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A Study of Livestock Marketing in Iowa

By Emil H. Jebe and Norman V. Strand

An enumerative survey of cattle and hog-marketing practices of Iowa livestock farmers was conducted in March and April 1952 by the Statistical Laboratory of Iowa State College, cooperating with the Iowa Crop and Livestock Reporting Service and the Agricultural Marketing Service. The study was undertaken to learn how and to what extent livestock farmers use information from the monthly marketing intentions survey conducted by the Iowa Crop and Livestock Reporting Service. To get valid data on the subject it was necessary to learn the degree to which farmers modify short-term marketing plans and what media or sources of information affect those plans. The purpose of this paper, the first report of the study to be published, is to present a general introduction to the problem, to explain the sample design and analysis, and to summarize (1) general information collected, (2) some comparisons of respondents and nonrespondents to the mail survey, (3) farmers' use of marketing information, and (4) changes in marketing intentions. In another article, to appear in a later issue of Agricultural Economics Research, it is planned to summarize the information collected in the survey which relates to the farmers' marketing of specific lots of livestock—cattle or hogs, or both—and to describe the sources and uses of market information.

THE IOWA CROP AND LIVESTOCK REPORTING SERVICE conducts in Iowa a monthly mail survey of farmers' marketing intentions for cattle and hogs. This survey is made as of the first of each month. On this questionnaire farmers report their marketing intentions for the current and following months, as well as their livestock sales for the month just past. These reports of individual farmers are used as a basis for the preparation of estimates of cattle and hogs marketed during the last month, the number to be marketed during the current month, and the intended marketings for the month following. Estimates of marketing intentions for the State are released for publication around the 20th of each month.

Releases of results of monthly estimates are made available to radio and press, and are sent to all persons who are reached by the monthly marketing intention inquiry, to regular crop and livestock reporters, and to others whose names are on the general mailing list of the State agricultural statistician. Thus the information regarding intentions to market reaches some farmers indirectly by radio and the newspapers and others directly from the Iowa Crop and Livestock Reporting Service.

The sample used for the monthly mail inquiry consists of a random systematic group of names of farmers drawn from the 1950 records of Iowa county assessors, from which farms reporting no livestock, or only small numbers,

have been eliminated. The mailed inquiry also omits all names that are on any of the regular mailing lists of the State Agricultural Statistician. This is done to minimize the burden on the regular crop reporters.

Purposes of the Study

The general purposes of the study upon which this report is based were (1) to examine the procedures that farmers follow as they prepare to market certain classes of cattle and hogs, (2) to learn where they get information to help them in reaching decisions to market, and (3) to learn what feeding and marketing practices they follow. In other words, the study related to the livestock marketing process at the farm level. This knowledge is needed to evaluate the principal aspects of the problem being studied. These aspects are:

- (1) What proportion of Iowa farmers use the State statistician's release on marketing intentions?
- (2) What are the characteristics of farmers who use the release, and how do they use it?
- (3) On what other sources of marketing information do farmers depend?
- (4) To what extent do farmers' use of intentions estimates result in changes in marketings from previously reported intentions?

The Questionnaire

From a consideration of the problem and the objectives, it seemed that an interview survey of both respondents and nonrespondents to the mail survey should yield some of the desired information. In the process of developing a suitable questionnaire for the field survey these general objectives or purposes were worked out in some detail. The questionnaire demanded more than the usual pretesting of surveys. Four pretests were made of the preliminary schedules. The following summary describes in broad outline the content of the schedule used for the field enumeration:

<i>Section Pages</i>	<i>Subject Matter</i>
Face sheet 1	Identification of selected farm operator.
A 2	Basic information on farm size, tenure status, age, and education of farm operator.
B 2, 3, 4	Cattle and hog numbers 1951.
C 4, 5, 6	Cattle and hog sales since September 1, 1951.

<i>Section Pages</i>	<i>Subject Matter</i>
D 7, 8, 9	Cattle sales—detailed information relating to one selected eligible lot.
E 9, 10, 11	Hog-sales—detailed information relating to one selected eligible lot.
F 11, 12	General Marketing Plans and operations including sales intentions for April 1952.
G 13	Farm Feeding Program
H 14, 15	Sources and use of Marketing Information.
I 16, 17	Iowa Marketing Intentions Survey—specific questions on the mail survey.
J 18, 19	Changes in Marketing Intentions—asked only of cooperators who had reported changes from intentions in their marketings.

