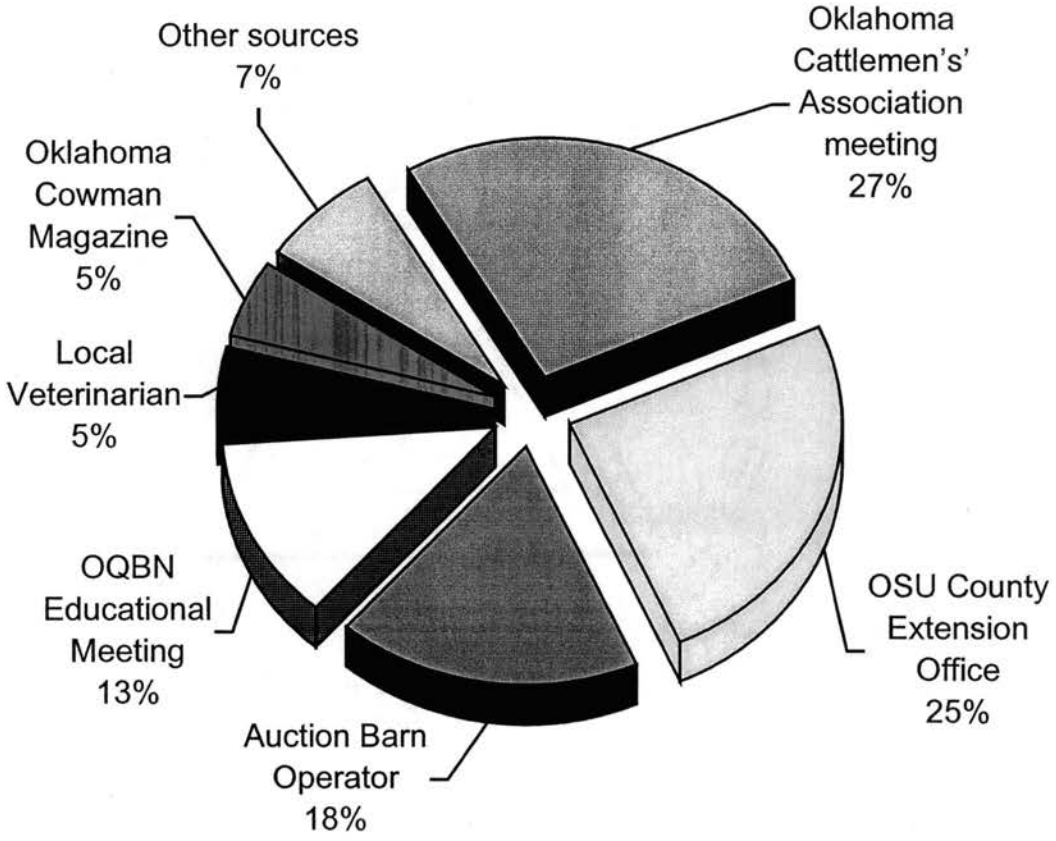


Figure 5. A Distribution of Respondents' Selected Means of Awareness of the OQBN Program.

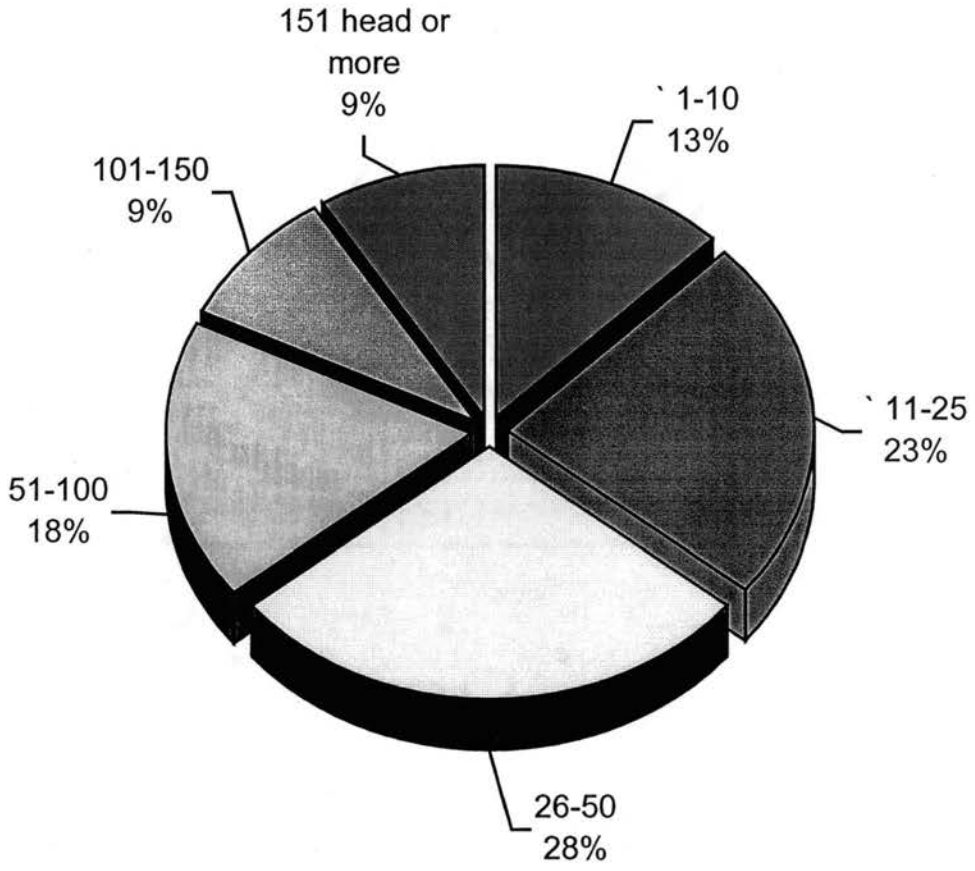


Figure 6. A Distribution of Producers Respondents by the Number of Head Sold in OQBN Certified Sales

As shown in Figure 7, most producer participants (75%) acknowledged that their cattle earned approximately $4 per cwt. or greater premium above the regular price market. However, 21 percent of the producer respondents did not feel they received any premium above the regular price market. No statistical differences were found in perceived premium price received by location of the OQBN sale and demographic characteristics.

The incidence of sick calves was low during the preconditioning process. A majority of respondents (70 %) did not have any sick calves during the weaning period. As a result, most producer respondents (85 %) had no death loss during the preconditioning phase.

Producers indicated the need for additional information prior to the program. Almost half of the producers said nutrition, forage management, and breeding and cow management information would benefit them. A lower percentage (14.3%) indicated OCA should provide more detail about procedural information before enrollment in the OQBN program.

Interestingly, producers had positive experiences during the OQBN enrollment and certification process. Most producer respondents (86.8 %) felt "comfortable" or "very comfortable" regarding the certification process. The t-test analysis indicated no statistical differences among producer demographic characteristics for any of the comparisons. Not surprisingly, producers were willing to participate again in the OQBN certified sales. Most producers (87.5 %) indicated a "probably yes" or "definitely yes" with regard to their future participation.

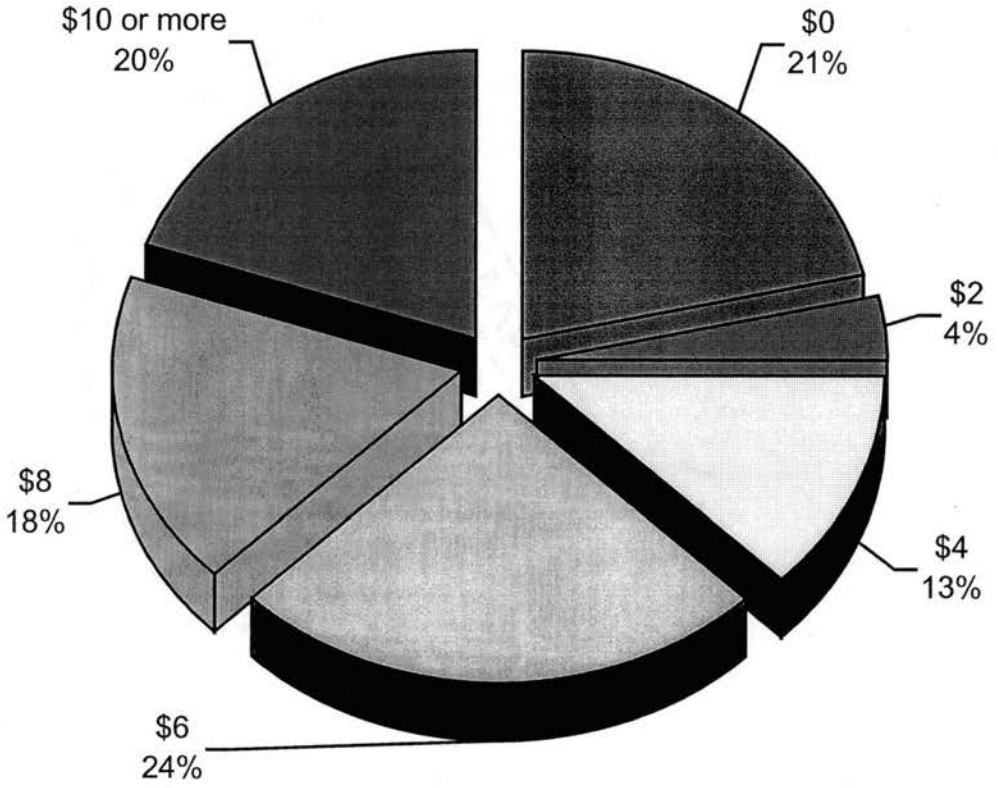


Figure 7. A Distribution of Respondents by Perception of Premium Received over Regular Market Price

Beef Producers' Attitudes toward Preconditioning Programs, Certified Calf Sales and Changes in the Beef Industry

The second objective of this study was to determine Beef Producers' Attitudes toward preconditioning programs, certified calf sales and changes in the beef industry. Producer attitudes were measured with a four-point "Likert-type" scale.

The data in the Table LVI showed a summary of mean scores reflecting respondents' levels of agreement on eighteen statements regarding changes in the beef industry and preconditioned certified calf sales.

Interestingly, most producer participants (98.2 %) recognized "to produce industry acceptable cattle with minimal price discounts is extremely important in today's commercial cow-calf industry". Most producers "Strongly agreed" or "Agreed" , the overall mean level of agreement was 3.58 and in the "Strongly agree" category (Table LVI).

Participants in the OQBN program also recognized that sorting calves by large uniform drafts would help them to enhance the value of their cattle. Most producer participants (96.4%) "Agreed" or "Strongly Agreed". As shown in Table LVI the overall mean score for the respondents level of agreement was 3.4 and in the "Agree" category. Another finding with higher levels of agreement was related to keeping records on weaning dates and all vaccines administrated. The majority (84.6%) of the producers agreed or strongly agreed with this statement. As shown in the Table LVI the overall mean score for the respondents' levels of agreement was 3.4 and in the "Agree" category.

Table LVI

A Summary of Mean Scores Reflecting Producer Respondents' Levels of Agreement Regarding Changes of Beef industry and Preconditioned Certified Calf Sales

Statement	N=56	Mean	SD	Category
The necessity to produce industry acceptable cattle with minimal price discounts is extremely important in today's commercial cow-calf industry.		3.58	0.53	"Strongly Agree"
Sorting calves by large uniform drafts should improve the price I receive for my cattle.		3.42	0.57	"Agree"
I keep records on weaning dates and all vaccines administered.		3.41	0.59	"Agree"
The Oklahoma Quality Beef Network program helped me to become more knowledgeable about the future of the beef industry		3.09	0.62	"Agree"
The Oklahoma Quality Beef Network program allowed me the opportunity to make my operation more profitable.		3.0	0.72	"Agree"
The lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma.		2.89	0.74	"Agree"
Retention of ownership positively influences cattle profitability.		2.60	0.67	"Agree"
One of the things that I was unsure about includes the marketing and commission charges for selling my cattle		2.35	0.65	"Disagree"

Table LVI *(continued)*

Statements	Mean Score	SD	Category
Selling large drafts of cattle and commingling them to acquire uniformity through the OQBN program increases the possibility of not being able to identify the rightful owners.	2.26	0.85	"Disagree"
Financing additional feed and health management practices makes it too costly to consign calves to certified sales.	2.23	0.81	"Disagree"
The death loss I experienced from pre-weaning was more than compensated by the premium I received from selling in a "Certified Preconditioned Sale".	2.37	1.01	"Disagree"
I would be more interested in this program if the market price was lower.	1.89	0.74	"Disagree"

Producer participants recognized the OQBN program helped them to become more knowledgeable about the future of the beef industry. The majority (76.6%) of the producers "Agreed" or ""Strongly agreed". The data in Table LVI showed an overall mean score of 3.1 and in the "Agree" category. Another related statement with similar levels of agreement showed producers attitudes toward the OQBN program as a good opportunity to make producer operations more profitable. A majority of producers (77.7%) "Agreed", or "Strongly agreed". The information in Table LVI showed an overall mean score of 3.0 and in the "Agree" category.

