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TELEVISION PRODUCTION TECHNIQUES AND PERFORMANCE STANDARDS
FOR KANSAS AGRICULTURAL INFORMATION PROGRAMS

by

DONALD MELVIN SPRINGER

B. S. Kansas State University, 1957

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CHAPTER I

INTRODUCTION

"One of the basic purposes of the mass media is to play a part in the formation and altering of public opinion."¹ Although this statement is all inclusive in its reference to mass media communications, it would be no less true if it were restated and each medium were named individually. Each medium plays a part in the formation and altering of public opinion by the dissemination of information.

"Television is a young giant in terms of its age when compared to the other forms of mass media communication, the number of people it reaches, and its influence on their daily lives. More people watch television, and watch it a greater amount of time, today than ever before. People purchase a television set for its entertainment value, but they are not unaware of its value for the information it brings into the home."²

¹John Reppert, Relationships of Socio-Economic Variables to Political News Exposure Through Mass Medias (Manhattan, Kansas: Kansas State University, 1964), p. 1.

²Ralph Titus, unpublished remarks to communications Workshop for Extension Agents, March 26, 1965.

"Television journalism...is not yet twenty years old, but during the time of its existence it has become the number one medium for news in the United States in terms of both public confidence and preference."¹ Although this statement refers to television news, one might read it as implying all forms of television journalism. This is not the case. A number of surveys have shown that people still rely heavily on the other forms of the mass media for much of their basic information.

Two recent surveys, conducted independently of each other, studied the audience reached by agricultural information over radio and television, when they were watching, and how they rated this information as compared to other sources. One study was made in Kansas² and the other in Iowa.³

Each study revealed that television was an important source of information and that the audience's confidence and preference in television as a source of information, beyond news, was increasing. They also noted that people used television differently from the other information sources. People used television as a means of informing themselves to be aware of

¹Elmo Roper and Associates, Public Attitudes Toward Television and Other Media (Television Information Office, 1964), p. 5.

²Carl Rogers, Radio and Television Programming Preferences of Influentials and Farmers in Four Areas of Kansas (Manhattan, Kansas: Kansas State University, 1964).

³J. Robert Miller, When, Why and How Long Farmers Listen to Radio and Television (Cedar Rapids, Iowa: Farm Store Merchandising, 1964), pp. 40 and 41.

current developments and looked to other sources for the details in order to study them at a pace that would allow a more concentrated investigation.

The main purpose of the Kansas study was to attempt to learn if people, who were influential in the community, liked the same or different kinds of non-entertainment radio and television programs as farmers, and which, if any, of the convenient times for farmers to receive these programs were also convenient for these influentials or opinion leaders.

A high correlation between these two groups was found in their liking for these types of programs. "News and weather were liked by nearly everybody on both media. Other informational programs, generally, were well liked. From the cultural and educational programs emerged a general pattern showing influentials favoring types of programs of a more general, long-range nature, and farmers favoring those with a more immediate economic or family application".¹

Times that were convenient to receive these programs on week days were at about the same period for each group and on each media. However, the three high periods were reversed in order from radio and television. Radio was highest in the morning and television highest in the evening.

Convenient television periods, indicated in the Rogers study, were from 6:30 a.m. to 7:30 a.m., non to 12:30 p.m., and after 7:00 p.m. Morning and noon viewing peaks were

¹Rogers, Loc. cit.

higher for farmers than for influentials, and for younger than older farmers.

The Iowa study produced similar results in these areas. It showed that where a strong regional radio station with good farm programming was available, the radio audience was larger for these programs than where this was not the situation.

Television is an important tool in the dissemination of information, and this importance is not just of continuing importance, but of increasing importance.¹ This is especially true for agricultural information, but not just in the old-line thinking of agricultural television.² The need for accurate information to both the producer and the consumer is as great today as ever, and the need of a better understanding between the two has never been greater.³ The studies mentioned have shown that television can reach each group with this type of information. This also was very clearly explained in a report on program methods relating to television in agriculture:

Television in a relatively short space of time has become a recognized and important medium for disseminating agricultural information. While so employed, television has, in addition, contributed to the development of better understanding between rural and urban people.

¹Ralph Titus, Remarks to Agents during State Broadcasting Work Shop at Kansas State University, March 27, 1964.

²Ibid.

³Ibid.

As is true with other information tools, educational television must recognize the needs and desires of people in order to accomplish its objective. The television audience is not captive and producers of educational television programs will have to command attention, not just expect it. This means making educational programs interesting to the people who want the information being presented or whose interest is sought.

A knowledge, then, of the audience, the subject matter, and the medium dictates the producer's treatment of a television program. The producer of agricultural television programs is perhaps more fortunate than others in the television field because his ideas will naturally stem from a special field of endeavor and will be based on a knowledge of the people concerned with this field, their characteristics, interests, and needs.¹

This study was not initiated to explore the importance of television. This has been done by others. It was initiated to find what tools were available at a selected group of Kansas television stations in the production of agricultural programs, how many such programs were being produced, what other programs were also being produced by station personnel and others, and what problems were encountered by the stations and by the people producing these programs.

Review of Literature

Much has been written on the subject of television. It seemed to the author that all of this material had been written in one of four major areas: (1) as a text for the individual

¹Maynard A. Speece, Alice F. Skelsey and Kenneth M. Gapen, Television Report and Program Methods, A report on U.S.D.A.'s Television Research Project, Prepared by the United States Department of Agriculture (Washington, D. C.: Radio and Television Service, U.S.D.A., 1953), p. 1.

studying television under the guidance of an instructor at a college or university, or for the professional person in television, as a means of expanding his technical knowledge of the medium, or as a reference; (2) as a text or handbook in a specific area of television, such as filming; (3) as a broad based introduction of television in general from the small station operation and facilities, to the largest; and (4) a research study on a given aspect of the medium.

In reviewing the literature available on television, the author based his evaluation on not just what the book or handbook contained in the way of information, but its value and useability to a County Extension Agent or other amateur in the field of television in assisting them in producing and presenting a television program over a local station.

One of the most mentioned texts on television production is the Techniques of Television Production by Bretz.¹ This is a very comprehensive book covering each phase of television in considerable detail. Although excellent as a reference book and a tool for the professional, it is, because of its detail, much too involved for the producer who wants to know only how to use what he will find available in his local situation.

The Television Program², by Stasheff and Bretz, after

¹Rudy Bretz, Techniques of Television Production (New York, Toronto and London: McGraw-Hill Book Company, Inc., 1953).

²Edward Stasheff and Rudy Bretz, The Television Program (2d ed. rev.; New York: Hill and Wang, Inc., 1956).

an introduction to the medium, studies a television program from three sides: its writing, direction and production. In the section on meeting the medium, it mentions interviewing celebrities, network discussion programs, and the like. This tone continues throughout the book as it uses as examples, national network programs, and not what is found to be programmed from the local level. One entire section¹ is devoted to writing the fully scripted show, the television drama. Very few, if any, programs produced by amateurs over a local station will be of this type.

The fourth section of this book goes into the production and direction of a television program. Once again, the discussion and examples are slanted toward the network or larger station and not what will be found as the existing situation at a station such as those in Central and Western Kansas. Much of this section is devoted to the direction of a program, and not the production of the program. The portion that does deal with production mentions casting, production services such as ordering sets, costumes, make-up and art work, and lighting. These are not the type of things that an amateur will be using in most instances.

Zettl's Television Production Handbook² is another excellent book for the student or professional. It covers clearly the technical aspects of television production.

¹Ibid. pp. 147-215.

²Herbert Zettl, Television Production Handbook (San Francisco: Wadsworth Publishing Company, Inc., 1961).

Although well sectioned, so as to explore such things as the types of cameras, camera techniques, live and recorded sound, special effects and the like, and does so in a manner that will give details as to what will be found at any station large or small, it is much too definitive for the average outside producer. Only two sections dealing with graphics¹ and performing, and portions of two other sections on filming and producing, come directly to bear on the local station situation in such a way as to be immediately useful to the amateur producer.

Only a small portion of the tremendous amount of material, published in the form of handbooks, is presented in a manner useful to an individual not well versed in the use of television. Some of these have become widely circulated due to their simplicity and availability, because those seeking to use television needed it in this form. Most of this material was not of as much help as it was first thought.

Television For You², a handbook for County Extension Agents, published by the United States Department of Agriculture, begins by trying to convince the agent to use television. It does go into a brief section of production and concludes with an appeal to the County Extension Agent to use television.

Because this handbook was prepared to be all inclusive,

¹Ibid. pp. 162-295 and 331-386.

²Television For You (Washington, D. C.: U. S. Government Printing Office, 1953).

much was left out in the way of production aids that are available. It was published in 1953 and is now outdated due to the many advancements in the field of television at the local level. Just one example of this is the fact that black and white slides are recommended and color slides are discouraged. This may have been the case once, but within the past six years color slides have gained wide acceptance.

A more recent publication, Your Appearance on Television¹, published by the Pennsylvania State University, is another example of this type of material. Three things are at fault in this publication for making it a useful tool for County Extension Agents in Kansas. First, it is based entirely on the situation in Pennsylvania. Second, it assumes that every station is at least a two camera operation in the studio. Third, in direct conflict with all other reference material, it states the aspect ratio as being four high by five wide instead of three high by four wide.

In summary, all the material reviewed has been either outdated, is overly technical and detailed, is inaccurate in terms of present day standards, or is not oriented to the situation found at the television stations in Central and Western Kansas.

¹William E. Parke, Jr., Your Appearance on Television (Pennsylvania: The Pennsylvania State University, 1964), pp. 4, 5, and 6.

The Problem

Two broad areas of concern were suggested by a review of the literature and in discussions with County Extension Agents and others doing television programs on Central and Western Kansas television stations. The first was the lack of current research on what equipment was available at each of the television stations in the study area. The second was the need for a current study of how to produce an agriculture program at any of the stations in the study area, as based on present day requirements, and the compilation of this into a form useable by County Extension Agents and specialists not schooled in the use of television.

Other points of concern were uncovered as these two areas were explored. Among these were: (1) what are the capabilities and limitations of the equipment available at each station; (2) how flexible is the equipment in terms of its use on various types of programs; (3) how can this equipment be used on an agricultural program; (4) what must a producer do to insure the best use possible of all the tools available to him; and (5) what performance techniques should be used to present as smooth a program as possible?

It was found that many producers were not only unsure of their presentation of materials on television, but also unsure of what could be used to assist them in their presentation and how this material could be used.

These questions comprise the core of the problems to be investigated in this study.

Purpose of the Study

The purpose of this study is two-fold. First to determine the current requirements of a selected group of Kansas television stations, as to the methods and equipment used, and the problems encountered in producing television programs to be originated locally. Especially those programs produced and presented by other than station personnel. Associated with this, an attempt was made to discover not only what each station was currently originating, but also what future plans each might have for equipment and program additions and changes. An effort also was made to learn as much as was possible, in the limited interview time, about attitudes toward agricultural programming.

Second, to assemble the information into an up-to-date form readily useable by those persons producing agricultural television programs over any of the Kansas television stations contacted. Most of these people, according to those interviewed, have had little, if any, experience with television prior to the program they were currently producing. Many of these people are County Extension Agents working in the counties in the coverage area of the station.

