FOLLOW-UP EVALUATION OF THE COOPERATIVE EXTENSION SERVICE BEEF PLUS PROGRAM AND ITS EFFECTIVENESS AS PERCEIVED BY COOPERATIVE EXTENSION SERVICE AGRICULTURE AGENTS

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CHAPTER I

INTRODUCTION

Within the boundaries of the State of Oklahoma, the Cooperative Extension Service is divided into four separate districts: Northwest, Southwest, Southeast, and Northeast. The Northeast District includes 21 counties and encompasses some of the most productive land in the state. The efforts of Oklahoma State University Cooperative Extension Service Agriculture Agents in the Northeast District on a special educational program was the primary focus of this study.

The largest agricultural enterprise in the Northeast District is a forage-based beef cattle industry. With this in mind, in May of 1986, the northeast district Cooperative Extension Service Agriculture Agents selected grassland improvement as a subject matter area common to all 21 counties that needed addressing.

This educational thrust program was originally identified as GRASSBAK and was to encompass several significant areas of instruction. GRASSBAK was designed to proceed in phases over a period of four years and to involve agriculture agents and clientele from the northeast district.

Because of the nature and intention of GRASSBAK, in 1987, the Cooperative Extension Service agriculture agents developed another educative program that would work concurrently with GRASSBAK. Beef

Plus was chosen as the program that would best fit that description and also assist in increasing the efficiency of the beef cattle industry.

Beef Plus was originally developed in May of 1987 and was designed to last over the course of three consecutive years. It was also designed with five significant areas of instruction to be covered throughout the three year period. Beef Plus was labeled as a grass roots program and originated with the aid of needs assessments for the northeastern 21 counties of the state. Its planning, development, and implementation was a direct result of the efforts provided by Extension Service agriculture agents in the northeast district.

As previously mentioned, Beef Plus lasted for a period of three years, and focused on different educational themes each year. The first year was centered around providing producers with information about cattle nutrition. The second year encompassed expected progeny differences (EPD's) and reproduction. The third and final year of Beef Plus involved internal and external parasites. The primary goal that Beef Plus maintained over the three year period was not concentrated on increased production. Instead it was to increase efficiency in livestock production and management.

Due to the educational attributes of the Cooperative Extension Service, a wide array of instruction methods and media were used to advertise and implement Beef Plus. Methods used to advertise and present information to the clientele were: slide presentations, informal meetings, newspaper articles, newsletters, personal

contacts, and tours.

Beef Plus was implemented by Northeast District CES Agriculture Agents, as a major thrust program. The importance placed on the program became obvious with the tremendous response from the clientele. Kent Barnes, Livestock Specialist, in the Northeast District reported that over the three year period more than 4500 clients participated in the Beef Plus program.

Statement of the Problem

The primary educational goal of the Oklahoma State University Cooperative Extension Service is to effectively teach the people of the state of Oklahoma. Because of this goal it is imperative that educational institutions like the Cooperative Extension Service constantly evaluate the effectiveness of the educational programs they implement. One such program, Beef Plus, has not been formally evaluated and, therefore, its effectiveness is unknown.

Purpose of the Study

The purpose of this study was to determine the effectiveness of the Cooperative Extension Service program Beef Plus as perceived by Oklahoma State University Cooperative Extension Service agriculture agents.

Objectives of the Study

In order to successfully accomplish the purpose of this study, the following objectives were formulated.

1. To determine the effectiveness of Beef Plus in terms of attracting clientele from the northeast district.

2. To determine the effectiveness of Beef Plus in terms of conveying information to the clientele.

3. To determine the effectiveness of Beef Plus in reference to the nutrition, EPD's & reproduction, and internal & external parasite segments of the program.

4. To determine if the information provided through Beef Plus, was perceived by Oklahoma State University Cooperative Extension Service agriculture agents to be practical and informative from the standpoint of clientele comprehension.

5. To determine which media form was perceived to be the most effective in advertising Beef Plus to the clientele.

6. To determine which media form was perceived to be the least effective in advertising Beef Plus to the clientele and whether it could have been more effectively used.

7. To determine if any one method of instruction was perceived to be more effective than others in relation to clientele participation, or attendance.

Assumptions of the Study

For the purpose of this study the following assumptions were made.

1. The Cooperative Extension Service agriculture agents would indicate their honest opinions in answering the questionnaire concerning Beef Plus.

2. That Cooperative Extension Service Agriculture Agents were in the best position to serve as internal evaluators of the Beef Plus Program.

Scope of the Study

This study included 15 Oklahoma State University Cooperative Extension Agriculture Agents who were involved with the planning and implementation of Beef Plus and who are currently employed by the Cooperative Extension Service.

Definition of Terms

The following definitions are furnished as they apply to this study.

Morrill Land Grant Act: federal legislation proposed by Senator Justin Morrill. The bill was signed by President Abraham Lincoln in 1862 and granted federal land to each state on the basis of 30,000 acres for each member of congress from that state. Revenue generated from the land was to be used as an donation for the establishment of at least one college in each state. The primary objective held by those institutions were to teach such branches as agriculture and mechanical arts.

Hatch Act: federal legislation of 1887 that provided federal funds for state agricultural experiment stations. These experiment stations were to assist the land grant universities of each state by conducting research that would be beneficial to the clientele and producers.

Smith - Lever Act: federal legislation that was signed into law in 1914 and was responsible for the establishment of the Cooperative Extension Service. This legislation designed the Cooperative Extension Service to work concurrently with the land grant institutions and experiment stations in providing clientele with beneficial research data.

Cooperative Extension Service: a primarily rural educational institution, that was developed in order to better educate the people of rural America. This organization was developed and funded by means of federal, state, and local governments.

CES: denotes in abbreviated form the Cooperative Extension Service.

OSU CES: denotes in abbreviated form the Oklahoma State University Cooperative Extension Service.

Extension Director: an individual who holds the position of leader for the direction of an organization. This person is also the head of the Cooperative Extension Service in reference to administrative and supervisory duties.

Agricultural Industry: all businesses and employment involved in the production of forage and livestock.

Northeast District: the northeast corner of the state of Oklahoma which includes 21 counties located primarily north of Interstate 40 and east of Interstate 35.

Grass Roots Program: a program that basically starts and grows as a direct result of the root of an organization. Higher level personnel (usually district or state specialist) are also used to

assist the program, in the form of research information, fact sheets, and/or informal presentations.

EPD's: (expected progeny differences) The difference that is expected in the progeny (offspring) of an animal and is predicted based upon the use of some base. For example, two bulls, Sire A has an EPD of +25 and Sire B has an EPD of -10. Based on the EPD's it would be expected that calves produced by Sire A to be 35 pounds heavier than those produced by Sire B. However the 35 additional pounds could be anticipated only if all calves were handled in a consistent manner and were out of cows of comparable genetic value.

Beef Plus: an educational program designed and implemented by Oklahoma State University Cooperative Extension Service agriculture agents. Beef Plus was developed to favor livestock producers in the northeast district of the State of Oklahoma in efficiency, regarding their livestock production practices. The unrestricted program was developed to continue for a period of three years and disseminated information in the areas of cattle nutrition; cattle reproduction and EPD's; cattle parasites, internal and external.

Media Forms: different types of media used to advertise the Beef Plus programs; informal meetings, slide shows, and tours. These forms consisted of: newspaper articles written by CES agriculture agents, newsletters written and sent out from county Extension Service offices, radio advertisements and programs narrated by CES agriculture agents.

CHAPTER II

LITERATURE REVIEW

Introduction

The intent of this chapter is to display a summary of previously completed investigations and literature associated with follow-up evaluations of educational institutions. Investigations of this field included bound publications, research studies, and journal reviews, and journal articles. The review of literature was developed and arranged into seven major areas:

1. The Cooperative Extension Service
2. The Beef Cattle Industry
3. The Beef Plus Program
4. Need for Program Evaluation
5. Follow-Up Studies
6. Related Studies
7. Summary

The Cooperative Extension Service

Despite the fact that the Cooperative Extension Service (CES) did not officially begin as an organization until 1914, work that was related to or considered to be extension work had been occurring for several years. As a result of many years of work and dedication, devoted advocates saw legislation passed that organized

and funded the organization recognized today as the Cooperative Extension Service.

This legislation was officially known as the Smith - Lever Act of 1914. The Smith - Lever Act along with the Morrill Land Grant Act, which established the Land Grant Universities, worked together to establish a professional educational system. The Smith - Lever Act as included in Blauch's Federal Cooperation in Agricultural Extension Work, Vocational Education and Vocational Rehabilitation, as Appendix I, (1969), stated:

> . . . cooperative agriculture extension work shall consist of giving instructional and practical demonstrations in agricultural and home economics to persons not attending or residents in (the Land Grant Colleges). . .(p. 257).

the law further stated:

> and imparting to such persons information on said subjects through field demonstrations, publications and otherwise. . . (p. 257).

According to Blauch (1969), recent surveys indicated that principal objectives of the Smith - Lever extension work were (1) to increase farm earnings; (2) to improve living standards; (3) to improve social life; (4) to develop leadership; (5) to develop people; (6) to provide rural boys and girls with opportunities (7) to provide vocational training; (8) to teach cooperation; (9) to improve health of rural people; and (10) to maintain soil fertility. It should be remembered that these goals were to be accomplished through educational services provided in each of the listed areas and for each group of previously listed people. These surveys spoken of by Blauch assured administrators and officials that the

Cooperative Extension Service was continuing as it was designed to do.

