

**AN ASSESSMENT OF THE USDA YIELD GRADE MARKETING
SYSTEM AS PERCEIVED BY SELECTED SHEEP
PRODUCERS IN OKLAHOMA**

By

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CHAPTER I

INTRODUCTION

The United States Department Of Agriculture (USDA) instituted a "yield grade" marketing system for lambs on July 1, 1992. These changes will drastically affect the way sheep producers feed and market lambs.(2) Prior to the system changes, lambs were marketed and priced according to weight and dressing percentage. While these changes will be perceived by many as advantageous, several will continue to market lambs as they have in the past. The new system is designed to achieve fat reduction through the new grading standards by combining the attributes of both quality and yield. Combining standards would require carcass merit to be considered simultaneously for quality and yield.

USDA would require that grades be applied to carcasses only after removal of most of the kidney and pelvic fat. Requiring the removal of pelvic and kidney fat (which is considerable in sheep) prior to weighing carcasses for determining their "dressed" yields would remove a major incentive for overfattening lambs.

Currently, U.S. quality grades for lamb--U.S. Prime, Choice, Good--can be applied independently of obtaining a yield grade, while yield grading of lamb is not a common practise. Under the new program ultimate payment to producers would be more for the lean portion of the carcass than the fat. The proposal would also drop

the leg conformation scoring part of the lamb and mutton yield grade which has been a part of the criteria since 1969. Conformation, or external shape, can be affected both by fat and muscle, and therefore may not be a true measure of the ratio of lean to fat in an animal.

USDA scientists have tried various mechanical and electronic methods of measuring fatness in lamb carcasses as well as predicting carcass yield. However, until recently, nothing more accurate and efficient than an experienced grader's visual appraisal of the fat covering and ribeye measurement have been utilized. Too much external fat can mean too much fat elsewhere in the carcass, while cutability of the carcass is lowered accordingly.

Leaders of the American Sheep Industry Association, the chief proponents of the changes, believe implementation of the proposal is essential to accommodate U.S. consumers' preference for leaner lamb. The changes would apply to standards for grading lamb carcasses as well as market lambs traded on the basis of grade (3).

Statement of the Problem

Acceptance of change by a group is influenced by the perceptions of that group and the impact perceived change will have upon them. In turn, perceptions of change are influenced by the level of knowledge about the change. At the time of this study, it was perceived that market lamb producers in Oklahoma did not understand the apparent requirements to implement new USDA lamb marketing procedures. As a result of the program, producers will

face new concerns at marketing; which include, identification, separation on the truck, delayed payment, and pricing of lambs prior to delivery. Planned educational meetings will be essential for local producers to understand and adjust their production and management practices to take advantage of the new grading system. Producers must become more knowledgeable and effective in merchandising lamb. They also, must become better educated as to the availability of alternative methods. As a result of this study, educational programs to assist producers in understanding the requirements of the new system should be focused toward production and management practices. However, alternative marketing strategies may be important for some small producers.

Purpose of the Study

The primary purpose of this study was to determine the extent of selected sheep producers' knowledge concerning the proposed USDA lamb marketing system and their perceptions as to how it will affect their operations.

Objectives of the Study

To accomplish the purpose of the study, the following objectives were established:

1. To determine selected demographic factors relating to sheep producers in Oklahoma. i.e., number of years raising sheep, time of year lambing, number of slaughter lambs marketed annually, and weight at which most lambs were marketed.

2. To determine whether or not sheep producers were aware of the proposed USDA yield grading system.

3. To determine how sheep producers became aware of the proposed USDA yield grading system prior to its implementation.

4. To determine sheep producers' perceptions concerning the importance of potential problems arising from selling on a yield grade basis as compared to selling by weight (current system).

Assumptions of the Study

Concerning this research study, the following basic assumptions were made.

1. The responses made by the selected sheep producers in Oklahoma were sincere and accurate.

2. The sheep producers would relate their perceptions to the investigator.

Scope of the Study

The scope of this study included sheep producers in Oklahoma who have sold slaughter lambs in the last 3 years through OK Sheep Expansion, Inc.

Definition of Terms

For a better understanding of certain terms presented in this study, the following terms were defined.

Dressing Percentage: The ratio of carcass weight to slaughter weight expressed as a percentage.

Dressed Yields: Requires the removal of the kidney and pelvic fat from the carcass.

Lipid Growth: Any of a group of organic compounds consisting of the fats and other substance of similar properties effecting growth.

Mean Response: The average, or the arithmetic mean, or the mean. The sum of the values, divided by the number of respondents.

Ovine Carcasses: Sheep carcasses.

Yield-Grade: One method of marketing lambs in which price determination is made after slaughter on the basis of coupling quality grade and yield grade. Factors such as leanness and muscling would be used to determine the quality and value of the carcass.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this chapter is to present for the reader an overview of the literature reviewed related to the subject of this study. The presentation of background information was divided into major areas of concern.

Consumers' Demand

America's consumers are becoming more health conscious every year and demanding leaner food products, including meat. The meat industry therefore is changing to fit consumers' demand for healthier foods by offering leaner lower-fat meat products. However, the lamb industry, seriously hindered by a marketing system that encourages production of overfat animals and discourages production of lean carcasses, has not been able to put a leaner product in the retail stores. The industry's inability to deal with the overfat problem to date is contributing to the record low prices that exist in the lamb market today, and is damaging our competitiveness. The mandatory coupling of yield and quality grades is vital to the continued existence of the lamb industry. This yield grade system will provide a value based marketing tool and will benefit the entire market, from producer to consumer (1).

Demand For Lamb

In a calorie/fat conscious society, the demand for lamb can hardly be increased when the marketing structure is based on fat production (i.e., payments based on dressing percentage). Every statistic indicates that the product is fatter than ever. In 1987, the lamb industry conducted a carcass study (cited in 1 page 2) using the current yield grade system of five grades (1=leanest; 5=fattest). This study found that the average fat thickness on a carcass was .29 inches, the average kidney and pelvic fat was 3.17 percent, and the average yield grade on lambs in the United States approached a yield grade 4 (fat). The cutability survey also revealed that over 39 percent of the lamb carcasses surveyed in 1987 were yield grade 4 or 5. Since 1987, average dressed carcass weights have increased 10 percent, from an average of 59 pounds in 1987 to 65 pounds in 1990. Most of this weight increase is attributable to fat. If the demand for lamb is to increase, a marketing structure that rewards producers and packers for lean carcasses and penalizes those that produce fat carcasses needs to be created. The proposed yield grade standards specifically address such a system (1).

According to Jim Magagna, Texas A&M University recently conducted a study entitled "Measuring the Composition and Palatability of Lamb in the Retail Case: A Market Basket Survey for Lamb, "(1) In this study, retail cuts of lamb were analyzed for external fat, seam fat (fat deposits between muscles) and numerous other factors. "This study revealed that the average

external fat thickness on all retail cuts was .14 inches, indicating that of .29 inches total fat, .15 was trimmed off before the lamb was placed on the retail shelf. This information means that if our industry had an average yield grade of 2.8 today, we would produce a minimum of 5 pounds less fat per carcass and reduce total fat production in the industry 28 million pounds per year. Yield grades would work as an incentive to produce leaner, but not necessarily lighter lambs. The study emphasized the need for the lamb industry to strive towards leaner lambs and lamb products to keep pace with other protein sources in today's health-conscious society" (1).

Carcass Weight and Dressing Percentage

Lambs are currently priced based on weight and dressing percentage. Carcass weights are used for determining the appropriate marketing outlet. Lighter weight carcasses (50-60 pounds) are primarily used for the retail segment. Heavier weight carcasses (65-75 pounds) are primarily used for the food service segment. Although this system is good in theory, it does not discriminate between the size of the lamb carcass and its leanness. More than often, lambs are fed past their potential for proper leanness to obtain a heavier weight and consequently carry excess fat. Feedlots are notorious for doing this because they are in the business of selling feed and will continue to market this overfat animal as long as the industry will accept them.

Dressing percentage is also currently used in the industry. Dressing percentage is the hot carcass weight divided by the live

animal weight and generally ranges for 48-55 percent.

Dressing percentage is what packers use as a relative indicator of efficiency. The processing cost associated with a 100 pound lamb is the same as for a 120 pound lamb; however, the 120 pound lamb produces an additional 10 pounds of meat and/or fat. The drawback to using only dressing percentage for incentive pay is that it actually encourages fat deposition. Fat deposition typically increases the dressing percentage of lamb and creates an incentive for the feeder of lambs to over-fatten the lambs in order to obtain a higher direct return. Ultimately, this pricing practice has led to lower wholesale prices and an overall reduction in producer returns. The current incentives for weight classification and dressing percentage are understood, but need to be coupled with yield to counter the over-fattening of lamb. In 1982, the USDA published yield grades for lamb, but the use of these yield grades was not mandatory or coupled with quality grading. Correspondingly, the USDA currently yield grades less than 1,000 lambs per month, less than one percent of the total lambs slaughtered (1).

The over-fattening of lambs has hurt the industry in several ways:

1. The amount of grain and feed required to put on fat increases the cost of production.
2. The amount of labor and associated cost of removing fat from lamb cuts also increases the cost of lamb, with no return.
3. Trimmed fat in itself is virtually worthless, and some retailers have to pay to have it hauled away.

4. Fat cuts are an obstacle to increasing demand for lamb.

Overall, increased fatness on lambs has served only to increase the production and processing costs and ultimately retail cost and has seriously damaged the image of lamb for consumers who desire a lean, heavily-muscled, nutrient-dense, protein-based product (1).

Yield Grade System

The fundamental purpose of grading any agricultural product is to take a heterogeneous group of products and break it down into similar or homogeneous groupings. For lamb, yield grading would segregate lamb carcasses into five groupings called yield grades based on their yield of lean retail cuts. For example, a Yield Grade 1 will yield a higher percentage of retail cuts as opposed to a Yield Grade 5. The difference in yield grades is primarily due to the fat thickness on a carcass. A Yield Grade 5 will have considerably more fat than a Yield Grade 1. Yield grades therefore serve as a marketing tool to discriminate between carcasses based on value in relation to lean yield (1).

The proposed yield grade system has the following changes as compared to the 1982 lamb yield grade standards: (cited in 1, pg. 4)

1. Coupling of Quality and Yield Grades - This means if a lamb packer elects to quality grade (i.e. Prime, Choice, Good, etc.), yield grading would automatically be done. Quality grade standards will remain unchanged.

2. Removal of Kidney and Pelvic Fat - Prior to grading, all but 1 percent of the kidney and pelvic fat must be removed from the

carcass.

