

AN ATTITUDE SURVEY OF OKLAHOMA FARMERS AND
RANCHERS TOWARD A PROPOSED DAILY
AGRICULTURAL TELEVISION PROGRAM

By

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PREFACE

This study is concerned with obtaining the attitudes of Oklahoma farmers and ranchers toward a proposed daily agricultural information television program. The primary objective is to determine interest in the program, preferences for types of agricultural information, and the times survey respondents would most prefer for viewing such a program.

I wish to express my deepest gratitude to all those who gave of their time, knowledge, and encouragement in the conduct of this study.

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CHAPTER I

INTRODUCTION

Radio and television broadcasts of agricultural information have declined in number of the past few years. This decline has been accompanied by a sharp increase in the urban population and a significant decline in the size of America's farm population.¹ Oklahoma, like most other states, has seen a sharp decrease in the amount of agricultural information broadcast over its air waves. Both Oklahoma City and Tulsa enjoyed farm programs from the fifties to the seventies. But, as Dan Crummett, Extension editor, Agricultural Information Services at Oklahoma State University pointed out:

Considering no such television programming is available from Tulsa television stations, persons in that area of the state, roughly 16 counties, unless they are served by some sort of community antenna television service, are without any farm information programming except from several radio stations.²

Since Crummett wrote that in a 1979 thesis at Oklahoma State University, the farm information situation in Tulsa has changed little, with one exception. Television station KOTV in Tulsa now carries a very short farm news segment on its noon news program.

While the amount of agricultural information broadcast in Tulsa has stabilized since 1979, the same cannot be said for Oklahoma City. Until the late 1970's, two of the three major commercial stations in Oklahoma City carried television farm programs. However, both KTVY and KWTW have since dropped these programs. KWTW has eliminated farm

information programming altogether, while KTVY has reduced the amount of time it dedicates to farm information to a total of five minutes daily. The other major commercial television station in Oklahoma City, KOCO-TV, has since developed some farm programming but the content is limited.

With the apparent trend toward elimination of agricultural information television programming and the decline in America's farm population, one might wonder if the importance of agriculture to a state merits programming directed toward farmers, ranchers, and those involved in agribusiness. Concerning the importance of agriculture to Oklahoma, Wayne Liles, retired farm director of KWTW, wrote:

Agriculture is important to Oklahoma; almost 15 percent of the Channel 9 viewing homes are classified as FARMERS. In addition, in every city, with the exception of two or three, the main committee and driving force with the Chamber of Commerce is the Agriculture Committee.³

Liles, who served as KWTW farm director for more than 20 years, pointed out that the importance of agriculture is reflected in local economies as well.

The Business Community in any town, including bankers, merchants, insurance people, etc., is as much interested in the well being of the Farmers and Agricultural Climate because it directly affects their respective businesses. Many of the people living in the cities have agriculture backgrounds and retain family ties in the rural area. They too are interested in the welfare of the Agricultural Community within the state.⁴

Not only do farmers, ranchers, and those involved in agribusiness need agricultural information, but they come to depend on it in making marketing decisions. With the immediacy and timeliness of broadcasting, agriculturalists can make great use of this medium. Liles further points out:

They need to know what the cash market is and what the futures markets look like for their crops and livestock. This is their paycheck, and they base their month's

planning decisions on the current changes in pricing, and it can mean thousands of dollars in some cases if they are provided the most current information, affecting their decisions.⁵

The importance of decision-making on the part of the farmer or rancher can have a big impact on the success of the individual producer. And when producers are grouped together, their success or lack of it plays a major role in Oklahoma's economy. Recognizing the financial importance of the agriculture sector to Oklahoma, James Nelson, Oklahoma State University Agricultural Economist, wrote:

In Oklahoma, 9 percent of income and 11 percent of employment are directly from agriculture. But 31 percent and 29 percent of the state's income and employment, respectively, are attributable to agriculture.⁶

Statement of the Problem

Agriculture is big business. In Oklahoma alone, it is said to be one of the largest single industries in the state, reigning at the top along with the oil and gas industry. And when compared to other farm states, Oklahoma ranks high among states generating farm incomes. Among the ten leading states in 1980 cash receipts for cattle and calves, Oklahoma ranks sixth, with a dollar value of 1.835 billion. The state ranks even higher when considering 1980 wheat production. That year, Oklahoma ranked third with a total dollar value for its wheat at 756 billion dollars.⁷ Describing Oklahoma's agriculture industry, Nelson wrote:

Agriculture is important to Oklahoma. Vast wheat acreages and cattle on pastures and in feedlots are very much a part of Oklahoma. And it produces significant quantities of other agricultural products.⁸

When considering how Oklahoma ranks with other states in agricultural production, one might think only of the state's production.

But in actuality, this production came about through the hard work of thousands of farmers and ranchers. Putting these labors into perspective, Nelson wrote:

The value of Oklahoma's agricultural production in 1980 was almost three billion dollars. It was produced on about 80,000 farms occupying more than 34 million acres of land--almost 80 percent of the state's land area. This evidence supports the statement that agriculture is important to Oklahoma.⁹

While the farmer and rancher puts in many long hours in the production of livestock and crops, some time is also devoted to the marketing of these commodities. In fact, agriculturalists have become more aware in recent years that their numerous hours of hard work are futile if they are not knowledgeable of the marketing process and are not aware of current market conditions. Leo Brauer, in a 1977 issue of U. S. Extension Service Review, wrote: "In the past, grain producers and cattlemen had traditionally given little attention to the marketing process--taking the commodities they produced to market when they were ready to sell."¹⁰

Today, American farmers and ranchers welcome information about agricultural markets which might aid them in their marketing decisions. Confirming this thought, Tom Hallman, Extension editor, University of Georgia, stated in a 1983 issue of ACE Quarterly: "Farmers appear hungry for information. But like anyone else, they seem to prefer timely information to timeless features."¹¹

Any information pertinent to the agriculture industry and current market conditions can mean a substantial difference in farm income for producers. And because the agriculture industry is one with a high degree of competitiveness, agriculturalists look to every source for information. Describing the media system which serves the farmer and

rancher, Lloyd R. Bostian and John E. Ross wrote in a past issue of Journalism Quarterly:

Agriculture and the farmer are served by an extensively developed media system. This system is represented by such media as farm magazines, farm writing in daily newspapers, radio and television farm programs, and bulletins and circulars from commercial and institutional sources.¹²

The amount of agricultural information broadcast in Oklahoma is limited to say the least. The author and Ron Hayes of the Oklahoma Agri-Net are the only two farm broadcasters in Oklahoma who devote full-time to radio. Both broadcast out of Oklahoma City. Gene Wheatley, the only other farm broadcaster operating in Oklahoma, does a limited amount of farm news for KOCO-TV and KXXY Radio, both of which are located in Oklahoma City. A total of 16 voting members of the National Association of Farm Broadcasters operate in Kansas, both in television and radio, while Oklahoma boasts only three voting members of the NAFB.¹³

While Oklahoma farmers and ranchers can turn to radio for farm information at various times of the day, they cannot do the same with television. Terry Schnitter and Gene Allen, radio and television specialists for Agricultural Information Services, Oklahoma State University, wrote: "In recent months there has been a trend away from farm broadcasting in commercial television. Only one station in Oklahoma, KOCO-TV in Oklahoma City, now employs a full-time farm director."¹⁴ According to Liles, "There is a place for more farm broadcasting in the state of Oklahoma."¹⁵

To summarize, there is a limited amount of agricultural information on Oklahoma television stations. In a time when agriculture has become a large, highly-competitive business for individual producers, a study of farmers and ranchers' attitudes toward how well their agricultural

information needs are met was indicated. The overall problem then is that there is very little agricultural information programming on Oklahoma television stations today.

Purpose of the Study

The recent decline in the amount of agricultural information broadcast to Oklahoma farmers and ranchers has caused concern that the media is not fulfilling its obligation to the rural population of the state. Schnitter and Allen wrote: "It appears that programming for agriculture is losing out on the commercial channels as other forms of specialized programming such as classical music, drama, and ballet have lost out."¹⁶

Recent changes in the structure of the agriculture industry seem to indicate a greater importance for agricultural information. Eugene A. Kroupa and Douglas K. Walker, University of Wisconsin communication specialists, support this idea in a study of Wisconsin radio and television agricultural market news programming:

As the farm population dwindles in numbers, and individual farms grow larger in acres and dollars of commodities marketed, the demand for futures market information will increase as these larger farmers seek to hedge against unfavorable price shifts in both commodities they sell and buy.¹⁷

Both Kroupa and Walker also agree that the broadcast media should not ignore the information needs of the farm and ranch population:

If the broadcast media ignore these changes and the needs of their farm audience, farmers will turn to the telephone as they already have done for local cash grain prices. And the broadcast media will have failed an important public service function.¹⁸

One source of agricultural information in the state of Oklahoma is the Agricultural Information staff of Oklahoma State University,

which is a part of the Cooperative Extension Service. The purpose of Cooperative Extension, as defined in the Smith-Lever Act of 1914, was "to disseminate useful and practical information on subjects relating to agriculture, home economics, and subjects related thereto . . . and to encourage the application of the same."¹⁹

Agricultural Information Services is an arm of the Cooperative Extension Service. The Agricultural Information staff includes several specialists in radio and television production. Also on the Cooperative Extension staff are several specialists in various areas of agriculture who are qualified to interpret market conditions, explain new technologies, and discuss current and upcoming research projects. In combining specialists in agriculture with specialists in television, the state's farmers and ranchers could be served through the television medium.

In conducting a national survey of market and outlook information disseminated by daily newspapers, farm magazines, radio and television, John Fett, Extension information specialist at the University of Wisconsin, concluded:

This is an area in which Extension can play an important role. As one Extension farm management specialist mentioned, Extension's role in market information should be educational; the tipster information should be left to private commodity information services and others (Luenig, 1980). However, Bolon (1979) reports that the Extension Service has received some criticism in recent years for not putting additional emphasis in the area of market information.²⁰

In order to make the best use of its educational abilities, the Cooperative Extension Service must reach as many people as possible. Kathleen A. Demarco, information specialist at the University of Maryland, pointed out:

Increasingly, the educational mission of the College will have to reach beyond the classroom. Print and electronic media, which have been tapped to some extent, will become even more important tools for disseminating information about agricultural research and Extension work.²¹

In disseminating agricultural information through the television medium, the Cooperative Extension Service must have access to television time.

The Oklahoma Educational Television Authority (OETA) has recently expressed interest in airing a daily agricultural information program produced by the Agricultural Information staff of Oklahoma State University. However, before funding requests can be made for a daily farm information program, there are several questions which must be answered.

In view of the stated problem, these objectives have been formulated for the study:

1. To determine if there is a perceived need among Oklahomans engaged in production agriculture for television broadcasts of agricultural information.
2. To compare indicated interest levels in an agricultural information television program by respondents' age, income, type of farming operation, size of operation, and education level.
3. To determine what time of day producers prefer for an agricultural information television program to be broadcast.
4. To determine the types of agricultural information producers consider necessary and the relative importance attached to each type of agricultural information.

Background and Value of Study

In recent years, the amount of agricultural information on Oklahoma television stations has declined. And although state farmers and ranchers employ several mediums in search of agricultural information, their use of television has declined because the amount of television farm broadcasting has been reduced.

The declining amount of farm information on Oklahoma television stations has come at an unfortunate time, since the need for farm information is greater now than ever before. Such a need is magnified because farming and ranching have become big business. In describing Oklahoma's agriculture industry, Nelson wrote:

Oklahoma is, both geographically and economically, a very diverse state. It has areas where agriculture consists of intensive crop production; in other areas, most agriculture is oriented toward cattle on pastures; in still other parts of the state, small diversified crop and livestock farms are predominant.²²

While Oklahoma's farmers and ranchers specialize in various types of agricultural production, they maintain a common interest in agricultural information. And because of recent changes in the agriculture industry, this information must be received by a smaller percentage of people. Joseph J. Marks wrote in a part issue of Journal of Broadcasting:

Farmers and farm numbers are declining. Also declining in number are television shows directed toward these farmers who make up less than 5 percent of the U.S. labor force. But farm news--or better stated, 'agricultural news'--is still being made.²³

Agriculturalists need information in a timely fashion. And because market changes occur within minutes, they need this information daily. Noting changes in Georgia's agriculture industry, Leo Brauer wrote in a 1977 issue of Extension Service Review:

As farm units became more complex and more specialized, the proper marketing became more important for the producer to realize maximum returns.