An important feature of the schedule was that the list of questions would be so organized that the interviewer could progressively probe further into the interviewee's marketing situation. To illustrate, the following specific questions were asked:

Why did you sell this lot of cattle at that time?

What was it that changed your plans?

When you were ready to sell these cattle how did you find out what price you could get for them?

Do you find out from any sources at all: About hog and cattle prices, or about hog and cattle numbers that may come to market in the next 2 months?

Do you receive any other bulletins or reports that cover hog and cattle marketing?

Do you use the reports from the mail survey?

Four specific questions were asked "matched cooperators" regarding actual reported changes in marketings, or changes in intentions. (A matched cooperator filled out his mail schedules in the two consecutive months, January and February, so that it was possible to detect changes in intentions by inspection of the mail schedules.)

The Survey Plan

Mail schedules on marketing intentions were first sent in October 1951, to farm operators on the random list of names drawn from the records of Iowa county assessors. The list was circularized by mail again on January 1 and February 1, 1952. These operators were receiving the uniform treatment of both mailed schedules and summary reports from the mail re-

turns. As the enumerative survey was begun in March 1952, however, the treatment applied to these farm operators was of rather short duration. This fact is pertinent to evaluation of responses to the questions and their interpretation.

The plan was to study Iowa farm operators who would supply data from which unbiased estimates of State totals or State means and measures of precision could be prepared. Unfortunately, the deletion from the assessors' lists of nonlivestock farmers and those on the regular statistician's mailing lists prevented this and added to the difficulty of making comparisons with Census' and assessor's figures.

It was considered necessary for both cooperators and noncooperators¹ to be interviewed to obtain information relevant to the survey objectives. The types of information to be obtained suggested a differential sampling rate for these two groups, with emphasis on the cooperators. Limitations of funds for the field work further affected the decisions on sampling rates for the two groups.

There was strong interest in obtaining considerable information from cooperators who indicated changes in marketings from their previous intentions as reported on the mail survey. If enough information could be obtained from changers in this group to indicate a trend, the fourth principal aspect of the problem could be studied: To what extent and for what reasons do farmers change from their stated marketing intentions? Selection of a larger sample from this special group, however, would have complicated still further the general estimation problem. Therefore, it was decided to make no special effort to include members of this group in the sample from the available lists, hoping that randomization procedures would include a number of the matched cooperators in the ultimate sample who reported in both January and February on the mailed survey. Actually, 78 matched cooperators were obtained.

Briefly then, the survey plan comprised the sampling of a universe of Iowa livestock farmers represented by an available sublist that had

¹ Cooperator is defined here as a farmer who completed and returned at least one of the inquiries mailed during October, January, and February. Noncooperator is defined as one who did not return any of the inquiries.

received uniform treatment. From this list both cooperators and noncooperators with the State Statistician's mail survey of marketing intentions were to be interviewed to obtain answers to the schedule questions. The easiest way to achieve the sampling of the universe of interest would have been to use simple random sampling from the list until the desired number of names of cooperators and noncooperators had been drawn. Such a procedure would have been preferable from the statistical viewpoint, but economic and practical considerations seemed to weigh against it. At least three callbacks were wanted, which might entail a lot of travel with entirely random choice of the sample points (farms). Some grouping of farms therefore seemed desirable. The list gave county, township, and postal addresses of farm operators. By sending interviewers to county seats with lists of names, it was hoped to locate the approximate residences of farm operators who were chosen for interviews. Thus, grouping of the sample by county was indicated.

With the general structure of the design decided upon, the actual sample selection was carried out as follows:

1. Iowa was divided into 33 strata.
2. Counties formed the primary sampling units within a stratum. Each stratum contained 2, 3, or 4 counties. Insofar as possible, strata were equalized in size in terms of farms on county assessor lists in 1950. With a total of 200,401 such farms, average stratum size was 6,072 farms. Range in size of strata varied from 4,800 to 6,900 farms.
3. In each stratum one primary sampling unit (county) was chosen with probability proportional to farms on assessor lists.
4. Total sample size in terms of the sub-elements, farm operators of "assessor farms," was set at 300. Principally, this figure was dictated by funds available for field work.
5. Of this 300, an arbitrary division of the sample was made into 200 cooperators and 100 noncooperators. This division was based on the decision for a differential sampling rate mentioned above, and not on the relative proportions of cooperators and noncooperators in the list.
6. Allocation of the subsample to the chosen counties was made on the basis of the size of the stratum containing the chosen county. Consider, for example, a stratum containing 6,005 assessor farms. Then $(6,005/200,401)(200) = 6$ cooperators and $(6,005/200,401)(100) = 3$ noncooperators.
7. Simple random sampling of cooperators and noncooperators from the available list (first divided into the two groups) was used in the chosen county to select the farm operators to be interviewed; that is, to select the 6 and 3 operators, respectively, in the example in 6, preceding. One alternate selection in each group was given the enumerator for use in field substitution if the names originally designated could not be interviewed after 3 trials. Road conditions and weather caused earlier substitution in some cases.

