Catfish commercially to edible size, but by growing them with other species of fish, they have had a growth of 1¼ to 2 pounds in a twelve-month period. Due to the demand of Channel Catfish fingerlings, the decision was made this year to produce them commercially. At present, we are located in Huntsville, Ark., where the pH of the water ranges from 6.8 to 7.5. This year's hatch of twenty-four spawns out of a possible twenty-eight, consumed 1,100 pounds of feed at a cost of sixty dollars. At the age of two months, they were five inches long and weighed 36.5 pounds per thousand. We had an oddity in our hatch this year, in that we had one complete nest of white Channel Catfish; or perhaps you could call them Golden Channel Cat as their color has a slight golden tinge. They are a sturdy fish and have developed as well as any of the others. They have no dark color pigment in the skin, and upon close examination the texture of the meat can be seen. We have approximately seven thousand of these white fish; and plan to retain one thousand of them for further experiments in reproduction. We hope to obtain more information on them during the next two or three years.

SUMMARY

In summarizing the above paper and from observations made over the past few years, I feel the Channel Catfish needs more artificial propagation than any other species. This is due primarily to their spawning habit. It is also necessary because of the demand for this fish for table use. The propagation of this fish is a full-time job. For best results require much attention during the spawning season, and until they reach the age of three weeks. If routine feeding and water level is maintained, the mortality after the three-week period is very low.

TECHNICAL EDUCATION SESSION

DEVELOPING A SUSTAINED TV CONSERVATION PROGRAM—AND POSSIBLE COOPERATING AGENCIES AVAILABLE

By FRANK L. HAYNES

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The potential for telling the conservation story to America presents a challenge, an obligation, and an opportunity to State Conservation agencies that is almost infinite in its scope.

It is a challenge because the success of any great movement or program with far-reaching and continued results must have public approval and individual participation. It is an obligation because the welfare of generations yet unborn will depend on how well we who are paid to sell the conservation idea do our work.

It is an opportunity because there are in excess of 80 million television sets in daily use in America and a good television program will be more effective than a personal visit into these homes because you can carry with you the story in picture as well as in words. It would be impossible to carry the props with you personally that you are able to carry with you on a well-planned and photographed conservation program.

The old methods of communication are no more adequate to tell a needed story than is the horse and buggy adequate for modern transportation.

The first creation of a sustained television program should be truth and its first casualty should be ignorance and falsehood. As the old country philosopher said, "America's greatest fault is not ignorance. It is the fact that we know so much that ain't so." A television program should not preach doom but should try to show the relation of man to his environment and how he can help to improve that environment. The programs should be specialized in terms of subject-matter. Do not try to cover every field in each program. But the presentation itself should never be specialized. Nothing will start radio dials to turning or television channels to changing faster than technical programs. Make your narration as simple as possible. Remember you are speaking to all ages and that more than 90 per cent of your audience is not interested in technicalities. They are interested in entertainment, me, mine, why, and how things may be improved. Your program must have entertainment and personal appeal interwoven with the facts you wish to tell.

The physical makeup of the program should give thought to the following facts:

1. What the TV Station expects of the public agency.

a. A good 15- or 30-minute program that has audience appeal. This is important because desirable time will have such heavy competition from highly commercialized stations (The \$64,000 Question, I Love Lucy, etc.). This program should be one that will build the reputation of the station.

b. Most stations prefer a series of 13 programs. This might be extended to 26. This is very important because good TV programs are based on a regular daily or weekly time. Audiences become accustomed to seeing a certain show at a certain time each week and plan accordingly. This will help to build and keep an audience.

c. The station expects the agency to provide all props and to remove same after each show.

2. Television time is based as follows (The time element is important):

a. Time from 6:00 P. M. to 12:00 midnight is the most sought-after time because it has the greatest audience. Hence it is the most costly.

b. Time from 12 Noon to 6:00 P. M. is the second best time. This time is preferable for children's programs and programs appealing to the ladies. This is also second in cost.

c. Time from opening time of the station in the morning until 12:00 noon is the cheapest and it is also the time when most public service programs are placed. However, it is the least desired time because your audiences would be almost entirely housewives whose attentions would certainly be divided between TV, baby, maid, dirty dishes, housecleaning, buying groceries, preparing meals and a host of other duties.

Your program should be timed to fit the audience you desire to reach. The most preferred time for a conservation program would be between 6:00 and 7:30 P. M. because this would reach all ages and you would have the least competition from established commercial programs.

This is the most expensive time because so many agencies are competing for this time.

You must bear in mind that the TV stations must make money to stay in business and if you want good time you must be prepared to pay for it either directly or through a sponsored program.

If you depend on public service time entirely your program will be worth very little because of a necessity there could be no certainty as to the sustained hour or audience. You mighta have a program prepared especially for men and it might be placed at 9:00 A. M., etc.

