

# can mass media change behavior?

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Mescal Johnston

Can we use mass media to create behavior change? We not only can, we must. As the budgets of both clientele and Extension workers become increasingly strained, mass media need not replace traditional Extension methods, but can extend traditional Extension teaching in positive and economical ways.

While industry spends billions of dollars each year to shape consumer decisions through television, radio, magazines, and newspapers, some of us are still singing that "mass-media-only-create-awareness" song. The communications tools for which industry pays dearly are available to Extension workers as a public service. If we handle them well, they're available to us in the form of prime time and space.

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**If we accept as Extension's ultimate responsibility the creation of change for the masses, we must reach the masses. We can reach them, teach them, and create desirable behavior changes through mass media. . . .**

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## **Mass Media Links Traditional Methods**

For 26 years, as Arkansas Extension food marketing specialist, I have provided information to food buyers in various traditional ways, supported by an ongoing mass media schedule: weekly newspaper columns, radio programs or spot announcements, and various types of commercial and public television presentations. Also for 26 years, *Penny Wise Food Buys* (the *Arkansas Gazette* column) has been sent to a mailing list of 300 to 500 people.

We can find dozens of excuses for not using mass media. One very real one is lack of instant audience feedback. Yet, feedback does come from mass media teaching: from local retailers, who report increased sales of items about which we

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present information through mass media; from food shoppers who telephone about mass media subjects; from organizations as invitations to present informative programs. That type of feedback feels good, but we sometimes need more evidence of results with widely dispersed mass media audiences.

### **Surveys for Feedback**

Twice in the 26 years that I've provided information through mass media, Extension has surveyed residents of central Arkansas to obtain program planning and evaluation information. We make other less formal surveys at intervals with selected audiences. Also, brief surveys are included in mailing list renewal notices each year to pinpoint short-term attitude changes.

In 1962, the project's 8th year, a carefully controlled study was developed by the federal Extension Service marketing and research specialists. In this study, 18 members of the Arkansas Extension Service staff interviewed 581 food buyers randomly selected from the Little Rock-North Little Rock telephone book. Half of the subjects were interviewed before a four-week teaching period and half after the teaching period. The nature of the 1962 survey assured completion of schedules for each of the 581 sample households or an alternate. The 1962 study indicated that the mass media methods then used by the specialists were effective in 2 important ways:<sup>1</sup>

- As a means of reaching large masses of people (with about 70% of the total sample being reached).
- As a means of increasing levels of knowledge in specific subject-matter areas.

In 1978, 16 years after the telephone survey, a second sample was chosen from the Little Rock-North Little Rock telephone book. This sample was contacted by a less time-consuming mail survey. The 1978 survey was also designed to determine the proportion of the sample being reached and effectiveness of mass media in increasing levels of knowledge. It went a step further than the 1962 telephone survey—to determine effectiveness of mass media in bringing about changed practices.

Responses were received from 39.4% of the central Arkansas sample and from 72.8% of the food shoppers on the *Penny Wise Food Buys* mailing list (Table 1). A second purpose, dealt with only in part in this article, was to determine the comparability of responses from two different samples: those selected from the telephone book (the central Arkansas sample) and those on the *Penny Wise Food Buys* mailing list. It was hoped that responses from the two samples would be similar enough so

mailing list respondents, in the next few years, could serve as a representative sample to determine practice change.

**Table 1. Response rate in 1978 survey samples.**

Sample	No. mailed	No. returned	% returned
Central Arkansas sample	634	250	39.4%
Mailing list	582	424	72.8

## 1978 Findings

At the time the 1978 survey was made, byline newspaper columns appeared in Wednesday food sections of both Little Rock based statewide newspapers—the *Arkansas Gazette* and the *Arkansas Democrat*. Frequent television appearances took place on news or local interest programs of the 3 Little Rock commercial television stations and in “Extension-Arkansas,” a 30-minute show presented weekly on public television. Five 20- to 40-second spot announcements were taped weekly for use in news segments of the 63-station Arkansas Radio Network.

Information related to food buying and use reached a sizable percentage of the target population in 1962 and 1978. Table 2 shows that 70% of the target group received information in 1962 and 76% received information in 1978.