3. Mechanics of Yield Grade - The proposed standards incorporate one component of the USDA yield grade standards of 1982, utilizing fat thickness over the loin eye at the 12/13 rib interface. The proposed yield grade system mandates removal of kidney and pelvic fat from the carcass prior to grading so it is no longer a factor. The leg conformation scores used in the old system are also removed from the standards, because these scores contributed very little to yield predictability. The proposed standards utilize only fat thickness to determine respective yield grades and are assigned as follows:

Yield Grade 1 = 0.00 to 0.15 inches

Yield Grade 2 = 0.16 to 0.25 inches

Yield Grade 3 = 0.26 to 0.35 inches

Yield Grade 4 = 0.35 to 0.45 inches

Yield Grade 5 = > 0.46 inches

Over 90 percent of today's lambs quality grade Prime and Choice, and less than 10 percent grade below Choice (1). Lamb maintains palatability without marbling; therefore, yield grading will not negatively affect quality and flavor. Mandatory yield grading would provide incentives for lean lamb production and more consistent supply of consumer-preferred lamb to the retail segment (1).

The proposed regulation requires the removal of kidney/pelvic fat from the carcass prior to grading. By removing kidney and pelvic fat at the packing house, a large source of variation in

retail carcass yields and possible error in yield grade application is eliminated. Kidney/Pelvic fat is more easily removed at the packing plant when the carcass is still hot and the fat has a rendering value. Currently, kidney/pelvic fat remains in the carcass and is shipped to the breaker or retailer, where it often becomes a disposal cost. Kidney/pelvic fat accounts for four to nine percent of the carcass weight and means increased transportation costs. Removal of kidney/pelvic fat eliminates the shipment of excess fat across the country and allows more effective utilization of fat at the packing plant. Additionally, the per pound value and percentage of retail cuts of a carcass is greater with the kidney and pelvic fat removed (1).

Today, feeders and producers of finished lambs are paid on the weight of the carcass. Removing the kidney/pelvic fat on the kill floor means a lighter weight carcass and a reduced return to the feeder unless a ratchet factor is included in the carcass price to account for the kidney/pelvic (KP) fat removal. To ensure that feeders and producers are paid on a carcass basis allowing credit for the KP fat, strict Packers & Stockyards Administration surveillance will be required.

There will be associated costs in administering a yield and quality grade system. Additional meat graders at the packer level will be the major increase in cost and this increase will most likely be passed on to the feeder and the producer. But producers feel these increased costs will be more than offset by increased returns from rendering, decreased costs in transportation, increased

wholesale and retail returns through production of a better quality, more consumer desirable product with less trimming loss. USDA expects that yield grading will increase time and costs of grading ovine carcasses only slightly (1).

According to Dolezal (cited in 12, pg. 5) today's consumers prefer lean, palatable meat products with minimal fat. Unfortunately, the current marketing system employed in the U.S. lamb industry encourages the production of excess fat instead of lean by focussing on quality grade and dressed yield, not cutability. With the current yield grading system was originally formulated in 1969 (USDA 1982). Grades range from 1 (highest cutability) to 5 (fat and wasty) and estimate the following yields of boneless, closely-trimmed (0.25 inch maximum fat thickness) leg, loin, rack and shoulder.

Yield Grade	Expected Yield (a)
1	47.3% or more
2	47.2% to 45.5%
3	45.4% to 43.7%
4	43.6% to 41.9%
5	41.8% or less

(a)% of carcass weight in boneless, closely-trimmed (0.25 inch) leg, loin, rack and shoulder (12).

Three carcass traits - - (1) external fat thickness based on a fat probe over the center of the ribeye between the 12th and 13th ribs, (2) kidney and pelvic fat percentage, and (3) leg conformation score (15 = Prime +, 11 = Choice 0, 7 = Good-) - -are used to

calculate lamb yield grade in the following equation.

$$\begin{aligned} \text{Yield Grade} = & 1.66 + (6.66 \times \text{fat thickness, in.}) \\ & + (0.25 \times \text{kidney \& pelvic fat, \%}) \\ & - (0.05 \times \text{leg conformation score}) \end{aligned}$$

The problem, however, is that yield grading is not mandatory or coupled with quality grading and consequently, packers do not use the system (12).

The proposed system has the same number of yield grades, 1 to 5, with the following revisions:

a. **Quality and Yield Grade Coupling:** If a packer chooses to have a carcass quality graded, the yield grade must also be applied. Coupling of the two grades is recommended, unlike previous grading in 1969 and 1982, which is to insure that yield grading is implemented.

b. **Kidney and Pelvic Fat Removal:** All kidney and pelvic fat in excess of 1 percent must be removed, probably on the slaughter floor, prior to grading. Kidney and pelvic fat commonly ranges from 1.5 to 9.0 percent of hot carcass weight. Early removal should help efficiency and remove a major source of variation in carcass cutability.

c. **Yield Grade Determination:** The new yield grades will be determined by a single carcass trait. The fat thickness over the center of the ribeye between the 12th and 13th ribs. Fat thickness may be adjusted, either up or down, to reflect irregularities in the distribution of external fat. Leg conformation score and kidney-pelvic fat percentage will no longer be used to determine yield

grade. The adjusted fat thickness range for each yield grade would be as follows:

Yield Grade	Fat Thickness, in.
1	0.00 to 0.15
2	0.16 to 0.25
3	0.26 to 0.35
4	0.36 to 0.45
5	0.46 or greater

The yield grade to the nearest 0.1 may be calculated with the following equation.

$$\text{Yield Grade} = 0.4 + (10 \times \text{Adjusted fat thickness, in.})$$

If and when this revision is implemented, it will definitely constitute a progressive, long overdue move for the sheep industry according to Dolezal (12).

In 1988, The American Sheep Producers Council (cited in 13, pg. 5) did an evaluation of their Certified Lean Lamb program and found that no more than 35 percent of the slaughter lambs qualified. And according to Dr. Glimp, it is probably not much better in 1991. He offers the opinion that a large majority of the lambs we produce could be managed to qualify as Certified Lean Lamb, yet many practices in our industry prevent this from happening. There are many production systems and management options available today that can significantly improve the lean to fat ratio in lamb (13).

Improvement of Lean Lamb

There are basically four approaches available to producers that will improve the lean to fat ratio in lamb. These are: Genetic differences; Kill them when they are ready; Nutrition; and Management Practices.

Genetic Differences

Several studies have shown that breeds differ in growth rate, mature size, and in carcass composition at a constant weight. Genetic variation also exists within breeds for growth rate and carcass merit. The challenge for producers today is how best to combine or optimize both ewe productivity and lamb carcass merit. Crossbreeding probably offers the greatest potential in this regard (13).

Evidence of breed differences in carcass composition has been demonstrated in the United States and throughout the world. There is an optimum slaughter weight for each breed in terms of cutability, and that optimum is heavier in larger, later maturing breeds.

Heritability is the proportion of variation in a population that is due to heredity. Most carcass traits have a moderate to high heritability in lamb. This means that within-breed selection for carcass merit can be an effective means of improving cutability. Fat thickness in the region of the 12th rib and weight per day of age are the easiest traits to measure that affect carcass cutability. Sire selection based on growth rate, appears to be the

simplest method to use (13).

To optimize biological efficiency, crossbreeding needs to be taken very seriously. Over 30 years ago, Whiteman (cited in 13, pg. 8) proposed a breeding program that is still used and very appropriate. He recommended Dorset x Rambouillet crossbred ewes bred to Suffolk rams for market lamb production. The Dorset x Rambouillet ewes will breed out of season and have the mothering ability, litter size and other important maternal traits, and the right kind of Suffolk ram will increase lamb growth rate and cutability in the crossbred lamb.

Kill Them when They Are Ready

The average slaughter weight of lambs has steadily increased over the years to a present weight of 130 pounds. These lambs have been overfed and would yield a wasty over finished carcass. Ideally and economically they should have been slaughtered at 115-120 pounds (13).

Nutritional Management

One of the problems in the sheep industry is uniformity of product. The wide range of breeds results in a wide range of optimum slaughter weights. According to Glimp (cited in 13, pg. 9), the more serious problem is seasonality of supply. Approximately 80% of the western range lambs are marketed in a 4 month period. The retailer wants the product spread out over 52 weeks of the year and this has caused feedlots to overfeed.

Oklahoma, Kansas and North Texas can correct this problem with wheat pasture. There are also millions of acres of alfalfa in the west that will also help solve the problem. By managing lambs on high quality pasture there can be improved lean to fat ratio, more uniform weight and the available supply of slaughter lambs over the year can be spread out.

There is a growing theory that growth is a combination of essential protein and lipid growth, and non-essential fat and lesser protein growth when animals are fed above the requirements for essential protein and lipid growth. In other words, the animal will be leaner when fed at the slower growth rate level that matches its requirements for essential growth (13).

Management Practices

Certain management practices offer alternative approaches to increasing protein growth. Some studies have reported faster growth rates and less carcass fat with ram lambs and short scrotum lambs when compared to wethers. As long as these lambs are less than 6 months of age, there are no quality problems; however, therein lies the problem. There are several disadvantages to ram lambs beyond the age of puberty: 1. they cannot be fed in mixed groups with ewe lambs; 2. shoulders and other cuts will get coarser; 3. taste and tenderness may be affected at older ages; and 4. hides are harder to pull off ram lambs, which is a serious problem in plants where the hides are mechanically pulled.

Other studies have shown an advantage to delayed or late castration. Delaying castration to as late as 90-100 pounds did not cause health problems and resulted in leaner carcasses. American Sheep Industry Association President Jim Magagna defended the integrity of the quality and yield grading program that went into effect July 6, 1992, after packer plans to avoid the program became public recently. "The quality and yield grading program is the most important move by the sheep industry in decades -- a critical step if we are to survive as an industry and provide consumers with lean, high quality product," said Magagna (cited in 14). However, Magagna said the action by USDA to allow several of the nation's largest packers to confuse the quality and yield grading issue by permitting implementation of alternative "in-house standards" endangers the goal of producers to put better, leaner lambs into the marketplace. Specifications for in-house grades are significantly broad, requiring a less lean animal to qualify for the certified label which is only a certification of in-house grading standards, not an indication of USDA grading (14).

Preliminary reports of the new yield grading program indicate that 95% of all lamb slaughtered is quality and yield graded and that 15% are yield grading 4 (15).

Sheep producers are currently questioning the drop in live lamb and carcass prices, citing low lamb numbers, higher cutout values and a growing spread between carcass and cutout price levels as signals the market is not operating freely. American Sheep Industry Association President Jim Magagna urged producers to stand behind

the quality and yield grade program despite falling lamb markets nationwide. Magagna pointed to the growing spread between carcass prices and cutout values, saying the markets are responding to the added value of a quality and yield graded product and producers must wait for the trend to find its way back to the live animal values (16).

Summary

Prior to yield grade implementation, the system was operating on price, based on weight and dressing percentage. This does not promote a lean carcass, instead it produces a fatter carcass, which results in a higher dressing percentage. There are several things to be remembered, such as, without consumers, there is no market, lean lamb is cheaper to produce than fat lambs and indications are that the market will pay a premium for certified lean lamb.