3. Financing a program.

If you have sufficient money in your budget to finance your program that is a wonderful situation to find yourself in.

If your program must be sponsored and the ministers, deacons, elders, mothers, scout masters, teachers and other groups are as watchful in your state as they are in Alabama (and I surel hope they are), caution should be exercised in selecting a sponsor.

You would not get much help for your forest fire warden if he was fighting fire with a can of beer in his hand or carrying a fifth of Bourbon in his pocket. Neither would you get much cooperation from your scout masters, youth group leaders or school teachers if you were hauling your conservation program on a cigarette wagon.

4. Prepare your program and script.

Before seeking program time or trying to sell your program to a sponsor you should have your entire series of programs well outlined with script to match. This will assure the TV station managers that the time allotted will be filled. This will make it easier to obtain a good sponsor. Stations will sometimes use a good and well-planned program on preferred time rather than pay for a syndicated movie if they are assured the time will always be filled.

The most effective and easiest program to plan is a series of films. Yet, this is the most expensive. However, these films could be shifted among the various broadcasting stations in the state. Too, they could be filed for use again and again. The cheapest program would be live area or sectional programs developed in the various communities or sections.

The agencies whose services could be utilized are numerous and varied.

I shall start with those most closely allied in primary functions.

The Soil Conservation Services could be of immeasurable service in land management, farm fish ponds, food for wildlife, water studies and forestry practices. In Alabama we find this service most cooperative.

The Extension Services, or County Agents, can be most helpful in the field of conservation as related to farm practices.

The Vocational Agriculture Teachers could be utilized in both live programs or in film production. It would not be difficult to find some wide awake vo-ag teacher with a pupil who is carrying out an outstanding soil conservation project, wildilfe management project or various other projects that are connected with conservation work. A live program of this nature would be fine for a regional show.

The services afforded by the Land Grant Colleges could certainly be used in any kind of program. Their source of available facts, and projects in soil conservation, wildlife research, forestry research and fish culture is almost unlimited.

In telling a conservation story it is always much more effective if the greater part of the personnel used is outside the field of conservation work as a livelihood. The general public feels that those directly connected with conservation work more or less have an axe to grind so to speak. I am sure that the following organizations would be cooperative and could be used very effectively in supplying personnel for a live program: Conservation clubs or sportsmen's organizations, Audubon Societies, Izaak Walton Leagues, Boy Scouts of America, Girl Scouts of America, Future Farmers of America, and 4-H Club members.

One group that we have been overlooking too long in our conservation movement is the women's clubs. The women's Federated Clubs and the garden clubs of Alabama have become most intensely interested in conservation work especially in stream pollution, forest resources and wildlife development. They are putting on some interesting programs and are sponsoring some very valuable projects in the schools. If you are sponsoring a series of programs, of 13-26 or whatever duration, a program featuring this group would have far reaching, intangible value from a public relations standpoint.

In the State of Alabama, and I assume in other states also, some of the large lumber and pulpwood companies employ trained personnel in the wildlife field. These can surely be advantageously utilized because they will require no expense money. The Tennessee Valley Authority, with Headquarters at Knoxville, Tennessee, can furnish films and other material. They have an abundance of research data on flood control, forestry, wildlife, fish culture and numerous other subjects. They have always been most cooperative.

The following are some of the agencies from which I am sure you can secure materials and, the most vital item of all, financial assistance of more than passing consequence.

1. Your State Forest Products Association.

2. American Forest Products Association.

3. Southern Pulpwood Conservation Association.

4. Southern Pine Association.

5. Forest Farmers Association.

- 6. National Lumberman's Association.
- 7. Power Companies (particularly those using water to generate power).

8. Wealthy public spirited and conservation minded individual sportsmen.

In my way of thinking one of the most important groups is the teachers' group.

If you find a teacher who is doing an outstanding job in teaching a unit in conservation or resource use, I am sure you would have no trouble in securing her cooperation in taking her class and demonstrating her work so that it could be filmed. This would probably take several visits, yet it would be a very valuable film for showing in a series of programs because other teachers and pupils would profit.

The state or local Bar Association is also a very important agency because, unhappily, so much of the conservation movement at this time is of a restraining nature. One program in a series of programs could very profitably be spent in securing a prominent attorney with statewide recognition to outline the importance of the Game and Fish Laws, also the Forest Fire Laws to the whole structure of a law abiding citizenry. They can also stress the importance of people who are called for jury duty sticking to the facts and not winking at Game Law violations as is so often done.

The outdoor writers should certainly be given an opportunity to participate in your programs.

The most important factor in the whole conservation picture—the farmer should very definitely be included in your program. If there is ever any measure of success attained in the conservation picture the farmer will be the principal figure.