**Table 2. Percentage receiving Extension information for food buying and use.**

Year	Received information		Did not receive information	
	No.	%	No.	%
1962 <sup>a</sup>	404	70%	177	30%
1978	191	76	59	24

<sup>a</sup>Mescal Johnston and Ward F. Porter, *Evaluation of the Little Rock Marketing Information Project*, Miscellaneous Publication 88 (Little Rock: Arkansas Cooperative Extension Service, 1964), p. 52.

Two multiple-choice questions were asked to determine respondents’ knowledge of selected food price trends of the two years just before the survey. Table 3 shows responses of the samples. The correct response to the questions regarding price trends was “Grocery prices are increasing less rapidly now (1978) than they did in 1977.” In a second question, respondents checked which of 3 foods (beef, coffee, or turkeys) was lower priced in 1977 than in 1976. The correct response was “beef.”

Practice changes about which respondents were asked had been discussed through mass media during the previous year.

**Table 3. Correct responses to level of knowledge questions.**

Audience	Relationship of 1977 food prices to those of 1976		A food that was lower priced in 1977 than 1976	
	No.	%	No.	%
Central Arkansas (N=250)	213	85%	54	22%
Mailing list (N=424)	337	80	126	30

Of the 250 respondents in the central Arkansas food buyers sample:

- 95% indicated at least 1 changed food buying practice.
- 85% indicated at least 1 changed food storage or preservation practice.
- 84% indicated at least 1 changed food preparation practice.

### Money Value

To what extent does information presented through mass media extend buying power of families? To try to get at the money value question without offending, a plan was devised by which money value shown by *Penny Wise Food Buys* mailing list responses might represent money value to food buyers who read the same article in the *Arkansas Gazette* (see Table 3).

It was assumed that responses of *Penny Wise Food Buys* readers would be about the same, whether they received the articles in the mail or in their newspapers. This turned out to be true. One example (Table 4) shows the similarity of responses of the two samples concerning practice changes that affected food money. Therefore, money value responses of mailing list clientele should be representative of clientele who read *Penny Wise Food Buys* in the *Arkansas Gazette*—for this survey analysis and for future evaluation purposes.

The average weekly money value estimate of *Penny Wise Food Buys* made by mailing list respondents was \$1.91 per

**Table 4. Practice changes regarding money management.**

Practice	Gazette % (N=137)	Mailing list % (N=424)
Comparison of weekly food bill with family averages	19%	20%
More efficient oven use	64	63

family, or \$809.84 for the 424 respondents. Assigning the value of this weekly article to the readership of the *Penny Wise Food Buys* column in the *Arkansas Gazette* (55% of the 130,899 daily circulation) implies an extension of their buying power by \$137,508 weekly.

No doubt, a guide for where we're going is more valuable to Extension workers than a view of where we've been. Four survey responses that were useful in programming decisions are mentioned here, some of which were similar to findings of other studies:

- As a source of information other than relatives or cookbooks, central Arkansas food buyers looked first and second to newspapers and magazines<sup>2</sup> and third to television and radio.
- Nutrition was the first single food buying concern checked by respondents, but economy of money and time was also important.
- Women took the responsibility for food in three-fourths of the survey households, but men shared this task in one-fourth.
- Husband-wife families in which both were employed were less likely to be liberal food spenders than those in which only the husband or wife was employed.<sup>3</sup>

### Summary

If we accept as Extension's ultimate responsibility the creation of change for the masses, we must reach the masses. We can reach them, teach them, and create desirable behavior changes through mass media. Furthermore, we can document results. Occasional carefully worded random sample surveys document effectiveness in a desirable way, but there are other less time-consuming methods including: records of requests for information, continued availability of mass media time or space, voluntary testimonials of viewers or readers, and information provided by retailers within the mass media area (increased or decreased sales of the mass media subject).

### Footnotes

1. Mescal Johnston and Ward F. Porter, *Evaluation of the Little Rock Marketing Information Project*, Miscellaneous Publication 88 (Little Rock: Arkansas Cooperative Extension Service, 1964), p. 35.
2. H. Steeves and L. Bostian, *Diary and Questionnaire Survey of Wisconsin and Illinois Employed Women: Procedures, Descriptive Results, and Recommendations for Extension*, Bulletin 41 (Madison: University of Wisconsin-Extension, 1980), p. 142.
3. Effie H. Hacklander, "Do Working Wives Shop Differently for Food," in *National Food Review* (Washington, D.C.: United States Department of Agriculture, April, 1978), p. 23.