THE AVAILABILITY AND USE OF LIVESTOCK MARKET NEWS BY MICHIGAN FARMERS

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By

William Orel Champney

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AN ABSTRACT

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ABSTRACT

The purpose of this study was to appraise the adequacy of livestock market news dissemination in Michigan with a view towards suggesting possible improvements. This appraisal was made by comparing the quantity of news available through various media with the quantity of news farmers received.

The data for this study were derived from two surveys. One personal interview survey provided data from 407 Michigan farmers. The second survey was conducted by mail among agencies disseminating livestock market news to the farmers interviewed in the first survey.

Livestock market news based on terminal market quotations received wide dissemination by radio and newspapers. To a lesser extent price information was available from auction markets. The survey of agencies disseminating market news showed about ninety percent of the radio stations and daily newspapers disseminated livestock market news. The primary source of the news these agencies reported originated at terminal markets, however, about half of these agencies gave prices from a local auction.

Television stations and weekly newspapers disseminated livestock market news, but the percentage of these agencies

reporting this information was considerably lower than for radio and daily newspapers. Television stations reporting gave primarily terminal market news and all but one weekly newspaper reported local auction prices.

The weekly and daily newspapers were the principal source of "outlook information" for the four media surveyed. However, it was noted from the farm survey that about forty percent of the farmers also obtained livestock outlook information from farm magazines.

Farmers used considerably more radio and newspaper reports as a source of livestock market news than any other sources analyzed. This comparison was made with more personal types of communication such as telephone and personal interview. Eighty-one percent of the farmers said they listened to radio stations for market news. Newspapers ranked second to radio with sixty-one percent listing them as a source for market news.

The Chi-square was used to test differences in proportions of users to non-users of radio and newspapers between geographic areas and similarly among types of farms. No significant differences were found in the proportions of readers to non-readers of daily newspapers for livestock market news between areas or among farm types. Geographic location had no effect on the proportions of farmers using radio for livestock market news between areas, but two comparisons revealed that livestock and dairy farmers used

a greater percentage of radio reports for livestock market news than did part-time farmers.

The time of day farmers receive market news, and the stations used, were also analyzed. Livestock and general farmers used a larger percentage of noon broadcasts, with dairy and part-time farmers using a larger percentage of early morning broadcasts.

There was some evidence from this study that a diversified radio program providing news on all phases of the farm business would attract a larger listening audience than broadcasts limited only to market news reports or closely related information.

There seemed to be reason for questioning the usefulness of auction market news in its present form. The percentage of farmers using radio stations disseminating auction market news compared with the percentage listening to stations reporting terminal news was relatively smaller. This can also be inferred from farmers' use of auction market news from newspapers. This might indicate a more comprehensive coverage of auction markets is needed to increase the usefulness of this type of market information.

Farmers were asked, "What additional livestock market information do you need?" More farmers stated a need for "outlook information" than for any other kind of information. Although the percentage of farmers answering the question was small, this request for outlook information would seem to merit consideration.

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CHAPTER I

INTRODUCTION

Market Information Defined

"Market information is a broad term used to designate all facts and their interpretation bearing on the present or prospective market value of commodities."[1]

Two divisions of market information are sometimes made. One is market news which concerns current market prices and conditions affecting these prices. The other is outlook information about expected prices and the expected demand and supply conditions for a commodity.

Need for Livestock Market News

Farmers, as well as trade personnel, use market news for making decisions. Based on price expectations, they determine which market is most advantageous. Farmers' decisions on when and how much to produce and also where livestock should be marketed are based to some extent on price information.[2] Marketing agencies also use market information in their buying and selling operations.

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[1]Frederick L. Thomsen, Agricultural Marketing, (McGraw-Hill Book Company, Inc., New York, 1951), p. 281.

[2]G. L. Johnson and C. B. Haver, Agricultural Information Patterns and Decision Making, (Michigan Agricultural Experiment Station, Department of Agricultural Economics, Unpublished Mimeograph material), p. 25.

The livestock and meat industry has inherent characteristics in its marketing system causing market news to be essential to operational efficiency. Some of these characteristics have similarities to all agricultural products marketed and others are unique to this industry.

Livestock is not a homogeneous product and wide variation exists in "quality" and value within a specie. Boundaries between official grades have been generally identified; however, prices paid vary at times as much within a grade as between them.

Wide variations also appear for prices paid from day to day or week to week. Livestock prices generally have an inverse relationship to receipts. A result of wide variations in livestock receipts is a considerable fluctuation of prices that occur both from day to day and for seasonal or cycical periods.

Market information has a necessary role in maintaining more evenly distributed receipts. The livestock industry must be informed about present and expected market conditions if the magnitude of these fluctuations is to be reduced.

Development of the Market News Service

A need was felt for market news during the Nineteenth Century. By the mid-1800's, many private concerns such as commission companies were distributing to their customers bulletins or news letters that stated prices paid for livestock by the buyers in their market. Much of this news

was biased and unstandardized.[3] The terminology used was not uniform for the same types of animals and valid comparisons could not be made between markets. During this time newspapers were started which would cover the market, reporting prices and numbers of head sold during the trading day. Yet there was a need for a central agency to establish a system whereby standardized market information could be assembled and disseminated to the public.

In 1916, Congress passed the agricultural appropriation bill which provided the Secretary of Agriculture with funds to collect, compile, and disseminate data to producers and distributors of livestock, meats and by-products, to promote more effective marketing.

This philosophy still guides the Federal Market News Service today. O. V. Wells, Administrator of the Agricultural Marketing Service, stated its purpose at the National Marketing Workshop in 1954. He stated that, "A more efficient marketing system for agricultural commodities and the products derived therefrom is desirable and insofar as possible the state and federal agencies which the various members of this workshop represent should carry forward various activities as a means of assisting farmers and the private trade toward this end."[4]

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[3]A. Dowell and K. Bjorka, Livestock Marketing, (McGraw-Hill Book Company, Inc., New York, 1941, p. 325.

[4]Marketing Information, (A report of the National Marketing Workshop, Cornell University, 1954, U. S. Department of Agriculture, Washington, D. C.), p. 36.

Present Market News Dissemination

At present the Market News Service collects information at three collection points and 28 public markets using about 11,000 miles of leased wire services for distribution of information. Radio stations and newspapers depend on this means of distribution as a principal source of livestock market news.

Private sources of information are still available for the livestock trade. Papers such as the Corn Belt Farmers Dailies, Inc., disseminate news about current prices, economic conditions, market tone, etc. These companies use both Federal News Services and their own resources for collecting market information for dissemination to their subscribers.

Changing Patterns

Direct buying of livestock in the Corn Belt and other areas increased steadily after World War I; and in 1929, marketing reporters were sent to interior areas of Iowa and southern Minnesota to cover these activities. Today these reports are being compiled at three collection points for release.

Many changes in buying patterns have also evolved in other areas of the country. In the Southwest, the buying of feeder cattle direct from ranches created a need for market

news coverage of these transactions.[5] The Arizona Experiment Station designed a pilot project to collect and disseminate news about range sales, the prices paid, and the number of animals involved. This was found very useful to stockmen and ranchers of the area. Michigan has had an increase in the livestock numbers marketed through auctions.[6] Some preliminary work is now underway to establish representative coverage of these markets and to make the current quotations available to radio and newspapers.

Current Market News in Michigan

Michigan has one terminal market which is located at Detroit. A federal reporter covers this market and a teletype is used to report prices to the various disseminating agencies. Radio stations and newspapers have access to this service, and to news from other terminal markets reported by the service. Some of these terminal markets are Indianapolis, Chicago, and St. Louis.

News from other sources are also available to mass media in Michigan. Such market news originates from auctions or commission firms. One producer cooperative, The Michigan

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[5] L. Stubblefield and R. Seltzer, The Arizona Cattle Market Report, (Agricultural Experiment Station, University of Arizona, Report No. 148, February 1957), pp. 1-9.

[6] Richard Gibb and Harold Riley, "Changing Market Patterns for Slaughter Livestock in Southern Michigan", Reprinted from Quarterly Bulletin, (Michigan Agricultural Experiment Station, Michigan State University, Vol. 40, No. 3, pp.446-459, February 1958).

Livestock Exchange, makes current prices available for dissemination by these agencies.

At the time this study was initiated, the amount of livestock market news being disseminated to farmers was not well known, neither was the extent of use by them generally understood.

Previous Studies of Livestock Market News

Studies have been made in other states and in Michigan concerning the quality and use made of livestock market news. Charles A. Wilmot at Purdue University conducted research showing some uses farmers made of market information in Indiana.[7] He found there was no significant difference in choice of markets used by farmers reading or not reading livestock market news from newspapers.

A study in Texas, 1955, stated:[8] "Most livestock men are unfamiliar with livestock grades by the United States Department of Agriculture on which all reporting is based. They were unable to relate the grades of their own livestock to the market reports."

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[7]Charles A. Wilmot, Accuracy and Adequacy of Livestock Market News in Indiana, (Unpublished Ph. D. thesis, Purdue University, 1954), p. 36.

[8]Walther and McNeely, Texas, 1955; Stewart H. Fowler, The Marketing of Livestock and Meats, (Interstate Publishers and Printers, Inc., Dansville, Illinois, 1957).

The authors also had difficulty in making inter-market comparisons. Both of these studies have been primarily concerned with the quality of reporting, and not the number of farmers using various media to obtain information.