Therefore, the primary goal of the Cooperative Extension Service was to work with rural people as professional educators at the county level. The CES was also, established by the federal government as an educational institution that would combine resources made available by federal, state, and local governments. This organization was a unique one with consolidated input from three levels of government, and a unique partnership with the land-grant institutions of higher education (Prawl, 1984). Warner and Christenson (1984) stated:

> Extension was created by the Smith - Lever Act in 1914 as a third arm of the land - grant system in order to transmit information from colleges and the Department of Agriculture to local people. According to the purposes specified in the original legislation, Extension is to disseminate and encourage the application of useful and practical information relating to agriculture, home economics, and related subjects among the people of the United States not enrolled in land-grant colleges (pp. 6-7).

The Cooperative Extension Service has changed very little over the years in respect to it's original plan and purpose. The CES was and still is a organization that maintains it's primary goal of providing educational programs for peoples in rural areas. Sanders (1966) as quoted by Prawl (1984) gave a concise profile of the Cooperative Extension Service.

* an agency of government created by law with permissive intent;
* truly cooperative in nature in terms of financing and program development;
* an agency with programs free and available to persons without discrimination on the basis of race, color, sex, creed, national origin, or handicap;

* educational in nature and conducted informally using a wide variety of teaching methods;
* voluntary on the part of individual participants;
* restricted to agriculture, home economics and related subjects in the broadest and most general of definitions:
* dedicated to working with the family as a unit;
* an equal partner with the research and teaching units in the land - grant university system;
* dependant upon research for its information base;
* dependant upon volunteer leaders who help plan, implement, and evaluate it's educational program (p. 34).

The OSU Cooperative Extension Service

The Cooperative Extension Service (CES) of the State of Oklahoma unofficially began in 1904 with the assistance of W. D. Bently. Bently, known as "Daddy Bently," was the father of extension work in Oklahoma, as he was the first Extension Director of Oklahoma. Through the use of Extension Service "demonstration trains," Bently and other knowledgeable speakers traveled across Oklahoma giving lectures and organizing farmer institute groups at locations where the train stopped (Roberts, 1971). Roberts went further to explain that Bently and others gave lectures on cotton, cotton insects, corn, forage crops, fruit growing, and other farm topics that were needed or desired. Bently, and others, also recruited farmers as demonstrators to try out the new government plan of teaching agriculture. This was done by encouraging producers to plant demonstration plots. Demonstration plots were planted, new crop varieties were introduced and farming practices that were more efficient and conservative were also introduced.

These new ideas, techniques, and improved plant varieties, lead producers and other onlookers to a new high of enthusiasm. Producers and CES workers became excited about this new government organization and their enthusiasm led other organizations to sponsor and promote programs conducted by the CES. Sanders (1966) explained:

> County agents in the early years of this century in the Eastern, Central, and Western states were sponsored and promoted by many agencies. The colleges, the United States Department of Agriculture, primarily through the Office of Farm Management. . . .

The State of Oklahoma was one of those Western states spoken of by Sanders. By the time the Smith - Lever Act of 1914 was signed, Oklahoma and other states were conducting activities within an organized structure, that we currently recognize as the Cooperative Extension Service. Grubb (1987) further affirmed that by 1914 when the Smith - Lever Act was signed, the Oklahoma Cooperative Extension Service was growing very expeditiously. There were 44 county agents, two district agents, seventeen women agents, one state agent, and two assistant state agents. Grubb (1987) explained further that by 1937, Oklahoma had at least two agents employed in each county. Sanders (1966) confirmed:

> Slowly the possibility and opportunity for a nationwide, out-of-school, educational system was developing. Slowly sentiment crystallized for Federal support for such a system. This sentiment resulted in the passage of the Smith - Lever Act in 1914 which authorized Cooperative Extension work in Agriculture and home economics (p. 22).

Over the years the Oklahoma Cooperative Extension Service has continued to grow in size and in number of clientele. According to the OSU Cooperative Extension Service Personnel Directory, in 1991, there were 73 agriculture agents, 75 home economist, and 32 4-H agents serving clientele within the 77 counties in the state of Oklahoma.

The Beef Cattle Industry

The cattle industry as we know it today is the product of many years of change and alteration. The breeds of the past were primarily dual purpose breeds, bred for meat and milk production, others mainly produced for beef and draft purposes. Over the years as the requirements of the nation changed and expanded, cattle changed too. Breeds that were once bred for dual purposes were refined and primarily bred to produce either meat or milk.

Cattle were not native to the Western Hemisphere; they were first introduced by Columbus on his second voyage in 1493 (Ensminger 1987). These animals were primarily introduced to serve the colonist as draft animals; however, as the population increased so did the need for beef. By the period of the Civil War, the demand for beef was enormous and the demand for more was growing rapidly. In 1987 for example, Abilene, Kansas became a major cattle town. Ensminger, (1987) stated:

> In less than 2 months Abilene was transformed into a thriving cattle town. Stockyards, cattle pens a livery stable, and an 80 room hotel called the Drover's Cottage was built (p. 9).

Ensminger explained further, that the number of cattle shipped through Abilene, from 1867 to 1871 increased dramatically. Cattle shipped through Abilene, Kansas totaled; 35,000 head in 1867, 75,000 head in 1868, 150,000 head in 1869, 300,000 head in 1870, and 600,000 head in 1871.

By 1982, the total number of cattle and buffalo in the world had grown to a staggering 1.3 billion head. Table I of this study refers to the leading cattle and buffalo producing countries of the world and explained the data for 1982. Table I also displays human populations and size of the country. Table I further indicates that the United States cattle inventory consisted of 11.5% (or 115.7 million head) of the 1982 total. By 1989 cattle numbers had changed, human populations had changed, and countries had changed; all in drastic proportions. With this change however, cattle inventories in many countries had fallen, and human populations had increased. These figures are seen in Table II, which refers to the leading cattle and buffalo producing countries of the world for 1989. Tables I and II also display the human population and size of the country for a comparison of changing worlds.

These numbers however do not indicate the full story in terms of world beef production. Numerous countries have extensive numbers of cattle that are kept with the intentions of milk production and/or draft animals. Table III contains data which indicates that the United States is the primary Beef and Veal producing country in the world. Figures in Table IV indicate just how important the beef

TABLE I

LEADING CATTLE AND BUFFALO PRODUCING COUNTRIES
OF THE WORLD IN 1982

Country	Cattle and Buffalo, 1982[1]	Human Population 1982[2]	Size of Country[2]
	<-------(1,000s)-------->		(sq. mi)
India	242,000	723,672	1,269,338
U.S.S.R..	115,700	269,994	8,649,489
United States . .	115,691	232,464	3,615,102
Brazil.	93,000	127,734	3,286,470
China	72,264	1,055,304	3,706,560
Argentina	57,882	28,593	1,068,296
Bangledesh. . . .	36,600	93,040	55,598
Mexico.	29,900	71,330	761,600
Colombia.	28,700	25,631	439,735
Ethiopia.	26,100	30,569	471,776
Australia	24,800	15,011	2,967,892
France.	22,830	55,160	211,207
World Total . . .	1,331,469	4,653,737	52,444,043

1 Agricultural Statistics 1982, USDA, p. 273, Table 408.
2 Statistical Abstracts of the United States, Bureau of the Census, U.S. Dept. of Commerce, pp. 857-859 Table 1,518.

TABLE II

LEADING CATTLE AND BUFFALO PRODUCING COUNTRIES
OF THE WORLD IN 1989

Country	Buffalo, 1989[1]	Cattle and Population 1990[2]	Human Size of Country[2]
	<-------(1,000s)-------->		(sq. mi)
India	264,860	849,746	1,269,338
U.S.S.R..	119,580	290,938	8,649,489
United States . .	99,180	250,410	3,615,102
Brazil.	111,500	152,505	3,286,470
China	97,950	1,118,163	3,706,560
Argentina	50,782	32,291	1,068,296
Mexico.	34,999	87,870	761,600
Colombia.	17,627	33,076	439,735
Australia	23,938	16,923	2,967,892
France.	20,120	56,358	211,207

1 Agricultural Statistics 1990, USDA, p. 250, Table 389.
2 Statistical Abstracts of the United States, Bureau of the Census, U.S. Department of Commerce, pp. 830 Table 1,434.

TABLE III

MAJOR BEEF AND VEAL PRODUCING COUNTRIES

Country	Beef and Veal Production 1989[1]
	(1,000 metric tons)
United States	10,880
Soviet Union	8,800
Argentina	2,600
Brazil	3,509
France	1,670
China, People's Republic of	1,025
West Germany	1,575
Australia	1,565
Italy	1,140
Mexico	1,754
Canada	980
United Kingdom	980

1 Agricultural Statistics 1990, USDA, pp.289-290, Table 445.

TABLE IV

TRENDS IN U.S. CATTLE NUMBERS
AND VALUES

Year	Total Number	Value	
	(1,000s)	Total	Per Head
		(1,000 $)	($)
1972. . .	111,242	24,519,645	208
1973. . .	114,351	30,583,562	252
1974. . .	115,444	37,477,181	293
1975. . .	115,001	20,999,808	159
1976. . .	113,700	24,334,959	190
1977. . .	109,582	25,249,390	206
1978. . .	105,378	27,030,385	232
1979. . .	102,118	44,697,773	403
1980. . .	99,622	55,844,204	502
1981. . .	99,180	54,123,534	473
1982. . .	99,337	47,905,367	415
1983. . .	115,001	46,708,350	406
1984. . .	113,700	44,835,025	396
1985. . .	109,582	44,006,068	402
1986. . .	105,378	41,230,880	391
1987. . .	102,118	41,567,085	407
1988. . .	99,622	52,147,608	523
1989. . .	99,180	60,234,219	607
1990. . .	99,337	63,627,207	641

1 Agricultural Statistics 1982, USDA, p. 269, Table 408.

cattle industry has been to the United States over a period of 8 years. Inspection of this data established that in 1982 the total value of cattle in the United States was in excess of 47 billion dollars and by 1990 this value had increased to 63.6 billion. Figures explained through Agricultural Statistics (1982) further indicated that of the 115 million head in 1982 only about 10.9 million head were dairy cows that had calved and an average of 38.7 million head represented beef cows that had calved.

