EVALUATION OF USE OF THE KANSAS AGRICULTURAL SITUATION BY COUNTY AGENTS

by

HUGH JOHN MCDONALD

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INTRODUCTION

Background of the Kansas Agricultural Situation and the Dissemination of Economic Information

The <u>Kansas Agricultural Situation</u> was originated by the department of agricultural economics at Kansas State University in 1924. It has always been issued monthly to provide farmers with information on factors affecting prices and their probable trends.¹

The publication was printed on a plain folded sheet of white paper with no eye appeal to encourage readership. There were no graphs or pictures to illustrate the points discussed. This was the common style in the mid-1920's and the same format was continued until 1959. Issues prior to May, 1959 will be referred to as the "old" Kansas Agricultural Situation and since that date as the "new" Kansas Agricultural Situation.

The style of writing of the old publication was hard to read and the readability score was of college level.² V. B. Hart expressed the need for a publication written in a popular style to summarize agricultural economics information
in 1928. "Such material should be published in a form that the farmer can
readily read after a hard day's work or while bringing it in from the mail box."3

The method of distribution of the old <u>Kansas Agricultural Situation</u> was such that sometimes the farmers received the publication promptly and other times they did not receive it at all. County agricultural agents felt the <u>Kensas Agricultural</u>

¹ R. Wayne Robinson, "Year-Round Job With A Big Push". Extension Service Review, September, 1957, XXVIII:192-193.

Readability analysis conducted by Federal Extension Service. The old Kansas Agricultural Situation was rated as follows: average readability score, college level; average sentence length, 15-17 words, good; big words, difficult to read due to high syllable count and use of passive voice, 161-198 syllables per 100 words; and as impersonal throughout.

³ V. B. Hart, "Encouraging the Use of Outlook Material". <u>Journal of Fara</u> Economics, January, 1929, XI:121.

<u>Situation</u> in its original format was not serving the purpose for which it was originally intended. 4

In May 1959, the <u>Kansas Agricultural Situation</u> underwent a major revision to take advantage of recent innovations and current techniques of written communications. It was revised to provide the farmers of Kansas with information that would help them meet changing economic conditions.

The need for revision can be illustrated by the results of a recent study in Nevada. Fischer reported that Nevada farmers, ranchers, and marketing agencies did not have the information they believed they needed. They reported that much of the available market information either did not apply to their specific situation or it was written and presented in such a manner that they did not understand the content.⁵

Using the survey conducted by Kenneth R. Jameson in part, as a basis for revision, the style of the <u>Kansas Agricultural Situation</u> was changed to that of a magazine with a colorful cover page to add eye appeal. The material is edited and written to the eighth grade reading level using the Flesch concept of readability. This level is slightly under the average reading level of the Kansas people 25 years old and older.

kenneth R. Jameson, Extension Education in Economic Information. Unpublished M.S. Thesis, Kansas State University, 1959, p. 6.

John L. Fischer, Reactions to Mevada Outlook Reports. Dept. of Agr. Econ., Mimeo Cir. 9, Agr. Exp. Sta., University of Nevada, 1956. p. 1.

⁶ Kenneth R. Jameson, Op. Cit., p. 11.

⁷ Rudolph F. Flesch, The Art of Readable Writing, p. 150.

⁸ Robert R. Jones, A Simplified Glossary of Agricultural Economic Terms and Concepts Frequently Used in Periodicals Read by Kansans With the Discussion of the Meed for Such a Glossary, Unpublished Thesis, Kansas State University, 1979, p. 1.

Pictures, simplified charts and graphs were added where necessary to explain the written word. The publication is devoted principally to economic and management articles that are written to apply to Kansas farmers and Kansas conditions.

To insure prompt distribution, the Kansas Agricultural Situation is mailed directly to the cooperators. A quota, supplied by the Central Extension Office, was established for each county based on the number of commercial farms in the county with a minimum of 50 copies per county. Any copies of the publication over the quota are financed within the county.

The state extension service and the specialists' role is to cooperate and support the program of the county agricultural agent in the county. In relation to the dissemination of economic information Bottum stated that there is a tremendous gap between what is known in economics and the economics known and accepted by the general public. Thus, the challenge of economic education is to help close this gap. "The task of the agricultural extension economist is to put his economic knowledge into terms which make it a living, useable science which guides men's action." 9

A part of the program in marketing information in Kansas is to involve the county agent directly. Making the county agent a part of this program provides a broad base for such educational efforts.

In essence, the <u>Kaneas Agricultural Situation</u> is one such media through which the above mentioned task may be accomplished. It is designed to assist the county agricultural agent in conducting the Extension Service educational program at the county level. Supplements, keyed to the current issue of the

⁹ J. Carroll Bottum, "Developing a Set of Basic Principles for Economic Extension", <u>Journal of Farm Economics</u>, XXXVI, December 1954, p. 894.

Kansas Agricultural Situation are supplied county agents to assist them directly in their local program.

Objectives of Study

One of the specific objectives of the Agricultural Marketing and Outlook
Information project outline of which the <u>Nansas Agricultural Situation</u> is a part,
states that surveys will be conducted to determine if the publication is meeting
the needs and interests of the reading audience. ¹⁰ The major objective of this
study was to evaluate the revised <u>Nansas Agricultural Situation</u> in light of the
change in format, content and method of distribution of the publication since the
revision was made in May, 1959. A secondary objective was to determine county
agricultural agents' major source of information about new farm practices.

Methods, Problem, and Hypotheses

Because the county agricultural agent (hereafter called the agent for simplification) is responsible for the Extension Service educational program at the county level, it was deemed desirable to interview agents as the first step in meeting the objectives of the study. Due to the position of the agent in relation to the distribution of the publication and his controlling the mailing list, it was felt that if the agent did not like the revised Kanses Agricultural Situation there would be no need of surveying the people who receive the publication. Agents are considered a reliable source of information insofar as meeting farmers' needs is concerned. 11

¹⁰ Agricultural Marketing and Outlook Information, Project Number 1526-10, Kansas State University, Manhattan, Kansas. Legal authority, Agricultural Marketing Act (RM Table 2), Public Law 733, 79th Congress.

¹¹ The Cooperative Extension Service Today, Extension Committee on Scope and Responsibility, 1977. Fed. Ext. Service, U.S. Dept. of Agr., Washington 25, D.C., April, 1978, p. 1.

Because the study is directly related to a comparison of the old and new Kansas Agricultural Situation, the study had to be restricted to contacting those agents who were familiar with both publications. Also, it was believed contact should include only those agents who had been in their respective counties long enough to know the local situation and the attitude of the farmers receiving the Kansas Agricultural Situation. Since the publication is farmer oriented, certain counties had to be excluded from the study that were considered as metropolitan or urban counties. Decisions were made regarding these considerations after consultation with Dr. W. E. Ringler, Assistant Director of the Kansas Extension Service, in charge of programs and training.

The study was limited to the counties in the eastern one-half of Kansas with U.S. Highway 81 being the west boundary. The decision was made to limit the population of the study to those agents who had at least two years experience as an extension agent and had been in their respective county at least one year. This was desirable in order that the agent would be able to more correctly compare the old and new publication and have a better idea of response, either positive or negative, from his cooperators.

Only agricultural agents were interviewed because in its revised form the Kansas Agricultural Situation is still primarily devoted to agriculture with only minor portions of the publication being devoted to home economics and 4-H.

Therefore, it was assumed agricultural agents could more adequately answer the questions on the survey to be conducted. Wyandotte, Shawnee and Sedgwick counties were excluded from the population as being principally urban in their structure.

After limiting the population, the counties remaining numbered 42.

The guide followed in constructing the questionnaire and organizing the study was that set forth in the book, <u>Evaluation</u> in <u>Extension</u>, 12

The questionnaire was constructed to answer the following questions as a means of evaluating the revised Kaneas Agricultural Situation:

- 1. Do the agents read the Kansas Agricultural Situation?
- 2. What sections do they read?
- 3. Do they use the Kansas Agricultural Situation?
- 4. How do they use the Kansas Agricultural Situation?
- 5. Do the articles contain enough information?
- 6. What other subjects should be included from time to time?
- 7. Does the <u>Kansas Agricultural</u> <u>Situation</u> contain enough information helpful to non-farm families?
 - 8. How timely is the information for use?
- 9. Have the cooperators commented on the Kansas Agricultural Situation?
 What did they say?
 - 10. How can the Kansas Agricultural Situation be improved?
 - 11. How readable is the Kansas Agricultural Situation?

The questionmaire was developed with the aid of Dr. Fred Frutchey of the Federal Extension Service, Dr. L. W. Schruben, Dr. Wilbur Ringler, Professor Tom Averill, R. R. Jones, Ruth E. Clifton, and Donald L. Bigge of Kansas State University. (See appendix)

The questionnaire was developed to use with a personal interview because of the reliability of this type interview over other methods of collecting data for the type of information sought. The advantages of the personal interview are:13

13 Ibid, p. 42.

¹² Evaluation in Extension by Darcie Byrn and others. Division of Research and Training, Federal Extension Service, U.S.D.A., Washington, D. C., p. 46.

- The interviewer has an opportunity to observe and study the local situation and conditions; they talk directly with people and get their reactions to practices and programs.
- The personal interviewer method yields a high rate of returns (100% in this study).
- The interviewer has an opportunity to explain questions to the respondent.
- 4. Complete answers to all questions can usually be obtained. This contributes to the statistical accuracy, validity, and reliability.

