How Do Iowa Farmers Obtain and Use Market News?

by J. Parry Dodds and K. R. Marvin

Department of Technical Journalism

AGRICULTURAL EXPERIMENT STATION, IOWA STATE COLLEGE

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CONTENTS

Summary ...................................................................................................................................... 124
Nature of study ............................................................................................................................ 124
How farmers selling hogs used market news ............................................................................. 124
How farmers selling cattle used market news ........................................................................... 124
How farmers selling corn and soybeans used market news .................................................... 125
Kinds of market news reports preferred ..................................................................................... 125
Farmers' suggestions for changing market news ...................................................................... 126
Outlook information .................................................................................................................. 126
Conclusions ................................................................................................................................. 126
Radio broadcasters .................................................................................................................... 126
Newspaper editors ..................................................................................................................... 126
Farm product buyers ................................................................................................................... 126
Introduction ................................................................................................................................ 127
The purpose of this study ........................................................................................................... 127
The Investigation ....................................................................................................................... 127
Acknowledgements .................................................................................................................. 128
Use of market news in marketing Iowa farm products ............................................................... 128
Hogs ........................................................................................................................................... 128
Media farmers used ..................................................................................................................... 128
Radio ........................................................................................................................................ 129
Broadcasting stations named ....................................................................................................... 129
Station coverage .......................................................................................................................... 130
Programs listened to ................................................................................................................... 131
Times farmers listened ............................................................................................................... 131
Information used in three important marketing decisions ......................................................... 131
Were market terms understood? ............................................................................................... 133
Daily newspapers ........................................................................................................................ 133
Farmers getting market news by both radio and newspapers and those listening to radio only ......................................................................................................................... 133
Telephone ................................................................................................................................ 133
Other media ................................................................................................................................. 134
Marketing practices of hog sellers .............................................................................................. 134
Weight classes of hogs sold ........................................................................................................ 134
Trading channels through which farmers sold hogs ................................................................. 135
Market points farmers paid attention to ..................................................................................... 135
Cattle .......................................................................................................................................... 136
Media farmers used ..................................................................................................................... 136
Radio ........................................................................................................................................ 136
Broadcasting stations and programs named ............................................................................. 137
Times farmers listened ................................................................................................................ 137
Did others get cattle market news for farmers who sold cattle? ............................................... 137
Information used in three important marketing decisions ......................................................... 137
Were market terms understood? ............................................................................................... 137
Newspapers ................................................................................................................................ 139
Telephone ................................................................................................................................ 139
Other media ................................................................................................................................. 139
Marketing practices of cattle sellers .......................................................................................... 140
Marketing channels used by farmers in selling cattle ............................................................... 140
Market points farmers paid attention to ..................................................................................... 140
Grain: corn and soybeans ........................................................................................................... 141
Media farmers used ..................................................................................................................... 141
Radio ........................................................................................................................................ 141
Programs grain sellers listened to ............................................................................................. 142
Times grain market news programs were broadcast ................................................................. 142
Did others get market news for farmers who sold grain? .......................................................... 142
Information used in two important grain marketing decisions ............................................... 142
Newspapers ................................................................................................................................ 143
Telephone ................................................................................................................................ 143
Other media ................................................................................................................................. 144
Marketing practices of farmers selling corn and soybeans ....................................................... 144
Market points farmers paid attention to ..................................................................................... 144
Cream, whole milk and eggs ......................................................................................................... 145
Media farmers used ..................................................................................................................... 145
Radio ........................................................................................................................................ 145
Market points farmers selling cream or whole milk and eggs paid attention to ........................................... 145
Did others get cream and egg market news for farmers who sold cream, whole milk or eggs? .......................... 145
Newspapers ................................................................................................................................................. 147
Telephone ..................................................................................................................................................... 147
Other media ................................................................................................................................................... 147
Marketing practices of farmers selling cream or whole milk ........................................................................ 147
Marketing practices of egg sellers .................................................................................................................. 148
Changes farmers wanted in market news ....................................................................................................... 148
Kind of market news reports farmers preferred ............................................................................................. 148
Suggested changes for market news ................................................................................................................ 148
For more complete reports .............................................................................................................................. 148
For more trend information ............................................................................................................................ 149
On market news scheduling ............................................................................................................................ 149
On current market news presentation ............................................................................................................. 149
Demand for outlook information .................................................................................................................... 149
Appendix A (survey procedures) ................................................................................................................... 149
Foreword ......................................................................................................................................................... 149
The sampling plan .......................................................................................................................................... 150
The universe .................................................................................................................................................... 150
Definition of terms ......................................................................................................................................... 150
Selection of a sample of area sampling units .................................................................................................. 151
Sampling within the segment .......................................................................................................................... 151
Units of observation ......................................................................................................................................... 152
Eligible respondents ......................................................................................................................................... 152
Call-backs ....................................................................................................................................................... 152
Treatment of noninterviews in the field ........................................................................................................... 152
Obtaining the data .......................................................................................................................................... 153
The questionnaire ............................................................................................................................................ 153
Objectives of the questionnaire design .......................................................................................................... 153
Construction and testing ................................................................................................................................. 155
Interviewer training ......................................................................................................................................... 154
Control of field work ....................................................................................................................................... 154
Pre-editing and review ..................................................................................................................................... 154
Sample check .................................................................................................................................................. 154
Nature of the resultant sample ........................................................................................................................ 154
Farms ............................................................................................................................................................... 154
Operators ......................................................................................................................................................... 155
Producer-marketers ....................................................................................................................................... 155
The data ........................................................................................................................................................... 155
Notes on the questionnaire ............................................................................................................................. 156
Note on the effect of farm substitution on the data ........................................................................................ 157
Editing and processing the data ....................................................................................................................... 157
Editing ............................................................................................................................................................. 157
Coding ............................................................................................................................................................ 158
Punching and verifying cards ........................................................................................................................... 158
Tabulation procedure ....................................................................................................................................... 158
Methods of estimation and measures of reliability .......................................................................................... 159
Unbiased estimates of totals and sampling errors for the Iowa open-country zone ..................................... 159
Estimation of totals ......................................................................................................................................... 159
Estimation of sampling errors ........................................................................................................................ 160
Biased estimates of totals ............................................................................................................................... 160
Appendix B (illustrative material) .................................................................................................................. 163
Questionnaire .................................................................................................................................................. 163
Orientation ....................................................................................................................................................... 163
The farm ........................................................................................................................................................... 163
Operator ........................................................................................................................................................... 164
Partner supplement .......................................................................................................................................... 164
Hogs ................................................................................................................................................................. 164
Cattle .............................................................................................................................................................. 165
Corn ................................................................................................................................................................. 165
Soybeans .......................................................................................................................................................... 166
Cream and whole milk ................................................................................................................................. 167
Eggs ................................................................................................................................................................. 167
General information ......................................................................................................................................... 168
Check sheet for noninterviews ........................................................................................................................ 168
NATURE OF STUDY

How farmers get market news and what changes they suggest in the handling of market news is the subject of this study. The information herein was primarily obtained from a survey of 600 Iowa farmers interviewed in April and May 1949. It deals with the way farmers used market news in their last sale of any of six selected commodities before the interview. The importance of this information is indicated by the fact that, in 1948, the six commodities selected accounted for 90 percent of Iowa's cash farm income of $2,121,172,000.

Practically every farmer in the survey had some way of getting day-to-day market news besides personal contact. As of Jan. 1, 1949, 97 percent had radios in working condition, 42 percent had radios in cars and 13 percent had radios in other farm buildings. Eighty-four percent had telephones with which they might get specific market reports and in some cases establish firm prices for their salable products. Eighty-nine percent received daily newspapers which carried market reports for several points.

Ninety-four percent of the farmers received farm papers and farm magazines regularly; 72 percent received Sunday editions of daily newspapers; and 64 percent were getting weekly newspapers at the time of the survey. Farm papers and magazines and the farm sections of daily, Sunday and some weekly newspapers reviewed and predicted market trends of prices and receipts in comparison with past weeks or months.

Only 0.3 percent of the farmers told interviewers they had no way of getting day-to-day market news or general marketing information. In fact, 75 percent of the farmers surveyed received daily newspapers and also had radios in working order and telephones.

Each medium has some advantages. Radio is fast and timely. Newspapers can give detail and analysis. The telephone can verify local markets. Marketing letters can be selective in audience and specific in content. Printed news has greater permanence than oral.

The questionnaire was arranged to take up each of the six commodities separately for two reasons: (1) because many farmers had not sold all of the six commodities recently; and (2) because sources of market news, needs for it and practices in handling it differ according to commodities. Consequently, much of the summary and discussions which follow are segregated under commodity headings.

HOW FARMERS SELLING HOGS USED MARKET NEWS

Most farmers listened to radio hog market news at noon. About half heard some hog market news between 8:54 and 11:00 a.m., the early hours of trading on most markets.

Hog sellers listened to hog market reports about twice a day. The noon farm program on WHO, Des Moines, had the most listeners (41 percent). The second and third largest numbers of hog sellers listened to two WOI, Ames, programs at 10:30 a.m. and 9:45 a.m. daily. Interior and terminal hog markets were broadcast on all three programs.

Sixty-seven percent of the hog sellers had someone listen to hog market news for them when they couldn't be at a radio at market news broadcast times.

Sixteen percent mentioned reading about hog markets in the Des Moines Register. This was the newspaper mentioned most. Farmers selling hogs used 28 other dailies for market news.

Sixty-five percent of the hog sellers said that, in general, they paid attention to terminal hog market places, and 57 percent paid attention to interior hog markets on the radio and/or in newspapers. About half of the hog sellers paid attention to but one market when preparing to sell hogs. The other half paid attention to two or more market places.

Although nearly all hog sellers had telephones, less than half telephoned buyers on their most recent selling day. Two-thirds of these called just one buyer that day. The other third called two or more buyers.

Farmers who sold larger lots of hogs were more likely to use all three media (newspapers, radio and telephone) for market information than those who sold smaller lots.

Other sources farmers used included the Chicago Drovers' Journal and Omaha Journal-Stockman. These are daily livestock exchange newspapers. Farmers also used newsletters about the markets mailed by commission firms located at livestock exchanges.

Hog sellers were asked, “As the time to sell drew near, what way of getting market news did you depend on most?” Eighty-six percent said they “depended most” on radio.

Farmers getting ready to sell hogs must make three important decisions before selling. What weight would be most profitable? On what day would demand be highest? What market or buyer will pay most, considering delivery costs? Radio was believed most helpful by farmers in selecting selling weight and time. Telephone calls to buyers were the greatest help in deciding on the buyer.

HOW FARMERS SELLING CATTLE USED MARKET NEWS

Nearly all cattle sellers had telephones, but only 16 percent actually called buyers the day they sold their last lot of cattle. Two-thirds of
those called one buyer; the other third called two buyers on the day of sale.

Slightly over half of the cattle sellers who listened to some radio market news for cattle from day to day before selling heard such market reports two or more times daily. About a quarter of all farmers selling cattle listened to the WHO, Des Moines, noon farm program, and about 10 percent listened to the 10:30 a.m. cattle markets on WOI, Ames. These were the most commonly mentioned cattle newscasts. A little less than half of the cattle sellers had others listen to cattle market news programs when they couldn’t be at a radio.

One-third of the cattle sellers read cattle market news in daily newspapers. Over one-third of these used the Des Moines Register before selling. Twenty-one other dailies were named.

Cattle sellers were asked for all cattle market points they “paid attention to” on radio and in newspapers. Most of them (72 percent) paid attention to cattle prices at terminal market places. Thirty-five percent paid attention to prices at interior packing plants and concentration yards in Iowa and southern Minnesota when listening to radio or reading newspaper market reports.

A few cattle sellers read market news in such terminal livestock exchange newspapers as the Chicago Drovers’ Journal and the Omaha Journal-Stockman and in the newsletters published by livestock commission firms selling cattle for farmers on terminal livestock exchanges.

Two-thirds of the cattle sellers “depended most” on radio for cattle market information as the time to sell drew near. Also, more farmers gave credit to radio market news than to any other source for information which helped them in selecting the selling weight class and time for their cattle. More cattle sellers selected a selling place by telephoning buyers and talking with businessmen and neighbors than by any other means.

HOW FARMERS SELLING CORN AND SOYBEANS USED MARKET NEWS

The leading radio program for grain-marketing listeners was the noon farm program on WHO, Des Moines. Second was the 10:30 a.m. market news program on WOI, Ames. Thirty-seven other programs were named by a few farmers selling corn or soybeans.

Most of the farmers who listened to any corn or soybean reports listened during the noon hour. One-third of the corn or soybean sellers had others listen to grain market news when they couldn’t be at a radio.

Half of the grain sellers called buyers the day they sold. About two-thirds of these phoned but one buyer and one-third called two.

The Des Moines Register, which was received by the largest number of farmers, was the leading newspaper used for grain markets. Grain sellers mentioned 13 other daily newspapers as read for corn or soybean market reports.

About 50 percent of the farmers selling grain said that, in general, they pay attention to newspaper or radio reports of terminal grain market places. About 30 percent paid attention to local grain prices, and over 20 percent paid attention to interior grain market points. Most farmers watched only one market. Twenty percent or more named two specific markets, and around 15 percent of the grain sellers said they didn’t pay any attention to grain markets in newspapers or on the radio.

Grain sellers were asked, “When you were thinking of selling this corn, what way of getting market information did you depend on most?” About 40 percent depended most on radio market news and somewhat fewer on telephone calls to buyers.

Telephone calls to buyers helped nearly half of the grain sellers decide on a buyer, although only 10 percent of the corn sellers and 5 percent of the farmers selling soybeans used telephone calls to buyers to help in deciding when to sell.

Insufficient price information about local markets limited the value of radio to farmers selling grain.

HOW FARMERS SELLING CREAM OR WHOLE MILK AND EGGS USED MARKET NEWS

Most of those who heard radio cream or egg market news regularly listened at noon. A few listened to midmorning broadcasts of cream and egg prices.

No newspapers stood out as sources of cream or egg market information. Twenty-one daily newspapers were mentioned. Some local weekly newspapers also were named as sources of egg prices.

When the cream and whole milk sellers were asked, “Which one of those (media) do you depend on most for price and market information?” about the same proportions (16 to 18 percent) named “other farmers or neighbors” and calls to buyers. Over a quarter of the egg sellers depended most on neighbors and other farmers for marketing information; one-fifth depended most on phoning buyers. Nearly the same proportions of egg sellers and cream or whole milk sellers (10 percent or more) depended most on radios for market news.

Farmers asked for more information on the radio and in newspapers about local egg and cream markets.

KINDS OF MARKET NEWS REPORTS PREFERRED

Sixty-eight percent of the farmers who sold any of six commodities said they preferred a radio or newspaper report which provides “a complete summary of the market, including top, range and low.” Eighteen percent said they preferred a radio or newspaper report which tells the “price range for the grade making up the bulk of sales.” Ten percent preferred a report
of the “top price for the day on a single market or the top market.”

The complete summary has a clear-cut advantage from the farmer's viewpoint since it is most likely to give him information on the particular product and grade which he has for sale.

Farmers Suggestions for Changing Market News

About 12 percent of the farmers who sold any of six commodities in 1948 wanted market reports on more grades of commodities, information on more of the commodities they sold or more information on local markets near their farms. A few farmers sought more explanations of change in market prices.

Some requested earlier market news broadcasts, and others sought more market summaries at times farmers are normally in their houses. A few suggested a need for greater accuracy in broadcasts and newspapers, more understandable use of market terms and more up-to-date reports.

Most of these comments and suggestions applied to all commodities. Cattle, however, were singled out for comment more than any other commodity. Farmers asked for more adequate information on markets for all grades of cattle.

Outlook Information

Three-fourths of the farmers were interested in getting some outlook information. Forty-five percent wanted to read outlook material weekly, 15 percent daily. They ranked the twice-monthly farm papers first, then monthly farm magazines and radio as their most used sources of outlook information in that order.

Conclusions

Farmers would get better market information if radio broadcasters, newspaper editors and buyers of farm products would take some of the following steps:

Radio Broadcasters

1. Check broadcasting schedules against all other stations serving major segments of the same listener area to determine (a) whether any stations are giving complete midmorning reports and (b) whether any stations are giving complete market news broadcasts at any time.

2. If there is any station providing midmorning reports, consider supplementing those services by a complete local market news broadcast that would provide listeners nearby with information the other station doesn't offer. This program might come immediately before or after the other report. It would necessarily be shorter since it covers but one city's market.

3. If there are no stations providing complete reports either midmorning or later, consider developing a complete midmorning report (preferred) or a complete report later, perhaps at noon. The former type has attracted considerable midmorning listenership to WOI at Ames. The latter, complete for the Sioux City market only, has attracted considerable Iowa listenership for WNAX, Yankton, S.D., at noon.

4. If there are sufficient complete markets news programs (including local markets) serving the listenership area, then it would be better for other stations to ignore market news rather than to present summaries which might be too brief and perhaps misleading.

5. Provide reliable agricultural outlook information regularly.

Newspaper Editors

1. Since four-fifths of the daily newspaper subscribers among farm operators take but one paper, consider publishing regularly as complete market news (obtained on the news wires) as time, space and costs will justify.

2. Gather and publish the local market news regularly.

3. Provide reliable agricultural outlook information regularly.

Farm Product Buyers

1. When telling farmers the prices being paid, use the same descriptive terms as are used on radio and in newspaper reports. This will enable farmers to place values on their products after getting market information from buyers, radio or newspapers.
INTRODUCTION

THE PURPOSE OF THIS STUDY

This is the report of a field study of the principal ways Iowa farmers get and use market news. The survey planning began in August 1948 under Iowa Agricultural Experiment Station Project 1031, "Effectiveness of Assembling and Disseminating Agricultural Marketing Information" and under United States Department of Agriculture, Production and Marketing Administration, Research and Marketing Act Project RM: C-55. These were joint projects in 1948-50. In 1950-51 the research was continued under contract with the Production and Marketing Administration.

This report is written for the information of those who gather, process, distribute and use agricultural market news.

THE INVESTIGATION

The survey questionnaire was designed to show what sources of market news farmers had available, how they used market news and what changes they suggested in its handling. Appendices A and B present a detailed description of the survey procedures together with some data on the reliability or precision of the survey results.

Radio, newspaper, specialized market newspaper, telephone and the mailed federal-state market news report were the principal ways for getting market news to farmers considered in this study.

As indicated by the survey, about 72 percent of Iowa's open-country farmers were receiving at least one Sunday newspaper regularly; 64 percent, at least one weekly newspaper of some kind; 94 percent, at least one twice-monthly or monthly farm paper or farm magazine regularly (see Appendix A, for definitions). One percent of the farmers reported regular receipt of market information from commission firms handling livestock or grain on terminal markets or from other farm products firms.

Market news reports that cover more than 20 farm products are available to Iowa farmers. These products are hogs, cattle, sheep, live poultry including turkeys, eggs, butter and other dairy products, corn, wheat, oats, barley, soybeans, flax seed, rye, lard, grass and legume seeds, wool and certain truck crops in the areas where produced. Ninety percent of Iowa's cash farm income in 1948 came from hogs, cattle and calves, dairy products, corn, eggs and soybeans in that order of value. Consideration of the marketing of those six commodities was believed sufficient to reflect the use Iowa farmers made of market news. Farmers were asked about their last sale of those products if they had sold any in 1948.

The "last sale" approach restricted the farmer to talking about the one sale he would be most likely to recall. The percentages of such sales which occurred each month between Jan. 1, 1948, and the time of interview are shown in table 1, for the sample of farmers.

TABLE 1. MONTHS IN WHICH FARM OPERATORS' LAST SALES TOOK PLACE

<table>
<thead>
<tr>
<th>Month</th>
<th>Butcher Hogs</th>
<th>Cattle</th>
<th>Corn</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>1.0</td>
<td>6.5</td>
<td>2.1</td>
<td>3.4</td>
</tr>
<tr>
<td>February</td>
<td>0.6</td>
<td>1.5</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>March</td>
<td>0.6</td>
<td>1.0</td>
<td>0.8</td>
<td>1.4</td>
</tr>
<tr>
<td>April</td>
<td>0.4</td>
<td>3.8</td>
<td>2.1</td>
<td>1.4</td>
</tr>
<tr>
<td>May</td>
<td>0.4</td>
<td>4.5</td>
<td>5.5</td>
<td>1.4</td>
</tr>
<tr>
<td>June</td>
<td>0.6</td>
<td>4.3</td>
<td>7.8</td>
<td>1.4</td>
</tr>
<tr>
<td>July</td>
<td>0.6</td>
<td>2.6</td>
<td>7.0</td>
<td>0.7</td>
</tr>
<tr>
<td>August</td>
<td>0.6</td>
<td>4.1</td>
<td>3.9</td>
<td>8.7</td>
</tr>
<tr>
<td>September</td>
<td>2.2</td>
<td>4.6</td>
<td>3.9</td>
<td>8.7</td>
</tr>
<tr>
<td>October</td>
<td>5.2</td>
<td>6.9</td>
<td>7.0</td>
<td>61.4</td>
</tr>
<tr>
<td>November</td>
<td>10.5</td>
<td>6.9</td>
<td>10.5</td>
<td>10.8</td>
</tr>
<tr>
<td>December</td>
<td>-15.0</td>
<td>11.2</td>
<td>18.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*These figures do not represent the total amount of trading taking place each month—the survey was not designed to yield that information. Since the interviewing was completed about May 17, there was less opportunity for sales to be reported for that month than for preceding months.
The sample of farmers specified for interview was limited to the operators of 600 farms in open country—that is, in the area which is outside incorporated towns or cities and unincorporated villages. These 600 farms were selected by modern probability methods from all farms in Iowa open country. In 1949 over 90 percent of the farms in Iowa were in open country. Two hundred small areas, each about 1 square mile in size, were chosen for the sample. These were distributed over the state in such a way that at least one and generally two areas were located in each of Iowa's 99 counties. For each of these sample areas, three farms were selected by an objective procedure, and interviews were obtained from their operators and landlords. (See Appendix A for details on the sampling method.)

The interviewing was done mostly in April and May 1949.

Data in this report are presented as percentages of all Iowa open-country farms or farmers, unless some distinct subgroup of farmers is indicated. Because information was obtained for a sample of farms and farm operators, these percentages are only estimates for the open-country farm portion of the state. However, since the sample was chosen according to the laws of mathematical probability, it is possible to determine approximately how reliable these estimates are. See Appendix A for information about the reliability or precision of totals estimated from the survey data and how close to those estimates the true values can reasonably be assumed to be.

