The Adoption of Recommended Farm Practices, and Sources of Farmer Information

Some Findings from Surveys Conducted in 1950 and 1955 Washington County, Kentucky

UNIVERSITY OF KENTUCKY
AGRICULTURAL EXPERIMENT STATION
LEXINGTON

THE ADOPTION OF RECOMMENDED FARM PRACTICES AND SOURCES OF FARMER INFORMATION

Some Findings from Surveys Conducted in 1950 and 1955
Washington County, Kentucky

By James N. Young and C. Paul Marsh Department of Rural Sociology

How farmers come to adopt new farm practices and where they get their information about them have long concerned those interested in the spread of new discoveries and techniques in agriculture. That new ideas are being rapidly and effectively spread is indicated by the fact that farmers now produce much more food and fiber annually than they did a generation ago, despite a decrease in the number of people working on farms.

New farm practices, however, are not adopted at the same rate of speed by all farmers. One frequently sees farms side by side, on which the operator of one is following the latest and most modern techniques in agriculture while on the other the operator is employing methods characteristic of a generation ago.

The purpose of the two surveys reported here is to indicate some of the factors that appear to be important both in the adoption of new practices and in the use of various channels of farming information. The first survey, conducted in 1950, consisted of interviewing all farm operators in 13 Washington county neighborhoods. This study was followed in 1955 with a similar survey of the same neighborhoods. In 1950 a total of 393 farmers were interviewed; in 1955, however, because of a 13 percent decrease in farms during the 5-year period, the number of farmers interviewed dropped to 343.

Adoption of Recommended Practices

For many of the practices recommended by agricultural agencies there is no definite way of determining when a farmer has "accepted" or "adopted" the practice. For example, with regard to the use of bluestone-lime in treating tobacco beds a farmer may (1) never have used it (2) used it in some years but not in others or (3) used it as recommended for several years. But if a farmer builds terraces, he is pretty much committed to farming with them for sometime to come and he cannot vary from year to year.

It is generally agreed, however, that the biggest hurdle in gaining acceptance of new practices is getting the farmer to make the first trial. For most practices included in this study the definition of "adoption" was that the farmer had tried the particular practice. In several instances, however, there appeared to be good reason for employing a stricter definition of adoption for this study. The definition of adoption used for each practice is as follows:

- 1. Artificial Breeding: had bred one or more cows artifically.
- 2. Farm Records: kept complete farm records receipts, expenditures, inventory, and production.
- 3. Terracing or Contouring: had any terraces or had ever cultivated any fields on the contour.
- 4. Ladino Clover: had ever planted any ladino clover.
- 5. Kentucky 31 Fescue: had ever planted any Kentucky 31 fescue.
- 6. Calf Vaccination: had ever vaccinated for Bang's disease.
- 7. Chick Purchase: had purchased all chicks from a hatchery and from one in Kentucky in the year preceding the interview.
- 8. All-Pullet Flock: had kept all-pullet flock in the year preceding the interview.
- 9. Bluestone-Lime: had ever used the bluestone-lime treatment on tobacco
- 10. Soil Testing: had ever had any soil tested.
- 11. Phenothiazine Drench: had drenched sheep with phenothiazine at least once in the year preceding the interview.
- 12. Phenothiazine with Salt: had given sheep phenothiazine with salt at least part of the time in the year preceding the interview.
- 13. Alfalfa: had some alfalfa at time of interview (this practice was not included in 1950 study).
- 14. Plow Tobacco Beds in Fall: had plowed tobacco beds in the fall preceding the interview (this practice was not included in 1950 study).

The purpose of Table 1 is to show how widespread the adoption of the practices was in 1955 as compared with 1950, while the purpose in Tables 2-5 is to show these changes according to the level of education of the farmers interviewed and according to the value of crops they sell. The percentage of farmers adopting each practice is based on the number of farmers having the enterprise to which the practice applies. Thus, 374 of the 393 farmers interviewed in 1950 had dairy cows and of these 52 (14 percent) had adopted artificial breeding (Table 1). This means that 332 (86 percent) of the farm operators had not adopted this practice. In 1955, 330 of the 343 farmers interviewed had dairy cows and 21 percent of them had adopted artificial breeding. Similarly, in 1950, 132 of the farmers with 7 grades or less of schooling had dairy cows and only 6 percent of these had adopted artificial breeding (Table 2). In 1955, 123 farm operators with less than 7 years of schooling had dairy cows and 7 percent of them had adopted artificial breeding. In other words, there had been no important change in the extent of adoption of this practice during the 5-year period.