The mandatory coupling of yield and quality grades, implemented on July 6, 1992 is necessary for the continued existence and expansion of the sheep industry. For Producers to profit from the new system, they must become more knowledgeable and aggressive in marketing their lambs. Producers should know their product, such as the type and meat characteristics of their lambs. They need to understand the marketing system and current demand and supply at least as well as the buyer does.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this chapter is to explain the methods used and the procedures followed in conducting this study. In order to collect data which would provide information relating to the purpose and objectives of this study, the sample was determined and the instrument was developed for data collection. A procedure was established and methods of data analysis were selected. Information was collected during the month of April, 1992.

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 Research Services and the IRB conduct 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, was granted permission to continue, and was assigned the following number: AG-92-015. A copy of the approval document is provided in (Appendix B).

This study was coordinated with the assistance and cooperation of the Oklahoma State University (OSU) Agricultural Education

Department, the Animal Science Department, and the investigator's graduate committee members.

The instrument developed for this study was designed to determine how selected sheep producers perceived the proposed USDA's yield grade system.

The Population

The population for this study was derived from a list of names and mailing addresses of Oklahoma sheep producers who have sold slaughter lambs, in pool groups, with OK Sheep Expansion, Inc. These names were provided by the group's marketing coordinator. This list included all producers who had sold slaughter lambs in the last 3 years with OK Sheep, and have continued to remain in the sheep business. A total of 40 producers were identified.

Development of the Instrument

In preparation of the instrument to meet the objectives of the study, the first step was to review and evaluate instruments used in similar studies. In analyzing various methods of data gathering, a mail questionnaire was determined to be the most appropriate means of data collection.

The first step in the preparation of the questionnaire was to compile a list of selected questions that were relevant to accomplishing the purpose of the study. It was also determined pertinent to ask sheep producers questions pertaining to demographics and production practices. These questions were derived

from assistance of committee members and the major adviser.

The second step was to make necessary revisions and determine the importance of each question in relation to the objectives of the study. Types of questions were forced response, ordinal with quantitative data and open-ended. After each revision the questionnaire was submitted to a different committee member for re-evaluation and restructuring. This allowed the investigator to strengthen areas within the document.

The third step was to provide the major adviser with a copy of the revised questionnaire (Appendix A) for final reaction and comments.

The instrument used for this study contained a total of 15 questions. The first question was a yes-no, in reference to their awareness of the yield grade system. If, "yes" they were to continue on with the rest of the questionnaire in its entirety. If, "no" they were to only answer selected questions in reference to demographics. Another group of questions allowed the producers to express their perceptions and opinions in a more general way concerning the marketing of lambs. The remaining 5 questions concerned demographic information of each sheep operation. These responses were totaled for numbers and percentages of each producers opinions concerning each question.

Procedures For Collecting Data

The next step was to develop an introduction letter to be inserted in the mailing with the questionnaire. The purpose was to

explain and introduce the questionnaire to the producer so there would be a clear understanding of the instrument. The letter (Appendix B) also served as a personal request for assistance in determining the results to the survey.

The following step was to develop a system for coding each of the questionnaires before mailing. This coding system was necessary to allow for follow-up of those producers whose returns were not received. Each return envelope was given a number, placed on the back that corresponded to a name of a producer from the mailing list. However, after the majority of the returns were in, the codes were destroyed and only the summary information was retained for tables and documentation.

From the 40 questionnaires sent out, 33 were returned. The seven non-respondents were called on the phone to determine their response to the demographics and decide if they were noticeably different than those who had returned instruments. A summary of the responses to questions 11 - 15 indicated that in terms of background, the non-respondents were not different from those who had responded to the mailed out survey. As a result, it was considered unlikely that input from the non-respondents would have had marked effect on the results.

Analysis of Data

The questionnaire involved attitudes, opinions, and subjective judgements which resulted in qualitative data. The survey was also designed to quantify the responses given, which allowed the use of

statistical procedures to aid in the interpretation of the data.

These responses were totaled, so that totals and percentages of the responses were calculated for each question. For one group of five items, the questions utilized a Likert type response scale of 1 - 5, with negative to positive terms from no importance to great importance. Data collected on these items were displayed in two ways. Distribution graphs were constructed to illustrate the patterns of response. In addition, it was felt that the calculation of mean importance ratings would facilitate interpretation of responses. This was accomplished with a procedure whereby values were set for each response category. The number of responses multiplied by the value of the response category yielded a product. All products thus derived were summed and divided by the number of respondents to the question, to yield an overall mean response. In order to categorize these mean responses, upper and lower limits were set for each response category as follows: 1-1.49 = no importance, 1.50-2.49 = little importance, 2.50-3.49 = some importance, 3.50-4.49 considerable importance, 4.5-5.0 = great importance.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to determine the extent of sheep producer's knowledge about the proposed USDA lamb marketing system and their perceptions as to how it will affect their operation.

In order to accomplish the purpose of this study, the following objectives were declared.

1. To determine selected demographic factors relating to sheep producers in Oklahoma. i.e., number of years raising sheep, time of year lambing, number of slaughter lambs marketed annually, and weight at which most lambs were marketed.

2. To determine whether or not sheep producers were aware of the proposed USDA yield grading system prior to its implementation.

3. To determine how sheep producers became aware of the proposed USDA yield grading system.

4. To determine sheep producers' perceptions concerning the importance of potential problems arising from selling on a yield grade basis as compared to selling by weight (current system).

The purpose of this chapter, is to present and interpret the results of the study.

Data collected in this study were derived from a group of Oklahoma sheep producers who have sold slaughter lambs, in pool groups, with OK Sheep Expansion, Inc., as provided by the marketing coordinator of the group. Those responding averaged 17.86 years in the sheep business.

Selected Characteristics of Respondents

The survey questionnaire contained 15 questions designed to obtain personal information from each producer concerning years of production, time of lambing, lambs marketed, marketing weight and time of marketing. Other questions involved the producers' knowledge and perception of the pending yield grade system.

Awareness of the Proposed System

The initial question on the instrument was designed to determine whether or not the producer was aware of the proposed yield grade system. With a positive response of yes, further questions involving the yield grade system were to be answered. If a negative response was selected, then only the questions involving demographic information about sheep production were completed. The (N) and percentage (%) of respondents by type of answer as to their awareness of the proposed yield grade are presented as Figure 1. Of the 33 respondents, 26 or 79% were aware of the proposal and 7 or 21% were not aware.

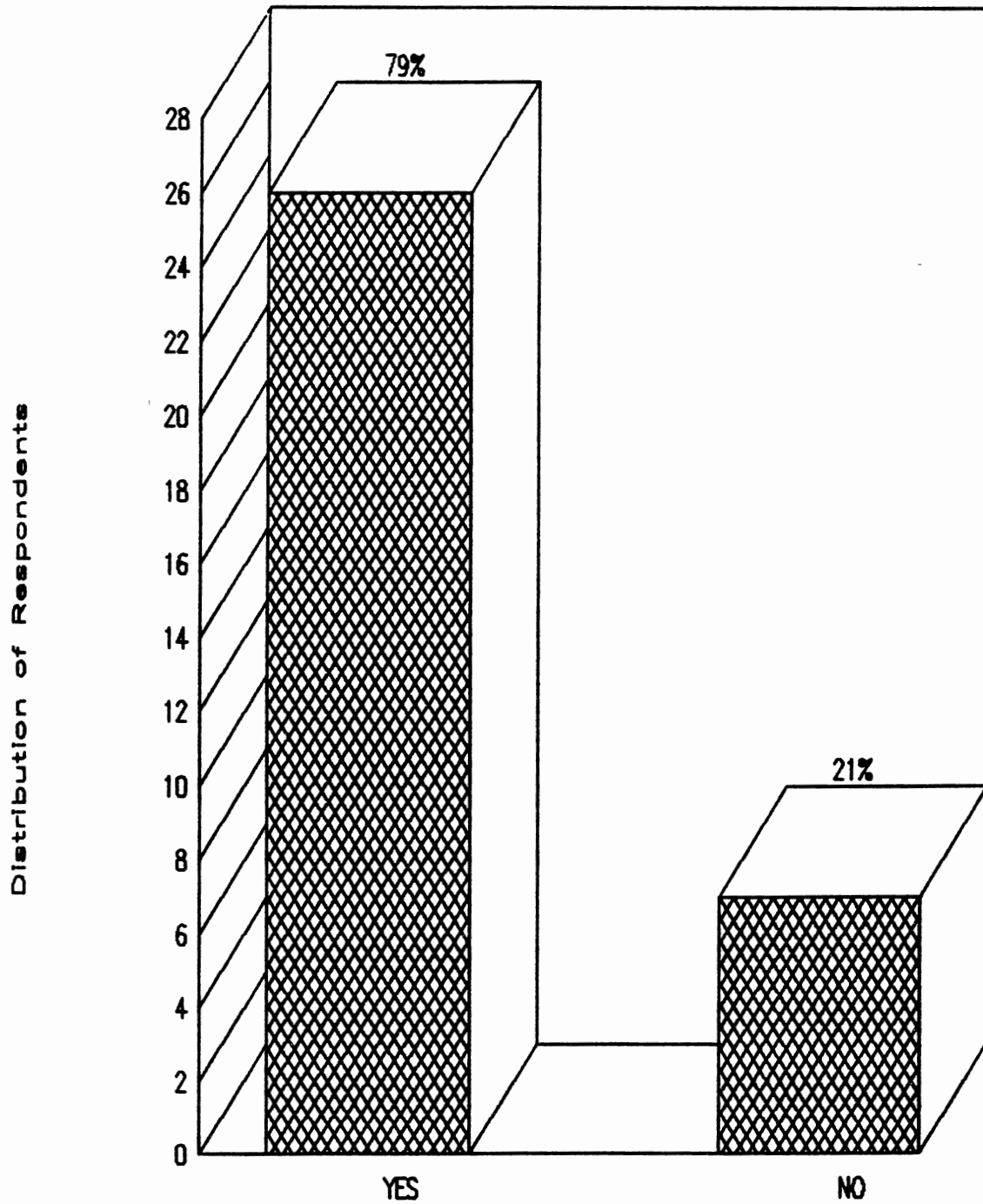


Figure 1. Respondents' Awareness of the Yield-Grade Marketing Proposed.

Sources of Information

Respondents were asked how they became aware of the proposed yield grade system. The sources of information about which they were asked were: newspaper, TV, magazine, other producers, and other. Figure 2 was developed to summarize the distribution of responses by the respective sources of information. The distribution of respondents by source of information is as follows: newspaper (1) 4%, TV (0) 0%, Magazine (16) 59%, Other producers (4) 15% and Other (6) 22%. Within the "other" category, the six producers listed; OSU, Sheep publications, newsletter, short course, ASPC (American Sheep Producer Council), ASI (American Sheep Industry), Lamb council meeting, OSU sheep short course, Per letter, State sheep - director.