One research project in Ohio analyzed the farmers' use of outlook information through disseminating agencies.[9] It was determined that farmers in this study used outlook information from newspapers and magazines much more than any other sources available.

J. Smith[10] conducted a study which determined the use farmers made of radio and newspapers. This study related such factors as formal education to reading or listening habits. This analysis also obtained criticisms that farmers had of radio and newspaper reports. Degree of commitment to farming was found by Smith to be directly related to the amount of market news used.

Johnson and Haver[11] found farmers' decision processes influenced by market news. Thirty-eight percent of farmers

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[9] F. McCormick, M. Smith, and R. Dougan, Sources of Economic Information Used by Farmers, (Ohio Agricultural Experiment Station, Wooster, Research Circular No. 44, May 1957).

[10] J. Smith, "Michigan Farmers Use of Newspaper and Radio Market News", Reprinted from Quarterly Bulletin, (Michigan Agricultural Experiment Station, Michigan State University, Vol. 38, No. 4, May 1956).

[11] Johnson and Haver, Agricultural Information Patterns and Decision Making, (Michigan Agricultural Experiment Station, Michigan State University, Unpublished mimeograph material, 1956), p. 528.

querried stated price information was the most important type of information in setting up and operating their farms. It was ranked second in importance by 29 percent of the sample farmers with production information being first. This is indicative of market news importance to farm operators.

Purpose and Objectives of This Study

The purpose of this study was to appraise the adequacy of livestock market news dissemination in Michigan with a view towards suggesting possible improvements.

There are four main objectives of the study:

(1) To determine the amount and kind of livestock market news disseminated through mass media.

(2) To determine the extent to which farmers use livestock market news obtained from the various sources.

(3) To compare geographical areas with respect to the use of livestock market news, and to compare variations in use of livestock market news between types of farming operations.

(4) To suggest improvements in dissemination by comparing current availability with use.

Two Sources of Data Used

Two sources of data were used to analyze the use of livestock market news. One set of questionnaires were taken

from farmers in Michigan, the second set from agencies disseminating market news. These agencies were located in Michigan, and included radio, television, daily and weekly newspapers.

Usefulness of the Study

The results from this study could be helpful in reallocating public or private resources in the collection and dissemination of livestock market news. The study shows the media that farmers use for market information and the markets from which the information originated. The study may be helpful in guiding decisions whether to increase the expenditures for more terminal market news or whether greater resources should be appropriated to cover a greater number of local markets. Radio and newspaper farm editors may use such information as a basis for reallocation of time and space now devoted to livestock market news.

CHAPTER II

SOURCE AND NATURE OF DATA

Introduction

Information included in this study was gathered from two sources. One survey was taken from farmers in Michigan on their use of livestock market news. The other survey was conducted to determine the amounts and kinds of livestock news various disseminating agencies reported.

The farm survey obtained data concerning farmers' use of different media for obtaining livestock market news. It also obtained the kind of market information, and the time of day the news was received.

The survey of the various media included radio, television and newspaper businesses. Its purpose was to determine the days of the week news was reported, the time of day for radio and television programs, and the markets which were included in the reports.

The Farm Survey

The data for this study was obtained from the farm survey which was part of a regional livestock marketing study, "An Analysis of the Changing Patterns of Livestock

Marketing."[1] It was conducted in twelve of the North Central States. The study was constructed as a two phase project with phase 1 designed to determine where, how, when and why farmers market their livestock. Section 4 of the farm survey questionaire dealt with the use farmers made of livestock market news. Questions asked farmers pertained to their use of media such as radio, newspaper, telephone, personal interview and farm magazines as a source of livestock market news. (A sample of the questionaire appears in the appendix).

Sampling Procedure

The sampling procedures were developed by the North Central Livestock Marketing Research Committee in consultation with Dr. Virgil Anderson, Purdue University Statistician. The author did not participate in the sampling plan, nor the design of the farm schedule. Farms to be contacted were selected by an area probability sampling procedure.[2] The overall sampling rate for the survey was .005 percent. Sample segments were drawn after Michigan had been stratified into three major geographical areas, and counties

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[1]Project 518 (NCM-18) An Analysis of the Changing Patterns of Livestock Markets in Michigan (Project Outline Michigan Agricultural Experiment Station) Unpublished Material.

[2]United States Department of Agriculture, "Application of Probability Areas Sampling to Farm Surveys," Agricultural Handbook No. 67, The United States Government Printing Office, Washington, D. C., May 1954.

within these areas grouped by the volume of livestock sales. Certain counties were omitted from the sample area due to sparseness of livestock production, or urbanization. (See Figure I).

Schedules were included from the sample area farms for this study if: (1) more than $150 of products were normally sold from the farm per year, and (2) they sold at least one head of livestock during the year 1956.

The three geographic areas as stratified in the sampling procedure show considerable differences in economic characteristics of agriculture. (See Table I)

TABLE I

ECONOMIC CHARACTERISTICS OF GEOGRAPHIC AREAS OF MICHIGAN*

Area	Percent of Land in Farms	Total Number of Farms	Percent of Farms Selling Livestock	Total Value of Livestock Sold	
				Thousand Dollars	Percent
1	12.2	8,234	68.9	2,090	2.2
2	35.1	25,953	66.6	13,325	14.0
3	74.6	104,735	61.2	79,590	83.8
State Totals	45.1	138,922	62.6	95,005	100.0

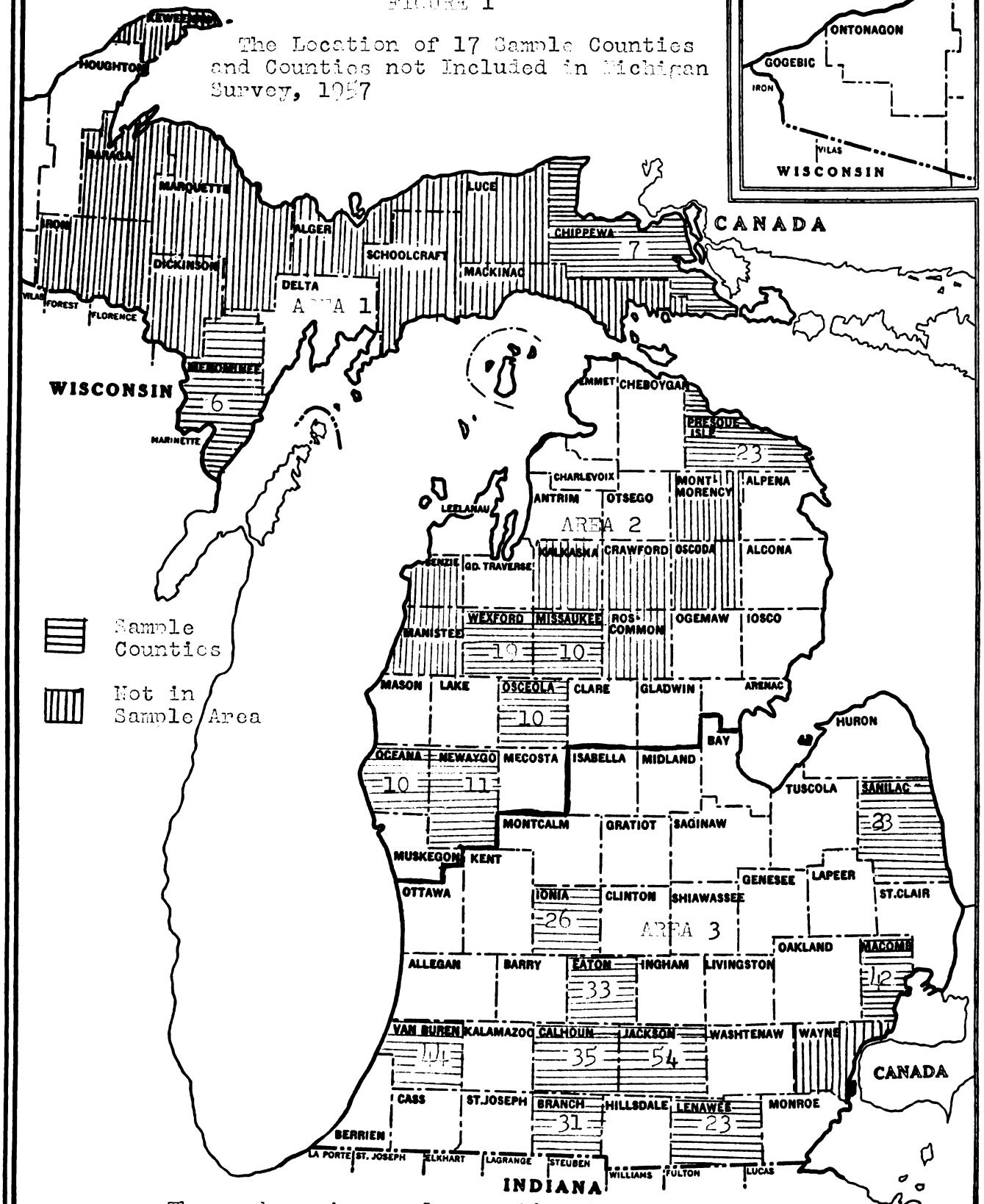
*Source: 1954 Census of Agriculture

Area 1 has the fewest farms, and only 12.2 percent of its total land area in farms. The largest percentage of farms sold livestock for any of the three areas, but the value of this livestock was only about two percent of that sold for the entire state.