Marvin Davidson, Todd County Extension Agent for agriculture, noted that grain producers in Todd County had paid more attention to the cash and commodity markets in the past two years. They were witnessing more price fluctuations in one day than they had seen in a whole season in the past.²⁴

Commenting on another study, Fett echoed the thought that timely information is of the utmost importance to the agricultural producer attempting to market farm commodities:

The value of market information is a function of its timeliness. The immediacy of information was regarded as critical by farmers in Bolon's study. This is a weakness of the Farmer's Newsletter. Its infrequent publication makes it difficult for it to provide major market change signals in time for farmers to act on these.²⁵

And Fett notes that the quality of information is equally important:

"Although the amount and timeliness of market news is important, attention must also be given to the kind of information provided when judging the quality of market information."²⁶

A wealth of agricultural information, including reports on agricultural economics, crop and livestock production, research developments and new technologies is available at Oklahoma State University through its Cooperative Extension Service. Liles wrote:

Many innovations helpful to farm and ranch efficiency have come about due to research conducted on the national and state level. Results and information derived from this research is vital to the farmer and can be attributed to new grain varieties, new techniques in feeding practices; more efficient methods of farming, all of which will make their operation easier, faster, and more profitable.²⁷

Currently, the only farm information produced for television by the Agricultural Information staff of Oklahoma State University is feature material. Television stories produced for Oklahoma television stations are mailed to the stations, thus not affording viewers the element of timeliness. Such agricultural news stories are seen on commercial and public television in Oklahoma. However, according to Schnitter and Allen, Oklahoma has recently experienced a change in the amount of farm information broadcast on commercial stations:

In television we have historically worked through the commercial television stations and their farm directors. Until recently, this worked well. But in recent months, there has been a trend away from farm broadcasting in commercial television.²⁸

No longer is commercial television the only option for the farmer or rancher who wishes to view farm programming. Other specialized programming such as ballet symphony; and drama can be found on educational television. Concerning a daily farm and home program produced by the Vermont Extension Service and aired daily on Vermont educational television, Lyn Jarvis, information specialist, University of Vermont, wrote:

'The Extension Service and Experiment Station of the University of Vermont present your daily farm and home program, Across the Fence.'

These words have become familiar to thousands of viewers who watch the program telecast Monday through Friday at 1:10 P.M. on WCAX-TV, Vermont's only public television station.²⁹

Oklahoma Educational Television Authority has recently completed an expansion project which reaches virtually 100 percent of the state. For the first time ever, many rural Oklahomans, particularly those in the Panhandle and southeastern part of the state, can now view television with an Oklahoma orientation. Previously, these people were totally without television or depended upon receiving broadcasts from nearby states.³⁰

This study will serve as an indicator of the potential viewer interest of Oklahoma's farm and ranch sector. It will be used by the Agricultural Information staff of Oklahoma State University and by the Oklahoma Educational Television Authority. The findings in this study will play a major role in the establishment of a daily farm

television program, if indeed, they indicate a high level of viewer interest.

Assumptions

The following are major assumptions fundamental to this study:

1. Survey respondents have access to television and can receive Oklahoma Educational Television.
2. Responses represent honest judgments of participants.
3. Respondents are involved in production agriculture and have knowledge of the industry, sufficient enough to have opinions concerning survey questions.
4. Survey participants are selected at random and represent the agriculture population of the entire state of Oklahoma.

Limitations of the Study

Conclusions of this study may be limited to the following conclusions:

1. This study includes only those involved in production agriculture.
2. Not included in this study as respondents are those engaged in non-agricultural pursuits such as hobby farming and home gardening who may perceive a need for agricultural information.
3. Other agriculturalists not included in this study are persons engaged in agricultural service activities such as sales or processing.

Defintion of Terms

1. ETV: Educational Television--Educational Television may be defined as conventional instructional television involving the use of a television teacher and appropriate visual aids and auxiliary production devices used to convey instructional material.

2. Cooperative Extension--Established in 1914, it was designed as a partnership of the United States Department of Agriculture and the land-grant university. Its purpose is to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and to encourage the application of the same.

3. National Association of Farm Broadcasters--Only those individuals who devote a major portion of their working time to farm broadcasting in the employ of a broadcasting station, network or group of stations are eligible for membership in the NAFB. Its purpose is to improve broadcasting service to agriculture through professional improvement, the sharing of ideas and techniques, and encouraging the expansion of farm broadcasting to more stations and additional areas of the country.

4. Hobby farming--Those who participate in farming on a very limited basis and who do so only as a hobby and not specifically to derive income.

ENDNOTES

¹ John E. Cochrane and John K. Waldrop, Oklahoma Agricultural Statistics 1982 (Oklahoma Department of Agriculture, 1982), p. 1.

² Dan M. Crummett, "A Study of Potential Viewer Interest in Northeastern Oklahoma for a Farm Information Program Originating from a Tulsa Television Outlet" (Masters thesis, Oklahoma State University, 1979), p. 2.

³ Wayne Liles, Unpublished Report for KWTV, Oklahoma City, Oklahoma, p. 1.

⁴ Ibid.

⁵ Ibid., p. 2.

⁶ James Nelson, "Impact of Agriculture on Oklahoma's Economy," Oklahoma State University, Extension Facts Sheet, No. 826 (1981), p. 2.

⁷ Ibid., p. 1.

⁸ Ibid.

⁹ Ibid.

¹⁰ Leo Brauer, "Farm Marketplace Clarifies Commodity Complexities," U.S. Extension Service Review (Sept./Oct., 1977), p. 19.

¹¹ Tom Hallman, "Georgia Farmers' Listening Habits," ACE Quarterly, Vol. 66, No. 2 (April-June, 1983), p. 44.

¹² Lloyd R. Bostian and John E. Ross, "Functions and Meanings of Mass Media for Wisconsin Farm Women," Journalism Quarterly (Winter, 1965), p. 69.

¹³ Directory, National Association of Farm Broadcaster, 1983, p. 24, 28.

¹⁴ Terry Schnitter and Gene Allen, Unpublished Report for the Oklahoma State University, College of Agriculture, July 12, 1982, p. 1.

¹⁵ Liles, Quote from personal conversation with Liles, August 18, 1983.

¹⁶ Schnitter and Allen, p. 2.

¹⁷Eugene A. Kroupa and Douglas K. Walker, "Wisconsin Radio and Television Agricultural Market News Programming," Research Report R2615, Madison, Wisconsin, April, 1974, p. 9.

¹⁸Ibid.

¹⁹Lincoln D. Kelsey and Cannon C. Hearne, Cooperative Extension Work (Ithica, New York: Cornell University Press, 1955, p. 29.

²⁰John Fett, "Market and Outlook Information Disseminated by U.S. Daily Newspapers, Farm Magazines, Radio and Television," Paper presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983.

²¹Kathleen A. Demarco, "Promoting the College of Agriculture in the Urban Television Markets of Washington, D.C. and Baltimore, Maryland," Report presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983, p. 8.

²²Nelson, p. 2.

²³Joseph J. Marks, "Agriculture and the TV Newscast," Journal of Broadcasting, Vol. XII, No. 3 (Summer, 1968), p. 289.

²⁴Brauer, p. 19.

²⁵Fett, p. 13.

²⁶Ibid., p. 9.

²⁷Liles, p. 3.

²⁸Schnitter and Allen, p. 1.

²⁹Lynn Jarvis, "A Survey of Viewers: Across the Fence," ACE Quarterly, Vol. 63, No. 2 (April-June, 1980), p. 3.

³⁰OETA Handbook, Oklahoma Educational Television Authority, 1983, p. 13.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Approaching this study the investigator was armed with information concerning the function and purpose of each agricultural information program broadcast on public television in the United States, both in the past and the present. In addition, the vast majority of these programs have been produced and are currently produced by the Cooperative Extension Services in their respective states. In a review of the television activities of agricultural information offices in nine land grant universities, Gerald R. McKay notes a variety in the farm television programs throughout the country:

Television broadcasting on either closed or open circuits by agricultural information offices varies greatly from state to state. Factors that determine the amount and kind of programming seem to be related to interests and competencies of the television, radio and visual aids specialists rather than to any systematically worked out plan.

The quality of these state level programs as a rule are, and must be, reasonably high.¹

While the amount, quality and kind of programming differs among states, the type of agricultural information requested by agriculturalists is almost identical in all parts of the United States.

University of Nebraska researcher, James K. Randall stated: "The modern farmer and rancher is running a specialized enterprise. These

agriculturalists want markets and local farm news . . . two items that affect them directly."² Agricultural markets and farm news seem to be two of the information items most desired by American farmers. However, there are many other topics of agricultural interest deemed important by farmers and ranchers which are presented in television farm programs throughout the United States.

In the review of literature which follows, the farm audience is discussed, along with viewer preferences, Cooperative Extension farm television programs and public television.

The Farm Audience

Although it is commonly known that the farm population has been on the decline in the United States for the past few decades, it remains one of the most productive working groups. In 1982, 71,000 farms and ranches comprising 34.3 million acres were operated in Oklahoma alone. The average size of these farms and ranches is 483 acres.³

Oklahoma's farmers and ranchers operate with land holdings ranging from less than 100 acres to several thousand acres. Generally the smaller farms and ranches are found in eastern Oklahoma while the larger operations are located in the western portion of the state, especially in the Panhandle.⁴

In a study conducted by the Research Interpretation Council at Auburn University, Robert Leigh found that farmers in Alabama operating large farms are more dependent on agricultural information than small farmers: "The number of ideas farmers used increased consistently with size of farm. The largest farmer used 45 percent more ideas than the smaller farmer."⁵

While the size of Oklahoma's farms and ranches varies throughout the state, so does the educational level of its farm and ranch operators. As time passes, future agriculturalists find it necessary to further their education beyond high school as farming and ranching become big business, requiring a substantial knowledge of business, marketing, and production agriculture. In a 1983 survey of Georgia farmers, Hallman discovered that farmers there had a high level of education:

I've heard someone--I think it was Tad DuVall--say that farmers generally have more education than the average citizen. Bingo. In this study, 44 percent report having some college education. For 23 percent that means a four-year degree or more. Less than 20 percent reported not finishing high school.⁶

Agriculturalists with a high level of education seem to desire and use a greater amount of agricultural information, as proven in Leigh's study of Alabama farmers: "The number of ideas farmers use increased consistently with the amount of education they have. Those with college education use 70 percent more ideas than those with less education."⁷

Oklahoma farmers and ranchers also differ by age. The men and women whose profession is in agriculture range from their teens to those well-beyond the widely accepted retirement age of 65. Fett concluded in a recent study that farmers and ranchers' use of agricultural information differs slightly by age: "Mass media use was not differentiated by age, except farmers under 40 were heavier users of television for this information than were those in other age groups."⁸

Yet another way in which farmers and ranchers differ is by income. Those who depend on a greater percentage of their income from agriculture depend more on agricultural information, as stated by E. A. Wilkening in a past issue of Rural Sociology: "Several studies have

indicated that farmers with more income and more education than the average citizen make more use of mass media than do their opposites."⁹

One final way in which Oklahoma farmers and ranchers differ is by their type of farming operations. While some farms and ranches in Oklahoma diversify by producing several crops or types of livestock, others gear their total efforts to the production of one type of livestock or one crop. Yet Oklahomans have a wide choice of crops for production as stated in the 1982 publication, Oklahoma Agriculture 2000:

Wheat contributes by far the most to farm revenue among crops produced in Oklahoma. However, other crops such as hay, feed grains, cotton, peanuts, soybeans, and pecans are important in some areas of the state.¹⁰

It is obvious that the farm and ranch population in Oklahoma is made up of a wide variety of people of different backgrounds. But the farm audience's need for information and interest in television farm programming comes down to an invested economic interest as stated in Crummett's thesis: "The rationale, here, being an economic interest in agriculture more than likely would generate some interest in farm programming on local television stations."¹¹

Viewer Preferences

As stated earlier, agricultural market prices change at the spur of the moment, so it is important that farmers and ranchers receive information concerning current market conditions. Such information can prepare them for upcoming price movements and assist them in maximizing profits while minimizing losses in view of such price movements. Fett stated: "Given this situation, it is important that timely, accurate and detailed market information be widely diffused so that farmers gain access to it with little effort on their part."¹² And because the

broadcast media can afford agricultural producers such information, it has become farmers' primary source of market information. Recognizing the importance of the broadcast media to agriculturalists, Kroupa and Walker wrote:

The broadcast media are farmers' main source of timely market news information according to several recent studies. These studies show almost all farmers regularly listen to radio market reports while somewhat less than one-half watch television market reports. Television market reports viewing is generally restricted to the noon hour when most farm programs are broadcast. Farmers use broadcast market information to make decisions on when to sell and what prices to accept.¹³

In another research report by Kroupa and Claron Burnett, the researchers noted that while most farm programs are televised during the noon hour, this is not necessarily the only time farmers and ranchers would view an agricultural information television program:

Viewing of television market news reports is almost entirely limited to the noon period. Virtually all television agricultural market news programming is broadcast during the noon hour, thus farmers have little choice.¹⁴

While the time an agricultural information program is aired is most important to how large an audience it attracts, the kind of information presented on the program is also crucial to the success of the program. Farmers and ranchers need a wide variety of information so as to run their operations efficiently and productively. Usually at the top of the list of agricultural information needs is market news: Kroupa and Burnett wrote:

A study by Wallaces Farmer showed that a majority (58 percent) of farmers polled felt that farmers benefited from regular reporting of market prices. In a similar Wisconsin study, 73 percent thought farmers benefited from daily livestock and grain market reports.¹⁵

And as Fett discovered in a recent study of the Wisconsin media, farm market information is widely disseminated in that state:

Current commodity prices are readily available to most stations and are broadcast regularly by nearly all that do some farm broadcasting. Nearly all stations also carry supply and demand information--the majority doing so on a regular basis.¹⁶

Market information on farm television programs is apparently put to good use by Wisconsin farmers, as stated by Kroupa and Burnett:

Broadcast market reports were used by livestock producers for deciding when to sell, what price to accept, market weights to shoot for, developing personal knowledge of markets, and for discussing markets with friends.¹⁷

In a study of Wisconsin agricultural market news programming, Kroupa and Walker determined the information needs of the farm audience:

The farmers listed as their top five market information requirements, a review of the previous day's market prices, outlook on livestock numbers and prices, top weights of livestock of different grades, fat livestock mid-morning prices at terminals and local markets and the range of prices being paid.¹⁸

While market information would seem to be of the utmost importance to farmers and ranchers, Hallman found in his study of Georgia farmers that market information ranked second among agriculturalists' information needs:

What do farmers want to hear in broadcast news? Mostly they want weather forecasts. Weather drew 89 percent high interest and another 8 percent mild interest. Market reports come next, followed by news on farm legislation, crop production advice, disease/pest projections, yard and garden tips and information for homemakers.¹⁹

Farmers and ranchers also want market information which includes long-range forecasts so that they may make long-range production plans and marketing decisions. Fett concluded, "Most studies indicate farmers want more forecast information--particularly long-range forecasts."²⁰

Today, the only farm information presented on Oklahoma television stations is presented during early-morning newscasts and noon newscasts.

But, agricultural information should be presented together and not interrupted by other types of news, as stated by Liles:

Programming for farm information should be scheduled regularly each day and early enough that farmers can absorb the information, and then go about their daily tasks. Farmers like to have their business reports, weather reports, markets, and function reports all in one show and not be detained by other elements of news reporting.²⁰

In short, farmers and ranchers must spend countless hours in the production of their crops and livestock. Therefore, they have only a limited amount of time for which to have their information needs fulfilled and would rather their information requirements be met in a short amount of time, instead of one or two hours or more.

Cooperative Extension Programs

In a review of the literature, the author discovered that many of the agricultural information television programs produced by Cooperative Extension Services are aired at times not convenient or useful to producers. Describing agricultural information programs produced by Cooperative Extension Services throughout the United States is

C. S. Thorp, Jr.:

The typical Extension program is a half hour on Saturday morning. The format is traditional--almost sacred. We just assume it meets programming needs. After all, what is there to compare it with? And the stations like it because it's more than adequate to meet the Federal Communications Commission's (FCC) desire for agricultural information. But, who's watching television at 7 o'clock on a Saturday morning? Who, indeed!²¹

Also aware of the fact that Extension television farm programs are aired at times inconvenient for farmers and ranchers is Demarco who recently presented the following remarks to the 1983 national convention of Agricultural Communicators and Educators:

In a scenario repeated elsewhere in the country, 30-minute Extension television shows on commercial stations continue to be shifted to more obscure time slots. While many are kept on the air to satisfy ascertainment requirements, their future could become clouded if deregulation finally comes to television.²²

Although some agricultural information programs produced for television by Cooperative Extension Services are aired during times in which the farm audience is likely small, there are other programs which are aired at more convenient times for farmers and ranchers. In a 1983 issue of the Nebraska Farm and Ranch Quarterly Magazine, an unidentified author wrote about the "Farm and Ranch Report," produced by the University of Nebraska Cooperative Extension Service:

This weekly Nebraska ETV Network program series, premiering for a second season April 7, is designed to focus the expertise of University of Nebraska Cooperative Extension specialists on difficult economic conditions. The 30-minute programs, airing Thursdays at 12:30 p.m. and repeating at 9:30 p.m., will deal with market alternatives, hedging on futures markets, weather impacts, crop and livestock management, new irrigation technologies, water and soil conservation practices and updates on topics of current concern.²³

Describing the purpose of the weekly program the article continues:

Unpredictable as prices and the weather are, the management decisions made in agriculture are the closest thing to a safety net for farmers and ranchers. Providing the information to make correct management decisions is where the 'Farm and Ranch Report' fits into the picture.²⁴

According to the series producer and the Department of Agricultural Communications staff member at the University of Nebraska-Lincoln, Jim Randall said that this series "serves as a vital management tool" for stockmen and crop producers in developing management and marketing strategies.²⁵

Yet another television farm program was produced by Nebraska Cooperative Extension and aired in the mid-70's. In a 1975 issue of

of Farm Ranch Home, Norman Tooker wrote about the program known as, "Farmer Neb":

Called 'Farmer Neb', the series covered a broad range of topics of interest to farmers, ranchers, agribusinessmen, and others involved in agriculture. What has viewer response been? On the programs that invited telephone questions, calls came in from 35 counties in Nebraska, plus some from Iowa, South Dakota and Kansas. Based on the number of calls received, the KRNE-TV staff estimated a viewing audience of between 16,000 and 20,000 for each show. Following the programs, county Extension offices received many requests for circulars and notebooks mentioned on the air and received letters asking for further information.²⁶

One might expect such a large viewer response to a farm television program aired in an agricultural state such as Nebraska. Yet, viewer response to a farm program was even greater in Vermont, where agriculture is not nearly as important to the state's economy. In a 1980 article concerning the audience of "Across the Fence," Lynn Jarvis wrote:

The latest Nielsen ratings indicate that 'Across the Fence' is viewed by 90,000 people each day. The coverage pattern of the program includes virtually all of Vermont, northwestern New Hampshire, northeastern New York, and as far north as Montreal, Canada. The rating figure does not include Canadian viewers, but mail response from across the border indicates another 40,000 daily viewers.²⁷

Jarvis wrote further, that the program content deals both with farm and home information:

'The Extension Service and Experiment Station of the University of Vermont present your daily farm and home program, 'Across the Fence.' Those words have become familiar to thousands of viewers who watch the program Monday through Friday afternoons on WCAX-TV, Vermont's only UHF television station.²⁸

Like other Extension-produced programs, "Across the Fence" features Extension staff and specialists. The program is 17 minutes in length.

Another state with a successful farm television program produced through Cooperative Extension is Mississippi. According to the program's Television Editor, Tyson Gair, the Mississippi Cooperative Extension

Service does everything it can to keep its program, known as "Farmweek", from having a public relation look:

I think we have been successful in this regard and as a result, we have developed a reputation over a period of time as being serious newsmen. We benefit from this when we contact News Directors at the various commercial television stations in the state. Most of them are familiar with us and respond favorably when we send them video news releases. I guess the feeling is that they see us as 'News' people as opposed to P.R. people.²⁹

Cooperative Extension farm television programs throughout the country assist the farmer in production and marketing activities by supplying valuable information. In 1935, the federal Bankhead-Jones Act gave further direction to the Cooperative Extension Service. In short, it directed:

. . . the establishment and maintenance of a permanent and effective agricultural industry including . . . the development and improvement of the rural home and rural life, and the maximum contribution of agriculture to the welfare of the consumer and the maintenance of maximum employment and national prosperity . . .³⁰

Considering the highly capable staffs of the Cooperative Extension Services which each state maintains today, great contributions can be made to agriculture, and in turn, to the consuming public. Professionals with expertises in a wide variety of agricultural areas make up the Cooperative Extension staffs across the country. These staffs are comprised of agronomists, agricultural economists, animal scientists, entomologists, home economists and many more professionals. Concerning the available resources of Cooperative Extension, Marks wrote:

Agricultural Experiment Station scientists and Cooperative Extension Service personnel continually provide research findings and educational information related to subjects such as 'food,' 'pesticides,' 'lawn and garden information,' and others which seem to fit into the 'general interest' category.³¹

Cooperative Extension Service personnel also have the ability to explain supply, demand and price information, its significance and long-range implications of this information. This is an area currently neglected by the broadcast media, according to Fett:

. . . Jones (1980) found that many farmers feel they are receiving adequate supply, demand and price data, but they don't quite know how to use this information. They feel a lack of knowledge about how to interpret data and develop marketing strategies.³²

Because of their backgrounds in education, Cooperative Extension specialists are highly-qualified to educate agricultural producers concerning the interpretation of supply, demand, and price information.

Public Television

Public television, commonly referred to as educational television seems to be an appropriate medium for educating the farmer or rancher. Concerning the purpose of an agricultural information program broadcast on Kentucky educational television, Brauer wrote:

The basics of farming have always been producing and then selling the crop--all at the whim and will of the farmer. It's not all that simple today. Marketing of farm produce--be it livestock or grain or other farm commodities--has become a complex 'maneuver' in itself. The farmer--the producer--now must know something about marketing to combat the complexities of turning a profit.