The Beef Cattle Industry in Oklahoma

The beef cattle industry did not develop as quickly in Oklahoma as it did in some of the other southwestern states. For many years Oklahoma was considered Indian Territory and many of the cattle in late 1800's were simply driven through to Kansas, Colorado, or other more northern states. When Oklahoma became a state, crop production was considered to be more important than livestock production. But as the demand for beef grew, so did the number of cattle in Oklahoma. Oklahoma Agriculture 2000 stated:

> In the early years of Oklahoma history, crop production was relatively more important than livestock production. In 1929 for example, cash receipts from crops were nearly double those from livestock. But as demand for livestock increased and as thin soils became depleted, much land was returned to grass and livestock production became more important (p. 81).

This production increase was so dramatic that cattle numbers in Oklahoma increased from 200 thousand in 1920 to 2 million over the next 50 years (Oklahoma Agriculture 2000).

Statistics indicated that by 1982 the estimated cow herd for the State of Oklahoma was 2.3 million head, ranking Oklahoma second in the U.S. in terms of cattle inventories. USDA figures indicated that Oklahoma ranked fourth in 1991 with regards to total cattle numbers, third in beef cow inventories, and ninth in reference to number of cattle on feed. Kropp (1991) explained that cattle and calves were number one in rank and value of production in Oklahoma from 1984 - 1988. In 1984 Oklahoma cattle and calves were valued at 1.08 billion dollars, and by 1988 figures indicated that this value had increased to 1.3 billion.

Ensminger (1987) and Kropp (1991), both agreed that the beef cattle industry will continue to change dramatically in the future. Changes in import and export regulations, demand, and competition from other sources of animal protein will mandate that producers change too.

In 1975, cattle prices fell (refer to Table IV) as a result of many years of increased production. Many producers were brought back to a grim reality encompassed with low cattle prices and higher cost. Numerous producers consequently realized that large inventories were not always the answer in terms of larger profits. Many further realized that controlling input cost and efficiency with regards to management techniques can possibly be the difference between staying in business or going out of business.

The Beef Plus Program

Due to the changes the beef cattle industry has faced over the years, the Oklahoma State University Cooperative Extension Service (OSU CES) has found it necessary to work with the cattle producers in the State of Oklahoma many times. Figures explaining cattle numbers and income generated from those numbers, demonstrate the constant need to diagnose and prescribe potential problems that face the beef cattle industry within the state. When the cattle Industry In Oklahoma is in trouble, the State of Oklahoma runs a high risk of being in financial trouble, too. The Cooperative Extension Service (CES) has addressed the needs of the state cattle producers many times in the past just as it will continue to address other needs in the future.

Beef Plus was developed in 1987 by CES Agriculture Agents in the Northeast District. These agents developed Beef Plus as a program that would directly address the needs of cattle producers in that area. In May of 1987, the Agriculture Agents from the Northeast District developed and implemented Beef Plus as a major thrust program. This thrust was to improve profitability of beef cattle enterprises by increasing efficiency in all areas of production. Within the design of Beef Plus it was decided to implement five major areas of instruction over a three year period. Mr. Bruce Peverley, Area Livestock Specialist, Claremore, Oklahoma explained that these five areas of instruction were; nutrition, reproduction, expected progeny differences (EPD's), and internal &

external parasites. Mr. Peverley also explained that the plan called for instruction to deal with cattle nutrition during the first year of the program. Major areas to be covered that were encompassed by nutrition were protein sources, energy sources and protein and energy utilization. Physical and environmental changes that affect nutritional requirements, as well as vitamins, minerals, and supplements (protein and energy) were discussed during the first year of the program. Forages utilization and hay quality were also covered during the nutrition portion of the program.

The design set up by the agents called for the second year of the program to deal with subject matter that fell under the title of reproduction and EPD's. Meetings and presentations were to cover the importance of genetics, bull selection, reproductive management techniques, and condition scores that are decisive for efficient reproduction.

The third and final year of the program was to address the subject of internal and external parasites. Areas to be discussed within this phase of the program were; parasites that use cattle as host, parasite prevention and control measures, life cycles of cattle parasites and the financial cost of parasite infestation.

One of the original goals of Beef Plus was to combine knowledge from experience and the latest research data. That information would then be used to effectively teach the producers in the northeast district. This was to be accomplished through the means of slide presentations, informal meetings, and tours.

Along with a variety of instruction methods used, an assortment of media sources were used to get information and messages about Beef Plus to the clients. The media sources used to accomplish these goals were; newspaper articles, newsletters, radio, and personal contacts made by the agents themselves.

Need for Program Evaluation

In order to realize the worth of an object it is necessary to evaluate that object. Webster (1990) defined evaluation:

> to determine or fix the value of; to determine the significance or worth by careful appraisal and study (p. 429).

According to Cronbach (1980), the proper mission of evaluation is not to eliminate the fallibility of authority or to bolster its credibility, it is however, to facilitate a democratic, pluralistic process by enlightening all the participants. Wentling (1980) stated:

> Evaluation is the determination of the worth of a thing. It includes obtaining information for use in judging the worth of a program, product, procedure, objective, or the potential utility of alternative approaches designed to attain specified objectives (p. 13).

The need for evaluation is present within every organization. Government, businesses, and institutions of education all require the need to constantly evaluate and make changes based on those evaluations. Failure to evaluate many times leads to the economic and physical depreciation of programs and the organization with which they are involved. Grotelueschen (1980) explained:

> There are many reasons why an administrator of adult education might conduct a program evaluation: to account for funds or resources and monitor compliance with legal regulations and guidelines; to document major program accomplishments and examine the expedience of program goals; to identify potential participant needs and establish program emphases; emphases; to ascertain collaboration opportunities and evaluate coordination efforts with other institutions and agencies; and to identify program weaknesses and assess progress toward stated goals (p. 79).

Public institutions of education such as the Cooperative Extension Service, have always had the obligation to be accountable to the people they serve (Drueckhammer, 1985). These stipulations were put in place simply because the clientele are also the indirect financial supporters of the CES. Evaluation can assure administrators, personnel, and clientele about the worth of training programs as well as help them to produce the best possible product or trainee at the least possible cost (Wentling, 1975).

Program evaluation can be internal, external, or a combined effort in which internal and external personnel work together to obtain a more complete assessment. Internal evaluators are often designers or facilitators of a program and therefore usually more familiar with its design and content. Love (1991) stated:

> internal evaluators have first hand knowledge of the organization's philosophy, policies, procedures, products personnel and management. This permits the selection of evaluation methods tailored to the reality of the organization. The long term commitment of the internal evaluator permits the formation of positive working relationships with management and staff (p. 4).

Love further stated:

> Many internal evaluators are generalists who are expert both in technical domains and in all aspects of the corporate operation. With this form of credibility, the internal evaluator is in an excellent position to communicate relevant and timely evaluation information to line managers and staff (1991, p. 4).

Tripoldi, Fellin, & Epstein, (1971) explained that a supervisor may prefer external evaluators when specialized skills are required and persons with those skills are not practical to keep on staff, or when the perspective of an outside onlooker is essential.

External evaluators are quite often the recipients of the information and therefore can most often produce feedback relevant to the instruction effectiveness of the program. This is common when the evaluation process, deals with institutions of education.

Within the CES and other educational institutions where students can be considered, evaluations are often a joint effort between internal and external evaluators. Wentling (1975) explained:

> It is important to involve a number of program and nonprogram personnel in the task. The scope of the course will generally determine who is to be involved. But as a rule, all individuals who share an interest in a course, program, or total program should be involved (p. 35).

With any evaluation it should be noted that the evaluators are the determining factor for a thorough evaluation. Individuals directly involved with a program generally have a more complete understanding of areas that need to be addressed or altered. With this in mind it is obvious that organizations who seek input from personnel and clientele would generally do a more through job of

program evaluation. The results from the evaluation can then be used to design new programs and improve existing ones.

Follow-Up Studies

There are many methods used to evaluate programs and educational systems. Educators are constantly evaluating programs, performances, demonstrations and all other educational tools. One of the most valuable methods used in the evaluation process is the follow-up study. White (1985) stated:

> Comprehensive qualitative follow-up studies do answer questions about constraints and pressures that affect a teacher's long-term commitment to curriculum and instructional changes. Qualitative studies do require a great amount of time to design and conduct, have an inherent complex component structure, and can be costly; however, because of the amount and quality of data that they generate, they are nonetheless effective and fiscally appropriate (p. 171).

Follow-up studies were originally designed as a procedure that would observe students after they leave the educational scene (Gilli, 1975). However, due to the design of follow-up studies they were also applicable to educational programs, such as those provided by the Cooperative Extension Service. It should be noted that the term student can be applied to all learners, adult or pre-adult, in any type of learning environments. Wentling (1975) stated:

> Student follow-up studies can provide delayed measures of learner performance. A follow-up study involves contacting individuals subsequent to their participation in an educational or training program. This contact, usually by way of a mail out questionnaire, can provide placement information as well as other information relating to the post program activities of

> the graduate or dropout. Simultaneously, the former learner may be asked for his perception of the education or training program's strengths and weaknesses (p. 33).