Hypotheses

Investigation of the requirements as to the methods and equipment used, and the problems encountered in producing television programs to be originated locally, in this study

will be based on the following hypotheses:

1. That each station would have studio facilities available for local live originations, and would originate programs from these studios.

2. That each station would have film chain facilities available for use with local live originations.

3. That the number of various equipment items used in local live originations would vary between stations.

4. That some items of equipment would have different capabilities as compared to similar items at other stations.

5. That each station would originate at least one agricultural program.

6. That the major problem encountered at the stations, in presenting agricultural programs produced and presented by other than station personnel, would be one of what equipment is available and how to make use of it.

7. That there would be no major equipment changes planned beyond the normal maintenance and replacement with similar but newer items within the next year.

8. That there would be no major program changes planned as related to locally produced originations.

CHAPTER II

METHODOLOGY

Materials and Methods Used

Three basic sources of information were used in the writing of this study. They were: (1) review of literature; (2) a personal interview survey of ten Kansas television stations; and (3) a personal interview with County Extension Agents in the coverage area of the stations contacted.

The Universe

Kansas has twelve VHF television stations and two UHF television stations licensed for operation by the Federal Communications Commission. A rather unique situation exists in that all but two of these stations can be served by programs originating from base stations in Wichita, Kansas. These two stations are WIBW-TV, Channel 13, Topeka, Kansas, and KOAM-TV, Channel 7, Pittsburg, Kansas.

Both of the UHF television stations are located at Salina, Kansas. One of these stations, K74CN, Channel 74, is a translator station and carries programs originated and carried by KCKT-TV, Great Bend, Kansas. The other UHF station, KSLN, Channel 34, does do some local program origination from their studios, but the majority of the programming, from other

than their studio and film chain, comes from KAKE-TV in Wichita.

It was decided that the two UHF television stations would not be included in this study for these reasons:

1. Salina is in the coverage area of the VHF television stations providing programs to both of the UHF stations.

2. The coverage area of the UHF television stations is limited to Salina and the immediate area surrounding Salina.

3. Both UHF stations transmit programs originated by the stations serving them.

The remaining ten VHF television stations serving Central and Western Kansas comprise the basis of this study.

Two of these stations are affiliated with the American Broadcasting Company. Both of these stations, KAKE-TV, Channel 10, Wichita, and KUP-K, Channel 13, Garden City, are owned by the same company (see Appendix B) and comprise the regional network known as the KAKELand Stations (see Appendix C).

Four of the stations are affiliated with the Columbia Broadcasting System. These stations do not operate under a single ownership (see Appendix B), but operate by a program agreement and form a regional network known as the Kansas Broadcasting System (see Appendix C). These four include: KTVH, Channel 12, Hutchinson-Wichita¹; KTVC, Channel 6, Ensign; KAYS-TV, Channel 7, Hays; and KLOE-TV, Channel 10, Goodland, Kansas.

¹KTVH has studios for local originations located at both Hutchinson and Wichita.

The remaining four stations are affiliated with the National Broadcasting Company. These stations are owned by the same company (see Appendix B), the Wichita Television Corporation, and comprise the regional network known as the Kansas State Network (see Appendix C). These four include: KARD-TV, Channel 3, Wichita; KCKT-TV, Channel 2, Great Bend; KGLD-TV, Channel 11, Garden City; and KOMC-TV, Channel 8, Oberlin, Kansas, McCook, Nebraska.¹

These stations were chosen for the study for the following reasons:

1. All ten stations could be provided programming by working through the three base stations located in Wichita.
2. These stations transmit programs across a majority of the land area and population of the state.
3. Each of the three regional networks are currently carrying an agricultural television program produced and presented by Kansas State University Extension Television.
4. The possibility of County Extension Agents being asked to produce a program to be originated locally over several of the stations serving their area.

Design of the Study

No complete and current compilation of the equipment used in locally originating programs by each of the stations

¹KOMC-TV operates on a channel allocated to McCook, Nebraska, but the transmitter and studios are located in Decator County, Kansas, nine miles west of Oberlin, Kansas.

in the area of the study was available, but a need for this information had been evidenced by County Extension Agents. This need also was dictated by the fact that the author believed any producer must know what tools were available to him. He also should know the capabilities of these tools before a television presentation can be prepared using all of the necessary tools to their fullest advantages.

Information on the methods and equipment used, and all other information gained about individual stations, was obtained through a personal interview survey with the production and programming departments of each station in the study area. Because the author desired not only technical answers in terms of equipment and equipment capabilities, but also attitudes and general comments on programming from those contacted, he decided that the greatest response would be to this type of a survey. Also, the number of television stations in the study area was small enough, and all of them close enough geographically to Wichita, to allow travel to each of them for a personal visit, to be within the time and financial limitations of the study.

Because any revisitation of the stations would have been beyond the time and financial limitations of the study, the survey was designed to obtain all the desired information during the initial interview.

The survey questionnaire (see Appendix A) was designed with six major objectives and two minor objectives in mind. These objectives were: (1) to ascertain the types of equipment

available for local program origination at each station; (2) to ascertain the number of various equipment items; (3) to ascertain the capabilities and limitations of the equipment; (4) to ascertain the amount of locally originated programming; (5) to ascertain the amount of locally originated agricultural programming; (6) to ascertain the major problems encountered at the stations in presenting agricultural programs produced and presented by other than station personnel; (7) to ascertain the equipment changes planned that would affect locally originated programs; and (8) to ascertain any changes in locally originated programs planned.

As might be expected, some of the stations had definite plans for enlarging the amount of equipment, expanding the capabilities of the present equipment, and some of the stations were eagerly looking forward to the time in the near future when, with the arrival of newly purchased equipment, they would be expanding the scope of their locally originated programs with color television.

Survey Procedure

This study was conducted during the six week period between May 3rd. and June 11th., 1965. All surveys were conducted at the station, with two exceptions. These two stations, KLOE-TV, Goodland, and KOMC-TV, Oberlin-McCook, were contacted by telephone and interviewed in this manner. As a check, and to gain the answers to the program policy questions on the questionnaire, administrative personnel,

located closer to Wichita, were contacted.

In every case, the people contacted in the production and programming departments at each station were happy to assist and answer any questions. The usual procedure, followed at each station, was to contact the production supervisor, or his assistant, and go through the equipment portion of the survey, and then go on a tour of the station facilities. Following this, the program director, or his assistant, would be contacted to gain the remainder of the desired information.

CHAPTER III

REPORT OF THE STUDY

The findings and information gained from the survey of all ten VHF television stations in Central and Western Kansas that are served by base stations located in Wichita, and the author's personal experience based on six years work in the field, and from informal discussions with Kansas Extension Agents, are now summarized in an effort to present information in such a way as to be useful to those County Extension Specialists and Agents required to use television in their work.

The job of the Extension Service is to teach.¹ In order to reach people more quickly and efficiently with the necessary information, Extension makes use of such mass communication outlets as publications, newspapers, magazines and radio.²

"Now television offers an even more effective medium for carrying on adult and youth education programs. It employs

¹Pat Morgan, Teaching Via Television (Louisiana: Louisiana Agricultural Extension Service, September, 1960), p. 1.

²Ibid.

the demonstration method of teaching, a method upon which Extension always has depended. People are 'shown' as well as 'told'."¹

Television gives anyone who will make use of it a tool for presenting information to audiences that are many times larger than can be reached in person.²

When a person develops, prepares, and then possibly even presents a television program, they are usually filling a double role. One is as a producer and the other as on-the-air talent. This is usually the case of County Extension Agents appearing on television.

Because the talent role is simply a projection of their personality, the biggest job for these people is to function as a producer. It was in this light that this study was made. Because facilities, equipment capabilities and station procedures differ between stations, it was thought, by those consulting with the author, that a survey of the stations in Central and Western Kansas would be beneficial to the amateur producer. These stations were chosen because all of them are served by one of three base stations in Wichita. It was decided that only the VHF stations would be surveyed, although two UHF television stations serve the Salina area. Both of these also are served by a base station located in Wichita. One of these stations, K74CN, Channel 74, is a translator only.

¹Ibid.

²Ibid.

This means that it receives a television signal on one channel, Channel 2, KCKT-TV, Great Bend, in this case, then translates that signal to another channel and then retransmits it. No studios, film chain, or any other local origination equipment is involved.

The other station KSLN, Channel 34, in Salina, does have studio facilities, but they are quite similar to the smaller stations in the survey. Also, they follow closely the programming concepts of the base station in Wichita, KAKE-TV.

It also should be noted above that the coverage pattern of each UHF station just covers Salina and the immediately surrounding area. This same area is also within the coverage pattern of the base station serving these two stations. However, this area is in the outer limits of the coverage pattern for each of the base stations, and the UHF stations are used to provide a stronger signal for the area than the base station is capable of doing.

It was the original plan for the author to personally contact each station by making a visit at each station. This was carried out, with two exceptions. It was impossible to travel to KOMC-TV, in Decatur County, Kansas, and to KLOE-TV, in Sherman County, Kansas, within the time limitations of the study. They were contacted by telephone, and administrative personnel, located closer to Wichita, were also contacted so as to ascertain the program concepts and station policies of these two stations.

Types of Equipment

It was found, during the survey, that every television station contacted in the study had local black and white origination facilities (see Table 1). One station, KARD-TV, in Wichita, could originate color programs using one Color Image Orthicon Camera.

Black and white Image Orthicon Cameras were found at four of the stations: one at KCKT-TV, Great Bend; two at KARD-TV, Wichita; three at KAKE-TV, Wichita; and KTVH, which had two such cameras at both the Hutchinson studio and the Wichita studio.

The six remaining stations in the study had studio Vidicon Cameras. Three of the stations: KTVH, Ensign; KAYS-TV, Hays; and KLOE-TV, Goodland, had two cameras of this type in their studios. The other three stations: KOMC-TV, Oberlin-McCook; KGLD-TV, Garden City; and KUP-K TV, Garden City, had only one camera in their studio. Two stations: KCKT-TV, Great Bend; and KTVH-TV, Wichita, had a camera of this type in their studios for use with camera cards only.

All of the stations, except one, KLOE-TV, had at least one studio camera equipped with a zoom lense.