Importance of Lamb Identification

Problems

Respondents were asked to indicate how important they perceived the potential of lamb identification problems prior to shipment, to be under the new program. The distribution of responses by perceived level of importance is portrayed in Figure 3. The largest percentage of respondents (37%) indicated they felt the potential importance of this problem was great. Only 8% perceived this problem to be of less than some importance.

Presented in Table I is the distribution of respondents by level of importance and the level of importance attached to this problem by the group. Utilizing the previously described procedure, the

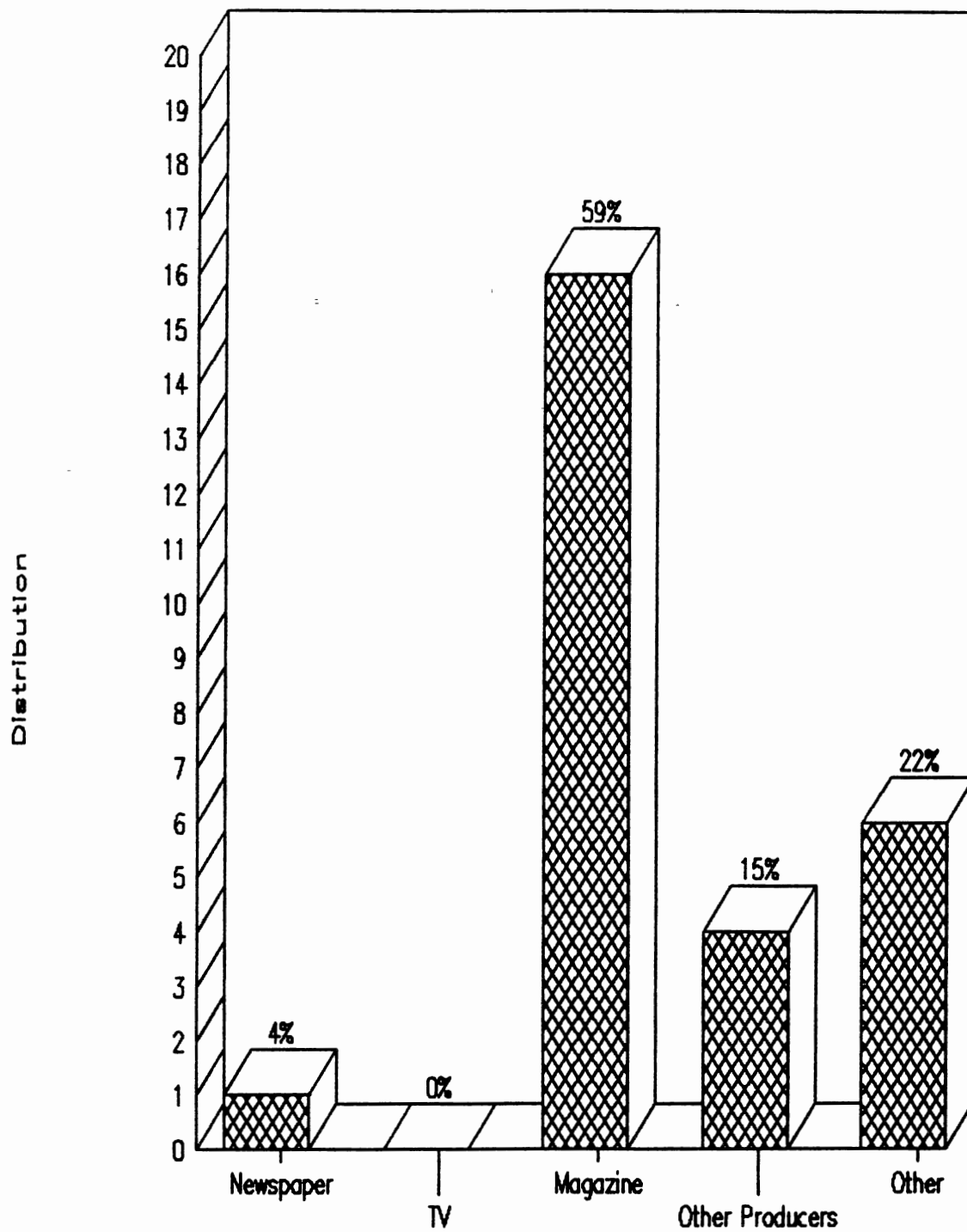


Figure 2. Distribution of Respondents by Sources of Information from Which They Learned of the Yield-Grade Marketing System

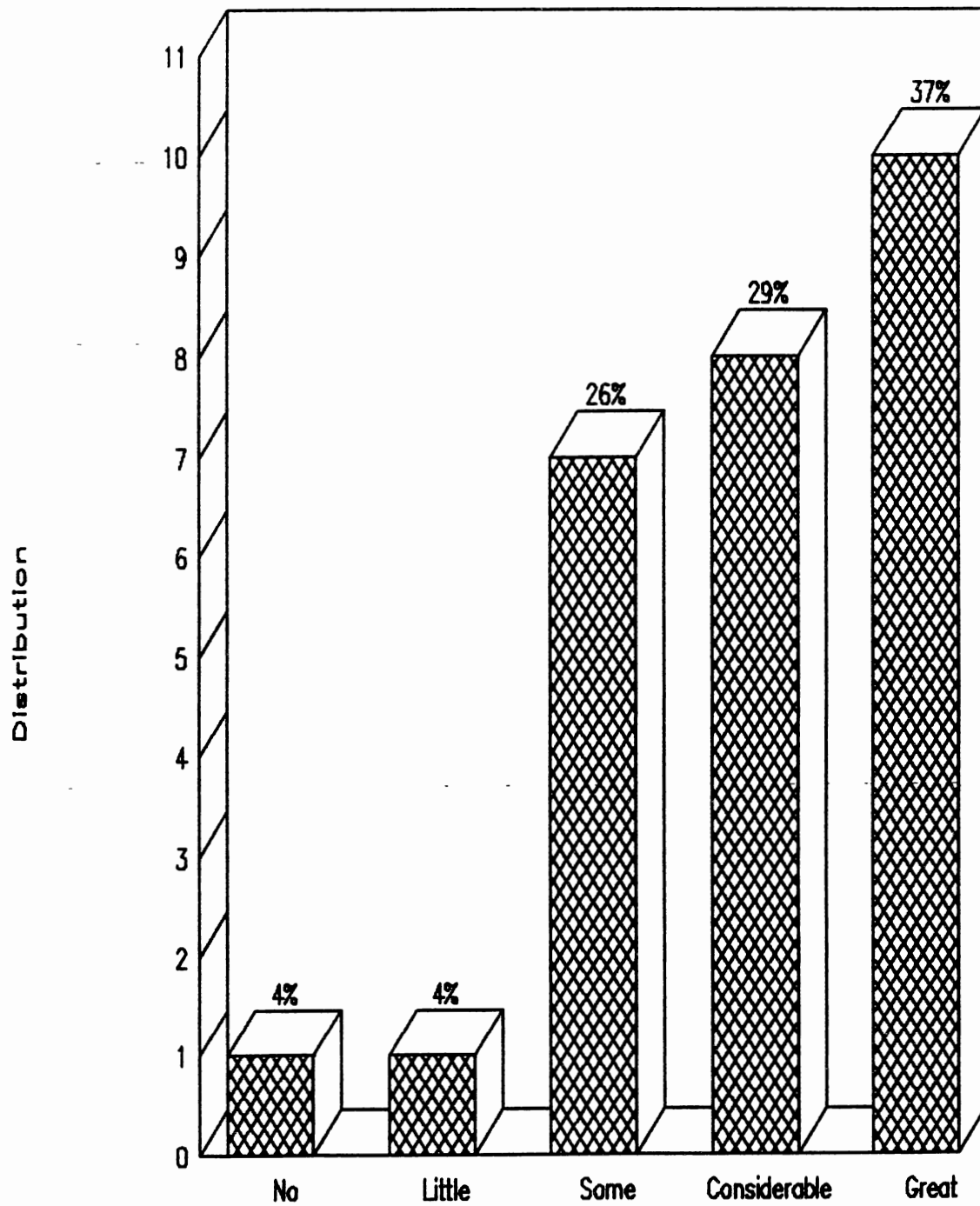


Figure 3. Distribution of Respondents by Perceived Levels of Importance of Potential Problems with Lamb I.D. Prior to Shipment

TABLE I
PERCEIVED IMPORTANCE OF LAMB ID PROBLEMS PRIOR TO SHIPPING

Level of importance	Distribution of Respondents		Cumulative Score
	N=27	(%)	
no importance	1	4.0	1
little importance	1	4.0	2
some importance	7	26.0	21
considerable importance	8	29.0	32
great importance	10	37.0	50
Total	<u>27</u>	<u>100.0</u>	<u>106</u>

Note: Mean Importance = 3.925 - Considerable Importance

mean response from the group was determined to be 3.925 or "considerable importance".

Respondents were asked to provide their perceptions as to the importance of the potential problems of lamb carcass identification after slaughter. The distribution of the responses is summarized in Figure 4. As can be seen in Table II, the mean perceived importance of potential problems in identifying lamb carcasses was 3.654 or "considerable". As summarized in Table II, 85% of the respondents perceived this potential problem to be of at least some importance.

Respondents were asked to indicate their perceptions of potential problems associated with the method of pricing lambs and associated price variances which would result from the new procedure for marketing. Responses were summarized in Figure 5 where it can be seen that 85% of the respondents felt this would be of "considerable" or "great" importance.

Table III was constructed to illustrate the derivation of a mean importance rating for the group of this potential problem. Because only 10 respondents (15%) indicated they perceived this problem would be of "some" or less importance, the mean rating was rather high. Based upon the cumulative score of 114, the mean group rating was 4.222, or "considerable".