RAND McNALLY LOOSE LEAF OUTLINE MAP MICHIGAN

FIGURE 1

The Location of 17 Sample Counties and Counties not Included in Michigan Survey, 1957



The numbers in sample counties designate the number of schedules taken.

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Area 2 has somewhat greater agricultural importance than Area 1 in that thirty-five percent of its acreage is farm land. It contains three times as many farms, and sold about seven times the dollar volume of livestock as Area 1 or one-seventh the total dollar value for Michigan.

Area 3 is the state's most important agricultural area. Three quarters of the land is farm land, containing over one hundred thousand farms. Its livestock sales amounted to eighty-three percent of Michigan's livestock sales.

Area analysis was retained in this study to determine if any significant differences occurred between areas. There is a larger number of livestock sold in Area 3[3] than in the northern areas, (one and two) which may or may not be associated with more news coverage of the markets in this area. More detailed geographical divisions of the data were considered impractical, in most cases, since problems appeared in analysis of the data as a result of too few observations. The largest number of schedules were taken from Area 3. The agricultural importance of Areas 1 and 2 were less than Area 3, and the number of schedules taken were ordered accordingly. (See Figure I).

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[3]Richard Gibb and Harold Riley, "Changing Market Patterns for Slaughter Livestock in Southern Michigan", Reprinted from Quarterly Bulletin (Michigan Agricultural Experiment Station, Michigan State University, Vol. 40, No. 3, February 1958) pp. 40-48.

TABLE II

THE NUMBER OF FARM SCHEDULES TAKEN BY AREAS IN MICHIGAN, 1957

Area	Number of Schedules	Number of Counties Entered
1	13	2
2	83	6
3	311	9
Total	407	17

Of the total schedules taken, 76 percent of the completed schedules came from Area 3, 21 percent from Area 2, and 3 percent from Area 1.

Survey Procedures

Personal interview was the method used to acquire the information. The three enumerators interviewing the farmers were college graduates with farm background and agricultural training. The interviewing was done during the first four months of 1957 before the spring farm work had started. Questions were answered by most farmers. In some areas farmers did not answer all the questions asked in the market news section. Enumerators were noted to give less attention to certain questions than others. Most questions, except the "open end" questions, had an adequate number of replies for analysis. The "open end" question, which asked, "What additional information is needed?" was answered none or left unanswered by a large percentage of the farmers.

Methods of Tabulation and Analysis

Questionaires were edited and coded by the author for the market news section. Schedule information was then transferred to I.B.M. cards. Hand tabulation was used to assemble the information concerning the radio stations used by farmers. Data grouping by farm type was hand tabulated. I.B.M. sorting was used for area grouping of data.

Area comparisons were made for the use of the various media. Not all comparisons between areas, however, were reliable due to lack of observations. It was hypothesized that the amount of income derived from various enterprises would affect the amount of news used by farmers. Comparisons were then made by type of farm. These farm types were: dairy, livestock, general and part time. Farms were classified according to the percentage of income from those enterprises:

Livestock farm - 30 percent or more of the 1956 gross farm income came from livestock sales, and less than 50 percent from non-farm sources.

Dairy farm - less than 30 percent of the 1956 gross farm income came from livestock sales, but over 30 percent came from dairy sales, excluding dairy animals, and less than 50 percent from non-farm income.

General farm - less than 30 percent of the 1956 gross income from livestock sales, but over 30 percent from crop sales, and less than 50 percent from non-farm income.

Part-time farm - more than 50 percent of the 1956 gross family income from non farm sources. This classification was made regardless of income derived from the other farm enterprises.

To be consistent when grouping multiple enterprise farms where income came from all sources, livestock sales were given first priority. Dairy farms were given priority over general farms. Farms with 50 percent or more of the farm income from non-farm sources were considered part-time farms regardless of percentage stated in other categories.

TABLE III

THE NUMBER OF FARMERS BY FARM TYPE FROM FARM SURVEY IN MICHIGAN, 1957

Type of Farm	Areas 1	2	3	Total
Livestock	0	21	82	103
Dairy	10	28	123	161
Part-time	3	26	81	110
General	0	8	25	33
Total	13	83	311	407

Dairy farmers were found to be the largest group in the survey. Part-time and livestock farmers had nearly the same number of farms found in this classification. The smallest group was the general farmers which had thirty-three farmers in the sample.

Survey of Agencies Disseminating Market Information

Two Questionnaires

Two mail questionnaires were used to obtain data from the agencies disseminating market information. One questionnaire was designed for newspaper and the second for radio and television. (For samples of these questionnaires refer to appendix). Both schedules were designed for ease in answering with intentions for a high return.

The lists of newspapers, radio and television stations were obtained from Michigan State University Information Services. These businesses were sent the schedule in August, 1957. After each manager or editor had had two weeks to complete and return the questionnaire, a "follow up" was posted to each non-respondent. No difference was observed in the percentage of schedules returned which did not report livestock market news in the "follow-up" than in the original questionnaire.

Daily Newspapers

There are 57 daily newspapers published in Michigan. Twenty-three papers, selected to correspond with the farm survey area, were sent questionnaires. Newspapers that served counties not having a daily newspaper located within its boundaries were also contacted. (See Figure 1). Eighteen dailies responded to the survey with sixteen (89 percent) reporting dissemination of livestock market news.

Weekly Newspapers

Three-hundred and three newspapers are published in Michigan at semi-weekly or weekly intervals. Since weekly papers existed within each of the seventeen counties involved in the survey, no weekly publications outside these counties were included. There were seventy-one weekly newspapers contacted, with sixty-eight percent responding. This portion of the "mail in" survey had the lowest return of the four kinds of agencies sent questionaires. No reason could be noted by the author for this lower percentage, but it was observed that the "follow-up" in this case did not have the effect which it had with radio, television and daily newspapers.

Radio Survey

The selection of radio stations to be contacted was not limited to those located within the seventeen-county farm survey area. A number of stations outside the survey area were included, because it was known that they disseminated livestock market news over a large area of the state. In selection, consideration was given to the stations' operating power.[4] Forty-four radio stations located in Michigan were included in the survey. The return was eighty-eight percent. Data from these schedules revealed that thirty-five stations have at least one broadcast of livestock

[4]Information about the stations surveyed was available from Michigan State University Information Services, Michigan State University, East Lansing, Michigan.

market news daily or a broadcast in which livestock market news is given as a regular daily feature.

Television Survey

The survey of television stations was the smallest with only twelve stations being asked to complete a schedule. The schedule sent was the same as the one used for radio. The procedure in selecting the stations contacted was also the same. There were ten television stations reporting from twelve stations contacted for a return of 83 percent. From these stations only five were reporting livestock market news daily, while the remaining stations did not broadcast any livestock news either in conjunction with a news cast or separately as a livestock market report.

Response to Survey of Disseminating Agencies

The overall response was considered good for this type of survey. The lowest return was sixty-eight percent for weekly newspapers. The highest return was from radio stations (eighty-eight percent).

TABLE IV

THE RETURN ON "MAIL-IN" SURVEY FOR DISSEMINATING AGENCIES, MICHIGAN, 1957

Media	Total Number Contacted	Number Returning Schedules	Percent Returned
Radio	44	39	88.6
Television	12	10	83.3
Daily Papers	23	18	78.3
Weekly Papers	71	48	63.4

Non-Response Bias

No attempt was made after the "follow-up" letter to determine the non-response bias. The percentage return (see Table IV) was considered high. If assumed that those papers or stations not responding did so because they do not publish livestock market news, then there would be an upward bias in the data. If assumed that the non-respondents were like the seventy to eighty percent which did respond, but just failed to comply, then bias is not significant. This was implicitly assumed in this study.

CHAPTER III

LIVESTOCK MARKET NEWS AVAILABLE TO MICHIGAN FARMERS

Introduction

The results of a survey of livestock market news disseminating agencies are presented in this chapter. Schedules were obtained from 39 radio stations, 10 television stations, 18 daily newspapers, and 48 weekly newspapers. The survey procedure used to obtain these schedules was described in Chapter II. The purpose of the survey was to determine the kinds and amounts of livestock market news being disseminated by the various agencies.

Radio

The radio survey disclosed that of the thirty-nine radio stations that responded, thirty-five were reporting at least one livestock market news broadcast daily. Seventy-seven percent of the stations surveyed were located within Area 3.

TABLE V

THE NUMBER AND PERCENT OF 39 RADIO STATIONS REPORTING LIVESTOCK MARKET NEWS IN MICHIGAN, 1957

Area	Number of Stations Responding	Number of Stations Reporting Livestock News	Percent of Stations Reporting Livestock News
1	2	2	100
2	7	5	71.4
3	30	28	93.3
Total	39	35	90

Because there are many more radio stations in Area 3, as shown in Table V, farmers in Area 3 have more alternatives as to which station they rely on for this information. Areas 1 and 2 have fewer stations for their area size.

Time of Broadcasts

Farmers who are engaged in certain enterprises such as dairying, raising livestock, cash crop farming or those farmers working part or full time off the farm have work schedules requiring only certain hours when broadcasts will be received.[1] Because of these work habits one might expect certain hours would have a larger number of farm listeners for a market news broadcast than would other times on a broadcasting schedule. The air time alloted for market

[1]Received, in this case, carries the meaning of listening by farmers to that broadcast.

reports and the time of day which news is disseminated varies between stations. The majority of these broadcasts in Michigan fall into two time periods. The morning hours from 5 a.m. to 8 a.m. and the noon hours from 12 p.m. to 1 p.m.