In 1948 about 96 percent of all Iowa open-country farmers had sold one or more of the six commodities studied in the survey. Considering only sales of the operators' shares of the products raised on their farms, the survey data indicate that:

- 90 percent of the farmers sold hogs and/or cattle for slaughter or feeder purposes in 1948.
- 60 percent sold both hogs and cattle.
- 24 percent sold hogs but not cattle.
- 6 percent sold cattle but not hogs.

Similarly, 38 percent of the farmers sold corn and/or soybeans in 1948.

- 8 percent sold both corn and soybeans.
- 17 percent sold corn but not soybeans.
- 13 percent sold soybeans but not corn.

Also, 84 percent of the farmers sold cream or whole milk and/or eggs in 1948.

- 59 percent sold both eggs and cream or whole milk.
- 12 percent sold cream or whole milk but not eggs.
- 13 percent sold eggs but not cream or whole milk.

Specific information applying to market news programming and to the content of broadcasts was obtained from each of the radio stations located in Iowa and 14 other radio stations that farmers mentioned in the survey. This information represented radio programs as of the spring of 1949.

The information was obtained from some radio stations by correspondence. Other stations that did not answer the mailed questions were reached by phone or personal interview. All information for each station was transferred to uniform program forms and returned to the station for verification. The farm director or program director of each station verified, signed and returned the forms. These were then analyzed.

Newspaper market news presentation was analyzed in all newspapers farmers mentioned as sources of market news. Market cities reported and the grades and commodities covered were summarized.

ACKNOWLEDGEMENTS

The leader-in-charge of project 1031, under which the research was done, was K. R. Marvin, professor and head of technical journalism at Iowa State College. J. P. Dodds of the Iowa Agricultural Experiment Station was project leader. Kenneth J. McCallister, Marketing Facilities Research Branch of the Production and Marketing Administration, United States Department of Agriculture, served as advisor on the project.

Sample design and preparation of sampling materials were done for the field survey by members of the Statistical Laboratory, Iowa State College, under the direction of R. J. Jessen, assisted by N. V. Strand and John Monroe. The questionnaire was drawn up and tested by J. P. Dodds and N. V. Strand. The Interviewer's Manual was written by John Monroe and Mrs. Jauvanta Walker of the Statistical Laboratory. John Monroe arranged and conducted the interviewer training school. Questionnaire editing, coding, transfer of data to IBM cards and tabulation were done primarily by members of the computing section of the laboratory, under the direction of John Monroe. The procedure for making estimates from the sample was prepared by Om Prakash Aggarwal, then graduate assistant in the Statistical Laboratory. Subject matter analysis was by J. P. Dodds, assisted by Chia Ying Wu and members of the laboratory staff.

The advice and assistance of R. C. Bentley, WOI-AM-FM-TV market news editor; Geoffrey S. Shepherd, professor of economics; and R. J. Jessen, survey statistician and professor of statistics, are gratefully acknowledged. Credit is also due to Jauvanta Walker for her aid in preparation of the manuscript.

USE OF MARKET NEWS IN MARKETING IOWA FARM PRODUCTS

HOGS

MEDIA FARMERS USED

Hogs are Iowa's leading cash income crop. According to USDA Bureau of Agricultural Economics figures, in 1948, sales of hogs, pork and lard accounted for 40 percent of Iowa's cash farm income total of $2,121,172,000. Sales of cattle, calves, beef and veal accounted for 23 percent of that total; corn, 8 percent; eggs, 6 percent; cream and milk, 9 percent; soybeans, 4 percent; and all other commodities, 10 percent.

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Footnotes:
TABLE 2. AVAILABILITY AND USE OF MARKET NEWS MEDIA BY SELECTED GROUPS OF FARMERS

<table>
<thead>
<tr>
<th>Class of open-country farm operators</th>
<th>Had radios in working order Jan. 1, 1949</th>
<th>Received daily newspapers regularly</th>
<th>Had telephones</th>
<th>Listened to radio daily for commodity market news*</th>
<th>Head daily market news in newspapers*</th>
<th>Phoned buyers on day of last sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total open-country farmers</td>
<td>(percent) 97</td>
<td>(percent) 93</td>
<td>(percent) 84</td>
<td>(percent) 04</td>
<td>(percent) 45</td>
<td>(percent) 43</td>
</tr>
<tr>
<td>Farmers who sold in 1948:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hogs for slaughter or feeder purposes</td>
<td>98</td>
<td>90</td>
<td>87</td>
<td>04</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td>Cattle for slaughter or feeder purposes</td>
<td>98</td>
<td>88</td>
<td>90</td>
<td>67</td>
<td>34</td>
<td>16</td>
</tr>
<tr>
<td>Corn</td>
<td>98</td>
<td>89</td>
<td>85</td>
<td>57</td>
<td>38</td>
<td>55</td>
</tr>
<tr>
<td>Soybeans</td>
<td>97</td>
<td>90</td>
<td>87</td>
<td>63</td>
<td>37</td>
<td>50</td>
</tr>
<tr>
<td>Cream or whole milk</td>
<td>98</td>
<td>90</td>
<td>85</td>
<td>8</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Eggs</td>
<td>98</td>
<td>89</td>
<td>86</td>
<td>19</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Farmers who sold any of the six commodities in 1948§</td>
<td>98</td>
<td>90</td>
<td>86</td>
<td>92</td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

*For farmers selling cream or whole milk and farmers selling eggs, percentages represent those listening to or reading day-to-day market reports during the past month.

No strictly comparable information was obtained. Only 1 percent of the cream or whole milk sellers had called any buyer during the previous month other than the buyer to whom they were selling.

No comparable information was obtained.

§On an average, 19 out of every 20 open-country farmers in Iowa had sold at least one of the six commodities in 1948.

Fig. 1. Market Information media farmers selling hogs depended on most (percent of farmers who had sold hogs for slaughter or feeder purposes in 1948).

According to the market news survey, 88 percent of Iowa's open-country farmers sold hogs for slaughter or feeder purposes in 1948. Table 2 indicates how farmers who had sold hogs used the three most important ways of getting market news as they planned their last sale of butcher hogs prior to the survey.

Farmers selling butcher hogs depended on radio above all other media for getting market news. Eighty-six percent called radio the "way of getting market information depended on most as the time to sell drew near." (See fig. 1.)

The following four sections show how farmers used radio, newspapers, telephone and other hog market news media.

RADIO

Radio served 94 percent of the hog sellers. On the average, these farmers recalled listening to 1.9 market news programs each day on 1.7 different stations as they prepared to make their last butcher hog sale.

BROADCASTING STATIONS NAMED

Table 3 shows what stations farmers named as "listened to regularly" for hog market reports and the percent of farmers who listened to each station. Two stations located near the center of Iowa, WHO (50,000 watts, 1040 kilocycles), Des Moines, and WOI (5,000 watts, 640 kilocycles),

The term "hog sellers" is used to refer to these operators of open-country farms who had sold hogs or pigs for slaughter or feeder purposes in 1948. These farmers were then asked for information concerning their last sale of butcher hogs prior to interviewers' visits.

TABLE 3. RADIO STATIONS HOG SELLERS LISTENED TO FOR HOG MARKET NEWS

<table>
<thead>
<tr>
<th>Stations</th>
<th>Percent of hog sellers</th>
<th>Type of markets reported*</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>43</td>
<td>Terminal, Interior,</td>
</tr>
<tr>
<td>WOI</td>
<td>37</td>
<td>Terminal, Interior,</td>
</tr>
<tr>
<td>KMA</td>
<td>10</td>
<td>Terminal</td>
</tr>
<tr>
<td>KMJ</td>
<td>10</td>
<td>Interior</td>
</tr>
<tr>
<td>KWXL</td>
<td>5</td>
<td>Terminal</td>
</tr>
<tr>
<td>KKFJ</td>
<td>5</td>
<td>Interior</td>
</tr>
<tr>
<td>KWSL</td>
<td>4</td>
<td>Terminal</td>
</tr>
<tr>
<td>KKKF</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>KXEL</td>
<td>5</td>
<td>Terminal</td>
</tr>
<tr>
<td>KMPB</td>
<td>1</td>
<td>Terminal</td>
</tr>
<tr>
<td>KTRI</td>
<td>1</td>
<td>Terminal</td>
</tr>
<tr>
<td>KWVL</td>
<td>1</td>
<td>Terminal</td>
</tr>
</tbody>
</table>

*Radio market broadcasting information obtained for April-May 1949 by mail and personal interviews with all Iowa AM stations and those out-of-state stations mentioned by farmers interviewed. 121 other stations, including 15 Iowa stations and 6 out-of-state ones, were each reported by a few but less than 1 percent of the farmers.
Ames, were named most. WMT (5,000 watts, 600 kilocycles), Cedar Rapids, serving east-central Iowa, was used by the third highest proportion of farmers. Three stations located near the borders of Iowa were next in numbers of listeners.

Terminal markets were defined as public stockyards where commission firms sell for the shippers. Usually several local packers as well as firms shipping hogs to other packing plants are buyers on terminal markets. Examples: Chicago, Omaha, Sioux City and South St. Paul.

Interior markets are packing plants and concentration points reported by the Federal-State Market News Service at Des Moines, Iowa. These are located in Iowa and two points in southern Minnesota. Examples: Waterloo, Ottumwa, Perry and Estherville, Iowa, and Austin, Minnesota.

Local markets are those in the same town as the radio station. These may be either terminal or interior market points or may be smaller buying stations not reported by the federal or federal-state market news services.

STATION COVERAGE

The preceding section has shown farmers' preferences for radio stations. The area coverage of stations may show about how far away listeners of individual stations may be located. The Iowa coverage areas of the leading stations, WHO, WOI, WMT and WNAX, as indicated by the interview survey, are shown in figs. 2, 3, 4 and 5. Each dot locates the farm of a respondent who mentioned the station as a source of hog market news.

WHO, Des Moines, was named by farmers in 69 counties, mainly concentrated in the central part of the state. The farmers who listened to hog market news over WOI, Ames, were found in 78 counties. WMT, Cedar Rapids, was reported by hog sellers in 28 counties of eastern Iowa.

However, if any of these markets is located in the same town as a radio station, it will be considered a local market for that station.

11
WNAX, Yankton, S.D., furnished market news to hog farmers living in 18 northwestern Iowa counties.

The area where people can listen to a station is partly determined by station transmitter power and frequency. Therefore, chances are that a station with a transmitter power of 5,000 watts at a frequency of 600 kilocycles will have more listeners than a similarly located station with but 1,000 watts and nearly the same frequency, say, 1,600 kilocycles.

PROGRAMS LISTENED TO

Table 4 lists the 17 programs farmers named most often for hog market news. The types of markets reported on these programs also are shown.

Thirty of the 37 stations named had one or more noon-hour programs with market news. During the morning, after the hog market prices for the day became available, from 8:34 a.m. to 11 a.m. inclusive, 20 stations broadcast 28 separate market news programs. Two of these midmorning programs had the second and third most listeners. These were WOI's 10:30 a.m. complete morning report of both terminal and interior hog markets and WOI's 9:45 a.m. report of the opening prices paid at interior and terminal hog markets. Thirty-three percent of the farmers selling hogs listened to either one or both of these WOI midmorning programs.12

At 10:15 a.m. KBIZ, Ottumwa (250 watts, 1240 kilocycles), broadcast local packer's hog prices daily. Nine of the 24 survey farmers selling hogs and living within 34 miles of Ottumwa named this program.

TIMES FARMERS LISTENED

Eighty-four percent of the hog sellers listened to hog market news between 12 noon and 1 p.m. inclusive before their last butcher hog sale. Twenty-one percent mentioned more than one market news program they heard during the noon hour.

Forty-three percent of the farmers selling hogs listened to hog market news between 8:34 and 11 a.m. inclusive. Broadcasts of market news during these hours generally contain prices established in trading during the same morning. Practically all of these farmers mentioned only one program in this period.

Figure 6 shows the percentages of all hog sellers sampled who were listening to hog market news broadcasts by quarter-hour periods. The ratio of those listening during the middle of the morning to those listening at noon shows the importance of the midmorning reports.

The numbers of broadcasting stations reporting market news during each 15-minute period were totaled to show what hours market news was available on stations farmers mentioned in the survey (fig. 7). The higher bars show that farmers' opportunities to hear hog market news were best between 6 and 7 a.m. and at noon. All during the morning and at 6 p.m. farmers had good chances to hear hog market news.

Early morning broadcasts (before 8:34 a.m.) usually reported the numbers of hogs expected on terminal and interior markets that day and sometimes reviewed the previous day's prices.14 Midmorning broadcasts (8:34 to 10 a.m.) first reported prices and supplies on markets at opening time and later (10 a.m. to noon) reported established prices for some market points. Noon broadcasts usually included the same reports as those from 10 a.m. to noon plus any changes that took place.

The few market news broadcasts later in the day (after 1 p.m.) reported closing markets including prices paid and sometimes supplies carried over to the next market day.

Sixty-seven percent of the farm operators selling hogs said they have someone else listen when they can't listen to hog market reports. This emphasizes the need for accurate reports at regular times so that people unfamiliar with the reports may copy them.

It is assumed that most "substitute listening" occurred during midmorning market news broadcasts. This can neither be confirmed nor denied from this survey information, however.

INFORMATION USED IN THREE IMPORTANT MARKETING DECISIONS

The farmer has three important decisions in hog selling that may be influenced by market information: the most profitable selling weight, the most profitable selling day and the most advantageous outlet. Hog sellers were asked for their last butcher hog sale, "Where did you get the information that helped you decide on the buyer of the hogs, the weight at which to sell and the time to sell?" The factors influencing these

---

12 See footnote *, table 1.
13 See footnote *, table 3.
14 See footnote *, table 3.
15 percent listened to WOI hog market news at 9:45 a.m. only.
16 percent listened to WOI hog market news at 10:30 a.m. only.
17 percent listened to WOI hog market news at both 9:45 and 10:30 a.m.
18 percent total.
Fig. 6. Time periods farmers listened to hog market news (percent of 475 hog sellers who listened to any hog market news).

Fig. 7. Time periods radio stations broadcast hog market news (percent of 37 stations farmers named as sources of hog market news).
decisions are complex and difficult to measure. Marketing decisions may be affected by feed supply, roads and weather, labor and transportation, custom, etc.

Large numbers of farmers named none of the usual market news media sources (see table 5). Rather, they ascribed their decisions to such things as, “Always sell this weight and to this buyer.” “Hogs ready to go, and this buyer is closest.” “This is most profitable weight, I know this.” “Have sold there for years.”

The information in this table shows how important market information was to farmers at the time they sold a particular lot of butcher hogs.

WERE MARKET TERMS UNDERSTOOD?

Eighty-three percent of the farmers who sold hogs said they could judge the grade of their hogs “sufficiently close so as to compare them with the animals being reported” in market news. In other words, 88 percent believed they could read or listen to market news reports and determine the price that their salable hogs would bring on various markets.

Fifteen percent of the hog-sellers said that they rely on the opinion of others to determine what the grade of their hogs might be. The remaining 2 percent said they paid no attention to grade.

DAILY NEWSPAPERS

Ninety percent of the farmers who sold hogs in 1948 were receiving daily newspapers of general circulation regularly at interview time. The hog market news columns were read by 45 percent.15

The Des Moines newspapers, centrally located, circulate over a larger portion of Iowa than do any others.16 Sectional daily newspapers, such as the Sioux City Journal, the Cedar Rapids Gazette and the Waterloo Daily Courier, were important news sources for nearby farmers. A few farmers read more than one newspaper.

The coverage of hog market reports in daily newspapers varied, although many newspapers covered all three types of markets. Usually newspapers gave prices paid by local buyers. At terminal hog market cities, the local reports published were complete as to receipts and prices by grades and weights. This was true, too, for cities having large packing houses. Complete reports of Chicago’s hog market were carried in every newspaper. The Kansas City, South St. Paul and Omaha markets were reported in a few of these newspapers. The Des Moines Register carried complete reports of terminal and interior Iowa and southern Minnesota hog markets. These were in the form of tabulations by weight and grade for eight interior and four terminal markets as well as news stories on the interior and Chicago markets. The Waterloo, Cedar Rapids and Mason City dailies gave complete daily prices for packing plants located in nearby cities as well as in their own. Interior market reports in other newspapers were brief, general reports which did not point out prices paid at specific points.

An advantage of newspaper market news over radio market news is that the former may be used for reference whenever the farmer has time. Most newspaper market news columns are far more complete than the information a listener can copy from radio broadcasts. However, only 3 percent of the farmers selling hogs said that, as the time for selling drew near, they depended on newspapers most for hog marketing information. The number of farmers who reported they used newspaper hog market news and did not use radio market news was only 3 percent of all farmers who sold hogs. Also, fewer farmers read newspaper market reports than listened to radio market news.

FARMERS GETTING MARKET NEWS BY BOTH RADIO AND NEWSPAPER AND THOSE LISTENING TO RADIO ONLY

Forty-eight percent of the farmers who sold hogs obtained hog market news both by reading newspapers and other publications and by listening to radio. The use of these two methods together should better prepare a farmer for hog marketing decisions (see table 6).

TELEPHONE

The most direct way a farmer can price his hogs without leaving the farm is by calling hog

<p>| TABLE 5. SOURCE OF INFORMATION USED BY HOG SELLERS IN REACHING MARKETING DECISIONS (PERCENT OF HOG SELLERS) |</p>
<table>
<thead>
<tr>
<th>Source of information</th>
<th>Selling weight</th>
<th>Selling time</th>
<th>Sales outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio hog market news</td>
<td>18</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Newspaper market news (including terminal market papers)</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Calls to buyers (including co-op buyers)</td>
<td>3</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Visits to market places (terminal stockyards, auctions, etc.)</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Talks with other businessmen and neighbors</td>
<td>2</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Others (including weather)</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>No source mentioned</td>
<td>68</td>
<td>67</td>
<td>63</td>
</tr>
</tbody>
</table>

<p>| TABLE 6. COMPARISON OF HOG SELLERS USING RADIO BUT NOT NEWSPAPERS WITH THOSE USING BOTH FOR HOG MARKET INFORMATION (PERCENT OF HOG SELLERS IN EACH CLASS) |</p>
<table>
<thead>
<tr>
<th>Market news medium used</th>
<th>Before last butcher hog sale</th>
<th>Used radio not daily newspaper</th>
<th>Used both radio and daily newspaper</th>
</tr>
</thead>
<tbody>
<tr>
<td>(percent) (percent)</td>
<td>(percent)</td>
<td>(percent)</td>
<td>(percent)</td>
</tr>
<tr>
<td>Listened to day-to-day hog market news</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Have someone else listen to hog market news when cannot listen</td>
<td>65</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Received a daily newspaper regularly</td>
<td>85</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Read day-to-day newspaper hog market news</td>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Read market news in market papers* other than daily newspapers</td>
<td>0</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Had a telephone</td>
<td>54</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Called buyers for information on day of sale</td>
<td>42</td>
<td>47</td>
<td></td>
</tr>
</tbody>
</table>

*Includes such daily market papers as Chicago Farmers’ Journal and Omaha Journal-Stockman as well as other farm publications less frequently published.
buyers. Forty-three percent of the farmers who had sold hogs, called buyers the day of their last butcher hog sale. One-third of these farmers telephoned two or more buyers. Two-thirds called just one buyer the day of sale.

Farmers use the telephone for calling buyers to confirm price and for closing sales. When asked, “Where did you get the information that helped you decide on the buyer of the hogs?” 27 percent of the farmers who called buyers the day they made their last butcher hog sale named “telephone calls to buyers.” Only 11 percent of those who didn’t call any buyers the day of their last sale said “telephone calls to buyers” were a help to them in picking the buyer. Eleven percent of each group said they received advice about buyers from other businessmen and neighbors.

Telephoning was not considered important for deciding on marketing weight or time.

Farmers who phoned buyers for information differed little from other farmers in other ways of getting market news (see table 7).

### OTHER MEDIA

About one-fifth of the hog sellers read market news in periodicals other than general-circulation daily newspapers. The most frequently mentioned of these were commission firm newsletters27 (by 5 percent of the hog sellers), daily Chicago Drover’s Journal (also by 5 percent), and (by about 2 or 3 percent of the hog sellers), daily Omaha Journal-Stockman, daily mailed government reports, weekly mailed government

### MARKETING PRACTICES OF HOG SELLERS

Farmers were asked what classes of butcher hogs they sold and how these were marketed. These questions were asked for two reasons: (1) to make sure the farmer answered questions about his use of market news in making one particular sale, the last sale prior to interview; (2) to find out what weight classes farmers did sell and what marketing methods they used.

### WEIGHT CLASSES OF HOGS SOLD

The butcher hogs farmers sold at last sale represented a broad range of weight classes (see fig. 8). The actual number of hogs sold in the two combined weight classes, 220 to 269 pounds, by any farmer, ranged from 22 to 28 .head. The average size of sales may be influenced by the common practice of loading the so-called 1½-ton truck with around 25 hogs of these weights.18

Whether the use of each market news medium was independent of number of hogs in the sale was tested (see table 9). This involved use of chi-square tests of independence. Among the values tested were the number of farmers who read market reports in newspapers and sold less than the joint-median number of butcher hogs reported sold in last sales (16 head of hogs) compared with those who used newspaper market reports and sold more joint-median number of hogs. The resulting chi-square was higher than the 99-percent probability level. With that chi-square, it was reasonable to conclude that those who sold fewer numbers of hogs were less likely to read newspaper market reports than those who sold larger numbers of hogs.

Similar tests were applied to farmers’ use of radio for market news and their use of telephone to call buyers. Those making smaller sales were

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27 Excluding the Producer’s Guide (mentioned by about 1 percent of the hog sellers).

