The Use of Radio in Arkansas for Agricultural Information

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Abstract

Radio stations in Arkansas gave good marks to an agricultural program produced by the University of Arkansas. The study was conducted to evaluate the interest and use of a weekly radio program on agricultural research, by participating radio stations. Twenty-four (60%) of the stations returned questionnaires, and 17 (74%) of the respondents indicated that they would like to receive more than one program each week. Concerning program length, more than 50 % of the stations responding preferred programs between 4 and 5 minutes, and only one station wanted a program less than a minute.

Introduction

Radio, newsletters, publications and on-farm demonstrations have been some of the traditional communication tools used to disseminate news about new farming practices and other extension and research activities. New technologies, such as compact disc, microcomputers, satellite systems, compressed two-way video and audio and the World Wide Web are now some of the more popular delivery systems for the transfer of agricultural technology and other extension information. Although the audio-visual assets of television and other data-text-graphic attributes of the new technology offer

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exciting opportunities, radio broadcasting is still a viable delivery medium of agricultural information.

The Agricultural Extension Service has a long history in the use of radio to promote new farm technology and other programs and continues to do so in the 1990s. As early as 1925, Tennessee Extension agents presented talks on radio, and five years later the United States Department of Agriculture (USDA) created a position for an extension radio specialist to help build a bond between state agricultural colleges and local radio stations (Baker, 1981). County extension agents and specialists then took a lead role in delivering information on agriculture using the medium of radio.

Throughout the years, state extension services have produced radio scripts and taped programs covering a variety of subjects. Prior to 1950, the name *Farm and Home* was the common title of most programs (Crile, 1949). Most programs included information on nutrition, gardening, food, youth and 4-H (Brown, 1962; Cooperrider, 1974; Baker, 1981). In reviewing the origins of extension radio in Tennessee, Browning (1985) identified topics on farm management, sanitation and forestry broadcast by local stations.

Objective

The primary purpose of this paper is to discuss the results of a survey to evaluate the interest and use of a weekly radio program on agricultural research by participating radio stations. The paper also will review a variety of recent studies on extension radio programs. It is not meant to be an exhaustive study of all extension radio programs, but rather to show various types of program content and target audiences.

Extension Radio Programs

Today radio is used to deliver extension programs to specific audiences in the United States (U. S.) and in other countries. However, knowing the characteristics, age and needs of the audience is critical to the selection of an effective delivery system. Personal visits, mass media and direct mail can be effective depending on the target audience. For example, older adults and minority groups may prefer different delivery systems than other types of groups.

In a survey of low-income senior citizens aged 65 years and older, researchers found that information on money management issues is best delivered through one-on-one contact and not necessarily television, radio or other systems of delivery (Koonce, 1990). For low-income Hispanic mothers, radio was found to be a successful medium for delivering information on parenting and nutrition. Post-interviews found that a Spanish language radio series on parenting improved parenting knowledge of those who listen to the program (Cudaback, Marshall & Know, 1994). Other studies with low-income Hispanics found that extension programs on nutrition promoted several behavioral changes among participants (Romero-Gwynn & Marshall, 1990).

Personal contact by extension agents with black farmers in Louisiana supplemented by radio and television reports was found to increase the implementation of new farm technology (Hunte, 1989). In Wisconsin, consumers identified radio along with television and newspapers as the preferred media for learning about food safety (Gilmore & Meehan-Strub, 1992); and Iams and Wilhem (1984) also found that people preferred mass media, such as television, radio and newspapers, for information on energy conservation. For information on environmental issues, however, respondents in a study in Arizona preferred videotapes, home study courses and possibly live programs via satellite (Iams & Marion, 1991).

Full-time and part-time farmers also were found to have different opinions about information delivery systems. In a survey of over 1,200 beef farmers in Virginia, part-time farmers preferred personal contact, on-farm visits and demonstrations, while full-time farmers preferred publications and radio programs (Obahayujie, 1988). However it should be noted that the rapid growth and use of personal computers and the World Wide Web in the past few years may have an impact on their preferences today.

In developing countries, studies suggest that radio programs encourage participation of rural communities in health education, nutrition and sanitation and contribute to the adoption of farm practices by small scale farmers in Nigeria (Azukaego, 1988; Monu, 1980). In the Ukraine, radio has been used to disseminate information on improved farming methods and practices (Grout, 1994).

