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U. S. D. A.

State Ext. Service

College Station

The Hook Up

APR 29 1939

U. S. Department of Agriculture

Home Agent

County Agent

Extension Service

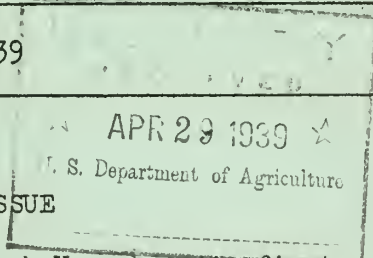
A ROUND ROBIN CIRCUIT LINKING FARM & HOME BROADCASTERS

Issued by the Radio Service of the Office of Information in cooperation with the Visual Instruction and Editorial Section of the Extension Service, United States Department of Agriculture.

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IN THIS ISSUE

After a long absence, the Hook Up makes its first appearance of 1939. The reason for the lapse of time since the last issue is the same one most people give for not writing more often to the folks back home.

With television rather definitely among those present, this issue presents an appraisal of it as a means of presenting extension service information. Facsimile, another newcomer to the field of visual radio communication, gets a word. Two county agents have kind things to say about radio and what it has meant to them.

The Bureau of Agricultural Economics and WOI report on the importance of market news to Iowa farm families.

The long awaited Radio Handbook for Extension Workers is announced. (No false alarm this time.) You'll want to meet Horatio MacSpinach.

Results of a nation-wide survey of listening habits of farm families are reported, probably the most comprehensive study of its kind made so far.

Other stories on varied topics dealing with radio in relation to agriculture and homemaking are included in this issue of the Hook Up. Hope you'll find them of interest and benefit.

John C. Baker
Radio Extension Specialist.

WHEN TELEVISION COMES

You won't need to be beautiful to qualify for television programs, when television comes. That's one consoling bit of knowledge that has been derived from some recent contacts with television and the men who are making it.

Straight talks will have little place in the general run of television programs. Such talks as are used usually will spend not more than a few seconds showing the speaker to the audience. A glimpse of him as he starts to talk, and then the television camera will be turned to things that he's talking about, pictures, maps, charts, movies, and other types of material designed to inform through the eye rather than the ear.

A few weeks ago, many persons in Washington, including a number of representatives of the Department of Agriculture, were "televised" by the RCA television engineers when they brought their equipment to Washington for the first television "road show." In the television exhibit visitors saw the subjects being televised in the flesh and then a few minutes later at a remote point they saw the television image of other persons on the screen.

Soon after this, C. W. Farrier, television coordinator of the National Broadcasting Company (RCA subsidiary), met with a group of information workers in the Department of Agriculture to discuss television development and its possibilities for the near future. This was followed by a visit of two of the Department information men (one radio and one movie worker) to the NBC television laboratories and studio in New York. From these sources, here are some gleanings of information and impressions:

Television of excellent quality is here today. RCA has been experimenting and making television broadcasts at intervals during the past three years, and expects to launch a new series of programs on April 30, marking the opening of the New York World's Fair. General Electric is in process of building a transmitter; Columbia Broadcasting System also is going in for television and expects to be on the air within a few months. Crosley, Philco, Farnsworth, Zenith, and others are preparing to go into television broadcasting. Purdue University, Kansas State College, and the University of Iowa all have television transmitters. All told, there are 17 television transmitters now operating experimentally under licenses of the Federal Communications Commission, with six more transmitters in process of construction.

Some of the older transmitters are not in accord with the standards set by manufacturers of radio and television equipment. These standards provide for pictures of 441 lines, 30 pictures per second. (To make these pictures, the cathode ray must travel at the rate of about four thousand miles an hour.) Receiving sets attuned to some other standard will not receive the picture signals sent out by one of the new-standard transmitters.

Almost all the television receivers in use today are in experimental laboratories or in homes of those working closely with television. But several manufacturers are RECEIVERS planning to have television receivers on the mar- \$150-\$600 ket in the near future. They probably will range in price from \$150 to \$600. The cheaper models will be only picture receivers, designed to be attached to an ordinary radio set capable of picking up short wave radio programs. In operation, the radio set will pick up the sound, and the television attachment will receive the picture at the same time.

The cheaper television receivers will be equipped with tubes that give about a 3 x 4 inch image. On the more expensive sets, which also embody sound receiving equipment, the tubes will be large enough to produce a picture 9 x 11 inches in size. Projection equipment, which puts the pictures onto a movie screen, can be made, and has been used in movie theatres in England, but it is so expensive that manufacturers here have not shown any interest in putting it on the market as yet.