Respondents were asked to indicate how important they felt the proposed method of yield grading carcasses would be on the prices received for lamb carcasses. The distribution of their responses are summarized in Figure 6. Almost two-thirds of the producers indicated they felt the new system would be of "great" importance on

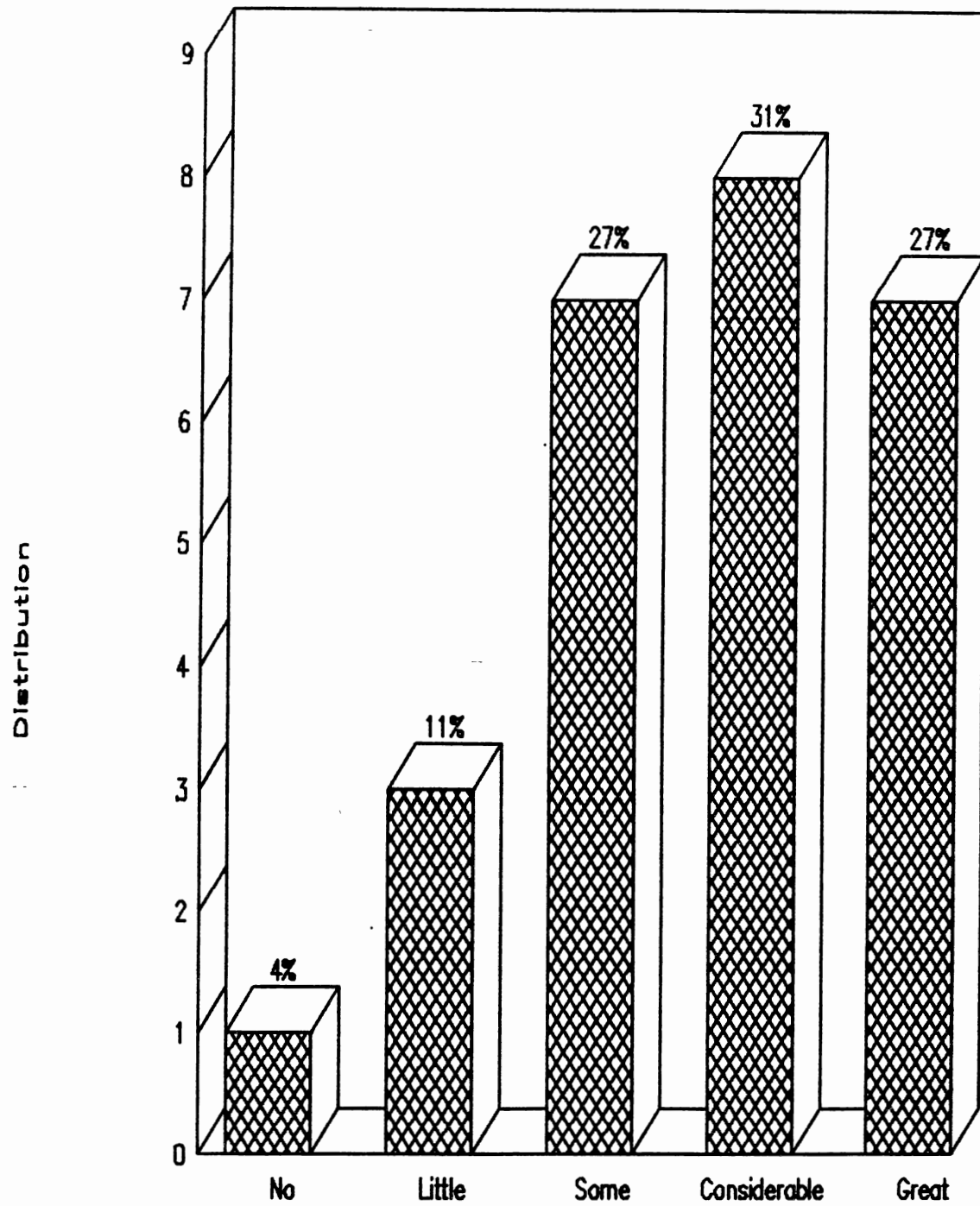


Figure 4. Distribution of Respondents by Perceived Importance of Potential Problems with Carcass Identification

TABLE II
 PERCEIVED IMPORTANCE OF POTENTIAL PROBLEMS WITH THE
 IDENTIFICATION OF LAMB CARCASSES

Level of importance	Distribution of Respondents		Cumulative Score
	N=26	(%)	
no importance	1	4.0	1
little importance	3	11.0	6
some importance	7	27.0	21
considerable importance	8	31.0	32
great importance	7	27.0	35
Total	26	100.0	95

Note: Mean Importance = 3.654 - Considerable importance

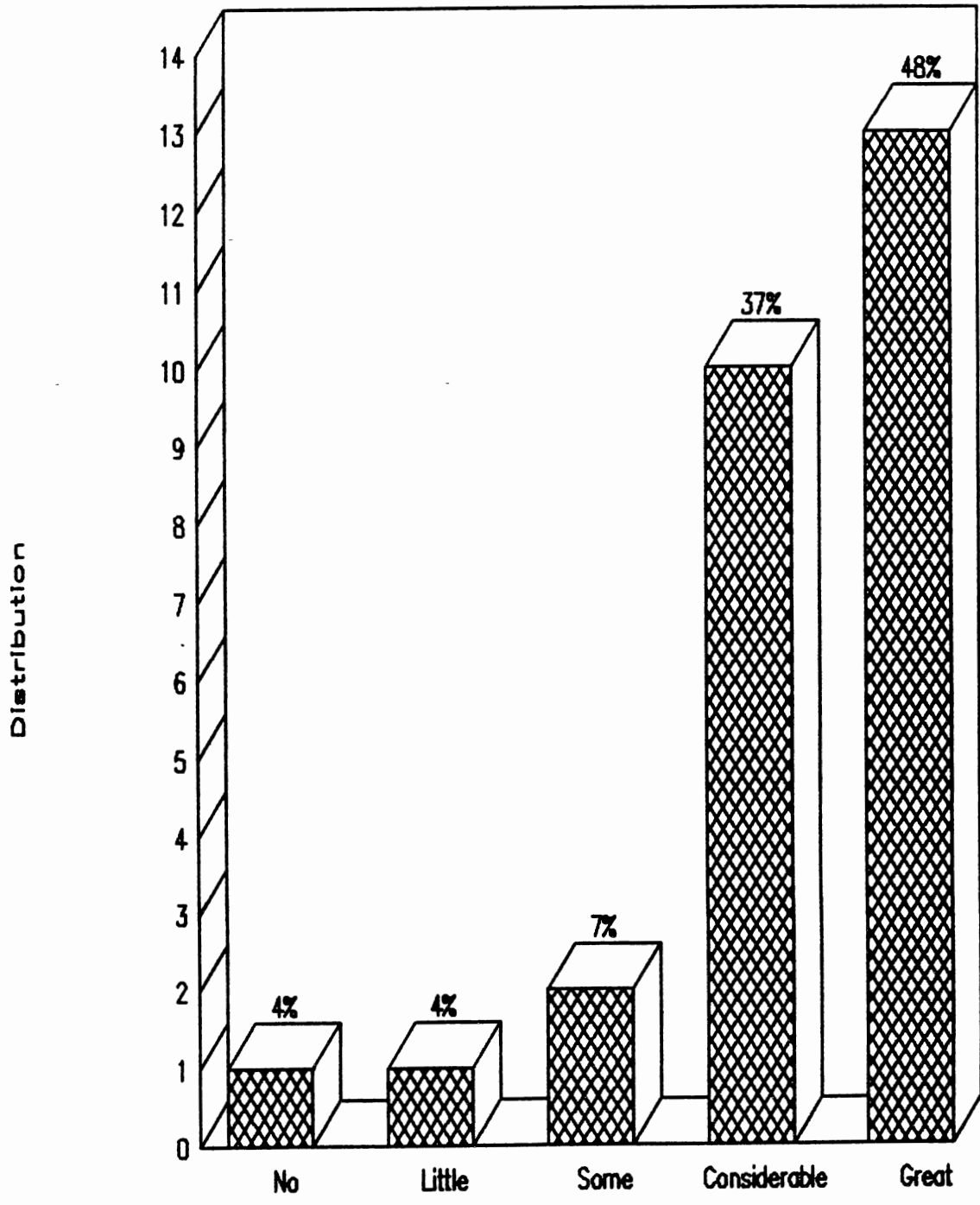


Figure 5. Distribution of Respondents by Perceived Level of Importance of Methods of Pricing Lambs and Creating Price Variances by Paying Premiums for Assessing Dockages Prior to Shipment

TABLE III

PERCEPTION OF THE IMPORTANCE OF PROBLEMS ASSOCIATED
WITH METHODS OF PRICING AND CREATING VARIATIONS
IN PRICES OF LAMBS BY PAYING PREMIUMS OR
ASSESSING DOCKAGES PRIOR TO SHIPMENT

Level of importance	Distribution of respondents		Cumulative Score
	N=27	(%)	
no importance	1	4.0	1
little importance	1	4.0	2
some importance	2	7.0	6
considerable importance	10	37.0	40
great importance	13	48.0	65
Total	<u>27</u>	<u>100.0</u>	<u>114</u>

Note: Mean Importance = 4.222 - Considerable Importance

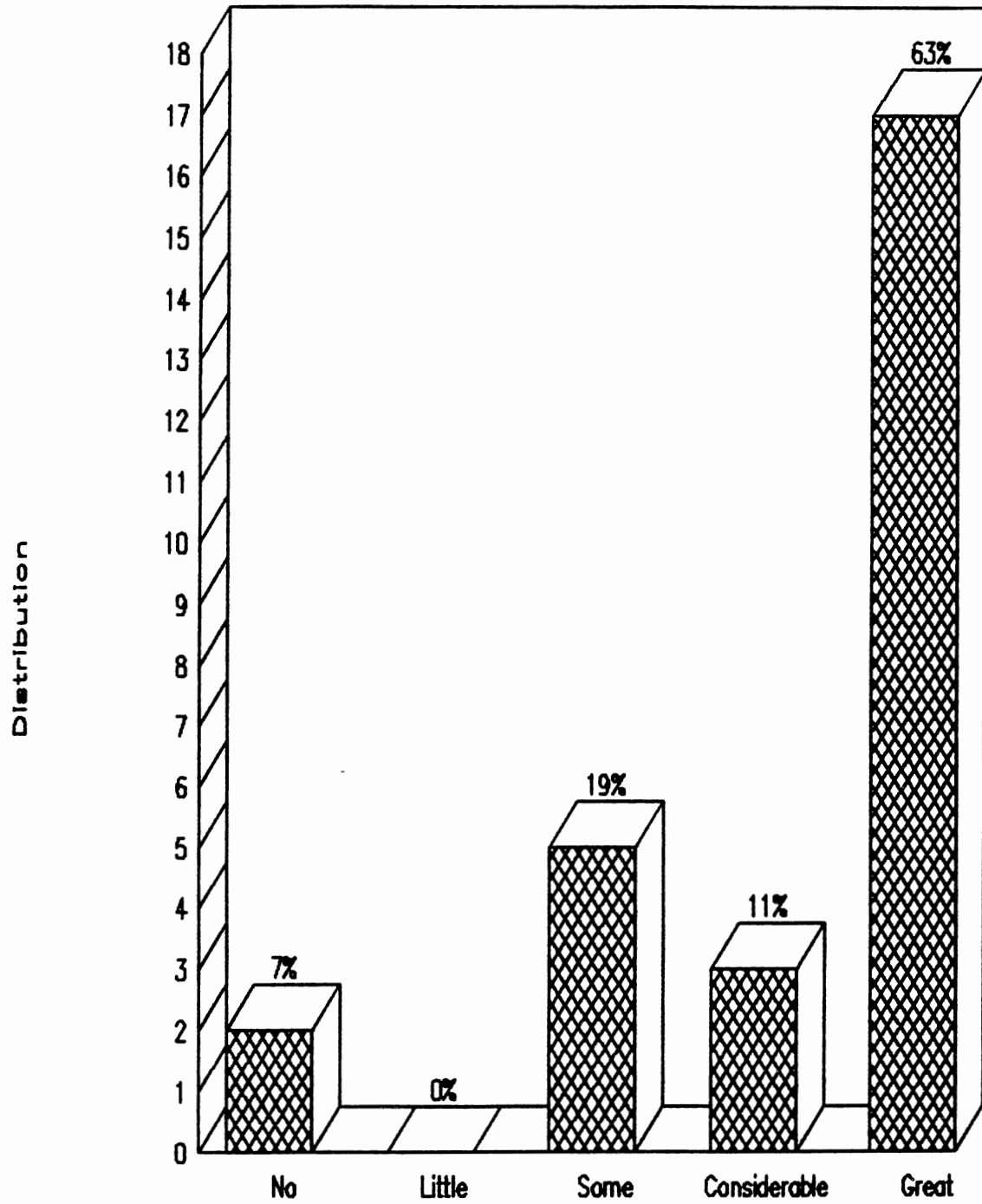


Figure 6. Distribution of Respondents by Perceived Level of Importance of Yield-Grade Marketing on Prices Received for Lamb Carcasses

lamb carcass receipts.