TABLE VI

BROADCAST HOURS FOR LIVESTOCK MARKET NEWS BY DAYS OF WEEK, 35 MICHIGAN RADIO STATIONS, 1957

	Number of Stations Broadcasting						
	Morning Hours				Afternoon Hours		
Days of Week	5-6	6-7	7-8	11-12	12-1	1-2	5-6
Monday	4	8	4	0	26	1	4
Tuesday	4	8	5	1	28	1	4
Wednesday	4	8	5	0	29	1	4
Thursday	4	7	5	0	28	1	4
Friday	4	8	5	0	26	1	4
Saturday	3	6	3	0	11	0	0

Table VI shows the number of broadcasts given at various time periods of a day, and it contains all stations which have one or more broadcasts daily.

The noon hour was the most often used, with over half the daily reports broadcast between 12 p.m. and 1 p.m.

The morning hour from 6 to 7 a.m. ranked second to the noon hour. This probably is the breakfast hour or milking time for most farmers. The other 2 hours of the morning period, and also the 5-6 evening hour had about the same number of broadcasts.

Number of Broadcasts Daily

Stations surveyed gave from one to four livestock market news broadcasts daily (Table VII).

TABLE VII

NUMBER OF LIVESTOCK MARKET NEWS BROADCASTS GIVEN BY 35 MICHIGAN RADIO STATIONS, 1957

Day of Week	Number of Stations Giving Specified Number of Broadcasts			
	One	Two	Three	Four
Monday	18	7	5	4
Tuesday	17	9	4	1
Wednesday	20	8	5	0
Thursday	18	8	5	0
Friday	19	7	5	0
Saturday	15	4	0	0

On any given weekday about fifty-three percent of the radio stations reporting livestock market news gave one broadcast. Two broadcasts were given by 22 percent of the radio stations on that day, and 3 reports were given by an average 14 percent of the stations. Only one station gave 4 reports which was on Tuesday, and no single day of the week had 100 percent of all radio stations giving at least one broadcast of livestock market news. Wednesday was the day which had the highest number of broadcasts given.

Coverage of Detroit and Chicago terminal markets during week days is given in a nearly equal number of reports. Reports on one-day a-week auctions cause variation in the first two columns of Table VII.

Markets Covered

The thirty-five radio stations which report market news to farmers were found to assemble news from two major types of markets. These two market types were terminals and auction markets.

TABLE VIII

THE PERCENTAGE OF 35 RADIO STATIONS REPORTING DIFFERENT MARKETS IN MICHIGAN, 1957

Market	Number of Stations	Percent
Detroit	21	60
Chicago	20	57
Local Auctions	18	51
Packing Plants	1	3
Other	11	31

Sixty percent of the radio stations reported quotations from the Detroit Market and fifty-seven percent reported the Chicago Market as compared with fifty-one percent disseminating local auction prices. Auctions were grouped under one heading because no single auction was reported by more than two stations.

More than one market is reported by many of the stations which offers farmers better coverage than those stations sending only one market's prices. The category "other" included stations which gave market news from markets such as Fort Wayne, Indiana; St. Louis, Missouri; sources such as national farm prices; and some prices from various co-operative organizations. The co-operative most

often mentioned was the Michigan Livestock Exchange[2] in Battle Creek, Michigan.

Sources of News Disseminated by Radio

Eighty-six percent of the stations disseminating livestock market news accumulated it by teletype. Both Detroit and Chicago public stockyards, where the United States Department of Agriculture has a reporter, are the origin for leased wire news. Teletype was the source given by stations for terminal market news, except for WJR in Detroit which receives news by telephone from the terminal market.

Fifteen of the thirty-five stations also used their own arrangements for collecting livestock market news. Twelve of these fifteen stations used their own arrangements to obtain auction news. The remaining three were used for gathering livestock market news from other sources.

Five stations used tape recordings of the sale in progress, and three used mailed reports from auction managers. Fourteen stations used the telephone for obtaining livestock news from auctions. Seven radio stations in the survey used their own reporters to cover local markets in addition to using teletype.

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[2]The Michigan Livestock Exchange is a farmer co-operative with auctions in Battle Creek and St. Louis. This exchange also operates a commission firm at Detroit Stockyards, a feeder cattle yard at Adrian, and concentration yards at Homer, Portland and Schoolcraft, Michigan.

Farmers that do not have their local auction covered and reported by a disseminating agency can get prices only through neighbors or personal attendance at the auction.

Use of "Market Round Up" Programs

Thirty-seven percent of the radio stations surveyed gave a resume of the happenings in the markets for the preceeding week. In this study such a resume will be referred to as "market round up." These reports are usually given Saturday at the noon broadcast. "Market round ups" are usually broadcast by the station news editors, county agents or news reporters. One station has a telephone report with a market reporter direct from Chicago, while other stations generally present a prepared release.

All round up programs, but one, are broadcast in Area 3. Area 2 and Area 1 have little coverage of this type, except farmers with radio receivers powerful enough to receive transmissions from Area 3.

Anticipated Changes of Programs by Radio

In answer to the question, "Are you considering any changes in livestock market news coverage?", eighty percent of the stations reported they did not intend to change programming in the foreseeable future. The other 20 percent indicated they were planning to change in some way. Stations considering changes contemplated increasing the amount of time devoted to news, adding coverage of another

market, or inaugurating a livestock market news broadcast to their listening audience. None of the stations considering a change indicated they intended to drop a report or discontinue reporting market news from their program. However, three stations said they were undecided at the present time whether to increase or decrease market news dissemination but that a change was being considered.

Television

Questionnaires were sent to twelve television stations which served the area of the farm survey. Ten of these stations responded. Five of the ten television stations had at least one market news report.

The noon hour was given most frequently as the time of the report. Morning reports were second in frequency to the noon reports. Only one station carried market news during the evening hour. This pattern of broadcasting market news is the same as the pattern for radio.

Television stations, without exception, broadcast the same markets that were covered by radio stations. Two stations used Chicago prices only, and one station used Detroit price exclusively, with the remaining two stations broadcasting both markets. One station gave Indianapolis and St. Louis quotations, but these were only the top prices, not a price range of grades. Auctions were not reported by television stations except occasionally by one station in Area 2.

Methods used, by television stations for collecting market news, were teletype and telephone. Only two stations reported the use of telephone. Use of their own reporters and of postal service for market coverage has not been developed because of the time alloted for this service.

All stations indicated they did not plan changing their programming. One Area 2 station said they might include livestock market news if they expanded morning telecasting.

Newspapers

Sixteen of the eighteen daily newspapers responding to the survey printed livestock market news (Table IX). This news is printed in most papers 5 days a week. The amount of news that papers printed for week end reading dropped considerably. Mainly, these are recaps of the market for the past week's activities.

TABLE IX

THE PERCENT OF DAILY NEWSPAPERS PRINTING LIVESTOCK MARKET NEWS BY DAYS OF THE WEEK, MICHIGAN, 1957

Days of the Week	Number of Newspapers	Percent
Monday	15	83
Tuesday	16	89
Wednesday	16	89
Thursday	16	89
Friday	15	83
Saturday	5	28
Sunday	3	16

No attempt has been made here to study the quality of reporting, or the amount of space alloted to livestock market news in daily newspapers. Rather an attempt was made to determine if the area which was covered in the farmers survey had news from this media at their disposal.

The Markets Reported

When asked what markets were reported in their publication, thirteen publishers said they carried the Chicago market, and thirteen carried the Detroit market. Nine dailies carried both markets. All papers which printed livestock market news reported terminal market quotations.

Four daily papers carry prices from auctions. Three of these papers are located in Area 3 and one in Area 2. The three papers in Area 3 that published local auction news were in cities of smaller populations, and not the larger highly industrialized cities of the area. These papers were located in Lenawee, Hillsdale, and Calhoun Counties.

Three dailies print prices and numbers of livestock handled by the Michigan Livestock Exchange. This news appeared in dailies which have many readers near a Michigan Livestock Exchange auction.

Only one newspaper published news about prices paid by a packer buyer. This "daily" was located a considerable distance from a terminal market, and this alternative market assumes greater importance in this area.

Sources of Information

All newspapers in the survey received most of their market news from teletype. The three news services were listed as the source. The actual source, for this information sent over leased wire, originates from the Market News Service of United States Department of Agriculture at various terminal markets.

Telephone was listed second as a means of procurement of news by the dailies. Five publications used this method, these being the same dailies printing market news from local auctions, and the packer buyers. The other two dailies that gave local market news to their readers employed "mail-in" reports from the markets.

Outlook Dissemination

Ten of the eighteen daily newspapers in the survey stated they printed outlook information. This "Outlook information" consisted of expected prices, supply of feed, numbers of head on range, etc. which affect future prices.

Nine daily papers publishing outlook information were located in Area 3, and one daily in Area 2. Areas 1 and 2 farmers must then depend on other sources such as weekly newspapers, farm magazines and outlook circulars for this type of information.

Sources of Outlook

Three sources of outlook information were listed by respondents. These sources were teletype, Michigan State University Information Services, and others. The last category included sources such as county agents, farm editors, etc. Eight daily newspapers used teletype and eight used Michigan State University Information Services releases as their source. Two papers used "other" sources for outlook information besides the previous two sources.