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### TABLE 8. WEIGHT CLASSES OF BUTCHER HOGS SOLD

<table>
<thead>
<tr>
<th>Weight class (pounds)</th>
<th>Average number of hogs sold in weight class*</th>
<th>Average number of all weight classes sold*</th>
<th>Average number of different weight classes in last sale*</th>
</tr>
</thead>
<tbody>
<tr>
<td>160 to 169</td>
<td>4.3</td>
<td>26.7</td>
<td>3.0</td>
</tr>
<tr>
<td>180 to 199</td>
<td>8.0</td>
<td>30.9</td>
<td>1.2</td>
</tr>
<tr>
<td>200 to 219</td>
<td>17.3</td>
<td>18.5</td>
<td>1.2</td>
</tr>
<tr>
<td>220 to 239</td>
<td>22.2</td>
<td>25.2</td>
<td>1.1</td>
</tr>
<tr>
<td>240 to 259</td>
<td>23.9</td>
<td>24.9</td>
<td>1.1</td>
</tr>
<tr>
<td>270 to 299</td>
<td>17.2</td>
<td>22.4</td>
<td>1.3</td>
</tr>
<tr>
<td>300 to 339</td>
<td>25.1</td>
<td>26.2</td>
<td>1.3</td>
</tr>
<tr>
<td>330 to 399</td>
<td>22.2</td>
<td>27.6</td>
<td>1.5</td>
</tr>
<tr>
<td>360 to 399</td>
<td>11.4</td>
<td>16.5</td>
<td>1.4</td>
</tr>
<tr>
<td>400 to 499</td>
<td>4.2</td>
<td>9.1</td>
<td>1.8</td>
</tr>
<tr>
<td>500 and over</td>
<td>1.0</td>
<td>8.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*By farmers making any sales in a given weight class.
just as likely to use radio market news or call buyers as those making larger sales.

Similar tests showed that farmers selling smaller lots of hogs were less likely to use three media combined (radio, newspaper and phone) for market information than those who sold larger lots of hogs in their last sale prior to the interview.19

Trading Channels Through Which Farmers Sold Hogs

The ways hogs moved from farm to packer were fairly diverse. Each kind of outlet is known to perform somewhat different combinations of marketing functions. How much each of these outlets was used is shown in table 10.

Reload stations are fairly large yards usually located in county seat towns. They are defined as those which buy for one particular packer at another city. Reload stations get hogs directly from the farmer, who either hauls his hogs to the reload station or sells directly to a reload station buyer who deals for the hogs on the farm.

Independent buyers have a small yard at which they assemble their purchases. These hogs are resold each day to the packer or other buyer who offers the best price.

Interior packers (packers not located at terminal market cities) usually buy hogs at the plant. Sometimes their buyers travel from farm to farm buying hogs.

Commission firms sell hogs for farmers to packers at the public stock yards or to buyers for packing plants in other cities.

Since farmers reported the outlet for their last sale rather than for all sales in 1948, no inference was made about actual proportions of hogs sold through various outlets in 1948.

Seventy-nine percent of the hog sellers made their last sale at their usual outlet. The remaining 21 percent sold at some outlet other than the usual one. Eighty-five percent of the latter sold at a new outlet because of higher price or better services. The other 15 percent changed buyers for such reasons as, they “had moved to a new farm” or the buyer was “no longer in business.”

Nearly the same proportions of both groups (those selling at usual outlet and those who changed outlets) used radio and newspaper hog market news (see fig. 9). Radio was the medium “depended upon most for market information as the time to sell drew near” by farmers in both groups. No other single medium was considered important among the farmers in either class.

Market Points Farmers Paid Attention To

About half of the hog sellers paid attention to reports from one market point.20 Forty-seven percent named two market points; 3 percent named three. Among all farmers who paid attention to market points, 65 percent named terminal markets and 57 percent named interior markets. Only 4 percent named market points within their own county.

The sample was sufficiently dispersed that individual market cities were named infrequently.

TABLE 9. AVERAGE NUMBER OF BUTCHER HOGS SOLD BY FARMERS GETTING MARKET NEWS IN DIFFERENT WAYS

<table>
<thead>
<tr>
<th>Hog sellers who:</th>
<th>Radio</th>
<th>Newspaper</th>
<th>Telephone</th>
<th>All three</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did use</td>
<td>22.7 head</td>
<td>27.2 head</td>
<td>34.1 head</td>
<td>27.4 head</td>
</tr>
<tr>
<td>Did not use</td>
<td>24.0 head</td>
<td>20.2 head</td>
<td>21.8 head</td>
<td>21.4 head</td>
</tr>
</tbody>
</table>

TABLE 10. TYPE OF OUTLET FOR LAST SALE OF BUTCHER HOGS

<table>
<thead>
<tr>
<th>Type of outlet</th>
<th>Percent of hog sellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reload station</td>
<td>31</td>
</tr>
<tr>
<td>Independent buyer</td>
<td>21</td>
</tr>
<tr>
<td>Interior packing house</td>
<td>15</td>
</tr>
<tr>
<td>Commission house on terminal market</td>
<td>13</td>
</tr>
<tr>
<td>Order buyer</td>
<td>9</td>
</tr>
<tr>
<td>Livestock shipping association</td>
<td>2</td>
</tr>
<tr>
<td>Auction (sales barn or farm dispersal)</td>
<td>1</td>
</tr>
<tr>
<td>Truckee buyer</td>
<td>7</td>
</tr>
<tr>
<td>Others*</td>
<td>7</td>
</tr>
</tbody>
</table>

*Direct to another farmer, farmer's elevator, etc.
Hog Telephone
Coiled Buy's On Day of Sale
Recognized Buy's as Aid in Selecting Outlet for Last Sale
Hod Radio
Listened to Day-to-Day Market News Before Last Sale
How Someone Else Listen to Market News When Can't Be At Radio
Depended Most on Radio for Market Information
Received Daily Newspaper Regularly
Read Day-to-Day Market Reports at Time of Last Sale

Fig. 9. Market news media used by hog sellers.

Therefore, each city named was classified appropriately as terminal, interior or local. Terminal markets were those having public stockyards. Interior markets were those located outside the county of the interview and which did not qualify as terminal markets. Local markets were those within the county of interview, whether stockyard city, interior packing plant city or small country buyer. Many farmers could easily get both terminal and interior reports because both were published in leading newspapers and broadcast on the three radio stations having the most listeners.

Types of hog market news programs farmers who sold hogs heard over radio are shown in table 11.

CATTLE

MEDIA FARMERS USED

Cattle sales were the second largest cash item from farming for Iowa farmers in 1948; Bureau of Agricultural Economics figures indicate that sales of cattle, calves, beef and veal accounted for $492,004,000, or 23 percent of Iowa's cash farm income. According to the market news survey, 66 percent of the open-country farmers sold cattle or calves for slaughter or feeder purposes in 1948. Table 12 shows how these farmers used the three most important ways of getting cattle market news as they planned their last sale prior to the survey.

Sixty-three percent of all cattle sellers called radio the "way of getting market information depended on most as the time to sell drew near."122 Eighteen percent indicated that they depended upon past experience for their decisions in cattle marketing. This characteristic was more prevalent among those selling other cattle than among those selling slaughter steers (see fig. 10).

The following four sections show in more detail how farmers selling cattle used radio, newspapers, telephone and other cattle market news media.

RADIO

Radio served 67 percent of the cattle sellers as they prepared to make their last sale. On the average, these farmers recalled listening to 1.6 stations. Forty-seven percent of these listened to radio the "way of getting market information depended on most as the time to sell drew near."122 Eighteen percent indicated that they depended upon past experience for their decisions in cattle marketing. This characteristic was more prevalent among those selling other cattle than among those selling slaughter steers (see fig. 10).

The following four sections show in more detail how farmers selling cattle used radio, newspapers, telephone and other cattle market news media.

Fig. 10. Market information media farmers selling cattle depended on most as time of last sale drew near.
one program daily, 39 percent twice daily and 14 percent three or more times daily.

**Broadcasting Stations and Programs Named**

Tables 13 and 14 indicate radio stations and programs farmers said they listened to regularly for cattle market news.

The three stations most often mentioned, though not located in terminal stockyards cities, each broadcast cattle market reports for several terminal markets. The next three stations listed in Table 13 reported their local cattle markets as well as other terminal markets.

Federal-state reports of the interior markets for Iowa and southern Minnesota cover hogs and sheep but not cattle.

**Times Farmers Listened**

Figure 11 shows the times of day cattle sellers were listening to cattle market news broadcasts, by quarter-hour periods. Noon programs generally contained, in addition to market news, several features such as local, state and national farm news. The general nature of noon farm programs plus the fact that farmers are near a radio at lunch time may account for part of the heavy noon listening.

Twenty-five of the 28 stations named offered one or more noon hour programs with market news. During the morning (between 8:45 a.m. and 11:29 a.m.), after the cattle prices for the day became available, 10 of the stations farmers named broadcast 16 separate cattle market news programs.

The numbers of broadcasting stations reporting cattle market news during each 15-minute period were totaled to show what hours market news was available on stations farmers mentioned in the survey (see Fig 12).

Broadcasts during early morning hours (before 8:45 a.m.) usually reported the numbers of cattle expected on terminal markets that day and sometimes reviewed prices paid the previous cattle marketing day. It is believed that few farmers considered that type of information as market news when telling when they listened to market news. Earliest midmorning broadcasts (8:45 to 10 a.m.) reported the opening prices paid on terminal markets or at nearby packing plants. Later reports (10 a.m. to noon) gave the established prices for terminal markets and nearby packing plants which might affect prices paid farmers in the station coverage area. Noon broadcasts usually covered the cattle market information available since 10 a.m.

The few cattle market news broadcasts later in the day were reports of closing markets including prices paid and, occasionally, reports of supplies carried over to the next market day.

**DID OTHERS GET CATTLE MARKET NEWS FOR FARMERS WHO SOLD CATTLE?**

Forty-five percent of the cattle sellers interviewed said they have someone else listen when they can’t listen to cattle market reports.

**Table 13. Radio Stations Cattle Sellers Listened to for Cattle Market News**

<table>
<thead>
<tr>
<th>Station Location</th>
<th>Percent of cattle sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO Des Moines 27</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WOI Ames 21</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KMA Shenandoah 10</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WMT Cedar Rapids 6</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WMAK Omaha, Neb. 8</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WUSD Sioux City 4</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WOW Omaha, Neb. 10</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KGLO Mason City 11</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KPAB Omaha, Neb. 4</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KFRAK St. Joseph, Mo. 10</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>WLS Chicago, Ill. 8</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KXEL Waterloo 2</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KXIL Otrum, Iowa 11</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>KTRI Sioux City 2</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>KAPC Albert Lea, Minn. 1</td>
<td>Terminal</td>
<td></td>
</tr>
</tbody>
</table>

*Fourteen other stations, including four out-of-state ones, were each mentioned by less than 1 percent of the cattle sellers.

†Local markets here include those packing plants or concentration yards and public stockyards located in the same towns as the radio station—e.g., the Rath Packing plant in Waterloo would be a local market for KXEL; the public stockyards at Omaha would be local markets for KFAI—as well as the more usual small local buyer or sales barn.

**Table 14. Market News Programs to Which Cattle Sellers Listened**

<table>
<thead>
<tr>
<th>Station Location</th>
<th>Time of day</th>
<th>Percent of cattle sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO Des Moines 12:00 noon 27</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOI Ames 10:30 a.m. 1</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMT Cedar Rapids 12:30 p.m. 6</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOI Ames 9:45 a.m. 3</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMAK Omaha, Neb. 11:30 a.m. 7</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGLO Mason City 12:45 p.m. 1</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGLO Omaha, Neb. 12:15 p.m. 9</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGLO Omaha, Neb. 12:45 p.m. 4</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGLO Mason City 12:45 p.m. 2</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KGLO Mason City 12:00 p.m. 2</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Radio market broadcasting information obtained for April-May 1949 by mail and personal interviews with all Iowa AM stations and those out-of-state stations mentioned by farmers interviewed.

Twelve other programs were each mentioned by at least 1 percent but less than 2 percent of the cattle sellers; 29 programs were each mentioned by less than 1 percent.

Among those who sold slaughter steers at their most recent sales, 68 percent said they have someone else listen when the farm operators themselves could not listen to cattle market reports. Thirty-seven percent of the cattle sellers whose last sale included no slaughter steers would have others listen for them.

It is supposed that most of the substitute listening occurs during the midmorning market news broadcasts.

**Information Used in Three Important Marketing Decisions**

Cattle sellers were asked, “Where did you get the information that helped you decide on: (a) the buyer of the cattle, (b) the weight to sell them and (c) the time to sell them?” From a little more than half to four-fifths of the cattle sellers named none of the common information media. Rather, they ascribed their decision to: “My experience,” “We’ve always sold at that weight,” “We’ve always sold to that buyer,” “Cattle ready to go.” or “Needed the space.”

**Were Market Terms Understood?**

Seventy percent of the farmers who sold cattle...
Fig. 11. Time periods farmers listened to cattle market news (percentages based on 263 cattle sellers who listened to any cattle market news before last sale).

Fig. 12. Time periods radio stations broadcast cattle market news (percent of 28 stations cattle sellers named as sources of cattle market news).
were confident of their ability to judge the grade of their cattle \textquotedblleft sufficiently close so as to compare them with the animals being reported\textquotedblright in market news. They believed they could read or listen to market reports and put a price on their cattle. Twenty-seven percent of the cattle sellers said that they rely on the opinion of others to determine what the grade of their cattle might be. The other 3 percent said they paid no attention to grade.

**NEWSPAPERS**

Eighty-eight percent of the farmers who sold cattle for slaughter or feeder purposes in 1948 received daily newspapers regularly, but only 40 percent read day-to-day cattle market news of any kind before their last sale. More slaughter steer sellers read newspaper market news than did those who sold only other cattle; yet, in both groups, about the same proportion received daily newspapers.

The *Des Moines Register*, used most for information on marketing cattle,\textsuperscript{23} covered cattle sales at four terminal markets.

The *Sioux City Journal*, the *Mason City Globe-Gazette* and the *Omaha World-Herald* published detailed reports of the receipts and prices of cattle by all grades and kinds sold in their local cattle market, as well as in nearby terminal markets. Some other daily newspapers had brief local reports. Several had none.

The Chicago cattle market was reported in every newspaper that cattle sellers used. Other terminal markets reported by a few newspapers were those of Omaha, South St. Paul, Kansas City, St. Joseph and Denver.

Newspaper market news is not as fresh as market news broadcast while the markets are active. Nevertheless, 5 percent of the cattle sellers obtained market news from daily publications of some kind and not from radio before their last sale. Thirty-five percent of all farmers who sold cattle obtained their market news both by reading day-to-day market reports and by listening to the radio (see table 15).

**TELEPHONE**

Telephones, the most direct medium, connect farmers with cattle buyers everywhere. Most of Iowa’s cattle buyers have the telephones at their homes or place of business. Also, 90 percent of the farmers who sold cattle had telephones in their houses.

The small percentage (23 percent) of slaughter steer sellers\textsuperscript{24} calling buyers the day of sale may be explained by the larger proportion of sales of slaughter steers made on terminal markets for which the selling decision generally must be made the day before the sale. This may also be due to the fact that one-fourth to one-third of the cattle sales were made after the prospective buyer had inspected the cattle on the farm.

Those farmers who called buyers on the day they sold slaughter steers obtained their market news from radio and newspapers in much the same ratios as those who didn’t call buyers.

However, there were some differences between those selling only other kinds of cattle who did call buyers on the day of last sale and those who did not (see table 16).

**OTHER MEDIA**

Thirty-four percent of all cattle sellers read market news in daily newspapers. About 14 percent also read cattle market news in other periodicals. Seven percent of the cattle sellers

\begin{table}
\centering
\caption{Use of Selected Market News Media by Cattle Sellers Using Radio (Percentages of Two Groups of Cattle Sellers Using Radio Who Had Characteristic)}
\begin{tabular}{lcc}
\hline
Characteristic & Before last sale & \hline
 & Used radio, not daily publication & Used both radio and daily publication \\
\hline
Listened to day-to-day cattle radio market news & 100 & 100 \\
Also have someone else listen to cattle market news when can’t listen & 60 & 76 \\
As time to sell drew near, depended most on radio as way of getting cattle market information & 82 & 82 \\
Received a daily newspaper regularly & 82 & 100 \\
Read day-to-day cattle market news of some kind & 0 & 100 \\
Had a telephone & 86 & 88 \\
Called buyers on day of sale for information & 20 & 24 \\
\hline
\end{tabular}
\end{table}

\begin{table}
\centering
\caption{Use of Selected Market News Media by Cattle Sellers Who Sold No Slaughter Steers at Last Sale (Percent of Cattle Sellers in Each of Two Groups Who Had Characteristic)}
\begin{tabular}{lcc}
\hline
Characteristic & Cattle sellers selling no slaughter steers at last sale: & \hline
 & Who called no buyers & Who called one or more buyers \\
\hline
Had radio in working order Jan. 1, 1949 & 97 & 97 \\
Listened to day-to-day radio cattle market reports before last sale & 58 & 75 \\
Also have others listen to cattle market reports when can’t listen & 36 & 39 \\
Received daily newspaper regularly & 88 & 86 \\
Read day-to-day cattle market reports of some kind before last sale & 29 & 48 \\
Had telephone in house & 86 & 86 \\
Got information that helped farmer decide on buyer of last-sale cattle from: & & \\
Call to buyers & 19 & 36 \\
Visit to market places & 11 & 3 \\
Talking with other farmers and businessmen & 12 & 0 \\
As time to sell drew near, for cattle market information depended most on: & & \\
Radio & 55 & 67 \\
Phone calls to buyers & 7 & 11 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{23}Cattle sellers whose last cattle sales had included some slaughter steers.

\textsuperscript{24}i.e., by 12 percent of the cattle sellers. The *Sioux City Journal* was mentioned by 5 percent; the *Cedar Rapids Gazette*, *Waterloo Daily Courier*, *Mason City Globe-Gazette*, *Omaha World-Herald*, *Des Moines Tribune* and *Dubuque Telegraph-Herald* were each mentioned by between 1 and 5 percent. Fourteen other daily newspapers were each mentioned by less than 1 percent of the cattle sellers.
mentioned commission firms' newsletters (excluding Producer's Guide); about 4 percent each, the daily Chicago Drover's Journal and Omaha Stockman-Journal. Two percent or less mentioned Wallace's Farmer, Producer's Guide, weekly mailed government reports, Sunday newspapers, daily mailed government reports, other mailed government reports or other farm periodicals.

The commission firm newsletters were read by a greater proportion (13 percent) of those who sold cattle through commission firms on terminal markets at their last sale than those who sold to other types of outlet (1 percent).

Twelve percent of the cattle sellers recalled getting advice on markets from neighbors or other farmers and businessmen before selling their cattle.

MARKETING PRACTICES OF CATTLE SELLERS

Figure 13 shows the great variety of cattle sold by open-country farmers at last sale. Weight classes for each of these kinds of cattle appear in table 17. Table 18 shows the cattle transactions classified according to numbers sold. In 1948 the total number of cattle sold by Iowa farmers was 2.3 times the number shipped into Iowa for feeding or stocking herds.

MARKETING CHANNELS USED BY FARMERS IN SELLING CATTLE

Since farmers reported the outlet for their last sale rather than for all sales in 1948, no inference can be made about actual proportions of cattle sold through various outlets in 1948. Table 19 is based on the last sale.

Thirty-two percent of the slaughter steer sellers sold at some outlet other than the usual one. Three-fourths of those who changed outlets changed because they expected or obtained a higher price. Both groups are compared in fig. 14 with regard to use of various cattle market news media.

MARKET POINTS FARMERS PAID ATTENTION TO Cattle sellers watched market reports of the
terminal markets most (see table 20). Although there is no federal or federal-state reporting of interior cattle markets, farmers could listen to radio reports or read newspaper reports of prices paid at out-of-county packing plants (interior), in-county buyers (local) and those of public stockyards markets (terminal). Approximately 53 percent of the cattle sellers watched one market point, 37 percent watched two, and 2 percent watched three or more different market places.

**Table 20. Market Places Farmers Selling Cattle Pay Attention to in Newspapers and on Radio**

<table>
<thead>
<tr>
<th>Type of Outlet</th>
<th>Cattle Sellers (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commission firm on terminal market</td>
<td>54</td>
</tr>
<tr>
<td>Auction (sales barn or farm dispersal)</td>
<td>12</td>
</tr>
<tr>
<td>Reload station</td>
<td>14</td>
</tr>
<tr>
<td>Independent, order or trucker buyer</td>
<td>12</td>
</tr>
<tr>
<td>Interior packing plant</td>
<td>6</td>
</tr>
<tr>
<td>Direct to other farmers</td>
<td>1</td>
</tr>
<tr>
<td>Other*</td>
<td>1</td>
</tr>
<tr>
<td>All outlets combined</td>
<td>100</td>
</tr>
</tbody>
</table>

*Cold storage plant, cooperative livestock shipping association.

**Table 21. Market Information Media Farmers Selling Corn or Soybeans Depended on Most for Last Sale (Percentages of Farmers Who Had Sold Corn or Soybeans in 1948)**

<table>
<thead>
<tr>
<th>Medium depended on most as time of sale drew near</th>
<th>Farmers who sold:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>Corn</td>
</tr>
<tr>
<td>Calls to buyers and co-op managers</td>
<td>28</td>
</tr>
<tr>
<td>Daily newspapers</td>
<td>30</td>
</tr>
<tr>
<td>Talks with other farmers and businessmen</td>
<td>4</td>
</tr>
<tr>
<td>Other (commercial newsletter)</td>
<td>1</td>
</tr>
<tr>
<td>Notes</td>
<td>13</td>
</tr>
</tbody>
</table>

**Fig. 14. Market news media used by slaughter steer sellers.**

**Corn is the principal grain crop grown in Iowa. Since a large portion of the corn is fed to livestock by growers, only 0.2 percent of Iowa’s open-country farmers sold corn in 1948. Iowa’s cash farm income from corn amounted to 8 percent of Iowa’s total 1948 cash farm income.**

Table 21 shows the use farmers made of the three most important media for getting market news as they planned their last sales of corn and soybeans. In contrast to those selling livestock, fewer farmers named radio as the medium “depended upon most” as they thought of selling their last lot of corn or soybeans.

The following four sections show how farmers who sold corn and soybeans used radio, newspapers, telephone and other grain market news media.

**Radio**

Radio served 57 percent of the corn sellers as they planned their last sale. These farmers listened to an average of 1.7 programs on 1.5 different stations each day.

Terminal markets were defined as those cities in which grain exchanges were located. These would include Omaha, Chicago, and St. Joseph, Missouri. Local markets were defined as those markets located in the same town or city as the broadcasting station. The only corn or soybean markets radio stations reported were those of terminal markets and local grain exchanges. No station heard by more than 1 percent of the corn or soybean sellers was broadcasting prices paid by local elevators and buyers as distinct from sales on exchanges.

By corn and soybean sellers is meant those operators of open-country farms who sold corn and soybeans, respectively, in 1948. In general, “grain sellers” will denote farmers who had sold either corn or soybeans.
Sixty-three percent of the soybean sellers listened to day-to-day radio soybean market news before their last sale. They listened to an average of 1.4 programs on 1.3 different stations.

Tables 22 and 23 show which stations farmers listened to for corn and soybean market news at marketing time.

