Disseminating Agricultural Research on Radio

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Since the 1930s, studies have been conducted throughout the country to evaluate the effectiveness of Extension radio programs, commonly called Farm and Home radio (Crile, 1949). Most of these programs were related to home economics in areas such as nutrition, food, clothing, and gardening. According to Brown (1962), other studies have been conducted in Kentucky, Louisiana, and Pennsylvania to better identify the audiences of radio programs and to identify peak listening times. Cooperrider (1974) found that more people in Park County, Wyoming preferred listening to Extension radio programs if the programs were presented in the mornings rather than during the evenings.

To determine the kinds of published reports available relating to agricultural radio programs produced by land grant universities, a library computer search was conducted in 1984 using the Agricultural Online Access (AGRICOLA) Data Base. Several journal articles, Extension publications, and theses concerning radio programs on agriculture and home economics were listed, but none of the sources were about programs on agricultural research. A few land grant universities are known to produce occasional radio programs on agricultural research, but no published reports were identified in the search.

The objective of this study is to report on the development of "What's New in Agriculture," a weekly radio program about research produced by the Arkansas Agricultural Experiment Station, and to determine its effectiveness based on the results of a questionnaire sent to radio stations that broadcast the program.

The author is head of agricultural publications and producer of the radio series, "What's New in Agriculture," for the University of Arkansas Agricultural Experiment Station.

Methods

In the winter of 1978, members of the agricultural publications office began to develop a radio series about research at the Arkansas Agricultural Experiment Station. After informal meetings with several broadcasters, including station managers and news directors at radio stations in Arkansas, a letter was mailed to 70 stations to announce the beginning of the series.

A few weeks later, the producer of the program mailed a demonstration tape enclosed with a self-addressed postcard to each of the 70 stations. Broadcasters were asked to return the postcard if they were interested in carrying the program. Twenty-eight of the 70 stations surveyed returned the postcard, and the radio series "What's New in Agriculture" made its debut on those stations in June 1978. Four programs were mailed to each station every four weeks.

Telephone Calls Made

Three weeks after the demonstration tapes were mailed, telephone calls were made to stations that did not return their postcards and to stations not originally included in the first mailing. That effort persuaded 20 more radio stations to carry the program. By January 1979, 48 stations were broadcasting the program.

The program was promoted as a public affairs program about research in agriculture, forestry, and home economics and was designed to create an awareness of and an interest in agriculture. It was not intended to bring about changes in farm practices. According to Brown (1962), earlier studies found the use of radio and television relatively insignificant in changing management practices in agriculture.

Each radio program focused primarily on one area of research and included interviews with scientists, farmers, state officials, and researchers with the U.S. Department of Agriculture. Although an informal outline of the interview was discussed with each guest prior to taping, the questions and answers were unrehearsed. There were no prepared scripts.

Interviews were transcribed from cassette tapes. Scripts were written, recorded, edited, and timed to 4 minutes 30 seconds. Each program was packaged to be used in its entirety or edited for inclusion in a newscast.

John Holliman (1979), agricultural editor with the Associated Press, said radio broadcasters need information "served up on a silver platter" primarily because they don't have the staff or time to cover farm stories as their colleagues with newspapers do.

342 Programs Produced

From 1978 to 1984, the radio programs reported on research in nine departments in the College of Agriculture and Home Economics at the University of Arkansas-Fayetteville campus. A total of 342 programs, which included 466 interviews, were produced during the 6 1/2 year period (Table 1). Most of the interviews involved researchers in the departments of agronomy (27%), horticulture and forestry (11%), and agricultural economics and rural sociology (11%).