Changes in Dissemination

The daily papers in this survey indicated that they do not anticipate a change in their present pattern of dissemination. Two respondents said they were uncertain whether changes would come about, and they did not know what the changes would be. They did not indicate either decreasing or increasing the amount of market news, but they were anticipating plans for a future change.

Weekly Newspapers

Weekly newspapers were surveyed to determine the numbers reporting market news and outlook information. Many weekly papers are read as a second paper by farm families, and are an important source of local news and activities of the community it serves.

Forty-eight weekly papers answered the questionnaire. This was a return of sixty-eight percent of the total

weekly papers in the sample area. Thirty-three percent answering the survey published livestock market news. (Table X).

TABLE X

PERCENT OF WEEKLY NEWSPAPERS THAT PUBLISHED LIVESTOCK MARKET NEWS, MICHIGAN, 1957

Area	Number Reporting	Publishing Market News Number	Percent
1	1	1	100
2	7	4	57
3	40	11	28
Total	48	16	33

Seventy-one percent of the weekly newspapers that reported market news printed for release on Thursday. Other days which were listed for release were Tuesday, Wednesday, and Friday. The greatest number of auctions are held on Monday, and the greatest number of weekly papers published on Thursday, therefore the prices are three days old before a reader receives them. Thus the real value of news received by farmers from weekly newspapers is comparative prices between auctions in the area. The market news reported by weeklies originated at auctions except two papers which reported news from commission firms. News from this source was likely to be terminal news from Detroit and Chicago.

Weekly newspapers are not suited to the publication of terminal market news, except as a summary of prices quoted for the past week.

Weekly newspapers vary from daily newspapers in methods used to gather livestock information. No weekly newspaper used teletype for this purpose or listed as having used it for any news gathering. Most weekly papers are concerned with local happenings, therefore, teletype is not available for livestock market news. Twenty-five percent of the weekly papers used their own reporters, while 12 percent used telephone for receiving market news for publication. The remaining 63 percent listed their own arrangements such as "mail-in" reports and price lists from auctioneers.

From the questionnaire it was found that fourteen (31 percent) of the papers in the survey carry outlook information. In Area 3 outlook information was available in weekly newspapers through twelve of the fourteen publications. Area 2 had two sources available to farmers through this media. Thus a few farmers are able to obtain outlook information through weekly newspapers. The weeklies have no disadvantage as compared with daily papers for publication of outlook information on livestock. Short-term forecasting can be as useful from papers if they are released four or five days later then when included in daily publications. For this reason it was felt that weeklies could play an important role in disseminating this form of market news to producers.

Respondents were queried to the source of outlook information published. One hundred percent of those which report outlook information said they used Information Services at Michigan State University while 28 percent also listed another source. The regular news service outlook information and terminal market news was not available to weekly papers through teletype.

Fourteen percent of the weeklies indicated a plan for changing the coverage of livestock markets. Two papers' editors were undecided as to what plan to pursue, to increase or decrease it. Three papers indicated a desire to publish more information provided it was made available from some source. Only one weekly wished to add outlook to what they were presently printing.

Summary

Livestock market news based on terminal market quotations are receiving wide dissemination by radio and newspapers. To a lesser extent price information from local auctions are being made available to farmers. However, there is reason to question the usefulness of such local auction news reports. These reports are often incomplete, lacking price ranges, weights, and grades thus having less value than reports that contain these features.

Radio broadcasts are available to all farmers surveyed. Even though not all stations broadcast livestock market news the percentage is high enough that most farmers

can receive more than one broadcast. Their choice of stations appears to be determined only by personal preferences to such criteria as the announcer, the way he presents news, and station reception.[3]

The largest number of reports occurred at two periods of the day, 5 to 8 a.m. and 12 to 1 p.m. These seem to be the hours which have greatest potential listening audience, corresponding closely with the prevailing work patterns of farmers. The evening hour from 5 to 6 is used by some stations and may also have a large rural audience.

Most stations use teletype as a method of collecting livestock market news. This method is used primarily for terminal market prices and general outlook information supplied by the Agricultural Marketing Service reporters. Radio stations reported use of tape recordings at local auctions as a means of gathering price data. Stations also reported use of "mail-in" reports as a method of market coverage. The latter two methods of collecting data could give a comprehensive coverage of a market, however, if not properly administered they are often used to report a farmers sale or top grades and prices.[4]

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[3]For more information on these points see: J. Smith, "Michigan Farmers Use of Market News," (Reprinted from Quarterly Bulletin of Michigan Agricultural Experiment Station, Michigan State University, East Lansing, Michigan, Vol. 38, No. 4, pp. 612 to 627) May 1956, p. 622.

[4]Stanton P. Parry, "An Analysis of Michigan's Livestock Auction Industry" (Unpublished Masters Thesis, Michigan State College) 1953, p. 98.

Television has probably not reached its potential in dissemination of livestock market news. Many stations are in larger cities that have a low percentage of farmers as an audience. Some of the out state stations do give market news. There are 5 stations serving the farmers with livestock market news reports. No station anticipated changing its programming to include livestock market news, and none indicated any retraction in amounts given.

Television stations used teletype almost exclusively as their source of market news. One station in Area 2 did list reporting auction prices occasionally.

The daily newspapers are another important source of livestock market news information for farmers. Only two papers in the study did not report livestock market news. Most of their coverage is the terminal market the same as radio and television.

Auctions were quoted in four papers with three located in Area 3, close to the one auction reported. The fourth paper was located in Area 2. Most large cities do not collect and print auction market news, however, there is no estimation of the number that would disseminate it if it were provided.

No change was anticipated in the dissemination of livestock market news by the editors that responded. Percentage-wise fewer weekly newspapers publish livestock market news than do the daily newspapers. Most weekly

papers publish auction and local market prices, and not terminal prices.[5]

All weekly papers use "mail-in" reports and their own reporters as methods for collecting news from auctions. These methods differ from the other media which depend largely on teletype for market coverage.

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[5]One weekly paper did print terminal news.

CHAPTER IV

THE USE OF LIVESTOCK MARKET NEWS BY MICHIGAN FARMERS

Introduction

The use[1] of livestock market news by farmers is presented in this chapter. The survey data were taken from farmers in seventeen Michigan Counties and was a part of a regional survey concerning livestock marketing patterns within the North Central region. The sample was described in greater detail in Chapter II.

Four major questions about livestock market news were answered from the questionnaire. These questions were: (1) What sources of market news are used by farmers? (2) What markets were reported by these sources? (3) What sources are most useful to farmers for marketing hogs, and what sources are most useful for cattle? (4) What additional information is needed?

Geographic location could affect the use of market news. This was tested for the number of farmers that use or do not use market news between the northern and southern half of Michigan. The time of day which farmers listen to radio reports between areas was also tested. It was

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[1]Use as it appears in this study will mean listening to a radio broadcast or reading a news publication.

hypothesized that if the type of enterprise did influence the use of livestock market news, then livestock farmers would use more livestock market news than would dairy, general and part-time farmers, and dairy farmers would use more market reports than general and part-time farmers.

The relative importance of various type markets, and the most useful source of livestock market news for cattle and hogs were analyzed.

Farmers Use of Available Sources

Radio and newspaper are the two most important sources[2] of livestock market news. The percentages of farmers using these two media were found to be eighty-one percent for radio and sixty-one percent for newspapers. Farmers use of radio and newspapers were compared with the use they made of farm magazines, personal interviews, and telephone.

TABLE XI

THE PERCENTAGE OF SAMPLE FARMERS THAT USED VARIOUS MEDIA FOR LIVESTOCK MARKET NEWS, MICHIGAN, 1957

Media	Number of Farmers Using	Percent
Radio	330	81
Newspaper	247	61
Telephone	39	9
Personal Interview	77	19
Farm Magazines	163	40

[2]Source infers the media from which the dissemination occurred and not its origin as used in Chapter III.

Farm magazines were ranked third with forty percent of the farmers obtaining information from this source. (See Table XI.) Farm magazines do not usually give current price quotations from markets. The bulk of livestock market information from this source is outlook information or other market information. However, in a few instances, price quotations from farm magazines were listed by farmers.

Percentage Using Different Sources by Area

There was no significant difference in the proportion of farmers listening to radio for livestock market news in Area 2 as compared with Area 3[3]. Similarly, the proportion of farmers listing newspapers as a source of market news was not different between these two areas. It was concluded that the proportion of farmers using radio and newspaper as a source of market news was not related to geographic location within the lower peninsula of Michigan.

Farm magazines were read by a significantly higher percentage of farmers in Area 1 and 2 as compared with the percentage in Area 3. Telephone and personal interview were omitted from area comparisons due to lack of observations.

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[3]The Chi-Square test was applied to determine if any significant difference existed between the two areas (2 and 3) for radio and newspapers.

TABLE XII

THE PERCENTAGE OF SAMPLE FARMERS USING VARIOUS MEDIA BY AREAS IN MICHIGAN, 1957

Area	Number of Farmers	Radio		Newspapers		Telephone		Personal Interview		Farm Magazines	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	13	11	85	11	85	0	0	1	8	8	61
2	83	65	78	48	58	4	5	19	23	49	59
3	311	254	82	188	60	35	12	57	18	106	34

Use of Radio by Type of Farm

It was hypothesized that the type of farm operations would be related to the amount of market news used by farmers. The data were grouped into four types of farmers. These four types were the same as discussed in Chapter II. It was further hypothesized that the livestock farmers would use a greater percentage of livestock market news than any of the other three. Likewise dairy farmers would use more than general farmers, and general farmers a greater percentage than part-time farmers.