In order to determine the overall mean perception of the group as to the importance of the new system's potential impact on lamb carcass prices, Table IV was assembled. By combining responses, it was found that the mean perceived importance of this as a potential problem was 4.222, which fit into the "considerable" category.

Perceptions/Preferences Regarding

Lamb Marketing

As a sort of summary assessment, the producers surveyed were asked to provide their perceptions of how important the process of selling their lambs on a yield-grade basis would be to them. The distribution of their responses is illustrated in Figure 7. It can be noted that over one-half (52%) of those responding did so at the "great" importance level.

Table V contains data which indicate that, on the average, producers surveyed felt that selling lambs on a yield-grade basis could potentially be of "considerable" importance. This was determined by means of the procedure described in Chapter IV.

By means of an open-ended question, producers were asked to indicate why or why not the proposed method of selling lambs, based on yield grades would be important to them. Producers listed a variety of responses to the question and they are quoted below:

- a. Open market already has this figured out.

TABLE IV
 PERCEPTIONS OF THE IMPORTANCE OF YIELD GRADING UPON
 PRICES RECEIVED FOR LAMB CARCASSES

Level of importance	Distribution of respondents		Cumulative Score
	N=27	(%)	
no importance	2	7%	2
little importance	0	0%	0
some importance	5	19%	15
considerable importance	3	11%	12
great importance	17	63%	85
Total	<u>27</u>	<u>100%</u>	<u>114</u>

Note: Mean importance = 4.222 - Considerable importance

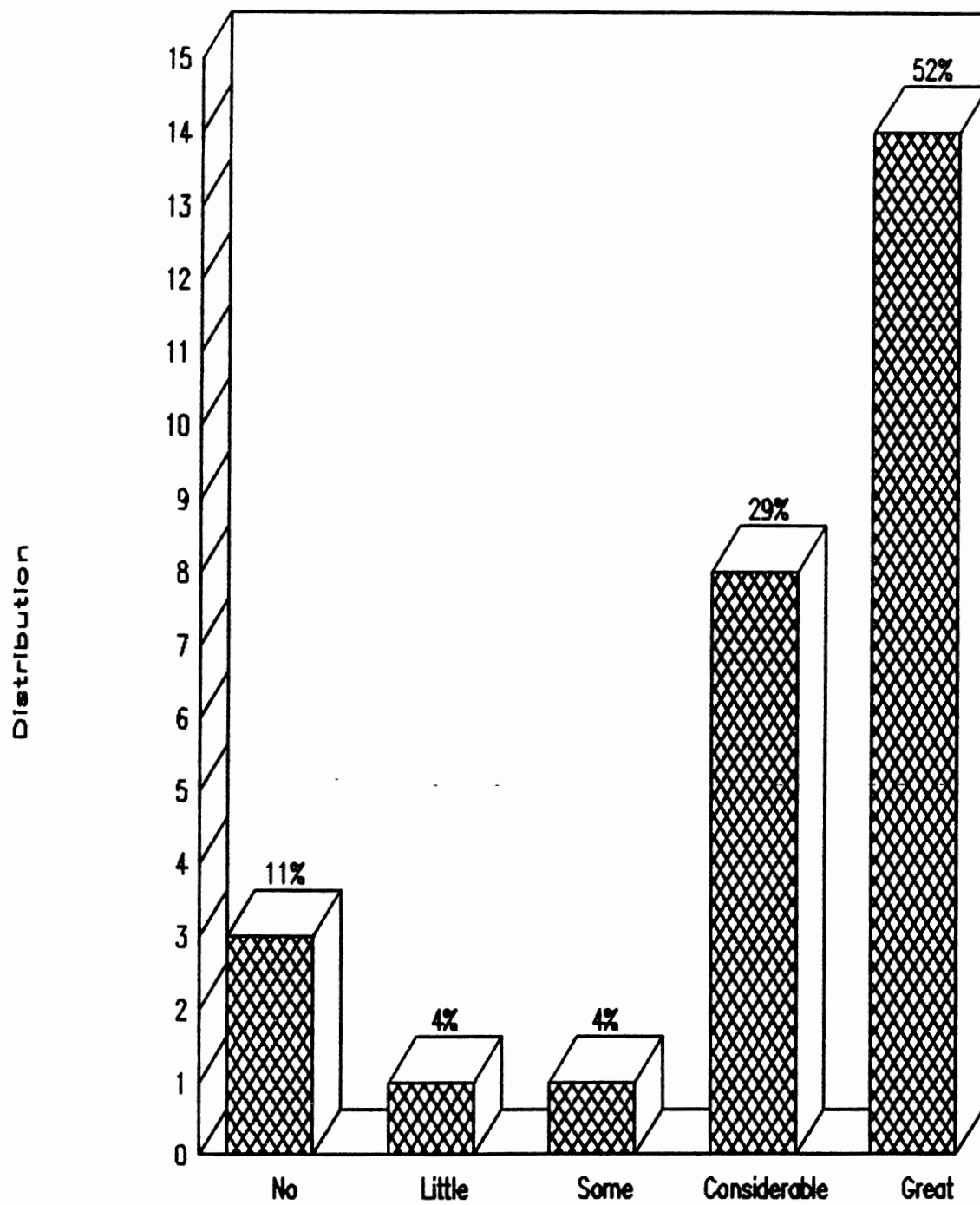


Figure 7. Distribution of Respondents by Perceived Level of Importance of Selling Lambs on Yield-Grade Basis

TABLE V
 PERCEPTIONS OF THE IMPORTANCE OF SELLING
 LAMBS ON YIELD GRADE BASIS

Level of importance	Distribution of respondents		Cumulative Score
	N=27	(%)	
no importance	3	11%	3
little importance	1	4%	2
some importance	1	4%	3
considerable importance	8	29%	32
great importance	14	52%	70
Total	<u>27</u>	<u>100%</u>	<u>110</u>

Note: Mean importance = 4.074 - Considerable importance

- b. Small lots, I.D. of lambs, who will grade lambs at slaughter plant, unwillingness of packer to cooperate, limited market in Oklahoma.
- c. Leaner lambs should grade higher.
- d. Producing quality lamb and receiving "quoted" top price allows packers to level off losses on low quality carcasses.
- e. If we want top money we'll have to meet requirements.
- f. Raising small groups, it is difficult to feed out to proper finish.
- g. Important as a marketer of lambs and determine how much will be paid.
- h. Pooling lambs will make it difficult for yield-grade system.
- i. Economic incentive to keep lambs from getting too fat.
- j. Feeding out leaner lambs will be cheaper.
- k. With wheat pasture, we can raise leaner lambs more profitability and greater rewards.
- l. Feeding and breeding lambs that would yield grade 1 & 2.
- m. Do not intend to sell lambs on a yield grade system.
- n. Normally have good yielding lambs from this area, this should be beneficial.
- o. Buyers will not pay a premium and if they do, will be select few. Balance of supply will be severely docked.

- p. On mixed loads of lambs mine would have to be worked or all lambs would sell at lowest price.
- q. We should be paid for what we produce.
- r. Higher return for a better product.
- s. So that prices are kept fair among the same grade of lambs, it is of great importance if the market is raised.
- t. The packer will use it as a docking tool & use market as a base.
- u. Will get paid for what you produce.
- v. Profits.
- w. I feed my lambs to be fatter, thus receiving a premium price. If the proposed yield grading method was instituted, I might be forced to change my feeding methods.
- x. Lambs will bring their true value instead of being averaged.
- y. Due to my carcass quality it would increase my profit.

Respondents were then asked which method of selling lambs did they prefer. The choices available were live weight and carcass yield grade. There were 52% or 14 respondents who opted for live weight, and 48% or 13 respondents who chose carcass yield grade. As can be seen, from these figures there was little difference in preferences of methods of selling lambs. Figure 8 provides a visual comparison of the response patterns to this question.