A few other numerical facts are presented here to elaborate the figures used above in explaining the sample selection:

Number of assessor farms in "treated" list (after two deletions as reported above) -----	3,371
Number of cooperators in list -----	1,375
Percentage of cooperators -----	40.8%
Number of noncooperators -----	1,996
Percentage of noncooperators -----	59.2%

Field Work

Eight enumerators, all women, were employed on the project. The training of interviewers lasted for 2 days and included procedures for locating residences of farm operators in chosen counties. The principal sources relied upon were county extension directors, PMA personnel, and county plat books. A complete set of interviewer instructions was prepared.

Field work, begun March 10, was to be completed by March 22, but weather and road conditions made it necessary to extend the interviewing period to March 28, and even further clean-up work was necessary.

A final summary of the results of the field work is given in table 1. It includes field and office substitution for filling in missing schedules.

It has been pointed out that the universe sampled in this study is not representative of

TABLE 1.—Summary of field enumeration

Schedules	Cooperators	Noncooperators	Total
	Number	Number	Number
Assigned -----	200	100	300
Completed -----	178	73	251
Not Completed			
Refusals -----	3	8	11
Not at home -----	10	4	14
Not located -----	1	9	10
Quit farming -----	1	3	4
Deceased -----	1	0	1
Bad roads -----	6	3	9
Total not completed	22	27	49
Substitutions			
Field -----	8	11	19
Office -----	14	16	30
Total -----	22	27	49

Agricultural Marketing Service and Iowa State College Livestock Marketing Survey, March 1952.

all farms in the State, but only of those defined as "livestock" farms which had cattle and hog inventories for 1950. The total number of "livestock farms" in Iowa was not known. It is estimated to be around 185,000, but only about 175,000 are included in the universe. With 200,000 total farms in the State, some 15,000 nonlivestock farms and about 10,000 other farms (mostly livestock farms) on the State Statistician's mailing lists are not included in the universe. Generally, most of the farms excluded would be expected to be smaller than those included. Table 2 sheds some light on this problem.

TABLE 2.—Percentage distribution of farms, by specified acreage classes, Iowa, 1950 and 1952

Class	1950 All farms ¹	1952 Livestock farms ²
Acres	Percent	Percent
Less than 30 ---	9.4	2.8
30- 49 -----	3.6	1.8
50- 99 -----	12.8	6.0
100-139 -----	13.8	14.2
140-179 -----	24.3	29.4
180-259 -----	20.8	24.4
260-499 -----	13.8	16.8
500-999 -----	1.4	3.0
1,000 and over ---	.1	1.6
	100.0	100.0

¹ 1950 U.S. Census.

² Agricultural Marketing Service—Iowa State College Marketing Survey, March 1952, estimates.

Farms of less than 100 acres constitute around 25 percent of all farms, according to the 1950 census; but in the survey 11 percent of the farms are less than 100 acres. The census reported an average of 168.7 acres per farm, the survey 199.3. Farms of less than 100 acres according to the 1950 census include proportionally fewer farms with livestock than do those of more than 100 acres. Other tabulations made but not reported here indicate that relatively fewer livestock farms are in the smaller acreage classes. Furthermore, it is known that the Iowa State Farm Census includes fewer small farms than the 1950 United States census enumerates. Thus, the acreage differences observed do not seem unreasonable.

Estimation

For certain items estimated from the survey considerable effort was devoted to estimation and the preparation of measures of precision. Some items could be estimated with reasonable precision, say with relative sampling errors of 5 to 10 percent. Examples of such items were "farm acres" and "cattle or hogs on hand." But such items as hog or cattle sales planned for April 1952 exhibited large relative sampling errors, as much as 15 to 25 percent, or more.² Of course a total sample of 300 farms is small for making State estimates of some agricultural items that are inherently rather variable in Iowa.