Brantner (1975) stated that one measure of accountability applied to informal education is how well its students are able to apply the learned material to their own situations. Follow-up studies are one of the instruments evaluators can use to determine how effective the program was in terms of current participant application. Follow-up studies are also one of the most cost effective means of obtaining results of the success or failure of a program. Results from the follow-up can then be examined and recommendations can be made to increase the effectiveness of the program.

Mail Questionnaires

As mentioned by Wentling (1975), a mail questionnaire is often the method used to collect data from the participating evaluators. A variety of questions types or statements might be used to form a more effective questionnaire. The final questionnaire however, should not infringe on the individuals rights. Each individual has the right to privacy or not to participate in the study at all. This right in itself deems the researcher to carefully examine the purpose of the research, and develop the instrument to meet the needs of that purpose. This should be accomplished while simultaneously designing the instrument to protect the rights of the participant. Tuckman (1978) indicated, that to safeguard the privacy of the subjects, the researcher should (1) avoid asking

unnecessary questions, (2) avoid recording individual responses and most importantly, (3) obtain consent for participation from adults.

Unfortunately a mail questionnaire is also one of the most frequent major hazards of a follow-up studies. Van Dalen (1979), explained in detail that questionnaires are a popular research tool because most investigators assume that they know how to ask questions. Gilli (1975) stated:

> But several major hazards are inherent in the follow-up research idea. First is the questionnaire or other mechanism used to get information. It cannot be hastily constructed (p. 25).

In order to avoid this hazard, every effort must be taken to construct a valid instrument, that will maintain the individual rights of the participant and concurrently, induce the participant to answer the questions honestly and completely. Tuckman (1978) explained:

> In preparing questionnaires and interviews, researchers should be very cautious. They must constantly apply the criteria
>
> (1) To what extent might a question influence respondents to show themselves in a good light?
> (2) To what extent might a question influence respondents to be unduly helpful by attempting to anticipate what researchers want to hear or find out?
> (3) To what extent might a question be asking for information about respondents that they are not certain, and perhaps not likely, to know about themselves (p. 197)?

Mail questionnaires are a valuable part of follow-up studies; however, questionnaires that are poorly constructed can greatly hamper the possibilities offered by follow-ups in the evaluation process. If properly constructed, they hold a vast potential in

gathering useful information, that can be beneficial to researchers or evaluators of educational programs.

Related Studies

A number of related studies testing the effectiveness of Cooperative Extension Service (CES) educational programs have been conducted. A list of these programs include; inservice training programs, educational programs aimed at providing information to the clientele in agriculture, and home economics.

Grubb (1987), in a study to determine the effectiveness of county sharing Cooperative Extension personnel assignments as perceived by Oklahoma Cooperative Extension agents, found that the county sharing program was effective in terms of agents perceptions.

Drueckhammer (1985), in a follow-up of college of agriculture graduates at Oklahoma State University: 1979 -1983 concluded that training and instruction as perceived by former students of Oklahoma State University was average to above average. Further findings indicated that a majority of those students were aware of placement services provided by the college, however many students failed to use those services. A majority of former students questioned, felt that adequate training was given to meet the demands of their first position after graduation.

Darcy (1980), in a follow-up of Mechanized Agriculture Graduates at Texas A&M University, found that former students an employers believed more instruction was needed in some areas of the mechanized agriculture curriculum. However, findings also indicated

that some employers ranked graduates in the upper 20% of their entry level workers.

Lippke, Ladewig, and Powell (1987) displayed data from the National Assessment of Extension Efforts to Increase Farm Profitability Through Integrated Programs. Information was shown from (8) case studies, all indicated that CES program success was determinate on the ability of CES personnel to accurately identify the problem prior to developing a planned program. In a majority of the programs this feat had been accomplished and the programs were mostly successful.

Summary

The literature reviewed covered six major areas of importance in relation to this study. These areas were (1) The Cooperative Extension Service, (2) The Beef Cattle Industry, (3) The Beef Plus Program, (4) Need for Program Evaluation, (5) Follow-up Studies and (6) Related Studies.

It was determined, from the review of literature, that the Cooperative Extension Service provides a valuable service for the producers in the state of Oklahoma. Responsibilities that are outlined in the legislation, and laws that established the CES mandate the duties the Extension Service is to provide. As seen through this study many times these responsibilities lie in teaching cattle producers within the state.

The Beef Cattle Industry has been extremely important to the State of Oklahoma's economy for many years. This importance will

continue to grow in the future. As world populations continue to increase the demands for food (and beef) will also grow.

These demand increases will mandate the need for livestock and grain production increases. There will also be a need for producers to be as efficient as possible. These demands will insure that Cooperative Extension Service programs such as Beef Plus, continue as a vital part of the lives of livestock producers in the state of Oklahoma.

Evaluation is part of the process that allows CES Agriculture Agents and other personnel to continue in developing quality programs. Internal and external evaluators are often a part of the process which assure that the highest quality is maintained. Follow-up studies and questionnaires are also a major part of many evaluations and quite often evaluations dealing with educational institutions.

As the attempt is made to evaluate and develop programs for the clientele of the CES, it is extremely important that we continue to investigate related studies. Related studies are an invaluable tool, that can assist in program development.

CHAPTER III

DESIGN AND CONDUCT OF THE STUDY

Introduction

The primary purpose of this chapter was to discuss the method used to design and conduct this study. This design was directed toward the Oklahoma State University Cooperative Extension (OSU CES) Agriculture Agents in the Northeast District of the state. The purpose of the study was to evaluate the effectiveness of the Cooperative Extension Service (CES) Beef Plus program, as perceived by CES agriculture agents in the northeast district.

In order to collect and analyze data pertaining to this purpose, the following steps had to be accomplished.

1. Determine the population of the study.
2. Develop an instrument that was appropriate for the collection of data.
3. Develop the procedure for collecting data.
4. Select the method of analysis of the collected data.

Institutional Review Board (IRB)

Federal regulations and Oklahoma State University (OSU) policy require review and approval of all research studies that involve human subjects before the investigator can begin their research. This review is required in order to protect the rights of

individuals involved in behavioral and biomedical research. This study was reviewed by the Oklahoma State University Institutional Review Board and received permission to continue (See Appendix D).

Population of the Study

The population of the study included all Cooperative Extension Service Agriculture Agents in the Northeast District of the State of Oklahoma employed from 1987 to 1990. These agents should have been actively involved with the Beef Plus program. One other requirement was that agents should have still been employed with the CES as of January 1992. The true population consisted of 15 CES agriculture agents who were actively involved with the Beef Plus program during the listed three year period, and were still employed with the CES as of January 1992. Four additional agents who were actively involved with the Beef Plus program have since retired or left the Cooperative Extension Service and therefore were not included in the study.

Table V reflects the total population of this study. As indicated by Table V, of the 15 agriculture agents surveyed 15 (or 100.00 percent) responded.

Design of the Instrument

Because of the nature of the information required to complete this study, it was decided that a mailed questionnaire was the most appropriate instrument for collecting the data (See Appendix A). After reviewing many questionnaires the researcher decided to use

TABLE V

SUMMARY OF STUDY POPULATION
AND RESPONSE RATES

	Frequency	Distribution N %
Respondents	15	100.0
Non-respondents	0	0.0
	--	----
Total	15	100.0

several types of questions that would meet the objectives of the study. Types of question included in the instrument were: forced choice and open ended questions. Once the instrument was drafted, it was reviewed and approved by members of the authors committee. A copy of the instrument is included in Appendix A. Copies of the instrument were also sent to Mr. Ronald H. George, Northeast District Extension Director; Mr. Bruce L. Peverley, Area Extension Livestock Specialist, Northeast District, Claremore, Oklahoma; and Mr. Kent C. Barnes, Area Extension Livestock Specialist, Northeast District, Muskogee, Oklahoma. These agents were asked to review the questionnaire in reference to meeting the needs of the Cooperative Extension Service. These agents also approved the questionnaire, and indicated their belief that the instrument would accomplish the purpose of the study.

Conduct of the Study

Through conversations with Mr. Bruce Peverley Area Extension Livestock Specialist, Claremore, Oklahoma it was decided that dispensing the questionnaire through the CES county mailing dispatched from Muskogee, Oklahoma would be the most efficient. Questionnaires were mailed out to all CES Agriculture Agents in the Northeast District on December 12th, 1991. After completing the questionnaires, CES agriculture agents were asked to return the forms to Mr. Bruce Peverley, in the Claremore, Oklahoma office (See Appendix B). One of the original agents who had worked with the Beef Plus program had recently moved from the Northeast District and

therefore did not receive a questionnaire on the initial mailing. After discovering this, the author made contact with this agent and made available to him a questionnaire which was to be returned to the author (See Appendix B).

The completed forms remained in the Claremore, Oklahoma office until the last week of January 1992. Questionnaires were then returned to the author for completion of the study.

Analysis of the Data

After receiving the completed questionnaires, the author separated the forms on the basis of similar or like responses. Responses were then tallied and descriptive statistics were applied to analyze the data. It was conceived that this form of statistical analysis would be most beneficial in representing the entire population.

Different statistical methods used to display the findings of the study included: frequency distributions, percentages, and numerical and categorical mean responses. Answers to open - ended questions were placed into groups according to likeness and explained in the summary of the findings.