I am sure that almost every county in your state has a farmer who is doing an outstanding job in soil erosion, tree farming, game food planting and water utilization. His story could be told in film or he could be brought in for a live program. This would have a far greater appeal to other farmers than any other approach.

We in Alabama are unique in the television field. We do not have to worry about preferred time or cost. In 1951 the Alabama Legislature made an appropriation of \$500,000.00 to set up the Alabama Educational Television Commission. The duty of the commission was to make a study and to set up an educational television system in Alabama for the purpose of offering all types of education to all ages and groups in the state. The Legislature made additional appropriations through the State Building Commission amounting to \$412,000.00 for the purpose of erecting studio transmitter stations and relay transmitters. They also made an appropriation of \$100,000.00 to the University of Alabama and the Land Grant College at Auburn for developing an adult education program for the TV Stations.

Studios and transmitters have been built and are in operation at University, Auburn, Birmingham and Andalusia. An additional studio is being planned at Mobile. In addition to the four studios with their transmitters there are six relay transmitters located at various places throughout the state so that the programs can be received in every section of the state regardless of what studio they originate from. The programs are all directed from the central office in Birmingham so that there will be no conflict in services rendered.

Broadcasting hours are from 12 noon until midnight Monday through Friday and are open to all of the agencies of the state who have an educational program. The time allocated to the various schools and public agencies is staggered by quarters so that no one agency will receive all preferred time.

The State Legislature has also made an appropriation of \$195,000.00 each year for the operation of the system.

A number of manufacturers of TV broadcasting equipment made large contributions of machinery and equipment.

Broadcasting operations have been underway some time and are proving the success and worthiness of the venture. The plan is under way to place a TV set in every school in Alabama.

The Alabama Department of Conservation has been allocated, without cost, all the time it can fill on this setup. And we in Alabama are proud to be pioneers in such a worthwhile adventure.

Probably it would be more profitable to spend your time visiting the members of your legislature rather than trying to sell your program to a commercial station.

ENHANCING THE VALUE OF CONSERVATION MOVIES

By HURAT C. HALL Tennessee Game and Fish Commission

There comes a time in every field of endeavor when it is necessary to stop and evaluate the success or failure of such endeavor . . . a time when it is necessary to take a backward look to see just what has taken place. And in the case of the Tennessee Game and Fish Commission's movie production program, we have recently done just that.

Here are some of our findings and conclusions:

When the Game and Fish Commission of Tennessee embarked on its intensified movie program in November, 1953, there was an urgent need for getting something on television in the quickest possible manner. Television had just come into its own in Tennessee. The Game and Fish Commission itself was in the process of expanding, and there was public demand for more information concerning activities of the Commission. All these facts combined to necessitate the beginning of a good, solid movie program. So, less than one year after the first scene was shot, a series of thirteen, twelve-minute, sound-color movies was completed and subsequently appeared on television.

But, what effect did such a speeded-up production process have on the overall value of these movies? Actually, that is not an easy question to answer. We know this, however: The production of those thirteen movies was accomplished mostly through the efforts of one man, and that under such circumstances, the Commission should have taken three times as long to complete the movies.

In any case, I believe that it can be safely stated that the value of a conservation movie can be greatly increased by being properly produced—That is to say, by having all the equipment, labor and time necessary to complete such a movie.

Of course, in speaking of the value of conservation movies, we cannot afford to overlook the role television now plays in enlarging that value. Before the advent of TV, the documentary-type film, at best, had a very limited use. In the great majority of cases it failed to reach the non-captive audience. And even when it did, it was in very small numbers. Now, television makes it possible to reach more people in one showing than formerly could be reached during the entire life of the film.

Looking further at Tennessee's thirteen movies, we found that, for the most part, they were presented in a straight forward manner and with very little action or drama. In short, the movies said, "This is your Game and Fish Commission. Here is what we are doing. We hope you will stay tuned to this channel." Many sportsmen and others interested in conservation—that is, the captive audience—would likely stay tuned. But considering the fact that at the very same time another channel might be carrying Arthur Godfrey, Ed Sullivan, Elvis Presley or Roy Rogers, or a hundred other different programs, we were asking a lot, even of our captive audience.

When we start getting into television—and I certainly believe that the conservation movie should be designed to TV use—we find out pretty fast that competition is the backbone of the television industry. And in view of this competition, it seems obvious that entertainment would be a prime factor to consider in enhancing the value of conservation movies. For without entertainment I believe that it is virtually impossible to hold a non-capitive audience. And the non-captive audience is certainly what we in conservation education should strive to reach, whether it be through movies, radio, publications or public appearances. I might also mention that in my opinion it is through television that we can best reach that non-captive audience.

The question then arises as to how we can best achieve entertainment that can compare with big network productions. Here again we have a question that is not easy to answer. It would truly be an ideal situation if a state would have the facilities and know-how to go into big time production. Even so, there are many techniques which any state should be able to employ.