Another statement with higher level of agreement was “the lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma”. Over three quarters of producers

(78.4 %) "Agreed" or "Strongly Agreed". As shown in Table LVI the overall mean score for the respondents level of agreement was 2.89 and within "Agree" category.

Producers agreed that retention ownership influences positively cattle profitability. The majority (54.1 %) of the respondents agreed or "strongly agreed" with this statement. The overall mean score for the respondents level of agreement was 2.6 and in the "Agree" category. Although producers recognized the benefits of preconditioned calves, they disagreed that industry rewards cattlemen for preconditioned calves. The majority of producers "strongly disagreed" or "disagreed". The overall mean score for the respondents' levels of agreement was 2.4 and in the "Disagree" category. Also they were disappointed with the idea that "preconditioned calves always receive a premium". The majority (68.6 %) "Strongly Disagreed" or "Disagreed". The overall mean score for the respondents level of agreement was 2.3 and in the "Disagree" category.

The majority (62.3%) of producers indicated a "Strong disagreement" or "disagreement" with the statement "one of the things I was unsure about includes the marketing and commission charges for selling my cattle". The statement received an overall "Disagree" category and a mean score level of agreement of 3.4.

Producers had negative attitudes toward "Selling large drafts of cattle and commingling them to acquire uniformity through the OQBN program increases the possibility of not being able to identify the rightful owners". The majority (63 %) of the producers indicated "disagreement" or "Strong disagreement". As shown in Table LVI the overall mean score level of agreement was 2.26 and within "disagree" category.

Another remarkable finding indicated producers' disagreement with the statement addressing attitudes toward "Financing additional feed and health management practices makes it too costly to consign calves to certified sales. The majority (67.3 %) of the producers responded indicating "Strongly Disagreed" or "Disagreed". As shown in the Table LVI the mean score for the respondents level of agreement was 2.2 and within "Disagree" category.

Producers indicated a lower level of agreement with the statement "The death loss I experienced from pre-weaning was more than compensated by the premium I received from selling in a Certified Preconditioned Sale". The majority (58.7 %) "Strongly Disagreed" or "Disagreed". According to the data shown in Table LVI the mean score for the respondents level of agreement was 2.37 and within "Disagree" category.

Producers disagreed with the statement that addressed producer's interest in the OQBN program if the market price was lower. Most (85.7 %) of the producers indicated "Strongly Disagree" or "Disagree". Overall the mean score for the respondents level of agreement was 1.89 and in the "Disagree" category.

Reasons for Participating in the OQBN Certified Calf Sales

The third objective was to determine selected factors that influence beef producers decisions to participate in preconditioned certified calf sales. Participants indicated a variety of reasons for participation in the OQBN certified Calf program. However, it was clear that the producers' most frequent reason for participating was to acquire a premium price for their calves, as the largest number of participants (42.6%) indicated it. However, the "potential of attracting a new clientele" was the second major reason to participate in an OQBN Certified Sale.

Normal Management and Marketing Practices

Objective four was to determine management and marketing practices normally applied by producers if not participating in an OQBN certified sale. The information in Table LVII shows a distribution of producer participants by normal management practices applied. Interestingly, the largest part of the producers participating in pre-conditioned calf sale normally kept records of their management practices. For instance, a majority (64 %) of producers mentioned having kept hand written records, while a third had both hand written and computerized records. The most common computer programs utilized by the majority of producers were The Cow Inventory Program, a Budgeting program and Spreadsheets.

Another important management practice applied by producer participants was the time of the year for the calving season. As shown in Table LVII the two most frequently calving season utilized by most producers (81.5 %) in their management scheme were single spring calving season and double season spring and fall. Another management indicator was the length of breeding season. The majority of producers (70 %) participating in the OQBN certified calf sales, had a breeding season length shorter than 90 days. In addition, the most common source for herd sires among OQBN participants was purebred breeders. Yet, artificial insemination was applied by less than ten percent of producer participants.

Table LVII

A Distribution Producer Respondents by Normal Management Practices Applied

Normal Management Practices When not participating in an OQBN Certified Sale	Frequency (N=56)	Percentage (%)
Record Keeping system		
Hand written	36	64.3
Hand and computerized	19	33.9
Calving Season		
Single: Spring	23	42.6
Double: Spring & Fall	21	38.9
Length of Breeding Season Less than 90 Days	37	69.8
Source of Herd Sire:		
Purebred Breeders	41	75.9
Artificial Insemination	4	7.1
75-100 % of Calves born without horns	39	70.9
75-100 % Bull Calves Castrated Before Marketing	51	92.7
Bull Calves Castrated Before Weaning	41	77.4
Normal market place: Local Sale Barn	45	80.4
Total	56	

Producers were asked about the percentage of calves born on their ranches without horns. Most producers (71 %) indicated more than 75 percent of their calves were born without horns (Table LVII). However, it was also evident that most producer/respondents (70%) indicated they dehorned 75 to 100 percent of the horned calves born on their operations.

Another important management practice that cow-calf producers should make is castration of bull calves prior to marketing (Table LVII). The largest part of producer participant in this study indicated they castrated 75 to 100 % of their bull calves prior to sending them to the market. Although, the timing for castration was quite broad among producer participants; however, most producer/respondents (85 %) castrated their bull calves before weaning. Most producers (80.4%) participating in the OQBN Certified calf sale revealed they normally market their cattle through local sale barn/ stockyards.

The data information in Figure 8 showed a distribution of OQBN producer respondents by normal health practices applied in their operations. Treatments for internal and external parasites were the two most common health practices applied by nearly all producers. In addition, most (85.7%) producers indicated they administered vaccines subcutaneously in the neck area" primarily. Furthermore, the majority (84%) of the producers stated they administered all health products according to certified calf sale regulations. Another practice applied by most (80.4%) of the producers was dehorned/closely tipped and healed horns on their calves. Less than half of the (48.2%) producers indicated they applied "Extra label usage of animal health products given on the advice of a licensed Veterinarian".

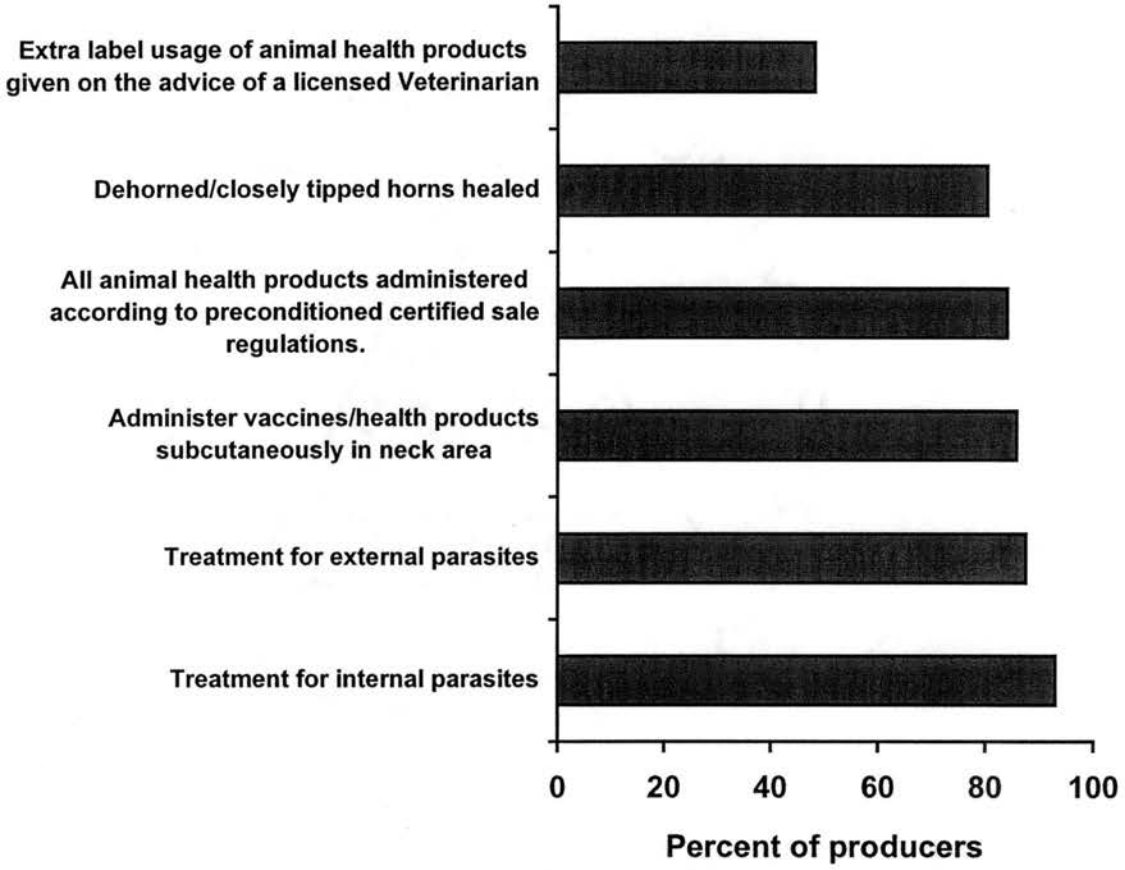


Figure 8. *A Distribution of Producer Respondents by Normal Health Practices Applied*

Demographic Characteristics

Objective five was to determine selected demographic characteristics of beef producers who participated in preconditioned certified calf sales. The majority of Cow/calf operators that chose to participate in the OQBN can be characterized as small to mid-sized family/private operators. They had less than 300 brood cows and normally sell the same amount of calves every year at the local sale barn. It was interesting to note that 56 percent of producer respondents owned less than 100 cows. Most (89.1 %) of the producers were more likely to be a cow/calf operator or a combination with stockers or purebred operations. among these types. In addition, the majority (58 %) of producer participants were fulltime ranchers, with a combination of part time or full time off ranch jobs. Furthermore, they were well-experienced ranchers with more than 10 years in the beef industry, but few had extensive experience preconditioning cattle.

Two thirds of the beef producers, participating in the OQBN program, sold less than 50 calves at any certified sale. Since 48% of respondents indicated they owned more than 100 cows, this data may suggest that many participants marketed only a portion of their calf crop through this system during the first year.

Most of the OQBN producer participants were highly educated. Collectively the High School Graduate, Bachelor's Degree, and Master's Degree accounted for 81.9 percent of respondents. Concerning age distributions, the respondents were quite diverse, however, a majority (70.9 %) of the respondents were within the categories between forty-one to seventy years of age.

Sources of Information

Objective six was to determine selected sources of information and describe their level of perceived importance to beef producers participating in preconditioned certified calf sales. As shown in Table LVIII, the most important sources of information among OQBN producer participants were local veterinarian, OSU Animal Science Research Reports, Extension Fact Sheets, Beef cattle magazines, Oklahoma Cooperative Extension Service and fellow producers. Other sources as Breed associations, Internet, Producer marketing cooperatives, and commission companies were considered as somewhat important by producer participants.

Producers comments

Producers and buyers were given the opportunity to provide their comments on any aspect of the OQBN Program, preconditioning, management practices, sources of information, etc. Responses expressed by these producers showed their satisfaction with the OQBN certified calf sale and the premium received, as a result, producers who supported this statement were among those who expressed their willingness to participate again in any preconditioned certified calf sale, as it was shown in previous sections. Some producers expressed mixed fillings, because some of them also supported that the OQBN certified calf sales was a good idea but their efforts were not rewarded with the premium received. Other responses that support this idea seem to be due to the fact that some producers have the opportunity to market their cattle independent of the OQBN with similar or more positive results.

Table LVIII

A Summary of Producer Participants Perceived Importance of Sources of Information

Sources of Information N=56	Mean Score	SD	Category
Veterinarian	3.2	0.78	"Important"
OSU Animal Science Research Reports	3.1	0.71	"Important"
Beef Cattle Magazines	3.0	0.66	"Important"
Extension Fact Sheets	3.0	0.62	"Important"
Oklahoma Cooperative Extension Service	2.9	0.72	"Important"
Fellow producers	2.8	0.75	"Important"
Breed Associations	2.5	0.81	" Somewhat Important"
Internet web sites	2.4	0.90	"Somewhat Important"
Producer Marketing Cooperatives	2.4	0.87	"Somewhat Important"
Commission Companies	2.3	0.92	"Somewhat Important"

Buyers/New Owners

The majority (88.%) of the buyer/new owner respondents who participated in the study represented two OQBN certified sales, OKC West and Holdenville with almost equal representation at each sale. Eleven percent of the new owners/ buyers came from Idabel Certified calf sale. No Buyers/new owners from Woodward and Enid Certified sales responded to the survey.

Buyers' Means of Awareness of Selected Aspects of the OQBN Program

Objective one was to determine stakeholder awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN).