After constructing the questionnaire, it was pre-tested in two counties under conditions very similar to those that would be encountered on the survey. After pre-testing, the questionnaire was modified slightly in light of the findings.

Specific questions on the reading and use of the <u>Kansas Agricultural</u>

<u>Situation</u> were constructed around the August 1959 and December 1959 issues. This
was done to examine the possibility of increased or decreased reading and use of
the publication over a period of time by the agents and also variations of
reading and use.

The statistical laboratory personnel of Kansas State University were contacted to review the questionnaire and to determine how many agents would need to be interviewed for an adequate sample. The statisticians pointed out that to obtain reliable information on the points to be included in the study, 50% of the population should be interviewed. On the basis of this information, a random selection of 21 counties was made from the total population. Agents were notified of the time the interview would be conducted and a schedule was made to meet with the agents in their county at a pre-arranged time. The survey was conducted the last 2 weeks of 1959.

The questionnaire was filled out during the interview by the author, and the author made no comments during the interview except to answer questions regarding the questionnaire. The agents were asked to give unbiased answers and the cooperation was excellent. After the questionnaires were completed, 15-30 minutes were spent with each agent using an open end question depth interview. No identification of the respondents was made in the analysis of the study.

The basic problem of this paper is to evaluate the <u>Kansas Agricultural</u>

<u>Situation</u> by the use of a survey and personal interviews with 21 agents in Eastern

Kansas. It is the intent of this paper to answer the 11 basic questions listed

on page six. By breaking the sample of agents down by total tenure in Extension,

major source of income in the county (livestock and livestock products or crops),

major field of study in college and distribution of the publication in the county,

we will examine variations in the reading and use of the <u>Kansas Agricultural</u>

<u>Situation</u> and also find agents' major source of new information about new farm

practices. By using simple statistical measures to evaluate the answers of the

respondents, reliability of results were obtained.

Hypotheses.

- There is no significant difference in the use of the <u>Kansas Agricultural Situation</u> when agents are grouped according to tenure and background.
- There is no significant relationship in the use of the <u>Kansas</u>
 <u>Agricultural Situation</u> and the tenure of the agents, major field of study, major
 source of income in the county or total distribution of the publication within
 the county.

General Characteristics of the Sample and Statistical Methods Used

Total tenure of agents ranged from 3.5 years to 26 years in extension with an average tenure of 10.9 years. Tenure in the individual counties ranged from 1.5 years to 25 years with an average tenure in the county of 7.3 years.

The background of the 21 agents according to their major field of study in college was: 9 agents majored in animal husbandry, 5 in agricultural economics, 3 in agronomy, 2 in agricultural education, 1 in soils and 1 in agricultural administration. Three of the 21 agents held an M.S. degree. One in animal husbandry, one in dairy husbandry and one in agricultural economics.

Statistical methods used in this study were:

- 1. Arithmetic mean-referred to in the study as an average.
- 2. Percentage.
- Least squares method of Linear Regression. 14
 Formula: Y = a + bX
- Y = dependent series of data measured on vertical axis.
- X = independent series of data measured on horizontal axis.
- a = Y intercept. Measures height of line on graph from the point of origin.
- b = Slope of the line.
- 4. Rank order correlation.15

Formula:
$$r = 1 - \frac{6 \cdot 4 \cdot d^2}{n(n^2-1)}$$

- r = correlation.
- ź m gum.
- d = difference.
- n = number in group.
- 5. Chi-square test of independence.16

Formula:
$$x^2 = \frac{(0-E)^2}{0} + \frac{(0-E)^2}{0} + \frac{(0-E)^2}{0} + \frac{(0-E)^2}{0}$$

16 Ibid, p. 219.

¹⁴ Morris Myers Blair, Elementary Statistics, p. 189.

¹⁵ George W. Snedecor, Statistical Methods, Table 7-12-1, p. 191.

x2 - symbol for chi-square.

0 = observed.

E - expected.

6. Test of probability.17

Formula: P = 1.96 \(\frac{1}{2} \) \(\frac{1}{N} \)

AWALYSIS OF THE SURVEY

How Much County Agents Read the Kansas Agricultural Situation and What They Read

Eighteen agents stated they had read all eight issues of the Kansas Agricultural Situation since its revision. Three agents said they had read part, (4 to 7 issues) since its revision (table 1). Based on this sample it would appear that 65.7% of the agents read all issues of the Kansas Agricultural Situation and that 14.3% read 4 to 7 issues of the publication. This sample indicates with 9% certainty that at least 75% of the agents read all eight issues and that no more than 2% of the agents read only 4 to 7 issues.

Wineteen agents said they read part of the December issue of the publication.

One agent read all of it and one agent read none of the December issue (table 1).

Based on the sample it would appear that 90.% of the agents read the December

Kansas Agricultural Situation in part and that 4.% read all of it while 4.%

read none of the December issue. One can be 9% certain that at least 81.% of

the agents read the December issue in part and that no more than 26.6% of the

agents read all or none of the December issue of the Kansas Agricultural Situation.

¹⁷ Philip J. McCarthy, Introduction to Statistical Reasoning, pp. 246-248.

Table 1. Readership of the Kansas Agricultural Situation by Agents.

Que	estions Asked	:	Response of Agents				
1.	There have been 8 issues of the <u>Kanses</u> <u>Agricultural Situation</u> . The first issue was in May, 1959. How many of these issues have you read (all or in part)?						
	A. all 8 issues B. b to 7 issues C. 1 to 3 issues D. nome	Total	18 3 0 0 21				
2.	Did you get to read the Ausust issue of the Kansas Agricultural Situation?						
	A. all B. part C. none	Total	0 21 0 21				
3.	Did you get to read the December issue of the Kansas Agricultural Situation?						
	A. all B. part C. none	Total	1 19 1 21				

All 21 county agents reported reading the August issue of the Kansas

Agricultural Situation in part (table 1). Based on this sample one can be 9%

certain that 97% of the agents read the Kansas Agricultural Situation in part.

Agents read an average of 6.5 articles out of a possible 11 articles in the December issue or 59.3% of the issue read (table 2). "Know Your Market", "Market Forecast" and "Outlook in Brief" were the three most read articles with 18 agents reading them. Second ranked was the article "Recommended Crop Varieties for Kansas and Planting Rates and Dates" with 16 agents reading it. Third ranked was the article "You Can Ride Out the Down Phase of This Cattle Cycle" with 14 agents reporting reading it.

Agents read an average of 7.6 articles out of a possible 12 articles in the August issue or 63.7% of the Kansas Agricultural Situation read (table 3). "Know Your Markets", "Market Forecast", and "Outlook in Brief" were again the three most read articles with all 21 agents reported as reading them. Ranked second was the article "It's a Virus", with 19 agents reading it. Ranked third was the article "Going Hog Wild" with 18 agents reading it. Ranked fourth was the article "Some Feeder Lambs May Turn Out to be Wolves in Sheeps Clothing" with 16 agents reported as reading it.

In both the August and December issues, marketing information ranked first according to what agents read the most. Production and management articles ranked close behind marketing in readership with the consumers article and supporting articles (recommended reading and authors) receiving little attention from the agents.

How Agents Use the Kansas Agricultural Situation

General Findings. Agents used the Kansas Agricultural Situation primarily in four ways: 1. (D) to keep up to date, 2. (E) use the information in articles

Table 2. Sections or articles read in the December issue of the Kansas Agricultural Situation by agents.

Sec	tion	: Number	Agents Read
a.	Authors		12
b.	Recommended Reading		9
c.	Care and Selection of Christmas Trees		10
d.	Know Your Market		18
0.	Market Forecast		18
f.	Outlook in Brief		18
g.	Uncertainties Mar General Business Scene in Months Ahead		6
h.	Recommended Crop Varieties for Kansas Planting Rates and Dates	BALL	16
i.	Shall I Sell My Wheat Now or Hold into 1960?		nyma
j.	You can Ride Out the Down Phase of This Cattle Cycle	pena i	14
k.	When It's Turkey For the Table		_5
		Total	135
		Average	6.5

Table 3. Sections or articles read in the August issue of the Kansas Agricultural Situation by agents.

Sec	etion	: Num	ber Agents Rea	ad
a,	Buying Skill is an Important Part of Your 4-H Livestock or Crops Project		6	
b.	Know Your Markets		21	
c.	Market Forecast		21	
đ.	Outlook in Brief		21	
e.	Going Hog Wild		18	
f.	The Scientist, Antibiotics and You		13	
g.	Kansas Apples and Peaches Tield Well Despite Setbacks		h.	
h.	It's a Virus	154	19	
i.	Clothing for that Giant Step Back to School		0	
j.	Some Feeder Lambs May Turn Out to be Wolves in Sheeps Clothing		16	
k.	Recommended Reading		h	
L.	Authors		_9	
		Total	160	
		Average	7.6	

they write for circulars, newsletters, newspaper columns, etc., 3. (F) use the information in writing radio talks or for TV programs, 4. (G) to help answer questions that come to them. (Tables 4 and 5) These four breakdowns according to use indicates that agents use the publication as a reference and as an aid in the distribution of mass media materials (newspapers, radio and TV).