At present, television looks like something that only families in or near cities will be able to enjoy. Television transmitters can't shoot a reliable signal beyond CITY the horizon. There are "freaks" of transmission AUDIENCE which cause signals to travel for hundreds of miles. Television men in America at certain times of the year have seen pictures sent out from England. But for practical purposes, television pictures can't be counted upon to get beyond the horizon. The higher the transmitter, the farther the picture can travel. The RCA-NBC transmitter on the Empire State building in New York can shoot a signal about 50 miles. Lower transmitters cover shorter distances.

In spite of the relatively short distance that a transmitter can send a reliable signal, stations in the same channel must be located about 300 miles apart to avoid interference.

Television has been assigned a portion of the high frequencies (short waves). A single television band is six times as wide as the band which accommodates all the commercial radio broadcasting stations in this country. There is room for six different television bands, so not more than six stations could operate at the same place at the same time.

Television networks are a definite possibility in years to come. Ordinary telephone cable won't carry the television signal. A special type of cable, called co-axial, was installed a few years ago from New York to Philadelphia at great expense. It is capable of carrying television signals, but it may be worth more for carrying a large number of telephone conversations than for carrying a single television broadcast.

Engineers now are looking to television re-broadcasts as the most feasible means of establishing networks. Small receivers and transmitters which would be automatic in their operation might be located every 10 or 15 miles to boost the television signal across country. They would operate on ultra-high frequencies and would be extremely directional, so their signals would shoot from point to point, instead of spreading in all directions. Ordinary television receivers probably would not pick up signals from these automatic relay stations.

Mr. and Mrs. John Public will get their first good look at television in public at the World's Fair in San Francisco and New York. At the San Francisco fair, most of TELEVISION AT FAIRS the television programs will be composed of television pictures of the fair visitors themselves. In New York, the main source of program material transmitted to receivers on the fair grounds will be movies. For one hour each on two nights a week, live talent television programs will be presented. Production staffs figure it will take all their available time between broadcasts getting ready for the next one.

Each hour of live broadcasting takes about twenty-one hours of rehearsal. Not only must the cast memorize its lines and action, but the camera crews and operators also need to be rehearsed in every move. A crew of some 30 technicians is needed for the ordinary television production, and each man must know exactly what he is to do at every point in the show.

The vast amount of preparation required for the live broadcasts is the major reason why the "demonstration" television broadcasts will be composed principally of movies.

The Department of Agriculture plans to prepare one or more movies especially for television purposes, to be included among the movies presented for television reception at the New York World's Fair. Some of the regular movies of the Department also have been made available to the television broadcasters.

What is television going to mean to the worker in agriculture and home economics---extension, teaching, or research? First, it means a new opportunity.

TELEVISION The combining of sight with sound makes it
AND possible to take demonstrations and other visual
AGRICULTURE materials and activities right into the home.

The location of those homes, however, presents a limiting factor. Most of the television listener-watchers will be in cities. So straight agriculture and farm homemaking, intended for farmers and rural homemakers, will have little place in television programs. General homemaking demonstrations, cooking schools, and the like undoubtedly will be popular.

In the field of agriculture, probably the first emphasis will need to be placed on reporting to city people on the governmental services for them and for farm people, carried on by extension workers. Programs aimed at the consumer probably will prove popular. In England, where television broadcasts have been presented for several years, one of the most popular of all programs is said to be a garden program, presented from a real vegetable and flower garden, located just outside the building which houses the television transmitter. The television audience followed the growth of the petunias and radishes all through the season, and heard the horticulturist who presented the program tell about the gardening operations from week to week.

Scientific research, even when it involves microscopes, has possibilities. RCA-NBC has presented several programs in which minute organisms have been the leading characters, displayed by means of a projection microscope.

The technique of successful television production seems to be much more like that of movies than like radio. The scene must change every few seconds. Even movies seem rather slow when viewed by television. Not that there must be physical action involved all the time; but the scene must be shifted frequently. Even an inanimate object can be given a certain amount of action if it is televised first with a long shot, then a close up, then a view from the side, then from the top, then another long shot from a different angle--and so on. This sort of treatment seems to be not only desirable but necessary in putting on good television shows.

The production of movies for television purposes must have the same relatively fast pace. Long sequences are too slow. Each bit of action must be short before the camera angle is changed. However, by establishing a fairly rapid tempo, it is possible to interweave movies, lantern slides, charts, graphs, maps, and other visual material to illustrate the educational message.

There seems to be good reason to believe that television will not displace sound radio or the movies, although it combines features of both. It probably will not displace sound radio because television requires a great deal more concentrated attention on the part of the observer than radio. The room, at present, must be almost dark. No reading, talking, card playing or other activities while a television program is going on if you want to get the benefit of the program.