Several estimators were considered for preparing the estimates given in table 3 and succeeding tables. An estimator that utilized the differential selection probabilities and the best information available on proportions of cooperators and noncooperators in each stratum yielded results that differed little from a simpler estimator based on the statewide proportions of the two groups in the universe. The simpler estimator was therefore employed. Let \bar{y}_C and \bar{y}_{NC} be the respective means or proportions calculated for the cooperator and noncooperator samples. Note that the usual binomial coding of 1 and 0 for "yes" and "no" answers changes these means to proportions. Above were listed $p = 0.408$ and $q = 0.592$ as the statewide proportions of cooperators and noncooperators with the mail survey. Thus, an estimated mean or proportion, $y = p \bar{y}_C + q \bar{y}_{NC}$. A reasonably accurate approximate procedure for combining the two sample proportions is

$$y = \frac{1}{10} (4 y_C + 6 y_{NC}).$$

Some differences in characteristics were found between the 200 cooperators and the 100 noncooperators in the sample survey (table 3). But in many respects, the characteristics of cooperators and noncooperators were remarkably similar. Livestock numbers were somewhat greater on farms of cooperators, cooperators took more magazines than noncooperators, and a larger proportion of cooperators sought out

² In the preparation of these estimates the "collapsed strata" technique described by R. Goodman was used. Amer. Statistician 2(4): 22. 1948.

TABLE 3.—Averages and percentages for selected characteristics by cooperator and noncooperator

	Cooperator	Noncooperator	Combined Estimates
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
Acres per farm-----	200.2	198.7	199.3
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Owners -----	48.0	50.0	49.2
	<i>Number</i>	<i>Number</i>	<i>Number</i>
Years a farmer-----	20.8	20.4	20.6
Years on this farm ----	13.3	12.4	12.8
Age, years -----	46.2	45.9	46.0
School years completed	9.6	9.4	9.5
Livestock			
On farms			
1951			
Cattle -----	44.8	36.9	40.1
Hogs -----	152.9	149.6	150.9
1952, March 15			
Cattle -----	34.7	34.0	34.3
Hogs -----	64.2	56.7	59.7
Sold per farm, Sept. 1, 1951-Mar. 1952			
Lots			
Cattle -----	1.53	1.14	1.30
Hogs -----	2.785	2.58	2.66
Animals			
Cattle -----	9.82	5.85	7.44
Hogs -----	74.7	78.0	76.68
Percentage of farmers	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Receiving news- papers, magazines and reports			
5 or less-----	40.5	49.0	45.6
6-14 -----	59.5	51.0	54.4
Who listen to radio reports on daily markets -----	100.0	98.0	98.8
Who find out about number of cattle and hogs which may come to market in the next 2 months	66.2	52.5	58.0
Who say they receive the marketing in- tentions release ---	89.5	62.0	73.0

Agricultural Marketing Service and Iowa State College Livestock Marketing Survey, March 1952.

information about possible future market receipts.

There was a high negative response to the question, "Do you receive the monthly report on intentions to market hogs and cattle issued by the Iowa Crop and Livestock Reporting Service?" Hence, farmers answering "no" were shown a recent copy of the release and again asked if they received reports of this type. This reduced the percentage of negative responses from 46 to 27 (table 4). Some proportion of this 27 percent probably actually had not been

reached by the mailed release, so that their negative answers cannot be attributed to lack of attention to mail or lack of interest in the material.

There had been no special promotional efforts to make the public aware of this new source of marketing information. It was a new project and not more than three copies of the release could have been received by farmers by the time they were interviewed. Both before and after being shown a copy, noncooperators were con-

siderably less aware of receipt of the release than were cooperators. These results were to be expected, as the cooperators had filled out at least one schedule (in October, January, or February) that had been used as a basis for the releases. Although the estimated proportions are subject to considerable sampling error, especially for the noncooperators, it is a rather striking fact that almost 40 percent of this group in the sample either did not receive the release or were not aware of receipt of it.

TABLE 4.—Number and percentage distribution of survey respondents answering the question—
Do you receive Iowa Marketing Intentions Report?