Five of the stations had rear screen projection equipment. Three of these were the base stations for the regional networks, all located in Wichita. The other two stations were KCKT-TV in Great Bend, and KAYS-TV in Hays. Station KAKE-TV, in Wichita, had several small screens, beyond the larger one that was standard in the other stations. These

Table 1 - STATION EQUIPMENT AVAILABLE FOR LOCALLY ORIGINATED PROGRAMS

EQUIPMENT	KCKT Channel 2	KARD Channel 3	KTVC Channel 6	KAYS Channel 7	KOMC Channel 8	KAKE Channel 10	KLOE Channel 10	KGLD Channel 11	KTVH Channel 12	Hutchinson Studio	KTVH Channel 12	Wichita Studio	KUP-K Channel 13
Studios	1	2	1	1	1	2	1	1	1	1	1	1	1
Color Image Orthicon Cameras	0	1	0	0	0	0	0	0	0	0	0	0	0
Black and White Image Orthicon Cameras	1	2	0	0	0	0	0	0	2	2	0	2	0
Black and White Image Orthicon with zoom	1	1	0	0	0	0	0	0	1	1	1	1	0
Studio Vidicon Camera	1*	0	2	2	1	0	2	1	0	0	1*	1	1
Studio Vidicon Camera with zoom	1	0	2	1	1	0	0	1	0	0	0	0	1
Rear Projection Screen	1	1	0	1	0	3	0	0	0	0	1	1	0
Rear Screen Projector	1	2	0	1	0	2	0	0	0	0	1	1	0
Film Chain Cameras	2	2	1	1	1	2	1	1	0	0	2	2	1
16 mm Film Projector	2	2	2	2	2	2	2	2	0	0	2	3	1
35 mm Slide Projector	2	2	1	1	1	2	0	1	0	0	2	2	1
Slide Capacity	100/12	36/12	12	36	100	12/12	0	36	0	36	0	36/12	36
Teloptic	0	0	0	0	0	1	0	0	0	0	0	0	0
Balopticon	1	0	0	0	0	0	0	1	0	0	0	0	0
Camera Card and Opaques Machine	0	0	1	1	1	1	0	0	0	0	0	2	0
Video Tape Machine	0	** 3	0	0	0	2	0	0	0	0	0	2	0
Simultaneous Studio Mike Channels	4	5	3	4	3	7	3	1	4	4	3	3	4
Turntables	2	2	2	0	1	2	1	1	1	1	1	2	1
Audio Tape (Reel)	1	1	1	1	1	1	0	1	1	1	1	1	1
Audio Tape (Cartridge)	3	4	3	3	2	3	2	3	3	3	3	3	3

*Camera is in studio but is only used for camera cards.
 **1 video tape machine will record and play back color.

small screens were incorporated into flats and thirty-five millimeter slide projectors, and slides were used with them.

At KARD-TV and KAKE-TV, dual-sided projectors, equipped with rehostats, were being used. Glass transparencies, four by five inches in size, were used in all five of the larger projection machines.

All of the stations had film chain facilities, with the exception of the secondary studio of KTVH, located in Hutchinson. If film or slides were to be used during a program, originated from that location, special advance arrangements had to be made.

The three base stations in Wichita, and KCKT-TV, in Great Bend, had two film chain cameras. Equipment arrangement around these two film chains varied between the stations, but total flexibility was gained at each station with the arrangement they had.

All but two of the stations had two sixteen millimeter motion film projectors; KTVH had three, and KUP-K TV, in Garden City, had only one. This indicated that each station, except KUP-K TV, could handle double projection. This is where a sound-on-film is run on one projector and a silent film is run at the same time on the alternate projector. Sound is taken from the one projector for the entire duration of the film, but the director can choose a picture from either projector.

One station, KAKE-TV, also had an eight millimeter motion picture projector incorporated in their film chain for limited use.

All three of the stations in Wichita, and the Great Bend station, had two thirty-five millimeter slide projectors in their film chain. One station, KLOE-TV, in Goodland, did not have a slide projector. The remaining four stations each had one in their film chains.

Wide variations of the capacity of the slide projectors was found between stations. This varied from a low of twelve at two stations to a high of one hundred at two stations.

The only Telopticon was found at KAKE-TV, and only two stations had Balopticons. These were KCKT-TV, in Great Bend, and KGLD-TV, in Garden City.

In addition to these facilities on the film chain, only three stations: KARD-TV, KLOE-TV, and KUP-K TV, did not have some method of handling some type of an opaque as well.

Only the three base stations in Wichita had video tape facilities. This means that any programming done in the local studio, at other than these three stations, must be done live. Also, all three of these stations had remote facilities for video taping on location. One video tape machine at KARD-TV was capable of recording and playing back color programs.

All stations had facilities to handle almost any microphone situation that might develop in a local live origination.

Only one station, KAYS-TV, in Hays, could not handle records without prior notice that records would be used during a program. If advance notice was given, an audio tape of the record would be made for the television studio used by KAYS

radio.

All stations, except KLOE-TV, in Goodland, could handle an audio tape on a reel. All of the stations did require that any audio tape be either a single track recording or a dual track recording, with the second side of the tape being free from any recording. Standard speed of the tape machine was seven and one half inches per second.

All stations could handle some type of audio recordings in cartridges.

Programming

Types of programming being originated locally at each of the stations were wide in scope and variety (see Table 2). Program content of these originations included news, weather, sports, markets, community interest, women's, children's, audience participation, music and agriculture.

Three major time periods of local originations were noted. One of these was from twelve noon through 12:30 p.m. The other two were from 5:45 p.m. through 6:30 p.m., and from 10:00 p.m. through 10:30 p.m.

Four other periods were noted that were of a less major nature due to the amount of programs being originated during them. These were: (1) 6:45 a.m. through 8:15 a.m.; (2) 9:00 a.m. through 10:00 a.m.; (3) 12:30 p.m. through 1:00 p.m.; and (4) 3:30 p.m. through 4:45 p.m.

The amount of programming originated from each studio also exhibited a wide range (see Table 3). Two of the base

Table 2 - LOCAL LIVE PROGRAM ORIGINATION, STUDIO, TIME AND TYPE

TIMES	KCKT Channel 2	KARD Channel 3	KTVC Channel 6	KAYS Channel 7	KOMC Channel 8	KAKE Channel 10	KLOE Channel 10	KGLD Channel 11	KTVH Channel 12 (Hutchinson)	KTVH Channel 12 (Wichita)	KUP-K Channel 13
6:45 A.M.	KSN	T- KSN			KSN			KSN			
7:00 A.M.									C		
7:10 A.M.			KBS	KBS						A- KBS	
7:20 A.M.			E	KBS						N- KBS	
7:30 A.M.			NWM								C
7:45 A.M.			"								C
8:00 A.M.						K- KLS					KLS
8:15 A.M.											
8:30 A.M.											
8:45 A.M.											
9:00 A.M.						R- KLS					KLS
9:15 A.M.						"					"
9:30 A.M.			C							F	F
9:45 A.M.			"							"	"
10:00 A.M.											

KSN - Indicates program being carried was originated by base station and carried by entire Kansas State Network.

T - "Kansas Today", produced by KSU Extension Television.

C - Community interest program.

KBS - Indicates program being carried was originated by base station and carried by Kansas Broadcasting System.

A - "Agriculture Today", produced by KSU Extension Television.

E - County Extension Agents in the area appearing on local station.

N - News

W - Weather

M - Markets and Agricultural Business News.

" - Indicates continuation of same program shown in preceeding time period.

K - "Kansas Scene", produced by KSU Extension Television.

KLS - Indicates program being carried was originated by base station and carried by the KAKELand Stations.

R - Children's Program

F - Women's Program

TABLE 2-----Continued

TIMES	KCKT Channel 2	KARD Channel 3	KTVC Channel 6	KAYS Channel 7	KOMC Channel 8	KAKE Channel 10	KLOE Channel 10	KGLD Channel 11	KTVH Channel 12 (Hutchinson)	KTVH Channel 12 (Wichita)	KUP-K Channel 13
12:00	NWM	NW	NW	NW	NWM	NW	NW	NW		NWM	NW
12:15 P.M.	KSN	H - KSN	M	M	KSN	"	M	KSN		F	"
12:25 P.M.	"	"	"	"	"	FP- KLS	"	"		"	KLS
12:30 P.M.						"					"
12:45 P.M.						"					"
1:00 P.M.											
3:30 P.M.	KSN	R - KSN			KSN			KSN			
4:00 P.M.	"	"			"			"			
4:30 P.M.	"	"			"			"			

N - News

W - Weather

M - Markets and Agricultural Business News

KSN - Indicates program being carried was originated by base station and carried by entire Kansas State Network.

H - Music Program

" - Indicates continuation of same program shown in preceding time period.

F - Women's Program

P - Audience participation Program

KLS - Indicates program being carried was originated by base station and carried by the KAKELand Stations.

R - Children's Program

TABLE 2-----Continued

TIMES	KCKT Channel 2	KARD Channel 3	KTVC Channel 6	KAYS Channel 7	KOMC Channel 8	KAKE Channel 10	KLOE Channel 10	KGLD Channel 11	KTVH Channel 12 (Hutchinson)	KTVH Channel 12 (Wichita)	KUP-K Channel 13
5:45 P.M.						NW					NW
6:00 P.M.	N	N	N	N	N			N		N	
6:10 P.M.	KSN	W - KSN	"	"	KSN		N	KSN		"	
6:15 P.M.	"	S	W	W	"		W	"		W	
6:20 P.M.	"	N	S	S	"		S	"		S	
6:30 P.M.											
10:00 P.M.	KSN	N - KSN	N	N	KSN	N - KLS	N	KSN		N	KLS
10:10 P.M.	"	W - KSN	"	"	"	"	"	"		"	"
10:15 P.M.	"	S - KSN	W	W	"	W	W	"		W	W
10:20 P.M.	N		S	S	N	S	S	N		S	N
10:30 P.M.											

N - News
W - Weather
KSN - Indicates program being carried was originated by base station and carried by entire Kansas State Network.
" - Indicates continuation of same program shown in preceding time period.
S - Sports
KLS - Indicates program being carried was originated by base station and carried by the KAKELand Stations.

Table 3 - NUMBER OF HOURS EACH WEEKDAY ORIGINATED LIVE BY
 LOCAL STATION OR BY BASE STATION AND CARRIED
 LOCALLY - TOTAL AMOUNT OF AGRICULTURAL
 PROGRAMMING CARRIED

STATIONS	Amount Actually Originated.	Amount Originated by Base Station and Carried by Local Satellite.	Amount of Agricultural Programming Originated either Locally or by Base Station.
KCKT - Channel 2	:35	2:25	:30
KARD - Channel 3	2:50	KSN	:15
KTVC - Channel 6	2:40	:10	1:20
KAYS - Channel 7	1:30	:20	:40
KOMC - Channel 8	:35	2:25	:30
KAKE - Channel 10	2:30	KLS	:15
KLOE - Channel 10	1:30		:30
KGLD - Channel 11	:35	2:25	:30
KTVH - Channel 12 ¹	2:30	KBS	:25
KUP-K - Channel 13	1:55	1:35	:30

¹Originations from both studio locations at Hutchinson and Wichita are combined.

KSN - Base Station for Kansas State Network.
 KLS - Base Station for KAKELand Stations Network.
 KBS - Base Station for Kansas Broadcasting System.

stations originated two hours and thirty minutes each week-day, and the third originated two hours and fifty minutes.

The smallest amount of daily originations was thirty-five minutes. Three stations were in this category.

Two stations originated an hour and thirty minutes each day. One originated an hour and fifty-five minutes, and one originated two hours and forty minutes.

The amount of agricultural programming did not show such an extreme variation (see Table 3). Only three stations reported less than a half an hour, and one of these was twenty-five minutes. The other two were fifteen minutes. One station reported programming an hour and twenty minutes every weekday, and one reported forty minutes, which was much closer to the average.

In addition to information about equipment and programs, respondents at each of the television stations supplied information about the production of television shows. This information has been summarized in the following sections.