Variations in Use According to Tenure of the Agents. To analyze variations in the use of the publication three statistical tests were employed: 1. Rank order correlation. 18 2. Linear regression. 19 3. Chi-square test of independence. 20

The 21 agents in the sample were divided into two groups according to tenure and two groups according to background. According to tenure in extension work, there were 11 agents in the zero (0) to ten years group and ten agents in the ten plus years group. According to major field of study in college there were nine agents that majored in animal husbandry (AH) and 12 agents who majored in other fields (other).²¹

The chi-square test of independence was used to determine if the ratio of active to passive uses was independent of background and tenure of the agents. For purposes of this test the active uses of the publication were e and f (tables 4 and 5) and the passive were d and g (tables 4 and 5).

In analyzing the data in relation to the tenure of the agents and the active and passive uses of the Kansas Agricultural Situation, it was found that the ratio of active to passive uses was independent of tenure (tables 6 and 7). On

¹⁸ Snedecor, loc. cit.

¹⁹ Blair, loc. cit.

²⁰ Snedecor, op. cit., p. 219.

²¹ Five majored in Ag. Economics, 3 in Agronomy, 2 in Ag. Education, 1 in Soils and 1 in Ag. Administration. For Purposes of testing these were included in other fields.

Table 4. How articles were used in the August issue of the Kansas Agricultural Situation.

Art	icle	:	A	: B	: C	: D	: E	: F	: G :
1.	4-H Buying Skill		0	0	1	2	1	0	1
2.	Know Your Market		0	0	1	11	10	3	15
3.	Market Forecast		0	0	1	10	6	1	15
h.	Outlook in Brief		0	0	1	10	6	2	16
5.	Going Hog Wild		0	0	2	7	h	5	13
6.	Scientist, Antibiotics and You		0	0	0	4	1	0	5
7.	Kansas Apples and Peaches Yield Well Despite Setbacks		0	0	0	0	0	0	0
8.	It's a Virus		0	0	2	8	7	3	10
9.	Clothing for that Giant Step Back to School		0	0	0	0	0	0	0
10.	Feeder Lambs May Turn Out to be Wolves in Sheep's Clothing		0	0	0	8	3	1	8
11.	Recommended Reading		0	0	0	1	0	0	0
12.	Authors		0	0	0	2	0	0	0
	Total		0	0	8	63	38	15	83

Chart Legend:

- A. To get ideas for talks and items.
- B. Use some of the facts in leader training meetings.
- C. Use some of the facts in talks I give.
- D. To keep up to date.
- E. Use the information in articles I write for circulars, news letters, newspaper columns, etc.
- F. Use the information in writing radio talks or for TV programs.
- G. As a help in answering questions that come to me.
- H. Other ways.

Table 5. How articles were used in the December issue of the Kansas Agricultural Situation.

lrti	cles	: A	: B	: C	: D	: E	: F	: G	: H
1.	Authors	0	0	0	3	0	0	0	
2.	Recommended Reading	0	0	0	h	0	0	0	
3.	Care and Selection of Christmas Trees	0	0	0	2	h	1	1	
h.	Know Your Market	0	0	0	8	7	3	12	
5.	Market Forecast	0	0	0	8	k	3	10	
6.	Outlook in Brief	0	0	0	7	h	2	11	
7.	Uncertainties Mar the General Business Scene	0	0	2	1	0	0	1	
8.	Recommended Crop Varieties for Kansas	0	0	1	12	1	0	3	
9.	Shall I Sell or Hold My Wheat	0	0	0	1	3	1	3	
.0.	Ride Out the Down Phase of the Cattle Cycle	0	0	0	6	2	1	7	
1.	Turkey for the Table	0	0	0	1	1	0	0	
	Total	0	0	3	53	26	11	48	

Chart Legend:

- A. To get ideas for talks and items.
- B. Use some of the facts in leader training meetings.
- C. Use some of the facts in talks I give. D. To keep up to date.
- E. Use the information in articles I write for circulars, news letters, newspaper columns, etc.
- F. Use the information in writing radio talks or for TV programs.
- G. As a help in answering questions that come to me.
- H. Other ways.

Table 6. Chi-square test of independence between active and passive uses of the Kaneae <u>Agricultural Situation</u> and the tenure of the agents. August issue.

	:		Use	:	
Tenure	: 3	and F	:	D and G :	Total
+ 10		28		70	98
- 10		26		75	101
Total.		54		145	199

Chi-square = .1413

Table 7. Chi-square test of independence between active and passive uses of the <u>Kaness Agricultural Situation</u> and the tenure of the agents. <u>Becember issue</u>.

	2	Use :	
Tenure	: E and F	: D and G :	Total
+ 10	17	41	58
- 10	21	60	81
Total	38	101	139

Chi-square - .1559

the basis of chi-square values in tables 6 and 7, the hypothesis that the active and passive uses of the publication are independent of tenure was accepted.

In analyzing the data with reference to the background of the agents, it was found that the ratio of active and passive uses of the <u>Kansas Agricultural</u>
<u>Situation</u> is dependent on background. The hypothesis that the ratio of active and passive uses of the publication is independent of background was rejected on the basis of chi-square values obtained in tables 8 and 9.

The difference in this situation may be due to pure chance or it may be due to the August issue appealing to agents with an animal husbandry background more so than to agents with another type of background. This statement would also apply to the December issue. In terms of absolute use, the agents with an animal husbandry background used the August issue more than the agents with other backgrounds. In December the situation was the reverse.

The rank order correlation was used in testing the relationship between:

(a) tenure of agents and use of the <u>Kansas Agricultural Situation</u>, (b) between background of agents and use of the <u>Kansas Agricultural Situation</u>, (c) between the major source of income in the county and the use of the <u>Kansas Agricultural Situation</u>, and (d) between the distribution of the publication in the county and the use.

There is a significant correlation between the two tenure groups with respect to total use of the <u>Kansas Agricultural Situation</u>. Based on "r" values obtained in tables 10 and 11, it was concluded that there is a significant relationship in the use of the <u>Kansas Agricultural Situation</u> between agents in the two tenure classifications.

There is a significant correlation between the two groups of agents according to their background (AH and other) in the way they use the Kansas Agricultural Situation. Based on the "r" values obtained in tables 12 and 13 there is a

Table 8. Chi-square test of independence between active and passive uses of the <u>Kansas Agricultural Situation</u> and background of the agents. August issue.

	:	Use :	
Background	: E and F	: D and G :	Total
AE	18	101	119
Other	27	50	77
Total	45	151	196

Chi-square = 10.5

Table 9. Chi-square test of independence between active and passive uses of the <u>Keness Agricultural Situation</u> and the background of the agents. December issue.

	:	Use		
Background	: E and F	:	D and G:	Total
AH	11		51	62
Other	27		50	77
Total	38		101	139

Chi-square = 5.18

Table 10. Rank correlation of articles in August Kansas Agricultural Situation according to total use by county agents tenure (0 - 10 years, 10 + years).

Articles	: + 10	: - 10		: Rank	: D :	D2
4-H Buying Skill	5	0	8	10	2	l _k
Know Your Market	17	23	2.5	1	1.5	2.25
Market Forecast	16	17	li.	3.5	.5	.25
Outlook in Brief	18	17	1	3.5	2.5	6.25
Going Hog Wild	13	18	5	2	3	9
Scientists, Antibiotics and You	6	i,	7	7	0	0
Kansas Apples and Peaches Yield Well Despite Set- backs	0	0	11.5	10	1.5	2.25
It's a Virus	17	13	2.5	5	2.5	6.25
Clothing for That Giant Step Back to School	0	0	11.5	10	1.5	2.25
Some Feeder Lambs May Turn Out to Be Wolves in Sheep's Clothing	8	12	6	6	0	0
Recommended Reading	1	0	9.5	10	.5	.25
Authora	1	. 0	9.5	10	.5	.25

Table 11. Rank correlation of articles in December Kanaas Agricultural
Situation according to total use by county agents tenure (0 - 10
years, 10 + years).

Articles	: + 10	: - 10		Rank : - 10 :	D :	D ²
Authors	2	1	9	10	1	1
Recommended Reading	3	1	7.5	10	2.5	6.25
Care and Selection Of Christmas Trees	3	5	7.5	6	1.5	2.25
Know Your Market	14	16	1	2	1	1
Market Forecast	9	16	2.5	2	.5	.25
Outlook in Brief	9	1.6	2.5	2	.5	.25
Uncertainties Mar General Business Scene in Months Ahead	1	3	10.5	7.5	3	9
Recommended Crop Varieties for Kansas Planting Rates and Dates	6	11	5	h.	1	1
Shall I Sell My Wheat or Hold It Into 1960?	5	3	6	7.5	1.5	2.25
You Can Ride Out the Down Phase of This Cattle Cycle	7	9	4	5	1	1
When It's Turkey for the Table	1	1	10.5	10	.5	.25

r = .880 24.50

Table 12. Rank correlation of articles in August Kansas Agricultural Situation according to total use by county agents' background (AH and other).

Articles	: AH :	Other:	Rank :	-	D :	D ²
4-H Buying Skill	3	2	7	8	1	1
Know Your Markets	18	22	1	1	0	0
Market Forecast	13	50	h	3	1	1
Outlook in Brief	14	21	3	2	1	1
Going Hog Wild	15	14	2	5	3	9
Scientists, Antibiotics and You	2	7	8.5	6.5	2	J _L
Kansas Apples and Peaches Yield Well Despite Setbacks	0	0	11.5	10.5	1	1
It's a Virus	11	19	5.5	14.	1.5	2.25
Clothing for That Giant Step Back to School	0	0	11.5	10.5	1	1
Some Feeder Lambs May Turn Out to Be Wolves in Sheep's Clothing	11	7	5.5	6.5	1	1
Recommended Reading	1	0	10	10.5	•5	.25
Authors	2	0	8.5	10.5	2	4

r = .911 25.50

Table 13. Rank correlation of articles in December Kansas Agricultural Situation according to total use by county agents' background (Am and other).