Buyers/new owners became aware of the OQBN program through a wide variety of means. As shown in Figure 9 local auction barn operators accounted for the most important means of awareness for the majority of buyers/new owners. In addition, the Oklahoma Cattlemen's Association (OCA) meeting was the second most important mean of awareness.

The total volume of cattle purchased by any one buyer in each location was broadly distributed (Figure 10). For instance, buyers at OKC West OQBN certified sale purchased an average of 56 head, whereas at the Idabel OQBN sale the average was 247 head. The overall distribution of cattle purchased in all OQBN Certified sales is shown in Figure 10. A majority (62 %)of buyers/new owners purchased more than 51 head of cattle in a OQBN Certified calf sale.

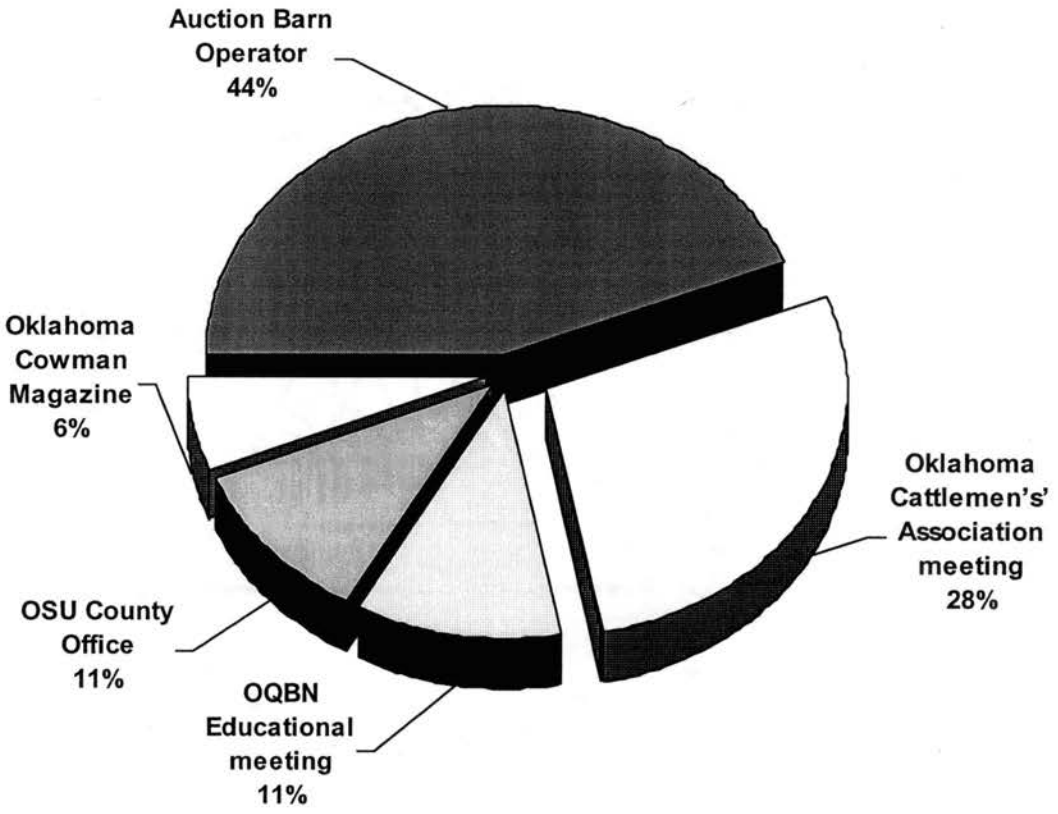


Figure 9. *A Distribution of Buyers/New Owners' means of Awareness of the OQBN Program*

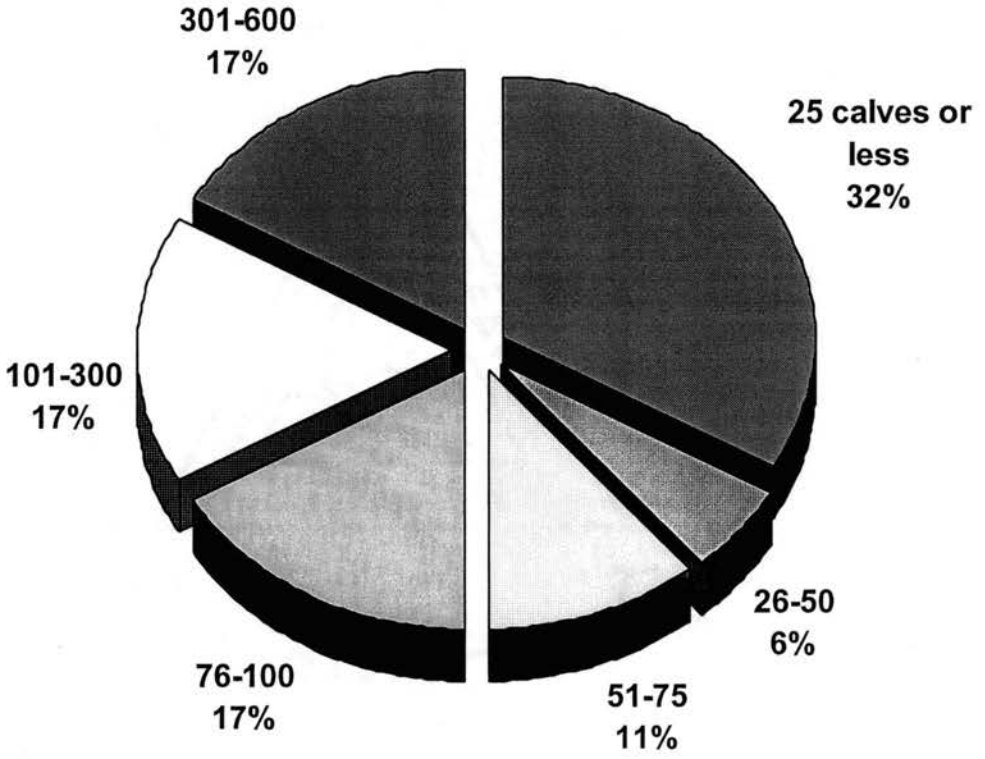


Figure 10. *A Distribution of Buyers/New by Number of Head Purchased in any OQBN Certified Calf Sale*

Most (78 %) of buyers/new owners purchased cattle for their own operations. However, their preferences of type of cattle to buy in a preconditioned certified calf sale were broadly distributed. The largest number of buyers/new owners (47 %) preferred preconditioned calves. In addition, a majority (66.7%) of buyers/new owners indicated "normal feed and water intake" as the preferred treatment, yet, other buyers/new owners indicated that "normal shrink" was the preferred treatment.

Surprisingly, almost a quarter of Buyers/new owners had no sick calves after they purchased them in an OQBN certified calf sale. But, a majority of buyers/new owners indicated they experienced 10 to 30 percent of the cattle they purchased becoming sick. Additionally, a greater part of cattle buyers of OQBN indicated that they did not have any death loss. However, a third of buyers indicated they experienced two to 10 percent death loss.

Most buyers/ New Owners indicated additional information they would like to have before buying OQBN. The more common information wanted included more details regarding whether calves had been creep fed, whether and when they had been implanted, how much feed (concentrate) the cattle had received during the preconditioning period, and treatment of respiratory diseases. In addition, the largest part (83.4%) of the Buyers/New Owners indicated the cattle purchased were going to some kind of pasture that included wheat, native range or rye grass.

The premium paid by buyers was quite broad in all certified sales (Figure 11). But a majority of buyers felt that premium paid over regular price was $4.00 /cwt or above. In addition, premium paid over the regular price was different ($P< 0.05$) among

OQBN Certified sale locations. OKC West buyers felt they paid higher premium price than buyers from other locations.

One important thing among buyers/new owners was the perceived level of comfort with the overall integrity of the certification process. Most (66.7 %) buyers indicated they were comfortable or very comfortable with overall integrity of the OQBN program. As a result, nearly everyone, (89 %) of Buyers/New owners, indicated that they definitely or probably would participate in a future OQBN sale.

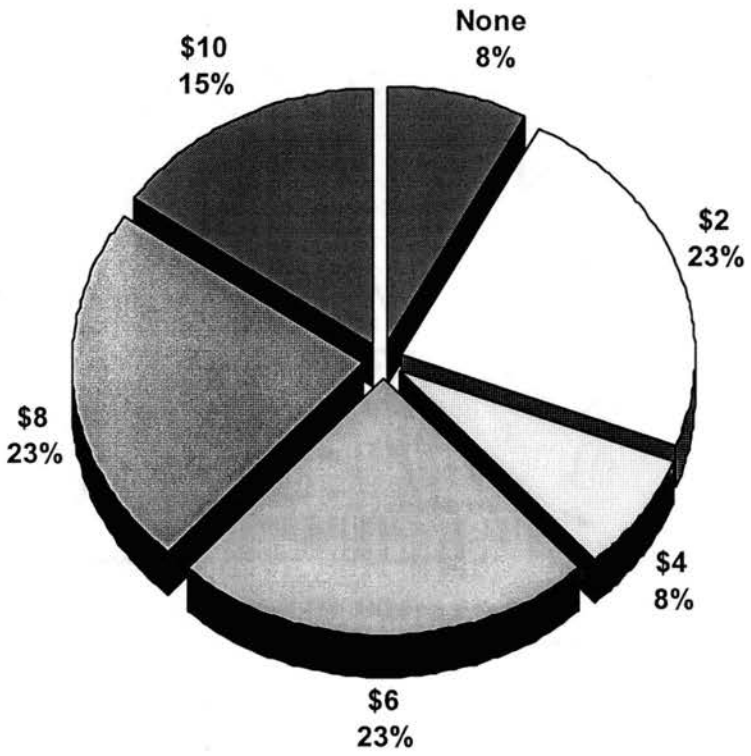


Figure 11. *A Distribution of Buyers/New Owners by Perceived Premium Paid over Regular Price*

Buyer/New Owners' Attitudes and Toward Preconditioning Programs, Certified Calf Sales and Changes in the Beef Industry

Objective two was to determine buyers/new owners' attitudes toward preconditioning programs, certified calf sales and changes in the beef industry. The data in the Table LIX showed a summary of mean score representing respondents' levels of agreement regarding changes in the beef industry and preconditioned certified calf sales.

Buyers/New owners strongly agreed that one of the challenges of the beef industry is the need for increasing consistency and uniformity of their cattle. The overall mean score level of agreement was 3.50 and within "Strongly agree" category.

Four statements looking for buyer perceptions about advantages and benefits of preconditioned cattle were incorporated. The information in Table LIX showed buyers agreed that preconditioned cattle had a definite advantage over non-preconditioned cattle. Also they agreed that preconditioned cattle are more profitable in the long run. In addition, buyers/new owners recognized preconditioned calves require less labor and management compared to "untreated" calves. The mean score levels of agreement for these statements were 3.22, 3.22, 3.16 and 3.1, respectively.

With the aim to know buyer perceptions about the industry rewards for preconditioning cattle in general, and whether or not the buyers pay the premium, two statements were included in the survey. A greater part of buyers (72.2) agreed that they always pay a premium for preconditioned calves over "untreated" calves". In addition, a majority (61 %) of buyers perceived that industry did reward cattlemen for preconditioning cattle. As shown in Table LIX, the overall mean score level of agreement was 2.94 and 2.72, respectively.

Table LIX

A Summary of Mean Score Buyer/New Owner Respondents' Levels of Agreement Regarding Changes of Beef Industry and Preconditioned Certified Calf Sales

Statement	N=18	Mean	SD	Category
I appreciated the potential of attracting a new clientele among producers; therefore, enhancing both competition and quality of the cattle.		3.31	0.48	"Agree"
On the average, the benefit of buying preconditioned calves is more profitable in the long run		3.22	0.64	"Agree"
Certified /preconditioned cattle have a definitive advantage over non-preconditioned cattle with regard to daily gain, feed efficiency and health problems		3.22	0.73	"Agree"
Buying certified/preconditioned cattle requires less labor compared to non-preconditioned cattle		3.16	0.70	"Agree"
I am willing to pay extra premium if I know that calves have been de-wormed		2.67	0.84	"Agree"
Preconditioned/ certified sales tend to inflate the real value of the cattle being sold.		2.56	0.72	"Agree"
I prefer to process (vaccinated, castrated, etc) the cattle I purchase in my own facilities.		2.0	0.93	"Disagree"

Calf sales are based on premiums and discounts. The preconditioned certified sale was looking for more premiums and less discounts. In order to determine if buyers are willing to pay extra premiums for de-wormed calves the following statement was

included "I am willing to pay extra premium if I know that calves have been de-wormed", as a result a majority (55.6 %) agreed with this statement. Another statement looking for buyer perceptions was about purchasing reputation cattle and paying premium for those cattle. Although buyers agreed that they normally purchase reputation cattle, paying the premium price was not clearly admitted. However, it was very clear that buyers/new owners preferred cattle that have been processed (vaccinated, castrated, etc) before they bought them.