The keeping of farm records is, of course, a practice that applies to all farmers, regardless of what enterprises they have. As is indicated in Table 1, however, only 13 percent of the farmers were following this practice in 1950 and only 12 percent in 1955. Thus, there has been no significant change in the adoption of this practice since 1950.

What Changes Have Occurred Between 1950 and 1955 in the Adoption of Certain Recommended Farm Practices?

TABLE 1

PERCENTAGE OF FARMERS WHO HAD ADOPTED CERTAIN RECOMMENDED PRACTICES, 1950 AND 1955*

Practice		Year
	1950	1955
	%	%
Artificial breeding	14	21
Farm records	13	12
Terracing or contouring	20	35
Ladino clover	2.5	50
Kentucky 31 fescue	2.5	85
Calf vaccination	27	39
Chick purchase	57	63
Pullet flock	2.5	39
Bluestone-lime	60	77
Soil testing	23	52
Phenothiazine drench	60	76
Phenothiazine with salt	59	66
Alfalfa**		27
Plow tobacco beds in fall**		25

^{*}For each practice, the percentages are based on the number of farmers having the enterprise to which the practice applies. (See page 2)

**Not included in the 1950 study.

There were no significant decreases in the number of farmers adopting any of the practices, and in most instances there were marked increases. The increase in the adoption of Kentucky 31 Fescue was especially marked. Although there were important gains in the adoption of nearly all practices included in the present study, it is apparent that there was no uniformity in the rate of increase of the various practices during the period between 1950 and 1955. The tables which follow indicate some of the factors which possibly have been influencial in promoting or retarding the adoption of these practices. Besides these factors, however, it should be noted that there are other important considerations that may account for differences in the rates of adoption. Such considerations are as follows:

1. The table above indicates a great deal of variation in the percentage of farmers who have adopted the various practices in 1950; the potentiality or possibility for wider adoption after 1950 is largely determined by the number who had

-4-

already adopted at that time. For example, while 60 percent of the farmers in 1950 had tried using bluestone-lime on their tobacco plants, only 14 percent had used artificial breeding, so that the possibility for wider adoption of the latter practice was considerably greater.

- 2. The spread of farm practices may be enhanced or impeded by the expense and/ or physical effort involved in actually putting the practices into operation. The fact that some practices are more cheaply and easily applied to the farming operation than others is an important factor effecting the rapidity of their adoption.
- 3. A third variable which may account for differences in the rate of adoption is whether the practice was introduced recently or earlier and, in this connection, the awareness or degree of acquaintance that farmers have in regard to a particular practice.
- 4. All the practices included in this study were generally quite highly recommended by the agricultural agencies and professional personnel. However, differences in emphasis on specific practices by agricultural agents and in the several communication media no doubt has some influence on farmers' decisions regarding adoption.
- 5. Also, certain practices tend to have more tangible and immediate results and frequently more appeal for the farmer than other practices. For instance, terracing may not produce the same rapid results that might be evidenced in the use of a different variety of tobacco seed.
- 6. Finally, "outside" forces, (e.g., economic, governmental, etc.) may accelerate or retard certain farming innovations. For example, the striking increase in the adoption of Kentucky 31 fescue between 1950 and 1955 is in part a result of its relative newness but may also be attributed to a shift toward more pasture farming as a result of governmental controls on production of tobacco and other crops. Related to this, on the reverse side, is the marked increase in soil testing, a relatively old practice. This is no doubt due in some degree to the fact that acreage limitations on cash crops (e.g., tobacco) might be partly overcome by an increase in production per acre. Thus, many farmers adopt soil testing, increased amounts of fertilizer, and other practices in order to achieve higher production.
- 7. A part of the increase in the percentage who had adopted given practices by 1955 may be due to marginal farmers (who had adopted few of the practices) dropping out of farming during the period. Even though this part of the increase does not involve new adoptions and may in a sense be "artificial," the practical result is the same, in that a higher proportion of those actually farming were using the recommended practices.