The process of analysis for the forced choice questions which were designed to elicit the Agricultural Agents' perceptions of levels of effectiveness utilized a four point "Likert-type" scale. Numerical values placed on the response categories were as follows: (1) Very Effective, (2) Moderately Effective, (3) Slightly Effective, and (4) Not Effective. In order to interpret and

categorize mean responses, the real limits of each were established as follows (1) 1.00 to 1.49 for Very Effective, (2) 1.50 to 2.49 for Moderately Effective, (3) 2.50 to 3.49 for Slightly Effective, and (4) 3.5 to 4.0 for Not Effective. Means were calculated from the numerical values by multiplying the number of responses by the assigned numerical values and then divided by the number of total responses.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The major purpose of this study was to determine the perceptions and opinions of Oklahoma State University Cooperative Extension Service (OSU CES) agriculture agents in the northeast district. Those opinions were sought in reference to the Cooperative Extension Service (CES) Beef Plus program. These opinions and perceptions were solicited in order to evaluate the effectiveness of the Beef Plus program which was administered from October 1987 until December 1990.

The information for this study was collected from CES agriculture agents during the months of December 1991 and January 1992. Information was received from 15 CES agriculture agents from the Northeast District of the State of Oklahoma. The purpose of this chapter is to present to the reader the information collected from those Agriculture Agents in table and narrative form.

Population

The population of the study included 15 Cooperative Extension Service agriculture agents from the Northeast District of the State of Oklahoma. Only agents who were employed with the CES as of January 1992, and were also involved with Beef Plus, were included

in the study. Cooperative Extension Service agriculture agents who had retired or left the Extension Service prior to December 1991 were not included in the study. Questionnaires were mailed out through the district mailing in the Muskogee, Oklahoma office on December 12, 1991. Upon completion, questionnaires were to be returned to Mr. Bruce Peverley, Extension Livestock Specialist, in Claremore, Oklahoma (See Appendix B). In January 1992 the completed questionnaires were forwarded to the author to allow completion of the report.

Of the total number of questionnaires that were originally mailed out, 15 usable questionnaires were returned, denoting a response rate of 100 percent.

Responses to Questions

The response to extension educational programs in terms of clientele participation, is often a good indicator of a program's value or effectiveness.

Table VI refers to the distribution of agriculture agents' perceptions of the effectiveness of Beef Plus in attracting clientele from the northeast district. The fifteen (15) agents who completed and returned the instrument, indicated their ratings of the programs' effectiveness in this area. Six (or 40.00 percent) Agriculture Agents indicated that Beef Plus was Very Effective in attracting clientele from the Northeast District. A second cluster of six (or 40.00 percent) Agriculture Agents perceived Beef Plus to be Moderately Effective, while three (or 20.00 percent)

TABLE VI

AGRICULTURE AGENTS' PERCEPTIONS OF THE EFFECTIVENESS OF BEEF PLUS IN ATTRACTING CLIENTELE

Response Categories	Category Value	Distribution		Sum of Category Values
		N	%	
Very Effective	(1)	6	40.00	6
Moderately Effective	(2)	6	40.00	12
Slightly Effective	(3)	3	20.00	9
Not Effective	(4)	0	0.00	0
Total		15	100.00%	27

$\bar{X}$ = 1.80 (Moderately Effective)

Agriculture Agents indicated that Beef Plus was only Slightly Effective. None of the Agriculture Agents indicated on the questionnaire that Beef Plus was Not Effective. The mean of this distribution was 1.80 indicating that on the average, Agriculture Agents perceived this area to be Moderately Effective.

Another area which indicates the success of a program is the effective dispersal of information to the participants. Table VII was constructed to illustrate the distribution of Agriculture Agents' perceptions of the effectiveness of Beef Plus in conveying information to the clientele. Of the fifteen (15) agents who responded, nine (or 60.00 percent) thought Beef Plus was Very Effective in relation to conveying information to the clientele. Six (or 40.00 percent) perceived Beef Plus to be Moderately Effective in terms of disseminating the information to the clients. The mean response for this section of the questionnaire was 1.40, indicating this area was Very Effective as perceived by the Agriculture Agents.

The three separate areas of Beef Plus included: nutrition, reproduction & EPD's, and internal and external parasites. Effectiveness of these areas were investigated in this study.

The nutrition section of Beef Plus began in 1987 and all programs related to nutrition were conducted throughout the first year. Table VIII portrays the distribution of agriculture agents' perceptions of the effectiveness of the nutrition segment of Beef Plus in reference to clientele application. Of the fifteen (15) agents who responded to this section, ten (or 66.67 percent) felt

TABLE VII

AGRICULTURE AGENTS' PERCEPTIONS OF THE EFFECTIVENESS OF BEEF PLUS IN CONVEYING INFORMATION TO THE CLIENTELE

Response Categories	Category Value	Distribution		Sum of Category N
		%	Values	
Very Effective	(1)	9	60.00	9
Moderately Effective	(2)	6	40.00	12
Slightly Effective	(3)	0	0.00	0
Not Effective	(4)	0	0.00	0
Total		15	100.00%	21

$\bar{X}$ = 1.40 (Very Effective)

TABLE VIII

AGRICULTURE AGENTS' PERCEPTIONS OF THE EFFECTIVENESS OF THE NUTRITION SEGMENT OF BEEF PLUS IN REFERENCE TO CLIENTELE APPLICATION

Response Categories	Category Value	Distribution		Sum of Category N
		%	Values	
Very Effective	(1)	10	66.67	10
Moderately Effective	(2)	4	26.67	8
Slightly Effective	(3)	1	6.66	3
Not Effective	(4)	0	0.00	0
Total		15	100.00%	21

$\bar{X}$ = 1.40 (Very Effective)

that Beef Plus was Very Effective in regards to clientele application of the presented material. Four (or 26.67 percent) agriculture agents indicated that the nutrition segment of Beef Plus was Moderately Effective, and one (or 6.66 percent) agent felt that this section was only Slightly Effective in terms of actual application by producers. The mean response for this item was 1.40, implying that agents perceived this area to be Very Effective on the average.

The second year of the program dealt with the areas of reproduction and EPD's. Table IX is a depiction of the distribution of Agriculture Agents' perceptions of the effectiveness of the reproduction and EPD segment of Beef Plus in reference to clientele application. Nine (or 60.00 percent) Agriculture Agents felt that this segment of the program was Very Effective. Four (or 26.67 percent) Agriculture Agents perceived that this area was Moderately Effective, and two (or 13.33 percent) felt that it was only Slightly Effective in regards to clientele application. The mean response for this section of the program was 1.53 indicating that this area was perceived by agents to be Moderately Effective.

The third and final year of the program included educational information concerning internal and external parasites.

Agriculture Agents' perceptions of the effectiveness of the internal and external parasite segment of Beef Plus in reference to clientele application are summarized in Table X. Of the fifteen (15) agents who responded to this section of the questionnaire, eight (or 53.33 percent) felt that it was Very Effective in terms of

TABLE IX

AGRICULTURE AGENTS' PERCEPTIONS OF THE EFFECTIVENESS OF THE REPRODUCTION AND EPD SEGMENT OF BEEF PLUS IN REFERENCE TO CLIENTELE APPLICATION

Response Categories	Category Value	Distribution		Sum of Category N
		%	Values	
Very Effective	(1)	9	60.00	9
Moderately Effective	(2)	4	26.67	8
Slightly Effective	(3)	2	13.33	6
Not Effective	(4)	0	0.00	0
Total		15	100.00%	23

$\bar{X}$ = 1.53 (Moderately Effective)

TABLE X

AGRICULTURE AGENTS' PERCEPTIONS OF THE EFFECTIVENESS OF THE INTERNAL AND EXTERNAL PARASITE SEGMENT OF BEEF PLUS IN REFERENCE TO CLIENTELE APPLICATION

Response Categories	Category Value	Distribution		Sum of Category N
		%	Values	
Very Effective	(1)	8	53.33	8
Moderately Effective	(2)	7	46.67	14
Slightly Effective	(3)	0	0.00	0
Not Effective	(4)	0	0.00	0
Total		15	100.00%	22

$\bar{X}$ = 1.46 (Very Effective)

the actual application by producers. The other seven (or 46.67 percent) agents believed that this section was Moderately Effective in reference to actual application. The mean of this distribution was 1.46 indicating that CES Agriculture Agents perceived this segment of Beef Plus to be Very Effective.

Within any educational setting, the educator in order to effectively teach, must teach at the student's level of comprehension. Information that is either too complicated or too simple often reduces the effectiveness of the educator's goals. Table XI of this study refers to the distribution of Agriculture Agents' perceptions of whether or not Beef Plus was practical and informative from the standpoint of clientele comprehension. All fifteen (or 100.00 percent) of the Agriculture Agents felt that Beef Plus was practical and informative from the standpoint of client comprehension.

With organizations such as the CES, it is mandatory that agents use some type of media to inform producers of upcoming programs. Cooperative Extension Service Agriculture Agents used several forms of media in advertising Beef Plus programs to the producers. Table XII is a summary of Agriculture Agents' perceptions of which media form was most effective in advertising Beef Plus. Of the fifteen (15) agents who responded, six (or 40.00 percent) believed Personal Contacts were the most effective form of media used to advertise Beef Plus. One (or 6.67 percent) Agriculture Agent believed Newspaper Articles to be the most effective, and eight (or 53.33

TABLE XI

AGRICULTURE AGENTS' PERCEPTIONS OF WHETHER OR NOT BEEF PLUS WAS PRACTICAL AND INFORMATIVE FROM THE STANDPOINT OF CLIENTELE COMPREHENSION

Response Categories	Distribution	
	N	%
Yes	15	100.00
No	0	0.00
Total	15	100.00

TABLE XII

AGRICULTURE AGENTS' PERCEPTIONS OF WHICH MEDIA FORM WAS MOST EFFECTIVE IN ADVERTISING BEEF PLUS

Response Categories	Distribution	
	N	%
Personal Contacts	6	40.00
Newspaper Articles	1	6.67
Newsletters	8	53.33
Other	0	0.00
Total	15	100.00

percent) Agriculture Agents perceived Newsletters to be the most effective form of media.