Selecting a Subject

The most often mentioned problem of those who are to appear on television, other than station personnel, by both those working with these people at the station in the presentation of a program, and the people producing and presenting the program, was that of selecting a subject. This was evidenced during the personal interview survey with station personnel and in informal interview sessions with a number of

Kansas County Agents using television as one of the tools of disseminating information to rural and urban audiences. As might be expected, each group viewed this same problem from a different side.

This problem of selecting a subject seemed to be a major hurdle to most agents contacted, "especially when I first started doing television, I'd ask myself what I should talk about. Then, when I'd ask some questions about what were the current problems people were asking help with... and before I knew it, there was an idea for the show."¹ Similar statements came from other agents and specialists contacted, but with some experience this seemed to lessen as they began to realize how television could assist them in getting the information they were giving by personal contact to a much wider audience and do so much faster.

During the interviews at the television stations in discussing the selection of a subject, three points were mentioned to keep in mind before choosing a topic, and to test the selection as to how well it will work before any further preparation is undertaken. First, select an adequate subject; one that can be developed in the time allowed and one that can be "shown" to the viewing audience. "Select a subject that is needed, not merely one that is easy."²

¹Interview with Ray Lunginsland, Assistant County Agriculture Agent, Reno County, Kansas, May 25, 1965.

²Interview with P. K. Smith, Jr., Production Supervisor, KAKE-TV, Wichita, Kansas, May 24, 1965.

Second, don't select too broad a subject. According to those surveyed, this seems to be one of the most common faults. Here, the length of the program will be the ruler to measure the subject, but the subject should be measured in two directions; how broad it is or how much should be covered, and its depth or how penetrating should the program be on this subject. Agriculture, as a subject, would be much too broad a base for one program. Wheat limits the field considerably, but again this is too broad a subject field for one program. Fertilizing wheat limits the subject considerably, but if it is the time of year for this practice, there is much to show and say in the way of advise in this one aspect of wheat production.

Producers said that timeliness is important. Subjects should be pertinent in terms of what the audience is interested in now. Information presented on television must be of use to the viewer at the season of the year when it is presented to be of value and to hold the interest of those watching.

Another point mentioned by people at the stations was that County Extension Agents were asked to appear on television because the station believed that their viewers were interested in what was happening in the county, and because the agent is involved in, and in direct contact with, activities in the area, he could readily bring these items of interest to the attention of the viewers. They indicated that this does not mean a simple report of a meeting attended by 200 people, but rather, what was discussed, why were so many people interested

in attending, if this many were interested, how many others would be interested, what were the implications of what was discussed to the producer and the consumer regardless of where they lived? Producers indicated that, in answering these questions on television, because the audience is much wider, the result may be more far reaching than can be realized, and most certainly will be more so than the results from the meeting.

Information from the interviews emphasized that an agent should look first at what he was currently involved in doing when selecting a subject for a television program. What the agent is demonstrating, what is being discussed at meetings or on visits to farms and homes, questions related to the current problems, requests for information, and accomplishments or completion of a project of interest. These are leads for a subject to present on a television program, as mentioned by the producers.

In the selection of the subject, producers stated to be certain that it is of direct interest to the audience and that its importance to the viewer can clearly be shown. Because the audience will be a general one, they said that one should have information that is interesting to all segments of the audience. It appears that everyone is interested in something new, or a new way to do something. Also, everyone today is a consumer, so in any agricultural program include the something new and its importance to the consumer, and the audience interest has expanded.

As a final test of the subject, three questions were offered by those interviewed: (1) What is the subject? This should be written in one short sentence or phrase. If this can be done, the subject will not be too broad for the time allotted; (2) Who is the audience and what do they already know about the subject? This will give a guide as to how to slant or direct the information and where to begin with the information to be presented; finally, (3) What is expected of the audience after they have the information?

This same idea stated even more simply by a network executive in charge of public affairs programming when he said, "Who are we trying to reach, with what, for what purpose? Start with only objective...then analyze it...in light of this question."¹

Audience

Following the selection of the subject, the television program producer must think in terms of the viewing audience and decide what is desired to be accomplished, and for whom, on the air with this subject. In order to do this, some idea of the audience must be known. This will be directly related to the area served by the station, time of day of the program and programs on either side of this program.

¹Ben Park, Director of Public Affairs for NBC, New York City, "The National Agricultural Television Clinic", Comments from report of a panel at the University of Missouri, September, 1959.

Response to offers made on the air over the Kansas State University Extension Television programs from Wichita, show that this audience is as varied in Kansas as anywhere else. Requests came from all portions of the state covered by the stations carrying the programs, and from every segment of population, including housewives, farmers, ranchers, city homeowners, backyard gardeners, teachers, bankers, and even travelers that happened to see the program while in motel rooms (see Appendix D).

This proves the point that there should not be anything that calls itself "Agricultural Television". Television is television whether it's urban or agricultural, education or entertainment. Everyone may come from different backgrounds and have different tastes, but potentially everyone is interested in everything.

Mr. Park said it this way, "I would say we are trying to reach everybody we can with interesting material from the world of agriculture for purposes which will be somewhat different for each member of our audience. For the farmer, we help sell his product, and at the same time show him how to produce more salable goods, more efficiently. For the city homemaker, we give her all kinds of fascinating information on how she can do a better job of feeding her family, and show her the marvelous way to which the farmer serves her.

For the great majority of city Americans, we give them an insight into a kind of life from which not one of them is more than a generation or two away. We give them an insight

into a kind of life that most city dwellers will find fascinatingly different".¹

In short, anyone presenting an agricultural program is talking to people interested in agriculture and individuals involved in agriculture one way or another, and not just to farmers.²

Next, the producers said to analyze the audience's motivation. In agricultural shows, it can be assumed that money is an important motivation. The program can show the city viewer how to use agricultural products more efficiently, and show the farmer how to produce more efficiently and thereby make more money.

"You appeal to the farmer by indicating for him a more universal social status among his fellow men. You indicate for him a position of prestige. To the city person, any educational program which he watches gives him a certain sense of leadership. He has a little more useful information.

To both the city viewer and the farm viewer, an educational, informative, interesting program in agriculture will help them to measure up to better self-portraits of themselves. They both see themselves as better people, somehow, in relation to the farm. Both city viewer and farmer will get a great deal of pleasure from a show which really

¹Ibid.

²Sam Burgess, Agriculture Editor, University of Georgia, Unpublished remarks to the Association of Southern Agricultural Workers Conference, Dallas, Texas, February 1, 1965.

tells about agriculture in interesting details".¹

Approach to the Subject

Now that the subject has been selected and the audience has been considered, the next step is to decide on how to approach the subject to gain the desired results. First, the show should be pictured, how is it to look? Divide the show into its important steps. This can be done one of three different ways: (1) chronologically, in the order that it's to be done; (2) spaciouly, going from one part to another; and (3) logically, strongest part in the middle, preceeded by a short background and followed by a summary or conclusion.

Following this, a working outline should be made. Television is the transmission of both picture and sound, and so both must be shown. This is done by drawing a line down the center of a piece of paper and marking the left column Video and the right column Audio. Then, outline in the right column what is to be talked about in the order decided (above). In the left column list what is to be shown or done, as it corresponds to what is said in the other column.

Types of Shows

The next step in planning the program, according to the producers, is to choose which style or type of show will best suit the purpose. The survey indicated that one of three

¹Park, Loc. cit.

types are most often used by the outside producer. According to Jack Burke, "the most often used, and probably best, types of Extension programs are: visualized reporting, method demonstration and interview discussion."¹ Each has its advantages and disadvantages and should be explored to see which one will adapt itself to the topic, situation, people, station and audience.

Visualized Reporting

Those interviewed emphasized that it should be remembered that a speaker is static and the viewer can't look at the person talking for any length of time without seeing all there is to see. This means that visual aids are very definitely needed in some quantity in this type of program.

This style of program lends itself well to a wide variety of topics, as pointed out by the producers. It's concerned with results, conditions, and activities in the home, on the farm or in the community. According to those interviewed, it has a wider audience appeal than the other two types. It permits the use of a wide variety of visuals, from the real thing to charts, pictures, graphs, analogous things, or miniatures.

Most of the production directors interviewed mentioned that usually their directors would change camera shots two or

¹Interview with Jack Burke, Assistant State Leader and Manager, Radio Station KSAC, Kansas State University, Manhattan, Kansas, January 27, 1965.

three times a minute in a show of this type. In a 13 minute show, this would mean from 26 to 39 camera changes. Not all of these would be different shots, but many of them should be, so the producer should be well armed with interesting illustrations or visuals.

Another point mentioned was to keep the talk simple and down to earth, but not to talk down to anyone. This means to use simple language, simple points, and simple visuals and talk as if the viewer had been met on the street and asked the question that is being answered in the program.

It usually pays to tell why, as well as what. People remember what, only when they understand why. It will also make it easier to understand if analogies are used to compare that which is unfamiliar to the viewer to something that is already known and is familiar.

Scripts should not be written word for word as most people have a tendency to begin reading rather than talking to the audience. "Extemporize it from your point outline."¹

It should be remembered that television is a close-up medium. Viewing is an individual experience even when done as a group. A person appearing on television should talk to each individual and not to the group. This means that when doing a show, one must talk to the camera naturally as if it were a person.

¹Interview with Julius Efflandt, Production Director, KTVH, Wichita, Kansas, May 14, 1965.

Other points to keep in mind include practice, know what is going to be done. At the end of each point, repeat the point that has just been made, these are called middle conclusions. Talk in terms of the audience, use the word you, ask the audience to imagine, or suppose, or to picture, remember, and to think of something along with the person presenting the program. And, on occasion, don't be afraid to use the rhetorical question, that is, a question the viewer will answer to himself the way that is desired for him to answer.

Method Demonstration

The Method Demonstration is close-up work in television, and often the eye of the audience is closer to what is being demonstrated than the eye of the demonstrator. This can be used to great advantage, but because of this, distracting material or movement are distracting only in the wide shots and can't be seen in the tight shots. Therefore, demonstrations presented on television are often better than if presented before a crowd in a meeting. Time is often shorter than at a meeting, so the presentation should be confined to the key points or key problems. A demonstration is presented to show something clearly, so anything that might confuse the viewer must be done in a manner that he can follow and understand. Again, be sure to tell why as well as to demonstrate what.

Interview or Discussion

An interview or discussion is a most effective method of presenting information since the person to be interviewed is an authority on the chosen subject, and when introduced, he will be recognized as such by the audience and if he talks to the interviewer and to the viewer in an interesting manner, both the individual and the information presented will gain a ready acceptance with the audience. There are several things of which anyone attempting to do an interview should be aware. Those interviewed in the survey indicated that the following were examples of how to avoid the most common pitfalls in doing an interview on the air.

1. Caution the other person to keep the language non-technical and simple.
2. Caution him to keep answers relatively short.
3. Ask questions that allow the person being interviewed to give an answer. These usually have a who, why, what, where or how in them. Beware of asking questions that begin or end with isn't it, is there, do they, and the like, or the person being questioned may come back with just a yes or no and stop talking.
4. Tip him off in advance as to your next question, so he can say something that lets you logically ask it.
5. Watch the transitions from question to question, so that statements aren't always being made as, "That's very interesting, now what about..." or "That's fine, now what about..." or "That's good, but..." or "I see".