Do farmers of different educational levels adopt recommended practices to the same extent?

TABLE 2

PERCENTAGE OF FARMERS OF DIFFERENT EDUCATIONAL LEVELS WHO HAD ADOPTED CERTAIN RECOMMENDED PRACTICES BY 1950 AND 1955*

Practice	Years of Schooling Completed							
	Less than 7			7 - 8	More th	nan 8		
	Y	ear	Y	ear	Ye	ar		
	1950	1955	1950	1955	1950	1955		
	%	%	%	%	. %	%		
Artificial breeding	6	7	13	26	28	45		
Farm records	3	5	13	13	29	30		
Terracing or contouring	4	18	17	36	48	74		
Ladino clover	13	40	23	47	47	74		
Kentucky 31 fescue	15	81	23	85	42	94		
Calf vaccination	18	19	27	42	43	83		
Chick purchase	51	53	53	67	76	81		
Pullet flock	13	27	27	47	38			
Bluestone-lime	46	68	60	82	82	43		
Soil testing	11	39	19	66	46	91		
Phenothiazine drench	37	72	63	75	76	87		
Phenothiazine with salt	44	44	54			82		
Alfalfa**	11.	16	34	72	76	77		
Plow tobacco beds in fall**		12		29 33		51 34		

^{*}For each practice, the percentages are based on the number of farmers having the enterprise to which the practice applies. (See page 2)

The more schooling a farmer has had the more likely he is to adopt recommended practices. For each practice, in both 1950 and 1955, the higher the educational level, the greater was the percentage of farmers adopting the practice.

Although there is no consistency in the rate of increase for the different educational levels between 1950 and 1955, there appears to be some indication that for the better educated farmers there is a shorter time interval between the introduction of a new practice and the adoption of that practice than is true for the farmers with less schooling.

^{**} Not included in the 1950 study.

Do farm operators of different income levels adopt recommended farm practices to the same extent?

TABLE 3

PERCENTAGE OF FARMERS HAVING DIFFERENT GROSS SALES WHO HAD ADOPTED CERTAIN RECOMMENDED PRACTICES BY 1950 AND 1955*

Practice	Under \$2	, 500		or more
	1950 %	ea r 1955 , %	1950	1955
artificial breeding	10	8	27	37
Farm records	7	5	21	22
Cerracing or contouring	, 10	11	43	62
Ladino clover	14	36	45	66
Kentucky 31 fescue	14	74	43	98
Calf vaccination	19	17	42 ,	67
Chick purchase	54	51	69	77
Pullet flock	19	30	36	48
Bluestone-lime	49	77	77	90
Soil Testing	12	44	41	7(
Phenothiazine drench	34	68	77	8
Phenothiazine with salt	33	51	73	8
Alfalfa**		19		3
Plow tobacco beds in fall**		21	•	3

^{*}For each practice, the percentages are based on the number of farmers having the enterprise to which the practice applies. (See page 2)

**Not included in the 1950 study.

The larger the income (as indicated by value of crops and products sold) the more likely the farm operator is to adopt recommended practices. For all practices studied, the percentage of farmers adopting the practice increased as the value of crops and products sold increased. This trend, for most practices, is more apparent in 1955

Do more of the farmers who have personal contact with agricultural agency representatives adopt practices than farmers who do not have such personal contact?

TABLE 4

PERCENTAGE OF FARMERS WHO HAD ADOPTED CERTAIN RECOMMENDED PRACTICES BY 1950 AND BY 1955, CLASSIFIED ACCORDING TO WHETHER OR NOT THEY HAD TALKED WITH AN AGRICUL-TURAL AGENCY REPRESENTATIVE IN THE TWO YEARS PRECEDING THE INTERVIEW*

Practice	Contact with Agency Representative**					
	Had Not	Talked With	Had Talked With			
	1950	1955	1950	1955		
	%	%	%	%		
Artificial breeding	2	8	22	30		
Farm records	5	1	19	20		
Terracing or contouring	2	12	33	48		
Ladino clover	10	35	37	59		
Kentucky 31 fescue	14	69	34	94		
Calf vaccination	17	16	35	46		
Chick purchase	47	44	65	76		
Pullet flock	16	23	31	48		
Bluestone-lime	44	67	72	84		
Soil testing	23	36	33	78		
Phenothiazine drench	45	69	66	78		
Phenothiazine with salt	40	49	67	78		
Alfalfa***		14	3.			
Plow tobacco beds in fall***		26		35 39		

*For each practice, the percentages are based on the number of farmers having the enterprise to which practice applies. (See page 2)

** County Agent, Soil Conservation Service Technician, Farmer's Home Administration Representative, or Production and Marketing Administration Representative.