For countries in the Asia-Pacific Rim, radio courses have been produced concerning women, health and family issues (Asia-Pacific Institute for Broadcasting Development, 1982). Radio broadcasting also has been used to improve agricultural development in rural areas, eliminate the barrier of isolation of people among the Pacific islands and promote the marketing and export of agricultural commodities (Hadlow, Peat, Lewis, Adam, Wickham, Derrison & Angiki, 1984).

To help determine media preferences among U.S. farmers, Farm Media Research conducted a telephone survey for the National Association of Farm Broadcasters. Results from 2006 surveys of farmers with gross sales over $40,000 found that radio was the preferred media choice for farm news (The National Farm Media Report, 1994).

The survey found that radio was selected as the most-used-media source of information for grain and livestock markets, farm news and special farm reports. Radio also was selected as the second media-of-choice for information about farm weather. Television was listed as the most-used-media for weather information.

When asked which type of information is important to receive each day, 58% of the respondents selected weather, followed by farm markets. Sixty-four percent of the respondents said they listened to radio for specific farm news and information. Thirty-four percent reported that radio farm news is occasionally helpful, and 31% selected farm news as frequently helpful. Twenty-four percent said radio news was not or seldom helpful.

In a similar telephone survey two years later, 46% of the respondents selected radio as their preferred-media source for farm information. Television was preferred by 33% of the respondents. News about farm markets followed by weather were the primary reasons farmers listened to farm radio, according to the survey results (Ag Media Report, 1996).

Extension radio programs promote and market a variety of information from agriculture and energy conservation to nutrition and parenting. The programs have been designed primarily to provide news that can be used. Few programs, however, have been found to focus on news about agri-science or agricultural research.

Radio Program on Agricultural Research

From June 1978 thru February 1992, a weekly radio program entitled *What's New in Agriculture* was produced by the University of Arkansas Agricultural Experiment Station's office of agricultural publications. During that period, 712 programs were produced and mailed at various times to 28 to 44 radio stations in Arkansas, and four stations in Kansas, Missouri, Tennessee and Texas.

The program was designed to report on the latest developments in research and to create an awareness of the Arkansas Experiment Station (Barclay, 1986). The program was not intended to change specific farm management practices, but to serve as a resource for science news and information about such subjects as crop breeding, biological control, genetic engineering, precision farming and marketing trends.

Each program included interviews primarily with researchers but occasionally included farmers and government officials. All interviews were unrehearsed and conducted on location in faculty offices, research laboratories, test plots or in the office of agricultural publications. Interviews were then transcribed from cassette or reel-to-reel tapes. Scripts were written, packaged in a 4:30-minute reel-to-reel format and distributed to radio stations every four weeks.

The program was discontinued in February 1992 primarily because of additional responsibilities of the producer and of budget constraints. However, earlier discussions with various radio news directors also indicated that a format change might be needed. To add a closure to the program and to evaluate its use, a questionnaire was distributed to the participating radio stations.

Methods

In January 1992, a letter and survey were mailed to each of the 40 radio stations that was receiving the weekly program. Included with the questionnaire was a self-addressed return envelope. Two weeks later, telephone calls were made to stations that did not return questionnaires, which generated eight more completed surveys. One station was found to be closed and off the air.

In the accompanying letter, the producer indicated that the program would be discontinued in its present 4:30-minute

format and that other formats would be considered based on the results of the survey. The letter also thanked the stations for their continued use of the weekly program and discussed the number of programs produced and the stations that had broadcast the program.

The 11-question survey included 10 forced-choice questions and one open-ended question that asked for ways the Arkansas Agricultural Experiment Station could assist radio stations with news and information on agriculture. The forced-choice questions asked the stations their interest in agricultural programs, the actual use and quality of the current program, the desired length of each program, tape format, number of programs needed, interest in finding a local sponsor and the need for weekly contact with the producer by telephone.

Results and Discussion

Twenty-four (60%) of the 40 stations surveyed returned questionnaires. Twelve (50%) of the stations were located in rural areas and towns with a population of less than 10,000. Five stations (20%) were located in cities with a population between 10,000 and 19,999, and five other stations were located in cities with populations between 20,000 and 40,000. Only two radio stations were located in cities of more than 70,000.