PROGRAMS GRAIN SELLERS LISTENED TO

The actual corn market news programs farmers selling corn listened to were found by asking farmers to name the stations to which they listened regularly and the times they listened to corn market news on those stations (see table 24). Farmers mentioned nine daily WOI corn market reporting programs besides the WOI noon broadcast.

Table 25 lists programs to which more than 1 percent of the soybean sellers said they listened regularly for soybean market news. In addition to the 10:30 a.m. program, six other WOI soybean market broadcasts were mentioned.

TIMES GRAIN MARKET NEWS PROGRAMS WERE BROADCAST

The percentages of broadcasting stations reporting corn and soybean markets during each 15-minute period are shown in fig. 15.

Early morning broadcasts (before 9:29 a.m.) usually reported the future and cash grain trading on principal grain exchanges of the last business day. Broadcasts during the morning (9:29 to 11:29 a.m.) covered the morning's trading. Noon reports usually consisted of the latest quotations from the grain exchanges. The quotation for the close of the Chicago Board of Trade, for instance, was available after the close of the market at 1:15 p.m. C.S.T.

TABLE 22. RADIO STATIONS SELLERS LISTENED TO FOR CORN MARKET NEWS

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Percent of corn sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>Des Moines</td>
<td>25</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>25</td>
<td>Terminal</td>
</tr>
<tr>
<td>KGLO</td>
<td>Mason City</td>
<td>6</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>KMA</td>
<td>Shenandoah</td>
<td>6</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOW</td>
<td>Omaha, Neb.</td>
<td>4</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WMT</td>
<td>Cedar Rapids</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>KFBR</td>
<td>Marshalltown</td>
<td>2</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WLS</td>
<td>Chicago, Ill.</td>
<td>2</td>
<td>Terminal</td>
</tr>
<tr>
<td>WNXA</td>
<td>Yankton, S.D.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>KFEQ</td>
<td>St. Joseph, Mo.</td>
<td>2</td>
<td>Terminal Local</td>
</tr>
</tbody>
</table>

TABLE 23. RADIO STATIONS SELLERS LISTENED TO FOR SOYBEAN MARKET NEWS

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Percent of soybean sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>Des Moines</td>
<td>40</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>20</td>
<td>Terminal</td>
</tr>
<tr>
<td>WMT</td>
<td>Cedar Rapids</td>
<td>6</td>
<td>Terminal</td>
</tr>
<tr>
<td>KGLO</td>
<td>Mason City</td>
<td>6</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>KXEL</td>
<td>Waterloo</td>
<td>3</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>KICD</td>
<td>Spencer</td>
<td>1</td>
<td>Terminal</td>
</tr>
<tr>
<td>KFEQ</td>
<td>St. Joseph, Mo.</td>
<td>1</td>
<td>Terminal Local</td>
</tr>
</tbody>
</table>

TABLE 24. MARKET NEWS PROGRAMS CORN SELLERS LISTENED TO

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Time of day</th>
<th>Percent of corn sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>Des Moines</td>
<td>12:00 noon</td>
<td>28</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>10:30 a.m.</td>
<td>14</td>
<td>Terminal</td>
</tr>
<tr>
<td>KGLO</td>
<td>Mason City</td>
<td>12:00 noon</td>
<td>8</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WMT</td>
<td>Cedar Rapids</td>
<td>12:16 p.m.</td>
<td>4</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>9:55 a.m.</td>
<td>4</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>9:29 a.m.</td>
<td>4</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>10:55 a.m.</td>
<td>4</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>11:59 a.m.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>12:13 p.m.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>12:30 p.m.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>KMA</td>
<td>Shenandoah</td>
<td>12:45 p.m.</td>
<td>2</td>
<td>Terminal</td>
</tr>
</tbody>
</table>

*Five other programs each were mentioned by at least 1 percent but less than 2 percent of the corn sellers; 10 programs were each mentioned by less than 1 percent (i.e., by only one corn seller in the survey).

TABLE 25. MARKET NEWS PROGRAMS SOYBEAN SELLERS LISTENED TO

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
<th>Time of day</th>
<th>Percent of soybean sellers</th>
<th>Type of markets reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO</td>
<td>Des Moines</td>
<td>12:00 noon</td>
<td>37</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>10:30 a.m.</td>
<td>11</td>
<td>Terminal</td>
</tr>
<tr>
<td>KGLO</td>
<td>Mason City</td>
<td>12:00 noon</td>
<td>6</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>10:30 a.m.</td>
<td>5</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>11:59 a.m.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>9:29 a.m.</td>
<td>3</td>
<td>Terminal</td>
</tr>
<tr>
<td>KXEL</td>
<td>Waterloo</td>
<td>12:00 noon</td>
<td>2</td>
<td>Terminal Local</td>
</tr>
<tr>
<td>WOI</td>
<td>Ames</td>
<td>9:55 a.m.</td>
<td>2</td>
<td>Terminal</td>
</tr>
<tr>
<td>WOI</td>
<td>Des Moines</td>
<td>6:30 p.m.</td>
<td>2</td>
<td>Terminal Local</td>
</tr>
</tbody>
</table>

*Seventeen other programs were each mentioned by less than 1 percent of the soybean sellers.

TABLE 26. SOURCE OF INFORMATION USED BY CORN AND SOYBEAN SELLERS IN REACHING MARKETING DECISIONS (PERCENTAGES OF CORN OR SOYBEAN SELLERS)

<table>
<thead>
<tr>
<th>Market news medium</th>
<th>Decision concerning selling time</th>
<th>(percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call to non-co-op buyers</td>
<td>corn</td>
<td>9</td>
</tr>
<tr>
<td>Call to co-op managers</td>
<td>corn</td>
<td>6</td>
</tr>
<tr>
<td>Radio market news</td>
<td>corn</td>
<td>5</td>
</tr>
<tr>
<td>Newspaper market news</td>
<td>corn</td>
<td>1</td>
</tr>
<tr>
<td>Talking with other business people, neighbors and others</td>
<td>corn</td>
<td>6</td>
</tr>
<tr>
<td>Others (commercial newspaper, watching sales at central market in person)</td>
<td>corn</td>
<td>2</td>
</tr>
<tr>
<td>No medium named</td>
<td>corn</td>
<td>76</td>
</tr>
</tbody>
</table>

*Including 8 percent of the corn sellers and 1 percent of the soybean sellers who named weather as the medium used in reaching a decision on selling time.
information that helped you decide on (a) the buyer of this (corn or soybeans), (b) the time to sell this (corn or soybeans)?"

As table 26 shows, the great majority gave credit to no outside information medium for helping them decide when to sell. The two statements, "We had no storage space," or "Bins had to be cleared for new crop" are typical of the responses.

Insufficient price information about the local market made radio of little value to farmers selling grain.

**NEWSPAPERS**

Ninety percent of the farmers who sold corn and/or soybeans in 1948 received daily newspapers. Less than half of these—41 percent of the corn sellers and 37 percent of those selling soybeans—read daily newspapers for grain market news before their last sale. A few of these farmers read more than one.

All daily newspapers published news of corn and soybean trading on the Chicago Board of Trade. These reports were not presented uniformly by all papers, however. The Des Moines Register and Des Moines Tribune tabulated Chicago's corn and soybean futures with the day's high, low, opening and closing quotations and the cash prices along with a news story covering the trading. A few other newspapers published only a brief tabulation of the closing futures quotations, for instance. The Des Moines Register, Des Moines Tribune and Omaha World-Herald also reported cash corn quotations by grades at Kansas City, Minneapolis and St. Louis.

Most of the newspapers mentioned by grain-selling farmers had some local corn or soybean market reports—these were nearly always brief tabulations of prices offered at local elevators for different grades. The only instance of a more complete local grain report was in the Omaha World-Herald which published an account of receipts and shipments in addition to prices quoted on different grades.

**TELEPHONE**

Over 85 percent of the grain sellers had telephones at survey time. Half or more of the farmers selling corn and those selling soybeans called some buyers the day of sale. One-third of all corn sellers and one-third of the soybean sellers called but one buyer on that day.

Telephone calls were the most important means named by farmers in determining where to sell corn or soybeans (see table 26). The over-all importance of telephones for grain market information is shown in table 21.

Farmers who sought market information by telephoning grain buyers, including co-op managers, on the day of sale differed from the rest of the grain sellers as to other ways of getting market news (see table 27).
TABLE 27. AVAILABILITY AND USE OF SELECTED MARKET NEWS MEDIA BY CORN AND SOYBEAN SELLERS (PERCENTAGES OF CORN SELLERS AND SOYBEAN SELLERS IN EACH OF TWO GROUPS WHO HAD CHARACTERISTIC)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Corn sellers</th>
<th>Soybean sellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had radio in working condition during the interview</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>Listened to day-to-day market reports</td>
<td>70%</td>
<td>69%</td>
</tr>
<tr>
<td>Also have others listen when can't listen</td>
<td>47%</td>
<td>35%</td>
</tr>
<tr>
<td>Received daily newspaper regularly</td>
<td>91%</td>
<td>90%</td>
</tr>
<tr>
<td>Read day-to-day market reports about commodity</td>
<td>34%</td>
<td>45%</td>
</tr>
<tr>
<td>Had telephone in house</td>
<td>81%</td>
<td>92%</td>
</tr>
</tbody>
</table>

When thinking of selling, depended most for grain market information on:
- Calling buyers and co-op managers: 29% (Corn) 46% (Soy)
- Radio: 38 (Corn) 46 (Soy)
- Newspapers: 9 (Corn) 7 (Soy)
- Other farmers and neighbors: 3 (Corn) 3 (Soy)
- Commission firm newsletter: 0 (Corn) 0 (Soy)
- None: 21 (Corn) 7 (Soy)

<table>
<thead>
<tr>
<th>Type of outlet</th>
<th>Corn sellers</th>
<th>Soybean sellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevator</td>
<td>75%</td>
<td>92%</td>
</tr>
<tr>
<td>Farmer for farm use (inter-farm sale)</td>
<td>31%</td>
<td>45%</td>
</tr>
<tr>
<td>Processing plant (Including seed firms)</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Trucker buyer</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Feed store</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Government</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Not necessarily on day of sale.

OTHER MEDIA

A few grain-selling farmers who read corn or soybean market news in daily newspapers also used other publications, but not to any great extent. The daily Omaha Stockman-Journal and Wallaces' Farmer were mentioned as read for corn market reports by about 2 percent of the corn sellers; the daily Chicago Drover's Journal was mentioned as read for soybean reports by 1 percent of the soybean sellers. Less than 1 percent of the grain sellers mentioned weekly or Sunday newspapers, commission firm newsletters, daily mailed government reports, Doane's Agricultural Digest or USDA publications. Less than 15 percent of the grain sellers recalled getting market advice from neighbors or other businessmen before last selling grain.

MARKETING PRACTICES OF FARMERS SELLING CORN AND SOYBEANS

Thirty-eight percent of Iowa's open-country farmers sold soybeans and/or corn in 1948. These farmers were asked how much corn and soybeans they sold in their last lots and what marketing methods they used. These questions were asked for two reasons: (1) to make sure a farmer answered questions about his use of market news in making one particular sale, the last sale prior to interview; (2) to find out what quantities farmers did sell and what marketing methods were used.

Soybean sales were smaller per lot than corn sales (see table 28). Most of the corn and soybean "last sales" were made to nearby elevators — either independently owned, cooperatively owned, or part of a chain of elevators. As table 29 indicates, 23 percent of the grain sellers made their last sales to other farmers. Inter-farm sales accounted for 15 percent of the total quantity of corn in the most recent sales.

MARKET POINTS FARMERS PAID ATTENTION TO

Each farmer who had sold corn or soybeans in 1948 was asked, as a general question near the close of the interview, what grain market places he paid attention to on the radio and in newspapers (see table 30). The sample was sufficiently widespread that individual market cities other than Chicago were named only infrequently. Therefore, each city named has been classified as either terminal, interior or local.

Most grain sellers watched just one market point. Twenty-four percent of the corn sellers and 20 percent of the soybean sellers named two specific markets; 1 percent of the soybean sellers named three.

Terminal markets were those with grain exchanges in which traders might deal in futures as well as make cash transactions. Interior markets were those grain buyers located outside the county of interview and not qualifying as terminal markets.
CREAM, WHOLE MILK AND EGGS

MEDIA FARMERS USED

Cream and milk sales made up about 9 percent, and egg sales about 6 percent, of Iowa's cash farm income in 1948. According to the survey, 71 percent of the open-country farmers sold cream or whole milk and 72 percent sold eggs in 1948.

Table 31 shows what little use these sellers made of radio and daily newspapers for getting dairy produce and egg market news during the month prior to the survey interview. The highest percentages of farmers selling cream (or whole milk) and eggs who mentioned using any information named "calls to buyers" or "advice from other farmers and businessmen" as the medium depended on most for price, market information.

The majority of those who said they depended on no medium most for selling information indicated that their cream or milk and egg marketing methods were routine. A typical statement was, "I followed the same practice for many years."

The following four sections deal with how farmers used radio, newspapers, telephone and other cream and egg market news media.

RADIO

On the average, 8 percent of the dairy products sellers, and 19 percent of the egg sellers listened regularly to market news about those products. These farmers were listening to about 1.2 different stations and programs from day to day during the month before interview.

Only three stations—WHO, Des Moines, WMT, Cedar Rapids, and WOI, Ames—were listened to regularly for cream market news by more than one farmer in the survey during the month. All three broadcast reports of Chicago's cash butter market. WHO at Ames reported Chicago and New York butter futures as well. None of these stations provided farmers with prices paid for cream or butter at nearby Iowa points. WHO's produce markets were heard at 8:55 a.m. by 3 percent of the cream and whole milk sellers; WMT's were listened to at 12:40 p.m. also by 3 percent. WHO's were heard most often at 10:30 a.m. (by about 1 percent of the dairy products sellers). Two other midmorning WOI programs and WOI's noon butter reports also were mentioned.

Egg sellers named 17 stations as listened to for day-to-day radio reports on egg prices in the month preceding interview. WHO and WOI were each listened to by about 7 percent of the egg sellers; WMT was listened to by 4 percent; four stations—KGLO, Mason City, WOW, Omaha, KICD, Spencer and WLS, Chicago—by 1 percent. Ten other stations were mentioned by only one or two in the survey.

Chicago's cash egg prices usually were the only terminal market reports broadcast. New York cash egg prices were reported in a few instances. WHO broadcast local prices for Des Moines gathered by the federal-state market news service there. Radio stations themselves gathered other local egg reports.

WHO's egg reports were listened to at noon. The largest number of WOI listeners heard WOI's egg reports at 10:30 a.m.; the 9:44 a.m. broadcast was next most popular, and only isolated farmers recalled other WOI egg reports (morning, noon and early afternoon). Nearly all egg sellers who listened to WMT heard the 12:40 p.m. broadcast. Most of the other egg programs mentioned in the survey were those presented from 11:30 a.m. through the noon hour.

Figures 16 and 17 show times of day farmers could hear cream and egg market news broadcasts. Most frequently, Iowa stations broadcast only reports of terminal cream and egg markets, which were usually read from each station's syndicated news wire service.

MARKET POINTS FARMERS SELLING CREAM OR WHOLE MILK AND EGGS PAID ATTENTION TO

Over 50 percent of the dairy products and egg sellers said in general they didn't pay attention to any markets over radio and in newspapers for these commodities. Twenty-nine percent of the dairy products sellers and about as many of the egg sellers said they paid attention to various local market places. Ten percent of the cream and whole milk sellers and 13 percent of the egg sellers paid attention to terminal market places—about double the numbers watching interior points.

DID OTHERS GET CREAM AND EGG MARKET NEWS FOR FARMERS WHO SOLD CREAM, WHOLE MILK OR EGGS?

Only 1 percent of those selling dairy products and 6 percent of the egg sellers had someone else listen to market news for those products. This small second-hand usage of radio market news may be attributed to the regularity and frequency of selling cream or whole milk and eggs and the small value of radio reports covering markets at a great distance from the farmer. Because of this farmers tend to find suitable outlets and continue to sell at the same place.

1Question K-11, For egg sellers, a slightly different question (J-11) was used: "When you are thinking about comparing prices you get for eggs with prices others get for them, what way of getting market information do you depend on most?"
2Isolated farmers mentioned five other Iowa stations and one out-of-state station.

Table 31. MARKET INFORMATION MEDIA FARMERS SELLING CREAM OR WHOLE MILK AND EGGS DEPENDED ON MOST (PERCENT OF FARMERS WHO HAD SOLD EACH COMMODITY IN 1948)

<table>
<thead>
<tr>
<th>Medium depended on most for price and market information</th>
<th>Cream or whole milk</th>
<th>Eggs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(percent)</td>
<td>(percent)</td>
<td></td>
</tr>
<tr>
<td>Other farmers, neighbors and businesses</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Calls to buyers</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Radio</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Daily newspapers</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Other (commercial and college newsletters, etc.)</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>None</td>
<td>45</td>
<td>30</td>
</tr>
</tbody>
</table>

aQuestion K-1, for eggs and cream or whole milk: "What market place do you pay closest attention to on the radio and in newspapers; what other market points do you check in this manner?"
Fig. 16. Time periods radio stations broadcast cream or butter market news (percent of 9 stations farmers named as sources of milk or cream market news).

Fig. 17. Time periods radio stations broadcast egg market news (percent of 17 stations farmers named as sources of egg market news).
NEWSPAPERS

No single newspaper was used extensively for cream or milk and egg market news. Such market reports as were published in daily newspapers were quite simple. Most cream reports were made up simply of New York and Chicago cash butter prices. Nearly all gave the receipts and price quotations for different grades of butter in text form. Local butter reports were very brief showing prices paid by grades.

Egg reports varied from paper to paper. Terminal reports covered New York and Chicago produce markets giving total receipts and prices for different grades either in text or tabular form. Local egg reports were less detailed than the terminal reports received over syndicated news wire services. Some local reports consisted simply of a brief report on retail prices. The Des Moines Register and Sioux City Journal, however, published complete prices on different grades of eggs sold and a short statement on local wholesale egg market conditions.

TELEPHONE

Most dairy-products and egg buyers have telephones. Eighty-five percent of the cream or whole milk sellers and 86 percent of the egg sellers had telephone service at their homes at the time of the survey.

Twenty-eight percent of the egg sellers said that telephone calls to buyers had helped them select their egg buyers. Another 14 percent used the advice of neighbors or other farmers. About one-half of all egg sellers mentioned no medium as helping them decide on a buyer.

When cream and whole milk sellers were asked where they got information on prices paid for dairy products in other markets, three-fourths of them said they used no media. About 10 percent phoned buyers and the same number talked with other farmers and neighbors. Newspapers and radio were less frequently mentioned in this connection.

Farmers rarely checked prices with buyers to whom they were not selling whole milk or cream. Only 1 percent of those selling these products called any such buyers to check prices during the month before interview.

OTHER MEDIA

Farmers who read day-to-day cream or milk and egg market news in the month before interview told what publications they read. Eight percent of the dairy-products sellers and 10 percent of the egg sellers used daily newspapers for market information. Few used other types of publications. Two percent of the egg sellers mentioned weekly newspapers, but less than 1 percent of the egg or dairy-products sellers mentioned other types of periodicals.

MARKETING PRACTICES OF FARMERS SELLING CREAM OR WHOLE MILK

Table 32 shows that, at the time of the survey, about 90 percent of the dairy-products sellers were selling their cream or whole milk to creameries or cream stations. Two-thirds of the farmers selling cream or whole milk had their products picked up at their farms by the buyers at last sale. Cooperative creameries made pick-ups at 88 percent of the farms selling to them; private creameries, at 72 percent of the farms; produce or cream stations, at 27 percent.

For all types of outlets, except fluid milk markets and milk manufacturing plants, twice-a-week deliveries were most common.

Thirty-eight percent of the farmers selling cream or whole milk to creameries or cream stations made cash sales (sales on day of delivery for last sale). The remainder sold on a pool basis in which the farmers received payment at regular intervals: 40 percent received payment every two weeks, 14 percent weekly and 8 percent monthly.

### TABLE 32. CREAM AND WHOLE MILK SALES, BY TYPE OF OUTLET AND FREQUENCY OF DELIVERY

<table>
<thead>
<tr>
<th>Type of outlet</th>
<th>Farmers selling cream or whole milk</th>
<th>Frequency of pickup or delivery to outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>selling cream or whole milk at last sale</td>
<td>selling cream or whole milk at last sale</td>
</tr>
<tr>
<td></td>
<td>(percent)</td>
<td>(percent)</td>
</tr>
<tr>
<td>Cooperative creamery</td>
<td>10</td>
<td>51</td>
</tr>
<tr>
<td>Produce or cream station</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>Private creamery</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Fluid milk market</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Milk manufacturing plants for ice cream, cheese, condensed or powdered milks</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Shipped by express to large centraliser creamery</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>All outlets</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

*These figures are percentages based on the number of cream and whole milk sellers selling to each type of outlet at last sale.
MARKETING PRACTICES OF EGG SELLERS

Table 33 shows the types of outlets where farmers sold their eggs at their last sale before the survey.

Sixty-two percent of the egg sellers sold ungraded eggs at their last sale. These farmers were paid according to the number of eggs accepted by buyers—that is, on a case run or current receipts basis. Thirty-two percent of the egg sellers sold eggs which buyers paid for on the basis of interior quality, egg size and count. Six percent of the sales were based on egg weight and count only. Thus, large eggs were paid for at a higher rate per dozen than small eggs, but high interior quality did not get a premium.

**TABLE 33. EGG SELLERS’ LAST-SALE TRANSACTIONS, BY TYPE OF OUTLET**

<table>
<thead>
<tr>
<th>Type of outlet</th>
<th>Egg sellers (percent)</th>
<th>Total eggs sold at last sale (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm pick-up route</td>
<td>35</td>
<td>46</td>
</tr>
<tr>
<td>Produce buying station (for car lot shippers)</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>Grocery store</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Hatchery</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Produce plant</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Other*</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

*Including hatchery, cooperative marketing agency, consumer delivery route.

Most farmers sold eggs once each week (see Table 34). About 64 percent of the egg sellers were selling a case of eggs (30 dozen) or less per week at survey time (between 21 and 30 dozen being most common). Twenty-four percent sold between one and two cases (31 to 60 dozen) per week.

**CHANGES FARMERS WANTED IN MARKET NEWS**

**KIND OF MARKET NEWS REPORTS FARMERS PREFERRED**

Of the farmers who had sold any of the six survey commodities in 1948, 68 percent showed preference for a radio or newspaper report giving a complete summary of the market (see fig. 18). This would be a report of prices on all grades sold, all commodities sold and for all markets affecting the listening or readership area. This report would include information on the receipts of new supplies and the clearance of old supplies on each market.