A significant difference was found in testing to determine if the proportion of farmers listening to radio for market news differs among different "types" of farms.

TABLE XIII

THE NUMBER OF FARMERS BY FARM TYPE THAT LISTEN TO RADIO AS A SOURCE OF MARKET NEWS IN MICHIGAN, 1957

	Listen	Don't Listen	Total
Livestock	89	13	102
Dairy	125	20	145
General	29	7	36
Part-time	74	33	107
	X^2 = 15.09 at 3 d.f. significant at .99 level		

Of the four types of farms considered, livestock and dairy farmers used radio most as a source of livestock

market news. Both livestock (87 percent) and dairy farmers (86 percent) had a larger percentage of farmers that listen to radio for livestock market news than did general farmers (81 percent) and part-time farmers (69 percent), which ranked third and fourth respectively.

A significantly higher proportion of livestock and dairy farmers were found to use radio reports as a source of livestock market news than part-time farmers.

TABLE XIV

THE NUMBER OF LIVESTOCK AND PART-TIME FARMERS USING RADIO AS A SOURCE OF LIVESTOCK MARKET NEWS

	Listen	Don't Listen	Total
Livestock	89	13	102
Part-Time	74	33	107
Total	163	46	209
X^2 = 10.06 at 1 d.f. significant at .99 level			

TABLE XV

THE NUMBER OF DAIRY AND PART-TIME FARMERS USING RADIO AS A SOURCE OF LIVESTOCK MARKET NEWS

	Listen	Don't Listen	Total
Dairy	125	20	145
Part-Time	74	33	107
Total	199	53	252
X^2 = 10.78 at 1 d.f. significant at .99 level			

The other four possible combinations tested were not significant. These were: Dairy and General; Dairy and Livestock; Livestock and General; Part-Time and General.

The hypothesis that type of farm operations influences the use of market news can be accepted, but with reservation. When livestock and dairy farmers, the greatest users of livestock market news, were tested with the lowest users (part-time farmers) the test showed a significant difference. General farmers were nearly average for the entire group and no significant difference was noted between them and the part-time farmers. The extremes are significantly different and the ordering shows a relationship between farm types and radio listening for market information. This was consistant with the hypothesis.

Use of Newspaper by Area

Daily newspaper reading by farmers was also analyzed. Two hypotheses were tested that paralleled the ones tested for radio listening.

1. If geographic location influences the use of livestock market news between areas, then the proportion of farmers giving newspapers as a source of market news would be greater in Area 3 than in Area 2.
2. If type of farm influenced livestock market news use, then livestock farmers would read more dailies than would dairy; dairy more than general farmers; and general more than part-time farmers.

Due to lack of observations in Area 1 no statistical tests were made comparing the percent of farmers using newspapers for market news with other areas.

No significant difference was found between Areas 2 and 3 in the proportion of farmers using daily newspapers as a source for livestock market news. One area does not have a higher proportion of readers to non-readers of daily newspapers than does the other area.

TABLE XVI

THE NUMBER OF FARMERS USING DAILY NEWSPAPERS AS A SOURCE OF LIVESTOCK MARKET NEWS IN AREAS 2 AND 3

	Read	Don't Read	Total
Area 3	189	122	311
Area 2	46	37	83
Total	235	159	394
X^2 = .82 at 1 d.f.		not significant	

There were more daily newspapers located in Area 3 than in Area 2, yet the percentage of farmers reading market news from them was not enough greater to be significant.

The first hypothesis (that location does influence reading) must be rejected and the alternative (that location does not influence reading) must be accepted.

The use of weekly newspaper was tested between Areas 2 and 3. Twelve percent of the Area 2 farmers read weekly newspapers, and only four percent read weeklies as a source of livestock market news in Area 3.

TABLE XVII

THE NUMBER OF FARMERS READING WEEKLY PAPERS IN AREAS 2 AND 3 OF MICHIGAN, 1957

	Read	Don't Read	Total
Area 2	10	73	83
Area 3	12	299	311
Total	22	372	394

X^2 = 8.49 at 1 d.f. Significant at .99 level

Weekly newspapers were used to a significantly greater extent by farmers in Area 2 than Area 3. This might indicate the importance of auction markets in Area 2, market information that weekly papers publish.

Use of Newspaper by Farm Type

The second hypothesis, that farm type influences the amount of livestock market news used, was tested. The pattern of daily newspaper use by farm type was similar to the pattern for radio listening. Dairy farmers differed from other types of farms. Fifty-five percent of the dairy farmers read daily newspapers. Sixty-seven percent of the livestock farmers read daily newspapers for livestock market news which was the highest percentage of the four groups. Sixty-four percent of the part-time

farmers and sixty percent of the general farmers read daily papers for livestock market news. These four groups did not vary appreciably, and no significant difference was found (Table XVIII).

TABLE XVIII

THE FARMERS READING NEWSPAPERS AS A SOURCE OF MARKET NEWS BY FARM TYPES, MICHIGAN, 1957

Type of Farm	Read	Don't Read	Total
Dairy	83	68	151
Livestock	68	34	102
General	21	14	39
Part-Time	68	39	107
Total	240	154	394
$X^2 = 3.97$ at 3 d.f. not significant			

The hypothesis must be rejected and the alternative one (that farm type does not influence the use of newspaper as a livestock market news source) must be accepted.

Use of Radio and Newspaper Within Area 3

Area 3 was Michigan's most important agricultural area. This area contained the largest number of farms and had about eight-five percent of the total value of livestock sold in the state. Seventy-six percent of the schedules taken came from Area 3 in this survey. For these reasons, it seemed necessary to analyze the use of radio and newspapers for differences among types of farms to determine if inferences concluded from the combined areas also pertained to Area 3.

Radio listening was tested in Area 3 for differences occurring in the proportions of users between farm types. The same two comparisons were significantly different as found in the combined areas.

These show that a higher percentage of dairy farmers used radio for livestock market news than did part-time farmers. Similiarly the percentage of livestock farmers using radio reports was greater than the percentage for part-time farmers.

The general farmers were not significantly different from the part-time farmers in the proportions using radio, which was the same results obtained for the combined areas.

The differences in proportions of readers to non-readers of daily newspapers were tested in Area 3, between the four farm types. The comparisons disclosed similiar results for Area 3 as for the combined areas, that no significant differences were found between farm types.

The Time of Listening to Radio Reports

To any station which disseminates market news information, the time of presentation is of major concern. The knowledge of what hours farmers do listen to radio broadcasts can be helpful to those media changing programming.

The noon period was found to have the largest percentage (54) of audience reception. The morning hours (5 to 8 a.m.) ranked second, and the evening dinner hour (5 to 6 p.m.) third.

Noon hour reception was the largest in Areas 1 and 2. No farmer in Area 1 reported listening to a morning or evening report. Area 2 had twelve percent of the farmers which listened to a radio report other than at noon hour.

A significantly different pattern occurred in Area 3 where morning reports had the highest percentage (54) of farmers listening during that time.

TABLE XIX

THE NUMBER OF AREA 2 AND 3 FARMERS WHICH LISTENED TO MORNING AND NOON RADIO REPORTS, MICHIGAN, 1957

	Area 2	Area 3	Total
Morning	10	137	147
Noon	54	119	173
	64	256	320

X^2 = 28.6 at 1 d.f. significant at .99 level

Three reasons seemed to help explain these area differences: (1) The stations serving Area 2 did little morning broadcasting of livestock market news. (2) A predominance of dairy farmers in Area 3 listened to morning broadcasts. (3) The popularity of one farm editor which broadcast the news on his early morning program.

The time of day which farmers listened to radio was significantly different between farm types in Area 3. No significant differences between farm types were found in Area 2.

Livestock farmers and general farmers listened to a greater percentage of noon reports. These two farm types differ significantly from dairy which had a greater percentage of farmers listening during the early morning hours.

TABLE XX

THE NUMBER OF LIVESTOCK AND DAIRY FARMERS LISTENING TO MORNING AND NOON REPORTS, MICHIGAN, 1957

	Livestock	Dairy	Total
Morning	34	66	100
Noon	43	37	80
Total	77	103	180
X^2 = 7.12 at 1 d.f. Significant at .99 level			

TABLE XXI

THE NUMBER OF GENERAL AND DAIRY FARMERS LISTENING TO MORNING AND NOON REPORTS, MICHIGAN, 1957

	General	Dairy	Total
Morning	37	66	103
Noon	13	37	22
Total	50	103	125
X^2 = 4.09 at 1 d.f. significant at .95 level			

Dairy and part-time farmers listened more to morning radio broadcasts than noon broadcasts. General and livestock farmers did more listening to noon radio reports. No

significant differences were found from tests between the four other possible combinations: livestock -- general, general -- part-time, dairy -- part-time, and livestock -- part-time. The working hours and characteristics of the work involved in the respective enterprises may account for these combinations.

Radio Listening by Stations in Area 3

One radio station, located within Area 3 had a greater percentage of farmers that listened to that station than any other serving the area. (See Table XXII). This station was WJR in Detroit. WKAR and WKZO of East Lansing and Kalamazoo respectively were next in importance as listed by farmers. However, they were considerable below the first station in numbers listening. None of the other stations listed by farmers were listed in more than one county, as shown by Table XXII.