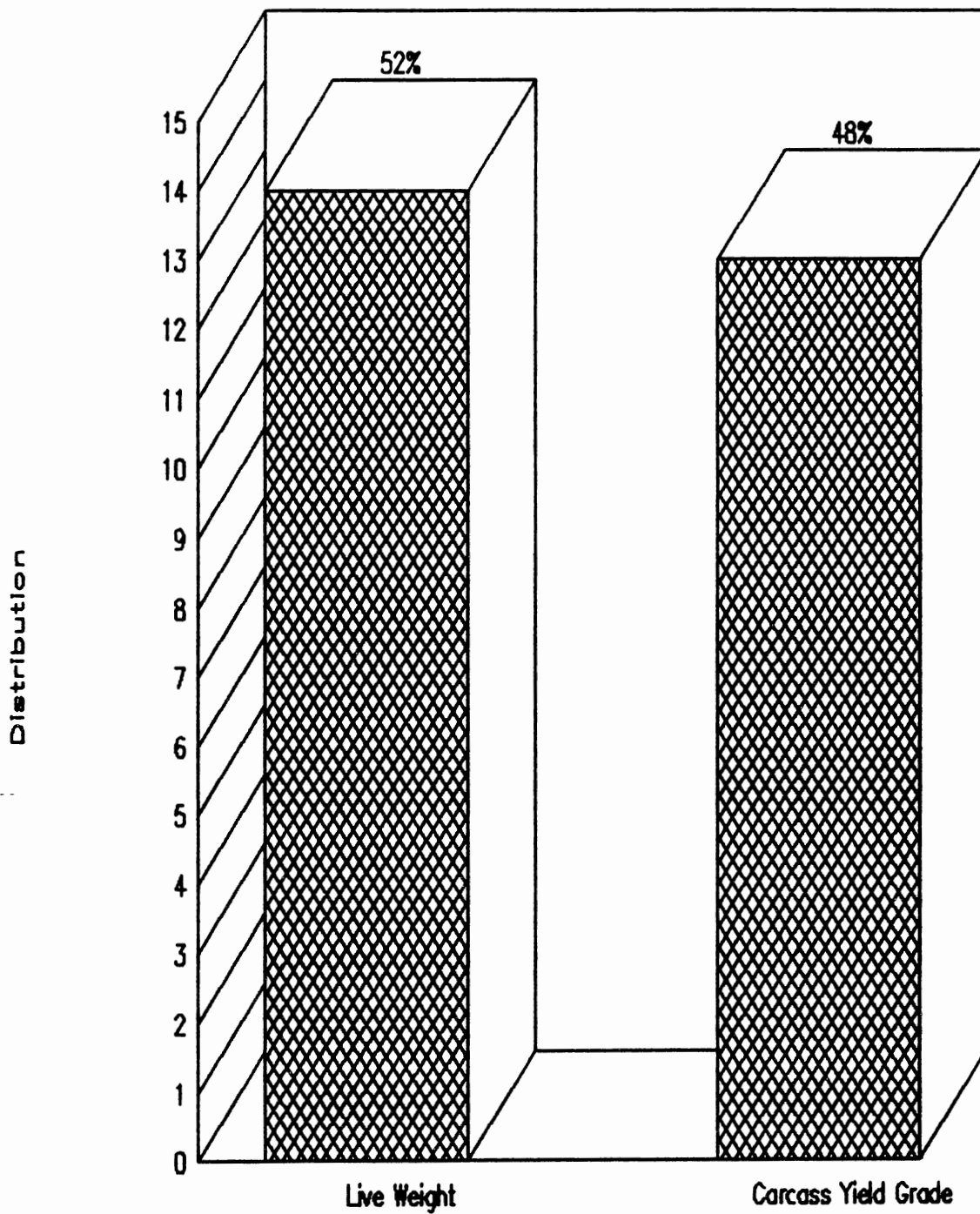


Figure 8. Comparison of Preferences for Live Weight Versus Yield-Grade Marketing of Lambs

The respondents were asked to provide additional comments regarding lamb marketing methods. The comments provided are listed below:

- a. The market is so far ahead of the Agri College in marketing lambs.
- b. Prefer carcass yield grade, small producer discriminated against, in house grading will allow too much corruption integrity must be returned to industry.
- c. Present methods allows packers to pay only for what is in short supply.
- d. If done right and fairly, it will be good, producers supplying quality will be rewarded.
- e. OK Sheep helped get better price for lambs.
- f. Grade change will be good for industry, it will cut cost of lamb to the consumer, by eliminating wasty fat lambs, in the past it has been impossible to get lambs to fat.
- g. I believe there are very few buyers, during most of the year. In spring there is enough demand to stimulate buyer interest in developing real market.
- h. Identification of pool lambs will be difficult, both at slaughter and hauling, presently cost of ID is prohibitive and must be reduced to be practical.
- i. Important to trust the packer to pay according to yield grades.

- j. Concerned about lambs with .15 backfat & 2.5 square inches. loineye bringing more than .30 backfat & 3.5 square inches. loineye, need to watch quality with less fat.
- k. Don't like not knowing the price of the lamb until after slaughter and graded by the same guy that writes the check.
- l. Mixed feelings of selling lambs by live weight or carcass weight, buyer has full control over the grading.
- m. Have the lambs on sell list no more than 9 days without notifying owners.
- n. I am not 100% familiar with proposed new system but believe in current system.
- o. The carcass yield grade would hopefully do away with all the buyers excuses to pay less than market price.
- p. Do not support any method of selling lambs giving packer control over prices and grading lambs.
- q. Its working pretty good for me now.
- r. To few market places and prices too cheap.
- s. We try to produce a lamb with a minimum amount of fat that will yield. We have not been getting paid for top quality lamb.
- t. Packers have not shown honesty in dealing with producers, in the absence of having a disinterested grader they will tend to cheat the producer. I think their past practices verify what I am saying.

- u. Carcass yield grade method of selling would encourage breeders to do a better job of breeding, feeding and marketing. Thus would result is a better product throughout the industry.

Producer Demographics

The number of years that sheep had been raised was asked of each respondent. The responses ranged from a low of 3 years to a high of 52 years. The average for 29 respondents was 17.86 years.

Respondents were asked, to indicate the time of year that lambing occurred. Several disclosed that they lambed more than one time during the year, which resulted in a total of 37 responses to this item. Of these, 14 (38%) were for spring; 9 (24%) were for fall and 14 (38%) indicated both spring and fall. Figure 9 was designed to provide a graphic depiction of responses to this question.

Another area of investigation was the number of slaughter lambs marketed annually. It was determined that the distribution of respondents by number of lambs marketed was as follows: 50 or less-(3 - 9.1%), 51 to 100-(8 - 24.2%), 101 to 150-(10 - 30.3%), 151 to 200-(3 - 9.1%), 201 to 250-(none), 251 to 300-(1 - 3%), 301 to 350-(1 - 3%), over 350-(7 - 21.2%).

The weight at which the respondents most frequently marketed their slaughter lambs was another area of study. The distribution of respondents by marketing weight was as follows: 95 pounds or less-(2 - 5.4%), 96 pounds to 105 pounds -(5 - 13.5%), 106 pounds

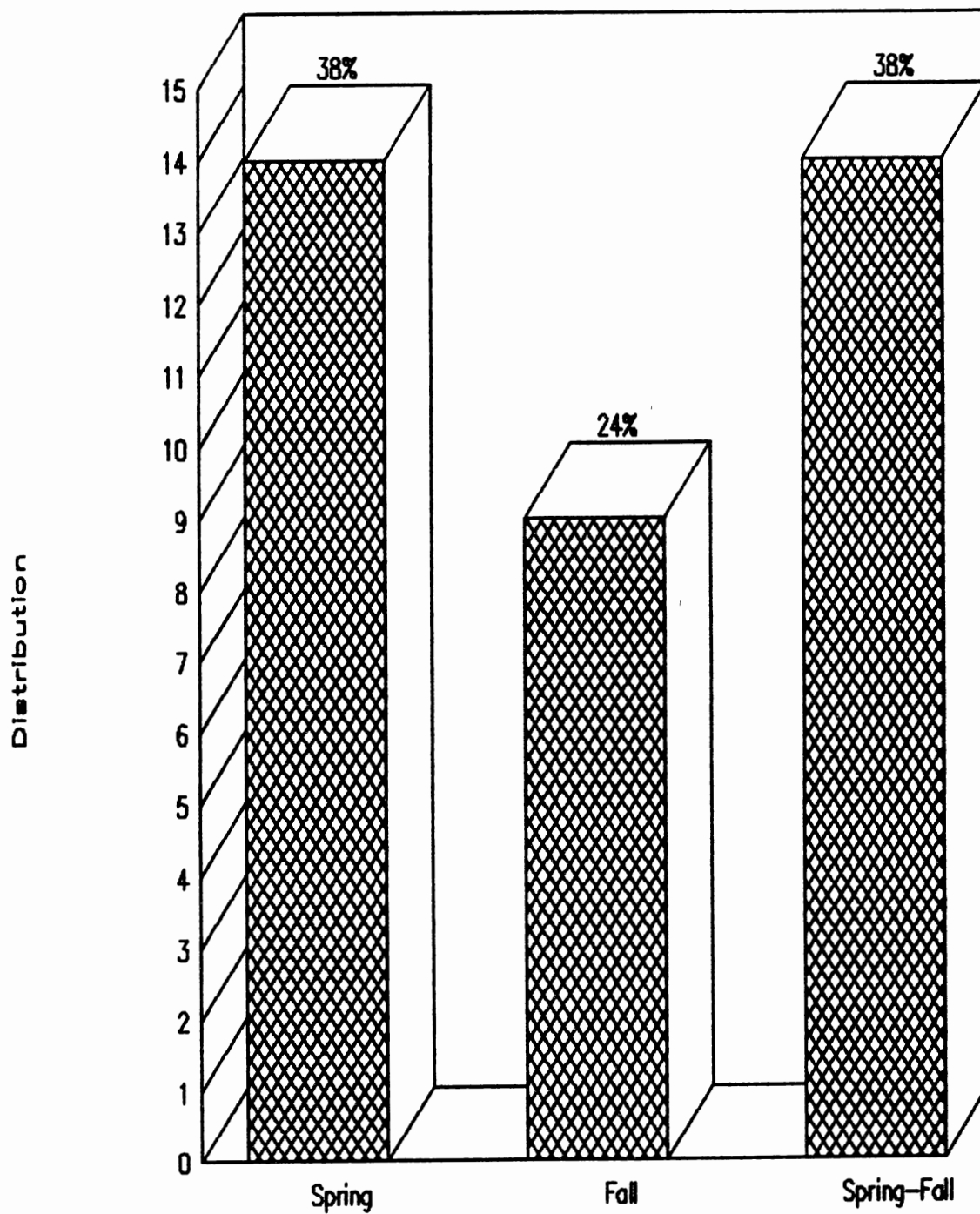


Figure 9. Distribution of Respondents as to Time of Year for Lambing

to 115 pounds -(19 -51.4%), 116 pounds to 125 pounds -(11 -29.7%), over 125 pounds -(none).

In an attempt to determine additional information regarding marketing practices, producers were asked, how they determined when it was time to market slaughter lambs. The distribution of responses for the following marketing determinants was: available feed-(1 - 2%), financial pressures (none), number of lambs-(1 - 2%), weight of lambs-(29 - 56.9%), market price-(16 -31.4%), other-(4 - 7.8%). Within the "other", the following determinants were listed by producers:

- a. When the truck is going out.
- b. Fat (finish)
- c. Also the fat covering to produce a desirable carcass.
- d. Degree of finish and amount of time on feed.
- e. Available time to get lambs sorted and to market.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The intent of this chapter was to present concise summaries of the following topics; purpose of the study, objectives of the study, design of the study, and major findings of the research. In addition, conclusions and recommendations were formulated based on the analysis of data.

Purpose of the Study

The primary purpose of this study was to determine the extent of sheep producers' knowledge about the proposed USDA lamb marketing system and their perceptions as to how it will affect their operation.

Objectives of the Study

In order to accomplish the purpose of the study, the following objectives were established:

1. To determine selected demographic factors relating to sheep producers in Oklahoma. i.e., number of years raising sheep, time of year lambing, number of slaughter lambs marketed annually, and weight at which most lambs were marketed.

2. To determine whether or not sheep producers were aware of the proposed USDA yield grading system prior to its implementation.