In order to determine how to more effectively advertise programs, media forms that are least effective must also be determined. Table XIII was constructed to illustrate Agriculture Agents' perceptions of which media form was least effective in advertising Beef Plus. Of the fifteen (15) agents who returned the questionnaire, twelve (or 80.00 percent) Agriculture Agents responded to this question. Of those, six (or 40.00 percent) believed that Newspaper Articles were the least effective form of media used to advertise Beef Plus to the producers. Three (or 20.00 percent) felt that Newsletters were the least effective, and three (or 20.00 percent) marked Other, and specified radio in the provided space.

Often it is possible to change a media form in some way and render it more effective. Table XIV refers to the distribution of Agriculture Agents' perceptions of whether or not the least effective form of media could have been used more effectively. From the total population of fifteen agents, twelve (or 80.00 percent) Agriculture Agents responded to this question. Of the fifteen (15) possible respondents, five (or 33.33 percent) Agriculture Agents marked yes, indicating their belief that the media form rated least effective, could have been more effectively used in some other manner. Seven (or 46.67 percent) Agriculture Agents checked no, indicating that the media rated least effective could not have been more effectively used.

TABLE XIII

AGRICULTURE AGENTS' PERCEPTIONS OF WHICH MEDIA FORM WAS LEAST EFFECTIVE IN ADVERTISING BEEF PLUS

Response Categories	Distribution	
	N	%
Personal Contacts	0	0.00
Newspaper Articles	6	40.00
Newsletters	3	20.00
Other	3	20.00
Non Respondents	3	20.00
Total	15	100.00

TABLE XIV

AGRICULTURE AGENTS' PERCEPTIONS OF WHETHER OR NOT THE LEAST EFFECTIVE FORM OF MEDIA COULD HAVE BEEN USED MORE EFFECTIVELY

Response Categories	Distribution	
	N	%
Yes	5	33.33
No	7	46.67
Non Respondents	3	20.00
Total	15	100.00

Of the five agents who marked yes, indicating that the least effective media could have been more effective in some other way, four (or 80.00 percent) answered the follow-up question. Table XV refers to these Agriculture Agents' perceptions indicating how to more effectively use the media form, they rated least effective. Of the four agents who answered this section of the questionnaire two (or 40.00 percent) had previously indicated that Newspaper Articles were least effective in advertising Beef Plus to the clientele. One (or 20.00 percent) of these two believed that Newspaper Articles would have been more effective if more articles dealing with Beef Plus had been written. One (or 20.00 percent) felt that radio news spots (agriculture radio reports) should have been used in place of Newspaper Articles.

Two (or 40.00 percent) of the five agents authorized to answer this question elaborated further. One (or 20.00 percent) felt that Newsletters could have been more effective if they had been released on a monthly basis rather than once every three months. One (or 20.00 percent) who had indicated that radio was the least effective media used in advertising explained himself further also. This agent felt that radio advertisement should have been included within radio news spots (agriculture radio reports).

Table XVI is intended to present a summary of Agriculture Agents' perceptions concerning whether any one method of instruction was more effective than others. Of the fifteen agents who answered this question, eleven (or 73.33 percent) answered yes, one method of instruction was more effective than others. Four (or 26.67 percent)

TABLE XV

SELECTED AGRICULTURE AGENTS' PERCEPTIONS OF HOW TO MORE EFFECTIVELY USE THE MEDIA FORM THEY RATED LEAST EFFECTIVE

Suggested Means to more effectively Use Media Forms	Distribution	
	n	%
Newspaper articles should have been written more often	1	20.00
Radio News Show (Agriculture Radio Reports) should have replaced newspaper articles	1	20.00
Newsletters should have been sent out on a monthly basis as opposed to once every three months	1	20.00
Radio advertisement should have been part of a Radio News Show (Agriculture Radio Reports)	1	20.00
Non Respondents	1	20.00
Total	5	100.00

TABLE XVI

AGRICULTURE AGENTS' PERCEPTIONS CONCERNING WHETHER ONE METHOD OF INSTRUCTION WAS PERCEIVED TO BE MOST EFFECTIVE

Response Categories	Distribution	
	N	%
Yes	11	73.33
No	4	26.67
Non Respondents	0	00.00
Total	15	100.00

indicated no, there was not one method of instruction more effective than others. These answers were perceived from the standpoint of clientele attendance and/or participation with the Beef Plus program.

As mentioned earlier, due to the nature and design of the Cooperative Extension Service, an assortment of instruction methods were used to disseminate information to the producers. Table XVII presents Agriculture Agents' perceptions of which method of instruction was most effective. Only agents who had answered yes to the previous question were asked to answer this question. Therefore, only eleven agents were sanctioned to answer this question. Of those eleven, one (or 9.10 percent) felt that Informal Meetings were the most effective method of instruction. Five (or 45.45 percent) believed that Slide Presentations were the most effective method of instruction. A second group of five (or 45.45 percent) perceived that Tours were the most effective.

Agents' perceptions of what factors contributed to the effectiveness of the method of instruction they perceived to be most effective are summarized in Table XVIII. Due to the eligibility requirements for answering this question, there were eleven (11) agents who responded. Of those eleven, five (or 45.45 percent) agriculture agents had marked tours on the previous question. Of these five agents, one (or 9.09 percent) explained that "live demonstrations" were one of the factors that contributed to the effectiveness of this area. One (or 9.09 percent) conveyed that "people enjoyed going to see cattle and pasture weed control

TABLE XVII

SELECTED AGRICULTURE AGENTS' PERCEPTIONS AS TO WHICH METHOD OF INSTRUCTION WAS MOST EFFECTIVE

Response Categories	Distribution	
	n	%
Informal Meetings	1	9.10
Slide Presentations	5	45.45
Tours	5	45.45
Other	0	00.00
Non Respondents	0	00.00
Total	11	100.00

TABLE XVIII

SELECTED AGRICULTURE AGENTS' PERCEPTIONS INDICATING WHAT FACTORS CONTRIBUTED TO THE EFFECTIVENESS OF THE METHOD OF INSTRUCTION THEY BELIEVED TO BE MOST EFFECTIVE

Perceived Factors that Contributed to Effectiveness of Methods	Distribution	
	N	%
Tours		
Live Demonstrations	1	9.09
Producers Enjoyed Seeing Cattle and Weed Control Demonstrations	1	9.09
Observation of Presented Materials	1	9.09
Producers Enjoyed Seeing what Neighbors were Doing	1	9.09
Hands on Experience and a more Relaxed Atmosphere	1	9.09
Slide Presentations		
County Agents Delivered the Slide Presentations	1	9.09
County Agents, recognized as a Reliable Source of Information	1	9.09
Slides were Easy for Clients to Understand and for Ag. Agents to Teach	2	18.19
Informal Meetings		
Material had Previously been Given to Producers but was now packaged for promotion	1	9.09
Non Respondents	1	9.09
Total	11	100.00

demonstrations." One agent (or 9.09 percent) agent explained that "observations of presented materials" by the clientele made tours effective. One (or 9.09 percent) Agriculture Agent explained that "hands on experience and a more relaxed atmosphere" contributed to the effectiveness of tours. One (or 9.09 percent) Agriculture Agent believed that "producers liked to visit and see what their neighbors were doing." This agent explained further that "producers feel like they have more freedom on tours", thus contributing to the overall effectiveness of tours.

Of the 11 agents who responded that certain methods were more effective than others, five agreed that Slide Presentations were the most effective method of instruction. Of these five, one (or 9.09 percent) agent commented that "county agents delivering the presentation" added to this method of instruction's effectiveness. One (or 9.09 percent) Agriculture Agent explained that "the county agent was recognized as a reliable source of subject matter information" and this was the factor that contributed to this areas' effectiveness. Two (or 18.18 percent) other agents explained, "slides were an excellent source of information that were simple for clients to understand." One of these latter two agents explained further that "slides stimulate interest for one-on-one meetings" thus contributing to the effectiveness of Slide Presentation. The From the group of 11, one last agent indicated that Informal Meetings were the most effective of all methods of instruction. This agent accounted for 9.09 percent of the agents who were authorized to respond to this question and stated that, "the same

material was dispersed through these meetings except with these meetings, it was titled and packaged for promotion."

Table XIX is a presentation of which method of instruction Agriculture Agents perceived to be the least effective in terms of clientele participation. Of the fifteen agents who made up the population of the study, eleven (or 73.33 percent) responded to this question. Of those eleven agents, two (or 13.33 percent) perceived Informal Meetings to be the method of instruction that was the least effective. Two (or 13.33 percent) marked Slide Presentations as the least effective, and four (or 26.67 percent) agents felt Tours were the method of instruction that was the least effective. Three (or 20.00 percent) checked Other as the area they perceived to be the least effective. Two of those latter three agents elaborated further on this question in the provided space. One of these agents indicated that "lecture" was the method of instruction that was least effective. The other agent explained that "the Lincoln County Hay Show was the least effective in reference to methods of instruction.