6. Ask the questions the audience would ask if they got a chance.

7. Caution the person being interviewed to look at the camera when he is talking to the audience and at the person doing the interviewing when he is talking to him.

8. Get him to be as natural as if the viewer were simply being called on in his home.

9. Ask no questions that the audience wouldn't like to hear answered.

10. Keep all interviews with only one person limited to five minutes if no visuals are used.

11. In discussion, don't let one person do all the talking.

12. In discussion, try to get conflicting points of view brought out.

13. In either interview or discussion, try to get people who can talk easily, who make a favorable impression, and who the audience would like to hear interviewed or discussing the subject.

Salesmanship

Earlier in this study, it was mentioned that every television set was purchased mainly for its entertainment value, but this does not mean that its value as a source of information is lessened any. It does mean that some showmanship and salesmanship will enhance almost any performance and program. Most people understand selling on television, in terms

of products, but few of them initially think of information, other than news, as a product that must be sold to the viewer. Once this idea is accepted, the same principles that apply to advertising will apply to the selling of information.

Every effective and successful sales campaign must do four things each time it is presented to the public. They are: (1) gain their attention; (2) stimulate interest; (3) create a desire; and (4) provide a method of action.¹

Those contacted in the personal interview survey stated that the audience's interest or curiosity must be aroused in the first 30-45 seconds of the program in order to catch and hold them for the rest of the program. In order to do this, their attention must be attracted first. But, once the viewer's attention has been gained, and their interest or curiosity aroused, there must be something of interest to hold them long enough so that they can be exposed to the desired information in order to create a desire and action.

Most closing statements have one of three items, or a combination of them. First, a summary of what has been shown or said. Second, an appeal to the viewer to remember, do study, or an offer to send material if he asks for it. Finally, a statement about the time and possibly the content of the next show in the series.

¹Virginia Howe, Head, Radio and Television Section, "Radio and Television Advertising", (Unpublished lecture delivered at Kansas State University, Manhattan, Kansas, February, 1959).

Properties

When working in television, the term live props will be overheard. This refers not to whether or not it is alive, but simply refers to the actual object rather than any representation of it. Props is just a shortened version of property.

With few exceptions, live objects...the real thing... will be the most effective visuals.

Those interviewed in the survey had two fairly common complaints when it came to props for programs produced by other than station personnel. All too often, they said, people forgot to bring what was necessary or had been planned for originally. The other complaint was that people assumed that the prop would be available at the station. Never assume that the prop will be at the station, either make sure that the station has it, or find where it can be obtained and plan on taking it to the station. Another comment, voiced by several station personnel, was that some people simply bring too many props. Remember, keep it simple.

Visuals

The primary objective of using visual materials on television is to help present the ideas more clearly. A secondary objective for the person presenting an agricultural program is showmanship. Every visual used must add something to the presentation, it must do a job, otherwise, they can detract from the purpose of the program.

Four criteria should be considered in selecting visual material for the program. They are: (1) the material must be the best tool for the job; (2) the material must be easy to understand; (3) the material must be interesting; and (4) the whole set must be thought of as a visual.

In a large majority of the interviews with production people at the stations, the author was told that people should use their imagination more in visualizing a subject. This does not mean that it should be complicated, to the contrary, it should be kept simple. The information must be comprehended immediately. Stay with a single visual idea for each visual, but try to communicate as much as possible about that idea.

Whenever visuals are being prepared, remember that the television picture is always three units high by four units wide. This horizontal aspect ratio of 3:4 is unchanging and cannot be compromised.

When referring to visual material, two terms are used to describe its use. Visual material can be used either ON SET or OFF SET.

The ON SET use of television visual material refers to those items which will be an integral part of the set and will be seen with the person presenting the program.

The OFF SET use of visual material refers to items which will be seen by the viewers, but which will be located in an area of the studio remote from the set in which the people presenting the program are working.

When planning the use of any visual material, it will

soon be found that certain items lend themselves more adequately to one use than the other. Each visual should be examined individually to decide whether it will be more effectively used ON SET or OFF SET in the program being planned.

There is an inexhaustible supply of visual material available for use on television. The extent of the types of visuals that can be used on a program is limited only by the producer's imagination.

Generally, visuals can be classified under any of these general headings: (1) projected visuals; (2) two-dimensional visuals; (3) three-dimensional visuals; and (4) special effects visuals.

Projected Visuals

Motion Picture Film

The producers emphasized that films should be selected carefully and previewed for content. Content should be appropriate to the program objectives, the age level and interest of the viewers, and the policies of both the station and extension, in this case.

Every station surveyed had facilities to handle 16mm film, and one station, KAKE-TV, Wichita, had one 8mm silent film projector incorporated in one film chain. With that one exception, only 16mm film, taken at the normal sound speed of 24 frames per second, can be used on television.

Either sound or silent film can be used, provided the silent film was taken at the sound speed. A sound film can

be used as a silent film on television, with the narration coming live from the studio.

Avoid films with scratches and considerable splicing. Scratched film is not only distracting to the viewer, but it can be difficult to watch. Splices, especially old splices, may have a tendency to break. If sound film has splices, words or phrases on the sound track may have been lost and there can be an awkward moment for the audio portion of the program. The film should be clean and have clear images and sound.

Most of the stations prefer that academy film leader be used on the head of any film. This academy film leader is the numbered film that counts down to the head of the film. The last number to be seen is three, and stations frame this in the projectors so that when they roll the film during a show the first picture will be on the screen in three seconds.

Almost everyone has seen visual cue marks on film as it has been shown on television, but few people recognize what they are or what they mean. Usually these cue marks are circular and are either scratched on the film with a special cueing device, or small holes are actually punched in the film with a similar device. In either case, these marks are placed a measured distance from the end of the film. A few of the stations preferred three sets of cue marks at the end of a film, but most of them used only two sets, even though the time between each set and the end of the film differed slightly. Kansas State University Extension Television, in

working with the three stations in Wichita, uses a standard cue marking system of six seconds and one second from the end of the film. When the director knows the length of the film, and the exact time when the cue marks appear, there seems to be no difficulty in obtaining the results desired by the producer.

Every station, with the exception of KUP-K, Garden City, and the Hutchinson studio of KTVH, can do double projection. This is where a sound film is run on one projector and a silent film is run on another projector, and the sound is carried continuously from the one film but the picture can be taken from either film. This could be compared to narrating over silent film, live from the studio, except the narration comes from a sound film.

The producers suggested that if film is to be used on the program, be sure to arrive at the station early enough to check the film and ask someone at the station to repair any splices that may need it, and to cue mark the film before air time. It is also a good idea to ask someone to clean it prior to showing.

If the film comes from some source other than the station, or that which has been photographed by the producer or his representative, it must be cleared for use on television. If it was not listed as cleared for television in the film distributor's listing, written authorization must be obtained in order to use it on the air. This must be obtained in advance of its use.

A number of counties have, or the agents have access to, 16mm motion film cameras. These can be valuable tools in obtaining visuals not only for television but can also be used to good advantage in meetings. Many texts have been written on just motion picture photography, and this study did not try to include any of these techniques since it was felt that this subject should be handled at more length and detail than could be done here.

Slides

Slides are an excellent visual for professional, and amateur television producers alike, according to the producers. They are called either 35mm or 2 x 2 inch, the latter term referring to the outside measurements of the slide and not to the picture size.

Contrary to a wide spread belief, color slides can be used to good advantage on television. This is true even if they will be transmitted in black and white, which will be the case in most instances. They must be of good contrast, have the subject well centered and framed, and if the subject is something other than a general scene, there should be some margin surrounding it. "This margin is called bleed space, and amounts to about 10 percent of the total picture area. This projected area is about what will be seen on a well adjusted home television set. It's even smaller on an old

set that may need some adjustment."¹

The usable area of a slide is determined by whether it is a picture or just printed copy. As was just mentioned above, only a portion of the total area is seen on the television screen, this is what was referred to as the projected area. Not all of the projected area can be used if printed material is to be shown, so it must be within the safe copy area to be clearly seen on the home receiver. This safe copy area is also known as the critical copy area or simply the safe or critical area.

The producers said that when slides with printed material are to be used, the amount of printing within the safe area should be kept to as few words as possible. All slides should be checked on the station's film chain before they are used. This is to insure that the visible content of the slide is what is desired. Any slide containing printed material must be checked since it will look much different when seen on the television screen than it will when viewed in any other manner.

Vertical slides do not lend themselves readily to television. As was stated earlier in this study, the aspect ratio of television is 3:4. Even when used horizontally, since the picture area of a slide is wider in proportion to its height than this, a certain amount of picture area must be lost on each side when it is projected on television.

¹Smith, Jr., Loc. cit.

When a vertical slide is used, a certain portion of both the top and the bottom of the picture are lost, and since the television screen is now wider than the picture to be projected, there will be a black strip on both sides of the picture when seen on the home set.

Slides should always be arranged in sequence, labeled and numbered. Check with the director at the station on how to label the slides as each station differs in its method. Every station contacted mentioned that if the slides were labeled and numbered on the front of the slide, in such a way as to show which is the top of the picture, and this fact is told to the director or projectionist, it would be very satisfactory. Front, in this case, means the side of the slide towards the individual when it appears as it is to be seen on the screen, and top refers to the actual upper side of the picture and not necessarily the side that would be up when placed in a projector.

Many County Extension Agents have large slide files containing a great number of slides that would work very well on television. These same slides that they use so widely in meetings prove to be a great asset when producing a television program.

All of the stations in the survey, except for KLOE-TV, Goodland, and the Hutchinson studio of KTVH, had slide projectors. However, the capacity of the slide projectors differed greatly. Two stations, KCKT-TV, Great Bend, and KOMC-TV, Oberlin-McCook, Nebraska, had projectors that could

handle 100 slides at one time. The smallest number of slides that could be handled by any station, without a projectionist present to unload and reload the projectors during the show, was 12. Two stations fell in this category, KTVC, Ensign, and KAKE-TV, Wichita. The other five stations could handle 36 slides in one projector at one time. Four stations had more than one slide projector, so these numbers could be expanded somewhat in those instances.

It becomes obvious then that it is necessary to contact the station to see how many slides can be handled during the program. If this number is less than has been planned, special arrangements must be made or the number of slides reduced.

How many slides can be used in a presentation? This is a question that is often asked by agents, and it is a difficult one to answer. If there is a direct reference by the speaker to anything in the picture, and if it is complicated or is to be discussed at some length, one or two slides in a minute maybe a good guide. If, on the other hand, the slides simply show general scenes providing a background for the topic being discussed and no direct reference is to be made to the picture, four or five a minute may be used. It all depends on how they are to be used and the topic. Here, once again, a conference with the director will give the individual presenting the program the best guides to follow.

Filmstrips

Television projection equipment is not equipped to handle filmstrips, the producers said. If it is found that a particular visual can be obtained no other place than on a filmstrip, special arrangements must be made for front-screen studio projection.