This sample was not drawn to estimate relative listening audiences among radio stations. However, some indication of program popularity among farmers might be inferred from the data.

Stations wishing to commence or revise livestock market news reporting might well study the programming of one of the three stations mentioned. Other factors are involved besides the livestock market news reporting.

TABLE XXII

THE PERCENTAGE OF FARMERS THAT LISTENED TO THE VARIOUS RADIO STATIONS SERVING AREA 3 IN 1957

Location & Power			Counties								
City	Stations	Watts	Macomb	Sanilac	Jackson	Lenawee	Branch	Calhoun	Eaton	Ionia	Van Buren
			Percent								
Detroit	WJR	50,000 cc	70	52	66	57	25	41	42	58	
MSU	WKAR	5,000 D			7			11	9	15	2
Kalamazoo	WKZO & TV	5,000					26	9	6		48
Detroit	CKLW	50,000		18							
Port Hourn	WTTH	1,000 DA1		13							
Detroit	WJBK-TV	10,000 N		4							
Marine City	WDOG	1,000 D	2								
Jackson	WIBM	250			5						
Jackson	WKHM	1,000			1						
Adrian	WABJ	250				17					
Battle Creek	WTVB	5,000 D					13				
Battle Creek	WBCK	1,000 DA2						11			
Charlotte	WCER	1,000 D							6		
Lansing	WJIM	250							3		
Ionia	WION	500 D								15	
Benton Harbor	WHFB	1,000 D									7
Out of State							35				25
Total % Listening*			72	87	79	78	99	72	66	88	82
Total Number of Farmers in Sample			43	23	59	23	31	36	33	26	44

*These percentages were derived from the number of farmers in each county that listed a particular station first on the questionnaire.

This could possibly be the entire program of which livestock market news reporting is only a part.

In Area 2, no station had a dominant position over the other stations in the percentage of farmers listening for livestock market news. The most popular station varied with the county surveyed, usually farmers listed the nearest station broadcasting market news as the one to which they listened. The importance of local marketings of livestock, and lower wattage operation by most stations appeared reasonably conclusive for such listening patterns in the area.

Most Important Source of Market News For Cattle and Hogs

Farmers were requested to list the most important source of livestock market news for cattle and for hogs. (See farm schedule in appendix.) This ranking of market news' sources is a very subjective type of measurement. Farmers may not be conscious of any one source being more useful than another source or aware of the criteria by which they choose that source. It is not a function of this thesis to measure the criteria by which farmers ranked media as most important, but to obtain the results of such a ranking as farmers might give to disseminating agencies.

Cattle

TABLE XXIII

THE PERCENTAGE OF FARMERS LISTING RADIO AND NEWSPAPER AS THE MOST IMPORTANT SOURCE OF NEWS FOR CATTLE MICHIGAN, 1957

	Number	Percent
Radio	232	57
Newspaper	55	14

Radio dissemination was considered the most important media as a source of cattle market news. Newspaper was second as the most important source, however, percentage-wise it was much lower than radio as shown by Table XXIII. The other sources such as telephone, personal interview, and farm magazines were listed by only nine percent of the sample farmers as the most important source. Twenty percent of the farmers did not list any source as most important.

The relative importance of radio and newspapers as a source of market news did not differ significantly among different farm types.

TABLE XXIV

THE NUMBER OF FARMERS BY FARM TYPE LISTING RADIO OR NEWSPAPER MOST IMPORTANT AS A MARKET NEWS SOURCE, MICHIGAN, 1957

	Radio	Newspaper	Total
Dairy	85	13	98
Livestock	49	12	61
General	16	3	19
Part-Time	26	8	34
	176	36	212

$X^2 = 2.34$ at 3 d.f. not significant

Dairy farmers comprised the largest group, of the four types, which listed their most important source as radio. This larger number, however, did not cause a significant relationship between farm types as to the percentage which listed radio or newspapers as the most important source for cattle.

Due to work habits, part-time farmers might be expected to use more newspapers for their most important source of market news. They, too, listed radio first.

No difference occurred in the use of radio as a most important source of market news by comparison of Areas 1, 2, and 3.

TABLE XXV

THE PERCENTAGE OF FARMERS BY AREAS THAT LISTED RADIO AND NEWSPAPERS AS MOST IMPORTANT

	Area 3		Area 2		Area 1	
	Number	Percent	Number	Percent	Number	Percent
Radio	176	56	50	60	8	62
Newspaper	37	12	13	16	2	15

It is shown from Tables XXIV and XXV that all farm types in all areas relied more on radio broadcasts as the most important source of livestock market news for cattle.

Hogs

Radio stations were also listed by farmers as the most important source of market news for hogs.

TABLE XXVI

THE PERCENTAGE OF FARMERS LISTING RADIO OR NEWSPAPERS AS THE MOST IMPORTANT SOURCE OF MARKET NEWS FOR HOGS, MICHIGAN, 1957

	Number	Percent
Radio	125	31
Newspaper	27	7

The percentage of those farmers answering the hog source question was 37 percent lower than those answering the question pertaining to cattle. This was due to a lesser number of farmers having hog enterprises.

Radio was also a more important source than newspaper for hog information when data were compared by type of farm.

TABLE XXVII

THE NUMBER OF FARMERS BY FARM TYPE THAT LISTED RADIO OR NEWSPAPER AS THE MOST IMPORTANT SOURCE OF MARKET NEWS FOR HOGS, MICHIGAN, 1957

	Radio	Newspaper	Total
Dairy	27	3	30
Livestock	50	8	58
General	7	1	8
Part-Time	15	3	18
Total	99	15	114
X^2 = .495 at 3 d.f. not significant			

Livestock farmers were the largest group listing a most important source for hogs. The ratio which listed radio or newspaper as the most important source was similar to the other three farm types. As a result no significant difference appeared between the types of farms.

No change occurred when the areas (2 and 3) were compared to determine the most important source of livestock market news for hogs. Radio was the source listed more often by farmers in both areas.

TABLE XXVIII

THE PERCENTAGE OF FARMERS LISTING RADIO OR NEWSPAPER THE MOST IMPORTANT SOURCE OF MARKET NEWS FOR HOGS BY AREAS

	Area 3		Area 2	
	Number	Percent	Number	Percent
Radio	98	32	27	33
Newspapers	20	6	7	8

About one-third of the farmers in Areas 2 and 3 listed radio as the most important source for hogs. Newspapers were listed by six and eight percent of the farmers in Areas 3 and 2 respectively.

Radio, without exception, was listed by farmers as the most important media to obtain market news for both cattle and hogs.

What Additional Information is Needed

"What additional livestock information do you need?" This question was asked farmers, and is the last of four major questions considered. It was an attempt to determine if farmers needed some type of market news they were not now receiving. One means to improve the coverage is to ask the users of market news what types of information they need.

Fifteen percent of the sample farmers indicated a need for additional information, while the remainder (85 percent) did not know of any additional information they needed.

TABLE XXIX

KINDS OF ADDITIONAL INFORMATION SAMPLE FARMERS INDICATED THEY NEEDED, MICHIGAN, 1957

Categories	Number	Percentage
More Information	23	5.7
Outlook Information	14	3.4
Forward Prices	11	2.7
Accurate and Honest Reporting	7	1.7
More Distinct Price Quotations	3	.7
Auctions over Radio	2	.5
Dairy Stock Prices	2	.5
Earlier Market Reports	1	.2
None	293	72.0
Other	11	3.0
Don't Know	40	10.0
	407	100

Two groups comprise the largest proportion of the additional information needed. These two are: (1) the group wanting "more" information, (2) the group wanting outlook and forward prices.

The first group are farmers that feel a lack of information in addition to what they are now receiving. This group may have given another type of information needed had they had more time to evaluate and answer the question. The remainder may have indicated they needed more of the same information.

The second and third group of farmers, which listed more outlook and forward prices information, will be considered one group. No one farm type predominated in requesting additional outlook or forward price information.

These farmers were checked for location and type of farm and all were found to be evenly distributed over the sample area.

It might appear from Table XXIX that present dissemination by various sources are satisfactory and that no great amount or kind of additional livestock market news is desired. There is a serious weakness that underlies this statement. The data were taken from an "open end" question and may have a bias. This question being the last in this section may have been answered "None" or "I don't know" just to continue with other sections to facilitate a quick completion of the schedule. However, the data may show that no great lack for information has been realized by producers.

Summary

Radio was used by more farmers than any other source of livestock market news. This was found to be so regardless of the type of farming operations and the area in which the farm was located.

Differences in the percentage of farmers who listen to radio broadcasts were found between types of farms. A significantly higher percentage of livestock and dairy farmers listened to radio than did part-time farmers.

Noon hour was the period in which the greatest number of farmers listened to radio for market news broadcasts.

However, early morning audiences were also large.

No differences occurred in Areas 1 and 2. Area 3 farmers were found to listen more to early morning broadcasts than farmers in Areas 1 and 2. This is attributed to the fact that many dairy and part-time farmers in Area 3 listened more to morning reports. A greater percentage of livestock and general farmers in Area 3 listened to noon reports.

The radio station that had the largest listening audience for market news was WJR in Detroit. Two other stations (WKAR and WKZO) had an audience in more than one county. The remaining radio stations were only listed in the one county which they served.

Newspapers ranked second in use by sample farmers and their use was universal with no one area or farm type significantly different in the percentage which read them as a source of livestock information.