*** Not included in the 1950 study.

As was expected, more of the farmers who had talked with representatives of the agricultural agencies had adopted recommended practices than had those who had not experienced this contact. This was true for all practices in both surveys. The differences between those who had agency contact and those who did not were generally

Do recommended farm practices "take" at the same rate in all areas of a county?

TABLE 5

PERCENTAGE OF FARMERS LIVING IN DIFFERENT TYPES
OF NEIGHBORHOODS WHO HAD ADOPTED CERTAIN RECOMMENDED PRACTICES
BY 1950 AND 1955.*

Practice	"Low Adoption" Neighborhoods**		"Medium	ighborhood Adoption" orhoods**	"High Adoption" Neighborhoods **	
	1950	1955	1950	1955	1950 %	1955 %
	%	%	%	. 70	70	
	2	2	14	30	31	39
Artificial breeding	3	1	14	23	20	15
Farm records	1	9	17	40	53	68
Terracing or contouring	1	41	25	50	52	66
Ladino clover	9		21	86	43	97
Kentucky 31 fescue	17	74	33	44	43	70
Calf vaccination	13	14		80	80	74
Chick purchase	42	42	68	44	35	46
Pullet flock	12	29	32	71	76	90
Bluestone-lime	41	65	70		42	66
Soil testing	10	41	25	50	73	77
Phenothiazine drench	36	68	68	80	76	69
Phenothiazine with salt	34	51	63	73	10	43
Alfalfa***		23		20		40
Plow tobacco beds in fall ***		24		26		27

^{*} For each practice, the percentages are based on the number of farmers having the enterprise to which the practice applies. (See page 2)

Extension workers have long recognized that recommendations "take" more quickly and more completely in some areas than in others, as is clearly the case here. Farmers in certain neighborhoods were so consistently high in adoption of practices and farmers in other neighborhoods so consistently low that it was possible to group the neighborhoods as "low," "medium," and "high" in adoption.

In both surveys the neighborhoods that were low in adoption were those located in the hill section of the county. The farms were small, the educational level of the farm operators was low, and relatively few operators reported attending farm meetings, talking with agricultural agency representatives, or

^{**} Classified on the basis of adoption up to 1950.

^{***} Not included in the 1950 study.

-9-

reading farm bulletins (Table 12). As has been indicated in another report, however, it is not safe to assume that all differences among neighborhoods can be attributed to differences in size of operation, education, or contact with communication channels. For example, farmers of low educational level who live in neighborhoods that are high in adoption have higher adoption rates than farmers of similar educational level who live in neighborhoods that are low in adoption. Similarly, farmers living in "low adoption" neighborhoods who have talked with agricultural agency representatives have lower rates of adoption than residents of "medium adoption" and "high adoption" neighborhoods who have had such contacts.

Contact with Channels of Communication

In both 1950 and 1955 each of the farm operators interviewed was asked the questions listed below. The reponses given to these questions are shown in Table 6.

- 1. During the past 2 years, have you read any farm papers or magazines?
- 2. Do you read any newspapers? Do you get farming information, ideas, or help of any kind from the newspapers you read? (Only a "yes" answer to the second of these questions was counted as a "contact".)
- 3. During the past 2 years, have you listened to any farm programs on the radio?
- 4. During the past 2 years, have you attended any farm meetings of the county agent, Soil Conservation Service, PMA, agriculture teachers, or other agricultural agencies?
- 5. During the past 2 years, have you talked personally to any of the representatives of the agricultural agencies, such as the county agent, soil conservation man, Farmers Home (Farm Security) man, Production Credit man, etc. about farming problems, to get their advice and suggestions?
- 6. During the past 2 years, have you read any of the letters which the county agent sends out from time to time, which include advice and suggestions about various farming matters?
- 7. During the past 2 years, have you read or referred to any of the farm bulletins put out by agricultural agencies, experiment station, or federal government?
- 8. During the past 2 years, have you gotten any farming information, advice, or suggestions from salesmen, dealers, storekeepers, bankers, businessmen, or co-ops?