TABLE 1
Number of Interviews Conducted for Radio Series "What's New in Agriculture," by Department, from June 1, 1978, through December 31, 1984

Department	1978	1979	1980	1981	1982	1983	1984	Total
Agri. Economics and Rural Sociology	1	7	5	12	7	12	7	51
Agri. Engineering	1	2	3	5	3	4	2	20
Agronomy	6	17	22	20	16	23	22	126
Animal Sciences	3	8	9	8	9	5	6	48
Entomology	3	3	7	5	5	8	3	34
Home Economics	2	1	1	0	1	1	1	7
Food Science	1	2	5	5	2	2	3	20
Horticulture and Forestry	5	6	11	11	8	3	8	52
Plant Pathology	1	2	8	5	7	6	3	32
Others	10	18	16	11	4	10	7	76
Total	33	66	87	82	62	74	62	466

1978 year includes only interviews conducted from June through December. Others include interviews with managers and researchers at the 16 off-campus research locations of the Arkansas Agricultural Experiment Station and with farmers, state officials, industry representatives, and nonuniversity personnel.

Sixteen percent (76) of the interviews involved managers and researchers at the 16 off-campus research locations of the Agricultural Experiment Station, farmers and other non-university employees. Twenty-one percent (72) of the programs were about variety testing and development. Research concerning integrated pest management and biological control were reported in 11 percent (38) of the programs.

Results and Discussion

To evaluate the program's effectiveness, questionnaires were mailed to each of the 48 participating stations in December 1984. Questions were designed primarily to ascertain the number of stations broadcasting the programs and still interested in receiving the programs, to elicit suggestions for improvement, and to identify other farm programs carried by the stations. The questionnaire also attempted to learn the exact time and day the programs were broadcast. The effectiveness of "What's New in Agriculture" was measured by the number of stations that broadcast either the complete show or portions of it.

Seventy-seven percent (37) of the 48 stations surveyed returned the questionnaires. Subsequent telephone calls were made to those stations that did not respond or that indicated on their questionnaire that they did not want to receive the tapes.

Sixty-five percent (24) of the stations that returned the questionnaire indicated that they broadcast all or part of each program. Nineteen stations gave specific times and days of the broadcast while other stations just indicated "various times and days" (Table 2).

Most of the programs were aired in the mornings although five stations carried the program during the noon hour and one station carried the program in late afternoon. Eighteen stations indicated that they occasionally receive inquiries from listeners about the program, but no comments were discussed concerning those inquiries.

Program Length

Station representatives also were asked to comment on the length and best features of the program and to suggest ways to improve it. Thirty-two percent (12) of the respondents indicated that the 4 minute 30 second format was satisfactory.

TABLE 2
Broadcast Schedule for "What's New in Agriculture" as Reported in Questionnaire

Location	Day and Time						
	Mon.	Tue.	Wed.	Thurs.	Fri.	Sat.	Sun.
Camden*					6:35am		
Clarksville	----------	----------	----------	7:30am various days	----------	----------	----------
Corning	11:45am				11:45am	11:45am	
Dumas	----------	----------	----------	6:30am various days	----------	----------	----------
Hardy	----------	----------	----------	6:45am various days	---		
Harrison	----------	----------	5:15am and 10:00am various days		----------	----------	----------
Helena	----------	----------	----------	mornings	----------	----------	----------
Malvern	12:45pm						
Marked Tree					12:55pm		
Marshall	----------	----------	----------	various times	----------	----------	----------
McGehee			12:55pm				
Memphis, TN	----------	----------	----------	various times	----------	----------	----------
Newport	----------	----------	----------	7:00am various days	---		
Russellville	5:25am						
	12:30pm						
Texarkana						5:50am	
Trumann	----------	----------	----------	6:50am various days	---		
Warren						6:20pm	
West Memphis	12:00pm						
Yellville	----------	----------	----------	12:20pm various days	----------	----------	----------

*All cities in Arkansas unless noted otherwise.

Thirty percent (11) of the stations wanted it shorter, and 5 percent (2) wanted it longer. Of the stations that wanted it shorter, 10 indicated times less than three minutes.