To inform the farmer on how to employ marketing know-how to create a louder jingle in his pocket, a series of TV classes was prepared by the University of Kentucky (UK) College of Agriculture and aired on Kentucky educational television (KET).³³

An extensive educational television system also operates in Oklahoma, reaching nearly 100 percent of Oklahoma residents. In 1953, the Oklahoma Educational Television Authority was created by an act of the Oklahoma Legislature. The purpose of the Oklahoma Educational

Television Authority is stated in Title 70, Section 23-101 of the Oklahoma Statutes:

It is the intent of the Oklahoma Legislature and the purpose of this article to make educational television available to all Oklahoma citizens on a coordinated state-wide basis. Said educational television services shall be provided by and through the various educational and cultural agencies in the State of Oklahoma under the direction and supervision of the Oklahoma Educational Television Authority hereinafter created.³⁴

One such educational agency which operates in the state of Oklahoma is the Oklahoma State University Cooperative Extension Service. Furthermore, this information source is responsible for providing useable information to a minority audience, the agriculture sector of Oklahoma. In an evaluation of the program "Over Easy", which is broadcast nationally on public television and targeted toward those 55 years old or older, Carol Keegan and Howard Myrick stated:

Public television has traditionally provided a highly supportive and fertile environment for the development of both target and purposive television programs. We have repeatedly underscored our responsibility to develop programs tailored to the needs and interests of small, special interest audiences, whose viewing preferences generally go unaddressed in mass audience fare. Additionally, the industry has proved to be a principal supplier of purpose programs which identify and pursue specific programming objectives, such as affecting the viewership in some desirable intellectual, emotional, aesthetic or social sense.³⁵

One agricultural information television program which affects its audience in a social sense is known as, "Up On The Farm." Aired on Maryland public television, Demarco wrote that the staff of the program works well with the University of Maryland Cooperative Extension Service in disseminating agricultural information:

The Maryland Center for Public Broadcasting is to be commended for its interesting, weekly news program on agriculture, 'Up On The Farm,' and its crew has covered many Extension stories for me and for the College of Agriculture in previous years.³⁶

Another situation in which a state educational television system and a Cooperative Extension Service combined efforts in order to educate and inform the state's farmers occurred in Indiana. In an evaluation of the agricultural information television program, Horace S. Tyler wrote:

Thus, the 'Grain Marketing' series, conducted by J. W. Uhrig, Purdue Extension economist, was nominally the first sustained effort to employ the Indiana Higher Education Telecommunications System (IMNTS) as an Extension information delivery channel.³⁷

It is important to note here that farmers and ranchers, like the rest of the population, are not heavy viewers of educational television. In a survey of Georgia farmers, Hallman noted that a higher percentage of the farm population might watch educational television if programs were addressed toward it:

Less than ten percent of the farmers reported watching educational television regularly. But another 46 percent say they watch occasionally. That's enough to make me think that if there's something on ETV that pertains to them, a lot of farmers will tune in.³⁸

In other words, farmers and ranchers must be motivated to watch educational television. Noting the reason given most often for watching educational television, Keegan and Myrick wrote in Review of 1980 C.P.B. Communication Research Findings:

The most important PTV viewing motivation was 'for a change of pace from what's on commercial television.' Also important were expectations of well-written scripts, of top quality production and acting, and of being entertained.³⁹

In summary, it appears that Oklahoma farmers and ranchers would be motivated to watch a daily agricultural information program broadcast on Oklahoma Educational Television for, as Keegan and Myrick put it, "a change of pace from what's on commercial television." Walter Gantz

said it another way in a report on the uses and gratifications of public television:

. . . there appear to be a number of important motivations leading people to watch public television. These reasons seem to revolve around some need for a change of pace from what is normally viewed, the expectation of first rate content production and the anticipation of being cognitively stimulated and entertained.⁴⁰

A review of literature related to the farm audience, agricultural information television programs, and public television seemed to indicate a need for a study of the attitudes of Oklahoma farmers and ranchers toward a proposed daily agricultural information television program.

ENDNOTES

- ¹Gerald R. McKay, "Television Activities of Agricultural Information Offices in Nine Land Grant Universities," Report for the Agricultural Extension Service of the University of Minnesota, U. S. Department of Agriculture (March, 1967), pp. 3-4.
- ²James K. Randall, "Listening, Viewing Habits of Nebraska Farmers and Ranchers," University of Nebraska-Lincoln, Agricultural Communications Report No. 6 (June, 1975), p. 1.
- ³James Nelson, "Impact of Agriculture on Oklahoma's Economy," Oklahoma State University, Extension Facts Sheet No. 826, (1981), p. 1.
- ⁴Luther Tweeten, "Oklahoma Agriculture 2000," Division of Agriculture, Oklahoma State University, December, 1982.
- ⁵Harold Benford, "How Alabama Farmers Get Agricultural Information," Unpublished report based on a Communications Survey by Robert Leigh, Assistant Director, Research Interpretation Council, Alabama Polytechnic Institute, p. 6.
- ⁶Tom Hallman, "Georgia Farmers' Listening Habits," ACE Quarterly, Vol. 66, No. 2 (April-June, 1983), p. 46.
- ⁷Benford, p. 6.
- ⁸John Fett, "Market and Outlook Information Disseminated by U. S. Daily Newspapers, Farm Magazines, Radio and Television," Paper presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983.
- ⁹A. E. Wilkening, "Sources of Information for Improved Farm Practices," Rural Sociology, Vol. XV, No. 1 (1950), pp. 19, 30.
- ¹⁰Tweeten, p. 37.
- ¹¹Dan M. Crummett, "A Study of Potential Viewer Interest in Northeastern Oklahoma for a Farm Information Program Originating from a Tulsa Television Outlet," (Unpublished Masters thesis, Oklahoma State University, May, 1979), p. 13.
- ¹²Fett, p. 1.
- ¹³Eugene A. Kroupa and Douglas K. Walker, "Wisconsin Radio and Television Agricultural Market News Programming," Research Report R2615, Madison, Wisconsin, April, 1974, p. 3.

¹⁴Eugene A. Kroupa and Claron Burnett, "Wisconsin Farmers' Use and Understanding of Broadcast Market News," Research Report R2506, Madison, Wisconsin, May, 1973, p. 12.

¹⁵Ibid., p. 3.

¹⁶Fett, p. 10.

¹⁷Kroupa and Burnett, p. 17.

¹⁸Kroupa and Walker, p. 8.

¹⁹Hallman, p. 44.

²⁰Wayne Liles, Unpublished Report for KWTW, Channel 9, Oklahoma City, Oklahoma, p. 1.

²¹C. S. Thorp, Jr., "Georgia Agents Reach Millions Daily with TV Spots," Extension Service Review (March-April, 1976), p. 11.

²²Kathleen A. Demarco, "Promoting the College of Agriculture in the Urban Television Markets of Washington, D.C., and Baltimore, Maryland," Report presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983, p. 8.

²³"Farm and Ranch Report Airs April 7," Nebraska Farm and Ranch Quarterly Magazine (Spring, 1983), p. 3.

²⁴Ibid.

²⁵Ibid.

²⁶Norman Tooker, "Farmer Neb on the Air," Farm and Ranch Home (Fall, 1975), p. 6.

²⁷Lynn Jarvis, "A Survey of Viewers: Across The Fence," ACE Quarterly, Vol. 63, No. 2 (April-June, 1980), pp. 3-4.

²⁸Ibid., p. 3.

²⁹Tyson Gair, Letter written to author.

³⁰"Extension in the 80's: A Report of the Joint U.S.D.A.-N.A.S.U.L.G.C. Committee on the Future of Cooperative Extension," Cooperative Extension Service, University of Wisconsin, Madison, Wisconsin (May, 1983), p. 1.

³¹Joseph J. Marks, "Agriculture and the TV Newscast," Journal of Broadcasting, Vol. XII, No. 3 (Summer, 1968), p. 289.

³²Fett, p. 3.

³³Leo Brauer, "Farm Marketplace Clarifies Commodity Complexities," U.S. Extension Service Review (September-October, 1977), p. 19.

³⁴OETA Handbook, Oklahoma Educational Television Authority, 1983, Oklahoma City, Oklahoma, preface.

³⁵Carol Keegan and Howard Myrick, An Evaluation of Over Easy, Corporation for Public Broadcasting, 2nd edition, 1980.

³⁶Demarco, p. 9.

³⁷Horace S. Tyler, "Evaluation of the Use of Closed Circuit Television by a Purdue Grain Marketing Specialist to Teach Grain Marketing Principles," Cooperative Extension Service, Paper No. 98, Purdue University, West Lafayette, Indiana, p. 1.

³⁸Hallman, p. 44.

³⁹Carol Keegan and Howard A. Myrick, Review of 1980 CPB Communication Research Findings, Corporation for Public Broadcasting, March 1981, p. 107.

⁴⁰Walter Gantz, "Uses and Gratifications Associated with Exposure to Public Television," (Washington, D.C.: Corporation for Public Broadcasting, March, 1980), p. 21.

CHAPTER III

METHODOLOGY

Introduction

The subjects of this study were agricultural land owners in Oklahoma in the fall of 1983. The author utilized a systematic random sampling method in selecting 400 names listed on the tax rolls of 20 county assessors in Oklahoma.

A total of 20 Oklahoma counties were selected randomly by the author for which to survey agricultural land owners. They were:

1. Roger Mills
2. Beaver
3. Jackson
4. Woodward
5. Alfalfa
6. Blaine
7. Caddo
8. Stephens
9. Garvin
10. Johnston
11. Seminole
12. Lincoln
13. Noble
14. Okmulgee

15. Nowata
16. Delaware
17. Sequoyah
18. Pushmataha
19. Choctaw
20. Pittsburg

Once the counties were selected, the county assessors of the selected counties were contacted by letter. Assessors were asked to randomly select 20 names of agricultural land owners in their respective counties. They were given instructions on how the selection should be done and each agreed to participate in the sample selection.

Operational Definitions

This investigation into Oklahoma farmers and ranchers' agricultural information needs can be classified as a field study. A field study, as defined by Fred H. Kelinger in Foundations of Behavioral Research, is:

The investigator in a field study first looks at a social or institutional situation and then studies the relations among the attitudes, values and perceptions, and behaviors of individuals and groups in the situation. He ordinarily manipulates no independent variables.¹

Non-manipulative attributes were studied. The study was formulated to focus on individuals in their present environment.

A total of five independent variables were examined in this study. They were:

1. Age of the subjects
2. Education of the subjects
3. Net farm income of the subjects

4. Size of subjects' farming operations
5. Type of subjects' farming operations

In employing the above independent variables, the author formulated the research study so that responses were made objectively. Items used were those in which responses were independent. Concerning studies where responses are independent, Kerlinger wrote:

Independence here means that a person's response to an item is unrelated to his response to another item. True-false, yes-no, agree-disagree, and Likert items belong to the independent type. The subject responds to each item freely with a range of two or more possible responses from which he can choose one.²

Three dependent variables were selected for the study. They were:

1. Subjects' preferences for agricultural information.
2. Subjects' preferences for time of broadcast of an agricultural information television program.
3. Subjects' indicated interest levels in viewing an agricultural information television program.

Methods of Measurement

To measure the subjects' attitudes toward the dependent variables, the writer used several rank-order items. Rank-order scales have three convenient analytic advantages, as stated by Kerlinger:

. . . One, the scales of individuals can easily be inter-correlated and analyzed. Composite rank orders of groups of individuals can also easily be correlated. Two, scale values of a set of stimuli can be calculated using one of the rank-order methods of scaling. Three, they partially escape response set and the tendency to agree with socially desirable items.³

An example of a scale item which dealt with the dependent variable, perceived interest level, is listed below along with the instructions for answering the question:

How interested would you be in viewing an agricultural information program produced by Oklahoma State University and broadcast each weekday on Oklahoma Educational Television?

<u>Very</u> Interested	<u>Somewhat</u> Interested	<u>Neutral</u>	<u>Interested</u> Very Little	<u>Not Interested</u> At All
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A different value was attached to each level of interest so that mean interest levels could be examined. Also, this allowed the writer to compare interest levels of the respondents according to the independent variables. A value of "5" was attached to the highest level of interest, while the least interest level received a "1".

In order to test the three dependent variables and their levels of interaction with the five independent variables, a two-factor analysis of variance test was used. In describing the merits of the two-factor analysis of variance test, Kerlinger wrote: "Factorial analysis of variance is the statistical method that analyzes the independent and interactive effects of two or more independent variables on a dependent variable."⁴

A pilot study was conducted with the instrument before it was mailed out. It was pre-tested on a group of farmers in Stillwater and on a group of ranchers in Oklahoma City. The population of the study was selected at random with the aid of 20 county assessors in Oklahoma. A letter sent to the assessors and the letter which accompanied the survey instrument are included in Appendix A. The questionnaire can be found in Appendix B.