The complete summary had a clear-cut advantage from the farmer’s viewpoint, because it was most likely to give information on the particular product and grade which the farmer had for sale.

This point indicates the need for avoiding the terse “top of the market” report frequently broadcast. Large numbers of farmers can’t use the report of the “tops” because they do not sell the highest priced grade or weight class.

**SUGGESTED CHANGES FOR MARKET NEWS**

Each farmer in the survey who had sold any of the six commodities in 1948 was asked, “In what way would you like to change market news reports as they are on the radio or in print?”

Seventy-six percent said they were satisfied with market reports or could think of no changes they would like to make. Twenty-four percent did make suggestions or comments. Twelve percent made suggestions which applied to the amount or kind of information farmers wanted included in market news reports, both in print and on radio, as follows:

**FOR MORE COMPLETE REPORTS:**

- Give prices on average and low quality sales (more of us sell at those prices), not the emphasis on high prices each day.
- Mere detail on cattle market:
  - (a) by grade and class
  - (b) reports from all of the cattle buyers
  - (c) weights, grades on stocker and feeder reports
  - (d) better definition of grades
  - (e) information on stag prices
- More summary on market news broadcasts
- Want local market reports, including cream and egg prices

**TABLE 34. FREQUENCY OF PICK-UP OR DELIVERY OF EGGS, BY SELECTED TYPES OF OUTLET**

<table>
<thead>
<tr>
<th>Frequency of pick-up or delivery</th>
<th>Egg sellers selling to selected type of outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All outlets combined*</td>
</tr>
<tr>
<td></td>
<td>Grocery</td>
</tr>
<tr>
<td></td>
<td>Farm pick-up route</td>
</tr>
<tr>
<td></td>
<td>Produce-buying station</td>
</tr>
<tr>
<td>Once a week</td>
<td>68</td>
</tr>
<tr>
<td>Twice a week</td>
<td>34</td>
</tr>
<tr>
<td>Every 10 days</td>
<td>1</td>
</tr>
<tr>
<td>Every two weeks</td>
<td>2</td>
</tr>
<tr>
<td>Three times a week</td>
<td>3</td>
</tr>
<tr>
<td>Twice a week</td>
<td>34</td>
</tr>
<tr>
<td>Every 10 days</td>
<td>1</td>
</tr>
<tr>
<td>Every two weeks</td>
<td>2</td>
</tr>
</tbody>
</table>

*Including hatchery, cooperative marketing agency and housewife in town (consumer delivery route).

Suggestions listed in order of frequency of response.
Add stock of meat on hand and prices
Report the country run prices rather than packer buyer grades
Advance estimates in more detail
Grain reports for more midwest cities
More information on seeding grain
Complete tabulated reports of all commodities on all midwest terminal markets

Other suggestions regarding trend information and market news scheduling appear below.

FOR MORE TREND INFORMATION:
Give today's prices and note changes from previous market day
Account for rising or falling trends
Account for the wide difference in price within one 24-hour period
Earlier market trend information
More general trend information

ON MARKET NEWS SCHEDULING:
Earlier reports
Markets at a better time for listening
Complete markets summary at 11:30 a.m. to 1:29 p.m.
Complete markets summary at 6 p.m. to 10 p.m.
Markets should schedule market news programs so that farmers may get market reports every 15 minutes during the marketing day
More market reports
More complete program on Saturday
Weekly summaries
Weekly government reports on hogs and turkeys
Add turkey reports in the fall

ON CURRENT MARKET NEWS PRESENTATION:
Want greater accuracy. Radio reports disagree with newspaper reports. Why?
Want information more up-to-date, more understandable
Announcers: talk plainer, too sing-song, know your markets
Paper is day late
Local grain reports not accurate
Radio and newspapers duplicate each other too much
Paper not as complete as radio
Complete summary tables too long
Weekly papers ought to have markets

DEMAND FOR OUTLOOK INFORMATION

Forty-three percent of all farmers selling any of the six products said they were currently getting outlook information. Twenty-nine percent named one source of outlook information and 14 percent named two or more sources (see fig. 19). Outlook information was defined for the farmers as dealing with "how supplies and prices are likely to change in the next few weeks or months." In Iowa, information of this nature is most usually supplied by the Iowa State College Agricultural Extension Service and certain agricultural business firms. Its general purpose is to help farmers in their marketing and production plans.

The three farm periodicals most often mentioned as read for outlook information were Wallace's Farmer (by over one-fifth of the farmers selling any of the six commodities), Successful Farming and Farm Journal (by 3 to 5 percent each).

Seventy-six percent of the farmers showed a current interest in outlook by saying either they wanted to get some outlook information or they wanted more of it. Seventy-three percent of those who said they weren't then getting outlook information said they wanted to get it.

Forty-five percent of the farmers who have sold one or more of the six commodities in 1948 wanted to read outlook information weekly. Fifteen percent asked for it daily. When asked what time of day they'd most prefer radio outlook programs, practically all of the farmers who want outlook information wanted to hear it on their radios at noon.

APPENDIX A
(SURVEY PROCEDURES)

FOREWORD

An Iowa State College committee concerned with the media of communications farmers use for getting market information drew up the project, "Effectiveness of Assembling and Disseminating Agricultural Marketing Information." This committee was composed of representatives from (a) the director's office, statistics and agricultural information branch of communications, (b) the Iowa Agricultural Experiment Station, (c) the Iowa State College Extension Service in Agriculture and Home Economics and (d) the Department of Technical Journalism. This committee, working through the Experiment Station and with an agent of the Marketing Facilities Research Branch of the Production and Marketing Administration (United States Department of Agriculture) who was concerned with research into the effectiveness of reports of the USDA Market News Service, arranged for the joint financing of the project. The committee and the USDA agent, working with representatives of the Federal-State Market News Service at Des Moines, set forth the objectives of the project, delineated the areas for research, and determined that the survey would be the first major phase of study. A Market News

APPENDIX A

(About the starting price of meat on hand and prices published in the Iowa Farm Outlook Letter (July 1, 1941), by John F. Heer. Iowa State College Library, Ames, Iowa. 1953.

An analysis of the accuracy of Iowa State College farm outlook information is reported in the unpublished M.S. Thesis, Directional accuracy of farm price predictions published in the Iowa Farm Outlook Letter (July 1, 1941 to July 1, 1951), by John F. Heer. Iowa State College Library, Ames, Iowa. 1953.


Another 6 percent wanted to read outlook information twice-monthly; also, 6 percent wanted it monthly.

149
Research Project Committee was organized from personnel already mentioned and, in the first series of meetings, agreed on general techniques for such a survey.

It was stipulated that the population of interest should consist of operators of farms in the open-country portion of Iowa, the subject-matter area of inquiry being the activity of the members of the population as marketers of their own farm products. It was agreed that information should be obtained by personal interviews with that portion of the population associated with a probability sample of farms such that sample data can be expanded into estimates of population totals, the precision of which can be measured, without the use of outside information.

This appendix is primarily intended to describe procedures used in the design and execution of the survey which was usually referred to either as the "Market News Survey" or as the "Media Survey."

THE SAMPLING PLAN

THE UNIVERSE

All farm operators (including those with joint-operation arrangements) connected with 1948 open-country farms constituted the individuals whose producer-marketer activities were studied. Detailed area sampling materials developed in the Master Sample Project were available for the open-country zone. Use of area sampling techniques permits the association of every element in a population of unknown and changing size with one and only one small area of known size and location in a universe of areas covering the open-country zone. Therefore, sampling at the first stage was made from a special aggregate (called a universe) of small, contiguous land areas, each of which contained a cluster of farm headquarters.

This had the obvious advantage that the size of the universe is known and constant by definition, and the population of farms is wholly contained and distributed geographically within the universe.

Two stages for sampling were used: The first stage specified a sample of small areas; the second stage, a sample of farms with headquarters within those areas. As will be seen later, this specified a sample of farm operators and a sample of producer-marketers also. Essential terms are defined in the following section.

DEFINITION OF TERMS:

Open-country zone consists of all that area which is not within the boundaries of incorporated places, unincorporated name places or other unincorporated places with a 1940 population density of 100 persons or more per square mile.

Farm definition for this survey followed the one used in the 1945 Census of Agriculture with one modification—the additional restriction imposed in condition (b) below. In order to qualify as a census farm, a place must be at least 3 acres in size, or if under 3 acres have produced at least $250 worth of products. The $250 refers to total value of products—both those sold at home and those sold or given to others. Several tracts of land were considered to be one farm rather than several only if they met two conditions: (a) if they were operated by the same operator or partnership, and (b) if they were operated by one set of machinery, equipment and workstock.

Headquarters was the term applied to a unique, simply located point on each farm. If this point lay within the boundaries of the primary segment, the farm's operator was eligible for selection as a respondent. If the operator was living on his farm, his dwelling was defined as the farm headquarters. (When the farm was operated by a partnership, the senior partner according to age was the operator considered in the determination of headquarters.) If the operator did not live on the farm there were a number of specific rules for location of the farm headquarters.

Sampling unit (s.u.) was a small area of land averaging about 1 square mile in size and containing a cluster of about four farm headquarters. Its boundaries were fixed and easily located in the field by a trained interviewer.

Universe was the aggregate of 53,788 sampling units into which the geographic area of the open-country zone in Iowa was divided.

Primary segment was the term applied to a sampling unit which was chosen for the sample in the first stage of sampling.

Subsample was the term applied to the cluster of three farms with headquarters in the primary segment, which were selected in a prearranged, randomized manner, for interviewing.

Secondary segment was the term applied to a sampling unit adjoining the primary segment and from which (a) the "fixed-take" of three farms was to be completed if there were less than three farm headquarters in the primary segment, and (b) farms were to be selected for interviewing purposes as substitutes for those farms in the subsample for which none of the operators could be interviewed.

Producer-marketer was a farm operator who in 1948 sold any hogs or cattle (for slaughter or feeder purposes), corn, soybeans, eggs or cream and whole milk produced on the farm he operated. Producer-marketers were classified as (a) farm-operator marketers—those producer-marketers who operated farms either by themselves or as the senior partners by age of partnership operations—and (b) junior partner marketers.

Observation units were those elements, associated with the farm, on which information was to be taken by the interviewers—i.e., the farm itself, the operator, the producer-marketer.
The Revised Master Sample Project materials for Iowa include delineations of 26,060 small areas called count units which cover the open-country zone. Each count unit contains sufficient farms, as indicated by the 1940 map counts of farms and dwellings, to provide from 1 to 5 master-sample-sized units (m.s.s.u.'s). The sampling unit for this survey was 1 m.s.s.u.

The first stage in the sampling dispersed the sample throughout Iowa by a random systematic selection of 200 primary segments. This represents a sampling rate of 1 primary segment for every 269 s.u.'s, or a 0.37-percent sample. As a preparatory step, the 99 counties were ordered in a serpentine manner from a starting point at the northeast corner of the state and progressing west across the top tier of counties, east on the next tier toward the south, etc., until all counties were ordered. Within counties, count units were ordered by township in a similar contiguous, serpentine manner, listed and cumulated by numbers of m.s.s.u.'s. County lists were then cumulated for the state. The sampling rate of 1 out of 269 s.u.'s was applied against this cumulative listing in the following manner.

A random number was drawn between 1 and 269 to identify the first primary segment, and every 269th m.s.s.u. thereafter in the listing was specified for the sample. This automatically identified the count units in which the primary segments would be located. Within each of these count units, approximately equal-sized s.u.'s (in terms of numbers of indicated farms) were delineated with identifiable boundaries. The s.u.'s were numbered in a serpentine, contiguous manner from the northeast corner of the count unit and one selected at random as the primary segment. The s.u. following it in numbered order was then taken as the secondary segment. Primary and secondary segments were designated in red and green respectively on two sets of Iowa Highway Commission county maps—one set for use in the field by the interviewers, the other set for office use (fig. 1-A shows segment location).

### Sampling within the Segment

The second stage of sampling was a field operation carried out by the interviewers after intensive training to define the sample of farms on which observations would be obtained within the sample of areas. Six hundred farms were to be identified. The Interviewer Manual contained a set of instructions outlining the action to be taken under the various sampling conditions.

On reaching the primary segment, the interviewer prepared a sketch of the segment showing the location of houses, schools and other culture areas called count units which cover the open-country zone. The count unit must contain four actual farm headquarters. To illustrate: Segment 129 in Iowa County, Iowa, with an expected number of seven farms, was found to contain four actual farm headquarters. The random number set in the interviewer's table for a segment with four farms specified Nos. 1, 2 and 4 for complete interview in this case. The interviewer then called at those farms and in addition obtained certain basic information from farm No. 3 to fill out a check sheet (see p. 168).

In cases where the interviewer found exactly three actual farms with headquarters in the primary segment, all would be sample farms. If only one or two farms had headquarters inside the primary segment boundaries, they were designated as sample farms and the interviewer immediately entered the adjoining (secondary) segment to complete the fixed-take of three sample farms. Identification of tracts of land and farm headquarters was begun at the north or east end of the common boundary line between the pair of segments and continued in a clockwise direction within the secondary segment until the requisite number of sample farms had been located and indicated on a segment sketch.

In terms of the sampling design, the chance of any farm's being selected for interviewing was equivalent to the product of (1) the chance which the sampling unit in which the farm's head-
quarters was located had of being chosen, 1/269, and (2) the within-segment sampling rate which is approximately the fraction three divided by the actual number of farms with headquarters within the sampling unit.

UNITS OF OBSERVATION

The element or unit on which information is obtained is called the unit of observation. The information which each respondent reported concerned the characteristics of one or another of three units of observation: (a) the farm (as of 1948 and Jan. 1, 1949); (b) the operator of the farm (whether he operated the farm alone or in partnership); or (c) the producer-marketer of the farm if he had sold any of six specified products in 1948 from that farm.

One problem in constructing the sampling plan and the questionnaire was to decide how to deal with these different units of observation. The chance of any farm's being drawn into the sample was known. What, then, were the chances of any other unit's being drawn into the sample? If these latter units of observation did not come into the sample with known probabilities, no estimates with measurable errors can be made for any characteristics based on these units of observation.

The chance which an individual had of coming into the sample as a farm operator would depend on how many farms the operator had. A question was inserted near the beginning of the questionnaire to find out whether he operated or shared in the operation of more than one farm and, if so, how many farms and where they were located.

The chance which the farm operator's household (or any partner's household) had of coming into the sample would depend on how many operators were in the household as well as on the number of farms each one had. However, for this survey we are considering household or dwelling unit characteristics only as characteristics of the operator and not as characteristics of the household or dwelling unit per se.

ELIGIBLE RESPONDENTS

Information about the farm was obtained primarily from the farm operator of a single-operator farm and from any one partner of a partner-owned farm. Information about the farm's operators, their household or households, and the producer-marketers of six commodities was obtained from all farm operators (including both senior and junior partners).

In all instances where a sample farm had changed operators since 1948, the operators of the farm land for the 1948 year were interviewed.

The intent of this selection of respondents was primarily to obtain interviews from the persons who had made marketing decisions for the operators' shares of products from open-country farms in 1948, the most recent complete calendar year.

CALL-BACKS

When an interview could not be obtained at a sample farm while the interviewer was working in the primary segment, the interviewer was required to make at least one separate call-back to the farm. In case no operator for the sample farm was available after the first call-back, this situation was treated as a farm noninterview. Similarly, a situation in which the operators of the sample farm refused to be interviewed was treated as a farm noninterview.

TREATMENT OF NONINTERVIEWS

IN THE FIELD

In any method of sampling, when interviewing techniques are used, some recognition must be given to the existence of noninterviews. In this survey, it was decided that controlled substitution would be made in the field from an adjoining s.u. for noninterview sample farms from the primary segment. Complete interviews would then be taken on the substitute farms.7

More specifically, if at least one operator interview was not obtained for a sample farm after one call-back, the farm was regarded as a noninterview and the following procedure was used:

1. A check sheet (1-page mimeographed form) was assigned to the noninterview sample farm. On this the interviewer recorded the reason for noninterview, in detail, and as much information about the operatorship, farm size and tenure, products marketed in 1948, and household composition as he could obtain by observation and by talking with neighbors or with other members of the household.

2. Another farm was substituted for this farm. The rule for substitution specified: (a) that the secondary segment be outlined on the segment sketch, (b) that the secondary segment be entered from the north or east end of the common boundary line between the primary and secondary segments, and (c) that the tracts be numbered in a clockwise manner from that point of entrance. Beginning with the first farm with headquarters inside the secondary segment, the interviewer attempted to complete the necessary number of farm interviews. If at least one operator interview could not be obtained at farm No. 1 with reasonable effort, a check sheet was filled out for the farm and reason for noninterview recorded. The interviewer then proceeded to the next farm in numerical order and continued in this manner until an operator interview was obtained or the secondary segment was exhausted. In every case a check sheet was completed for each noninterview.

7For research purposes (to study the scheme's economic and statistical implications for sampling purposes) and because of the possibility of biasing the data in case the noninterviewed group of eligible respondents should be significantly different from the interviewed group with regard to the subject matter of the questionnaire. However, it was believed that greater danger of a bias, as well as a major loss in value of the sampling design, would result from ignoring the noninterview problem. A measure such as the one considered here is needed to keep some degree of identity in sample composition for the sample as it was originally drawn and to preserve the sampling rates.
every farm at which a minimum of one operator interview was not obtained—whether the farm was a sample farm in a primary segment or a substitution farm in a secondary segment.

If an interview was obtained from one of the operators of a partnership sample farm but not from one of the other operators, no field substitution was made. The interviewer recorded the reason for noninterview of these persons on the sections of the farm questionnaire assigned to them.

In case the number of farms for which interviews were finally obtained was less than three and less than the number of farms in the combined primary and secondary segments, office duplication of questionnaires from interview farms would be made for noninterview farms, to bring the total number of farm questionnaires for analysis up to the segment quotas. However, it was expected that duplication would be necessary in but a small number of cases, if any.

**Obtaining the Data**

**The Questionnaire**

The purpose of the questionnaire in general was to obtain, as accurately and completely as possible, information related to the employment of market news by Iowa farmers.

**Objectives of the Questionnaire Design**

The following is an outline of the questionnaire objectives from the standpoint of design:

(a) To assure the interviewer that the operator’s farm qualifies for the sample as a “census” farm.

(b) To ascertain the size and location of all parts of the sample farm.

(c) To make sure that questions on inventories, sales, production, planting intentions and household characteristics are asked in the same manner as such questions had been handled in surveys and censuses against which this survey could be checked.

(d) To obtain the information needed to determine whether the operator qualifies as a respondent for the completion of any of the six commodity marketing sections.

(e) To cast marketing questions for the various commodities as nearly as possible into the same setting so that intercommodity comparisons may be made with some assurance.

(f) To obtain supplementary information on marketing and the household for any partners other than the partner or partners located at the farm headquarters.

(g) To obtain any information necessary for estimating the number of producer-marketers, numbers of farms owned or operated by these marketers, and sales of farm products by the marketers.

**Construction and Testing**

Following a series of conferences with specialists in areas concerning survey methods and interviewing, communications and market news service and marketing problems in the six commodity fields, a tentative questionnaire was drawn up for testing in December 1948. As is often the case, the tentative questionnaire was found to be too long and not sufficiently logical in progression for a successful interview. The final version of the questionnaire (see Appendix B), was completed and tested in March 1949. This version required approximately an hour interview.

The questionnaire was divided into six functional parts and presented to the respondent in what was considered logical sequence, to simplify interviewing in the field. These sections were: A, Orientation; B, The Farm; C, The Operator; D, The Household; E-J, Six Commodity Market News Sections; and K, General Marketing Information.

Thus, the interviewer began by asking who operated the farm; then inquired about farm ownership and leasing arrangements; the farm production in 1948; the Jan. 1, 1949, inventory; sales in 1948; and planting intentions for 1949. Next, referring to the household, the interviewer obtained information on age and education on all members of the household and pertinent data on electric power, running water, telephone, radios, newspapers and magazines received regularly in the home. At the close of section D, the respondent was asked about the number and location of other farms he owned in Iowa—to assure the interviewer that both he and the respondent would be talking about the same farm when discussing marketing.

The questions on sales in 1948 served to identify the commodity questions that should be introduced into the interview. All six commodity sections of the questionnaire had the same continuity. They began with questions identifying the last sale preceding the time of the interview, for one of the commodities sold in 1948. Following this, the respondent was asked about the use of various media for getting marketing information on this product before the last sale, his marketing procedure for that sale as compared with his “usual” procedure and, finally, the respondent’s evaluation of the media which had been available to him.

If the farm operator had sold one or more of the six products in 1948, he was also interviewed for the final general marketing information section which was concerned mainly with matters that applied to the overall job of using marketing information and the media used for getting it.

The form of the questionnaire was examined by the Statistical Laboratory for coding and editing ease before being printed by the offset process. Most questions were designed to permit answer completions near the right-hand side of each page. In addition, wide margins were made at the right to facilitate processing the data.

The final draft of the questionnaire was checked by one or more of the committee members working in areas concerning market news service, survey methods, the individual commodity fields and communications.
INTERVIEWER TRAINING

Eight men and seven women, all with farm backgrounds, were hired as interviewers. The project manager and two staff members of the Statistical Laboratory supervised training and field work.

The 15 interviewers attended a 21/2-day training school at Ames, April 11 to 13, 1949. Questionnaires and the Interviewer Manual, which included detailed written instructions on sampling operations in the field and the questionnaire, were distributed for study at the opening of the school. The training session covered the purpose of the survey, instructions on interviewing techniques, the sampling method and responsibilities of the interviewers for accurate reporting. The questionnaire was discussed, question by question, with special emphasis on obtaining uniform understanding of the meaning of each question. Following the classroom work there was an afternoon of practice interviewing under actual on-the-farm survey conditions, to help interviewers become thoroughly familiar with the routine of locating sample farms and use of the questionnaire. The following day the interviewers edited the practice questionnaires and reviewed problems encountered in the field.

CONTROL OF FIELD WORK

Most of the interviewing was completed during the period April 14 to May 17, 1949. Throughout those weeks interviewers were required to keep daily time-and-mileage records covering all field work and to send in daily progress reports to the project manager at Ames. During the first week the supervisors had conferences with all interviewers in the field. The interviewers also were instructed to make telephone calls freely to the Ames office for advice on specific problems in identification of farm headquarters and sample farms or on other survey operations.