Articles	: AE	: Other	: Rank : AH	: Rank : : Other :	D :	D2
Authors	3	0	8	11	3	9
Recommended Reading	3	1	8	9.5	1.5	2,25
Care and Selection of Christmas Trees	3	5	8	6.5	1.5	2.25
Know Your Markets	13	17	1	1	0	0
Market Forecast	10	15	2.5	2.5	0	0
Outlook in Brief	10	15	2.5	2.5	0	0
Uncertainties Mar General Business Scene in Months Ahead	3	1	8	9.5	1.5	2,25
Recommended Crop Varieties for Kansas Planting Rates and Dates	7	10	5	I _k	1	1
Shall I Sell My Wheat Now or Hold It Into 1960?	3	5	8	6.5	1.5	2.25
You can Ride Out the Down Phase of This Cattle Cycle	8	8	h.	5	1	1
When It's Turkey for the Table	0	2	9	8	1	1

r = .905 21.00

significant relationship in the way agents use the Kansas Agricultural Situation irrespective of background.

Variation of Use of the Kanses Agricultural Situation According to County

Major Source of Income. There is a high degree of correlation in the total use
of the Kanses Agricultural Situation between agents grouped on the basis of
major source of income in the county. The wajor source of income for purposes
of this study were crops and livestock and poultry produced.²²

Based on "r" values of .967 and .925 obtained in tables 14 and 15, again there is a significant relationship in the use of the <u>Kansas Agricultural Situation</u> between the two groups of agents. The lack of variation from this standpoint may be partly explained by the nearly equal importance of crops and livestock and poultry produced as is indicated in table 16. Also the verbal report by a majority of the agents stating their interest in livestock articles indicates all agents may have a tendency to be more interested in commodities whose prices are not directly related to some kind of government control.

Variation in Use of the Kansas Agricultural Situation According to Humber Distributed in the County. Each county has a free quota of a certain number of Kansas Agricultural Situations based on the number of commercial farms in the county as was discussed in the introduction.

It was thought possible that in counties which were at or over their free quota, the agents would use the publication more than those counties which were under their free quota. This would be an indication of the agents' interest in the publication and a possible stimulus for the use of it. There were eleven

²² Kansas State Board of Agriculture, Farm Facts, 1958-59, pp. 16-17.

Table 14. Use of August issue of Kansas Agricultural Situation by county major source of income.

Article	: Livestock : County	:County:	Rank : Livestock: County :		D :	D ²
4-H Buying Skill	2	2	8	8	0	0
Know Your Markets	8	12	2	1	1	1
Market Forecast	7	11	3.5	2.5	1	1
Outlook in Brief	9	11	1.0	2.5	1.5	2.25
Going Hog Wild	7	9	3.5	4.5	1	1
Scientist, Antibioti and You	cs 3	5	7	7	0	0
Kansas Apples and Peaches	0	0	11	11.5	.5	.25
It's a Virus	6	9	5.5	4.5	1	1
Clothing for School	0	0	11	11.5	•5	.25
Feeder Lambs May Turn Out to be Wolves in Sheep's Clothing	6	7	5-5	6	•5	.25
Recommended Read- ing	0	1	11	9.5	1.5	2,25
Authors	1	1	9	9.5	.5	.25

r = .967

9.50

Table 15. Use of the December issue of the <u>Kansas Agricultural Situation</u> by county major source of income.

Article	: Livestock: : County :	County:	Livestock:	Rank : Crops : County :	D :	D2
Authors	1	3	9	8.5	.5	.25
Recommended Read- ing	2	2	7.5	10.5	3	9
Care and Selection of Christmas Trees	3	4	6	6	0	0
Know Your Market	9	9	1	1	0	0
Market Forecast	8	8	2.5	2.5	0	0
Outlook in Brief	8	8	2.5	2.5	0	0
Uncertainties Mar Business Scene	0	3	10.5	8.5	2	lş.
Recommended Crop Varieties	7	7	li.	h	0	0
Sell or Hold Wheat?	2	4	7.5	6	1.5	2.25
Ride Out the Cattle Cycle	6	lş.	5	6	1	1
furkey for the Table	0	2	10.5	10.5	0	0

r = .925

16.50

Table 16. Major source of income in county, 1958.

County	:	Total Value of Field Crops	:	Total Value of Live- stock and Poultry Produced
1		8,147,590		5,568,520
1 2 3 4		8,871,880		3,901,130
3		7,922,500		5,076,300
l _k		9,719,840		6,097,380
5		20,548,650		5,824,840
5 6 7 8 9		5,638,470		6,027,040
7		5,429,500		6,642,400
8		11,269,820		8,554,790
9		5,550,140		6,016,400
10		5,567,730		5,732,530
11		3,421,920		3,410,360
12		4,262,810		4,607,570
13		6,353,180		7,377,840
13 14		4,219,040		7,944,980
15		5,368,950		4,987,250
16		4,967,840		6,482,750
17		8,415,640		11,278,680
17		6,059,090		3,424,570
19		5,656,010		4,421,200
20		5,849,780		4,975,670
21		5,060,500		4,342,360

Source: Kansas State Board of Agriculture, Farm Facts, 1958-59, pp. 16-17.

counties which were at or above their free quota for the December issue of the Kansas Agricultural Situation.

Using the rank correlation method, it was found that there is a high degree of correlation between the two groups of agents evaluated from the standpoint of distribution (tables 17 and 18). Based on "r" values of .881 and .973, there is a significant relationship between groups in the use of the <u>Kansas Agricultural</u>
<u>Situation</u> when considering the distribution of the publication in the county.

Comparison of Top and Bottom Four Counties According to Circulation of the Kansas Agricultural Situation. The free quota of the top four counties in the study was 330 Kansas Agricultural Situations and for the low four counties the free quota was 505. The top four counties were distributing 683 Kansas Agricultural Situations or more than double their free quota, and the low four counties were distributing 375 or only 74% of their free quota.

The agents in the top four counties read 64.6% of the August issue while the low four counties read 62.5% indicating approximately the same readership. The distribution in the county may have little or no effect on how much the agent reads the Kansas Agricultural Situation. The top four counties used 45.8% of the articles in the August issue and the low four used 56.3% of the articles. Although the top four counties read more than did the low four, the agents in the top four counties used only 71% of what they read while in the low four counties, the agents used 90% of what they read. The agents with less distribution of the publication did not read as much but they used approximately 8% more of the publication than did the top four agents.

Agents in the top four counties read 68.2% of the articles in the December issue while the agents in the low four counties read 54.5% of the December issue indicating agents in the top four counties read slightly more than did the agents in the low four counties. Agents in both the top four and low four

Table 17. Use of December issue of <u>Kansas Agricultural Situation</u> according to distribution in the county.

Article		: County : - quota		: Rank : : - quota :	D :	D2
Authors	3	1	8	10	2	h
Recommended Reading	3	1	8	10	2	h
Care and Selection of Christmas Trees	h h	3	6	6.5	•5	.25
Know Your Markets	10	8	1	2.5	1.5	2.25
Market Forecast	8	8	2.5	2.5	0	0
Outlook in Brief	8	8	2.5	2.5	0	0
Uncertainties Mar Business Scene	2	1	10	10	0	0
Recommended Crop Varieties	6	8	4.5	2.5	2	h
Sell or Hold Wheat?	3	3	8	6.5	1.5	2.25
Ride Out the Cattle Cycle	6	à,	4.5	5	.5	.25
Turkey for the Table	0	2	11	8	3	9

r = .881 26.00

Table 18. Use of August issue of the Kansas Agricultural Situation according to distribution in the county.

Article		: County : - quota		: Rank :	D :	D2
4-H Buying Skill	3	1	8	9	1	1
Know Your Market	10	10	2	1	1	1
Market Forecast	9	9	3.5	2.5	1	1
Outlook in Brief	11	9	1	2.5	1.5	2.25
Going Hog Wild	9	7	3.5	4.5	1	1
Scientist, Antibiotics and You	4	14	7	7	0	0
Kansas Apples and Peaches	0	0	11	11.5	.5	.25
It's a Virus	8	7	5	4.5	.5	.25
Clothing for Back to School	0	0	11	11.5	-5	.25
Feeder Lambs May Turn Out to Be Wolves in Sheep's Clothing	7	6	6	6	0	0
Recommended Reading	0	1	11	9	1	1
Authors	1	1	9	9	0	0

r = .973

8.00

counties used 40.9% of the articles in the December issue of the Kansas Agricultural Situation but agents in the low four counties used 75% of what they read while agents in the top four counties used only 60.1% of what they read.

Effect of Tenure on Reading and Use of the Kansas Agricultural Situation

Regression Analysis. The purpose of using the August and December issues of the Kansas Agricultural Situation was to study the effect of time on the reading and use of the publication according to the tenure of the agents and the variation in use over time.

For the August issue of the <u>Kansas Agricultural Situation</u> it was found that agents with more tenure had a tendency to read the publication slightly more than the agents with less tenure, as is indicated by the regression of Y = 5.443 + .1662X (figure 1).