A standard filmstrip projector is used, and the picture is picked up by a live camera from a movie screen in the studio.

Because of studio lighting problems, any front-screen projection devices should be avoided wherever possible.

Occasionally, someone will ask about the use of visuals prepared for an overhead projector. The same thing can be said about these as have been said about filmstrips. However, there is a method of using them other than projecting them onto a screen. They can be backed with a light colored cardboard and then shot with a studio camera as a studio visual. Unless they are simple and needed to clarify a point, it would probably be better to try to find some other method of visualizing the information than to use them, even in this manner.

Rear Screen Projection

The producers pointed to another way that projected visuals can be used on television, and that is by rear screen projection. By this method, special slides are projected through a translucent screen from a projector behind the screen. The image is picked up by a live studio camera on

the opposite side. Although a special slide is usually used for this type of projection, a 4 x 5 inch glass transparency, two stations reported having facilities that could use a normal 35mm slide in a rear screen projection situation. In all, five stations have rear screen projection facilities.

The use of rear screen projection enables the producer to achieve almost any setting desired, from a beach scene on a deserted beach to a skyline of a hugh metropolis.

Rear screen projection has the advantage of enabling the person doing the program to stand close to the screen without intercepting the projected beam, making its use ideal for maps and other items where the person feels that he must physically point out details.

Rear screen projection slides can be changed during a program, much the same as slides on the film chain. Usually, the first one will fade out leaving a blank screen behind the person standing in front of it, then the next slide will fade in. This is done by diminishing the light, changing the slide, and then increasing the light to its original intensity.

Telops, Balops and Opaques

All of these terms refer to items that are quite similar both physically and in the way they are used. For that reason, the producers discussed them as one group of projected visuals.

The telop machine is a shortened version of the machine's actual name. In its complete form, it is the

television optical projector, and it projects 4 x 5 inch photos and other opaque art work into the vidicon film chain camera. Only KAKE-TV, Wichita, of the stations surveyed, had an actual telop machine.

Five telops can be loaded into a sliding rack at one time. These are then shoved into the proper position one at a time to obtain the desired picture at the desired time.

The balop machine, or Balopticon, is similar to the telop machine, and also works as an opaque projector. It does have the unique feature of being able to be used to project transparencies also. Regardless of whether it is opaque or transparent, the size used at the two stations in the study having a Balopticon, KCKT-TV, Great Bend, and KGLD, Garden City, is 3 1/4 x 4 inches. This means that it is ideal to use polaroid photographs on the balop machine. Also, this is approximately the size of the picture coming over the wire on a Mini-fax machine.

Five stations had some arrangement incorporated in the film chain other than a telop or balop machine, for the projection of opaques. Several of these could handle opaques of various sizes. One arrangement had the capabilities of handling any size opaque from one 4 inches x 5 inches to one 30 inches x 40 inches. This latter arrangement was at KAKE-TV, Wichita.

These opaque machines, at each of the five stations, also had the capability of projecting small three-dimensional objects into the vidicon film chain camera.

One tremendous advantage to the outside producer, especially County Extension Agents, in using either the telop or balop or opaque machine, is the ability of the system to handle and project clear, clean, concise, typed material. In this manner, one point can be typed on a piece of paper and placed on a cardboard backing to go into one of these machines, and eliminate the difficult and tedious task of hand lettering signs for use in the program.

Crawls

To show a great amount of copy successively, as in closing credits, the producers suggested that a television crawl should be used. There are two basic types of crawls: (1) the studio crawl; and (2) the telop or balop crawl. Both work on the same principle. The lettering is put on a long, narrow strip of heavy paper that is moved mechanically in front of the camera. The studio crawl is done in front of a studio camera, and the other is done on the machine incorporated into the film chain. If a crawl is desired, be sure to check with the director before making it to gain his advice on how to make it and how much he thinks should be included on it.

Two-Dimensional Visuals

Graphics

Graphics is a term used by the producers that includes a number of two-dimensional visuals, or perhaps to be more

accurate, it is a term that is generally understood regardless of what an individual station may call graphics in its own studios. They may go under many names, the most common include; Camera Cards, Television Cards, Studio Cards, Flip Cards, Drop Cards or Pull Cards. The last three terms actually describe how the cards are to be used as well as to differentiate between them and any other visuals.

Flip Cards are punched and placed on a stand containing a ring binder similar to that found in school notebooks. These can be either flipped into the picture or flipped out of the picture and are shot by a studio camera.

Drop Cards are seldom used any more, but they are simply shot by positioning the camera so that it is shooting a fixed area and the cards drop into view by sliding down guide slots in a rack that is specially made for this purpose.

Pull Cards may be in a rack or simply placed one in front of another on an easel to be shot by a studio camera. When a picture change is desired, the picture in front is pulled to either the right or left to expose the picture next in line. One disadvantage of using any of these methods is that the illusion of reality is lost and the viewer knows that he is seeing photographs.

Camera Cards seems to be a term that is generally understood, by producers, to apply to all graphics of this type, those to be used in the studio and shot by a studio camera, so this will be the term that is used in the remainder of this discussion.

When considering the use of graphics, watch for the following points in the selection and preparation of material for the programs as mentioned by production people at the stations surveyed:

1. Be sure that the material is appropriate to the purpose of the program.
2. Be sure the material is simple, uncluttered, clean, neat and to the point.
3. Graphics should always be in the 3:4 aspect ratio.
4. Be sure the copy is well centered within the outside dimensions and margins are left on all sides.

A good method of establishing copy area on a Camera Card is "The Rule of One-Sixth". One-sixth of the width on each side and one-sixth of the height, at top and bottom, should be considered only supplementary area and left for margins or bleed area.

Standard chart sizes for television depend on whether they will be used on ON SET or OFF SET, according to the producers. ON SET charts are usually 22 x 28 inches or 30 x 40 inches. Camera Cards are universally 11 x 14 inches. This is simply because the card stock comes in a 28 x 44 inch size. When cut, one stock card yields eight 11 x 14 inch Camera Cards. This is a convenient size to handle and is close to the 3:4 aspect ratio, the producers said. The camera actually scans an area 10 1/2 x 14 inches if the entire card is framed in the camera's viewer. The safe copy area is 7 x 9 1/2 inches in the center of the 11 x 14 inch

card. It should be remembered that the picture on the home television set does not have straight sides, rather the sides are elliptical and this must be taken into account to maintain all essential information within the safe copy area.

The most common used card stock at the stations in the study, and by Kansas State University Extension Television, is a crescent Television Illustration Board, #350, medium light grey, medium weight. This is sturdy, easily handled, the color is light enough to use dark black printing on, and light enough in color to also use greyed white printing, depending upon what effect is desired.

County Extension Agents asked a number of questions about how much lettering could be placed on a Camera Card, how big the lettering should be, and how bold should the letters be.

The following rules were given by the producers as a guide in answer to these questions:

1. Height of the letters should be approximately $1/15$ the height of the card or chart. On a standard 11 x 14 inch Camera Card this would be about one inch.

2. Width of letters should be approximately $1/25$ the width of the card or chart. On the standard 11 x 14 inch Camera Card this would be about one-half inch.

3. Boldness or stroke width of letters should be approximately $1/100$ the width of the card or chart. On the standard 11 x 14 inch Camera Card this would be about one-eighth inch.

4. Letters and numbers should be separated by approximately one stroke width. On the standard 11 x 14 inch Camera Card this would be about one-eighth inch.

5. Use no more than three horizontal planes or organization in any visual for optimum results. This would mean no more than three lines of printing on a Camera Card. Occasionally, four may be used, but if this is true, the size of the letters must be deminished to approximately three-fourths inch. They should never be smaller than this.

In choosing colors for backgrounds, it was mentioned by the producers that a medium light grey seems to be fairly standard, but a medium red also works well. Use greyed white or black lettering on these backgrounds. Different hues of red, green, blue and black may produce the same grey tone on camera. One method of giving some indications as to what they might do on camera is to squint at the card while holding it at an arm's length to see if any of the colors seem to blend together. If there is any question about them, they should be checked on camera before the program.

Photographs can be used to good advantage in almost any program, the producers said. If photographs are to be used, they should be mounted on a standard size Camera Card. They should be centered, and mounted smoothly, without wrinkles to pick up and reflect light into the camera. Most stations preferred to use 8 x 10 inch photographs, but all stations could, and have, used polaroid pictures. The latter are simply a little more difficult for the cameraman to

obtain a picture of as quickly as the larger photograph. If the photograph is a glossy print, it will be treated with a harmless dulling wax spray to kill any reflection before it is used.

If a series of graphics is to be used on the program, either ON SET or OFF SET, it is best to have them all the same size or mounted on the same size backing, according to the producers.

Commercial maps should not be used. The lines are too busy and confused. Instead, an outline map can be made using bold lines of black and white on the medium grey card.

Other graphics that are often used, on television, include the chalkboard, flannel board and the magnet board. All of these are used in much the same way as they would be for any meeting.

Three-Dimensional Visuals

These have already been discussed under the topic of properties. It includes models, actual objects and displays.

Special Color Considerations

So far, the discussion has been limited to the factors and considerations of black and white television. This is still the predominate type of local live origination at the stations surveyed. However, at the present time, seven of the stations can transmit color programs received from the network.

One station can currently originate live color programs in their own studios, program color video tapes, and color films and slides from the film chain. Their plans at the present are to expand their color facilities to a considerable degree within the ensuing year. When all of the equipment arrives and is operational, they plan a considerable increase in the amount of local color originations. This means that agricultural programs being broadcast in color over that station and its satellites is in the foreseeable future.

This will have a direct effect on the type and quality of visuals prepared and selected for use on those broadcasts.

Another station has similar plans pertaining to local color originations. At the present time, they are waiting for a complete compliment of color equipment for studio, film chain and video tape. When this equipment arrives, is installed and becomes functional, they plan to have 100% of the locally originated programs broadcast in color. The time schedule for this is also within the next year. Agricultural programs currently being carried by this station and its satellites will also be carried in color at that time.

Performance

Perhaps the most important visual of the television program is the person who is presenting the program, according to the producers. The camera conceals nothing when it transmits an individual's electronic image...the individual's appearance, actions and attitudes all combine in this electronic image seen

by the viewer.

Hard and fast rules are difficult to pin down in this area, but the author did receive a number of aids from the personal interviews with people at the stations in this study pertaining to this subject. These have been summarized and grouped into three main areas; appearance, action and attitudes.

Appearance

The producers said that the face is the thing...the thing that makes or breaks an individual's television personality. Is it friendly? Is it sincere? Is it pleasant? Smile! (italics mine) Be interested in the subject and know it well. Be enthusiastic about its importance.

Clothing

Clothing is important too, as the producers pointed out. Well fitting suits or dresses enhance an individual's television silhouette.

Plain colors of medium value are always safe selections. Shy away from black, other dark colors and white. There are exceptions, to be sure. The background a person will be working against determines how the clothing will televise. If the background is light, wear darker tones. If the background is dark, wear lighter tones.