Radio was the "most important" source of livestock market news for both hogs and cattle. In all areas and for all farm types, radio was found to be the most important source of livestock market news for both kinds of animals.

Newspapers were second in importance, and the other disseminating media were much less important.

Only fifteen percent of the sample farmers said they needed additional information. These farmers indicated need

for two kinds of information by a greater percentage than any of the other types listed. These were: (1) more information, (2) outlook and forward prices. The remaining 85 percent said "none" was needed on "don't know" of need for additional livestock information. The farmers needing additional information were evenly distributed among areas and farm types.

CHAPTER V

SUMMARY AND CONCLUSIONS

Farmers, as well as trade personnel, use market news for making decisions. Based on prices and expectations they determine which market is most advantageous. Farmers decisions on when and how much to produce and also where livestock should be marketed are based to some extent on price information. Marketing agencies also use market information in their buying and selling operations. Livestock market news originates at markets throughout the country, and is distributed by wire service to all parts of the nation. Radio and newspapers receive market news over teletype. These stations edit the market news of interest and broadcast this information to their audiences.

The purpose of this study was to analyze the adequacy of livestock market news dissemination in Michigan. The objective was to compare the amounts and kinds of market news disseminated with what the farmers use.

This analysis can be useful to public and private agencies involved in the collection and dissemination of livestock market news by suggesting improvements in their service to Michigan's livestock industry.

The data for this thesis was derived from two surveys. The farm survey was concerned with four major questions:

1. The media which farmers listed for receiving information.
2. The markets reported by these media, and in the case of radio the time of day reports were received.
3. What sources of information the farmers found most useful.
4. What additional information was desired or needed by them.

The second survey was conducted among the disseminating agencies serving the farmers. These included radio stations, television stations, daily and weekly newspapers. Information obtained from them included:

1. The number of days each week they reported news, and the time of day reports were given (radio and television).
2. What markets they reported, such as Detroit, local auctions, packer buyers, etc.
3. Methods used to collect information for reporting or printing.
4. The number of agencies printing outlook information, and the source from which it originated.
5. The anticipated changes to be made in dissemination practices in the foreseeable future.

Radio market broadcasts of livestock market news were found to be numerous, resulting in dissemination for all areas of the state. Eighty-nine percent of the radio stations responding to the survey broadcast livestock market news. The predominant source of market news for these radio stations was the terminal markets of Detroit and Chicago. Fifty-one percent of the stations responding also reported auction market news.

The noon hour had the largest number of market news reports broadcasted. The early morning hours (5 to 8 a.m.) ranked second. Within this time period the hour containing the largest frequency of market reports was 6 to 7 a.m. Teletype was used for gathering market news by all stations. This method was used for collecting terminal market news. Telephone, "mail in" reports, and tape recordings were collection methods used by stations reporting auction news. Radio stations generally reported market news from two sources, terminal markets and auctions. Thirty-seven percent gave "market round ups" at the end of the trading week.

Five television stations reported livestock market news. All but one of these stations were located in Area 3. The other was located in Area 2 and occasionally gave auction market news. In general the pattern of reporting and the markets covered were like those given by radio stations.

Eighty-eight percent of the daily newspapers surveyed printed livestock market news. This was news originating at terminal markets, except four dailies which published auction prices. Their methods of collecting market news paralleled radio and television. Daily newspapers had wide enough circulation to be available to all farmers.

Thirty-three percent of the weekly newspapers were found to print auction or other local market prices. Most weekly papers were published on Thursday, resulting in news being two days old or more. Some weekly papers which did not publish market quotations, did publish outlook information. The Michigan State University Information Services was the source most often given for obtaining this outlook information. Most areas of the state had one local paper reporting market news, however, these papers usually serve villages and small rural areas.

Farmers use radio broadcasts more than any other source of livestock market information. Eighty-one percent of the farmers stated they listened to radio stations for market news. Newspapers ranked second among the sample farmers with sixty-one percent listing them as a source used.

The differences in proportions of listeners to non-listeners of radio market news reports were tested between areas. No significant difference between the areas was

found. Two significant differences did occur between types of farms when comparisons were made as to the differences in proportions of radio listeners and non-listeners. A greater percentage of livestock and dairy farmers used radio reports than did part-time farmers. These findings pertain to Area 3. No significant differences between farm types were observed within Area 2.

This study indicates that terminal market news has wide dissemination and use in Michigan. Auction prices are less widely disseminated than terminal market quotations, but a considerable percentage of media report them. When farmers were asked what market news sources they used, most farmers indicated radio and newspapers. Farmers were also asked what market was reported. The largest majority of them listed terminal market news. It would appear, from these findings, that relative to the volume of auction market news reported, less use is made of auction news as compared to the volume reported and use made of terminal market news.

There is need for questioning the usefulness of auction news dissemination in its present form. Auction news does not provide the kind of information needed by farmers and others involved in marketing. This suggests that if auction market news were prepared in a way which would yield more information about price ranges for classes and grades of livestock, and if this information was collected, compiled and made available, it would be more widely used by farmers.

Radio stations give from one to three market newscasts daily. Farmers in most cases listened to one or two broadcasts reporting livestock market news. The large audience that one metropolitan radio station had was also noted from the analysis. The type of program which was a provocative program covering farm policy, weather and general farm information, and the time this station broadcasts these programs was observed. The success of this large radio station in acquiring and holding this large an audience might indicate farmers time for listening is limited, and the amount of information given must create enough interest to attract them. The kind of broadcast attracting the largest listening audience might possibly contain information pertaining to all phases of farm operations, and livestock market news would be included as one of its features. There is need for further research in this respect to determine the kind of programming which is most useful and appealing.

Different hours also attract farmers engaged in different types of farm operations and before evaluation and reallocation of time or resources are considered, the composition of the listening audience must be well understood.

Outlook and forward price information was listed by farmers as the greatest need for additional livestock information. Outlook information was found to be

disseminated primarily from three sources. These sources were farm magazines, daily and weekly newspapers. The latter two agencies secured this information through the Michigan State University Information Services and/or wire service (A.P., U.P.). Although the percentages of farmers in the total sample who indicated additional information was needed was not large, the number which listed outlook as being needed would seem to merit consideration.

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APPENDIX A

9. We would like to obtain a list of sources of information you have or use for livestock market prices.

Source or station & time	Market reported[1]	Type of report 1. Government 2. Private
Radio or TV Time		
1.	_____(46)	_____(58)
2.	_____(47)	_____(59)
3.	_____(48)	_____(60)
Newspapers Weekly Daily		
4.	_____(49)	_____(61)
5.	_____(50)	_____(62)
Telephone reports		
6.	_____(51)	_____(63)
7.	_____(52)	_____(64)
Personal interviews		
8.	_____(53)	_____(65)
Farm magazines		
9.	_____(54)	_____(66)
10.	_____(55)	_____(67)
Other sources		
11.	_____(56)	_____(68)
12.	_____(57)	_____(69)

[1]Market reported (Code)
1. terminal
2. local auction
3. local market or concentration yard
4. packer
5. dealer
6. other _____

10. What two sources do you find most useful? For hogs For cattle

First_____ ____(70) _____(72)

Second_____ ____(71) _____(73)

11. What additional livestock market information do you need?

_____ 1st_____(74)

_____ 2nd_____(75)

_____

APPENDIX B

LIVESTOCK MARKET NEWS

Survey of Radio, Television, and Newspaper Coverage
Radio - TV Schedule

Research Project NCM-18
Agricultural Economics Department
Michigan State University

Station_____ Radio_____ TV_____ Location_____

List times of broadcasts of livestock market news:

	1st	2nd	3rd	4th
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

What markets are reported? (Check or write in)

___ Detroit Stockyards

___ Chicago Stockyards

___ Other _____

___Local auctions _____

___ Packing plants _____

If local auction markets, what day(s) do you carry report?
___Mon. ___Tues. ___Wed. ___Thur. ___Fri. ___Sat.

Do you have a weekly market "round up" or a market news interpretation program? ___Yes ___No
If yes, who does it? _____

How is livestock market news collected? (Check all that apply)

___ Teletype (UP, AP, INS)

___ Telephone

___ Own reporter visits market

___ Describe other arrangements _____

_____

Are you considering any changes in livestock market news coverage? ___Yes ___No
If yes, what change? _____

LIVESTOCK MARKET NEWS

Survey of Radio, Television, and Newspaper Coverage

Newspaper Schedule

Research Project NCM-18
Agricultural Economics Department
Michigan State University

Do you report livestock marketing news and price quotations?

___Yes ___No

On what day(s) is livestock marketing news reported? ___Mon. ___Tues. ___Wed. ___Thur. ___Fri. ___Sat. ___Sun.

What markets are reported? (Check or write in answer)

___Detroit Stockyards
___Chicago Stockyards
___ _____
___ _____
___Local auction or packer buying (write in name)
_____

How is market (livestock) news collected? (Check all that apply)

___ Teletype (UP, AP, INS)
___Telephone
___Own reporter visits market
___Describe other arrangements: _____
_____

Do you publish "Outlook" information dealing with expected future trends in livestock prices? ___Yes ___No

If so, what are the sources of such outlook information? (Check all that apply)

___Teletype (AP, UP, INS)
___Information Services of Michigan State University
___Other arrangements

Are you considering any changes in your livestock market news coverage? ___Yes ___No

If yes, indicate what changes: _____
_____

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