ENDNOTES

¹Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1973), p. 405.

²Ibid., p. 502.

³Ibid., p. 505.

⁴Ibid., p. 245.

CHAPTER IV

FINDINGS

This study sought to determine the information needs of agricultural land owners in Oklahoma and their interest in a proposed daily farm television program.

As stated in Chapter III, the questionnaire was sent to a sample of 400 Oklahoma farmers and ranchers. Since a complete list of Oklahoma farmers and ranchers was not available, respondents were chosen at random from the tax rolls of 20 Oklahoma county assessors.

Of the 400 mailed, 194 surveys were returned--a return of 48.5 percent. Of these, 173, or 43.25 percent, contained useable information. A total of 107 questionnaires were returned with every question answered completely. Of the other 87 surveys returned, 66 were incomplete but contained some useable information, while the other 21 were found to contain no useable information.

A two-factor analysis of variance test was used to test the probability that the observed mean differences for interest between groups of farmers and ranchers could have occurred by chance or by random fluctuation. Two-factor analysis of variance tests were run on all combinations of farmers and ranchers according to demographics. Those included size of farming operation, type of operation, education level, age, and income.

Respondent Demographics

To establish a basis for in-depth analysis, various demographic data concerning the respondents first were analyzed. Table I provides an analysis of the farmers and ranchers grouped according to the number of acres in their operations. The data indicate that the largest portion of the respondents operate 600 acres or more, meaning they are involved in agriculture in a major way.

TABLE I
RESPONDENTS GROUPED ACCORDING TO THE SIZE OF THEIR OPERATIONS

Acres	Frequency	Percent
100 or less	22	13.17
101 to 300	35	20.95
301 to 600	39	23.35
601 or more	71	42.51

Regarding types of farming and ranching operations respondents were involved in, the largest group was livestock producers, while those involved in row cropping or other made up less than one percent. Because those who checked the categories of row cropping or other were all involved in either peanuts or cotton, these individuals were grouped with those who receive their agricultural income from wheat production. By combining the three groups into one, it became easier to analyze the respondents by the types of operations in which they are involved. These groups are shown in Table II.

TABLE II
TYPES OF FARMING AND RANCHING OPERATIONS

Farm Type	Frequency	Percent
Wheat (includes row crops and other)	39	23.35
Hay/Pasture	17	10.17
Livestock	57	34.13
Mix of Two or More of the Above	54	32.33

Data indicate that more than 60 percent of the respondents had either attended college but had not obtained a degree, or had one or more college degrees. For statistical analysis, respondents were grouped into three categories of education levels as listed in Table III.

TABLE III
EDUCATION LEVELS OF FARMERS AND RANCHERS

Education	Frequency	Percent
Some High School	19	11.37
High School Diploma (Only)	45	26.94
Some College or College Degree(s)	103	61.67

Regarding age of the respondents, only 8 percent were under 35 with distribution among the remaining two groups being fairly equal. Farmers

and ranchers responding to the survey are listed according to their age groups in Table IV.

TABLE IV
AGE OF FARMERS AND RANCHERS

Age	Frequency	Percent
34 or younger	14	8.38
35-55	76	45.50
Over 55	78	46.70

What about the incomes derived from the farming and ranching operations? The largest group of respondents (44.65 percent) fell in the middle income category, as seen in Table V.

TABLE V
NET FARM OR RANCH INCOME PER YEAR

Income	Frequency	Percent
Under \$10,000	62	38.99
\$10,000-\$49,999	71	44.65
\$50,000 and over	26	16.35

Differences Among Groups by Size
and Type of Operation

To reach the objectives stated in this thesis, a two-factor analysis of variance was run on the mean opinions of the five component groups. The groups were farmers and ranchers according to size of operation, type of operation, income, age, and education level. Mean interest levels are shown below in Table VI.

TABLE VI
MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
BY FARM TYPE AND SIZE OF OPERATION

Acres	N	Interest	Farm Type	N	Interest
Less than 100	22	4.13	Wheat	39	4.30
101-300	35	4.31	Hay/Pasture	17	4.23
301-600	39	4.35	Livestock	57	4.56
600 or more	71	4.53	Mixture	54	4.33
Mean Interest		4.33			4.35

Interest in the program for respondents grouped by size of operation and by type of operation was considerably high and nearly equal. The mean interest level for respondents grouped by size of operation was 4.33 while the mean interest level for those grouped by type of operation was 4.35.

No significant differences were found between the above two groups in their interest levels toward the proposed, daily agricultural

information television program. A difference as small as that between farmers and ranchers by the size of their operations and farmers and ranchers by the type of their operations would occur by chance more than one time in 100 ($F = 1.75$, $df = 9/155$). Therefore, the two groups do not differ significantly in their interest in the program.

Two-factor analysis of variance tests also were run on interest levels from within groups. Again, no significant differences were found. A difference as small as that observed between farmers and ranchers of different farm types would occur by chance more than one time in 100 ($F = 0.84$, $df = 3/9$). Also, a difference as small as that observed between farmers and ranchers of different sizes of operations would occur by chance more than one time in 100 ($F = 1.05$, $df = 3/9$). The writer found that, just as type of operation did not make a difference in farmers and ranchers' interest in the program, the size of operation also did not make a significant difference.

Differences Among Groups by Size of Operation and Education

Variance analysis on farmers and ranchers indicated interest levels after they were classified according to education level and size of farming or ranching operation. Analyses were run on interest levels from within each group as well as between the two groups. Mean interest levels are shown in Table VII.

Interest in the program for the above groups was very high with a determined mean interest level of 4.33 for respondents grouped by size of operation and 4.4 for respondents grouped by education.

TABLE VII
 MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
 BY SIZE OF OPERATION AND EDUCATION

Acres	N	Interest	Education	N	Interest
Less than 100	22	4.13	College	103	4.38
101-300	35	4.31	High School Diploma	45	4.40
301-600	39	4.35	Some High School	19	4.40
600 or more	71	4.53			
Mean Interest		4.33			4.40

There were no significant differences found between farmers and ranchers grouped by education or size of operation. A difference in the indicated interest levels of the two groups was small enough to have occurred by chance more than one time in 100 ($F = 0.84$, $df = 6/155$). Therefore, the two groups do not differ significantly in their interest toward the program.

Concerning differences in interest within each group, none was found. A difference as small as that observed between agriculturalists of different farm sizes would occur by chance more than one time in 100 ($F = 0.99$, $df = 3/6$). Also a difference as small as that observed within the group of agriculturalists according to their education levels would occur by chance more than one time in 100 ($F = 0.01$, $df = 2/6$). Just as the size of operation did not make a difference in farmers' and ranchers' interest in the program, neither was there a difference in interest in the program among agriculturalists of different education levels.

Differences Among Groups by Size
of Operation and Age

Respondents were grouped according to their ages and the size of farm or ranch operations. Once again, three variance analyses were run; one on interest levels within age groups, one on interest levels within groups according to size of operation, and one on interaction of groups. Mean interest levels for the two groups are shown in Table VIII.

TABLE VIII
MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
BY SIZE OF OPERATION AND AGE

Acres	N	Interest	Age	N	Interest
Less than 100	22	4.13	Less than 34	14	4.35
101-300	35	4.31	35-55	76	4.50
301-600	39	4.35	Over 56	78	4.28
600 of more	71	4.53			
Mean Interest		4.33			4.37

Once again, mean interest levels in the proposed program were very high and nearly equal for groups according to age and size of operation. Mean interest for those grouped by size of operation was 4.33 and for those grouped by age, mean interest was 4.37.

No significant differences were found between the above two groups in their interest levels toward the program. A difference as small as

that between farmers and ranchers by the size of their operations and farmers and ranchers by their ages would occur by chance more than one time in 100 ($F = 1.31$, $df = 6/156$). The two groups, then, did not differ significantly in their interest toward the program.

Analyses of variance were also run on interest levels from within groups. Again, no significant differences were found. A difference as small as that observed between farmers and ranchers of different farm and ranch sizes would occur by chance more than one time in 100 ($F = 1.25$, $df = 3/6$). Also, a difference as small as that observed between farmers and ranchers of different age groups would occur by chance more than one time in 100 ($F = 1.84$, $df = 2/6$). Therefore, just as size of operation did not make a difference in farmers' and ranchers' interest in the program, neither did age.

Differences Among Groups by Size of Operation and Income

Variance between respondents of different sizes of operations and respondents with different incomes was also analyzed. Tests were run on interest levels from within groups and between groups. Mean interest levels are shown in Table IX.

The mean interest levels for the two groups were high as the mean interest for respondents grouped by size of operation was 4.33 and for respondents grouped by income, it was 4.50. Like the other mean interest scores, they fall between the somewhat interested level and very interested level.

TABLE IX
 MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
 BY SIZE OF OPERATION AND INCOME

Acres	N	Interest	Income	N	Interest
Less than 100	22	4.13	Less than \$9,999	62	4.35
101-300	35	4.31	\$10,000-\$50,000	72	4.40
301-600	39	4.35	More than \$50,000	26	4.76
600 or more	71	4.53			
Mean Interest		4.33			4.50

Between the interest levels of respondents grouped by age and those grouped by size, no significant differences were found. A difference as small as that observed between farmers and ranchers by size of operation and age would occur by chance more than one time in 100 ($F = 0.72$, $df = 5/148$). Therefore, the two groups did not differ significantly in their interest toward the program. Analysis of variance tests also were run on interest levels from within groups. Once again, no significant differences were discovered. A difference as small as that observed between farmers and ranchers of different farm and ranch incomes would occur by chance more than one time in 100 ($F = 2.60$, $df = 3/5$). And a difference as small as that observed between farmers and ranchers of different agricultural incomes would occur by chance more than one time in 100 ($F = 2.04$, $df = 2/5$). Therefore, just as size of operation did not make a difference in farmers' and ranchers' interest in the program, their incomes also did not make a significant difference.

Differences Among Groups by Type
of Operation and Education

A variance analysis was run between respondents of different education groups and different types of farm or ranch operations and within each of the two groups. Mean interest levels are shown in Table X.

TABLE X
MEAN INTEREST IN THE PROGRAM: AGRICULTURALISTS
BY TYPE OF OPERATION AND EDUCATION

Type	N	Interest	Education	N	Interest
Wheat	40	4.30	Some High School	20	4.25
Hay/Pasture	18	4.27	High School Diploma	45	4.40
Livestock	58	4.50	College	106	4.39
Mixture	55	4.34			
Mean Interest		4.35			4.34

Once again, mean interest levels for the two groups were very high and nearly equal. Mean interest determined for respondents grouped by type of operation was 4.35 and mean interest for farmers and ranchers grouped by education was 4.34.

The above two groups were no exception as no significant differences were found between interest levels in the program among group members. A difference as small as that between farmers and ranchers by their types of farming or ranching operations and those grouped by their education levels would occur by chance more than one time in 100

($F = 1.02$, $df = 6/159$). Therefore, the two groups do not differ significantly in their interest toward the proposed agricultural information program.

The variance analysis test was used in testing variance within each of the two groups. As a result, a difference in interest observed between farmers and ranchers of different education levels would occur by chance more than one time in 100 ($F = 0.17$, $df = 2/6$). Also, a difference as small as that observed between farmers and ranchers of different operation types would occur by chance more than one time in 100 ($F = 0.41$, $df = 3/6$). Therefore, just as type of operation did not make a difference in farmers' and ranchers' interest, their education levels also did not make a significant difference.

Differences Among Groups by Age and Education

Respondents were grouped according to ages and levels of education. Three variance tests were run: one on interest levels with groups according to age, one on groups according to education level and one on interaction of groups. Mean interest levels are shown in Table XI.

TABLE XI
MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
BY AGE AND EDUCATION

Age	N	Interest	Education	N	Interest
Less than 34	14	4.35	Some High School	21	4.23
35-55	78	4.50	High School Diploma	45	4.40
Over 56	80	4.26	College	106	4.39
Mean Interest		4.37			4.34

Mean interest in the proposed program ran high with the above two groups. The mean interest for respondents grouped by age was 4.37. The 4.34 mean interest for respondents grouped by education was nearly identical.