¹C. Paul Marsh and A. Lee Coleman, "The Relation of Neighborhood of Residence to Adoption of Recommended Farm Practices, "Rural Sociology, XIX:4 (December 1954). Reprints available from the Department of Rural Sociology, University of Kentucky, Lexington.

9. During the past 2 years, have you gotten any farming information, advice, or suggestions from neighbors, friends or relatives or by watching how they farm or new things they are trying?

In addition, the following question was also asked in 1955:

"During the past 2 years have you watched any farm programs on television?"

These questions were designed to determine whether there had been any contact at all with the various means of communication. Except for newspapers, "contact" refers to any at all for a 2-year period -- or, more accurately, any that made enough of an impression to be remembered. This should be kept in mind in interpreting Tables 6, 8, 10, and 12. Obviously the frequency and type of contact varied widely among those reporting this minimum of contact.

Table 6 is designed to show, for the total sample, the changes between 1950 and 1955 in the extent of contact with channels of communication. Tables 8, 10, and 12 are designed to show changes within different groupings of farmers. For example, in 1950, 56 percent of the farmers interviewed said they had talked personally with an agricultural agency representative, while in 1955, 61 percent of the farmers reported such a contact during the previous 2 years. Similarly, 36 percent of the farm operators with less than 7 grades of schooling said they had talked with an agricultural agency representative, and in 1955, 37 percent of the farmers of this educational level reported such contact. Thus, little change in the use of this source has occurred during the 5-year interval.

Though little information was obtained as to how frequently farm operators were in contact with the various channels of information, the following question was asked in both surveys in an attempt to determine which of the media each respondent regarded as most important to him personally:

"Of all the ways of getting information that we have talked about -- farm papers, newspapers, radio, farm meetings, talking to the agricultural agency people, talking to dealers, and talking to friends, neighbors and relatives -- from what one or two sources do you usually get the most helpful information?"

Tables 7, 9, 11, and 13 are based on answers to this question. They are designed to show changes from 1950 to 1955 in the extent to which various groupings of farmers considered different channels as "most helpful". Thus, as may be seen in Table 9, in 1950, 11 percent of the farmers with less than 7 grades of schooling considered agricultural agency representatives as among the one or two most helpful sources. In 1955, 16 percent of the farmers of a similar educational level reported that personal contacts with agency representatives were among the sources they had found most helpful.

From what sources do farm operators get information about new things in farming?

TABLE 6

PERCENTAGE OF FARMERS REPORTING USE OF VARIOUS CHANNELS FOR FARMING INFORMATION IN THE TWO YEARS BEFORE THEY WERE INTERVIEWED, 1950 AND 1955

Channel of Communication	Year Inte	rviewed
	1950 (N=393)	
	%	%
Radio	86	85
Farm magazines	77	78
Newspapers	67	69
Television		41
Agricultural agency representatives	56	61
Farm meetings	33	42
Farm bulletins	46	67
Circular letters from county agent	76	86
Friends, neighbors, or relatives	88	87
Dealers and salesmen	33 .	55

N = the number of farmers in each group.

In both 1950 and 1955, radio and "friends, neighbors, and relatives" were top sources of information, so far as the proportion of farmers who reported using the channels to some extent is concerned. Both reached about 9 out of 10 farmers. In 1955, however, a third channel -- the county agent's circular letters -- had a similarly high coverage. Between 1950 and 1955 there was a marked increase in the use of professional personnel and their publications as sources of farming information, and also substantial increase in the use of dealers and salesmen. Another source of farm information that has recently become important is television -- while the use of television for farm information was negligible in 1950, more than 40 percent of the farmers in 1955 indicated that they got information from the agricultural programs.

Do farm operators find some channels of information more helpful than others?