A summary of Agriculture Agents' perceptions of factors which contributed to the lack of effectiveness of the method of instruction they rated least effective is presented in Table XX. It should be noted that only agents who indicated a method as being least effective were authorized to answer this question. Of these eleven agents, six (or 54.54 percent) responded. Of the six agents who responded, three (or 20.00 percent) had indicated on the previous question that tours were least effective. Of those three

TABLE XIX

AGRICULTURE AGENTS' PERCEPTIONS OF WHICH METHOD OF INSTRUCTION WAS LEAST EFFECTIVE IN TERMS OF CLIENTELE PARTICIPATION

Response Categories	Distribution	
	N	%
Informal Meetings	2	13.33
Slide Presentations	2	13.33
Tours	4	26.67
Other	3	20.00
Non Respondents	4	26.67
Total	15	100.00

TABLE XX

SELECTED AGRICULTURE AGENTS' PERCEPTIONS OF FACTORS WHICH CONTRIBUTED TO THE LACK OF EFFECTIVENESS OF THE METHOD OF INSTRUCTION THEY RATED LEAST EFFECTIVE

Response Categories	Distribution	
	N	%
Non Respondents	5	45.45
Tours		
Difficult to get Producers to leave their Home County	1	9.09
County Producers were Not Interested in seeing other Situations	1	9.09
Informal Meetings		
Specific groups could have been Targeted (seedstock producers and EPD's)	1	9.09
People get Tired during Meetings and Interest drops	1	9.09
Slide Presentations		
Too much Lecture Information in the Slide Presentation	1	9.09
Nutrition Section was hard for Clients to Understand and hard for Agents to present	1	9.09
Total	11	100.00

agents, one (or 9.09 percent) felt that Tours were ineffective because "it is extremely difficult to get producers in his county to leave their own communities." He also stated that "out of state tours were of no interest to these producers." Another (or 9.09 percent) Agriculture Agent who had indicated tours as the least effective explained that "county producers weren't interested in seeing other situations." This agent clarified that "producers in his county weren't interested in new information and were slow to participate with the Beef Plus programs." Two agents who marked informal meetings on the preceding question explained themselves further. One (or 9.09 percent) felt that "specific groups or audiences could have been targeted." The example that this agent gave explained that "seedstock producers might have been more interested in the EPD section of the program." The other (or 9.09 percent) agent who elaborated on this question stated that people get tired during informal meetings and lose interest.

Two agents who classified Slide Presentations as the least effective, explained their opinions as to why this was so. One of these agents explained that with this form of presentation there was too much lecture. The other agent who responded to this question declared that the nutritional section of Beef Plus was hard for the clientele to follow and hard for agents to present.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

It was the intent of the author to determine the effectiveness of the Cooperative Extension Service Beef Plus program as perceived by the CES Agriculture Agents in the Northeast District. The purpose of this chapter is to present a summary of this research study conducted as a follow-up evaluation of the Beef Plus program. It is also the purpose and intent of this chapter to provide a comprehensive report of the findings taken from the analysis of data. Conclusions and recommendations based upon a careful analysis of data are also presented.

Purpose of the Study

The purpose of this study was to determine the effectiveness of the Cooperative Extension Service program Beef Plus as perceived by Oklahoma State University Cooperative Extension Service Agriculture Agents.

Objectives of the Study

In order to successfully accomplish the purpose of this study, the following objectives were formulated.

1. To determine the effectiveness of Beef Plus in terms of attracting clientele from the Northeast District.

2. To determine the effectiveness of Beef Plus in terms of conveying information to the clientele.

3. To determine the effectiveness of Beef Plus in reference to the nutrition, EPD's and reproduction, and internal and external parasite segments of the program.

4. To determine if the information provided through Beef Plus was perceived by Oklahoma State University Cooperative Extension Service agriculture agents to be practical and informative from the standpoint of clientele comprehension.

5. To determine which media form was perceived to be the most effective in advertising Beef Plus to the clientele.

6. To determine which media form was perceived to be the least effective in advertising Beef Plus to the clientele and whether it could have been more effectively used.

7. To determine if any one method of instruction was perceived to be more effective than others in relation to clientele participation or attendance.

Design and Conduct of the Study

The population for this study consisted of the Cooperative Extension Service Agriculture Agents in the Northeast District of Oklahoma, who had been involved in conducting the Beef Plus Program. A total of 15 of these people had been employed in this capacity for

the period of 1987-1990 and remained in the service as of January, 1992.

Data were collected by means of a questionnaire developed by the researcher. Assistance in developing the instrument was provided by several extension officials and the author's advisory committee.

The questionnaires were distributed by and returned to the office of the District Livestock Specialist, from where the researcher collected them. A 100 percent return rate was realized.

Data from the instruments were tabulated and analyzed by the author. Descriptive statistics such as frequency distributions, percentages and numerical and categorial mean responses were calculated. In the cases of questions employing the Likert-type response scale, numerical values were assigned to the response categories in order to calculate mean responses. Ranges of real limits for each category of response were devised to permit placing the numerical mean into the appropriate category.

Findings of the Study

This study was concerned with determining the value of the Cooperative Extension Service Beef Plus which had been conducted in the Northeast District in Oklahoma. In significance of this program in relation to clientele involvement, comprehension and application, the opinions and perceptions of CES Agriculture Agents were sought.

Within this study the instrument made use of three types of questions to attain the objectives and to ultimately fulfill the

overall purpose of the study. Fifteen Agriculture Agents surveyed were those who had developed and participated with Beef Plus. Their inputs were imperative in order to accomplish the main goal of this study.

Table XXI contains a summary of the major findings of the study relative to selected measures of the effectiveness of the Beef Plus program as perceived by Cooperative Extension Service Agriculture Agents. This table displays the findings of the study for five separate measures. It should be noted that the mean for those five areas ranged from 1.40 to 1.80 on a Likert-type scale.

The mean responses for three of the components fell into the "Very Effective" category. With mean responses of 1.40 each, the Effectiveness of the Nutrition Section of Beef Plus and the Effectiveness of Conveying Information to Clientele were rated higher than the other elements investigated. The third highest valued area was the Effectiveness of the Internal and External Parasite Section, with this receiving a 1.46 mean response. The mean response for the Effectiveness of the Reproduction and EPD Section of the Beef Plus was 1.53, indicating that respondents on the average considered it to be in the "Moderately Effective" category. Also rated as "Moderately Effective" was the Effectiveness of Beef Plus in Attracting Clientele, with its 1.80 mean. On a related matter, respondents were asked if they felt that the Beef Plus information was informative and practical. All 15 of the Agents responded in the affirmative to this question.

TABLE XXI

A SUMMARY OF FINDINGS RELATIVE TO THE EFFECTIVENESS OF THE BEEF PLUS PROGRAM AS PERCEIVED BY COOPERATIVE EXTENSION SERVICE AGRICULTURE AGENTS

CES agriculture agents' perceptions of.	Mean Response $\bar{X}$	Category
Effectiveness of Beef Plus in attracting clientele	1.80	Moderately Effective
Effectiveness of Beef Plus in conveying information to the clientele.	1.40	Very Effective
Effectiveness of the Nutrition Section of Beef Plus	1.48	Very Effective
Effectiveness of the Reproduction and EPD Section of Beef Plus .	1.53	Moderately Effective
Effectiveness of the Internal and External Parasite Section of Beef Plus.	1.46	Very Effective

Table XXII was developed to present an overall summary of the agents' perceptions as to the effectiveness of media used to advertise Beef Plus to potential clientele. The largest proportion of respondents, eight (53.33 percent), indicated they felt Newsletters were the most effective. Another six (40 percent) expressed the opinion that Personal Contacts had the most effect, with only one (6.67 percent) rating Newspaper Articles as the most effective media. In terms of least effective ratings, Newspaper Articles were named by six respondents (40 percent). Three agents (20 percent) indicted they felt Newsletters were least effective and another three (20 percent) listed other media forms as being the least effective. Three agents (20 percent) did not respond.

The 12 agents who indicated selected media forms were least effective were asked if the media form they rated as the "least effective" could have been more effective in some other way. Seven (58.33 percent) of the 12 Agriculture Agents who responded to this section, checked no, meaning that in their view the media that were rated as least effective could not have been used for effectively. Five (41.67 percent) of the 12 Agriculture Agents marked yes indicating their belief that the media form they had rated as the least effective could have been used more effectively.

As a means of determining potential ways of improving the effectiveness of media which had been classified as Least Effective, those agents responding in this manner were asked for an additional response. This was to suggest means to improve the effectiveness of these media forms. Five agents offered a variety of suggestions.

TABLE XXII

A SUMMARY OF THE EFFECTIVENESS OF MEDIA FORMS USED IN ADVERTISING BEEF PLUS TO THE CLIENTELE AS PERCEIVED BY COOPERATIVE EXTENSION SERVICE AGRICULTURE AGENTS

Agriculture Agents' Perceptions	Types of Media					Totals	
	Personal	Newspaper	Newsletter	Other	No Response	N	%
Most Effective Media	6 (40.00)	1 (6.67)	8 (53.33)	0 (0.00)	0 (0.00)	15	(100)
Least Effective Media	0 (00.00)	6 (40.00)	2 (20.00)	3 (20.00)	3 (20.00)	15	(100)

One agent (20.00 percent) did not offer a suggestion. Another agent (20.00 percent) responded that he believed "newspaper articles should have been written more often." One agent (20.00 percent) believed that, "newsletters should have been sent out more often." This agent further explained that, "newsletters were mailed out once every three months and that this policy should have been changed to a monthly mailing." One agent (20.00 percent) felt that, "radio news shows, presented in the form of agriculture radio reports, would have been more effective than newspaper articles." The last agent who answered this question felt that, "radio advertisement for the Beef Plus program should have been included as part of the radio news shows that were aired."

Agriculture Agents were asked if they considered any one method of instruction to be more effective than others. Agents were asked to make this assessment based on clientele attendance and/or participation in the Beef Plus program. Of the 15 agents who answered this question, 11 (73.33 percent) marked yes, and the remaining four (26.67 percent) marked no.

Table XXIII was constructed to permit a comparison of selected methods of instruction used to teach Beef Plus as perceived by the agents. In particular, the effectiveness of these methods was compared.