Another statement was looking for buyer perceptions about OQBN as a preconditioning program was incorporated. A majority of buyers (56.3 %) perceived that the OQBN program was no different from any other preconditioning program. The overall mean score level of agreement was 2.62 and within "Agree" category.

Primary Reason for Participating in the OQBN Certified Calf Sales

Most (78 %) of the buyers/new owners primarily selected the benefits related to preconditioned cattle as the main reason for their participation in the OQBN Certified Calf sale. Buying preconditioned cattle in a certified calf sale gives them the opportunity to buy a large draft of uniform cattle which have been treated in a similar manner, this saves labor and money. In addition pre-conditioned cattle have better over-all performance than untreated cattle.

Demographics

Objective five was to determine selected demographic characteristics of buyer/new owners who participated in preconditioned certified calf sales. A typical buyer at the OQBN sponsored auctions was a well-educated and experienced individual of the cattle business that had been in the beef industry for more than 10 years. Most of the buyers/new owners were 41 years old and older. In addition, nearly all (80 %) of these buyers purchased OQBN cattle for his/her own operation in a local sale barn. The largest part of buyers normally purchased more than 300 head of cattle for his/her operation every year. However, a majority of buyers purchased less than 100 head in any OQBN certified sale.

Sources of Information

Objective six was to determine selected sources of information and describe their level of perceived importance to buyers/new owners participating in preconditioned certified calf sales. Interestingly, nearly all buyers indicated OSU Animal Science Research Reports and Fellow Producers as the two most important sources of information. A majority of buyers/new owners considered Extension Fact Sheets, local veterinarians, The Oklahoma Cooperative Extension Service, Beef Cattle Magazines, and Producer Marketing Cooperatives were all as "important" sources of information. The sources of information indicated as "somewhat important" among the buyers were Commission Companies, Internet and Breed associations.

Buyer/New Owners Comments

Buyers/New Owners of OQBN cattle were given the opportunity to share their comments about the OQBN Program and their opportunities to purchase certified preconditioned cattle. Buyers provided responses that were clustered into four major issues. The first one was "Consistency of certification process". Buyers observed a lack of uniformity in many of the lots sold during OQBN certified calves sales. Another theme was "Identify raised vs. purchased calves going through certified sales". Buyers observed that some of the sellers were not the original cow/calf producers but a producer who put calves together from multiple owners/producers and backgrounded for the OQBN sales. A third issue was "I treated too many sick calves", buyers felt there were no differences between preconditioned and non-preconditioned calves. Another issue was "Improve the sorting process before the sale begins". Buyers claimed that some barn operators did not sort cattle in a strict manner.

Producers and Buyers Comparison

Stakeholders' Means of Awareness of Selected Aspects of the Oklahoma Quality Beef Network Program

Objective one was to determine stakeholder means of awareness of selected aspects of the Oklahoma Quality Beef Network Program (OQBN) as they pertain to beef producers participating in certified sales.

Beef stakeholders became aware of the OQBN program by different means (Figure 12). The most important means of awareness for beef producers were: Oklahoma Cattlemen's Association (OCA) meeting, County Extension Office, and Auction Barn Operators. While local auction barn operators accounted for the most important means of awareness for the majority of buyers/new owners. In addition, the Oklahoma Cattlemen's Association (OCA) meeting was the second most important mean of awareness.

As shown in Figure 13, most OQBN stakeholders acknowledged that they paid or earned approximately $4 per cwt. or greater premium above the regular price market. No statistical differences ($P > 0.05$) were found in perceived premium price between Beef producers and OQBN buyers. In addition, premium paid over the regular price was different ($P < 0.05$) among OQBN Certified sale locations. OKC West buyers felt they paid higher premium price than buyers from other locations.

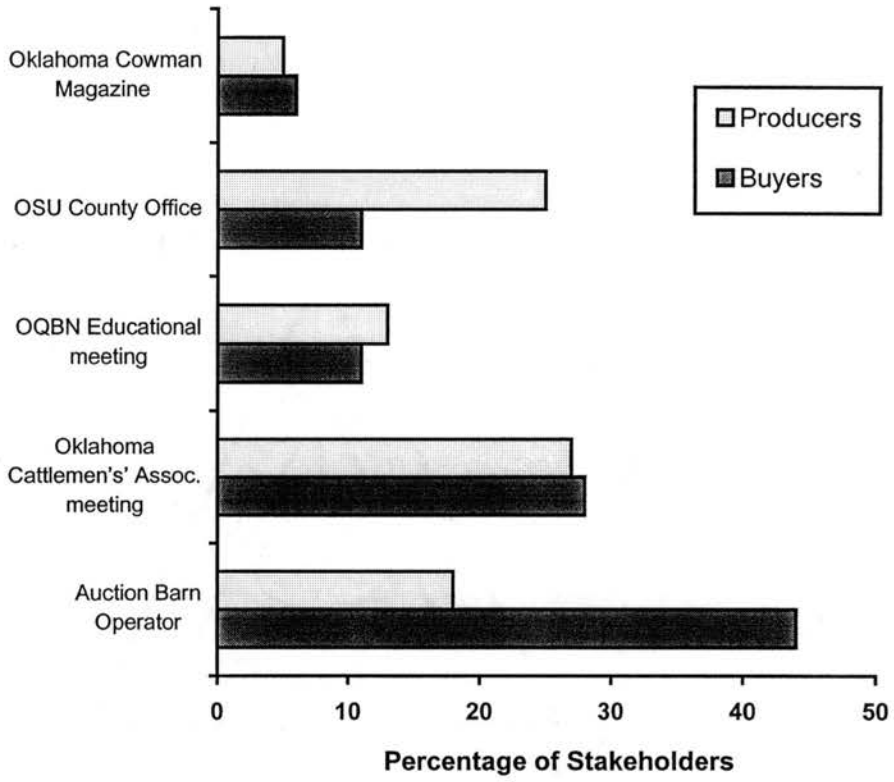


Figure 12. *OQBN Stakeholders Means of Awareness about OQBN Program*

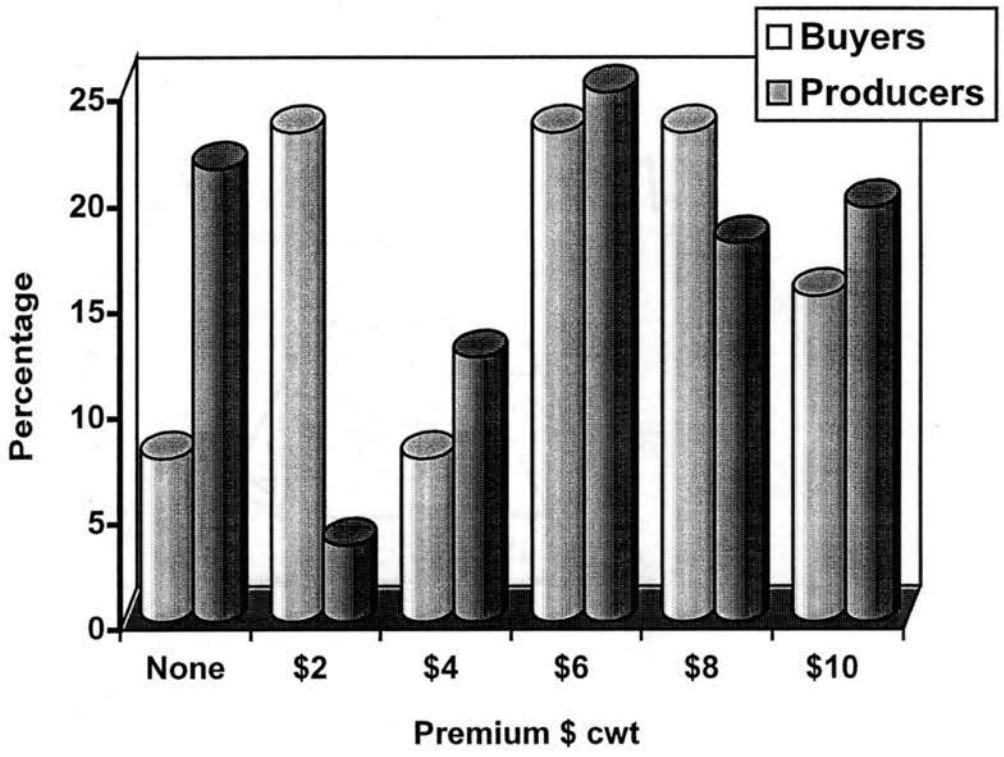


Figure 13. *Perceived Premium Paid/Received by OQBN Stakeholders over Regular Price*

Table LX was constructed to provide a comparative summary of level of comfort between OQBN stakeholders - producers vs. buyers. The mean score buyers level of comfort was 3.05, while mean score producer level of comfort was 3.25. Overall OQBN stakeholder participants mean score was 3.22 indicating a "Comfortable" category. The t-test analysis for two independent samples indicated no statistical differences (P>0.05) for the mean score OQBN stakeholders level of comfort.

Table LX

Mean Score OQBN Program Stakeholders Level of Comfort About OQBN Certification Process by Type of Participation

Type of Participation	N	Mean Score	SD	Category
Producers	56	3.25	0.72	"Comfortable"
Buyers/ New Owners	18	3.05	0.80	"Comfortable"
Total	74	3.24	0.75	"Comfortable"

The data in Table LXI revealed the mean score OQBN stakeholders level of probability for future participation in Certified Calf sales. The buyers mean score level of probable participation was 3.29, while producer mean score level was 3.22. Overall OQBN stakeholders mean score level of probable participation was 3.22 within the "Probable Yes" category. The t-test analysis for two independent samples indicated no statistical differences (P>0.05) for the mean score OQBN stakeholders level of comfort.

Table LXI

Mean Score OQBN Program Stakeholders Level of Probability of Future Participation in Certified Calf Sale by Type of Participation

Type of Participation	N	Mean Score	SD	Category
Producers	56	3.22	0.72	"Probably Yes"
Buyers/ New Owners	18	3.29	0.68	"Probably Yes"
Total	74	3.24	0.75	"Probably Yes"

OQBN Stakeholders Attitudes toward Preconditioned /Certified Calf Sales and Current Changes in the Beef Industry

The summary in Table LXII illustrated OQBN Stakeholders mean score level of agreement with regard to the producers and buyer/new owner attitudes toward OQBN program and changes in the beef industry. The statement "One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product" received the highest level of agreement. OQBN stakeholders indicated an overall "Strongly Agree" with a mean score of 3.53. The t-test analysis indicated no statistical differences between the two groups of stakeholders.

Producers also strongly agreed that one of the challenges of the beef industry is the need for increasing consistency and uniformity of their cattle. The majority (56.4 %) of the producers "Strongly agreed". The overall mean score level of agreement was 3.56.

Another major issue attracting OQBN stakeholder attention was "On the average, the benefit of selling/buying preconditioned calves is more profitable in the long run". Producers gave an overall mean score level of agreement of 2.98, while buyers/new owners indicated a mean score of 3.2. Both were within "Agree" category and no statistical differences were found among the two groups.

According to the data shown in Table LXII indicated OQBN stakeholders' attitudes toward receiving/ paying a premium for preconditioned calves over "untreated" calves". With regard to level of agreement, producers responded differently from buyers. Producer respondents indicated an overall mean score of 2.39 and in the "Disagree" category, while buyers/new owners rated with a mean score for 2.94 and in the "Agree" category. The data further revealed a significant difference concerning the levels of agreement between the two groups of OQBN stakeholders with a t-test $p= 0.05$.

Table LXII

A Summary of Mean Scores OQBN Program Stakeholders Level of Agreement Toward OQBN Program and Changes in the Beef Industry by Type of Participation

	Type of Participation					
	Producers			Buyers/ New Owners		
	N=56			N=18		
Changes in the Beef Industry	Mean	SD	Category	Mean	SD	Category
One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product.	3.56	0.50	"Strongly Agree"	3.50	0.51	"Strongly Agree"
The industry currently rewards cattlemen for preconditioned calves.	2.42	0.63	"Disagree"	2.72	0.67	"Agree"
OQBN is no different from any other preconditioned program.	2.26*	0.72	"Disagree"	2.62*	0.80	"Agree"

Marginal Statistical differences (P<0.10)

Table LXII *(Continued)*

	Type of Participation					
	Producers			Buyers/ New Owners		
	N=56			N=18		
Changes in the Beef Industry	Mean	SD	Category	Mean	SD	Category
I sell/purchase reputation cattle and normally receive/pay a premium price anyway.	2.56	0.71	"Agree"	2.56	0.63	"Agree"
On the average, the benefit of buying preconditioned calves is more profitable in the long run	2.98	0.71	"Agree"	3.22	06.4	"Agree"
I always pay/receive a premium for preconditioned calves over "untreated" calves	2.39*	0.78	"Disagree"	2.94*	0.72	"Agree"

* Indicated statistical difference ($P<0.05$)

Another statement with similar levels of agreement was "I sell/purchase reputation cattle and normally receive/pay a premium price anyway" (Table LXII). Producers and buyers indicated a mean score level of agreement of 2.56 respectively and within the "Agree" category.