TABLE 7

PERCENTAGE OF FARMERS WHO REPORTED VARIOUS CHANNELS AS AMONG THOSE FROM WHICH THEY GET THE MOST HELPFUL INFORMATION, 1950 AND 1955

	Year Inter	viewed
Channel of Communication	1950 (N=393) %	1955 (N=343) %
	33	23
Radio	16	18
Farm magazines	. 4	8
Newspapers Agricultural agency representatives	20	32
Farm meetings	7	7
Farm bulletins	5	3
Circular letters from county agent	6	6
Friends, neighbors, or relatives	30	52
Dealers and salesmen	2	4
None helpful	3	3

N= the number of farmers in each group.

In both studies the most helpful channels of information reported were "friends, neighbors and relatives," the agricultural agency representatives, and the radio. The fact, however, that those particular sources were frequently the only sources of information mentioned automatically made them the most helpful. The proportion listing agricultural agency representatives substantially increased during the 5 years, as did also the proportion listing "friends, neighbors, and relatives." Fewer people listed radio.

Do farmers of different educational levels get farming information in the same ways?

TABLE 8

PERCENTAGE OF FARMERS OF DIFFERENT EDUCATIONAL LEVELS REPORTING USE OF VARIOUS CHANNELS FOR FARMING INFORMATION IN THE TWO YEARS BEFORE THEY WERE INTERVIEWED, 1950 AND 1955

Channel of Communication	ı	Years of Schooling Completed and Year Interviewed						
	Less	than 7	7-8		More than 8			
	1950	1955	1950	1955	1950	1955		
	(N=149)	(N=130)	(N=147)	(N=164)	(N=96)	(N=47)		
	%	%	%	`%	%	%		
Radio	79	87	91	85	0.0	0.2		
Farm magazines	71	68	86	86	88	82		
Newspapers	49	49	73	79	94	100		
Television	<u> </u>	27	, 3	48	86	96		
Agricultural agency represent	ta-			40		- 53		
tives	36	37	60	73	0.5	0.1		
Farm meetings	13	19	34	50	85	91		
Farm bulletins	26	48	43	75	64	79		
Circular letters from county		70	*3	15	83	94		
agent	63	73	82	0.4	0.0			
Friends, neighbors, or		13	04	94	88	98		
relatives	84	89	89	84	0.4	0.0		
Dealers and salesmen	30	48	33		94	92		
		70	33	43	38	68		

N = Number of farmers in each group.

The more education a farmer had, the more likely he had used each of the channels of communication. As the amount of education increased, the percentage of farmers who reported attending meetings, reading farm bulletins, and talking with agricultural agency representatives increased sharply. With increased education there was also a definite increase in the percentage of farmers reading farm magazines, circular letters from the county agent, and newspapers. The proportion reporting farm information from television increased similarly.

Most farmers of all educational levels got farming information from "friends, relatives, or neighbors," and listened to farm programs on the radio, so that the differences between groups were small.

For the most part the differences between educational levels widened during the five years.

Do farmers of different educational levels consider the same channels of information the most helpful?

TABLE 9

PERCENTAGE OF FARMERS OF DIFFERENT EDUCATIONAL LEVELS WHO REPORTED VARIOUS SOURCES AS AMONG THOSE FROM WHICH THEY GET THE MOST HELPFUL INFORMATION, 1950 AND 1955

Channel of Communication	Years of Schooling Completed and Year Interviewed							
	Less t	The state of the s	7-	The second secon	More t			
	1950	1955	1950	1955		1955		
	(N=149)			(N=164)	(N=96)	(N-47)		
	(N=149) %	%	%	%	%	%		
	41	28	37	24	18	9		
Radio	41	9	17	24	27	21		
Farm magazines Newspapers	8	5	2	9	5	13		
Agricultural agency repre-	11	16	23	37	35	55		
sentatives	1	3	5	8	18	15		
Farm meetings	5	2	2	5	4	8		
Farm bulletins		5	6	8	13	2		
Circular letters from county ager	21 27	60	27	49	21	38		
Friends, neighbors, or relatives	31	5	2	2	1	11		
Dealers and salesmen None helpful	3 5	2	1	4	0	2		

N = Number of farmers in each group.

The less education a farm operator has, the more likely he is to consider "friends, neighbors, or relatives" and radio programs as being the most helpful means of obtaining farm information, and the less likely he is to report personal contact with agricultural agency representatives, farm magazines, and meetings as channels of the most helpful information.