Item	Cooperators		Noncooperators		Combined Percent
	Reporting	Percentage distribution	Reporting	Percentage distribution	
	Number	Percent	Number	Percent	
Respondent answering the question—					
Yes	149	74.5	40	40.0	54.1
No	51	25.5	60	60.0	45.9
Total	200	100.0	100	100.0	100.0
After report was shown					
Additional "Yes"	30		22		
Total					
Yes	179	89.5	62	62.0	73.2
No	21	10.5	38	38.0	26.8

Agricultural Marketing Service and Iowa State College. Livestock Marketing Survey, March 1952.

TABLE 5.—Number and percentage distribution of survey respondents answering the question,
"Do you use these Iowa Marketing Intentions Reports?"

Item	Cooperators			Noncooperators			Percentage distribution of combined estimates	
	Reporting	Percentage distribution		Reporting	Percentage distribution		Receiving report	In sample
		Receiving report	In sample		Receiving report	In sample		
	Number	Percent	Percent	Number	Percent	Percent	Percent	Percent
Farmers								
Receiving report								
Using	65	36.3	32.5	15	24.2	15.0	29.0	22.0
Not using	114	63.7	57.0	47	75.8	47.0	71.0	51.0
Total	179	100.0		62	100.0		100.0	
Not receiving report	21		10.5	38		38.0		27.0
In sample	200			100				

Agricultural Marketing Service and Iowa State College. Livestock Marketing Survey, March 1952.

The nonuse response of 51.0 percent (table 6) may seem rather high. This reflects the fact that many farmers normally do not try to find out about numbers of livestock that may come to market in the near future. Other reasons are that these operators may have marketed few animals during this period. They might be dairy or cash-grain farmers to whom information of this kind would not be of great interest.

Use of the report was indicated by 22 percent of all farmers (combining cooperators and non-cooperators), and by 29 percent of those who admitted receiving the report (table 5). Since some who said they did not receive it probably were not reached by it, and might have used it had they received it, these percentages may be taken as minimum and maximum estimates of use. That is, if the report had been mailed to, and received by, all livestock farmers in the State, the estimate of use would be somewhere between 22 and 29 percent.

In view of the short time the release had been available this percentage is surprisingly high. Furthermore, some of the reasons given in table 6 for not using the report would indicate that if the report had been available longer more might have used it. In particular, those who said the report had not been available long enough and those who said they had had nothing to market since receiving the release might have used it in their marketing plans. On the basis of this survey, however, no estimate can be made of how much the use would have increased.

Table 6 contains the responses given to the questions, "How do you use the figures on livestock marketing intentions?" and "Why don't you use these figures to help you in deciding when to market your cattle and hogs?"

Table 6 shows only the numbers classified in these categories for the sample operators reporting receipt of the release. Percentages were not calculated as many would be based on small numbers; for the same reason combined percentages are not given. Several farmers who use the releases—5 noncooperators and 19 cooperators—emphasized in addition the short time they had been available. Reliability of the releases was questioned by a considerable number of farmers.

TABLE 6.—Classification of responses to questions on why mail survey releases on marketing intentions are used, or are not used

Item	Co-operators	Non-co-operators
	Number	Number
How releases are used:		
Information related to prices.....	3	0
Only when ready to market.....	1	3
Reads.....	4	0
Studies.....	3	0
Use, but have had them too short a time.....	19	5
Give information on runs.....	2	2
Helps determine on sales, etc. ¹	22	2
Miscellaneous.....	1	1
Irrelevant responses.....	9	1
Total.....	64	14
Why releases not used:		
Have had nothing to market.....	8	5
Sells when livestock are ready.....	38	11
Relies on own judgment.....	5	1
Reports not available long enough.....	15	3
Relies on other sources.....	6	3
Pays no attention.....	8	2
Use occasionally when something to sell.....	1	1
Questions accuracy of report.....	21	9
Miscellaneous.....	6	5
Answers irrelevant.....	5	5
Total.....	113	45

¹ Other responses in this category are "Can figure on the trend," "Watch for numbers coming in," and "Might ship a little sooner."

Agricultural Marketing Service and Iowa State College. Livestock Marketing Survey, March 1952.

Changes in Marketing Intentions

The analysis of individual changes in marketing intentions from those reported on the mail questionnaires is of primary interest. This analysis is useful in illustrating one of the problems associated with the preparation of reliable estimates of intended marketings from the mail survey.