Seventeen of the 24 participants who completed the questionnaire identified themselves as general managers or news directors. Other participants listed themselves as owners, operations managers, program directors and sales director. Twenty-two (90%) of the respondents indicated that they used the program *What's New in Agriculture* each week. Of those stations that broadcast the program, 19 carried the entire 4:30 minutes and three stations carried just portions of each program in their regular news segment. Concerning production and content quality, 16 respondents rated the program good, four rated it excellent and one said it was average.

All of the stations (24) responding to the survey indicated that they would continue to use a program produced by the Arkansas Agricultural Experiment Station. Thirteen (54%) of the stations preferred a program length between 4 and 5 minutes. Five stations (20%) preferred programs of less than 3 minutes, four stations preferred less than 2 minutes, and only one station wanted a program less than a minute (Figure 1).

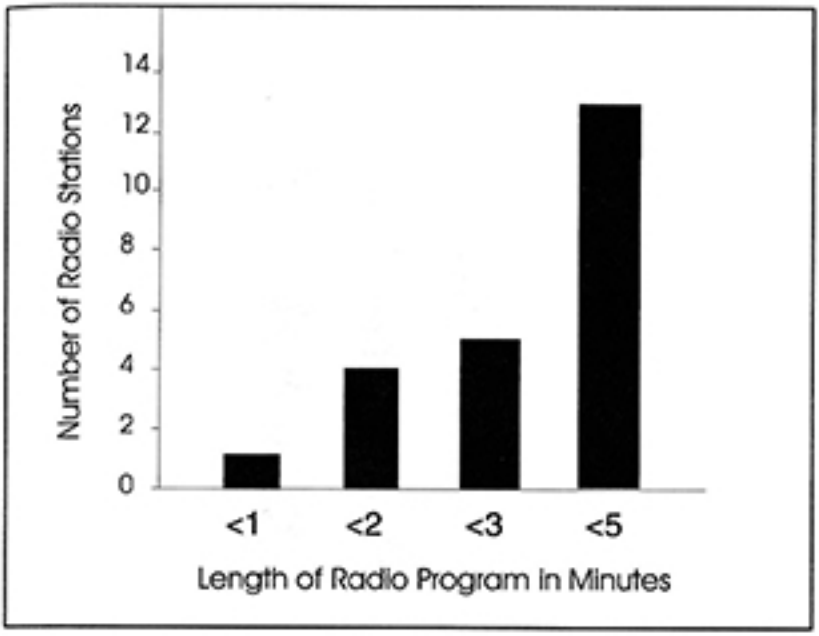

Figure 1. The length of agricultural programs preferred by selected radio stations in Arkansas responding to a 1992 survey.

When asked how many programs they would like to receive each week, 10 stations (43%) indicated that they would like to receive five programs. Seven stations (30%) preferred receiving two programs each week and six (26%) preferred just one program a week (Figure 2). More than 80% of the stations did not want to conduct their own interviews with a researcher or have a representative from the Experiment Station contact their station on a regular basis.

Twelve stations (50%) requested to receive the program on audio cassette and just two wanted to receive the reel-to-reel format. Nine stations (38%) said either format would be acceptable and one requested programs on compact disc (Figure 3).

The stations were almost evenly divided about allowing time for a commercial break during the program. When asked if they would like to receive a program with :30 seconds available for an advertisement, 13 said, "no;" while 10 stations said, "yes."