The percentage of farmers regarding farm magazines, agricultural agency representatives, and farm meetings as channels of most helpful information increased sharply as education increased while the percentage listing "friends, creased sharply as education increased with increasing education. Even neighbors, or relatives" and radio decreased with increasing education. Even among the better educated farmers, however, "friends, neighbors, or relatives" were among the channels most often listed as most helpful. Newspapers, circular letters from the county agent, farm bulletins, and dealers and salesmen cular letters from the county agent, farm bulletins, and dealers and salesmen the farm operators.

Over the 5 years the most pronounced change that took place in the relationship between education and the farm information sources considered most helpful was that the differential between educational levels widened as to the proportion listing agricultural agency representatives as a most helpful source. Among those of least education the number listing this source continued quite small, but in 1955 over half of the better-educated considered the agency representatives most

Do farm operators with different amounts of income get farming information in the same way?

TABLE 10

PERCENTAGE OF FARMERS HAVING DIFFERENT GROSS SALES WHO REPORTED USE OF VARIOUS CHANNELS FOR FARMING INFORMATION, 1950 AND 1955

Channel of Communication	Annual Value of Crops and Products Sold and Year Interviewed					
	Under \$2	2,500	\$2,500	or more		
	1950	1955	1950	1955		
	(N=241)	(N=182)	(N=129)	(N=154)		
	%	%	%	%		
Radio	83	82	90	88		
Farm magazines	67	73	93	92		
Newspapers	56	45	83	88		
Television		27		55		
Agricultural agency representatives	40	43	84	84		
Farm meetings	21	25	54	62		
Farm bulletins	31	.53	71	86		
Circular letters from county agent	66	79	92	97		
Friends, neighbors, or relatives	88	82	89	92		
Dealers or salesmen	28	45	42	67		

N= Number of farmers in each group.

The great majority of all farmers, regardless of income (as indicated by value of crops and products sold), said they got farming information from "neighbors, friends, or relatives" and listened to farm programs on the radio. For other channels, the larger the income the larger the percentage of farmers who said they used each channel. The differences between the two income groups are especially great for the following media: talking with agricultural agency representatives, reading or referring to farm bulletins, and attending farm meetings and demonstrations sponsored by agricultural agencies. In short, agricultural agencies seem to be reaching a much higher percentage of large farmers than small farmers through personal contact, bulletins, and meetings and demonstrations. This situation did not change much over the five years.

Do farm operators with different levels of income consider the same channels of information the most helpful?

TABLE 11

PERCENTAGE OF FARMERS HAVING DIFFERENT GROSS SALES WHO REPORTED VARIOUS CHANNELS AS AMONG THOSE FROM WHICH THEY GET THE MOST HELPFUL INFORMATION, 1950 AND 1955

Channel of Communication	Value of Crops and Products Sold and Year Interviewed					
	Under	\$2,500	\$2,500	or more		
	1950	1955	1950	1955		
	(N = 233)	(N=182)	(N=143)	(N=154)		
	%	%	%	%		
				16		
- 1!-	33	28	34			
Radio	13	16	21	20		
Farm magazines	4	. 7	4	10		
Newspapers	12	17	40	50		
Agricultural agency representatives	3	4	13	10		
Farm meetings	4	5	6	3		
Farm bulletins	3	5	9	8		
Circular letters from county agent		57	14	46		
Friends, neighbors, or relatives Dealers or salesmen None helpful	39	4	2	4		
	3 4	4	2	2		

N = Number of farmers in each group.

Among the lower-income farmers, "friends, neighbors, or relatives," and radio were most frequently mentioned as being the channels of "most helpful" information. Farm magazines and personal conversations with agricultural agency representatives were next most often named by those farmers as most helpful sources.

Among the larger operators, "friends, neighbors, or relatives" were less frequently regarded as a most helpful source. Other sources often listed by these larger farmers were farm magazines, farm meetings, and -- most of all -- personal contact with agricultural agency representatives.

Dealers and salesmen, bulletins, and newspapers were listed as being the most helpful by very few farmers, and circular letters were frequently listed only by the higher income farmers.

Are there differences among neighborhoods in farmers' use of the various means of communication?