According to 35 percent (13) of the stations, some of the best aspects of the program were the technical quality, content, variety of subject matter, and on-location interviews with scientists. Eleven percent (4) of the stations indicated a strong interest in receiving more stories applicable to their listening area. A program on rice farming, said one news director, did not have much value to his area where poultry and cattle were the major agricultural enterprises.

However, 14 percent (5) of the stations indicated that they liked the general nature of the program, covering all areas of research. Telling the farmer what is new in research, according to one general manager, is important to all farmers.

Eighty-six percent (32) of the stations indicated they broadcast other farm programs besides "What's New in Agriculture." Farm shows produced by local Cooperative Extension agents were carried by 34 percent (11) of the stations responding. Other programs carried by the stations were produced by the Arkansas Agricultural Radio Network, the Progressive Farmer Radio Network and by the station's own farm/news department (Table 3).

TABLE 3
Number of Radio Stations That Carry Other Farm Shows as Reported in Questionnaire

Name of Farm Show	No. of Stations
Arkansas Agricultural Radio Network	8
Associated Press – Agricultural weather/news	3
Beef Cattle Report	1
Brownfield Farm Network	1
Cotton Inc.	1
Country Extension Shows	11
Farm Bureau Market Report	1
Farmers Soybean Corp.	1
Federal State Reporting Services (Stock Markets)	1
Harding University Farm Show	1
Potash and Phosphate Inst.	1
Progressive Farmer Network	3
Soil Conservation	2
USDA Highlights	2
Women Involved in Farm Economics (WIFE)	1

To determine the cost effectiveness of producing and distributing the program, station representatives were asked what it would cost for the University of Arkansas to buy 4 minutes 30 seconds of air time on their station. Seventy-eight percent (29) of the stations responding (the largest response to any question on the survey) provided estimates ranging from $5 to $400. The majority of the estimates were from $10 to $19 (Table 4).

TABLE 4
Estimated Cost to Buy 4 Minutes 30 Seconds of Air Time on Radio Stations Responding to Questionnaire

No. of Radio Stations	Cost ($)
4	$ 1.00 to 9.00
11	10.00 to 19.00
7	20.00 to 29.00
2	30.00 to 39.00
1	50.00 to 59.00
1	70.00 to 79.00
1	150.00 to 159.00
1	350.00 to 359.00
1	360.00 to 400.00

It costs the agricultural publications office about $70 to produce and distribute one 4 minute 30 second program to 38 radio stations. This includes the tapes, processing, postage and mailing, and duplication. The price does not include equipment costs or production time. The cost to purchase that same amount of time on the 29 stations listed in Table 4 would be more than $1,400.

Conclusions

The results of this study first indicated that 24 of the 48 radio stations surveyed were interested in broadcasting the radio program, "What's New in Agriculture." However, 14 more stations, which brought the total to 38, were added to the list to receive the tapes after telephone calls were made to those stations that did not express an interest in the program on the questionnaire or did not return the questionnaire.

Representatives at those 14 stations said they didn't receive the questionnaire or forgot to return it or said it was sent to the wrong person. Several people to whom the questionnaire was addressed were no longer employed at the stations. The follow-up telephone calls proved to be a valuable part of the study.

The cost to produce and distribute the program is economical compared with the cost of buying time on radio and seems to be an efficient way to reach a large segment of the general public. The program is also an effective way to

keep radio farm/news directors aware of agricultural research and the Arkansas Agricultural Experiment Station.

The agricultural publications office plans to continue with the 4 minute 30 second format and to develop a shorter version of the program covering research relating to various regions of the state. This program would be produced for specific radio stations and would complement the existing program.

Literature Cited

1. Brown, Emory J. Research findings—Extension radio and television. Pennsylvania State University. Extension Studies No. 18., 1962.

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4. Holliman, John. Electronic media and science reporting —radio. Proceedings of the National Agricultural Science Information Conference. Iowa State University. p. 113–117, 1979.