Shiny fabrics, plaids and prints, do strange things when caught by the television camera. Textured, tweedy fabrics, novelty weaves, add interest without distracting

effects. If an individual desires to wear plaids, stripes or prints, the size of the design and the contrast of the colors used should be considered. They are not all undesirable, but should perhaps be checked on camera before they are worn. Such patterns are glen plaid or houndstooth which embody highly contrasting tones will appear to shimmer. Strong vertical, horizontal or diagonal patterns might prove unflatteringly busy on camera.

Suits should fit well. Those of medium color tones are best for wearing on camera. Shirts should be plain beige, grey or pastel tones rather than white, when worn with dark clothing. Plain ties are preferred. Some ties which may appear rather conservative, often have a gaudy look on television. This happens often with the over-all patterns or designs. There is no harm in wearing sports jackets with contrasting trousers, providing the contrast is not too great. Dress to fit the occasion, but always appear neat.

Should the camera views be wide enough to include a person's feet, shoes and socks that contrast to heavily with one another or the trousers will divert attention away from the face, the producers said. Socks should be solid colored and long enough to preclude showing a bare calf while seated.

They said that eyeglasses should be used on television as they would be used anywhere else. Feel free to put them on or take them off at any time, but it should be remembered that the nervousness of a guest can always be spotted by constant toying with either glasses or pencils.

Jewelry can easily cause the cameraman headaches. Men's tie clips should be rather a dull finished type. Heavy shiny watch bands can cause camera problems also.

Men who have a beard problem should be clean shaven and use pancake make-up to prevent dark shadows.

Well groomed nails often enhance the close-up view. If hands are to be seen close-up, it is a must for them to make a neat appearance.

Actions

Actions enhance an individual's appearance on camera, the producers emphasized. The way a person looks on camera, the way he handles the visuals, his poise, and the way he moves are important to the image he leaves with the viewer.

All actions on camera should be deliberate. Walk slowly. Sit and stand slowly and with ease. Move things from place to place gently. If an object is to be hand held, keep it in one position. If an object is to be displayed for a camera close-up, it is a good idea to anchor it to the table, and simply tip it or turn it in position.

Obvious cues should be given if any major movements become necessary. Above all, standing or sitting without warning should be guarded against. Nothing is so distracting as a momentary shot of a belt buckle or empty space. If a movement does become necessary, the cameraman and director should be warned as to what is going to be done. This can be done by saying something like, "Let's go over here...",

or if a close-up is desired, everyone can be alerted by saying, "Now let's take a close look at the detail on this object..."

It is a must to learn to operate visual while speaking, and while talking to one camera display the visual to another camera taking the close-up shot. Audio and video should always be co-ordinated. The viewer should see what is being talked about at all times. The object should be shown to the viewer as the viewer would operate the object, this might be backward to the person demonstrating it in the studio. Visuals should be displayed in the same small area of the table. Hand holding, without bracing in some manner, should be avoided.

Even though deliberate movements are necessary on television, they should not be lifeless. Enthusiasm and sincerity must project. Eyes, facial expression and body movements are all a part of this projection.

Attitudes

Attitudes are revealed through an individual's appearance, and actions, but more completely through the verbal presentation, according to the producers.

Attitudes toward the subject matter and toward the television media are quickly sensed by the camera and transmitted to the viewer. If an individual likes to do television and he believes in his message and expresses himself well, this will come through.

The television camera should be thought of as a good friend. Camera contact, the feeling that the camera is a person,

does not come easily. But, that feeling of warmth toward the camera is most important to a warm and friendly television image.

Cueing

The producers stated that the only contact the director has with the person presenting the program while it is on the air is through signs or sign language regarding position, action, pace, the proper display of visuals and time left before the show is over. These are given by the cameraman or floor manager to relay instructions from the director to the individual appearing before the camera. These will vary slightly between stations. The producers said that the best idea is to ask what signals will be used and what should be done when they are observed.

CHAPTER IV

SUMMARY

Limitations

This study of ten VHF television stations in Central and Western Kansas was conducted in the Spring and early Summer of 1965, prior to any programming announcements by the national networks for the program year beginning in the Fall of 1965. These could have a direct bearing on the total programming of a station and what times during the day would be available for local originations. It could not take into consideration the fact that programming changes could occur rather rapidly.

An indication could not be gained prior to color origination, as to the effect of this on the audience.

Nor, did this study try to measure the audience as to numbers or their reaction to the local programs originated by the stations.

Discussion

During the study it was found that the station personnel had a high regard for the majority of the agricultural programming currently being originated locally or by their particular base station. They believed that it

was fulfilling a need for their audience and was well accepted by their audience. Several suggestions for improvements and these programs were made, and these have been discussed previously in this study.

Those persons producing and appearing on these programs believed that television was an excellent opportunity to reach a larger number of people with their information than might be possible otherwise. A number of the agents contacted mentioned feeling slightly uncomfortable when appearing on television, but thought that this could be due to their relative unfamiliarity with the medium and how best to use it in their work.

The information gathered from interviewing production and program department personnel at the ten television stations, and County Extension Agents in the area, between May 3rd. and June 11th., 1965, generally supported five of the eight hypotheses projected in this study, partially supported two others, while failing to support one of the hypotheses.

One of the hypotheses that received full support was that each television station had studio facilities available for local live originations, and did originate programs from these studios each weekday. At the present time, this is true. The last station to install a studio camera was KGLD-TV, and this was done about a year before this study.

A majority of the stations in the study had two or more studio cameras. Six of the stations did have, four did not. All of the stations except one, KLOE-TV, had at least one studio camera equipped with a zoom lense.

Only five of the stations had rear screen projection equipment. Three of these were the base stations for the regional networks. All three of them located in Wichita.

Another hypotheses receiving full support was that each station had film chain facilities available for use with local live originations. All the stations had these with the exception of the secondary studio of KTVH, located in Hutchinson. If film or slides were to be used during a program originated from that location, special advance arrangements had to be made. All stations had sixteen millimeter motion picture projectors and thirty-five millimeter slide projectors incorporated in their film chain, except for KLOE-TV which did not have a slide projector. Only three stations, KARD-TV, KLOE-TV, and KUP-K did not have some method of handling some type of an opaque as well. In addition, one station, KAKE-TV, had an eight millimeter motion picture projector incorporated in their film chain for limited use.

Only the three base stations, located in Wichita, had video tape facilities. This means that any programming done in the local studio at other than these three stations must be done live. Also, all three of these stations had remote facilities for video taping on location.

The hypotheses that the number of various equipment items used in local live originations would vary between stations received full support. An example of this is the variation of the number of studio cameras at the stations. One station had three studio cameras, five stations had two studio cameras and

four stations had only one studio camera.

A fourth hypotheses that received full support was that some items of equipment would have different capabilities as compared to similar items of equipment at other stations. This can be shown by observing the wide variation of the capacity of the slide projector between stations. This varied from a low of twelve at two stations to a high of one hundred at two stations.

The hypotheses that each station originated at least one agricultural program was fully supported. It should be mentioned here that all the stations, except KLOE-TV, were carrying an agricultural program produced and presented by Kansas State University Extension Television, and each considered it as being originated for them, if not by them. Also included in this category were market programs and certain news and weather programs as well as programs produced and presented by local County Extension Agents.

The hypotheses that the major problem encountered at the stations in presenting agricultural programs produced and presented by other than station personnel was one of knowing what equipment was available and how to make use of it was only partially supported. A problem of equal importance, encountered by these same people, was the selection of a subject and its presentation.

Receiving the least support was the hypotheses that there would be no major equipment changes beyond the normal maintenance and replacement with similar but newer items within the next year. Definite changes were being planned

within this time period at two of the base stations, and one other station, that would affect locally originated programs.

One base station, KTVH-TV, planned on a change-over to color studio and film chain equipment within the next year. All local programs would then be produced in color and carried in color by their regional network. Also, within the near future, a move to new studio and office facilities is planned.

Another base station, KARD-TV, is planning on expanding its color facilities within the next year and the probability exists that all local programs will be produced in color and carried in color by their regional network.

One station, KGLD-TV, is planning on building another studio to expand present facilities.

Only partial support was received by the hypotheses that there would be no major program changes as related to locally produced originations. None were mentioned in the interviews and none are now being planned. However, a number of unknown factors have a direct influence on programming and changes in programming could occur rather rapidly and on short notice because of these. One example of this is the programming carried by the station from the national network, and what times during the day would be available for local originations within this schedule.

Suggestions For Further Study

A follow-up of these same stations following the planned changes of equipment would give an entirely different

set of results because of the expanded facilities and their capabilities. Along this same line, certain changes in presentation might be brought about by the change from black and white productions to color productions. Special considerations in terms of visuals, as well as studio props, could then be given.

Another area of concern, untapped in this paper, is that of the audience receiving this type of programming. A definite need does exist for knowing more about them and of their reaction to the local programs originated by the stations.

APPENDIX A
The Questionnaire

Station:

Channel:

Address:

Studio Location:

Transmitter Location:

Approximate Studio(s) Size(s)

STUDIO EQUIPMENT

Studio Cameras (number, type, and lense compliment on each):

- 1.
- 2.
- 3.

Rear Projection Screen(s)

Rear Screen Projector(s)
(size of slide used)

Other:

FILM CHAIN EQUIPMENT

Film Chain Camera(s)

16 mm Film Projector(s)

35 mm (2x2) Slide Projector(s)

Type of slide drum

Maximum number of slides at one time

Telopticon

Balopticon

Opaque Projector other than these

Other items not listed

Video Tape Recording and Playback Machines:

AUDIO FACILITIES:

Studio Mikes (number of separate channels at the same time)

Turntables

Audio Tapes

Reel:

Cartridge:

EQUIPMENT COMMENTS:

What equipment changes are being planned? (Include here any comments on the expansion of capabilities of present equipment through up dating, replacement, purchase of new items, change over to color...and the like.)

How much local, live programming do you originate on an average weekday?

During what time of the day are these programs?

What type of programs are they? (News, weather, sports, childrens program, etc.)

What ones of these could be considered as agricultural programs?

How many programs are produced and presented by other than station personnel?

Who are these "outside producers"?

How much experience have they had in television prior to producing these programs?

How much assistance are you able to provide them?

What are the most common mistakes made in the preparation of this material?

What type are most of these programs...straight talk, demonstration, interview or group discussion and panel?

What types of visuals are provided by the producers?

Which type of visuals do you prefer?

How do you prefer film to be cued?

Can you do double projection?

APPENDIX B
Station Information

KANSAS TELEVISION STATIONS SURVEYED

ENSIGN, KANSAS - GRAY COUNTY

1. KTVC, Channel 6. July 24, 1957. 28.2 kw visual, 14.1 kw aural; antenna 720 feet above average terrain, 686 feet above ground level. Box 157, Dodge City, Kansas. Telephone: HUnter 3-6666, Area Code 316. Licensee: Southwest Kansas Television Company. Network: CBS-TV; Kansas Broadcasting System (4-station State Network). Rate: \$130. Officers: Leigh Warner, President; Wendell Elliott, Vice-president, General and Commercial Manager; Bob Surber, News Director; Kenneth Karr, Chief Engineer.