No significant differences were found between the above two groups in their interest levels toward the proposed farm television program. A difference as small as that between farmers and ranchers of different age groups and farmers and ranchers grouped according to education levels would occur by chance more than one time in 100 ($F = 1.81$, $df = 3/164$). Thus, the two groups do not differ significantly in their interest in the program.

As for variance within each group, no significant differences were found among the different age groups. A difference as small as that observed between farmers and ranchers of different age groups would occur by chance more than one time in 100 ($F = 1.04$, $df = 2/3$). Also, a difference as small as that observed between farmers and ranchers of different education levels would occur by chance more than one time in 100 ($F = 0.22$, $df = 2/3$). The writer found that, just as age did not make a difference in farmers' and ranchers' interest in the program, their education levels also did not make a significant difference.

Differences Among Groups by Education and Income

Respondents were classified according to their levels of education and their levels of income. Then, two-factor analysis of variance tests were run on interaction between the two groups and for variance within groups. Mean interest levels are shown in Table XII.

TABLE XII
 MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
 BY INCOME AND EDUCATION

Income	N	Interest	Education	N	Interest
Less than \$10,000	62	4.38	Some High School	20	4.20
\$10,000-\$50,000	74	4.36	High School Diploma	45	4.48
More than \$50,000	26	4.76	College	101	4.46
Mean Interest		4.50			4.38

The determined mean interest levels for the income and education groups were high with the mean interest score for respondents grouped by income at 4.50. Mean interest for respondents grouped by education was 4.38.

Once again, no significant differences in mean interest were found between the above two groups. The difference in mean interest in the program between respondents in each group would be expected to occur by chance more than one time in 100 ($F = 0.64$, $df = 4/153$). Therefore, there is no significant difference in the interest levels of the two groups.

The variance analysis was run on interest levels within groups. Like the other tests, no significant differences were found. A difference as small as that observed between farmers and ranchers of different incomes would occur by chance more than one time in 100 ($F = 1.91$, $df = 2/4$). Also, a difference in mean interest as small as that observed between farmers and ranchers of different education levels would occur by chance more than one time in 100 ($F = 0.73$,

df = 2/4). Thus, just as income did not make a difference in farmers' and ranchers' interest in the program, their levels of education also did not make a significant difference.

Differences Among Groups by Age
and Type of Operation

This time, respondents were grouped according to their ages and their types of farming or ranching operations. Once again, variance analyses were run between the two groups and within each group. Mean interest levels are shown in Table XIII.

TABLE XIII
MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
BY TYPE OF FARM AND AGE

Type	N	Interest	Age	N	Interest
Wheat	40	4.30	Less than 34	14	4.35
Hay/Pasture	18	4.27	35-55	78	4.50
Livestock	58	4.50	Over 56	79	4.26
Mixture	55	4.34			
Mean Interest		4.35			4.37

Interest in the program within the above groups was very high. The mean interest level for respondents grouped by type of operation was 4.35 while the mean interest level for those grouped by age was 4.37. Once again, mean interest scores for the two groups were nearly the same.

Respondents grouped by age and farm type were no different than any other groups. That is to say, no significant differences were found between the two groups. The interest levels between respondents in each of the two groups would be expected to occur by chance more than one time in 100 ($F = 0.82$, $df = 5/160$). Therefore, there is no significant difference in the interest levels of age and type of operation groups.

Also, variance analyses were run on interest levels within the two groups. A difference as small as that observed between farmers and ranchers of different age groups would occur by chance more than one time in 100 ($F = 0.98$, $df = 2/5$). Likewise, a mean difference in interest as small as that observed between farmers and ranchers of different types of farms would occur by chance more than one time in 100 ($F = 0.41$, $df = 3/5$). Thus, just as age did not make a difference in farmers' and ranchers' interest in the proposed program, type of farm or ranch operation also made no significant difference.

Differences Among Groups by Age and Income

Before variance analysis could be done, respondents were classified according to age and again by income. Purpose of the analyses was to determine the level of variance between the two groups and within each group. Mean interest levels for respondents grouped by age and income are listed below in Table XIV.

Like the other groups, farmers and ranchers grouped by age and income were very interested in the program. Mean interest for respondents grouped by age was 4.40 and mean interest for respondents grouped by income was 4.49.

TABLE XIV
 MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
 BY AGE AND INCOME

Age	N	Interest	Income	N	Interest
Less than 34	14	4.35	Less than \$10,000	63	4.36
35-55	73	4.50	\$10,000-\$50,000	74	4.36
Over 56	76	4.36	More than \$50,000	26	4.76
Mean Interest		4.40			4.49

No significant differences were found between the above two groups. As a result, the interest levels in the program between respondents grouped by age and respondents grouped by income differ no more than would be expected to occur by chance more than one time in 100 ($F = 1.05$, $df = 4/154$). Therefore, there is no significant difference in the interest levels of respondents grouped by age and by income.

Variance analyses also were run to determine variance within groups. Again, no significant differences were discovered. A difference as small as that observed between respondents grouped by age would occur by chance more than one time in 100 ($F = 0.44$, $df = 2/4$). Also, a difference as small as that observed between respondents grouped by income would occur by chance more than one time in 100 ($F = 2.00$, $df = 2/4$). Therefore, just as the age of respondents did not make a difference in farmers' and ranchers' interest in the program, neither was there a difference in interest among agriculturalists of different incomes.

Differences Among Groups by Type
of Operation and Income

In pairing the final two groups to test for within groups variance and between groups variance, a two-factor analysis of variance again was used. Tests were run for variance within groups of respondents categorized by type of operation and again for respondents categorized by income. Also, interaction between the two groups was tested as well. Mean interest levels are listed below in Table XV.

TABLE XV
MEAN INTEREST IN FARM PROGRAM: AGRICULTURALISTS
BY TYPE OF OPERATION AND INCOME

Type	N	Interest	Income	N	Interest
Wheat	37	4.48	Less than \$10,000	62	4.38
Hay/Pasture	18	4.27	\$10,000-\$50,000	73	4.36
Livestock	55	4.56	More than \$50,000	26	4.76
Mixture	51	4.33			
Mean Interest		4.41			4.50

Mean interest levels for the above groups were high, once again. For respondents grouped by type of operation, the mean interest score was determined to be 4.41. Respondents grouped by income had a mean interest in the program of 4.50.

Testing for variance in interest levels between respondents grouped by type of operation and respondents grouped by income

determined that the two groups differ no more than would be expected to occur by chance more than one time in 100 ($F = 0.51$, $df = 5/150$). Stated another way, there was no significant difference in the interest levels of respondents grouped by type of operation and respondents grouped by income.

To determine variance within groups, two-factor analysis of variance tests were run and again, no significant differences were noted. A difference as small as that observed between respondents grouped by type of operation would occur by chance more than one time in 100 ($F = 0.73$, $df = 3/5$). Also, a difference as small as that observed between respondents grouped by income would occur by chance more than one time in 100 ($F = 1.85$, $df = 2/5$). Thus, the writer found that just as the income of respondents did not make a difference in interest in the program, neither was there a difference in interest among farmers and ranchers of different types of farm or ranch operations.

Information Needs

With the establishment of a background profile on the respondents and a review of their interest levels in the proposed program, a look at how they perceived their information needs was more meaningful. Table XVI indicates how respondents ranked 14 different kinds of information and the frequencies of these rank selections. It is important to note that respondents were asked to rate only the five types of information most important to them.

TABLE XVI

Kinds of Information	Frequencies of Rank Selections				
	1	2	3	4	5
Cash Livestock Markets	63	35	11	9	2
Cash Grain Markets	29	25	13	11	8
Agricultural Weather	21	25	21	23	7
Crop/Livestock Production	20	27	22	18	23
Supply/Demand Information	5	9	15	20	21
Livestock Futures Markets	4	10	20	16	7
Analysis of Markets	3	4	13	11	10
Government Programs	3	2	12	10	20
Calendar of Farm Events	2	0	0	5	16
Horticulture	1	0	2	2	1
Other	1	0	0	1	4
Grain Futures Markets	0	9	7	7	8
New Technologies	0	4	13	15	15
Home Economics	0	0	0	2	6

Information relating to cash livestock markets was rated most important to respondents more than twice as often as any other kind of agricultural information. Cash grain markets were rated as being second most important, closely followed by agricultural weather and information concerning crop and livestock production. All other types of agricultural information listed were considered much less important by Oklahoma farmers and ranchers.

To take a closer look at the information needs of respondents, the writer chose to examine the top three information needs of farmers and ranchers and how they varied according to various criteria-- education level, annual net farm income, age, size of operation and type of operation. This information is provided in Tables XVII, XVIII, XIX, XX, and XXI.

TABLE XVII
 INFORMATION NEEDS ACCORDING TO EDUCATION LEVEL

Education Categories	Top Three Information Needs		
	1	2	3
Some High School	Cash Grain	Livestock	Ag Weather
High School Diploma	Livestock	Cash Grain	Production
Some College or More	Livestock	Cash Grain	Production

TABLE XVIII
 INFORMATION NEEDS ACCORDING TO FARM INCOME

Income Categories	Top Three Information Needs		
	1	2	3
Under \$10,000	Production	Ag Weather	Livestock
\$10,000-49,999	Livestock	Cash Grain	Production
\$50,000 and over	Livestock	Cash Grain	Ag Weather

TABLE XIX
 INFORMATION NEEDS ACCORDING TO AGE

Age Categories	Top Three Information Needs		
	1	2	3
34 or younger	Livestock	Production	Cash Grain
35-55	Livestock	Cash Grain	Ag Weather
Over 55	Livestock	Cash Grain	Ag Weather

TABLE XX
INFORMATION NEEDS ACCORDING TO SIZE OF OPERATION

Acres	Top Three Information Needs		
	1	2	3
100 or less	Livestock	Ag Weather	Cash Grain
101-300	Livestock	Cash Grain	Ag Weather
301-600	Livestock	Cash Grain	Production
601 or more	Livestock	Cash Grain	Ag Weather

TABLE XXI
INFORMATION NEEDS ACCORDING TO TYPE OF OPERATION

Type Categories	Top Three Information Needs		
	1	2	3
Wheat	Cash Grain	Ag Weather	Livestock
Hay/Pasture	Livestock	Ag Weather	Production
Livestock	Livestock	Production	Ag Weather
Mixture	Livestock	Cash Grain	Ag Weather

Information concerning cash livestock markets was considered most important by Oklahoma farmers and ranchers, regardless of their demographic classifications. Following cash livestock markets was cash grain markets, agricultural weather and information concerning crop and livestock production. It is interesting to note however, that the first group listed in each category differed somewhat in its information needs, when compared with the other groups. That is to say, the types of information preferred by those under the age of 35, those who

operate on 100 acres or less, those whose principal crop is wheat, those who have not obtained a high school diploma and those whose annual net farm income is less than \$10,000 differed from the other producers in their respective categories.

Information Sources

Respondents were asked to rate nine sources of agricultural information. Those sources and their mean rankings are listed below in Table XXII. Farm magazines were ranked as the source of agricultural information most important to respondents with "other sources" ranked as least important.

TABLE XXII
MEAN RANKINGS OF INFORMATION SOURCES

Sources	Mean Ranking	N
Farm Magazines	2.479	145
Television	3.961	143
Other Farmers and Ranchers	3.975	141
Local Newspapers	4.652	141
Radio	4.761	136
County Extension Agents	4.921	134
Agribusiness Personnel	4.959	136
Private Consultants	6.543	137
Other Sources	7.361	134

Although the mean rankings clearly establish which sources are most important to respondents and which are of least importance, the mean rankings indicate sources cluster into four groups. The first

group comprised only one source of agricultural information--that being farm magazines. The second most important group of agricultural information sources is made up of television and other farmers and ranchers. The mean rankings of these two groups are nearly equal (television--3.961 and other farmers and ranchers--3.975). The third group which clustered comprised local newspapers, radio, County Extension agent(s), and agribusiness personnel. Their mean rankings fell in a narrow range of 4.652-4.959. Finally, the remaining two groups--private consultants and other sources--were ranked near the last on most all surveys.