The statement, "The industry currently rewards cattlemen for preconditioned calves" received uneven level of agreement. While producers "Disagreed" rating an overall mean score of 2.42, buyers/new owners "Agreed" indicating a mean score level of agreement of 2.72.

Another statement with unequal level of agreement was regarding to OQBN stakeholder attitudes toward "OQBN is no different from any other preconditioned program". Producer respondents "Disagreed" giving an overall mean score of 2.26, while buyers/new owners "Agreed" indicating a mean score of 2.62. The t-test indicated a marginal difference ($P<0.10$) among the two groups of stakeholders.

OQBN Stakeholders' Sources of information

The summary shown in Table LXIII illustrated means score level of importance of selected sources information among OQBN program stakeholders. The most important source of information among producer respondents was the veterinarian, indicating a mean score of 3.2 and in the "Important" category, while buyers/new owners rated this source as "important" indicating a mean score of 3.04. The t-test analysis did not reveal any statistical difference among the two groups of stakeholders.

OSU Animal Science Research Reports had the highest level of importance among buyer/new owners indicating a mean score of 3.30 and in the "Important" category (Table LXIII),. Yet producer respondents indicated an overall mean score of 3.10 and in the "Important" category.

Table LXIII

A Summary of Mean Scores OQBN Program Stakeholders Level of Importance of Sources of Information by Type of Participation

	Type of Participation					
	Producers N= 56			Buyers/ New Owners N= 18		
Source of Information	Mean	SD	Category	Mean	SD	Category
Beef Cattle Magazines	3.01	0.66	"Important"	2.70	0.68	"Important"
Commission Companies	2.30	0.90	"Somewhat Important"	2.56	0.89	"Important"
Extension Fact Sheets	3.03	0.62	"Important"	3.12	0.80	"Important"
Oklahoma Cooperative Extension Service	2.89	0.72	"Important"	2.93	0.77	"Important"
Fellow producers	2.82	0.75	"Important"	3.13	0.51	"Important"
Internet (web sites)	2.40	0.87	"Somewhat Important"	2.21	0.57	"Somewhat Important"
Breed Associations	2.50*	0.81	"Important"	1.90*	0.73	"Somewhat Important"
Producer Marketing Cooperatives	2.40	0.87	"Somewhat Important"	2.66	0.81	"Important"
OSU Animal Science Research Reports	3.10	0.71	"Important"	3.30	0.63	"Important"
Veterinarian	3.20	0.76	"Important"	3.00	.81	"Important"

*Statistical difference ($P<0.05$)

No statistical differences were revealed by the t-test analysis. Another selected source of information shown in the Table LXIII was Extension Fact Sheets. Producers and buyers ranked it evenly as the third leading important source of information. The overall mean score level of importance was 3.3 and 3.12 respectively.

The data in the Table LXIII revealed the importance of Beef Cattle Magazines as a source of information among OQBN stakeholders. Producers indicated an overall mean score of 3.01, while buyers indicated a mean score of 2.7. Another source of information among OQBN stakeholders was the Oklahoma Cooperative Extension Services. Producers rated as "Important" with an overall mean score of 2.89, while buyers indicated a mean score of 2.93. No statistical differences were found as a result of the t-test analysis. Another source of information was Fellow Producers. OQBN stakeholders indicated it as an "Important" source of information. Producers indicated an overall mean score of 2.82, while buyers indicated 3.13. No statistical differences were found as a result of the t-test analysis.

Producer Marketing Cooperatives was another source of information shown in the Table LXIII. Producers responded indicating this source as "Somewhat Important" with an overall mean score of 2.4, while buyers indicated "Important" source of information with an overall mean score of 2.66.

The data also revealed "Commission Companies" as contrasting source of information among OQBN Stakeholders (Table LXIII). While producers rated this as "Somewhat Important" indicating an overall mean score of 2.30. Buyers indicated an "Important" source with an overall mean score of 2.56.

The sources of information with the lowest level of importance among OQBN stakeholders were Internet web sites and Breed Associations. As it is shown in the Table LX Producers and Buyers indicated Internet web sites as "Somewhat Important" source of information. Overall the mean score level of importance was 2.21 and 2.40 respectively. Buyers/new owners than producers ranked breed Associations lower (Table LXIII), indicating an overall "Somewhat Important" and a mean score of 1.90, while Producers gave an overall "Important" response and a mean score of 2.50. The t-test revealed a significant statistical difference between the two groups concerning the source of information at α=0.05.

Conclusions

Based on the objectives of this study, the following conclusions were made:

1. Stakeholders became aware of the OQBN program and preconditioned certified sale through a variety of means.
2. Based on their experience during the first year of the OQBN program stakeholders felt comfortable with the verification process.
3. Based on their experience during the first year of the OQBN program beef producers and buyers/new owners were eager to participate in future certified calf sales.
4. Stakeholders agreed that OQBN resulted in price premiums above the regular market price.
5. The incidence of sick calves and death losses during preconditioning process was low among OQBN producers.
6. Some Buyers/New owners indicated they felt no difference between preconditioned calves and non-preconditioned calves, because they treated too many sick calves.
7. Beef industry stakeholders in Oklahoma had positive attitudes toward preconditioning programs like the Oklahoma Quality Beef Network program.
8. Producer participants believed the OQBN program was a different program from any other preconditioning programs.
9. Producer participants recognized the OQBN program helped them to become more knowledgeable about the future of the beef industry.
10. Beef producer participants in the OQBN program recognized that sorting calves by large uniform drafts would help them to enhance the value of their cattle.

11. Producers indicated a concern about the rewards in the industry for preconditioning calves. They felt the industry is not rewarding their efforts enough for preconditioning calves.
12. There is a fear among producers that the lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma".
13. Producers were undecided about retention of ownership increasing cattle profitability.
14. Buyers perceived very clearly the benefits of buying preconditioning cattle, but it was not clear their positive attitude included paying a premium.
15. Producers' most frequent reason for participating was to acquire a premium price for their calves.
16. Buyers/new owners primarily selected the benefits related to preconditioned cattle as the main reason for their participation in the OQBN Certified Calf sale.
17. Producers normally applied some good health and management practices even before their participation in the OQBN program..
18. Beef industry stakeholders that participated in the OQBN program relied more on research-based sources of information than commercial companies and fellow producers.

Beef stakeholders in Oklahoma held positive attitudes and perceptions toward the OBQN program. Stakeholders recognized the added value of the cattle sold through the Certified calf sales. Their perceptions about the OQBN program indicated it has the potential of a positive economic impact on the beef industry in Oklahoma.

Recommendations

The following recommendations were made as a result of the major findings of this study:

1. OQBN leadership and OCES should continue using Meetings, Extension, and Auction Barns as means of diffusing the OQBN program, based on sources most used. However, the internet and website should be continued as farmers begin using more computer technology.

2. The OQBN program certification process should be improved to avoid shortcomings and help lower incidences of marginal premiums.

3. OQBN leadership and Auction barn operators should improve the sorting and commingling process.

4. OQBN leadership and OCES should promote more educational meetings, where potential participants can learn about the OQBN program.

5. OQBN leadership should improve the certification and verification process to diminish the incidence of post sale illness. Certainly these data suggest room for improvement in terms of long-term animal health. These improvements should be achievable through three key areas: a more stringent certification system, improved producer education, and the development of a feedback system to inform producers of their cattle's health and performance after the marketing event.

6. The main reason for participating in the OQBN program is the premium price. It is recommended that Stakeholders and OQBN leadership should identify factors that

affect this market premium and work to develop the OQBN system in ways that create true value to the beef industry.

7. It was evident that most of producer participants during the OQBN first year were small to medium sized producers, who assigned just a few calves in the program. Improvement in the diffusion of information program should target toward these producers and encourage larger numbers.

8. It was apparent from findings that the major source of information among stakeholders was Extension publications with research based information. Therefore Oklahoma Cooperative Extension services should continue supporting these types of publications.

Implications

Producers showed their satisfaction with the OQBN certified calf sale and the premium received, by expressing their willingness to participate in future preconditioned certified calf sales. In addition, producers believed that preconditioned calves should always receive a premium price over the "untreated" calves. Therefore, some producers had mixed fillings because their efforts were not rewarded with the premium received. The premium for the cattle will have to offset the cost of feed during the 45-day or longer weaning period if this type of value added calf program is to be profitable for the producer. In the absence of producer profitability, the OQBN will not be sustainable.

The premium price is affected by many factors; one of these factors is the calf breed. In Oklahoma, Black Angus calves are more appreciated than other breeds and colors of calves. Black calves normally bring a higher price. Therefore, the way calves are sorted before the sale is important for producers. Producers expected higher premium because of their black calves. While many producers evidently had a good overall experience, some of them were disappointed because their calves were commingled with other color calves. This situation led them to a negative perception of the OQBN certified sale.

The incidence of sick calves was low during the preconditioning process. In value added preconditioning programs, like the OQBN, at least a portion of the risk associated with cattle sickness and death loss is transferred from the buyer back to the producer. This risk is a serious concern and consideration for potential OQBN participants. However, the incidence of sickness and death loss should be much lower

when calves are weaned at the ranch of origin and managed according to OQBN guidelines. These data also suggest an opportunity for the OQBN in the future. Any reduction in the incidence of sickness at the home ranch should result in healthier, better performing cattle after the marketing or shipping event and eventually, higher quality beef carcasses. While many buyers evidently had a good overall experience, several buyers were disappointed in the performance of the OQBN cattle that they purchased. These buyers believe that at least part of the needed improvement is related to the certification process.

Some negative responses seem to be due to the fact that some producers have the opportunity to market their cattle independent of the OQBN with similar or more positive results. This very well could be the case for operations that have already built or have the opportunity to build a reputation for high quality cattle. Others suggest that the OQBN marketing opportunities were too limited because most locations provided only one sale date between October and December where OQBN calves were featured.

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APPENDICES

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

Oklahoma State University
Institutional Review Board

Protocol Expires: 11/6/02

Date: Wednesday, November 07, 2001 IRB Application No AG0213

Proposal Title: ATTITUDES TOWARD PRECONDITIONED CERTIFIED CALF SALES AMONG ELECTED BEEF INDUSTRY STAKEHOLDERS IN OKLAHOMA

Principal Investigator(s):

James D. White
445 Ag Hall
Stillwater, OK 74078

Manuel Morales
545B Ag Hall
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

Oklahoma State University
Institutional Review Board

Protocol Expires: 10/21/2003

Date : Tuesday, October 22, 2002 IRB Application No AG0213

Proposal Title: ATTITUDES TOWARD PRECONDITIONED CERTIFIED CALF SALES AMONG ELECTED BEEF INDUSTRY STAKEHOLDERS IN OKLAHOMA

Principal Investigator(s) :

James D. White
445 Ag Hall
Stillwater, OK 74078

Manuel Corro Morales
545B Ag Hall
Stillwater, OK 74078

Reviewed and Processed as: Exempt **Continuation**

Approval Status Recommended by Reviewer(s) : Approved

Carol Olson

Signature

Carol Olson, Director of University Research Complian

Tuesday, October 22, 2002
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

APPENDIX B: COVER LETTER

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

Animal Science Department • 201 Animal Science Building • Stillwater, Oklahoma 74078-6051
(405) 744-6060 • Fax (405) 744-7390

February 22, 2002

Dear .

You may be aware that the Oklahoma Cattlemen's Association and the Cooperative Extension Service have recently implemented the Oklahoma Quality Beef Network. The Oklahoma Quality Beef Network is owned and operated by beef producers for the benefit of beef producers and consumers. The primary objective of the OQBN is simple; to add value to Oklahoma cattle and to capture a part of this added value for Oklahoma cattle producers. The first phase of the OQBN is a source and process verification system associated with health and management practices around the time of weaning. Many people in the beef industry refer to these specific management practices as "preconditioning". The verification system is coupled with a marketing effort, designed to capture a part of the added value.

As part of the ongoing development efforts, we are conducting a survey to determine strengths and weaknesses of the Network as it stands today and to identify changes that might encourage further participation while upholding our quality standards. Additionally, some of the questions in the survey are designed simply to determine producer attitudes and perceptions concerning participation in these or other certified preconditioned calf sales. We hope you will seriously consider participating in this study so that your thoughts and suggestions can be used to mold the OQBN and related beef industry programs in the future. **Participation in this study is voluntary.** If you would like to participate, please complete the enclosed questionnaire and return it in the self-addressed stamped envelope by **March 7, 2002**. **All responses are strictly confidential**. Recognition of individual respondents will not be possible since all data will be reported in the aggregate.

Your participation is greatly appreciated.