So far as competition between television and movies is concerned, television is a good bit like watching a motion picture in a theatre where you are the only person present. The appeal of having a crowd around to share the laughs and the thrills is gone. The comedy doesn't seem quite so funny and the tragedy doesn't seem quite so gripping.

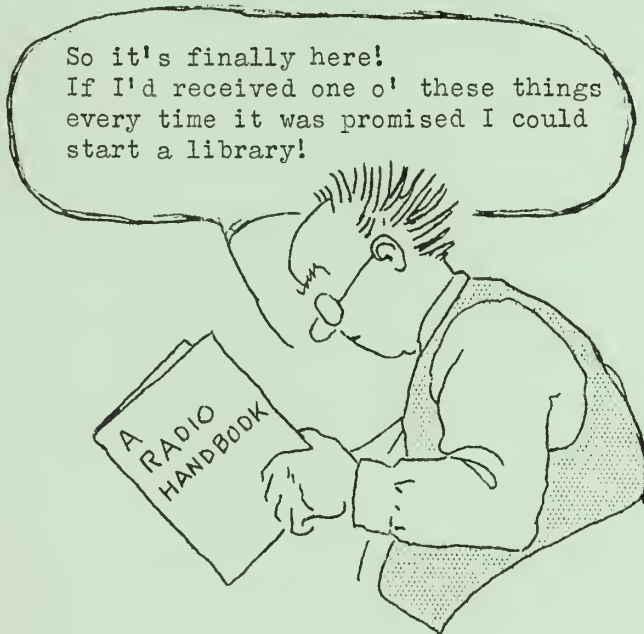
All things considered, television promises to be an additional medium of entertainment and education, rather than a new medium replacing an older one.

RADIO HANDBOOK AVAILABLE

The Extension Service of the U. S. Department of Agriculture announces a Radio Handbook for Extension Workers. The handbook is a mimeographed publication, written by John C. Baker, radio extension specialist.

Written in conversational style, the handbook deals with the place of radio in extension work, relationships with radio stations, writing for radio, and broadcasting. A special section is devoted to county extension programs.

The handbook will be distributed through State extension editors and radio specialists, and will be available to all extension workers.



This is Horatio MacSpinach, introduced anonymously in the Radio Handbook, and christened in this issue of the Hook Up. You'll be meeting him again from time to time.

The annual telephone bill for one of the network broadcasting companies is reported to be in the vicinity of \$3,000,000.

RADIO RESEARCH COMMITTEE STUDIES RURAL AUDIENCE

How many farm families have radios? When do they listen? When are men available to the radio? When do women listen? Those are a few of the many questions answered in a study recently made public by the Joint Committee on Radio Research. The Committee's work was financed jointly by the Columbia Broadcasting System and the National Broadcasting Company.

More than 20,000 personal interviews were made in 955 townships in 96 counties in every State. The areas were chosen after much consideration of their typical characteristics, not only of agriculture but of their rural families. Investigators were instructed to make one-third of their visits in each of three economic groups, high, medium, and low.

A summary of the general findings of the Committee's investigators reveals that in the fall of 1937 (when the study was made) 69 per cent of all rural families owned radios. This compared with 91 per cent of city families owning radios. More than 89 per cent of the radio families listen some time every day through the week, 87.8 per cent on Saturdays and 86.2 per cent on Sundays.

The distribution of radio sets among rural families by regions is indicated as follows:

New England-----	92%
Middle Atlantic-----	88%
East North Central-----	83%
West North Central-----	69%
South Atlantic-----	54%
East South Central-----	51%
West South Central-----	53%
Mountain-----	72%
Pacific-----	96%

The availability of adults in the family reaches an early peak at breakfast time, between 7 and 8 o'clock in most regions. Pacific Coast families seem to have a later breakfast than those elsewhere.

In two-thirds or more of the rural radio homes, at least one adult woman is present at almost all times of the day, from 6 a.m. until 10 p.m. The high point of availability is between 6 and 7 o'clock in the evening in the Eastern and Central Time zones; in the Mountain Time zones, the peak is reached between 7 and 8 o'clock; and in the Pacific Time zone the largest number of women listeners is available between 8 and 9 o'clock in the evening.

While most of the men are out of doors during the morning and afternoon, there is practically no time when less than one-tenth are to be found at home. During the noon hour, about two-thirds of the men are at home in most States. By 6 o'clock, almost 80 per cent of the men are at home, and the percentage remains fairly constant until bedtime.