PRE-EDITING AND REVIEW

Control over the quality of the interviewers’ work was maintained through a field reviewing procedure which was set up as follows:

(a) The reviewer at Ames received the questionnaires from the interviewers daily. These were checked, and complete questionnaires were filed for editing. (b) The reviewer returned any questionnaires that were incomplete or which required correction. (c) The interviewers made corrections in any questionnaires returned by the reviewer, making revisits to the corresponding farms if necessary.

All questionnaires were reviewed for consistency and completeness of answers. This review, a feature of the field work, is to be distinguished from later editing which prepared questionnaires for coding—another step in the processing of the data.

Soon after interviewing began, it became evident from the field work that two interviewers needed to be replaced. Their work was then allocated among the other interviewers.

As an additional check on the interviewers’ accuracy in locating segments and sampling within segments, the staff workers who had drawn the sample compared the segment sketches made by the interviewers with the office set of maps. In all cases, the sketches seemed consistent with map information.

SAMPLE CHECK

NATURE OF THE RESULTANT SAMPLE

When all the questionnaires were in, a quality control check was made to get a more definite view of the distribution of missing interviews and the extent of substitution. This involved laying out all sample returns (both completed interviews and check sheets), by county and segment as in the original design, and going over each segment checking the number of questionnaires completed and whether proper substitution had been employed where required.

FARMS

The 200 primary segments were found to contain 695 eligible farms—i.e., farms with headquarters inside the segment boundaries. From these, 600 sample farms, three from each segment, were to be randomly selected. However, 10 primary segments turned out to have but one eligible farm each, and 30 had but two eligible farms. This reduced the number of sample farms taken in the primary segments to 550, since the fixed-take of three farms could not be obtained in any of those 40 segments. The deficit was made up, according to rule, from adjoining secondary segments.

No operator interviews were obtained for 51 of the primary sample segment farms (see table 1-A), so, including interviews for the 50 sample farms selected from the secondary segments, 101 complete questionnaires were to be filled out for farms with headquarters in the secondary segments. In four instances this was impossible, so that the total number of farm questionnaires completed in the field was 596 rather than the expected 600.

Only two eligible farms had been found in two sampling areas (primary segments No. 128 and 172 together with their secondary segments). Duplication—essentially a weighting process—was used for these farms. Duplication was also made for one of the two eligible farms in sampling areas

| TABLE 1-A. INTERVIEWING RESULTS FOR PRIMARY AND SECONDARY SEGMENT SAMPLE FARMS |
|---|---|---|
| Number of sample farms | Primary segment | Secondary segment | Total |
| For which at least one operator interview was obtained: | 499 | 39 | 538 |
| For which no operator interviews were obtained: | 51 | 7 | 58 |
| a. Farms successfully substituted for in the field and operator interviews obtained from substitute farms | 0 | 2 | 2 |
| b. Farms for which substitution was not completed and for which questionnaires were duplicated in the office | 0 | 2 | 2 |
| Total number of sample farms | 550 | 48 | 598 |
area No. 128 because of an operator refusal. One more duplication was required for a sample farm operator refusal in secondary segment No. 162. This segment contained only two farm headquarters inside its boundaries while the adjoining primary segment had contained only one sample farm; field substitution could not be made.

In the two cases where the combined primary and secondary segments had yielded only two sample farms, completed questionnaires were selected at random from all those obtained for farms in the same counties. Data from each selected questionnaire were then punched on two sets of IBM cards, the second or duplicate set being assigned the farm number of the “missing” third farm. For the two refusal-noninterview sample farms, check sheet information was used as much as possible; the rest of the information for each farm, its operator and marketers was then duplicated from the completed questionnaire obtained for the nearest farm in the general farming area which approximated the acreage, type of farm, tenure, age of operator and products marketed of the noninterview farm.

About half of the 600 farms for which questionnaires were obtained included land not owned by their operators. Two-hundred-seventy-two farms in the sample had one landlordship, 20 had two landlordships, and three farms had three landlordships each. Of those 295 farms, 215 contained land rented by the operators under share lease arrangements. However, for 50 of these, none of the landlords’ shares of the six survey commodities were sold in 1948.

OPERATORS

Thirty-nine farms were operated by two-man partnerships; five farms, by three-man partnerships. On nearly two-thirds of the partnership farms, all partners lived together in the same dwelling units.

For every partnership, the junior partners as well as the senior partner were interviewed on their marketing of any of the six commodities under consideration. In this way, there were frequently two interviews regarding the sale of, say, one particular lot of hogs. In some cases, it was only possible to make these interviews while the partners were together, although interviewers had been instructed to interview them separately for the marketing sections.

In order to simplify tabulation and calculation of estimates, the analysis of data was limited to 600 operator interviews—one for each farm. In each of the 44 partnership cases, the interview with the senior partner (by age) was selected as the operator interview for the farm. So information on the operator and his household analyzed for those 44 farms was obtained from the senior partners. (It will have been noted that for many of these farms all partners lived in the same household.)

PRODUCER-MARKETERS

Marketing information reported in the main body of this bulletin refers to the operators’ activities as marketers of their own shares of the farm products—not to any of their activities in marketing the farm landlords’ shares.

There were a few instances of partnership farms where only the junior partners had made the marketing decisions for particular commodities. For analysis purposes, the junior partners’ information on marketing for the last sales of those commodities which had been marketed by the junior partners alone was transferred to the senior partner questionnaire. Therefore, in 14 partnership cases, the operator was treated as a composite individual as a marketer for the farm.

Where both partners reported on their use of market news for the last sale of a particular commodity, only the report of the senior partner was used in the analysis. This action was taken for 26 partnerships.

Thus, for partnership farms the data analyzed for the marketer was (1) the senior partner data for all commodities on which the senior partner had helped make marketing decisions, and (2) the junior partner data for commodities sold from the farm which the senior partner did not help market.

THE DATA

Analysis covered only the aspects of market news having to do with farm operators themselves, with the further restriction mentioned in the preceding section. The amount of information obtained for each operator was dependent on the number of commodities sold in 1948 (see table 2-A).  

TABLE 2-A. NUMBER OF COMMODITIES SOLD FROM SAMPLE FARMS IN 1948

<table>
<thead>
<tr>
<th>Number of commodities sold</th>
<th>Considering operators’ share only</th>
<th>for total farm sales (combining sales of operators’ and landlordships’ shares)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>36</td>
<td>37</td>
</tr>
<tr>
<td>4</td>
<td>1431</td>
<td>1350</td>
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<tr>
<td>5</td>
<td>2941</td>
<td>2110</td>
</tr>
<tr>
<td>6</td>
<td>69</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>

*Considering only the six leading cash income commodities—hogs (for slaughter or feeder purposes), cattle (for slaughter or feeder purposes), corn, soybeans, cream or whole milk, eggs.

Discrepancies between entries in this column and those in the preceding column are mainly (about 82 percent) due to sales of crop and cash-crop landlordships’ shares of corn. (Another 8 percent are the result of corn sales for stock-share landlordships.)

The two most frequently reported combinations of commodities sold by the producer-marketers were hogs, cattle, eggs, cream or whole milk (by one-fourth of the 600 operators) and hogs, eggs, cream or whole milk (by one-twelfth).
NOTES ON THE QUESTIONNAIRE

Nearly all of the commodity sections of the questionnaire contained the questions: “Where did you get the information that helped you decide on (a) the buyer of .................. ? (b) the weight at which to sell [or, for eggs, the grade basis on which to sell]? and (c) the time to sell?” The purpose of this set of questions was to determine the relative use of various media for answering questions about selling place, selling weight (for livestock only) and selling time (for livestock and grain only). It turned out that high proportions of the respondents did not name any market news medium in response—instead, they gave answers that reflected long-standing custom, intuition or habit as the basis for their decisions. Only 22 percent of the hog sellers had named “radio” for their last sale of butcher hogs, in answering the question “Where did you get the information that helped you decide on the time to sell hogs?” However, when asked “As time to sell drew near, what way of getting market information did you depend on most,” 86 percent of the hog sellers said “radio” for their last sale.

It is believed that higher proportions of correct answers could have been obtained if the first set of questions had been reworded, as follows: “What way of getting market information did you refer to that helped you decide on (a) the buyer of .................. ? (b) the weight to sell them? (c) the time to sell?” Nevertheless, the result of the actual wording agreed with one minor hypothesis of the questionnaire writers—that many farmers do not clearly recall where they obtained information leading up to individual parts of a selling decision.

For various reasons some parts of the commodity sections of the questionnaire were not considered during analysis. A discussion of these follows.

One of the questions on radio market reports for each commodity read, “Which station did you listen to most at ............... marketing time?” The question following read, “What other stations did you use?” The purpose of these questions was simply to identify what stations were listened to for the commodity market news, not to distinguish between stations named as listened to most and other stations. This report shows all of the stations the farmers listened to for market news on each commodity—but does not include a separate list of stations farmers mentioned as listened to most.

A similar approach was used on newspaper reading. The opening question read, “Which newspaper did you prefer for ............... market reports?” and was followed by, “Which other newspapers did you read these in?” No attempt was made to separate the “preferred” from the other newspapers. Since the farmers received only 1.2 daily newspapers on the average, a choice was involved in so few cases that an analysis was not believed worthwhile.

Such small numbers of farmers mentioned reading mailed government market reports for the six commodities that nothing was done with the information other than obtaining a total.

Farmers were asked, “Did you listen to the broadcasts of the (hogs, cattle, corn, soybean) market reports before you decided to sell or ship?” Those who replied in the affirmative were then asked, “What was the market doing that made you select that day?” Responses to these two questions for livestock and grain are not used in this report because: (a) several interviewers, when asked to comment on the questionnaire and their interviewing experience, pointed out that these questions seemed to confuse respondents, who had just previously been asked, “Before you sold your last lot of ................ did you listen to day-to-day radio reports on the ............... market?” (b) The question about market behavior should have been an independent item in the questionnaire in order to elicit responses from all farm operators who had sold the commodities under consideration.

Question I-5 dealt with whether or not farmers selling cream or whole milk had read any day-to-day milk or cream market reports during the past month. If the response was “no,” the interviewer was instructed to skip to I-6, thus omitting questions I-5a,b,c,d,e,f. Unfortunately, questions I-5e and I-5f did not solely relate to the reading of market reports, so that the effect of the inclusive “skip” instruction was a complete loss of suggestions from one group of respondents (those answering “no” to I-5) about information they would like to have to help them compare prices they were receiving with prices paid by other dairy products markets.

Similarly for eggs, the interviewer was instructed to skip to J-5 if he received a “no” response to J-4, “Did you read any newspapers, magazines or government reports for day-to-day egg market reports during the past month?” This meant an omission of eight questions (4a, . . . , h), three of which were not solely related to reading egg market reports and should have been asked regardless. Thus, for one group of respondents (those answering “no” to J-4) information was lost on the grades they paid closest attention to when comparing prices and on their talking to neighbors and telephoning or visiting possible buyers.

Two questions12 of the general information section of the questionnaire were answered in the affirmative by such small numbers of farmers that no attempt was made to analyze related information on the types of market information farmers record for various commodities or to estimate the numbers of farmers who hedged or speculated on the grain futures markets.

11For eggs, cream and milk, a modified form of the question was used: “Which station did you listen to most for .......... prices [last month]?”

12Question K-4, “Do you write down, or graph, or chart any market information?” Question K-7, “Did you buy or sell any grain on the futures market in 1948?”
NOTE ON THE EFFECTS OF FARM SUBSTITUTION ON THE DATA

Some effects of substitution have been studied by utilizing information from the check sheets which were obtained for noninterview sample farms in the primary segments. Table 3-A presents estimates of means and percentages obtained from data for the 550 primary segment sample farms (including noninterview sample farms) and for the 499 interviewed primary segment sample farms and 51 substitute farms. It is readily seen that the two estimates are, for all practical purposes, identical for the items shown—a result which is not surprising since the differences between the noninterview and substitute farms for those items are not of a major order, and the weight exercised upon the total sample by the substitute farms is small.

EDITING AND PROCESSING THE DATA

There were two main treatments applied to the data before coding—(1) editing for missing information within the questionnaires, and (2) editing to bring recorded responses in the questionnaires under a uniform set of terms according to specific written editing instructions. These instructions, prepared in advance of actual editing, included detailed question-by-question instructions for the editors’ use.

Interviewers had been instructed to make every effort to get all information called for in the questionnaire. Even so, there were some missing data. When major portions of the questionnaires were incomplete, revisits to the segments were occasionally made; otherwise, letters were sent to respondents or the persons who had interviewed them—and were followed by telephone calls in a last attempt to get specific responses. Only after these measures had failed was information considered missing.

When either the value of 1948 sales for a commodity or the number of head or bushels sold was missing, state averages were used to compute the missing data—i.e., to convert numbers sold into value of sales and vice versa. These average prices were obtained from the Iowa Crop and Livestock Reporting Service for hogs, cattle, corn, etc.

TABLE 3-A. COMPARISON OF ESTIMATES FOR 550 PRIMARY SEGMENT SAMPLE FARMS USING INFORMATION FROM NONINTERVIEW PRIMARY SEGMENT SAMPLE FARMS AND INFORMATION FROM SUBSTITUTE FARMS.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>The sample after farm substitution*</th>
<th>The sample as it would have been if all primary segment sample farms had been interviewed†</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td><strong>Average</strong></td>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of acres</td>
<td>550</td>
<td>176.3</td>
</tr>
<tr>
<td>Tenure arrangement:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-operator</td>
<td>49.8</td>
<td>50.5</td>
</tr>
<tr>
<td>Tenant-operator</td>
<td>42.2</td>
<td>41.1</td>
</tr>
<tr>
<td>Part-owner-operator</td>
<td>8.0</td>
<td>8.1</td>
</tr>
<tr>
<td>Operator arrangement:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-man operation</td>
<td>93.3</td>
<td>92.2</td>
</tr>
<tr>
<td>Two-man partnership</td>
<td>6.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Three-man partnership</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Operator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>550</td>
<td>45.7</td>
</tr>
<tr>
<td>Number of people in operator’s household</td>
<td>550</td>
<td>3.83</td>
</tr>
<tr>
<td>Had electricity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11.7</td>
<td>12.3</td>
</tr>
<tr>
<td>REA</td>
<td>51.5</td>
<td>51.9</td>
</tr>
<tr>
<td>Other highline</td>
<td>34.6</td>
<td>34.1</td>
</tr>
<tr>
<td>Home plant</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Producer-marketer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sold hogs in 1948:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>83.5</td>
<td>84.2</td>
</tr>
<tr>
<td>No</td>
<td>16.5</td>
<td>15.8</td>
</tr>
<tr>
<td>Sold cattle in 1948:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>65.6</td>
<td>100.0</td>
</tr>
<tr>
<td>No</td>
<td>34.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Consisting of 499 interviewed primary segment sample farms and 51 substitute farms from the secondary segments.
†Consisting of 499 interviewed and 51 noninterview primary segment sample farms.
§No response was recorded on the questionnaire for one sample farm regarding possession of electricity.
and soybeans. For eggs, cream and whole milk, information was obtained from the 1948 Farm Record Summary, Iowa State College.

However, if both the sales-value and the number-sold figures were missing for any commodity, no attempt was made to edit in values. Responses of "don't know" (edited as DK) were given, for both quantity sold in 1948 and value, most frequently for eggs and for cream or whole milk.

Estimates of corn and soybean production figures based on state averages were filled in by the editors when the number of acres harvested for grain was reported but not the production.

For a number of other items the editors were able to determine the missing responses by reviewing evidence within the questionnaire. If this was not possible, the responses were edited as NR (no response).

All publications which the farmer mentioned in response to the inventory question (C-6) on papers and magazines which were then coming into his home regularly were accepted during editing, except comic or religious magazines and publications that couldn't be identified from information in Ayer's "Directory of Newspapers and Periodicals, 1949." The following definitions were used in classifying publications:

Farm paper—a publication devoted largely to agricultural interests, which is published semi-monthly or oftener and has a format conforming to one of the two following classifications: (a) full-size: 7 to 8 columns wide, 24 to 26 nonpareil ems (2” to 2.17”) wide, and 294 to 304 agate lines (21” to 21.17”) in depth; (b) tabloid size: 4 to 5 columns wide, 24 to 28 nonpareil ems (2” to 2.33”) in width, and 182 to 224 agate lines (13” to 16”) in depth. (Farm papers are generally printed on newsprint.)

Farm periodical—any publication devoted largely to agricultural interests which does not conform to the size classifications of farm papers or, if it does, is not published semi-monthly or more frequently.

Other magazine—a magazine devoted to interests other than agriculture.

Daily paper—a newspaper published daily which is devoted to interests other than agricultural.

Sunday paper—a newspaper published on Sunday of each week as the Sunday issue of a daily paper.

Weekly paper—a newspaper published weekly devoted to interests other than agricultural.

For several reasons publications mentioned in the later sections of the questionnaire were coming regularly into the farmer's home. It is possible that those publications were read only occasionally in business establishments or homes other than that of the respondent.

In general during the editing, comments for open-end questions were listed separately by segment and farm No. for later coding.

CODING

By means of a numeric code, data were prepared for punched-card methods of processing.

With the exception of weight classes in livestock, quantitative data were not reduced to categories but preserved in raw form. For example, the reported numbers of bushels of corn sold at last sale were coded exactly as given in the interview rather than being rounded to the nearest hundred and coded only for the hundred digit. However, categories or general classifications were nearly always set up for word-response to open-end questions, and code numbers were assigned to the classes rather than the individual comments. Codes were not prepared for questions which yielded ambiguous responses or items which were considered relatively unimportant to the immediate analysis.

The final code for farm, operator and producer-marketer information consisted of codes for 25 sets or decks of IBM cards, the decks being designated as CARD 101, 102, etc. Data coded for a particular deck or CARD usually concerned a single unit of observation. CARD 101, then, which concerned characteristics of the farm, contained 600 single IBM cards, one for each sample farm in the survey.

Data were transferred in coded form from the original questionnaires to mimeographed coding forms. All coding was checked.

PUNCHING AND VERIFYING CARDS

IBM cards were punched and verified from the coding forms. A number of consistency runs were made to check on final punched-card entries. These were particularly useful for picking up errors whenever the same item, such as "radio station listened to most for hog market news," was punched on more than one card for the same farm or operator.

TABULATION PROCEDURE

As was indicated in the sections on operators and producer-marketers, data for 600 operators (one from each sample farm), rather than 649, were studied for analysis purposes. Therefore, the tables in the main part of this bulletin are based on 600 farms, 600 operators or some subgroup of those operators.

At the time the questionnaire was constructed, a series of 48 preliminary tabulations was proposed, for each commodity field, to indicate the ways in which farmers are exposed to and use market news. These tabulations (frequency counts
and totals for the sample unweighted at the segment level) were completed in December 1949 for farmers who had sold hogs (for slaughter or feeder purposes) in 1948 from the sample farms. On the basis of a review of these tabulations, factors which appeared to be important for cross tabulation were selected.

The major schemes developed for classifying the data for each commodity for analytical purposes were: (1) grouping by size of last sale [number of head, bushels, pounds of butterfat (converted from gallons or pounds of milk or cream if necessary), dozen]; (2) a separation of those producer-marketers who made last sale at their usual outlet from those who made last sale at a new or other-than-usual outlet; (8) a separation of those who used both daily newspaper and radio for market reports on the particular commodity from those who used only radio.

A tentative manuscript for a publication on radio market news was circulated for study and comment among personnel of the USDA, the Iowa State Department of Agriculture, the Iowa Agricultural Experiment Station and the Extension Service in Agriculture and Home Economics, who were interested in the media survey project. This resulted in suggestions for additional tabulations, and the decision was made to check unbiased estimates against biased estimates (prepared from the preliminary tabulations where data were not weighted at the segment level by the inverse of the within-segment sampling rate) before proceeding with further analysis of commodity market news data (see tables 4-A to 8-A).

After a major portion of the machine work had been completed, a number of hand-tabulations were made for data not punched on cards and for complex tables showing relationships among new combinations of variables.

METHODS OF ESTIMATION AND MEASURES OF RELIABILITY

The sampling design used for the media survey employed a two-stage sampling scheme, the first stage being systematic area sampling and the second the fixed-take random sampling within segments.

Methods of estimation of means and totals which are appropriate for systematic samples per se are available. However, no exact method of estimation for the sampling errors of such estimates specifically based on a systematic sample is possible. Approximate estimates of the sampling errors can be made in various ways. The simplest, which is sufficient for most census and survey work, according to Yates, is to divide the material arbitrarily into strata and to calculate sampling errors as if the units were drawn (at random) with equal probabilities at the first stage, and farm headquarters are selected from the segments with unequal but known probabilities at the second stage. The following notation will be used:

The subscript i refers to the segment.
The subscript j refers to the farm (identified by its headquarters).

\[ N = \text{the total number of farms with headquarters in the open-country zone of Iowa.} \]
\[ K = 100 = \text{the number of strata in Iowa open country.} \]
\[ K_s = \text{the universe number of s.u.'s in the } s^{th} \text{ stratum.} \]
\[ N_i = \text{the number of farms selected for the sample from the } s^{th} \text{ stratum and is constant for all strata.} \]
\[ n_i = \text{the sample number of farms selected for the } i^{th} \text{ segment and is constant for all segments.} \]
\[ x_i = \text{the value of some measured or enumerated characteristic of (or associated with) farm } j \text{ in the } i^{th} \text{ segment.} \]
\[ t_i = \text{the sample total for segment } i \text{ for some measured or enumerated characteristic.} \]

For the state,

\[ n = 600 = \text{the total number of farms selected for the sample.} \]
\[ \mu_T = \text{the true population mean and total respectively for some measured or enumerated characteristic of Iowa open-country farms, operators or producer-marketers.} \]

The symbol \( \hat{\mu} \), (hat), will be used to denote an estimate.