3. To determine how sheep producers became aware of the proposed USDA yield grading system.

4. To determine sheep producers' perceptions concerning the importance of potential problems arising from selling on a yield grade basis as compared to selling by weight (current system).

Population

The population for this study was derived from the list of names, mailing addresses of Oklahoma sheep producers who have sold slaughter lamb, in pool groups, with OK Sheep Expansion, Inc.. The total number of Oklahoma sheep producers included in the population was 40.

Design of the Study

Following a review of literature and research indirectly and/or directly related to the study, procedures were established to satisfy the purpose of the study.

Development of the Instrument

The instrument used for this study contained a total of 15 questions. The first question asked for the response of yes-no in reference to the awareness of the new yield-grade system. The following 9 questions were designed to determine the extent of their

knowledge of the yield-grade system. The remaining 3 demographic questions was of concern to all of the sheep producers in the sample.

Data Collection

The data collected for this study were collected using a questionnaire. They were mailed out on 4-22-92 and requested to be returned the following week. Those respondents who did not return were mailed a second questionnaire on 5-6-92, to be returned the following week. Out of that total, 33 or 82.5% responded by the written questionnaire. The remaining 7 or 17.5% were telephoned and asked the demographic questions from the instrument. In these regards, the non-respondents were not different from those who had responded to the mailed out survey. Because of that, it was considered unlikely that inputs from the non-respondents would have had any effect on the results.

Major Findings of the Study

The major findings of this study were divided into four sections. They were as follows:

1. Awareness of the new system.
2. Perception of importance of potential problems with implementation of the system.
3. Perceptions/Preferences regarding lamb marketing
4. Demographics of sheep producers.

Awareness of the New System

It was found that 79 percent of the population were aware of the new system and 21 percent were not aware of the proposed change to the yield grade system. When respondents were asked how did they become aware of the proposed yield grade system the largest group (59%) selected magazines as the primary source. The next largest group (22%) indicated "other", which included sheep publications, shortcourses in sheep production and various sources such as; OSU Cooperative Extension and ASI (American Sheep Industry).

Perceptions of Importance of Potential

Problems with Implementation

of the System

Table VI was developed in order to provide a summary of the importance producers attached to selected potential problems with yield-grade marketing. Although the mean responses fit the response category as being of "considerable" importance, there was a noticeable amount of variation in the mean scores. Compared in this manner, producers perceived identification of lamb carcasses to be the least important of these potential problems. Of greatest concern was the potential impact of the plan on methods of pricing lambs and the creation of variations in prices prior to shipment. The same level of importance was perceived to effect prices received for the carcass. Producers also recognized carcass and lamb identification, small groups requiring several marketing times due to readiness of the lamb, and pooling of the groups. Leaner lambs

TABLE VI

Summary of Perceived Importance of Selected Potential
Problems of Yield-Grade Marketing

Potential Problems	Mean Importance
1. Methods of pricing lambs and creation of price variations by paying premiums or assessing dockages prior to shipment.	4.220 - Considerable
2. Effect of prices received for lamb carcasses.	4.220 - Considerable
3. Identification of lambs prior to shipment.	3.925 - Considerable
4. Identification of lamb carcasses.	3.654 - Considerable

indicated more profit due to less cost of production. For a producer to receive high prices, the product must meet the demands of the yield-grade system. Several producers recognized that high quality production should result in an increase in profits. Producers found virtually no difference in preference of marketing lambs between live weight and yield grade.

Perceptions/Preferences Regarding

Lamb Marketing

Based upon groupings of statements supplied in response to open-ended questions, it was found that for the most part producers

perceived that marketing problems consisted of; reluctance of packers to pay a premium, mixing loads of lamb at lower price, and changing feeding methods to eliminate overfat lambs.

Demographics of Sheep Producers

It was found that the respondents had been sheep producers for many years with an average of 17.86 years and a range of from 3 to 52 years. When asked about time of lambing, 38% lambled in the spring, 24% in the fall and 38% lambled both in the spring and fall. The largest group of the producers (30%) marketed between 101 to 150 head of lambs each year. The next largest group of producers (24.2%) marketed between 51 to 100 head of lambs annually. These two groups comprised over half of the producers. The majority of the producers sold lambs that weighed from 106 to 115 lbs. The determining factor for selling lambs was the weight of the lambs as expressed by 56.9 percent of the producers, however, market price was also a factor listed by 31.4 percent of the producers as a means of deciding the best time to sell.

Conclusions

The analysis of data and subsequent findings were the basis for the following conclusions.

1. It was concluded that the producers had a high level of awareness of the proposed yield grade system to be implemented by USDA.

2. It was apparent that the producers became aware of the proposed system through print media, especially magazines. Contacts with other producers were not an important source of information.

3. It was concluded that producers view lamb identification prior to shipping to be a problem as well as maintaining identification of the carcass through the wholesale market.

4. Producers were aware that pricing lambs based on yield grade would be important in determining the price of the lamb carcass and the selling of the live lamb.

5. The sheep producers in Oklahoma realized that there are many problems existing with selling lambs on the yield grade system. The concerns seemed to be along the lines of who will grade the lambs, cooperation of the packer, restructuring feeding programs to produce a larger, leaner lamb, and receiving a better price for a better product.

6. It was apparent that the producers were split on whether to sell lambs by live weight or yield grade.

7. Lamb marketing methods have caused a lot of concern to sheep producers because of: discrimination against the small producers by the packers, lack of buyers during the year, developing quality with less fat, and the cost of identifying lambs for slaughter. However, producers seemed pleased that yield grade would eliminate many of the wasty fat lambs, and encourage producers to do a better job of breeding, feeding, and marketing.

8. It was apparent that the typical sheep producers had been in the sheep business for considerable number of years and were

primarily medium size producers which lambled in both the spring and fall.

9. Producers marketed from 50 to 150 head of lambs per year which weighed at weights lighter than the packer desired.

10. It was further concluded, that weight was the determining factor in the decision to market lambs, while market price was a secondary factor.

11. It was apparent that most sheep producers were informed about the proposed yield grade system, as well as the problems involving identification of live lambs and lamb carcasses.

Recommendations

As a result of the conclusions drawn from the analysis and interpretation of data, the following recommendations are made. The OSU Cooperative Extension Service should develop a progressive educational and marketing program for the proposed change to the yield grade system for sheep producers in Oklahoma. Educational programs should combine a clear understanding of the changes in the system, pricing, and lamb identification as well as feeding and breeding a genetically "meat type" lamb.

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APPENDIX A

LAMB MARKETING SURVEY

DATE 4-22-92

6. How do you perceive the impact of the proposed method of yield-grading carcasses on the price received per lamb carcass?
- no importance 1 2 3 4 5 great importance
7. As a producer, how important will the proposed method of selling lambs, based on yield-grades be to you?
- no importance 1 2 3 4 5 great importance
8. Why or why not will the proposed method of selling lambs, based on yield-grades be important to you?
9. Which method of selling lambs do you most prefer? (check only one) _____live weight _____carcass yield-grade
10. Any comments you would like to make regarding lamb marketing methods is most appreciated; Please write any comments, suggestions, etc. you would like to make.
11. Number of years you have been raising sheep,
_____years.
12. Time of year you lamb,
_____spring, _____fall, _____spring and fall.
13. Number of slaughter lambs marketed annually, .
- _____ none
_____ 50 head or less
_____ 51 to 100 head
_____ 101 to 150 head
_____ 151 to 200 head
_____ 201 to 250 head
_____ 251 to 300 head
_____ 301 to 350 head
_____ over 350 head
14. Weight at which you most frequently market slaughter lambs,
- _____ 95 pounds or less
_____ 96 pounds to 105 pounds
_____ 106 pounds to 115 pounds
_____ 116 pounds to 125 pounds
_____ over 125 pounds
15. How do you determine when to market slaughter lambs?
- _____ available feed _____ weight of lambs
_____ financial pressures _____ market price
_____ number of lambs _____ other, please specify

APPENDIX B

INSTITUTIONAL REVIEW BOARD

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Proposa. Title: An Assessment of the Proposed USDA Yield Grade System
as Perceived by Selected Sheep Producers in Oklahoma

Principal Investigator: Robert Terry / Jerry L. Sellers

Date: 4-2-92 IRB # AG-92-015

This application has been reviewed by the IRB and

Processed as: Exempt Expedite Full Board Review
Renewal or Continuation

Approval Status Recommended by Reviewer(s).

Approved Deferred for Revision
Approved with Provision Disapproved

Approval status subject to review by full Institutional Review Board at
next meeting, 2nd and 4th Thursday of each month.

Comments, Modifications/Conditions for Approval or Reason for Deferral or
Disapproval:

Signature: *Marcia L. Tilley* Date: 4-1-92
Chair of Institutional Review Board

APPENDIX C
CORRESPONDENCE

JERRY L. SELLERS
P O BOX 541
CANTON, OK 73724

Date

Name
Address
City, State Zip

Dear ,

We are conducting research designed to determine the effect of the proposed USDA yield grade system on sheep producers in Oklahoma. You, as a producer, have been selected to be a part of this research effort.

By sharing your perceptions, you will also be helping me to complete my degree requirements for a Master of Science degree in Agricultural Education at Oklahoma State University.

The enclosed questionnaire should only require a few minutes of your time. Please complete it and return it in the enclosed postage-paid envelope within the week. Your cooperation is greatly appreciated in this research effort. The information that you provide will assist in maintaining the quality of students graduating in agricultural education.

Sincerely,

2
VITA

Jerry L. Sellers

Candidate for the Degree of

Master of Science

Thesis: AN ASSESSMENT OF THE USDA YIELD GRADE MARKETING SYSTEM
AS PERCEIVED BY SELECTED SHEEP PRODUCERS IN OKLAHOMA

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Tulsa, Oklahoma, on March 31, 1941,
married to Patricia A. Sellers. Children are, Robin,
graduated OSU in May 1984, Randy, graduated OSU in May 1988
and Ricky will graduate May 1993.

Education: Graduated from Tulsa Central High School in Tulsa,
Oklahoma in May, 1959; received Bachelor of Science degree
in Animal Science from Oklahoma State University in May,
1965; received Bachelor of Science degree in Agricultural
Education from Oklahoma State University in May, 1966;
completed requirements for the Master of Science degree at
Oklahoma State University in December, 1992.

Professional Experience: Taught Vocational Education at Pawnee
High School in Pawnee, Oklahoma from August, 1966 to July,
1973. Vice-President with the Bank of Canton in Canton,
Oklahoma from July, 1973 to November, 1985. Coordinator of
Marketing Information with Blue Cross-Blue Shield of
Oklahoma from November, 1985 to July, 1988. From January
of 1989 to present, Marketing Coordinator for OK Sheep
Expansion Inc., and Insurance Agent with Willis Insurance
Agency, Inc. in Canton, Oklahoma.