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The Joint Committee's report is published in two booklets, totaling 120 pages, one giving a descriptive summary, the other, complete statistical data. The address of the Joint Committee on Radio Research is 420 Lexington Avenue, New York City.

BOUQUET TO WKAR

R. J. Coleman, program director, WKAR, Michigan State College, probably smiled and blushed when he received this letter:

"I want to thank you very much for making the announcement regarding our meetings on the parasites of horses.

"I didn't realize the announcement had been made until farmers began to report they had heard the announcement. After the first meeting I made inquiry as to who had heard it over the radio and found that a large number had heard the announcement.

"The meetings were very successful in that we had 68 out at one farm meeting. I will be more than pleased to send you announcements to use on your program from time to time.

"Thanking you very much, I am

Very truly yours,

Harold J. Foster,
County Agricultural Agent,
Hastings, Michigan."

LET RADIO DO IT
By Dan P. Thurber, County Agent,
Cascade Co., Great Falls, Mont.

May, 1937. The first outbreak of Mormon crickets in Cascade county was reported from the Eden community. The State entomologist sent word to the county agent's office that he would be there on Monday to set up an organization to fight the coming invasion of crickets. The 26 families in Eden have no telephones; mail is delivered only on Wednesdays and Fridays. But it was imperative that every farmer in Eden meet with the entomologist to help make plans for the cricket campaign.

Friday was one of the days for a regular county extension broadcast. So the announcement of the meeting was made on the county agent's regular program. "I know that Ben Staigmiller will see that the hall is ready, and that each of you fellows listening will see to it that your neighbor who hasn't a radio gets word about the meeting. So, we'll all be getting together Monday morning at 10 o'clock at the Eden hall to lay plans for the battle of the crickets."

When Monday morning came, the town hall in that isolated Montana community held representatives of 25 of the 26 families in Eden. The only farmer not there was still in town where he had gone to his wife's funeral.

That's one reason why I've come to the conclusion that when it comes to reaching a lot of people and doing it in a hurry, the radio is in a class by itself.

Another illustration. Sleeping sickness of horses is spreading like wildfire through north-central Montana. A new vaccine is discovered and is available for distribution. The county agent announces it on the radio. Phone calls bring orders for serum and veterinary service from the State livestock sanitary board. As a result, thousands of horses are saved from almost certain death.

So---if the county agent wants to get information out to the farmers, get it to them first hand, and now---Let Radio Do It!

NEW JERSEY ENTERS FACSIMILE

While television has been the topic of conversation for several years, facsimile, with only a limited amount of publicity has come into being and is already in operation. Several radio stations are transmitting news material over their frequencies at night, after the regular broadcast period was over. Most receivers, until recently, have been in the hands of those closely associated with the radio stations, but one manufacturer recently announced a line of facsimile receivers to sell for as low as \$79.50. Over 1000 sets are reported to be in service in the New York area.

New Jersey appears to be the first State whose extension service has broken into the field of facsimile. WOR, Newark, is one of several radio stations transmitting "newspapers" by radio facsimile. Wallace Moreland, New Jersey's radio ambassador plenipotentiary, recently borrowed a facsimile receiver, took it home, and sat up until 3:30 in the morning watching the receiver reproduce a small-size morning newspaper. The reason for Wally's intense interest on this particular morning was that the "newspaper" included a story and pictures that Wally had provided, believed to be the first extension service story and the first gardening story ever to go into homes in the United States by wireless. The story dealt with a soil-less window box developed by a Rutgers University scientist.

Moreland reports that WOR has asked the New Jersey extension staff to provide other gardening material, to constitute the first facsimile course for amateur gardeners.

FORM HELPS

Station WESG, Cornell University, Ithaca, New York, has found a helpful way of encouraging county extension workers to send in announcements of meetings to be held in the counties within range of the station. A pad of blank forms is supplied to each agent---providing space for the day, date, town, county, place, hour, group, speakers, and name of the person calling the meeting. Charles A. Taylor, who guides radio's destinies in the New York State extension service, reports that the number of meetings sent in for announcement increased sharply when the agents were supplied with the ready-made forms.

IOWA FARMERS LOOK TO RADIO FOR MARKET NEWS

How valuable are market news broadcasts? How can these broadcasts be improved? Over what stations do Iowa farm families get their market information?

These were questions which the Bureau of Agricultural Economics wanted answered in the State of Iowa. Iowa State College and the county extension services cooperated in obtaining the answers. A total of 934 questionnaires was returned from half the counties of the State. Here are some of the things they showed:

About 95 per cent of those returning cards own radios. (Surveys indicate that 67 per cent of Iowa farm homes have radio sets.) Ninety-three per cent of those reporting said that they usually get market news by radio, which means that only about two per cent of those owning radios fail to use them for market information. Two-thirds report that some member of the family listens to the radio for market news every day. This seems to refute the belief that farmers listen to market reports only when they have something to sell.