The last ranked item of the survey asked respondents to rank which times they preferred for the telecast of the proposed daily, farm television program. Those times and the mean rankings they received are listed below in Table XXIII.

TABLE XXIII
MEAN RANKINGS OF TIMES

Time Categories	Mean Ranking	N
6:30-7:00 a.m.	2.931	138
Noon-12:30 p.m.	3.102	136
7:00-7:30 a.m.	3.428	126
12:30-1:00 p.m.	3.940	127
7:30-8:00 a.m.	4.525	119
11:30 a.m.-Noon	4.811	122
8:00-8:30 a.m.	5.907	119
Other	6.154	126

As expected, the times Oklahoma farmers and ranchers most prefer a daily farm television program are in the early morning hours and the noon hour. The top four times most preferred fall in two time slots. They include the 6:30-7:30 hour in the morning and the noon hour. It is important to note that respondents are most favorable toward the time slot of 6:30-7:00 a.m., a time in which most farmers and ranchers are using to prepare for the work day, review prices and trends from the previous day's markets, and obtain information concerning that day's expected trends and prices on the markets as well as the agricultural weather forecast. This information is of the utmost importance to agriculturalists, as many make business transactions throughout the day, based on the information received that morning.

Respondents' Viewing Habits

Because a daily agricultural information television program has been proposed for Oklahoma Educational Television, the author felt it was important to determine the viewing habits of the respondents concerning OETA. Only 75 percent of the respondents said they currently received Oklahoma Educational Television. The remaining 25 percent is likely made up of some who do not realize they receive OETA, some who actually cannot receive the signal, and some who do not own a television set.

Respondents also were asked how frequently they watch Oklahoma Educational Television. From those who said they watched very often to those who said they never watched, the groups are fairly equal in distribution, as seen in Table XXIV.

TABLE XXIV
FREQUENCY RESPONDENTS WATCH OETA

Viewing Categories	Frequency	Percent
Sometime	39	25.49
Never	36	23.52
Frequently	33	21.56
Very Often	26	16.99
Seldom	19	12.41

The responses indicate that respondents were aware of Oklahoma Educational Television. A large percentage (76.45) of respondents said they watched OETA to some extent. In fact, 64 percent said they currently viewed OETA at least sometimes with many watching frequently and others very often.

CHAPTER V

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

The purpose of this study was to determine (1) if there is a perceived need among Oklahomans engaged in production agriculture for television broadcasts of agricultural information, (2) what time of day producers prefer for an agricultural information television program to be broadcast, (3) the types of agricultural information producers consider necessary and the relative importance attached to each type of information, and (4) to compare indicated interest levels in an agricultural information television program with respondents' age, income, type of operation, size of operation and education level.

Summary

This study has attempted to serve as an indicator of the potential viewer interest of Oklahoma's farm and ranch sector. The findings in this study will be used by the Agricultural Information Services staff of Oklahoma State University and by the Oklahoma Educational Television Authority as a gauge of potential viewer interest in a proposed daily agricultural information television program to be broadcast on OETA.

The findings determined that producer respondents were highly interested in the proposed agricultural information television program. This statement is supported by the finding that the lowest mean interest level for any group of respondents was 4.13, where a score of "1" implies

no interest and a score of "5" stands for "very interested." Thus, on a scale of 1 to 5, the lowest mean interest level was that of respondents who operated on 100 acres or less. The highest mean interest level was 4.76 which belonged to farmers and ranchers who earned an annual net farm income of more than \$50,000.

Two-factor analysis of variance of the data showed no significant differences among respondents in their interest levels in the proposed program. No significant differences in interest were found between respondents grouped according to age, income, type of operation, size of operation and education; nor were any significant differences found in interest levels within these groups. Thus, the writer found a high interest level in the program for all respondents, regardless of how they were grouped.

Concerning the types of agricultural information producer respondents prefer in a daily agricultural information program, cash livestock markets was selected as being most important more than twice as often as any other type of information. Cash livestock markets was selected first 63 times, trailed by cash grain markets (selected first 29 times), agricultural weather (21 times), and crop and livestock production which was rated as being most important by 20 respondents. The ten remaining types of agricultural information were rated as being much less important than the four kinds of information listed above.

Respondents rated the 6:30-7:00 a.m. time slot as being the time they most preferred for watching the proposed program. Other times selected as being highly beneficial to Oklahoma farmers and ranchers were (2) Noon-12:30 p.m., (3) 7:00-7:30 a.m., and (4) 12:30-1:00 p.m. Mean rankings of the four remaining times indicated much smaller interest levels.

The findings indicated that farm magazines were currently the most important agricultural information source to Oklahoma's farmers and ranchers. Farm magazines received a mean ranking of 2.479, followed by television (3.961), other farmers and ranchers (3.975), local newspapers (4.652), radio (4.761), county Extension agents (4.921), and agribusiness personnel (4.959). The remaining sources, private consultants and other were rated considerably lower than the seven sources mentioned above. Thus, farm magazines were chosen overwhelmingly, as the most important agricultural information source to Oklahoma farmers and ranchers. Also rated highly and nearly equal were television and other farmers and ranchers.

The viewing habits of the respondents were equally distributed among a wide range. Thirty-three respondents said they frequently watched Oklahoma educational television and 39 replied that they watched it sometimes. Other groups included 26 respondents who watched OETA very often, 19 who seldom viewed it and 36 who said they never watched it. Thus, 76.4 percent of the respondents currently watched OETA to some extent, while those who said they never watched comprised only 23.5 percent.

Recommendations

On the basis of findings in this study, the writer makes the following recommendations:

1. That Oklahoma State University, through the cooperative efforts of the Agricultural Information Department of the OSU Division of Agriculture, the Oklahoma State University Educational Television Services and the Oklahoma Educational

Television Authority, develop and produce a daily agricultural information television program.

2. That the program be aired sometime between 6:30 and 7:00 each weekday morning.
3. That the program's producers keep in mind farmers and ranchers indicated preferences for agricultural information and that cash livestock markets, cash grain markets, agricultural weather and information concerning crop and livestock production be emphasized most.
4. That the program be widely publicized so that not only farmers and ranchers, but all Oklahomans will be aware of its availability on Oklahoma Educational Television.
5. That Oklahoma State University continually evaluate the program for its merits so that strengths and weaknesses may be identified and appropriate changes be made.
6. That regular audience surveys be made of the program to determine audience size as well as viewer satisfaction.
7. That further studies be conducted of Oklahoma's farm and ranch population so that the broadcast media will be more conscious of this sector's ever-changing information needs.

Conclusions

Agricultural information currently offered to Oklahoma farmers and ranchers through the television medium is extremely limited, to say the least; yet respondents indicated that television currently ranks second as an agricultural information source. Because respondents' interest in the program ran so high, it would seem that

the daily agricultural information television program would be received well and watched frequently by Oklahoma farmers and ranchers.

It is time that Oklahoma farmers and ranchers be given a program which will help them to make a better living for themselves, and in turn, produce their crops and livestock more efficiently for the good of consumers. It seems appropriate that a daily farm program be produced by the Oklahoma State University Division of Agriculture whose purpose it is to serve the state's farmers and ranchers. Furthermore, it seems just as appropriate that the program be aired by Oklahoma Educational Television Authority which attempts to serve minority groups of the state.

While interest levels were high among respondents grouped according to income, education, age, type of operation and size of operation, there were no significant differences between the mean interest levels of respondents. It was made clear by respondents that cash livestock markets, cash grain markets, agricultural weather and crop and livestock production information are the kinds of agricultural information most important to producers in Oklahoma. However, livestock and grain markets along with agricultural weather are of little value to producers unless they are received in a timely manner; thus, Oklahoma educational television can afford the viewer the immediacy he needs since the proposed program would be aired daily, preferably between the times of 6:30-7:00 a.m.

BIBLIOGRAPHY

- Benford, Harold. "How Alabama Farmers Get Agricultural Information." Unpublished report. Auburn, Alabama: Alabama Polytechnic Institute, pp. 1-7.
- Bostian, Lloyd R. and John E. Ross. "Functions and Meanings of Mass Media for Wisconsin Farm Women." Journalism Quarterly, Vol. 42 (Winter, 1965), pp. 69-76.
- Brauer, Leo. "Farm Marketplace Clarifies Commodity Complexities." U. S. Extension Service Review, Vol. 48, No. 5 (September/October, 1977), pp. 18-19.
- Cochrane, John E. and John K. Waldrop. Oklahoma Agricultural Statistics 1982. Oklahoma City: Oklahoma Department of Agriculture, pp. 1-102.
- Crummett, Dan M. "A Study of Potential Viewer Interest in Northeastern Oklahoma for a Farm Information Program Originating from a Tulsa Television Outlet." (Masters thesis, Oklahoma State University, 1979.)
- Demarco, Kathleen A. "Promoting the College of Agriculture in the Urban Television Markets of Washington, D.C. and Baltimore, Maryland." Report presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983, pp. 1-18.
- Directory, National Association of Farm Broadcasters, 1983. Topeka, Kansas: WIBW-TV, pp. 1-51.
- "Extension in the 80's." Report of the Joint U.S.D.A.-N.A.S.U.L.G.C. Committee on the Future of Cooperative Extension. Madison, Wisconsin: Cooperative Extension Service, University of Wisconsin, May, 1981, pp. 1-28.
- "Farm and Ranch Report Airs April 7." Nebraska Farm and Ranch Quarterly Magazine, Vol. 30, No. 1 (Spring, 1983), pp. 3-4.
- Fett, John. "Market and Outlook Information Disseminated by U. S. Daily Newspapers, Farm Magazines, Radio and Television." Paper presented at the National Convention of Agricultural Communicators in Education, Madison, Wisconsin, July, 1983, pp. 1-21.
- Gair, Tyson. Personal correspondence. Starkville, Mississippi: Mississippi Cooperative Extension Service, Mississippi State University, April 15, 1983.

- Gantz, Walter. "Uses and Gratifications Associated with Exposure to Public Television." Washington, D.C.: Corporation for Public Broadcasting, March, 1980, pp. 1-44.
- Hallman, Tom. "Georgia Farmers' Listening Habits." ACE Quarterly, Vol. 66, No. 2 (April-June, 1983), pp. 39-47.
- Jarvis, Lynn. "A Survey of Viewers: Across the Fence." ACE Quarterly, Vol. 63, No. 2 (April-June, 1980), p. 3.
- Keegan, Carol and Howard Myrick. An Evaluation of Over Easy. Washington, D.C.: Corporation for Public Broadcasting, 2nd ed., 1980.
- _____. Review of 1980 CPB Communication Research Findings. Washington, D.C.: Corporation for Public Broadcasting, March, 1981, pp. 1-123.
- Kelsey, Lincoln D. and Cannon C. Hearne. Cooperative Extension Work. Ithaca, New York: Cornell University Press, 1955, pp. 1-424.
- Kerlinger, Fred N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1973, pp. 1-741.
- Kroupa, Eugene A. and Claron Burnett. "Wisconsin Farmers' Use and Understanding of Broadcast Market News." Research Report R2506, University of Wisconsin, Madison, Wisconsin, May, 1973, pp. 1-26.
- Kroupa, Eugene A. and Douglas A. Walker. "Wisconsin Radio and Television Agricultural Market News Programming." Research Report R2615, University of Wisconsin, Madison, Wisconsin, April, 1974, pp. 1-10.
- Liles, Wayne. Personal communication. Oklahoma City, Oklahoma: KWTV, August 18, 1983.
- _____. Unpublished Report for KWTV. Oklahoma City, Oklahoma: KWTV, 1983, pp. 1-8.
- Marks, Joseph J. "Agriculture and the TV Newscast." Journal of Broadcasting, Vol. XII, No. 3 (Summer, 1968), pp. 289-293.
- McKay, Gerald R. "Television Activities of Agricultural Information Offices in Nine Land Grant Universities." Report for the Agricultural Extension Service of the University of Minnesota. Minneapolis, Minnesota: U. S. Department of Agriculture, March, 1967, pp. 1-4.
- Nelson, James. "Impact of Agriculture on Oklahoma's Economy." Stillwater, Oklahoma: Oklahoma State University Extension Facts Sheet, No. 826, 1981, pp. 1-4.
- OETA Handbook. Oklahoma City, Oklahoma: Oklahoma Educational Television Authority, 1983, pp. 1-35.