UNBIASED ESTIMATES OF TOTALS AND SAMPLING ERRORS FOR THE IOWA OPEN-COUNTRY ZONE

Estimation of Totals

Unbiased estimates of population means cannot be obtained since such estimates require a knowledge of N. Population totals can, however, be estimated in an unbiased manner. The best linear unbiased estimate of a total is:

\[
\hat{N} = \frac{53,788}{2} \sum_{s=1}^{5} \frac{N_i}{N} x_{is}
\]

For characteristics for which response was obtained for all sample farms, this formula can be simplified for computational purposes to:

\[
\hat{N} = \frac{53,788}{2} \sum_{s=1}^{5} \frac{N_i}{N} t_{is}
\]

where \( \frac{N_i}{N} = \bar{x}_{is} \)

The total number of farms in Iowa open country is estimated from (2) by putting \( t_{is} = n_{is} = 3 \), so

\[
\hat{N} = \frac{53,788}{2} \sum_{s=1}^{5} \frac{N_i}{N} t_{is} \]

\[ = 53,788 \times (295) = 186,913 \text{ farms} \]
However efficiently the interviewing is conducted in any survey, there are usually some isolated nonresponses to specific questions in the questionnaires when they are received for analysis. The assumption was made, for this survey, that sample farms for which no response was obtained for a given question were scattered at random through the total 600-farm sample. Therefore, the sample values obtained for that question may be considered a random sample of values within any stratum, and segments having some nonresponse for the question are treated as segments from which an arbitrary number of farms (the actual number for which response to the question was obtained) was sampled.

In such cases, the characteristic $\bar{x}_{1s}$ in formula (1) can be replaced by $t_{1s}$ for any segment having one nonresponse for the characteristic and by $t_{3s}$ for a segment having two nonresponses. This was carried out in practice by multiplying the characteristic totals for segments with one nonresponse for the characteristic by $3/2$ and totals for segments with two nonresponses by 3 before computing the weighted sums by formula (2). In this way an unbiased estimate of the total is obtained in accordance with formula (1), correction being made for nonresponse.

**Estimation of Sampling Errors**

An unbiased estimate of the variance of $\hat{T}$ is given by:

$$\hat{\text{V}}(\hat{T}) = \frac{\text{SE}}{\sqrt{\bar{S}^2}} \sum_{s=1}^{S} \left( N_{1s} \bar{x}_{1s} - \frac{1}{2} \sum_{s=1}^{S} N_{1s} \bar{x}_{1s} \right)^2$$

$$= \left( \frac{\text{SE}}{\sqrt{\bar{S}^2}} \right)^2 \sum_{s=1}^{S} (N_{1s} \bar{x}_{1s} - N_{2s} \bar{x}_{2s})^2$$

(4)

For characteristics for which response was obtained for all sample farms, the formula simplifies computationally to:

$$\hat{\text{V}}(\hat{T}) = \left( \frac{\text{SE}}{\sqrt{\bar{S}^2}} \right)^2 (N_{1s} \bar{x}_{1s} - N_{2s} \bar{x}_{2s})^2$$

(5)

Corrections for nonresponse for any characteristic are made, as for $\hat{T}$, at the segment level by multiplying the characteristic totals for segments with one nonresponse by $3/2$ and the totals for segments with two nonresponses by 3, before substituting in formula (5).

The sampling error of $\hat{T}$ when expressed as a percentage of $\hat{T}$ is called the relative sampling error. It is estimated by:

$$\text{RSE} = \frac{100\sqrt{\hat{\text{V}}(\hat{T})}}{\hat{T}}$$

which simplifies to

$$\text{RSE} = \frac{100\sqrt{\hat{\text{V}}(\hat{T})}}{\hat{T}} = \frac{100}{\hat{T}} \sum_{s=1}^{S} (N_{1s} \bar{x}_{1s} - N_{2s} \bar{x}_{2s})^2$$

(6)

Estimates of relative sampling errors given in tables 4-A to 8-A, together with estimated totals, $\hat{T}$, provide information for putting confidence limits on the estimated totals which indicate the extent of the reliability of the estimates obtained from the sample. The approximate 95-percent confidence interval is given by:

$$\hat{T} - 2[\text{RSE} \cdot (\hat{T})] < \hat{T} < \hat{T} + 2[\text{RSE} \cdot (\hat{T})]$$

(7)

For example, for the estimated total number of farms in open country, $\hat{N}$, the interval becomes:

$$186,913 \pm 2.63\%$$

(186,913) = 186,913 ± 9,832 farms.

Then the probability or confidence is approximately 0.95 that intervals computed in this way, in repeated sampling, will contain the true population number of farms in the open-country zone of Iowa.

Put more simply, assuming that nonsampling errors are negligible, unless a 1-in-20 chance has come off in the sampling, the 95-percent confidence interval for a characteristic will contain $N$ (or $T$), its true value, and even if that 1-in-20 chance has come off, the population value is usually close to the interval.

**Biased Estimates of Totals**

Point-estimates of totals can be obtained with comparatively simple computations by multiplying together the unbiased estimate of the total number of farms and the simple mean of the means of all segments. Thus:

$$\hat{T}_b = \frac{\hat{T}}{S} = \frac{\text{SE}}{\sqrt{\bar{S}^2}} \sum_{s=1}^{S} \frac{N_{1s}}{S} \bar{x}_{1s}$$

(8)

When there is complete response for a given characteristic,

$$\hat{T}_b = \frac{\hat{T}}{S} = \frac{\text{SE}}{\sqrt{\bar{S}^2}} \sum_{s=1}^{S} \frac{N_{1s}}{S} \bar{x}_{1s} + \frac{N_{2s}}{S} \bar{x}_{2s}$$

(9)

Correction for nonresponse is made at the segment level as for $\hat{T}$—by replacing $t_{1s}$ by $3/2 t_{1s}$ for one nonresponse for a characteristic and by $3 t_{1s}$ for two nonresponses.

An unbiased estimate of the bias in $\hat{T}_b$ as an
### TABLE 4-A. ESTIMATES OF STATE TOTALS, BIAS AND SAMPLING ERRORS FOR IOWA OPEN-COUNTRY FARMS

<table>
<thead>
<tr>
<th>Item</th>
<th>Unexpanded sample number</th>
<th>Estimate of total Unbiased</th>
<th>Estimated relative bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
<th>Estimated bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa open-country farms</td>
<td>600</td>
<td>186,913</td>
<td>2.63</td>
<td>-0.58</td>
</tr>
<tr>
<td>Farms with highline electricity in operators' homes</td>
<td>521</td>
<td>163,247</td>
<td>3.30</td>
<td>-0.58</td>
</tr>
<tr>
<td>Farms with running water in operators' homes</td>
<td>288</td>
<td>89,647</td>
<td>5.89</td>
<td>0.08</td>
</tr>
<tr>
<td>In farms in 1948:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres fully owned* by operators</td>
<td>54,681</td>
<td>16,571,444</td>
<td>6.08</td>
<td>2.79</td>
</tr>
<tr>
<td>Acres rented in by operators</td>
<td>53,057</td>
<td>15,933,136</td>
<td>5.78</td>
<td>2.79</td>
</tr>
<tr>
<td>Total acres in farms</td>
<td>107,738</td>
<td>32,504,580</td>
<td>3.66</td>
<td>3.28</td>
</tr>
</tbody>
</table>

*Acres in a partnership farm were considered as fully owned by the partnership if any of the partners owned the land.

### TABLE 5-A. ESTIMATES OF STATE TOTALS, BIAS AND SAMPLING ERRORS FOR CORN AND SOYBEAN PRODUCTION ON IOWA OPEN-COUNTRY FARMS

<table>
<thead>
<tr>
<th>Item</th>
<th>Unexpanded sample number</th>
<th>Estimate of total Unbiased</th>
<th>Estimated relative bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
<th>Estimated bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres planted to field corn in 1948</td>
<td>35,467</td>
<td>10,727,967</td>
<td>3.63</td>
<td>2.99</td>
</tr>
<tr>
<td>Acres of corn harvested for grain in 1948</td>
<td>33,775</td>
<td>10,214,093</td>
<td>3.70</td>
<td>2.01</td>
</tr>
<tr>
<td>Bushels of corn produced for grain in 1948</td>
<td>2,272,219</td>
<td>696,233,514</td>
<td>13.81</td>
<td>1.47</td>
</tr>
<tr>
<td>Acres of corn operators intended to plant in 1949</td>
<td>35,471</td>
<td>10,648,179</td>
<td>3.78</td>
<td>3.77</td>
</tr>
<tr>
<td>Acres planted to soybeans in 1948</td>
<td>4,441</td>
<td>1,379,803</td>
<td>9.78</td>
<td>0.27</td>
</tr>
<tr>
<td>Acres of soybeans harvested for grain in 1948</td>
<td>4,333</td>
<td>1,342,957</td>
<td>10.02</td>
<td>0.51</td>
</tr>
<tr>
<td>Bushels of soybeans produced for grain in 1948</td>
<td>100,883</td>
<td>31,302,822</td>
<td>10.65</td>
<td>0.40</td>
</tr>
<tr>
<td>Acres of soybeans operators intended to plant in 1948</td>
<td>3,709</td>
<td>1,164,645</td>
<td>10.01</td>
<td>-0.79</td>
</tr>
</tbody>
</table>

*At the time of interview (April-May 1949).

### TABLE 6-A. ESTIMATES OF STATE TOTALS, BIAS AND SAMPLING ERRORS FOR FARM PRODUCTS AND EQUIPMENT ON HAND ON IOWA OPEN-COUNTRY FARMS, JAN. 1, 1949

<table>
<thead>
<tr>
<th>Item</th>
<th>Unexpanded sample number</th>
<th>Estimate of total Unbiased</th>
<th>Estimated relative bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
<th>Estimated bias of $\hat{\theta}$ as a percent of $\hat{\theta}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa open-country farms</td>
<td>600</td>
<td>186,913</td>
<td>2.63</td>
<td>3.28</td>
</tr>
<tr>
<td>On farms January 1:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushels of corn*</td>
<td>1,377,342</td>
<td>411,113,832</td>
<td>4.37</td>
<td>3.37</td>
</tr>
<tr>
<td>Bushels of oats</td>
<td>459,249</td>
<td>141,665,737</td>
<td>6.38</td>
<td>1.01</td>
</tr>
<tr>
<td>Bushels of soybeans*</td>
<td>17,371</td>
<td>5,374,359</td>
<td>14.77</td>
<td>0.69</td>
</tr>
<tr>
<td>Hogs and pigs</td>
<td>27,302</td>
<td>7,954,791</td>
<td>5.28</td>
<td>7.32</td>
</tr>
<tr>
<td>Cattle and calves</td>
<td>15,608</td>
<td>4,833,858</td>
<td>5.97</td>
<td>4.31</td>
</tr>
<tr>
<td>Cows and heifers 2 years old and over kept for milk</td>
<td>3,851</td>
<td>1,200,413</td>
<td>4.64</td>
<td>0.19</td>
</tr>
<tr>
<td>Chickens</td>
<td>82,148</td>
<td>25,519,560</td>
<td>4.40</td>
<td>0.28</td>
</tr>
<tr>
<td>Tractors</td>
<td>707</td>
<td>235,331</td>
<td>5.16</td>
<td>1.83</td>
</tr>
<tr>
<td>Motor trucks</td>
<td>190</td>
<td>57,565</td>
<td>7.17</td>
<td>2.84</td>
</tr>
<tr>
<td>Grain combines</td>
<td>160</td>
<td>48,500</td>
<td>8.12</td>
<td>2.58</td>
</tr>
</tbody>
</table>

*Not including sealed or optioned corn or soybeans.
TABLE 7-A. ESTIMATES OF STATE TOTALS, BIAS AND SAMPLING ERRORS FOR IOWA OPEN-COUNTRY FARMS FROM WHICH SELECTED COMMODITIES WERE SOLD IN 1948

<table>
<thead>
<tr>
<th>Item</th>
<th>Unexpanded sample number</th>
<th>Estimate of total</th>
<th>Estimated relative sampling bias as a percentage of ( \hat{\theta} )</th>
<th>Estimated bias of ( \hat{\theta}_b ) as a percentage of ( \hat{\theta} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa open-country farms</td>
<td>(number)</td>
<td>(number)</td>
<td>(percent)</td>
<td>(percent)</td>
</tr>
<tr>
<td>Farms from which were sold:*</td>
<td>690</td>
<td>186,913</td>
<td>2.63</td>
<td></td>
</tr>
<tr>
<td>Hogs (for slaughter or feeder purposes)</td>
<td>505</td>
<td>155,359</td>
<td>2.77</td>
<td>1.26</td>
</tr>
<tr>
<td>Cattle (for slaughter or feeder purposes)</td>
<td>396</td>
<td>123,392</td>
<td>3.74</td>
<td>-0.43</td>
</tr>
<tr>
<td>Corn</td>
<td>199</td>
<td>58,076</td>
<td>6.96</td>
<td>0.19</td>
</tr>
<tr>
<td>Soybeans</td>
<td>383</td>
<td>48,229</td>
<td>8.42</td>
<td>-1.17</td>
</tr>
<tr>
<td>Eggs</td>
<td>474</td>
<td>134,292</td>
<td>3.41</td>
<td>6.68</td>
</tr>
<tr>
<td>Cream or whole milk</td>
<td>425</td>
<td>133,486</td>
<td>3.28</td>
<td>0.12</td>
</tr>
<tr>
<td>Farms whose operators had sold hogs (for slaughter or feeder purposes) in 1948 and pay closest attention to interior markets (for hogs) on radio and in newspapers</td>
<td>212</td>
<td>68,403</td>
<td>5.77</td>
<td>-5.46</td>
</tr>
</tbody>
</table>

*Including both operators' and landlords' shares. Thus, for 62 sample farms the only corn sold was the landlords' shares.

(See second footnote following table 7-A, p. 155.)

TABLE 8-A. ESTIMATES OF STATE TOTALS, BIAS AND SAMPLING ERRORS FOR COMMUNICATIONS MEDIA AVAILABLE TO OPERATORS* OF IOWA OPEN-COUNTRY FARMS, 1949

<table>
<thead>
<tr>
<th>Item</th>
<th>Unexpanded sample number</th>
<th>Estimate of total</th>
<th>Estimated relative sampling bias as a percentage of ( \hat{\theta} )</th>
<th>Estimated bias of ( \hat{\theta}_b ) as a percentage of ( \hat{\theta} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iowa open-country farms</td>
<td>(number)</td>
<td>(number)</td>
<td>(percent)</td>
<td>(percent)</td>
</tr>
<tr>
<td>At time of interview (April-May 1949):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farms whose operators were receiving daily newspapers regularly in their homes</td>
<td>537</td>
<td>168,715</td>
<td>3.08</td>
<td>-0.85</td>
</tr>
<tr>
<td>Farms with telephones in operators' homes</td>
<td>502</td>
<td>158,047</td>
<td>5.57</td>
<td>-1.65</td>
</tr>
<tr>
<td>Producer-marketer* who were receiving any outlook information on farm products they were planning to sell</td>
<td>246</td>
<td>74,459</td>
<td>5.66</td>
<td>2.87</td>
</tr>
<tr>
<td>Farms whose operators or members of their households had at least one radio in working condition on Jan. 1, 1949</td>
<td>582</td>
<td>182,341</td>
<td>2.84</td>
<td>-0.57</td>
</tr>
<tr>
<td>Radios in working condition which farm operators' households had on Jan. 1, 1949</td>
<td>1,127</td>
<td>349,456</td>
<td>3.31</td>
<td>0.47</td>
</tr>
</tbody>
</table>

*Individual operators who farm by themselves and the senior partners for partnership-operated farm. This table does not include totals for those junior partners who did not live in the same dwelling units as their senior partners.

(See section on producer-marketers for restriction on these estimates.)

The bias of \( \hat{\theta} \) is given by:

\[ \hat{\text{bias}} = \hat{\theta}_b - \hat{\theta} \]  

(10)

Unbiased and biased estimates of totals for a number of items are presented in tables 4-A to 8-A together with estimates of the bias in \( \hat{\theta}_b \).

NOTE: Percentages given in the main body of this report have been computed from the computationally simpler \( \hat{\theta}_b \) and are usually the ratios, expressed in percentage form, of some \( \hat{\theta}_b \) to \( N \) or to the estimated total number of farms whose operators sold a specific survey commodity in 1948 from the farms.

*See table 7-A for these estimates.
APPENDIX B
(ILLUSTRATIVE MATERIAL)
QUESTIONNAIRE
IOWA STATE COLLEGE
IOWA AGRICULTURAL MARKET SURVEY

Location of place:
Interviewer .................................. County .........................
Date of 1st call ................................ Township ........................ .
2nd call .................................. Segment No. ........................ 
3rd call .................................. Farm No. ...........................
Length of Interview ......................... (hrs. & min.)

A. ORIENTATION:
1. Are you farming this place for yourself, or in a partnership? YES ...... NO

2. If partnership: Who is the senior partner? .................. Address ....................................................... .

If respondent is not senior partner, determine headquarters (partnership operation) by application of SENIOR PARTNERSHIP RULE. If headquarters is found to be in this segment, go to Question 5 and complete the schedule with this respondent before interviewing the other operator. If headquarters is outside the segment, go to Question 5, then terminate interview.

3. Do you own or rent in any cropland, pasture, range, orchards, or wasteland in this place? YES ...... NO

4. a) How much were field crops, garden vegetables, fruits, berries, etc., produced last year on this place worth at the local market price? (Includes that sold, on hand, and used at home).

b) How much were animals or animal products (includes those sold, on hand and used at home).

c) How much were chickens, hogs, and eggs produced on this place last year worth at the local market price? (Includes those sold, on hand and used at home). $ ...................

TOTAL a, b, and c ...... TOTAL $ ..................

If $250.00 or more total, this is to be considered a farm. Skip to terminate interview.

5. (To be asked if this place qualifies as a farm):
Do you operate or share in the operation of farms other than this one? YES ...... NO

If YES, LIST FARM AND LOCATION.

Then determine according to the appropriate marketing form (Parts E-K).

B. THE FARM:
Name of Operator or Partnership .................................. (Underline correct one)

ADDRESS ..................................................

1. Did you farm this place last year? YES ...... NO

If NO, name and location of previous operator (see instructions).

2. How many acres were in this farm last year? (Include cropland, pasture, buildings, woods, orchards, ditches, range and wasteland)
a) How many acres fully owned? ......... acres
b) How many acres of which you own a share? ......... acres (1) What share? ..............
c) How many acres do you rent in? ......... acres

TOTAL (should equal answer to Question 2).

If NONE to (b) and (c), SKIP TO QUESTION 4.

3. (If any land is partly owned or rented in): What person or persons own or hold an interest in the land in the farm?

INVENTORY OF STOCK AND GRAIN:

5. a) How many acres were planted to corn last year? ......... acres

b) How many bushels were produced? ......... bu.

6. a) Was any of the corn produced on this farm last year sealed or optioned by January 1, 1949? YES ...... NO

b) Was any of the soybeans produced on this farm last year sealed or optioned by January 1, 1949? YES ...... NO

If 6a-6b YES: Number of Bushels?

7. How many bushels of soybeans did you have on hand on this farm January 1, 1949? (Do not include sealed or optioned corn or soybeans).

Tenant Landlord TOTAL

CORN

8. How many of the following types of animals did you have on hand on this farm January 1, 1949? (Do not include sealed or optioned corn or soybeans).

Tenant Landlord TOTAL

Sheep & lambs, number

All cattle & calves, number

9. Were any of the following sold from this farm during 1948?

Tenant Landlord TOTAL

Hogs & pigs (sold for slaughter or feeder purposes)

Eggs?

Whole milk?

CATTLE & CALVES

SOYBEANS

WHEAT

Sheep & lambs

Lbs. butterfat

NAME ADDRESS

LIVE IN SRG-MNT? (Yes or No)

FUNCTION IN FARM

NAMK ADDRESS OF OWNER INTEREST HOLD BY TYPE OF LEASE

NO. OF ACRES

Cash Crop Share

Cash Crop Share

Stock Share

Profit Sharing

OTHER OWNERS:

LANDLORDS: (2c)

4. What are the names of all the people who share in the profits and produce derived from operating this farm? (Exclude wife, children, etc., unless they are partners, paid laborers, landlords, etc.)

5. ORIENTATION:

NOT FARMING ..........

SELF ..........

PARTNERSHIP ..........

NOT FARMING ..........

CHILDREN ......... 

LIVE FAMILY FUNCTION IN FARM

AGE

TRANSFER

TOTAL

FUND

PARTNER

SHARE

LANDLORD

MANAGER

LABORER (SPECIFY WHICH)

NOTE: Entries in blanks in the preceding question qualify this item for the appropriate marketing form (Part E-K).

10. a) How many acres of corn do you intend to plant this year (1949)? ......... acres

b) How many acres of soybeans do you intend to plant this year (1949)? ......... acres

163
11. How many farm tractors did you have on this place January 1, 1949?
12. How many motor trucks did you have on this place January 1, 1949?
13. How many grain combines did you have on this place January 1, 1949?

C. OPERATOR:

Now, in order that we will be able to present our findings according to size of family, age of operator, and the like, I would like to ask you some specific questions about the household.

1. How many people are now living in your household? No...
2. (Get relationship to operator, age, sex, education and occupation of members of the household)

RELATION TO OPERATOR SEX AGE SCHOOL OCCUPATION
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

11. Are there any farm workers now employed by this household? No...
12. How many of them are on the place? No...
13. How many in the off place? No...
14. How many were on this place when the family moved here? No...

Is there a garden here? (in the household) No... No...

Number in the garden... Number in outbuildings (barn, etc.)...

3. Do you have electricity? Yes...
4. Do you have a telephone in the house? Yes...
5. Do you have running water in the house? Yes...

6. INVENTORY OF PAPERS AND MAGAZINES:

A. What are your newspapers and magazines? (name of publication, etc.)

a) WEEKLY NEWSPAPERS...
b) DAILY NEWSPAPERS...
c) SUNDAY PAPERS...
d) FARM PAPERS...
e) FARM MAGAZINES...
f) OTHER MAGAZINES...

3. Do you listen to radio stations? Yes...
4. Which stations did you listen to the most at hog marketing time? Call letters Hour Hour Hour

Radio Hog Market Reports

3. Before you sold your last lot of butcher hogs did you listen to day-to-day radio reports on the hog market? Yes...

a. Which station did you listen to most at hog marketing time?... Call letters Hour Hour Hour

b. At what times did you listen to these stations?...

c. What other stations did you use?...

d. Which station did you listen to most at hog marketing time?...

e. When you can't listen to radio reports... (You have someone else listen for you) Yes...

4. Did you listen to the broadcast of the hog market reports before you decided to sell or ship? Yes...

a. What was the market like on the day you sold?...

5. Did you read any day-to-day hog market reports at the time of selling your last lot of butcher hogs? Yes...

a. Which newspaper did you prefer for hog market reports?...

6. Which weekly mailed government hog market reports do you read?...

a. Which weekly mailed government hog market reports do you read?... Chicago Livestock Market Report

b. Which other newspapers did you read?...

c. Which daily mailed government hog market reports do you read?...

7. Do you own any farm implements? No...

If YES, no. of complete farms...