TABLE 12

PERCENTAGE OF FARM OPERATORS REPORTING USE OF VARIOUS CHANNELS FOR FARMING INFORMATION IN THE TWO YEARS PRECEDING THE INTERVIEW, 1950 AND 1955, CLASSIFIED ACCORDING TO THE TYPE OF NEIGHBORHOOD IN WHICH THEY LIVED

Channel of Communication	11 T O. 7	Type of Neighborhood and Year Interviewed "Low Adoption" "Medium Adoption" "High Adoption"							
		Neighborhoods		rhoods		orhoods			
	1950	1955	1950	1955	1950	1955			
	(N=156) (N-138)	(N=139)	(N=123)	(N=98)	(N=82)			
	%	%	%	%	%	%			
Radio	82	88	88	81	89	88			
Farm magazines	70	75	88	81	93	92			
Newspapers	52	48	71	84	85	84			
Television		34		40		54			
Agricultural agency									
representatives	34	41	66	70	82	84			
Farm meetings	19	24	36	44	53	70			
Farm bulletins	28	47	50	80	69	83			
Circular letters from									
county agent	63	73	84	93	86	98			
Friends, neighbors, or									
relatives	88	82	82	86	97	95			
Dealers and salesmen	27	49	29	58	49	61			

N = Number of farmers in each group.

There is much variation among neighborhoods in the extent to which farm operators use the various channels of communication to obtain farming information.

Neighborhoods are grouped here according to the extent to which the residents have adopted recommended practices. (See p. 8) In neighborhoods where recommended practices are widely accepted, more farmers report contact with each channel than do residents of neighborhoods that are low in adoption. The differences among neighborhoods are small for radio and for "friends, neighbors or relatives" but are quite large for other channels, especially for farm meetings, agricultural agency representatives, and farm bulletins. There have been consistent increases within each type of neighborhood in the use of agricultural agency personnel and publications, and in the use of dealers and salesmen.

Are there differences among neighborhoods in the channels which farmers consider most helpful?

TABLE 13

PERCENTAGE OF FARMERS REPORTING VARIOUS CHANNELS AS AMONG THOSE FROM WHICH THEY GET THE MOST HELPFUL INFORMATION, 1950 AND 1955, CLASSIFIED ACCORDING TO THE TYPE OF NEIGHBORHOOD IN WHICH THEY LIVED

Channel of Communication	"Low Neighb	Adoption's orhood 1955 (N=138)	Neighborhoo 1 "Medium Neighbo 1950 (N=139)	rhood 1955	Light	doption orhood 1955 (N=82)
				1.6	25	18
Pedio	42	31	32	16	26	21
Radio	10	21	15		5	4 (
Farm magazines	2	4	6	15	5	
Newspapers					0.1	46
Agricultural agency	7	19	29	37	31	
representatives	3	4	6	9	14	10
Farm meetings	2.	6	9	5	7	1
Farm bulletins	2					
Circular letters from county agent	3	8	8	6	2	4
Friends, neighbors, or		F2	26	55	25	49
relatives	35	52	2	4	3	6
Dealers or salesmen	2	3		3	0	2
None helpful	4	4	2			

N = Number of farmers in each group.

Residents of "low adoption" neighborhoods regarded "friends, neighbors, or relatives" and radio as the most helpful sources. Agricultural agency representatives rank quite low in these neighborhoods as compared with "medium adoption" and "high adoption" neighborhoods. Generally the more frequently "friends, neighbors, or relatives" and radio were reported as the most helpful channels by the residents of a neighborhood, the less frequently were professional sources named.

Information from "friends, neighbors, or relatives" may vary from superstition and folk knowledge to scientific information that came originally from the agricultural agencies. In another report l it has been shown that when farmers in the "high adoption" areas go to another farmer for information they tend to choose one who is ahead of most farmers in the area in the adoption of new practices, while in the "low adoption" neighborhoods they tend to go to one who is near their own level in the adoption of practices.

¹C. Paul Marsh and A. Lee Coleman, "Farmers' Practice-Adoption Rates in Relation to Adoption Rates of Leaders, "Rural Sociology, XIX: 2 (June, 1954), pp. 180-181 (Reprints available from Rural Sociology Department,