Of the questionnaires returned, 63 per cent named WOI, operated by Iowa State College, at Ames, as the station from which most of the market information was obtained. WHO, Des Moines, was mentioned on 44 per cent of the cards.

Noon was the most popular time of day for market news information with the cooperators; the hour from 9 to 10 a.m. was second, and 11 to 12 o'clock was third in order of preference. Of the Iowa farmers reporting, 86 per cent said they used the livestock market reports; 36 per cent used grain markets; and 8.5 per cent mentioned poultry reports.

NEW RADIO MAN IN NORTH DAKOTA

R. E. Burris has succeeded H. Earle Hodgson as assistant extension editor, in charge of radio programs, at North Dakota Agricultural College. Mr. Burris is a graduate of the college and for the past three years has been program director of KFYZ, Bismarck, N. D. Mr. Hodgson resigned to join a Milwaukee advertising agency.

NEW MEXICO 4-H CLUBS ON THE AIR

Four-H Club members in New Mexico get on the air over KOB once a week to tell about their activities and about their counties. Songs, instrumental music, dramatic skits, talks, and dialogues all are included in the "4-H Salute".

A more recent 4-H broadcast is a radio party, a reproduction of an actual party, participated in by former 4-H Club members who attend the New Mexico State College. Purpose of the latter broadcast is to stimulate interest in recreation of all forms, games, crafts, music, dramatics, storytelling, etc.

Both programs are broadcast over KOB, Albuquerque. A few of the programs are presented at the station, but more of them are recorded at the State College, some 250 miles away, and transcriptions are sent to the station for broadcast.

The 4-H programs are conducted by G. R. Hatch, Extension Club Specialist in New Mexico.

WLW OFFERS "SCHOLARSHIPS"

Station WLW, Cincinnati, has announced the Crosley Scholarships for agricultural college seniors interested in radio.

Students in agricultural colleges who will be graduated this June are eligible for the two scholarships, which provide for six months of actual radio work in writing, announcing, program planning, and producing on Station WLW.

Announcements were sent to all extension editors and deans of all colleges of agriculture in the country. Contestants for the scholarship will be required to make a survey of ten farm families, to write a thesis on farm radio programs based on the survey, to demonstrate their ability to write agricultural information for radio, and to make a transcription of a farm news program. April 29 is the closing date.

Winning contestants will be announced on June 1, 1939. George C. Biggar, rural program director of WLW, is in charge of the competition for the scholarships.

A SOCIOLOGIST LOOKS AT RADIO

In an article recently published in the magazine, Rural Sociology, F. Howard Forsyth of the University of Minnesota advances some opinions regarding the effect of radio on rural people, and suggests that, from the sociologist's point of view, some social research on radio is needed.

Mr. Forsyth ventures the opinion that rural recreation has changed as a result of radio; that radio cuts down the social distance between farm and town; that it changes the time habits of farmers and their wives; that rural listeners demand somewhat different dialogue and music than their city cousins.

More details of Mr. Forsyth's ideas are found in his article. Reprints are available from the author, who may be addressed at University Farm, St. Paul, Minnesota.

SPEAKING OF TRANSLATIONS---

What is believed to be a record for linguistic versatility in use of information from the U. S. Department of Agriculture is reported by Station WGES, Chicago. This station specializes in foreign language broadcasts to Chicago's different national groups. In the average day, information on agriculture and home economics is presented in ten different languages. Homemakers' Chats alone are presented six times during the day in Lithuanian, Polish, English, Italian, Bohemian, and German.

MAN HOME ADVISER

Home demonstration agents and home advisers in the Middle West have a male radio competitor in Merle Housh of WLS, Chicago. In the guise of a comedy character called Henry Hornsbuckle, Housh assembles and passes on helpful household hints, suggested by his listeners. His supply of household suggestions has been mounting by the thousand every week.

1939 DIRECTORY OF MARKET BROADCASTS
TO BE OFF PRESS SOON

MARKET BROADCAST DIRECTORY
TO BE AVAILABLE IN APRIL

The 1939 directory of Market News Broadcasts, issued by the Bureau of Agricultural Economics is expected to be off the press by the time this issue of the Hook Up is distributed. The directory lists market news programs on 345 radio stations, 90 more than last year.

Maps are included showing leased wire facilities of the BAE, and the location of stations presenting market news information. The directory also includes a list of stations carrying the National Farm and Home program.