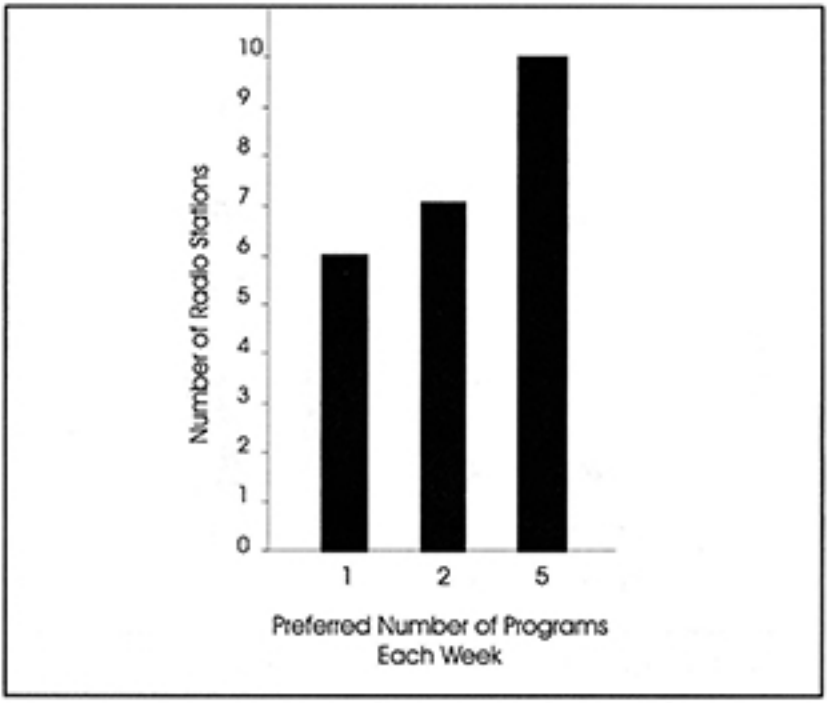

Figure 2. The number of programs about agricultural research that selected radio stations in Arkansas preferred to receive each week.

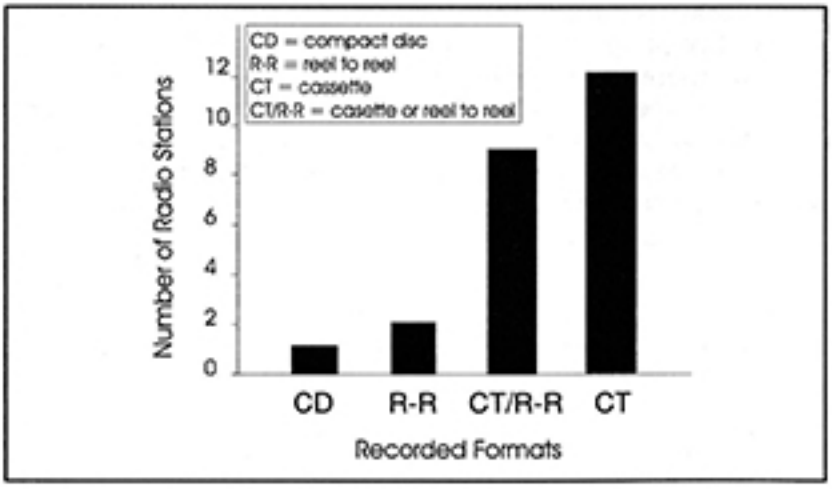

Figure 3. The type of recorded format preferred by selected radio stations in Arkansas.

When asked to list ways the Experiment Station could assist the stations with their news and information on agriculture, respondents suggested more features, ready-to-read copy, tips on gardening, fruit tree care, home food preservation and information on backyard poultry. One respondent said the program on research enhances program's agricultural programs with their county Cooperative Extension Service.

Conclusion

All of the 24 radio stations responding to the survey carried *What's New in Agriculture* in its entirety or portions of the program each week. Over 17 (74%) of the respondents also indicated that they would like to receive more than one program each week. They rated the program good to excellent and said they would use other programs produced by the Agricultural Experiment Station.

One surprising finding of the study was the respondent's preference for taped programs of 4 to 5 minutes in length. With the competition for air time, many station managers may consider longer public affairs programs such as this one expendable. Informal discussions with various news directors and representatives from radio stations in Arkansas also seem to indicate that the present 4:30-minute program was too long, and that shorter formats of more than one program per week would be more useful. However, the results did not confirm this opinion. The stations did express a need for more than one program each week, but they were generally pleased with the current length.

One reason for this finding could be attributed to both the quality and news content of *What's New in Agriculture.* Radio stations may find the time to broadcast good programs, even if the length is longer than they would prefer.

If a future radio series on agricultural research is planned in Arkansas, producers may want to first survey the radio stations responding to this survey. Since the study was conducted in 1992, possible management changes at the stations could lead to changes in program formats, such as all news, talk or music. A change in programming may create more or less opportunities for agricultural programs.

The results also may help to serve as a benchmark for other land-grant universities interested in disseminating information

on agricultural research. Nevertheless, it appears that radio is a viable outlet for agricultural news and information in Arkansas, and that the stations responding to this study would broadcast taped reports on agricultural research. If a particular audience is interested in knowing about agricultural research or if a university or research institution is interested in creating an awareness of its research programs, then radio and other mass media outlets should be considered as possible delivery systems.

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