Respectfully,

David L. Lalman
Extension Beef Cattle Specialist

Manuel D. Corro, Graduate Assistant
Department of Agricultural Education

Scott Dewald,
OCA Executive Vice President

Steve McKinley
OCA Director of Operations

APPENDIX C: FOLLOW UP POSTCARD

Oklahoma Cattlemen's Association
2500 Exchange Ave.
OKC, OK 73108
(405)235-4391

February 22, 2002

Dear Beef producer:
A few days ago a questionnaire seeking your opinions and attitude toward the Oklahoma Quality Beef Network and Preconditioned certified sale, was mailed to you from Oklahoma Cooperative Extension Service.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so today.

We are especially grateful for your help to determine strengths and weaknesses of the Network as it stands today and to identify changes that might encourage further participation while upholding our quality standards.

Sincerely

Scott Dewald
Executive Vice President
Oklahoma Cattlemen's Association

APPENDIX D: SECOND COVER LETTER

OSU
OKLAHOMA COOPERATIVE EXTENSION SERVICE

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

Animal Science Department • 201 Animal Science Building • Stillwater, Oklahoma 74078-6051
(405) 744-6060 • Fax (405) 744-7390

May 31, 2002

Dear beef producer:

As a participant in the OQBN program we are asking for your help. A few months ago we started a survey to determine strengths and weaknesses of the OQBN program as it stands today and to identify changes that might encourage further participation while upholding our quality standards. However, we haven't finished yet, we need your help to complete this survey. We hope you can help us in this study so that your thoughts and suggestions would be very useful to mold the OQBN and related beef industry programs in the future.

Please take a few minutes to complete the enclosed questionnaire and return it in the self-addressed stamped envelope by **June 21, 2002**. **All responses are strictly confidential**. Recognition of individual respondents will not be possible since all data will be reported in the aggregate.

Your participation is greatly appreciated.

Respectfully,

David Lalman

David L. Lalman
Extension Beef Cattle Specialist

Manuel D. Corro, Graduate Assistant
Department of Agricultural Education

APPENDIX E: BEEF PRODUCER SURVEY

Beef Producers

Oklahoma State University Cooperative Extension Service

OSU Oklahoma Cooperative Extension Service

Attitudes Toward Preconditioned Certified Calf Sales Among Selected Beef Industry stakeholders in Oklahoma

Study conducted by

Manuel D. Corro, Graduate Assistant
Dr. David L. Lalman, Extension Beef Cattle Specialist
Department of Animal Science
Dr. James D. White, Professor of Agricultural Education
Department of Agricultural Education, Communications and 4-H Youth Development
Dr. Steve C. Smith, District Director
Oklahoma Cooperative Extension Service

Oklahoma State University
Spring 2002

Beef Producers

Oklahoma Quality Beef Network Program (OQBN):

Please mark (X) the one most appropriate responses which best describes your situation

1. **How did you become aware of the OQBN program?**

   ☐ Oklahoma Cattlemen's Association meeting
   ☐ Oklahoma Cowman Magazine
   ☐ OQBN Educational Meeting
   ☐ OSU County Extension Office
   ☐ Auction Barn Operator
   ☐ Friend or Neighbor
   ☐ Other (Specify)_____

2. **Where was the location of the OQBN sale:**
   ☐ OKC West, El Reno, OK
   ☐ Woodward, OK
   ☐ Enid, OK
   ☐ Idabel, OK
   ☐ Holdenville, OK

3. **Number of head sold in OQBN sale:**
   ☐ 1-10 head ☐ 51-100
   ☐ 11-25 ☐ 101-150
   ☐ 25-50 ☐ 151 head or more

4. **Approximately how much premium do you feel you received for your calves over the price they would have brought during a regular sale?**

   (circle one) 0 2 4 6 8 10 + $/cwt

5. **Percentage of cattle that were sick during the preconditioning phase?**
   ☐ None ☐ Less than one percent
   ☐ 1-5 % ☐ 6-10 %
   ☐ 11 percent or more

6. **Percentage of cattle that died during the preconditioning phase?**
   ☐ None ☐ Less than one percent
   ☐ 1-5 % ☐ 6-10 %
   ☐ 11 percent or more

7. **What other information would you like prior participating again in a program of this type?**
   ☐ Nutrition ☐ Cow herd management
   ☐ Forage management ☐ Breeding
   ☐ Other (Specify)_____

8. **How comfortable were you with the overall enrollment, certification standards and process?**

   ☐ Very comfortable ☐ Comfortable
   ☐ Uncomfortable ☐ Very Uncomfortable

9. **Will you participate in future Preconditioned/Certified Calf sales?**
   ☐ Definitely Yes ☐ Probably No
   ☐ Probably Yes ☐ Definitely No

OQBN Participant attitudes:

Please circle the one response which best describes your attitude toward the Preconditioned/Certified Calf Sale and changes in the beef industry

	Strongly disagree	Disagree	Agree	Strongly agree
10. One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product.	1	2	3	4
11. The Oklahoma Quality Beef Network program helped me to become more knowledgeable about the future of the beef industry.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
12. he Oklahoma Quality Beef Network program allowed me the opportunity to make my operation more profitable.	1	2	3	4
13. The necessity to produce industry acceptable cattle with minimal price discounts is extremely important in today's commercial cow-calf industry.	1	2	3	4
14. I keep records on weaning dates and all vaccines administered.	1	2	3	4
15. The industry currently rewards cattlemen for preconditioned calves.	1	2	3	4
16. OQBN is no different from any other preconditioned program.	1	2	3	4
17. I sell reputation cattle and normally receive a premium price anyway.	1	2	3	4
18. On the average, the benefits of selling preconditioned calves are more profitable.	1	2	3	4
19. Preconditioned calves always receive a premium over "untreated" calves.	1	2	3	4
20. Sorting calves by large uniform drafts should improve the price I receive for my cattle.	1	2	3	4
21. One of the things that I was unsure about includes the marketing and commission charges for selling my cattle.	1	2	3	4
22. Retention of ownership positively influences cattle profitability.	1	2	3	4
23. Selling large drafts of cattle and commingling them to acquire uniformity through the OQBN program increases the possibility of not being able to identify the rightful owners.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
24 Financing additional feed and health management practices makes it too costly to consign calves to certified sales.	1	2	3	4
25 The lack of market standards for certified calf sales has the possibility of leading to a wide variation in prices between sales for preconditioned calves in Oklahoma.	1	2	3	4
26 The death loss I experienced from preweaning was more than compensated by the premium I received from selling in a "Certified Preconditioned Sale".	1	2	3	4
27 I would be more interested in this program if the market price was lower.	1	2	3	4

28 The primary reason for my participation in the OQBN " Certified Calf" Program was:

(Please mark (X) only one response)

- ☐ Premium received above market price
- ☐ The positive image created by selling reputation cattle
- ☐ I normally pre-condition the cattle I sell anyway
- ☐ The potential of attracting a new clientele among buyers; therefore, enhancing competition for a quality product
- ☐ The opportunity to create a new image for the industry
- ☐ Other (Specify)_____

Management/Marketing Practices:

Please mark (X) the one response which best describes your management practices that you would normally apply if not participating in an OQBN sale.

29 Record keeping practices:
- ☐ Hand-written records
- ☐ Computerized records of the operation
- ☐ Both Hand records and computerized record keeping
- ☐ Computer record keeping and analysis provided by private firm or breed association.

30 If you use computerized records, type of software you use:
- ☐ Cow Inventory
- ☐ Nutrition Management
- ☐ Budgeting
- ☐ Other (Specify)_____

31 Calving season:
- ☐ Year around
- ☐ Spring calving only
- ☐ Fall calving only
- ☐ Other (Specify)_____

32 Breeding season Length:
- ☐ 30 Days or Less
- ☐ 31 -60 days
- ☐ 61-90 days
- ☐ 91 days or More
- ☐ Other (Specify)_____

33 Sire selection method:
- ☐ Test Station Sales
- ☐ Purebred Breeders
- ☐ Use of Bulls raised on this Ranch
- ☐ Artificial Insemination
- ☐ Sale barn

34 Percentage of your calves born without horns:
- ☐ 75-100%
- ☐ 50-74%
- ☐ 25 - 49 %
- ☐ 10 - 24 %
- ☐ Less than 10 %

35 IF you have horned calves, percentage of horned calves dehorned:
- ☐ 75-100%
- ☐ 50-74%
- ☐ 25 - 49 %
- ☐ 10 - 24 %
- ☐ Less than 10 %

36 Percentage of bull calves castrated prior to marketing:
- ☐ 75-100%
- ☐ 50-74%
- ☐ 25 - 49 %
- ☐ 10 - 24 %
- ☐ Less than 10 %

37 When do you castrate your bull calves?
- ☐ Don't castrate
- ☐ Shortly after calving
- ☐ 1-3 weeks prior to preweaning
- ☐ At weaning time
- ☐ Other (specify)_____

38 Normal health practices: (Please mark (X) all responses which apply to your operation.)
- ☐ Treated for internal parasites
- ☐ Treated for external parasites
- ☐ Dehorned/or closely tipped horns healed
- ☐ Administer vaccines/health products subcutaneously in neck area
- ☐ All Animal health products administrated according to Preconditioned Certified Sale regulations
- ☐ Extra label usage of animal health products given on the advice of a licensed veterinarian

39 To whom do you normally sell your weaned calves?
- ☐ Direct to feedlot
- ☐ Local Sale Barn/stockyard
- ☐ Stocker Operators
- ☐ Preconditioning Firm
- ☐ Retain Ownership
- ☐ Other (specify)_____

Demographics:

Please mark (X) the one most appropriate response which best describes you or your operation.

40 Age:

☐ <21 years ☐ 21-30
☐ 31-40 ☐ 41-50
☐ 51-60 ☐ 61-70
☐ 71 years of age or greater

41 Level of formal education:

☐ < high school diploma
☐ High school Graduate
☐ B.S degree
☐ M.S. degree
☐ Doctorate
☐ Other (Specify)_____

42 Type of beef operation:

☐ Cow/calf Commercial
☐ Purebred Operation
☐ Stocker
☐ Feedlot
☐ Combination Cow/calf and Stocker Operation
☐ Combination Stocker and Feedlot Operation
☐ Combination Cow/calf and Purebred Operation
☐ Other (specify)_____

43 Ownership arrangement of beef operation:

☐ Family/privately owned ☐ Partnership
☐ Corporate Production
☐ Other (specify)_____

44 Number of years involved in Beef Cattle Industry:

☐ 1- 5 years ☐ 6-10 years
☐ 11-15 ☐ 16-20
☐ 21-30 ☐ 31 or more

45. Size of Brood cow operation:

☐ None ☐ 1- 25 head
☐ 26-50 ☐ 51- 75
☐ 76-100 ☐ 101-300
☐ 301-600 ☐ 601-900
☐ 901-1200 ☐ 1201 head or more

46. Number of calves marketed annually:

☐ 25 calves or less ☐ 26 - 50
☐ 51- 75 ☐ 76 - 100
☐ 101-300 ☐ 301 - 600
☐ 601-900 ☐ 901-1200
☐ 1201 calves or more

47. Type of situation which best describes your operation:

☐ Full time ranching /no off ranch job
☐ Part time ranching / part time off ranch job
☐ Part time ranching / Full time off ranch job
☐ Full time ranching with manager/ Full time off ranch job
☐ One spouse full time ranch/one spouse full time off ranch job
☐ Part time ranching /both spouses full time off ranch jobs

48. Years of experience in pre-conditioning cattle:

☐ None ☐ 11-15
☐ 1-5 years ☐ 16-20
☐ 6-10 ☐ 21 or more

Sources of Information:

Please circle the one response which best describes your perceived importance of the following sources of Beef cattle information

	Not important	Less important	Important	Very Important
1. Beef Cattle Magazines	1	2	3	4
2. Commission Companies	1	2	3	4
3. Extension Fact Sheets	1	2	3	4
4. Oklahoma Cooperative Extension Service	1	2	3	4
5. Fellow producers	1	2	3	4
6. Internet (web sites)	1	2	3	4
7. Breed Associations	1	2	3	4
8. Producer Marketing Cooperatives	1	2	3	4
9. OSU Animal Science Research Reports	1	2	3	4
10. Veterinarian	1	2	3	4

Please complete and return in the enclosed stamped envelope by June 21, 2002

Return to:

201 Animal Science
Oklahoma State University
Stillwater, OK 74078

We will appreciate your comments or suggestions for future OQBN Processing procedures and sale conducts:

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APPENDIX F: BUYER SURVEY

Buyers/New Owners

Oklahoma State University Cooperative Extension Service

OSU
OKLAHOMA COOPERATIVE EXTENSION SERVICE

Attitudes Toward Preconditioned Certified Calf Sales Among Selected Beef Industry stakeholders in Oklahoma

Study conducted by

Manuel D. Corro, Graduate Assistant
Dr. David L. Lalman, Extension Beef Cattle Specialist
Department of Animal Science
Dr. James D. White, Professor of Agricultural Education
Department of Agricultural Education, Communications and 4-H Youth Development
Dr. Steve C. Smith, District Director
Oklahoma Cooperative Extension Service

Oklahoma State University
Spring 2002

Oklahoma Quality Beef Network Program (OQBN):

New Owners of OQBN cattle

Please mark (X) the one most appropriate response which best describes your management practices.