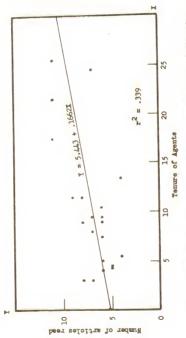
For the use of the August issue a regression of Y = 4.744 + .0759X was computed indicating agents with more tenure used the <u>Kansas Agricultural Situation</u> more but the difference is hardly enough to consider it significant. (Figure 2)

In the December issue the trend was reversed. For sections read a regression of Y = 7.346 - .0759X was derived indicating agents with less tenure read more of the December issue than did the agents with more tenure. (Figure 3)

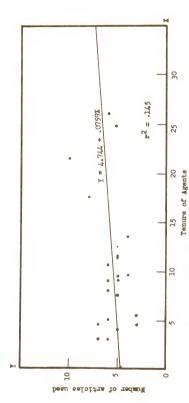
For sections used, a regression of Y s 6.275 - .1376X was computed indicating agents with less temme also used the December issue of the Kansas Agricultural Situation more than did the agents with more temme. (Figure 4)

These findings do not necessarily indicate an increased use of the December issue but it does indicate a possible shift in the type of agent that reads and uses the Kansas Agricultural Situation according to tenure.

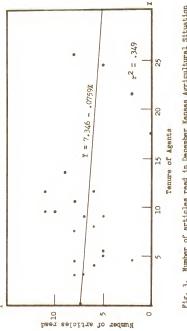
One reason for the agent with more tenure not to continue reading and using the Kaneas Agricultural Situation as much as the younger agent is that



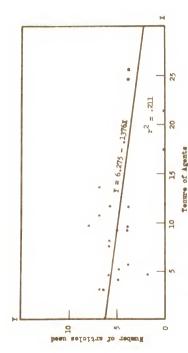
Number of articles read in August Kansas Agricultural Situation by tenure of agents. Fig. 1.



Number of articles used in August Kansas Agricultural Situation by tenure of agents. Fig. 2.



Number of articles read in December Kansas Agricultural Situation by tenure of agents. Fig. 3.



Number of articles used in December Kansas Agricultural Situation by tenure of agents. F1g. 4.

when the publication was relatively new (August was the fourth issue of the new Kansae Agricultural Situation) the older agents read it more closely to see if the information contained therein was of value and was what they wanted their cooperators to receive. By December the older agents were satisfied with the publication. It is possible that, elthough older county agents were enthusiastic about the publication, they have developed other sources from which they obtain information. On the other hand, the younger agents may not have developed a definite source of information and because they have found the publication to be a reliable source, will use it more since they are in the process of building up their supply of knowledge to do their job as a county agricultural agent.

There is the possibility due to pure chance that the older agents in the random sample had a busier schedule in December that prevented them from reading and using the publication as much as the younger agents did.

Value of the Kansas Agricultural Situation to Agents

Twenty of twenty-one agents felt that the <u>Kansas Agricultural Situation</u> was helpful in their work with only one agent reporting that the publication was of little help (table 19). Based on this sample it appears that 95.2% of the agents felt the publication was helpful in their work and 4.% of the agents thought the publication was of little value to them in their work. Since this was a sample one cannot be sure these percentages were exact, but we can be 9% certain that at least 88.7% of the agents felt the publication was helpful in their work and no more than 11.3% of the agents felt the publication was of little help in their work.

Agents were almost in 100% agreement that the articles in the Kansas

Agricultural Situation contained enough information. Twenty agents stated the

Table 19. Extension agents response to the value of the $\underline{\text{Kansas}}$ Agricultural Situation.

Questions Asked	*	Agents' Response
1. What value is the monthly MAGRICULTURAL Situation (any of it) to your extension pro-	part	
a. Helpful in my work b. Of little help c. No help to me		20
d. Don't read it	Total.	21
 In your opinion, is the infi tion in the articles enough much or not enough? 		
a. Enough b. Too much c. Not enough		20
d. No opinion	Total	21

articles contained enough information while one agent stated the articles contained too much information. Again, this indicates with 95% certainty that at least 88.7% of the agents felt the articles contained enough information and that no more than 11.3% of the agents felt the articles contained too much information.

Several agents expressed the opinion that even if the articles did not contain enough information, they at least contained enough information to arouse the person's interest to the point where they would come to the county extension office for more detailed or specific information.

Value of the Kansas Agricultural Situation to Non-Farm Families

Agents response as indicated in table 20 indicates that most agents believe the publication contains enough information for non-farm families. Three of the 19 agents answering enough (a), qualified their answer by saying that strictly speaking, the publication did not contain enough information helpful to non-farm families but since the publication is agriculturally orientated the three agents were not really concerned with this point. Of the two agents who replied not enough (b), to this question, one agent was in a county bordering on a metropolitan area with a large number of urban dwellers in his county. This agent was probably aware of the urban problem as well as rural problems and wished more information were available to fit non-farm problems. The other agent who replied not enough was in a predominately rural county that obtains its livelihood almost entirely from agriculture. The author could not find out why the agent felt this way.

Most agents commented that unless the person is closely connected to agriculture, the <u>Kansas Agricultural Situation</u> would not be of interest to them except in the case of the consumer article which would be of interest to all women.

Based on this sample it would appear that 90.% of the agents considered the publication to contain enough information for non-farm families and 9.% considered the publication as not containing enough information helpful to non-farm families. The sample indicates with 9% certainty that at least 81.% of the agents felt the Kansas Agricultural Situation contained enough information helpful to non-farm families and that no more than 18.% of the agents considered the publication as not containing enough information helpful to non-farm families.

Table 20. Value of Kansas Agricultural Situation to non-farm families.

Question Asked	:	Agricultural Agent Response
 Considering the work in your count does this publication include enough, too much, or not enough information helpful to non-farm families? 	y	
a. Enough b. Too much c. Not enough d. No opinion	T	19 2 Potel 21

Question number 1, table 20, of the survey may have been a poor question due to the lack of an explanation of what a non-farm family was in this case. This may be the reason for three county agents qualifying their answers.

Timeliness of Information in the Kansas Agricultural Situation

Timeliness is of essence in effective communications, especially in respect to marketing and outlook information. Regardless of the type of information, the farmer must receive it at a time when he still has an opportunity to apply the information if he so desires. The great majority of the agents interviewed (19 of 21) considered the information in the Kansas Agricultural Situation as always timely for their cooperators (table 21). The two agents who reported information as usually being timely could not give a specific example of information not being timely. Based on the sample it would again appear that 90.5% of the agents felt the information in the Kansas Agricultural Situation was timely and 9.5% felt the information was usually timely. One can be 95% certain that at least 81.5% of the agents felt the information was timely enough for their cooperators and no more than 18.5% of the agents felt the information was usually timely enough for their cooperators use.

Table 21. Timeliness of information.

Question Asked	:	Agricultural Agent's Response	
1. Is the information timely en for your cooperators?	ough		
a. Always b. Usually		19	
c. Seldom		~	
d. Never	To	otal 21	

Use of the <u>Kansas Agricultural</u> <u>Situation</u> for Mass Media Purposes by <u>Agents</u>

The <u>Kansas Agricultural Situation</u> is written for local consumption as much as possible and not for regional consumption as are many of the farm magazines. There is still enough variation across the state from north to south and from east to west to require most agents to digest or brief the articles they use for mass media purposes in order that information will more closely apply to

their local area. The material or articles has less appeal to the local cooperators if the agent does not endeavor to put a local touch to the material.

Only one agent reported using the articles as written and two agents reported using the articles as written part of the time when they did not digest or brief it. (Table 21) This is an indication that articles in the Kansas Agricultural Situation are occasionally published in a form adapted to some local conditions or that a small percentage of the agents do not take time to adapt the articles to the local situation when used for mass media purposes. Seventeen agents digested or briefed the material for mass media purposes and two agents did not use the Kansas Agricultural Situation in writing material for mass media purposes because it would be repetitious for the people in the county who are receiving the publication. These two agents felt that the people receiving the Nansas Agricultural Situation would be more effective in transferring the information to the farmers not receiving it than the agent would.

The sample indicates with 9% certainty that at least 69% of the agents digested or briefed the information before using it for mass media purposes, that no more than 24.9% used the information as it was written and that no more than 18.7% of the agents rewrote the articles or did not use the articles in the <u>Kansas Agricultural Situation</u> for mass media purposes.

Notice in table 22 a total of 24 responses from 21 county agents. Three county agents reported using the material in two ways which accounts for the total of 24 agents answering instead of the usual 21 answering the questions on the survey.

Table 22. Use of the material in the Kansas Agricultural Situation for mass media purposes.

Question Asked		: Agr:	icultural Agent's Response
1.	If you use the material in writing articles, radio scripts or TV programs, do you generally use it:		15. 7
	a. as written b. rewrite it c. digest or brief it d. don't use it	Total	3 2 17 2 24

Cooperators' Comments About the Kansas Agricultural Situation

County agents reported no unfavorable comments from their 2,607 cooperators receiving the Kansas Agricultural Situation in December 1959. Agents reported receiving many favorable comments. Some of the comments were: "Glad to be receiving the Kansas Agricultural Situation," "That new magazine sure has a lot of good information in it", "Sure like that new publication you're sending me", or "The college is sure doing a good job with that new magazine". One county agent said his cooperators had not said much, but silence was approval to him because if they didn't like it they would have mentioned it.