- Randall, James K. "Listening, Viewing Habits of Nebraska Farmers and Ranchers." Agricultural Communications Report No. 6, University of Nebraska-Lincoln, Lincoln, Nebraska, June, 1975, pp. 1-16.
- Schnitter, Terry and Gene Allen. Unpublised Report for the Oklahoma State University, College of Agriculture. Stillwater, Oklahoma: Agricultural Information Service, July 12, 1982, pp. 1-3.
- Thorp, C. S., Jr. "Georgia Agents Reach Millions Daily with TV Spots." U. S. Extension Service Review, Vol. 47, No. 2 (March-April, 1976), pp. 10-11.
- Tooker, Norman. "Farmer Neb on the Air." Farm, Ranch, and Home Quarterly, Vol. 22 (Fall, 1975), pp. 6-7.
- Tweeten, Luther, (ed.). Oklahoma Agriculture 2000. Stillwater, Oklahoma: Oklahoma State University, Division of Agriculture, December, 1982, pp. 1-192.
- Tyler, Horace S. "Evaluation of the Use of Closed Circuit Television by a Purdue Grain Marketing Specialist to Reach Grain Marketing Principles." Cooperative Extension Service, Paper No. 98. West Lafayette, Indiana: Purdue University, pp. 1-9.
- Wilkening, A. E. "Sources of Information for Improved Farm Practices." Rural Sociology, Vol. XV, No. 1 (1950), pp. 19-30.

APPENDIXES

APPENDIX A

COPIES OF CORRESPONDENCE

Doug Thomas
4612-D West Gaylord
Oklahoma City, OK 73132

Dear County Assessor:

Thank you for your support in my efforts to survey the farmers and ranchers of Oklahoma. I'm sure the findings will prove most helpful in determining their information needs.

I need you to draw the names of 20 agricultural land owners in your county. Along with these, I need their addresses and, if possible, their phone numbers. Phone numbers are not essential, but will help in case of a low response rate. That way I can call them and personally ask them to return the questionnaire.

It is of the utmost importance that the respondents are selected at random. I suggest that you choose them by using the following method: Determine the number of agricultural land owners in your county and divide by 20 (the number of respondents). Then use the resulting number as the interval for which you will draw names.

Here is an example: Payne County has a total of 2,995 agricultural land owners. Divided by 20, the interval is 149. Therefore, every 149th agricultural land owner would be selected for the sample from Payne County.

The first person you select will be Number ___ from your list. Then continue your count from there. If you have exhausted the names on your list and still do not have the final name, continue the count by going back to the top of your list.

I hope to send the survey out in a couple of weeks. Realizing that you are very busy at this time of year, I apologize for any inconvenience that this request for names may cause you.

I am most grateful for your dedication and cooperation toward this undertaking. Hopefully, it will eventually benefit the agricultural population of Oklahoma.

Respectfully,

Doug Thomas
Graduate Assistant
Oklahoma State University

Doug Thomas
4612-D West Gaylord
Oklahoma City, OK 73132
September 16, 1983

Dear Farmer/Rancher:

In an attempt to determine your agricultural information needs, your name has been randomly chosen from the tax rolls in your county. You are one of only 20 agricultural land owners in your county who received this questionnaire.

I ask that you spend the five minutes required to complete the survey so that this information may be used in improving the amount, type and quality of agricultural information broadcast in Oklahoma.

A self-addressed, stamped envelope has been enclosed for the return of the survey. It is vitally important that you return the questionnaire as soon as possible.

Thanks for your help.

Sincerely,

Doug Thomas
Graduate Assistant
Oklahoma State University

APPENDIX B

QUESTIONNAIRE

THE STUDY

1. Please rank 1 through 5 the following types of agricultural information which are most important to you, where "1" is the most important source:

Cash grain markets
 Agricultural weather
 Grain futures markets
 Cash livestock markets
 Home economics
 Horticulture
 Crop and livestock production
 Analysis of markets
 New technologies
 Supply/demand information
 Livestock futures markets
 Government programs
 Calendar of farm events
 Other

2. Please rank 1 through 9 where you get most of your farm information, where "1" is the most important source:

Private consultants
 Farm magazines
 Seed, fertilizer, chemical, or equipment dealers
 Radio
 County Extension agent
 Local newspapers
 Other farmers or ranchers
 Television
 Other sources

3. Please rank 1 through 8 the time which you would be more interested in viewing a daily farm television program, where "1" is the most favored time:

6:30-7:00 a.m.
 7:00-7:30 a.m.
 7:30-8:00 a.m.
 8:00-8:30 a.m.
 11:30-Noon
 Noon-12:30 p.m.
 12:30-1:00 p.m.
 Other

4. Are you able to receive Oklahoma Educational Television (OETA)?

Yes
 No

5. Do you watch Oklahoma Educational Television (OETA)?
- Very often
 Frequently
 Sometimes
 Seldom
 Never
6. How interested would you be in viewing an agricultural information program produced by Oklahoma State University and broadcast each weekday on Oklahoma Educational Television?
- Very interested
 Somewhat interested
 Neutral
 Interested very little
 Not interested at all
7. Acres farmed:
- 100 or less
 Between 101 and 300
 Between 301 and 600
 More than 600
 Landlord
8. Do you farm mostly: (Choose only one)
- Wheat
 Row crops
 Livestock
 Hay/pasture
 Other
 About an even mixture of two or more of the above
9. Please check the highest level of education you attained:
- 8th grade or less
 Some high school
 High school diploma
 Some college
 College degree(s)
10. Your age:
- 34 or younger
 35-55 years old
 Over 55 years old
11. Annual net farm income:
- | | |
|--|--|
| <input type="checkbox"/> \$4,999 or less | <input type="checkbox"/> \$25,000-\$49,999 |
| <input type="checkbox"/> \$5,000-\$9,999 | <input type="checkbox"/> \$50,000-\$99,999 |
| <input type="checkbox"/> \$10,000-\$24,999 | <input type="checkbox"/> \$100,000 or more |

APPENDIX C

TABLES

TABLE XXV

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: TYPE OF FARM, SIZE, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Sizes of Farms and Ranches	3	3.146	1.04	1.05	p > .01
Between Types of Farms and Ranches	3	2.514	0.83	0.84	p > .01
Interaction: Farm Type X Farm Size	8	15.724	1.74	1.75	p > .01
Within Groups	166	171.916	1.03		
Total	181	193.304			

*Probability of occurrence by chance alone.

TABLE XXVI

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: SIZE OF FARM, EDUCATION, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Sizes of Farms and Ranches	3	3.146	1.04	0.99	p > .01
Between Education Levels	2	0.018	0.00	0.01	p > .01
Interaction: Farm Size X Education	6	5.334	0.88	0.84	p > .01
Within Groups	166	171.916	1.03		
Total	178	180.410			

*Probability of occurrence by chance alone.

TABLE XXVII

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: SIZE OF FARM, AGE, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Sizes of Farms and Ranches	3	3.845	1.12	1.25	p > .01
Between Respondents by Age	2	1.842	0.92	0.90	p > .01
Interaction: Farm Size X Age	6	8.042	1.34	1.31	p > .01
Within Groups	167	173.851	1.04		
Total	178	187.580			

*Probability of occurrence by chance alone.

TABLE XXVIII

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: SIZE OF FARM, INCOME, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Sizes of Farms and Ranches	3	6.370	2.12	2.60	p > .01
Between Respondents by Income	2	3.331	1.66	2.04	p > .01
Interaction: Farm Size X Income	5	2.930	0.58	0.72	p > .01
Within Groups	158	133.295	0.84		
Total	168	145.920			

*Probability of occurrence by chance alone.

TABLE XXIX

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: TYPE OF FARM, EDUCATION, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Types of Farms and Ranches	3	1.344	0.44	0.41	p > .01
Between Respondents by Education	2	0.383	0.19	0.17	p > .01
Interaction: Farm Type X Education	6	6.770	1.12	1.02	p > .01
Within Groups	170	184.292	1.08		
Total	181	192.780			

*Probability of occurrence by chance alone.

TABLE XXX

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: AGE, EDUCATION, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Respondents by Age	2	2.234	1.11	1.04	p > .01
Between Respondents by Education	2	0.468	0.23	0.22	p > .01
Interaction: Age X Education	3	5.818	1.93	1.81	p > .01
Within Groups	171	184.436	1.07		
Total	178	192.950			

*Probability of occurrence by chance alone.

TABLE XXXI

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: INCOME, EDUCATION, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Respondents by Education	2	1.310	0.65	0.73	p > .01
Between Respondents by Income	2	3.409	1.70	1.91	p > .01
Interaction: Education X Income	4	2.287	0.57	0.64	p > .01
Within Groups	161	143.882	0.89		
Total	169	150.880			

*Probability of occurrence by chance alone.

TABLE XXXII

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: AGE, TYPE OF FARM, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Respondents by Age	2	2.160	1.08	0.98	p > .01
Between Types of Farms and Ranches	3	1.344	0.44	0.41	p > .01
Interaction: Farm Type X Age	5	4.493	0.89	0.82	p > .01
Within Groups	170	184.292	1.08		
Total	180	192.280			

*Probability of occurrence by chance alone.

TABLE XXXIII

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: AGE, INCOME, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Respondents by Age	2	0.793	0.39	0.44	p > .01
Between Respondents by Income	2	3.571	1.78	2.00	p > .01
Interaction: Age X Income	4	3.750	0.93	1.05	p > .01
Within Groups	162	145.938	0.90		
Total	170	154.050			

*Probability of occurrence by chance alone.

TABLE XXXIV

ANALYSIS OF VARIANCE TABLE OF RESPONDENTS' MEAN INTEREST IN
THE PROGRAM: TYPE OF FARM, INCOME, INTERACTION

Source of Variation	df	Sum of Squares	Mean Squares	F-ratio	p*
Between Types of Farms and Ranches	3	1.974	0.65	0.73	p > .01
Between Respondents by Income	2	3.350	1.67	1.85	p > .01
Interaction: Farm Type X Income	5	2.297	0.45	0.51	p > .01
Within Groups	160	143.689	0.89		
Total	170	151.31			

*Probability of occurrence by chance alone.

VITA 2

Douglas Leon Thomas

Candidate for the Degree of

Master of Science

Thesis: AN ATTITUDE SURVEY OF OKLAHOMA FARMERS AND RANCHERS TOWARD A
PROPOSED DAILY AGRICULTURAL TELEVISION PROGRAM

Major Field: Mass Communications

Biographical:

Personal Data: Born in Elizabethtown, Kentucky, August 5, 1959,
the son of Mr. and Mrs. Robert L. Thomas.

Education: Received a Bachelor of Science degree in Agricultural
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in August, 1981; completed the requirements for the Master
of Science degree at Oklahoma State University, Stillwater,
Oklahoma, in May, 1984.

Professional Experience: Farm broadcaster, WHAS Radio, Louisville,
Kentucky, Summer, 1980; News reporter, WBKR and WOMI Radio,
Owensboro, Kentucky, Summer, 1981; Graduate assistant,
Agricultural Information Services, Oklahoma State University,
Fall, 1981-Spring, 1983; Farm director, WKY Radio, Oklahoma
City, Oklahoma, Spring, 1983-Present.