1. **How did you become aware of the OQBN program? (Mark (X) all that apply)**
   - ☐ Oklahoma Cattlemen's Association meeting
   - ☐ Oklahoma Cowman Magazine
   - ☐ OQBN Educational Meeting
   - ☐ OSU County Extension Office
   - ☐ Auction Barn Operator
   - ☐ Neighbor
   - ☐ Other (Specify)_____

2. **Number of head purchased at OQBN sale:**
   - ☐ 25 calves or less
   - ☐ 26 - 50
   - ☐ 51- 75
   - ☐ 76 - 100
   - ☐ 101-300
   - ☐ 301 - 600
   - ☐ 601-900
   - ☐ 901-1200
   - ☐ 1201 calves or more

3. **Did you buy these cattle for a client or your own operation**
   - ☐ Client
   - ☐ Own operation
   - ☐ Both

4. **Type of cattle you preferred to buy:**
   - ☐ Large uniform drafts of cattle
   - ☐ Cattle coming off of native range
   - ☐ Preconditioned Cattle
   - ☐ Weaned calves
   - ☐ Other (Specify)_____

5. **Where did you buy OQBN cattle?**
   - ☐ OKC West, El Reno, OK
   - ☐ Woodward, OK
   - ☐ Enid, OK
   - ☐ Idabel, OK
   - ☐ Holdenville, OK

6. **How do you prefer cattle to be treated prior to the sale:**
   - ☐ Normal feed and water intake
   - ☐ Free access to water only
   - ☐ Normal shrink
   - ☐ No feed or water 8 hours prior to the sale
   - ☐ Other (Specify)_____

7. **Percent of OQBN cattle which were sick after the certified/preconditioned sale:**
   - ☐ None
   - ☐ Less than ten percent
   - ☐ 11- 20 %
   - ☐ 20-30 %
   - ☐ 30 percent or more

8. **Percent of OQBN cattle that died up to sixty days after the certified/preconditioned sale:**
   - ☐ None
   - ☐ Less than two percent
   - ☐ 2-5 %
   - ☐ 6-10 %
   - ☐ 11 percent or more

9. **What additional information would be important to you as a buyer of these cattle?**
   - ☐ Specific information on amount of feed received
   - ☐ Whether or not calves had been creep fed
   - ☐ Whether or not the calves had been implanted and when
   - ☐ More specific genetic information
   - ☐ Other (Specify)_____

10. **The cattle I purchased at the OQBN sale are going directly to:**
    - ☐ Wheat pasture
    - ☐ Native grass/range
    - ☐ Commercial feedlot or feedyard
    - ☐ Receiving/growing yard or lot
    - ☐ Other (Specify)_____

11. How much premium do you feel you paid for your calves over the price they would have brought in a regular sale?

(circle one) 0 2 4 6 8 10 + $/cwt.

12. How comfortable were you with the overall integrity of the certification process?
(mark (X) one)

☐ Very comfortable ☐ Comfortable
☐ Uncomfortable ☐ Very Uncomfortable

13. Will you purchase OQBN cattle in future sales?

☐ Definitely Yes ☐ Probably No
☐ Probably Yes ☐ Definitely No

Please circle the one response which best describes your attitude toward the Preconditioned/Certified Calf Sale program and changes in the beef industry

	Strongly disagree	Disagree	Agree	Strongly agree
14. One of the challenges of the beef industry is the need to increase the consistency and uniformity of our product.	1	2	3	4
15. The industry currently rewards cattlemen for preconditioned calves.	1	2	3	4
16. OQBN is no different from any other preconditioned program.	1	2	3	4
17. I purchase reputation cattle and normally pay a premium price anyway.	1	2	3	4
18. On the average, the benefit of buying preconditioned calves is more profitable in the long run.	1	2	3	4
19. I always pay a premium for preconditioned calves over "untreated" calves.	1	2	3	4
20. I appreciated the potential of attracting a new clientele among producers; therefore, enhancing both competition and quality of the cattle.	1	2	3	4
21. Preconditioned / certified cattle normally require less management compared to "untreated" cattle.	1	2	3	4
22. Preconditioned/ certified sales tend to inflate the $real value$ of the cattle being sold.	1	2	3	4
23. I prefer to process (vaccinated, castrated, etc) the cattle I purchase in my own facilities.	1	2	3	4
24. Buying certified/preconditioned cattle requires less labor compared to non-preconditioned cattle.	1	2	3	4
25. Certified /preconditioned cattle have a definitive advantage over non-preconditioned cattle with regard to daily gain, feed efficiency and health problems.	1	2	3	4
26. I am willing to pay extra premium if I know that calves have been de-wormed	1	2	3	4

27. The primary reason for my participation in the OQBN " Certified sale" was: (Please mark (X) only one response)

☐ Pre-conditioned cattle save both labor and make me money in the long run.

☐ I normally buy pre-conditioned cattle anyway.

☐ The opportunity to buy large drafts of uniform cattle which have been treated in a similar manner.

☐ Pre-conditioned cattle have better over-all performance than untreated cattle.

☐ The opportunity to create new image for the industry.

☐ Other (Specify)_____

Demographics:

Please mark (X) the one most appropriate response which best describes you or your operation.

28. Years of experience in buying cattle:

☐ None ☐ 11-15
☐ 1- 5 years ☐ 16-20
☐ 6-10 years ☐ 21 or more

29. Number of head purchased annually:

☐ 25 calves or less ☐ 26 - 50
☐ 51- 75 ☐ 76 - 100
☐ 101-300 ☐ 301 - 600
☐ 601-900 ☐ 901-1200
☐ 1201 calves or more

30. From where were most of the cattle you purchased?

☐ Private operators
☐ Local sale barn
☐ Preconditioning Firm
☐ Certified sales
☐ Commission company
☐ Other (Specify)_____

31. Age:

☐ <21 years ☐ 21-30
☐ 31-40 ☐ 41-50
☐ 51-60 ☐ 61-70
☐ 71 years of age or greater

32. Level of formal education:

☐ < high school diploma ☐ High school Graduate
☐ BS degree ☐ MS degree
☐ Doctorate
☐ Other (Specify)_____

Sources of Information:
Please circle the <u>one</u> response which best describes your perceived importance of the following sources of Beef cattle information

		No important	Less important	Important	Very Important
1.	Beef Cattle Magazines	1	2	3	4
2.	Commission Companies	1	2	3	4
3.	Extension Fact Sheets	1	2	3	4
4.	Oklahoma Cooperative Extension Service	1	2	3	4
5.	Fellow producers	1	2	3	4
6.	Internet (web sites)	1	2	3	4
7.	Breed Associations	1	2	3	4
8.	Producer Marketing Cooperatives	1	2	3	4
9.	OSU Animal Science Research Reports	1	2	3	4
10.	Veterinarian	1	2	3	4

Please complete and return in the enclosed stamped envelope by June 21, 2002

Return to:

201 Animal Science
Oklahoma State University
Stillwater, OK 74078

We will appreciate your comments or suggestions for future OQBN Processing procedures and sale conducts:

Thank you

APPENDIX G:

A DISTRIBUTION OF OPEN -ENDED REPONSES CONCERNING THE OQBN PROGRAM BY BEEF PRODUCER

Appendix G:

A Distribution of Open-Ended Reponses Concerning the OQBN Program by Beef Producers

- I had part of my calves entered into the Ada first sale until was canceled. I also sent 10 calves to NF Retained Ownership program. I think the Preconditioned sale is a great idea. Many of the small operators that I know are not set up to wean most of their calves on their place The 9/11 incident and weather made 2001 a rough year for preconditioning cattle.
- Need uniformity of cattle at the precondition sales. Need to adhere to the guidelines of the sale.
- OQBN is the best & only thing the small operator has to get a fair market value for our cattle. I hope the program continues. Two of us were able to ship a load & split the trucking.
- OQBN is a good idea, however the cost of preconditioning & vaccines makes it a near breakeven event.
- Need to get feedback of quality of cattle we are marketing so we can make changes to improve our products.
- I thought the sale was great, I take pride in preconditioning calves. The one thing that would prevent me from participating again would be the cost of vaccines you require, Thank you for your efforts.
- I appreciate your efforts to make for a better market for preconditioned calves, but I did not like being limited to one sale date out of the year. Although I got a good premium for my calves at the Woodward sale, it occurred at the low fall run and the premium did not compensate for weaning, preconditioning and added work and feed. I liked the video auction that I participated in the year before better as I could load the calves on the truck right off the cow with no preconditioning, trucking or extra labor expense at a pre set price that was @ $5/cwt premium over a regular price and was able to sell in early September when prices are consistently better.
- I was told a story about being able to follow my calves. I was told we would get information back on how my calves graded out and carcass things, so if I am falling short on my calves I can improve. I think this program can be great and would like it to improve. Thanks.
- Preconditioning program would probably have worked on a more ordinary year, but since I have had to wait 45 days and watch the price steadily decline, it was not a good situation. Jerry Nine did his best to support the prices but the interest by buyers was not there. I lost the cost up feeding and vaccination.
- I believe my cattle would have bought more if they were not mixed with others. I would not be interested in selling at any more commingled sales.
- Know sale date in plenty of time.

Appendix G: (continued)

- Make all sellers follow the rules. There were too many bulls & horned calves.
- I believe that I benefited as much from the sorting of my calves into large groups as I did from preconditioning. I really liked the way that OKC West sorted and conducted their sale. I would prefer to take my calves to a sale in late Nov or early Dec at El Reno.
- What I did not liked about the sale was my black calves were mixed with other colors. I believed blacks bring more is the reason I breed & raise blacks. The sale should have been held on a day other than regular sale barn sale day. There are other improvements that I am sure we are aware of. Thanks.
- I would like to see the scan tags to also have a bangle tag with a number you can read at a distance.
- The November 7th sale at OKC West the cattle were sorted and culled well. The February 27th OQBN sale was not intense enough, I saw horned cattle, pink eye cattle, one calf with blue eye. These cattle should have been pulled & sold as singles. The OQBN will live due to QUALITY or die because of the lack of it.
- I did not like my cattle being mixed with other cattle. I am not sure, I want a lot of premium for preconditioned cattle. I just want everyone else to be highly discounted. I probably will try the sale again but I am not currently looking for an alliance to belong too. P.S. As you could see I did not give OCES high marks and I went to OSU! They are always a day late and a dollar short of the real world.
- 1. Eliminate the calves that don't fit groups from the sale completely-sell thru regular sale next day. 2 Try to attract a wider range of buyers- not just the 2 or 3 that normally come to the sale anyway. 3 make sure cut off date for weaning is strictly adhered to.
- I don't think the person who checked the calves before the sale was very accurate. i.e. proof of vaccination was verbal only. I think all cooperators should be required to purchase the same medicine from one lace as the tags are required. A special price could be arranged for such a large number of cattle worked.
- Being a small cow/calf producer in close proximity to OKC West, El Reno enabled me to achieve a much higher market price to achieve a much higher market price primarily through co-mingling into uniform lots. However, the creep pellets and hay required during 45 days precondition time erased a considerable amount of $ premium received.
- The only complain I have, it was hard to get the tags. There was a lot of confusion from El Reno. However, it was a great sale

APPENDIX H

OPEN- ENDED RESPONSES CONCERNING THE OQBN PROGRAM BY BUYER/NEW OWNER

APPENDIX H:

A Distribution of Open- Ended Responses Concerning the OQBN Program

By Buyer/New Owners

- I bought 97 calves to try the program. They were put in pasture. We find no differences in these cattle from the calves we buy from neighbors & type bought at the auction. We have our own program we followed when recruiting calves. I know the precondition program will work better for some.
- Our load of calves looked good upon arrived after 200-mile head-shrink was only .61%. We doctored 78 within a week most did not look too sick however. After iced/cold in Dec & warming @ end of Dec/Jan we had to retreat a few of calves doctored in Nov. 12/28 1 died has become crippled as well as sick. 1/23 1 died treated off/on severe 1st week....
- Provide all info (origin, vaccines, feed info) with calves at the time sale. Ensure all calves have been identified before commingling. Identify raised vs purchased calves going through the sale. Ensure all calves are delivered to marketing point at least one day prior to sale (or be open to negotiate shrink)
- Keep buyers informed of future OQBN sale dates
- The cattle at the Holdenville sale in the OQBN were exceptionally fat and too full. This significantly reduced the price per cwt relative to cattle in thin or medium flesh that day. Fat cattle always are discounted at sale time. Some of the cattle that are in deals made up of different owners cattle are not sorted very good. Sale barns tend to broad brush the sorting. If you want value from large uniform lots, you have to convince sale barn operators to be more strict in sorting. They'll nod their head on this then let somebody sort the cattle.