Readability of the Kansas Agricultural Situation

At the request of the Marketing Information Office, Mrs. Amy Cowing conducted a readability analysis of the new Kaneas Agricultural Situation²³

The Federal Extension Service uses the Flesch readability formula to analyze readability of publications. On the basis of the readability analysis, the

²³ Mrs. Amy Cowing, Division of Extension Research and Training, Federal Extension Service, U.S. Department of Agriculture, Washington, D. C.

new <u>Kansas Agricultural Situation</u> is "written on the 8th grade level and is fairly well personalized throughout". This is comparable to an interesting Readers Digest edition. Sentences range in average length from 11 to 13 words (judged very good) and syllables per 100 words from 141 to 161. (See appendix for complete readability analysis of the old and new <u>Kansas Agricultural</u>

<u>Situation</u>)

Sources from Which Agents Obtain Information About New Farm Practices

Agents reported the extension specialist as their best source about new farm practices (table 23). Agents ranked Experiment Station and Extension Circulars and Bulletins as their second best source of information. Extension news releases ranked third; direct personal contact ranked fourth; key farmers fifth; and farm magazines ranked last as a source of information about new farm practices. Agents look at farm magazines regularly to see what is in them because many of their cooperators read them, but they do not consider farm magazines as a reliable source of information about new farm practices in relation to the other choices listed in the questionnaire. Only one agent placed farm magazines as his first source of information about new farm practices while 11 county agents placed extension specialists at the top of their list. Only two agents ranked extension specialists below third in the list of sources from which agents obtain information about new farm practices. (See table 23)

Major Sources of Information About New Farm Practices According to Tenure and Background of the Agents

The agents in the survey were divided into the same groupings of tenure and background for this section of the study as in the previous section—to study variations in the major sources of information about new farm practices that agents use.

Table 23. The most important sources from which agents obtain information about new farm practices.

County	: Expt. sta. & ext. : cir. & bulletins :		: Ext. : Spec. :	: Ext. : news : releases		: Direct s : personal : contact
1	2	h.	1	3	5	6
2	1	6	2	3	5	14
3	5	1	3	6	2	4
5	2	a la	3	T	2	0
6	2	6	1	3	5	h
7	1	6	2	5	Í4	3
8	6	3	14	ź	5	í
9	3	6	2	1	5	la la
10	2	h	1	3	5	6
11	5	6	2	1	3	jt.
12	1	4	2	6	3	5
14	6	k	1	2	3	2
15	2	3	1	6	5	Í.
16	2	6	3	4	5	1
17	4	3	1	6	5	2
18	3	h	1	2	6	5
19	6	4	5	3	2	1
50	2	6	1	5	3	24
21	-5	0	1	_2	4	_3
otal ,	62	94	39	78	89	79
Rank	2	6	1	3	5	h.

When examining agents' sources of information according to tenure in extension both groups agreed that extension specialists were their first source
of information about new farm practices and experiment station and extension
bulletins and circulars ranked second. There was a slight variation in ranking
3 through 6 with the zero to 10 years tenure group ranking key farmers as their
6th choice as a source of information while the 10 or more years tenure group
ranked farm magazines as their 6th choice. (See tables 24 and 25)

Agents with both animal husbandry and other backgrounds ranked extension specialists as their first source of information about new farm practices and experiment station and extension bulletins and circulars as their second major source of information about new farm practices. Third through 6th sources of information were similar in rank though not identical. (See tables 26 and 27)

Although there was no definite agreement among county agents about the 3rd through 6th major source of information about new farm practices, agents were agreed that the extension specialist was the source they consider best to obtain information about new farm practices and that experiment station and extension bulletins and circulars were the second best sources of information about new farm practices.

A recent study conducted in Ohio by Rogers reported similar results from a group of Ohio county agents.²⁴ In the Ohio study, extension specialists and experiment station bulletins ranked first and second respectively as agents' best source of information.

²⁴ L. L. Rummell, "To See Ourselves as Others See Us". American Association of Land Grant Colleges and Universities, Washington, D. C., Nov. 12, 1956.

Table 24. Major source of information about new farm practices, agents with zero to ten years tenure.

County	: Expt. sta. & ext. : cir. & bulletins :	: Farm : Magazine :	: Spec.	: news	: Key : farmers	: personal
1	2	24	1	3	5	6
2	5	1	3	6	2	l _k
- 3	3	lş.	1	5	6	2
4	2	6	1	3	5	Ja.
5	1	6	2	5	- 4	3
6	6	3	4 -	2	- 5	1
7	5	6	2	1	3	h.
8	2	3	1	6	5	4
9	J _k	3	1	6	5	2
10	3	ă,	1	2	6	5
11	2	6	1	_5	_3	4
otal	35	46	18	la la	49	39
lank	2	5	1	h.	6	3

Table 25. Major source of information about new farm practices, agents with 10 or more years tenure.

County	: Expt. sta. & ext. : cir. & bulletins :	: Farm : magazines :	: Spec.		: Key : farmers :	: Direct : personal : contact
1	1	6	2	3	5	ł,
2	2	Ją.	3	1	5	6
3	3	6	2	1	5	J _k
h	2	Ją.	1	3	5	6
5	1	4	2	6	3	5
6	2	lş.	1	6	3	5
7	6	J _k	1	2	3	5
8	2	6	3	4	5	1
9	6	h -	5	3	2	1
10	2	6	1	_5	<u>h</u>	_3
Fotal	27	48	21	34	40	40
Rank	2	6	1	3	4-5	

CHES CHESTAL BULLE

Table 26. Major source of information about new farm practices, agents with animal husbandry background.

County	: Expt. sta. & ext. : cir. & bulletins					: Direct : personal : contact
1	2	h.	1	3	5	6
2	2	h	3	1	5	6
3	2	6	1	3	5	li.
4	3	6	2	1	5	14
5	2	l _k	1	6	3	5
6	2	6	3	l _k	5	1
7	h	3	1	6	5	2
8	2	6	1	5	3	l _k
9	2	6	1	_5	14	_3
Total	21	45	14	34	40	35
Rank	2	6	1	3	5	4

Table 27. Major source of information about new farm practices, agents with other background.

County	: Expt. sta. & ext. : cir. & bulletins :		: Spec.		: farmers	: Direct : personal : contact
1	1 1 1 W	6	2	3	5	4
2	5	1	3	6	2	14
3	3	l _k	1	5	6	2
l _k	1	6	2	5	4	3
5	- 6	3	l _k	2	5	1
6	2	14	1	3	5	6
7	5	6	2	1	3	h
8	1	4	2	6	3	5
9	6	1,	1	2	- 3	5
10	2	3	. 1	6	5	h.
11	3	4	1	2	6	5
12	6	<u>h</u>	5	_3	2	1
otal	41	49	25	44	49	44
lank	2	5-6	1	3-4	5-6	3-4

Value and Use of Statistical Supplement to the Agent

Periodically the Marketing Information Office distributes to county agents a statistical supplement to the Kansas Agricultural Situation with the thought in mind that the county agent would have a use and need for more complete information about a subject than is given in an article. Usually the supplement is distributed in connection with marketing and outlook articles. Basically, the statistical supplement is historical data that gives the background for a particular subject covered in the Kansas Agricultural Situation. The statistical supplement is sent to every county agent and every agent was aware of receiving it. (Table 28) Eleven agents reported they never used the supplement while ten agents said they used the supplement sometimes. Most agents reported keeping the supplement on file in the office for further reference if anyone ever asked a question on the subject. Those agents that reported using the supplement sometimes used it as background material for outlook meetings or news articles, but generally they kept it on file in case a question arose. The agents all agreed that the supplement contained good information but to use it for anything other than a specific question required analyzing data and county agents are of the opinion that they do not have time to dig information out of statistics. Agents felt they needed information in a condensed summary form for easy and rapid distribution at the county level.

How Can the Kansas Agricultural Situation Be Improved

Agents were asked how the publication could be improved by using open-end questions in a depth interview after the questionnaire was completed.

Agents had no specific ideas or suggestions for improving the Kaneas

Agricultural Situation. Agents did have specific comments on things they would

Table 28. Value and use of the statistical supplement by agents.

uestions Asked	*	Agent's Response
. Do you get the statistical a ment?	supple-	
a. Yes		21
b. No	Total	21
. Do you use it much?		
a. Never		11
b. Sometimes		10
c. Often		15 411
d. Very often		-
e. Every time	Total.	21

not like to see happen to the <u>Kansas Agricultural Situation</u>. Several agents said they did not want to see the publication any longer than eight to twelve pages; if it were any longer the agent would not read it, and they did not believe the farmer would read it either. Agents consider the small size with no advertizing a big advantage to encourage readership. Several agents questioned the need of a 4-M article and a consumer article since agriculture is implied in the title of the publication. One agent said he would be disappointed if anything happened to the publication. In summary, county agents were quite well satisfied with the new publication because it was such an improvement over the old <u>Kansas Agricultural Situation</u>. Also they were pleased because their cooperators who receive the publication have expressed their approval.

Other subjects That Should Be Included in the Kansas Agricultural Situation. This question was asked of agents in an effort to obtain an idea of how well the Kansas Agricultural Situation was covering subjects agents felt were important and as a basis for obtaining ideas for articles in the future. Some agents offered several suggestions while several had none to offer. Agents would like to see more articles in the areas of management, marketing and production with a few suggestions for articles covering agricultural policy and reports of research that would be of importance to the agent and his cooperators. The following is a partial list of articles for the Kansas Agricultural Situation suggested by agents:

- 1. Farm management subjects.
 - a. Machinery investment and costs.
 - b. Economic aspects of corn vs. grain sorghum and comparing feeding values.
- 2. Elaborate on outlook and pricing.
- 3. Management practices for a particular month.