LOCATION OF COMPLETE FARMS

LOCATION OF PARTS OF FARMS...

Iowa State College

PARTNER SUPPLEMENT

Interviewer Location of farm:

Date of 1st call... County...

2nd call... Segment No.

3rd call... Farm No.

Name of Partnership... SENIOR PARTNER...

NOTE: the remainder of the partner supplement is exactly like the operator section of the questionnaire (section C).

E. HOGS

THIS IS ABOUT YOUR HOG MARKETING PROBLEMS. WE ARE INTERESTED IN HOW YOU DECIDED WHAT DAY AND WHERE YOU SOLD YOUR LAST LOT OF HOGS.

1. Who bought the last lot of butcher hogs that you sold?...

a. What type of outlet would that be called?...

b. Cooperative?...

2. What weight classes did you sell?...

a. How many head in each weight class in this last sale of butcher hogs?...

b. What was the price of these last sold?...

c. What was the price for a given weight agreed upon before the hogs left the farm?...

3. Who paid for the hogs?...

a. Buyer?...

b. (Get relationship to operator, age, sex, education and occupation of members of the household):

i. Does the buyer have any loans from the bank that the hogs were used to pay?...

ii. Do you know what the buyer's farm looks like?...

iii. How many buildings do you have on the buyer's farm?...

4. Did you talk to any other farmers or business men who gave you advice or information that helped you pick that day to sell?...

5. The following is a list of newspapers, magazines and government hog market reports. We are interested in how you decided what day and where to sell your last lot of butcher hogs. Which of these did you use?...

Radio Hog Market Reports

a. Which newspaper did you prefer for hog market reports?...

b. Which other newspapers did you read?...

c. Which other magazines did you read?...

d. Which weekly mailed government hog market reports do you read?...

e. Which daily mailed government hog market reports do you read?...

6. Which weekly mailed government hog market reports do you read?...

a. Which newspaper did you prefer for hog market reports?...

b. Which other newspapers did you read?...

c. Which other magazines did you read?...

d. Which weekly mailed government hog market reports do you read?...

e. Which daily mailed government hog market reports do you read?...

7. Which newspaper did you prefer for hog market reports?...

8. Which newspaper did you prefer for hog market reports?...

9. Which other newspapers did you read?...

c. Which other magazines did you read?...

d. Which weekly mailed government hog market reports do you read?...

e. Which daily mailed government hog market reports do you read?...
F. CATTLE

THIS IS ABOUT YOUR CATTLE MARKETING PROBLEMS. WE ARE INTERESTED IN HOW YOU DECIDED WHAT DAY AND PLACE TO SELL YOUR LAST LOT OF CATTLE.

1. Who bought the last lot of cattle that you sold?
   a. What type of outlet would that be called?
   b. Cooperative?
   YES 

2. What kinds of cattle did you sell this last time?
   a. Slaughter cattle, vealers and Feeder and stocker cattle & calves:
      Steers
      Heflers
      Cows
      Bulls
      Vealers
      Bulls (heifers)

   b. What weight classes did you sell?
   c. What was the date of that last sale?
   d. Was the price for a given weight agreed on before the cattle left the farm?
   YES 

   e. Who paid for hauling?
   Buyer
   Self

3. Before you sold your last lot of cattle did you listen to daily radio reports on the cattle market?
   YES 

4. Did you listen to the broadcast of the cattle market reports before you decided to sell or ship?
   YES 

   a. What was the market doing that made you select that day?
   Condition of market not a factor
   I don't know

   IF "NO" SKIP TO 5

5. Did you read any day-to-day market reports at the time of selling your last lot of cattle?
   YES 

   a. Which newspaper did you prefer for cattle market reports?
   b. Which other newspapers did you read these cattle market reports in?
   c. Which daily mailed government cattle market reports do you read?
   Chicago Livestock Market Report
   Omaha Livestock Market Report
   South St. Paul Livestock Market Report

   d. Where did you get the Information that helped you decide on:
      a. The Buyer of these cattle?
      b. The Weight to sell them!
      c. The Time to sell?
      d. The Buyer of these cattle?
      e. The Date of the last sale?
      f. The Time to sell these cattle?
      g. The Condition of the cattle?
      h. The Market conditions?

   IF "NO" SKIP TO 6

6. How did you happen to sell at this different place this last time?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES 

7. Do you usually sell slaughter steers at the same place as this last sale?
   YES 

8. Do you usually sell slaughter steers at the same time as your last sale?
   YES 

9. Where did you get the Information that helped you decide on:
   a. The Buyer of these cattle?
   b. The Weight to sell these cattle?
   c. The Date of the last sale?
   d. The Time to sell these cattle?
   e. The Market conditions?
   f. The Condition of the cattle?

   IF "NO" SKIP TO 10

10. How did you happen to sell at this different place this last time?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES 

11. How did you happen to sell at this different time this last time?

   a. Which newspaper did you prefer for cattle market reports?
   b. Which other newspapers did you read these cattle market reports in?
   c. Which daily mailed government cattle market reports do you read?
   Chicago Livestock Market Report
   Omaha Livestock Market Report
   South St. Paul Livestock Market Report

   d. Where did you get the Information that helped you decide on:
      a. The Buyer of these cattle?
      b. The Weight to sell these cattle?
      c. The Date of the last sale?
      d. The Time to sell these cattle?
      e. The Market conditions?
      f. The Condition of the cattle?

   IF "NO" SKIP TO 12

12. Where did you get the Information that helped you decide on:
   a. The Buyer of these cattle?
   b. The Weight to sell these cattle?
   c. The Date of the last sale?
   d. The Time to sell these cattle?
   e. The Market conditions?
   f. The Condition of the cattle?

   IF "NO" SKIP TO 13

13. As the time to sell drew near, what way of getting market Information did you depend on most?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES 

G. CORN

THIS IS ABOUT YOUR CORN MARKETING PROBLEMS. WE ARE INTERESTED IN HOW YOU DECIDED ON THE DAY AND PLACE TO SELL YOUR LAST LOT OF CORN.

(Ask f. and g. only if govt. reports mentioned in c., d. and e. above)

f. In what way would you like to see these government reports changed?

   IF "NO" SKIP TO 5

5. Did you read any day-to-day market reports at the time of selling your last lot of cattle?
   YES 

   a. Which newspaper did you prefer for cattle market reports?
   b. Which other newspapers did you read these cattle market reports in?
   c. Which daily mailed government cattle market reports do you read?
   Chicago Livestock Market Report
   Omaha Livestock Market Report
   South St. Paul Livestock Market Report

   d. Which weekly mailed government cattle market reports do you read?
   Weekly Stocker & Feeder Livestock Market Report
   Weekly Slaughter Cattle Market Report
   Weekly Livestock Market Review
   Weekly Stocker & Feeder Market Report

   IF "NO" SKIP TO 6

6. How did you happen to sell at this different place this last time?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES 

7. Do you usually sell yellow corn at the same place as this last sale?
   YES 

8. Do you usually sell yellow corn at the same time as your last sale?
   YES 

9. Where did you get the Information that helped you decide on:
   a. The Buyer of these cattle?
   b. The Weight to sell these cattle?
   c. The Date of the last sale?
   d. The Time to sell these cattle?
   e. The Market conditions?
   f. The Condition of the cattle?

   IF "NO" SKIP TO 10

10. How did you happen to sell at this different place this last time?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES 

11. How did you happen to sell at this different time this last time?

   a. Which newspaper did you prefer for cattle market reports?
   b. Which other newspapers did you read these cattle market reports in?
   c. Which daily mailed government cattle market reports do you read?
   Chicago Livestock Market Report
   Omaha Livestock Market Report
   South St. Paul Livestock Market Report

   d. Which weekly mailed government cattle market reports do you read?
   Weekly Stocker & Feeder Livestock Market Report
   Weekly Slaughter Cattle Market Report
   Weekly Livestock Market Review
   Weekly Stocker & Feeder Market Report

   IF "NO" SKIP TO 12

12. Where did you get the Information that helped you decide on:
   a. The Buyer of these cattle?
   b. The Weight to sell these cattle?
   c. The Date of the last sale?
   d. The Time to sell these cattle?
   e. The Market conditions?
   f. The Condition of the cattle?

   IF "NO" SKIP TO 13

13. As the time to sell drew near, what way of getting market Information did you depend on most?

   1. Which station did you listen to at that time?
   2. At what times did you listen to cattle market news on this station?
   d. d. d.
   e. When can't you listen for cattle market reports, do you have someone else listen for you?
   YES
1. Who or what agency bought the last lot of corn you sold?
   a. What type of outlet would that be called? ..................
   b. Cooperative? ..............
   c. Who paid for hauling? ..............
   d. How many buyers, elevators, mills or brokers did you call the day you sold? ..................
   e. Did you talk to any other farmers or business men who gave you advice or information that helped you pick that day to sell? ..............
   f. Which newspaper did you prefer for corn market reports!
   g. What was the market doing that made you select that day?
   h. Radio Corn Market Reports
   i. Before you sold your last lot of corn did you listen to day-to-day radio reports on the corn markets?
   j. Which station did you listen to most at corn marketing time?
   k. At what times did you listen to corn markets on that station?
   l. What other stations did you use? (Use one line under c. for each)
   m. What times did you listen to these? (Put times to right of station)
   n. If "NO" SKIP TO 4
   o. When you can't listen to corn market reports do you have someone else listen for you? ..............
   p. Did you listen to the broadcast of the corn markets before you decided to sell? ..............
   q. What was the market doing that made you select that day? I don't know Condition of market not a factor
   r. Did you get: (a) price based on market on day contacted buyer? ..............
   s. or: (b) price based on market on day of delivery?
   t. or: (c) other
   u. Newspaper, Magazine and Government Corn Market Reports
   v. Did you read any day-to-day corn market reports at the time of selling your last lot of corn? ..............
   w. If "NO" SKIP TO 6
   x. Which newspaper did you prefer for corn market reports?
   y. Which other newspapers did you read these in?
   z. Which mailed government grain market reports do you read?
   aa. Weekly Commercial Grain Weekly Feed Market Re-
   bb. Stocks Report from: view from: Chicago
   cc. Kansas City
   dd. Minneapolis
   ee. Weekly Grain Market Re-
   ff. Quarterly Feed Market Summary from: Chicago
   gg. Kansas City
   hh. Summary from: Chicago
   ii. Kansas City
   jj. Chicago
   kk. (Ask d. and e. only if govt. reports mentioned in c. above)
   I. In what way would you like to see these government reports changed?
   jj. (Ask 1 if 8 is NO)
   kk. 2. 3. 4. 5. 6. 7. 8. 9. 10.
   ll. Which other market papers do you usually read for corn markets? Give the first three in the order in which you prefer them at corn marketing time.
   mm. Do you usually sell corn at the same place as this last sale? ..............
   nn. Do you usually sell corn the same month as your last sale? ..............
   oo. When you were thinking of selling this corn, what way of getting market information did you depend on most?
   pp. H. SOYBEANS
   qq. THIS IS ABOUT YOUR SOYBEAN MARKETING PROBLEMS. WE ARE INTERESTED IN HOW YOU DECIDED ON THE DAY AND PLACE TO SELL YOUR LAST LOT OF SOYBEANS
   rr. Who or what agency bought the last lot of soybeans you sold?
   ss. What type of outlet would that be called? ..................
   tt. Cooperative? ..............
   uu. Who paid for hauling? ..............
   vv. How many buyers, elevators, mills or brokers did you call the day you sold?
   ww. Did you talk to any other farmers or business men who gave you advice or information that helped you pick that day to sell? ..............
   xx. Before you sold your last lot of soybeans did you listen to day-to-day radio reports on the grain market?
   yy. Which station did you listen to most at soybean marketing time?
   zz. At what times did you listen to soybean markets on that station?
   AA. What other stations did you use? (Use one line under c. for each)
   BB. What times did you listen to these? (Put times to right of station)
   CC. If "NO" SKIP TO 4
   DD. When you can't listen to soybean market reports do you have someone else listen for you? ..............
   EE. Did you listen to the broadcast of the soybeans before you decided to sell? ..............
   FF. What was the market doing that made you select that day? I don't know Condition of market not a factor
   GG. Did you get: (a) price based on market on day contacted buyer? ..............
   HH. or: (b) price based on market on day of delivery?
   II. or: (c) other
   JJ. Newspaper, Magazine and Government Soybean Market Reports
   KK. Did you read any day-to-day soybean market reports at the time of selling your last lot of soybeans?
   LL. If "NO" SKIP TO 6
   MM. Which newspaper did you prefer for soybean market reports?
   NN. Which other newspapers did you read these in?
   OO. Which mailed government grain market reports do you read?
   PP. Weekly Commercial Grain Weekly Feed Market Re-
   QQ. Stocks Report from: view from: Chicago
   RR. Kansas City
   SS. Minneapolis
   TT. Weekly Grain Market Re-
  UU. Quarterly Feed Market Summary from: Chicago
  VV. Kansas City
   WW. Summary from: Chicago
   XX. Kansas City
   YY. Chicago
   ZZ. (Ask d. and e. only if govt. reports mentioned in c. above)
   AA. In what way would you like to see these government reports changed?
   BB. If you had your choice of times to receive a government report of the market situation on grain and livestock, which would you prefer?
   CC. Daily
   DD. Weekly
   EE. Every Other Week
   FF. Monthly
   GG. Other
   HH. Which other market papers do you usually read for soybean markets? Give the first three in the order in which you prefer them at soybean marketing time.
   II. Do you usually sell soybeans at the same place as this last sale? ..............
   JJ. Do you usually sell soybeans the same month as your last sale? ..............
   KK. (Ask 8 if 6 is NO)
   LL. How did you happen to sell at this different place this last time?
   MM. (Ask 9 if 7 is NO)
   NN. How did you happen to sell at this different time this last time?
I. CREAM AND WHOLE MILK

WE ARE INTERESTED IN HOW YOU DECIDE WHETHER YOU ARE GETTING THE RIGHT PRICE FOR YOUR CREAM OR WHOLE MILK.

1. Where are you selling your dairy products now?
   a. What type of outlet would that be called?
   b. How often during last month? (How many times?)
   c. Which daily mailed gov't. Dairy Market Reports did you read in the past month?
   d. What grade of output did you use?
   e. How many units did you sell in the last week (7 days)?
   f. How often did you listen to daily radio reports on milk and cream markets last month?

2. Is cream or whole milk picked up at your farm?
   a. Do you get the same price as if you delivered the cream or milk?
   b. How often is your cream or milk delivered or picked up?
   c. Which radio station did you listen to most for milk and cream market reports?
   d. Which other radio stations did you listen to?
   e. What time did you listen to these?
   f. When you can't listen to market reports do you have someone else listen for you?

3. What is the settlement plus on which you are paid?
   a. By volume
   b. By weight
   c. By butterfat content only
   d. By B.F. plus value of skin
   e. By B.F. plus non-fat-solids
   f. Flat price, no B.F. dist.
   g. Flat price plus B.F. dist.
   h. Classified price plan
   i. Other

4. Did you listen to day-to-day radio reports on the milk and cream markets last month?
   a. If 'YES' to 3, a. How often during last month? (How many times?)
   b. What station did you listen to most for milk and cream prices?
   c. At what times did you listen to these reports on this station?
   d. What other stations did you use?
   e. What time did you listen to these?
   f. When you can't listen to market reports do you have someone else listen for you?

5. Did you read any day-to-day milk or cream market reports during the past month?
   a. If 'YES' to 4, a. Which newspapers, magazines, or pamphlets did you read these in?
   b. Which of these did you prefer?
   c. Which daily mailed gov't. Dairy Market Reports did you read during the past month?
   d. Which other mailed gov't. Dairy Market Reports did you read in past month?
   e. What information that you can't get now would you like to have to help you compare the prices you get for dairy products with those sold on other markets?
   f. What one of the ways that we've mentioned would you prefer having this information given to you?
   g. Radio
   h. Weekly Market Report from Des Moines
   i. Summary of Egg & Poultry Markets from Chicago
   j. Dairy Daily Market Review from Cleveland
   k. Monthly Origin of Receipts by States from Chicago
   l. Other

6. How many other buyers that you didn't sell to did you call or see that day?
   a. How many other buyers that you didn't sell to did you call or see that day?
   b. How often did you call or see these other buyers?
   c. How often did you get the information that helped you decide on:
   1. The buyer of these soybeans?
   2. The time to sell these soybeans?
   3. When you were thinking of selling these soybeans what way of getting market information did you depend on most?
   4. Did you listen to:
   a. Radio Dairy Market Reports.
   c. Summary of Egg & Poultry Markets from Chicago.
   d. Dairy Daily Market Review from Cleveland.
   e. Monthly Origin of Receipts by States from Chicago.
   f. Other
   5. Did you listen to:
   a. Radio Dairy Market Reports.
   c. Summary of Egg & Poultry Markets from Chicago.
   d. Dairy Daily Market Review from Cleveland.
   e. Monthly Origin of Receipts by States from Chicago.
   f. Other

7. Did you talk to any other farmers or business men who gave you advice or information about possible outlets for cream or whole milk?
   a. Did you check the price you receive against the prices in other markets for that or those items?
   b. Where do you get the information on which you decided to sell your cream markets last month?
   c. How often was this station on during the past month?
   d. Which other radio stations did you listen to?
   e. When you can't listen to radio reports on egg prices last month?

8. What information did you ask these buyers, farmers or business men for? (mention "buyers," "farmers" or "business men" whichever applies according to 6 or 7 above)
9. Have you changed outlets for your cream or whole milk in the past year?
   a. Which one(s) did you check up on in the last month?
   b. Where do you get the Information on which you decided to sell your whole milk markets last month?

NOW WE HAVE TALKED ABOUT MANY OF THE WAYS YOU GET MARKET INFORMATION ON CREAM AND WHOLE MILK.

J. EGGS

WE ARE INTERESTED IN HOW YOU DECIDE WHO WILL BUY YOUR EGGS.

1. Where did you sell your eggs last?
   a. What type of outlet sell your eggs to?
   b. Cooperative?
   c. On what grades did you sell your eggs this last time?
   d. How often are eggs picked up or delivered?
   e. How many dozen did you sell at this time this way?
   f. What is the charge for hauling your eggs per:
      a. Flat price plus B.F. dist.
      b. By B.F.
      c. By non-fat-sold
      d. By butterfat content only
      e. By volume
      f. By weight
      g. By butterfat

2. Was the price agreed upon before the eggs left the farm?
   a. Were the eggs picked up at your farm?
   b. Do you get the same price as if you delivered the eggs?
   c. What is the charge for hauling your eggs per:

Radio Egg Market Reports

3. Did you listen to day-to-day radio reports on egg prices last month?
   a. Which station did you listen to most for egg prices?
   b. When do you listen to this station for egg prices?
   c. Which other stations did you listen to?
   d. What time did you listen to these?
   e. When you can't listen to egg market reports do you have someone else listen for you?

Newspaper, Magazine and Government Egg Market Reports

4. Did you read any newspapers, magazines or government reports for day-to-day egg market reports during the past month?
   a. Which newspapers, magazines or pamphlets did you read these in?
   b. Which of these gave you the most Information on egg prices?
   c. Which mailed daily government egg market reports did you read during the past month?
   d. Which other mailed government egg market reports did you read in past month?
   e. What information that you can't get now would you like to have to help you compare the prices you get for eggs with those sold on other markets?
   f. What one of the ways that we've mentioned would you prefer having this information given to you?
   g. Radio
   h. Weekly Market Report from Des Moines
   i. Weekly Summary of Egg & Poultry Markets from Chicago
   j. Daily Dairy Market Review from Cleveland
   k. Monthly Origin of Receipts by States from Chicago
   l. Other

5. How many other buyers that you didn't sell to did you call or see that day?
   a. How many other buyers that you didn't sell to did you call or see that day?
   b. How often did you call or see these other buyers?
   c. How often did you get the Information that helped you decide on:
   1. The buyer of these soybeans?
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   a. Radio Dairy Market Reports.
   c. Summary of Egg & Poultry Markets from Chicago.
   d. Dairy Daily Market Review from Cleveland.
   e. Monthly Origin of Receipts by States from Chicago.
   f. Other

6. How many other buyers that you didn't sell to did you call or see that day?
   a. How many other buyers that you didn't sell to did you call or see that day?
   b. How often did you call or see these other buyers?
1. Do you know whether he farms his farm for himself, or in a partnership?
   - SELF
   - PARTNERSHIP

2. If partnership: Who is the senior partner?

3. Do you know how many acres are in the operator's farm?

4. Does he own or rent his land?
   - OWN
   - RENT

5. Do you know whether he operates or shares in the operation of farms other than this one?
   - YES
   - NO

6. About how old is he? .......................... years.

7. Does he raise any cattle and calves or hogs and pigs for slaughter?
   - Cattle: YES
   - Hogs: YES
   - NO

8. Do you have any idea how many he sold last year?
   - Cattle
   - Hogs

9. Does he have electricity?
   - YES
   - NO

10. How many people are now living in his household? No. 

### CHECK SHEET FOR NONINTERVIEWS

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Location of farm:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Operator</td>
<td>State</td>
</tr>
<tr>
<td>Dats of 1st call</td>
<td>County</td>
</tr>
<tr>
<td>2nd call</td>
<td>Township</td>
</tr>
</tbody>
</table>
| 3rd call | Segment No.
| Farm No. |

<table>
<thead>
<tr>
<th>A. Why an interview was not obtained:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Segment or farm inaccessible</td>
</tr>
<tr>
<td>2. Respondent not available</td>
</tr>
<tr>
<td>3. Refusal</td>
</tr>
<tr>
<td>4. Call-back instructions</td>
</tr>
<tr>
<td>5. Subsampling</td>
</tr>
<tr>
<td>6. Other reason (specify)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Information to be obtained from neighbors or other members in household:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prices on certain local markets</td>
</tr>
<tr>
<td>2. Prices on interior markets</td>
</tr>
<tr>
<td>3. Prices at local auction</td>
</tr>
<tr>
<td>4. Weekly</td>
</tr>
<tr>
<td>5. Monthly</td>
</tr>
<tr>
<td>6. Seasonally</td>
</tr>
<tr>
<td>7. Prices from cold storage</td>
</tr>
<tr>
<td>8. Releases from cold storage</td>
</tr>
<tr>
<td>9. Est. receipts on markets (Central)</td>
</tr>
<tr>
<td>10. Est. receipts on markets (Central)</td>
</tr>
<tr>
<td>11. Monthly slaughter figures</td>
</tr>
<tr>
<td>12. Other</td>
</tr>
</tbody>
</table>