Appendix H *(continued)*

- 1. I question the consistency of the verification process.
  2 Need information on shrink w/in sale facility
  3. We treated way too many cattle for being bonafide preconditioned cattle; therefore question if the problem is in the actual preconditioning or stress in sorting and/or commingling at sale points.
  4. We paid too much premium for the value that was received. Truly hope the program can be made work, however our experience overall was negative. I would hope that EID cattle would be followed thru the packing plants. We need to know how preconditioning affects value when killing cattle on the grids. Surely w/EID already in place we can get this carcass information to participants throughout the program
- Find a definitive way to determine or monitor if the cattle have been treated as prescribed.
- I feel strongly that the cattle should be identified as ranch calves (1st time to be sold) or calves that were put together from multiple owners/producers and background for the OQBN sales. I think there is more value in the calf if he gets all his vaccines before he ever sees a sale barn. One of the calves I bought was a "chronic", and this was a "put together" set of calves. There is an increased value for both types of calves; so maybe they should be identified separately

APPENDIX I: OQBN CERTIFICATION REQUIREMENTS

OKLAHOMA QUALITY BEEF NETWORK
"Producing better cattle one head at a time"

OQBN Certification Requirements

* Cattle not meeting these requirements will not be eligible for certification.

I. * Pre-enrollment - Producers must complete the pre-enrollment form within 45 days of the sale date or shipping event. The form can be completed on-line or using the printed form. If the printed form is used, it should be mailed to the OCA office.

II. * Castration - Bulls must have been castrated and healed prior to the sale date or shipping event.

III. * Dehorning - Calves must be dehorned and healed prior to the sale date or shipping event.

IV. * Weaning - Calves must be weaned 45 days or longer prior to sale date or shipping event.

V. Nutrition

Abundant clean fresh water should be available at all times.
Abundant high quality hay or pasture should be available at all times.
* Feed a concentrate supplement for a minimum of 14 days beginning at weaning. The supplement type and amount should be designed to compliment the forage resource.
Supplemental phosphorus, vitamin A, copper, selenium and zinc should be provided through the concentrate feed or through a free-choice mineral product. Consult a nutritionist to insure that the nutritional program is balanced for vitamins and minerals. Copper should be provided in an organic form or in the form of copper sulfate. It is recommended that a vitamin and mineral supplement be provided to cow/calf pairs for a minimum of 100 days prior to weaning.
It is recommended that Bovatec®, Rumensin®, or Deccox® be included in the feed for the purpose of controlling coccidiosis.

VI. * Vaccinations - Select and follow one of the two vaccination schedules listed below. Approved vaccine products are listed on the back panel of this brochure and on the web site. Although not required for certification, it is highly

recommended that vaccine product lot numbers be recorded on the enrollment form. Lot numbers are printed on product labels and (or) boxes.

VII. * BQA guidelines - Follow Beef Quality Assurance Guidelines.

VIII. Deworming - Treating for internal and external parasites is recommended.

IX. Implants - It is recommended that calves NOT be implanted within 70 days of the sale date or shipping event. However, if the calves are implanted within this time, the product used and date implanted should be indicated on the enrollment form.

X. * Third-party verification - Call the OCA office or refer to the OQBN web site for the certified OQBN representative in your area. The representative will inspect the cattle and verify that they have been weaned, dehorned, castrated, tagged and that all records are complete. Verification must be completed between 45 and 21 days prior to the sale date or shipping event.

XI. * Final certification steps - Complete the enrollment form on-line or use the printed form (also available on the web site). If the printed form is used, submit it to your OQBN representative and he/she will complete the enrollment process on-line. The certification process must be completed by 21 days prior to the sale date or shipping event

APPENDIX J: OQBN RECOMMENDED VACCINATION PROGRAMS

OKLAHOMA QUALITY BEEF NETWORK
"Producing better cattle one head at a time"

OQBN Vaccination Options

Pre-Wean/Management Schedule(Preferred)

A. At 2-6 weeks prior to weaning, administer:

A vaccine containing chemically altered modified live IBR and PI3, MLV-BRSV, and inactivated BVD.
A new generation 7-way Clostridial vaccine.
Pasteurella hemolytica bacterin-toxoid or Pasteurella hemolytica-multocida combination.
No Salmonella vaccine should be given.
Ear tag with "official" tag (left ear). Tag will be an EID tag or bangle tag, depending on selected sale.
B. Booster at weaning

Re-vaccinate with MLV IBR-BVD-BRSV- PI3 or MLV IBR-BVD- PI3-KBRSV.
*Also acceptable to use any inactivated (killed) product pre-weaning if a MLV product is given at weaning and 2 to 3 weeks later (requires three vaccinations).

Post Wean/Management Schedule

A. At weaning, administer:

MLV IBR-BVD-BRSV-PI3 vaccine, or MLV IBR-BVD-PI3-KBRSV.
A new generation 7-way Clostridial vaccine.
Pasteurella hemolytica bacterin-toxoid or Pasteurella hemolytica - multocida combination.
No Salmonella vaccine should be given.
Ear tag with "official" tag (left ear). Tag will be an EID tag or bangle tag, depending on selected sale.
B. Booster at 14 to 21 days after weaning

Re-vaccinate with MLV IBR-BVD-BRSV- PI3 or MLV IBR-BVD- PI3-KBR

APPENDIX K: BEEF QUALITY ASSURANCE GUIDELINES

Beef Quality Assurance Guidelines

Beef Quality Assurance Guidelines

I. All injections will be given in the neck region only.

II. When the label instructions allow for either intramuscular or subcutaneous injection of the product, always use the subcutaneous route to administer product.

III. All animal health products should be used strictly according to FDA-CVM or USDA approved label instructions.

IV. By law, extra label usage of animal health products can only be done on the advice of your veterinarian.

APPENDIX L: OQBN PROCESS AND TIMELINE

Appendix L

OKLAHOMA QUALITY BEEF NETWORK
"Producing better cattle one head at a time"

Process and Timeline

The Oklahoma Cattlemen's Association will coordinate the pre-enrollment, delivery of tags and applicators and the final enrollment/certification process with the Oklahoma Cooperative Extension Service Area Livestock Specialists. The Area Livestock Specialists will coordinate its activities with the participating County Extension Offices and the local sale facility. The following must take place for timely distribution:

1) A minimum of 90 days prior to sale

Sale facility commits to hosting sale and selects date(s) for sale(s).

2) A minimum of 75 days prior to sale

OCA/OCES conduct sale barn educational meeting for producers. Distribute following information: OQBN brochure containing protocol, OQBN producer packet containing educational information and enrollment forms. Producers complete pre-enrollment survey so we can measure producer interest. Copies of pre-enrollment forms are provided to the producer, area livestock specialists, sale facility management and one copy is maintained by OCA.

3) 75 to 60 days prior to sale

OCA estimates number of tags/applicators needed for the sale based on sale barn meetings, county cattlemen's meetings, input from area livestock specialists and pre-enrollment forms. Tags/applicators are purchased and drop shipped directly from distributor to the applicable area livestock specialists office who will determine distribution to producers. OCES distributes tags to producers via mail, office visit, ranch visit, producer meetings, etc.. For optimum results tag delivery should take place prior to producers calf working schedule so that tagging can be done during a regular round of calf working (i.e. at weaning, first round of shots, etc.).

4) 45 to 35 days prior to sale

Cooperative Extension Service arranges for certification visit and completion of final enrollment form. Tags should be applied prior to final visit. One copy of the enrollment form should be left with the producer. Note: Enrollment period ends 35 days prior to sale.

5) 30 to 20 days prior to sale

OCES forwards final copies of enrollment forms to OCA and sale facility within 20 days of sale. The enrollment forms will consist of a four sheet carbonless form, one copy will be retained by OCES, one will be given to producer at time of completion, one will be given to sale facility and one will be sent to OCA. OCA will provide postage paid envelopes to the area livestock specialists for their use.

6) 10 days prior to sale

OCA will use information from enrollment forms to create a sale summary so that appropriate press releases can be written and distributed.

7) 1 to 4 days prior to sale (depending on facility)

Cattle arrive at sale facility and are sorted and co-mingled (if applicable) and are prepared for sale. Cattle are to be on feed and water at all times while on site. Unused tags and applicators in good condition are returned to sale facility and notation of return is made on drive in card. Sale facility will make appropriate notation in its bookkeeping system to ensure that producers are not billed for returned tags and applicators. List of lots (if available) are distributed to potential buyers via broadcast fax and/or e-mail.

8) Day of Sale

Cattle are sold, sale facility, utilizing final enrollment form, makes appropriate deductions from producer proceeds in order to reimburse OCA for initial cost of tags/applicators. Non OCA member consignors will be asked if they would like to become an OCA member by having their dues deducted from their sale proceeds.

9) Three days after sale

Press release regarding sale is mailed to all local papers in general trade area of sale facility.

10) One week after sale

OCA will invoice producers who do not participate in the sale for tags/applicators they do not return.

11) Two weeks after sale

OCA will contact sale facility management to confirm dates for next sale.

12) Three weeks after sale OCES, OCA and Sale Facility meet to discuss sale data and to refine program for next sale.

APPENDIX M: T-TEST ANALYSIS

Appendix M, 1: OQBN Stakeholder Attitudes T-Test Analysis

Statement	N	N	Std. Deviation	t-value	Sig.
Challenge of Beef industry is the Need to Increase Consistency	73	3.55	.501	-0.465	0.643
Beef Industry Rewards Cattlemen for Preconditioned Cattle	71	2.49	.652	1.752	0.084
OQBN is no Different from any other Preconditioned Program	66	2.35	.754	1.709	0.092
Benefits Selling/Buying Preconditioned Cattle	72	3.04	.700	1.267	0.209
Always Pay-Receive Premium for Preconditioned Cattle	72	2.53	.804	2.642	0.010
Sell-buy Reputation Cattle with a Premium Price	71	2.56	.691	-0.006	0.995

Appendix M, 2:

OQBN Stakeholder Comparison T-Test Analysis

Item	N	Mean	Std. Deviation	t-value	Sig.
Level of comfort	74	3.20	0.739	-0.970	0.336
Willingness to Participate in Future Certified sales	70	3.24	0.710	0.339	0.735
Premium paid-received over regular market price	74	5.35	3.410	-0.500	0.619

Appendix M, 3:

OQBN Stakeholder Sources of Information T-Test Analysis

Source of Information	N	Mean	Std. Deviation	t-value	Sig.
Beef Cattle Magazines	73	2.945	0.664	-1.719	0.090**
Commission Companies	72	2.347	0.906	1.079	0.284
Extension Fact Sheets	72	3.055	0.626	0.501	0.618
Oklahoma Cooperative Extension Service	72	2.902	0.734	0.213	0.832
Fellow Producers	71	2.8873	.68763	1.577	0.119
Internet (Web sites)	70	2.3429	.83207	-0.644	0.522
Breed Associations	70	2.4000	.78758	-2.607	0.011*
Producer Marketing Cooperatives	71	2.4225	.82223	1.301	0.198
OSU Animal Science Research Report	69	3.1449	.67028	0.971	0.335
Local Veterinarian	72	3.1806	.77508	-1.057	0.294

VITA

Manuel Dionisio Corro Morales

Candidate for the Degree of

Doctor of Philosophy

Thesis: ATTITUDES TOWARD PRECONDITIONED CERTIFIED CALF SALES AMONG SELECTED BEEF INDUSTRY STAKEHOLDERS IN OKLAHOMA

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Veracruz City, Veracruz, Mexico, on October 9, 1960, the son of Manuel V. Corro Salcedo and Maria Antonia Morales Muñiz. Married to Ivette Rubio.

Education: Graduate from Centro de Estudios Cristobal Colon High School, Veracruz, Veracruz, 1977. Degree in Veterinary Medicine and Zootechnics from University of Veracruz, Veracruz, Mexico, 1983. Received a Master of Science in Animal Production from National Autonomous University of Mexico, Mexico City, Mexico, 1993. Completed the requirements for the Doctor Philosophy degree in Agricultural Education at Oklahoma State University in August 2003.

Professional Experience: Veterinary Consultant "Sociedad de Produccion Secc. 9", 1984-1986. Veterinary and Animal Production consultant, Department of Agriculture, State of Puebla, Mexico 1987-1988. Instructor at College of Veterinary Medicine and Zootechnics, National Autonomous University of Mexico 1988-1990. Extension Coordinator, Dual-purpose Cattle Program, at the Center for Research, Teaching and Extension in Tropical Animal Husbandry (CEIEGT, National Autonomous University of Mexico, 1990-1999. Graduate Teaching Associate, Oklahoma State University Department of Agricultural Education Communications, & 4H Youth Development, 2000-2003.

Professional Organizations: American Association of Agriculture Education (AAAE), American Society of Animal Science (ASAS), Association for International Agricultural and Extension Education (AIAEE). Mexican Association of Veterinarians specialized in bovine and small ruminants. Mexican Association of Animal Production (AMPA).