- 4. Performance testing of beef.
- 5. Insects and crop diseases and their control and new information.
- 6. More articles such as soybean production.
- 7. Stocker and feeder outlook information.
- 8. Fertilizer.
- 9. Soil testing.
- State NSU opinions on basis of research to date, don't wait for complete research.
- 11. Crops and livestock.
- 12. Best buys for housewife.
- Agricultural policy--integration, commercial feedlots, how farmers can meet competition.
- 14. Give pros and cons of controversial subjects--most likely related to agricultural policy.

This list of suggested articles suggests a general trend of the problems and questions agents have to cope with and would like to have more information on. The response to this question is probably a direct result of the type of questions farmers bring to agents.

SUMMARY AND CONCLUSIONS

Economic information is becoming of increasing importance to Kansas people.

This study is concerned with evaluating the use of the Kansas Agricultural

Situation by county agents in Kansas.

According to the statistical tests employed there is a significant relationship in the reading and use of the <u>Kansas Agricultural Situation</u> by agents except in very limited cases. Tenure of the agents in extension, background, major source of income in the county, nor the number of <u>Kansas Agricultural Situations</u> distributed in the county had any effect on the reading or use of

the publication. Agents expressed satisfaction with the new publication and a high percentage of the agents read all or part of the publication each month. Agents reported the publication as being timely for their cooperators use, containing good reliable information and well illustrated to encourage reading. The <u>Kansse Agricultural Situation</u> is reported by agents to be well accepted by the local cooperators and as a result the agents are well satisfied with the revision.

Agents read and use more market and outlook information than any other type of material presented in the <u>Kansas Agricultural Situation</u> with management and production articles close behind.

Agents generally felt that the publication should not be any longer than eight pages with a maximum length suggested of 12 pages. If the publication was enlarged, it would tend to discourage reading because of the busy schedule maintained by most agents and cooperators alike.

Extension specialists are considered by agents as their best source of information about new farm practices. Experiment station and extension bulletins and circulars ranked as their second best source of information.

Agents expressed varied opinions as to the ranking of extension news releases, key farmers, direct personal contact and farm magazines. Farm magazines or key farmers were ranked last by most agents as a source of information about new farm practices, while extension specialists were ranked no lower than third by 19 of the 21 agents interviewed.

The findings from this study indicates that the <u>Mansas Agricultural</u>

<u>Situation</u> has a wide and varied use among agents regardless of tenure, background, major source of income in the county or the number of people in the county receiving the publication. The new <u>Mansas Agricultural Situation</u> is

of value to agents and they stated that it is of value to the people who receive the publication.

On the basis of a fifty percent random sample and the statistical analysis, the study indicates that agents do use the <u>Kanses Agricultural Situation</u> and the answers to the questionnaire included in the study are sufficiently representative of opinions to be useful as a basis for planning future issues.

RECOMMENDATIONS

On the basis of this study the following recommendations are suggested:

- Maintain the present size of the <u>Kansas Agricultural Situation</u> with 12 pages to be considered as the uppermost limit for maximum utilization by the county agents or cooperators.
- Increase the circulation to more nearly meet the aim of the publication, because the publication is accepted by county agents as a reliable source of economic information to help farmers meet changing conditions.
- 3. Broaden the coverage of the <u>Kansas Agricultural Situation</u> to include more timely articles on agricultural policy and management decisions that are underlying factors in the task of helping farmers meet changing economic conditions as independent business men.
- 4. Continually be aware of new methods and techniques of presenting economic information in order that farmers may better understand economic principles.
- Discontinue the distribution of statistical supplements to county agents
 except for very special articles. Agents abhorrence of statistics does
 not varrant the cluttering of filing cabinets in county extension
 offices.

LIMITATIONS OF THE STUDY

This study is unique in that very little previous research could be found by the author to substantiate the usefullness of this study. There has been a considerable amount of research conducted in the area of where and how farmers obtain and use economic information. Numerous reports have been presented in the area of presenting economic information but only limited research could be found directly relating to this study.

The size of the sample for this study was limited due to the time element involved in conducting personal interviews over a given period of time.

Only county agricultural agents were considered in this study. To obtain more accurate information on whether the <u>Kansas Agricultural Situation</u> is serving its purpose, cooperators receiving the publication should also be studied. It would be useful to find out their attitudes and opinions of the usefulness of the <u>Kansas Agricultural Situation</u> as well as how well they read and use the publication. Neither county home economic agents nor 4-H club agents were included in this study. If further inquiries are conducted along lines similar to this study, these people should be considered as a possible source of information.

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The cooperation of the 21 county agricultural agents involved in the study, and the assistance and suggestions of other members of the Extension Division and the Department of Economics and Sociology, Kansas State University were also greatly appreciated.

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APPENDIX

Kansas Agricultural Situation

Questionnaire

1. Did you get to read the December issue of the Kansas Agricultural Situation?

	ε.	All						
	b.	Part						
	c.	None						
	If	"no" in Question #1, skip Questions 2, 3	and 4					
2.	Whi	ch sections did you read?	Read	Used		How	r	
	۵.	Authors						
	ъ.	Recommended Reading						
	С.	Care and Selection of Christmas Trees						
	d.	Know Your Market						
	e.	Market Forecast						
	f.	Cutlook in Brief						
	g.	Uncertainties Mar General Business						
		Scene in Months Ahead						
	h.	Recommended Crop Varieties for Kansas						
		Planting Rates and Dates						
	i.	Shall I Sell My Wheat Now or Hold						
		It Into 1960?						
	j.	You Can Ride Out the Down Phase						
		of This Cattle Cycle						
	k.	When It's Turkey for the Table						
3.	Did	you use any section of this issue after	readi	ng it?	(If	they d	id,	check
	tha	t appropriate section in "Used" column i	n Ques	tion #2	abov	e.)		

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	in	Question #3, ask how they used it. The list below shows ways in which
	the	y could use it. In the "How" column of Question #2 indicate the way the
	use	d the sections by putting the appropriate letter in the space opposite
	the	section.) List of ways they could use the sections:
	a.	To get ideas for talks and news items
	b.	Use some of the facts in leader training meetings
	٥,	Use some of the facts in talks I give
	d.	To keep up to date
	е.	Use the information in articles I write for circulars, newsletters,
		newspaper columns, etc.
	f.	Use the information in writing radio talks or for TV programs
	g.	As a help in answering questions that come to me
	h.	Other ways
5.	Did	you get to read the August issue of the Kansas Agricultural Situation?
	a.	All
	b.	Part
	С.	None
	If	"no" in Question #5, skip Questions 6, 7 and 8.
6.	Whi	ch sections did you read? Read Used How
	a.	Buying Skill Is An Important Part
		of Your 4-H Livestock or Crops
		Project
	b.	Know Your Markets
	с.	Market Forecast
	d.	Outlook in Brief
	е.	Going Hog Wild

Read! Used!

How

- 6. f. The Scientist, Antibotics and
 - g. Kansas Apples and Peaches Yield
 Well Despite Setbacks
 - h. It's a Virus
 - i. Clothing for That Giant Step
 Back to School
 - j. Some Feeder Lambs May Turn Out to Be Wolves in Sheep's Clothing
 - k. Recommended Reading
 - 1. Authors

- reading it? (If they did, check
- 7. Did you use any section of this ussue after reading it? (If they did, check that appropriate section in "Used" column in Question #6 above.)
- 8. How did you use this issue, if you did? (When they say they read a section in Question #7, ask how they used it. The list below shows ways in which they could use it. In the "How" column in Question #6 indicate the way they used the sections by putting the appropriate letter in the space opposite the section.) List of ways they could use the sections:
 - a. To get ideas for talks and news items
 - b. Use some of the facts in leader training meetings
 - c. Use some of the facts in talks I give
 - d. To keep up to date
 - Use the information in articles I write for circulars, newsletters, newspaper columns, etc.
 - f. Use the information in writing radio talks or for TV programs
 - g. As a help in answering questions that come to me
 - h. Other ways

	V 2000 II 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	first issue was May, 1959. How many of these issues have you read (all
	or in part)?
	a. All 8 issues
	b. 4 - 7 issues
	c. 1 - 3 issues
	d. None
	e. Haven't seen it before
10.	What value is the monthly Kansas Agricultural Situation (any part of it) to
	your extension program? Check the phrase that comes closest to the way you
	feel about it.
	a. Helpful in my work
	b. Of little help
	c. No help to me
	d. Don't read it
	(If you have gotten no help from the new Kansas Agricultural Situation, skip
	Question #11.)
11.	In your opinion, is the information in the articles enough, too much or
	not enough?
	a. Enough
	b. Too much
	c. Not enough
	d. No opinion

-	
_	
	•
3. (Considering the work in your county, does this publication include enough,
1	too much or not enough information helpful to non-farm families?
i.	Enough Comments
1	b. Too much
(c. Not enough
c	d. No opinion
4.	If you use the material in writing articles, or radio scripts, or TV progr
	do you generally use it:
ŧ	n. As it is written Comments
1	b. Rewrite it
	c. Digest or brief it
	d. Don't use it
5.	Is the information timely enough for your cooperators?
ě	o. Always
1	b. Usually
(c. Seldom
	d. Never
	e. If not, give specific examples

Hav	e any of the cooperators made comments, favorable or unfavorable about
the	new Kansas Agricultural Situation?
Wha	t were the unfavorable comments?
_	
_	
Wha	t were the favorable comments?
_	
_	
_	
_	
Wh	ch of these publications do you like best and why?
Wh:	ch of these publications do you like best and why?
	ch of these publications do you like best and why?
	ch of these publications do you like best and why?
a.	ch of these publications do you like best and why?
a.	ch of these publications do you like best and why?
a.	ch of these publications do you like best and why?
a.	ch of these publications do you like best and why?
а. b.	ch of these publications do you like best and why?
а. b.	ch of these publications do you like best and why?
a. b. c.	ch of these publications do you like best and why?
a. b. c.	ch of these publications do you like best and why?