It is noted that farmers reported each month by mail in response to the simple questions, "How many hogs (or cattle) do you intend to market in (month)?" For the last section of the interview schedule a special set of questions was constructed to check on these reported marketing intentions for January and February 1952. From the sample of 200 cooperators

TABLE 7.—Number of farmers reporting and changes from intentions to market livestock in January and February, 1952

Item	Cattle		Hogs	
	Farms	Head	Farms	Head
	Number	Number	Number	Number
Changes from intentions to market				
January 1952 ¹				
No marketing done or no change reported.....	39		17	
Marketed more than intended.....	3	8	12	145
Marketed less than intended.....	8	-25	21	-379
Total.....	50	-17	50	-234
February 1952 ²				
No intentions to market or no change.....	32		14	
Larger than January reply.....	11	26	19	327
Smaller than January reply.....	7	-21	17	-392
Total.....	50	5	50	-65

¹ As indicated by actual marketings reported on February mail reply.

² As indicated by change of February mail reply from January reply.

Agricultural Marketing Service and Iowa State College. Livestock Marketing Survey, March 1952.

schedules were matched with all those who reported on the mailed inquiry for both January and February 1952. In the group of 200 there were 50 who had indicated some change on their February report from their January report. The changes that these 50 farmers indicated in their February report were copied into certain blanks in questions on the enumerative survey schedule. The four questions for checking on these indicated changes were:

"On the first of January you reported that you were planning to market _____ cattle (or hogs) in January, but on the first of February you reported the marketing of _____ head of cattle (or hogs) in January. How did you happen to change your plans in this way in marketing your cattle (or hogs)?" This question was an attempt to check *actual* marketings against reported intended marketings.

"Next, on January 1 you reported that you expected to market _____ head of cattle (or hogs) in February, but on February 1, you changed this to a report of expecting to market _____ head in February. What brought about this change in your marketing plans from January 1 to February 1 for your cattle (or hogs) marketing for the month of February?" With this question an attempt was made to

check on the changes in intentions from a month ahead, to the beginning of the month in which intended marketings were to be made. Naturally, not all of the 50 matched cooperators indicated changes on their mail responses that would fill the blanks on all four of the questions. Hence, mostly smaller numbers are reported in table 7.

On the whole, what can be said about these data? First, there was no information about the actions of noncooperators with the mail survey. The tentative assumption might be made that their actions are essentially random, hence do not affect the estimation of the intentions problem. As they comprise the larger group, about 60 percent of the population, this may be a hazardous assumption. Using the group of 50, it is an approximate minimum estimate that 25 percent of the cooperators indicated some kind of change in cattle or hog marketing intentions for the 2-month period. Obviously, this is a minimum, as schedules could not be matched for a large part of the chosen sample of 200 cooperators.³

³ These 200 were classified as follows:

0—replied only in October.....	22
1—replied in January or February.....	100
2—replied in both January and February.....	78

What about the net effect of these changes? For cattle, both the January and February changes, -17 and +5 appear too small to indicate a real change or to affect an estimate. Yet, -17

— weighted by 0.408 and expanded to the 200 population total yields as a minimum⁴ minus 6,000 or 7,000 head. For hogs, the story is different, at least in terms of number of head looking at the -234 and -65 figures, respectively, for the 2 months. The -234 when expanded, yields an approximate minimum⁵ of about minus 80,000 or 90,000 head. These are not negligible quantities. However, the precision of such estimated changes is rather low. The data were for only 2 months in a year. Definitive comment on the problem must await availability of additional data.

Also classified into categories were the reasons that these farmers associated with their changes from previous intentions. Numbers of farms for each of these categories were too

⁴ Minimum in the sense used here must be taken in absolute-value terms.

⁵ See footnote 4.

small to list in detail here. Some of the reasons reported were market conditions, feed situation, breeding results, disease, transportation space, and hogs ready sooner or later than expected. A few indicated change of mind or error in reporting.

Summary

The survey indicates that a minimum of about 22 percent of Iowa livestock farmers would have made some use of the mail survey releases during the period covered by the investigation if mailings had been sent to all farmers in the universe. Of farmers who were aware of receipt of the release, 29 percent indicated some use of the reports. As these releases had been available to the interview group for only a short time, this use is rather large. Details on this use will be given in another paper. It seems that the changes in marketing intentions are too large to be considered negligible, but further study is needed in this area. The survey also revealed some differences between cooperators and noncooperators with a mail survey even though the selectivity differential did not have a long time to develop.