GARDEN CITY, KANSAS - FINNEY COUNTY

1. KGLD, Channel 11. November 5, 1958. 200 kw visual, 100 kw aural; antenna 796 feet above average terrain, 834 feet above ground level. Licensee: Wichita Television Corporation. (Satellite of and is sold with KARD-TV, Wichita).
2. KUP-K, Channel 13. November 8, 1964. 87.1 kw visual, 26.1 kw aural; antenna 870 feet above average terrain, 881 feet above ground level. Box 216, Copeland, Kansas. Licensee: KAKE-TV & Radio Incorporated. (Satellite of and sold with KAKE-TV, Wichita). Officers: Mark H. Adams, President; Chet Wise, Station Manager; Paul Henderliter, Chief Engineer.

GOODLAND, KANSAS - SHERMAN COUNTY

1. KLOE, Channel 10. April 28, 1959. 316 kw visual, 158 kw aural; antenna 770 feet above average terrain, 778.5 feet above ground level. Licensee: KAYS Incorporated. (Satellite of and is sold with KAYS-TV, Hays).

GREAT BEND, KANSAS - BARTON COUNTY

1. KCKT, Channel 2. November 28, 1954. 100 kw visual, 50 kw aural; antenna 970 feet above average terrain, 1,005 feet above ground level.
Licensee: Wichita Television Corporation.
(Satellite of and is sold with KARD-TV, Wichita).

HAYS, KANSAS - ELLIS COUNTY

1. KAYS-TV, Channel 7. September 2, 1958. 112 kw visual, 60.3 kw aural; antenna 710 feet above average terrain, 821 feet above ground level.
Box 695 Telephone: Market 4-2578, Area Code 913.
Licensee: KAYS Incorporated.
Network: CBS-TV; ABC-TV. Kansas Broadcasting System (4-station State Network).
Rate: \$220, includes satellite KLOE-TV, Goodland.
Color: Network.
Officers: Ross Beach, Jr., President; Robert E. Schmidt, Vice-president and General Manager; Bernie Brown, Station Manager; Harvey Zimmerman, Program Director; Keith Townsdin, Chief Engineer.

HUTCHINSON, KANSAS - RENO COUNTY

1. KTVH (Licensed to Hutchinson-Wichita. See Wichita).

WICHITA, KANSAS - SEDGWICK COUNTY

1. KAKE-TV, Channel 10. October 19, 1954. 316 kw visual, 219 kw aural; antenna 1,030 feet above average terrain, 1,079 feet above ground level.
Box 1010 Telephone: 943-4221, Area Code 316.
Licensee: KAKE-TV and Radio Incorporated.
Network: ABC-TV.
Rate: \$940
Video Tape: Ampex (2)
Officers: Mark H. Adams, President; Martin Umansky, Vice-president, General Manager and Film Buyer; Donivan Waldron, National Sales Manager; Bryce Benedict, Local Sales Manager; Ron Williams, Promotion Director; Robert Kyle, Program Director; Greg Gamer, News Director; Harold Newby, Vice-president and Chief Engineer.
2. KARD-TV, Channel 3. September 1, 1955. 100 kw visual, 50 kw aural; antenna 1,000 feet above average terrain, 1,071 feet above ground level.
833 North Main Telephone: 265-5633, Area Code 316.
Licensee: Wichita Television Corporation.

2. (con't) Network: NBC-TV
 Rate: \$1,000; includes 3 satellites: KCKT, Great Bend; KGLD, Garden City; and KOMC, McCook, Nebraska.
 Color: Network, slides, live, film.
 Video Tape: RCA (2) Ampex (1)
 Officers: George M. Brown, President; Don Sbarra, Vice-president, General Manager and Film Buyer; C. E. Hendrickson, Commercial Manager; Bill Sikes, Program Director and Production Supervisor; Barry Stover, Promotion Manager; Dave Wilson, News Director; Russell V. Goyette, Chief Engineer; Gene Canfield, Sales Manager.

3. KTVH (Hutchinson), Channel 12. July 1, 1953.
 316 kw visual, 158 kw aural; antenna 1,520 feet above average terrain, 1,503 feet above ground level.
 Box 12 Telephone: TEmple 8-1411, Area Code 316.
 Licensee: Wichita-Hutchinson Company.
 Network: CBS-TV; Kansas Broadcasting System (4-station State Network).
 Rate: \$800
 Color: Network
 Video Tape: Ampex (2)
 Officers: Joyce A. Swan, President; M. Dale Larsen, Vice-president and General Manager; William S. Ritchie, General Sales Manager; Chuck Williams, Local Sales Manager; Robert D. Snyder, Program Director; John S. Mileham, Sales Promotion Director; Robert Payne, Station Promotion Director; Wayne Harris, News Director; Kenneth H. Cook, Chief Engineer.

McCOOK, NEBRASKA - RED WILLOW COUNTY

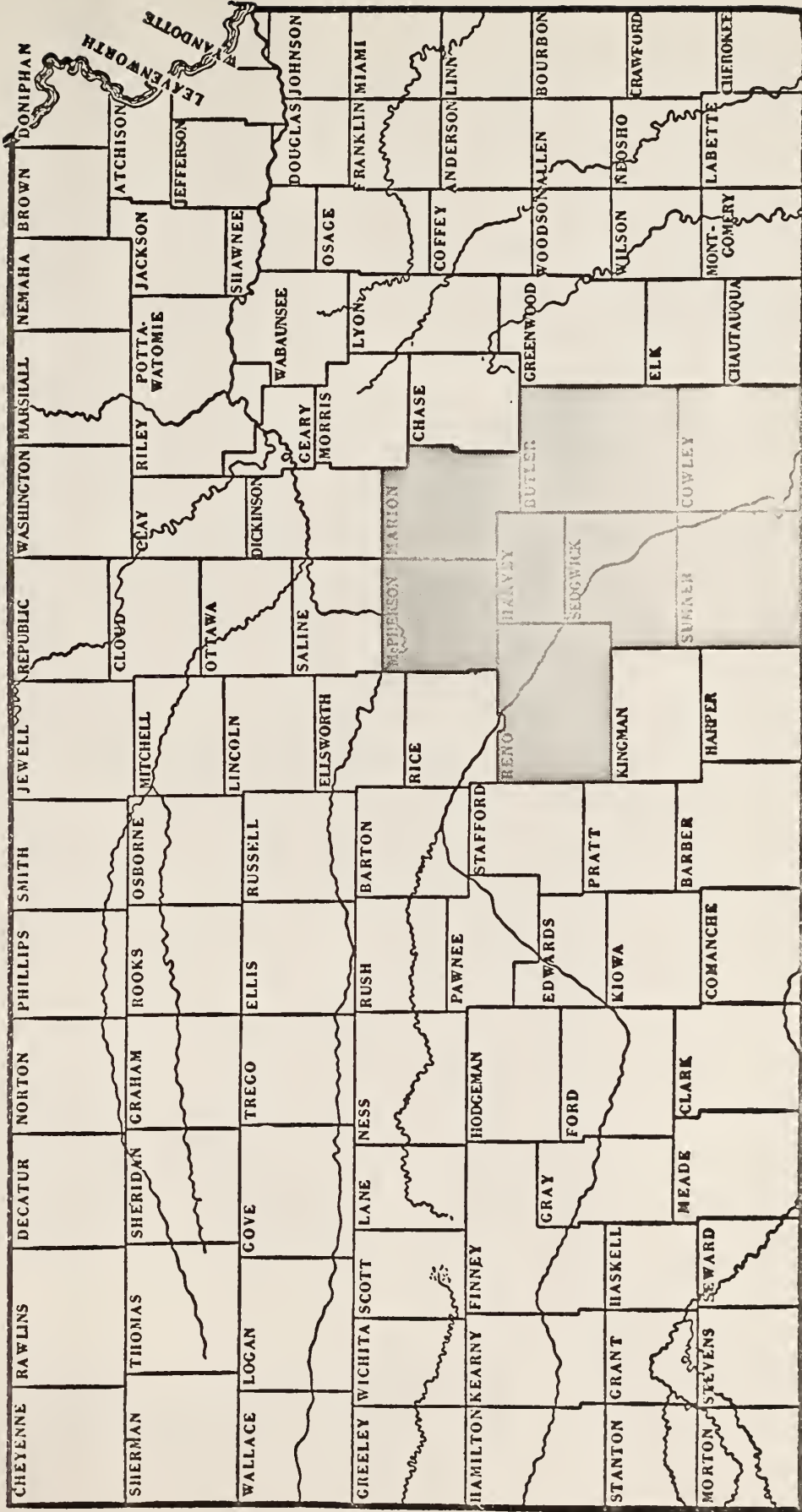
1. KOMC, Channel 8. November 28, 1959. 100.8 kw visual, 50.43kw aural; antenna 710 feet above average terrain, 677 feet above ground level.
 Satellite of KARD-TV, Wichita, Kansas.

APPENDIX C
Station Coverage Areas

APPENDIX D

Response from Counties for Special Offers

Counties represented by requests for Lawn and Landscaping Packets as offered on "KANSAS SCENE", March 22-26



Wichita 24
 Kansas 39

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TELEVISION PRODUCTION TECHNIQUES AND PERFORMANCE STANDARDS
FOR KANSAS AGRICULTURAL INFORMATION PROGRAMS

by

DONALD MELVIN SPRINGER

B. S. Kansas State University, 1957

AN ABSTRACT OF A MASTER'S REPORT
submitted in partial fulfillment of the
requirements for the degree

MASTER OF SCIENCE

Department of Technical Journalism

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1966

PURPOSE OF THE STUDY

Two major areas were investigated in this study. First, the amount and type of equipment available at ten VHF television stations in Kansas for local live originations, its capabilities, limitations and flexibility. Second, the amount and type of present local originations and the time of day of these originations and the problems encountered by County Extension Agents in producing a local television program.

PROCEDURE

This study was a personal interview survey with production and program department personnel at ten VHF television stations located in Central and Western Kansas, between May 3rd. and June 11th., 1965. The survey was supplemented by a series of informal interviews with County Extension Agents in various counties to ascertain the problems they encountered in producing a television program.

FINDINGS

The findings of the study generally supported five of the eight hypotheses projected, partially supported two others, while failing to support one of the hypotheses, as based on the investigation of the requirements at the television stations in

the study as to the methods and equipment used, and the problems encountered, in producing television programs to be originated locally.

One of the hypotheses that received full support was that each television station had studio facilities available for local live originations, and did originate programs from these studios each weekday.

Another hypotheses receiving full support was that each station had film chain facilities available for use with local live originations.

The hypotheses that the number of various equipment items used in local live originations would vary between stations received full support.

A fourth hypotheses that received full support was that some items of equipment would have different capabilities as compared to similar items of equipment at other stations in the study.

The hypotheses that each station originate at least one agricultural program each weekday was also fully supported.

Receiving only partial support was the hypotheses that the major problem encountered at the stations in presenting agricultural programs produced and presented by other than station personnel was one of knowing what equipment was available and how to make use of it. A problem of equal importance encountered by these same people was the selection of a subject and its presentation.

Receiving the least support was the hypotheses that

there would be no major equipment changes beyond the normal maintainance and replacement with similar but newer items within the next year. Definite changes were being planned for expansion and for local color originations.

Only partial support was received by the hypotheses that there would be no major program changes as related to locally produced originations.