18.	Do you get the Statistical Supplement?
	a. Yes
	b. No
19.	Do you use it much?
	a. Never
	b. Sometimes
	c. Often
	d. Very often
	e. Every time
20.	How do you use it?
21.	What are the most important sources from which you obtain information about
	new farm practices? Rank 1 to 6, 1 = most important source, 6 least important
	Experiment Station and Extension Circulars and Bulletins
	Farm Magazines
	Extension Specialist (Meetings, tours, schools, etc.)
	Extension News Releases
	Key Farmers
	Direct Personal Contact
22.	What was your major in college? your minor?
	a. Major
	b. Minor
23.	How long have you been an agent in this county? in Extension?
	a. Years in this county
	b. Total years in Extension

The FLESCH READABILITY FORMULA No. 2 is based on 4 ideas:

- The more words there are in a sentence, the harder it is to read and understand that sentence.
- The more syllables there are in a word, the harder it is to read and understand that word.
- The more words about people (personal words) there are in a passage, the more interesting it is to read.
- 4. The more sentences addressed to your reader (personal sentences there are in a passage, the more interesting it is to read.

We estimate the Reading Ease (R.E.) of a 100-word passage by figuring average sentence length (s1) and word length (w1) described in points 1 and 2.

We estimate the <u>Human Interest</u> (H.I.) of a 100-word passage by counting the <u>personal words</u> (pw) and <u>personal sentences</u> (ps) described in points 3 and 4.

	Reading Ease" (R.E.)	cores follow t		
R.E. "Reading Ease" Score	Description of Style	Typical Magazine	Syllables per 100 words	Average Sen- tence Length in Words
0 to 30	Very Difficult (college graduate)	Scientific	192 or more	29 or more
30 to 50	Difficult (college)	Academic	167	25
50 to 60	Fairly Difficult (high school)	Quality	155	21
60 to 70	Standard* (8th-9th grade)	Digests	147	17
70 to 80	Fairly Easy (7th grade)	Slick-fiction	139	14
80 to 90	Easy (6th grade)	Pulp-fiction	131	11
90 to 100	Very Easy (5th or less)	Comics	123 or less	8 or less

"Human Interest" (H.I.) scores follow this pattern:

H.I. "Human Interest" Score	Description of Style	Typical Magazine	pw Percentage of Personal Words	Percentage of Personal Sen- tences
0 to 10 10 to 20	Dull Mildly Interesting	Scientific Trade	2 or less	O
20 to 40	Interesting*	Reader's Diges	st 7	15
40 to 60 60 to 100	Highly Interesting Dramatic	New Yorker Fiction	10 17 or more	58 or more

"Standard is easy reading for average U.S. adult with 8 - 9 years of schooling. The shorter your sentences, the shorter your words, and the more you "talk" to or about people, the easier your writing is to read.

By Mrs. Amy Cowing, Division of Extension Research and Training, Federal Extension Service, U.S. Department of Agriculture COPY

READABILITY ANALYSIS

Kansas

Before version

The Kansas Agricultural Situation

April 1, 1959

We tested 3 100-word passages by the Flesch Readability Formula No. 2. The formula gives a rough estimate of how easy or how hard your writing is to read.

3 samples average 40-college reading level

Hardest sample on page 2 . Reading level: college graduate.

Reading Ease (R.E.) score: 22 . Human Interest (H.I.): 0 .

Fasiest sample on page 1 . Reading level: 12th grade.

R.E. score 53.

H.I. score _ 0 .

The higher the scores, the easier the sample is to read.

Here are the scores* of all 100-word samples tested:

page	: sl (words)	: wl (syllables)	R.E.	(words)	: (sentences)	H.I.
	:	:	(12th gr.)	:	1 1	
1	: 17	: 161	53	: 0	: 0 :	0
	1	*	(college)	:	: :	
2	: 14	: 176	45	: 1	: 0 :	14
	:	1	(coll. grad.	.)	: :	
5	: 17	: 198	22	: 0	: 0 :	0

*See below for explanation of scores and abbreviations 197 (2-55)

Before version -

Sample 1 - high school (12th grade)

Sample 2 - college level

Sample 3 - college graduate

3 samples average 40 - college

Impersonal throughout

Average sentence length ranges from 14 to 17 words. (Good sentence length)

Difficulty is due to high syllable count and use of passive voice.

Words range from 161 to 198 syllables per 100 words.

READABILITY ANALYSIS

After version - The Kansas Agricultural Situation

May, 1959

We tested 3 100-word passages by the Flesch Readability Formula No. 2. The formula gives a rough estimate of how easy or how hard your writing is to read.

3 samples average 68 - 8th grade reading level.

Hardest sample on page 6. Reading level: 10th grade.

Reading Ease (R.E.) score: 58. Human Interest (H.I.): Impersonal.

Easiest sample on page 3. Reading level: 7th grade.

R.E. score 77. H.I. score 18.

The higher the scores, the easier the samples are to read.

Here are the scores* of all 100-word samples tested:

page	: (sl : (words)	: (wl : (syllab	les);	R.E.	(words)	: (sentences)	H.I.
3	: 11	: 141	:	(7th gr.)	: 0	: 55% :	18
Ją.	13	: 149		(8th gr.) 68 (10th gr.)	: 3	37%	23
6	: 12	: 161	:	58	1	: 0 :	Imper-

*See below for explanation of scores and abbreviations 197 (2-55)

Here are the readability levels of after version

3 samples tested on pages 1, 4, and 6

Sample 1 - page 1 - 7th grade. (Mildly interesting - fairly well personalized)

Sample 2 - page 4 - 8th grade (almost 7th) (Well personalized - on par

Sample 3 - page 6 - 10th grade (close to 9th) (Impersonal)

3 samples tested average score 68 - 8th grade. Fairly well personalized throughout.

This is an interesting Reader's Digest edition. Sentences range in average length from 11 to 13 words (very good) Words range from 141 to 161 syllables per 100 words.

EVALUATION OF USE OF THE KANSAS AGRICULTURAL SITUATION BY COUNTY AGENTS

by

HUGH JOHN MCDONALD

B. S., Kansas State University of Agriculture and Applied Science, 1955

> AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Agricultural Economics

KANSAS STATE UNIVERSITY Manhattan, Kansas The need has been expressed for many years for a publication written in a popular style to summarize economic information. In May, 1959, the <u>Kansas Agricultural Situation</u> underwent a major revision to take advantage of recent innovations and current techniques of written communications. It was revised to provide Kansas farmers with information that would help them meet changing economic conditions.

The purpose of this thesis was to evaluate the use of the new Kansas Agricultural Situation by county agents.

The population of the study was limited to those county agents that had at least two years of Extension service and had been in their respective counties at least one year. The study was restricted further by excluding counties which were principally urban in structure. From this population a 50 percent random sample was obtained.

The information used in this study was obtained from a survey questionnaire and personal interviews with 21 county agricultural agents in the approximate eastern one-half of Kansas.

The information obtained from the study was statistically analyzed wherever possible. The study indicates a wide and varied use of the Kansas Agricultural Situation by county agents according to the statistical tests employed. There is a significant relationship in the reading and use of the publication by county agents except in very limited cases. Tenure of the agents, background of the agents (major in college), major source of income in the county (livestock and livestock products or crops), nor the number of copies of the Kansas Agricultural Situation distributed in the county had any significant effect on the reading of the publication.

Agents expressed satisfaction with the new Kansas Agricultural Situation and a high percentage of the agents read all or part of the publication each

month. Agents generally felt that the publication was timely for their cooperators use, contained good reliable information and was well illustrated to encourage reading. The Kansas Agricultural Situation was reported by agents to be well accepted by the local cooperators.

Agents generally felt that the <u>Kansas Agricultural Situation</u> should not be any longer than eight pages with 12 pages being the maximum length. If the publication was enlarged, it would tend to discourage reading because of the busy schedule maintained by most agents and cooperators alike.

Extension specialists were considered by agents as their best source of information about new farm practices. Experiment station and extension bulletins and circulars were ranked as their second best source of information about new farm practices. Agents expressed varied opinions as to the ranking of extension news releases, key farmers, direct personal contact and farm magazines. Farm magazines and key farmers were ranked last by most agents and the extension specialists were ranked no lower than third by 19 of the 21 county agricultural agents interviewed.

The findings indicate that the <u>Kansas Agricultural Situation</u> has a wide and varied use among agents regardless of tenure, background, major source of income in the county or the number of people in the county receiving the publication.

The new <u>Kansas Agricultural Situation</u> is of value to the agents and they feel it is of value to the people who receive the publication.

On the basis of a 50 percent random sample, the statistical analysis of the study and assuming county agents are a reliable source of information it was concluded that the answers to the questions included in the study are sufficiently representative of opinion to be useful as a basis for planning future issues.

Also, the publication is serving the purpose for which it was intended to those people who receive it, that is -- to help Kansas farmers meet changing economic conditions as independent business men.