Tours were perceived as the most effective method of instruction by five (45.45 percent) of the 11 respondents who expressed an opinion that one particular method of instruction was more effective than others. An additional five (45.45 percent)

TABLE XXIII

A SUMMARY OF THE EFFECTIVENESS OF SELECTED METHODS OF INSTRUCTION USED TO TEACH BEEF PLUS AS PERCEIVED BY COOPERATIVE EXTENSION SERVICE AGRICULTURE AGENTS

Agriculture Agents' Perceptions	Types of Media: Informal Meetings	Slide Present.	Tours	Other	No Response	Totals N	%
Most Effective Method of Instruction	1 (9.10)	5 (45.45)	5 (45.45)	0 (0.00)	0 (0.00)	11	(100)
Least Effective Method of Instruction	2 (13.33)	1 (13.33)	4 (26.67)	3 (20.00)	4 (26.67)	15	(100)

rated Slide Presentations as the most effective method. The remaining individual (9.10 percent) perceived Informal Meetings as the most effective. In contrast, the agents were asked to indicate their feelings as to least effective methods of instruction of teaching Beef Plus. Of these, four agents (26.67 percent) did not respond regarding a least effective method. Another four (26.67 percent) expressed the perception that Tours were the least effective method used to teach Beef Plus. Three people (20.00 percent) responded that "Other" methods were the least effective, while two people (13.33 percent) each rated Informal Meetings and Slide Presentations as least effective methods.

In addition to rating whether the selected methods of instruction were most or least effective, respondents were asked to provide the reasons for their classification. For the most part, those rating tours as most effective said this was so because participants were able to secure a first-hand experience or observation of what was being taught. Slide presentations were considered most effective largely due to Extension Agents' involvement in such presentations. Informal meetings were considered most effective because they provided the opportunity to package previously-presented materials.

As factors which contributed to tours being labeled the least effective method of instruction, agents listed the difficulty in getting producers to leave their local area and their lack of interest in seeing other situations. Informal meetings were judged to lack effectiveness because specific groups were not targeted and

people often developed a lack of interest due to becoming tired during the meeting. The slide presentations were judged to be least effective means of instruction because of too much lecture accompanying the presentations and the difficulty of understanding and presenting the nutrition section.

Conclusions

Upon completion of the preceding summary of the study, an in-depth analysis was conducted in order to determine the meanings of these findings. As a result of this, certain conclusions were formulated, including the following:

1. Agricultural Agents in the Northeast District considered the Beef Plus program to have been a success in terms of attracting clientele and to have been highly effective in conveying information to them.

2. Agricultural Agents in the Northeast District considered the three subject matter areas within the Beef Plus program to have been highly informative and to have had a high degree of applicability for participants.

3. Agricultural Agents in the Northeast District were in total agreement that by means of Beef Plus they were conducting a practical and informative educational program for clientele.

4. Media forms for advertising Beef Plus which were more individually focused, such as newsletters and personal contacts, were perceived by more agents to be more effective than were mass media forms, such as newspapers. Further, the majority of the

agents who identified least effective media felt that the effectiveness of those could not have been improved.

5. Among those agents providing an assessment of the effectiveness of methods of instruction, Slide Presentations and Tours were considered to have the greatest effect and to be of equal value. Providing clientele opportunities to gain first-hand observations and having agents involved were the factors which contributed most to the effectiveness of these methods. There were no consistent patterns of choice as to least effective.

Recommendations

Based upon the findings and conclusions of the study, the author developed some general and additional research recommendations. These are presented below.

General Recommendations

1. Oklahoma Cooperative Extension Agriculture Agents throughout the state should be made aware of the Beef Plus program and encouraged to determine the need for making it available to their clients.

2. Oklahoma Cooperative Extension Agriculture Agents in the Northeast District should continue to devise programs that are similar to Beef Plus in nature and design in order to meet the educational needs of their clientele. Agents in other areas of the state should also be encouraged to utilize Beef Plus as a model for other programming.

3. There should be a continuing search for the most effective media to use in advertising programs such as Beef Plus and for more effective means of attracting clientele.

4. Programs such as this should continue to be taught by methods such as tours and slide presentations which provide participants opportunities to gain first-hand observations and/or examples of successful practices. In addition, an effort should be made to seek out additional methods of effective instruction as well as to improve the effectiveness of methods of instruction currently in use in this and other Extension programs.

Recommendations for Additional Research

It is recommended that this study be replicated in other areas of the state in order to gain inputs from a larger group of respondents. Surveying the participants in such a program would provide valuable additional data. Also, follow-up studies similar to this should be conducted with other Cooperative Extension programs in the state in order to assess program quality as well as to investigate the effectiveness of various practices.

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APPENDIXES

APPENDIX A

QUESTIONNAIRE

1. How effective was BEEFPLUS in attracting clientele from the northeast district?

   (1)__Very Effective
   (2)__Moderately Effective
   (3)__Slightly Effective
   (4)__Not Effective

2. How effective was BEEFPLUS in reference to conveying information to the clientele of the northeast district?
   (1)__Very Effective
   (2)__Moderately Effective
   (3)__Slightly Effective
   (4)__Not Effective

3. How effective was the nutrition portion of BEEFPLUS in terms of actual application of the presented material?
   (1)__Very Effective
   (2)__Moderately Effective
   (3)__Slightly Effective
   (4)__Not Effective

4. How effective was the section dealing with EPD's and Reproduction in terms of actual application of the presented material?
   (1)__Very Effective
   (2)__Moderately Effective
   (3)__Slightly Effective
   (4)__Not Effective

5. How effective was the Internal and External parasite portion of BEEFPLUS in terms of actual application of the presented material?
   (1)__Very Effective
   (2)__Moderately Effective
   (3)__Slightly Effective
   (4)__Not Effective

6. Was the information provided throughout the BEEFPLUS program, informative and practical from the standpoint of clientele comprehension?
   (1)__ yes
   (2)__ no

7. What was the most effective media form used to advertise BEEFPLUS programs, to the clientele?
   (1)__Personal contacts
   (2)__Newspaper articles
   (3)__Newsletters
   (4)__Other

8a. What was the least effective media used to advertise BEEF-PLUS programs, to the clientele?
   (1)__Personal Contacts
   (2)__Newspaper articles
   (3)__Newsletters
   (4)__Other

8b. In your opinion, could the media form that was rated least effective, have been more effectively used in some other way?
   (1)__Yes
   (2)__No

8c. If your answer to 8b was yes, how would you have preferred to use that media form?
   _____
   _____
   _____.

9a. Was any one method of instruction, more effective than others, in terms of clientele attendance and/or participation?
   (1)__Yes
   (2)__No

9b. If your answer to 9a was yes, which method of instruction was more effective?
   (1)__Informal meetings
   (2)__Slide presentations
   (3)__Tours
   (4)__Other

9c. In your opinion what factors contributed to the effectiveness of this particular method?
   _____
   _____
   _____.

10. Which method of instruction was least effective, in terms of clientele participation?
   (1)__Informal meetings
   (2)__Slide presentations
   (3)__Tours
   (4)__Other

10a In your opinion, what were some of the factors that contributed to the lack of effectiveness observed for this method?
   _____
   _____
   _____
   _____
   _____
   _____.

APPENDIX B

LETTERS

November 27, 1991

Mr. Ronnie George
District Extension Director
230 W. Okmulgee Street, Suite B
Muskogee, Oklahoma 4401

Dear Mr. George:

Dr. Jim Key has advised me that I should send you a copy of my revised proposal and questionnaires. I was also advised to send copies to Bruce Peverley, and Kent Barnes.

One of the questions that I have is; do the objectives and the questionnaires meet the needs of the Cooperative Extension Service in terms of value to the CES.

Also, are there other areas of interest that could be addressed within this study, that would assist the Extension Service in the future.

Another question that I have concerns the way to distribute these questionnaires. I am considering the idea of sending copies of the questionnaire to the agents of the northeast district and asking them to pass them out, during informal county program meetings. I have considered this in order to reduce the expense of acquiring the data. I am however, unsure of the appropriateness or effectiveness of this method.

Your advise in these matters, will be greatly appreciated.

Sincerely,

Stan Pace

Enclosures (4)

Nov. 27, 1991

Mr. Kent Barnes
Area Extension Livestock Specialist
230 W. Okmulgee Street, Suite B
Muskogee, Oklahoma 74401

Dear Mr. Barnes:

Dr. Jim Key has advised me that I should send you a copy of my revised proposal and questionnaires. I am also sending copies to Ronnie George and Bruce Peverley.

The primary question that I have is; do the questionnaires meet the needs of the Cooperative Extension Service in terms of value to the CES.

Also, are there other areas of interest that could be addressed within this study, that would assist the Extension Service in the future.

Please indicate any areas that you feel would be beneficial to your district or the other districts within the state.

Thank you for your assistance.

Sincerely,

Stan Pace

Enclosures (4)

November 27, 1991

Mr. Bruce Peverley
Area Extension Livestock Spec.
1810 N. Sioux, Room C,
Claremore, Ok. 74017

Dear Bruce:

Dr. Jim Key has advised me, that I should send you a revised copy of my proposal and questionnaires. I am also sending copies to Ronnie George and Kent Barnes.

The objectives listed on the revised proposal have changed somewhat since you looked at my first draft.

The primary question that I now have is; do the questionnaires meet the needs of the Cooperative Extension Service in terms of value to the CES.

Also, are there other areas of interest that could be addressed within this study, that would assist the Extension Service in the future.

Thanks again for the assistance.

Sincerely,

Stan Pace

Enclosures (4)

1810 North Sioux Street, Room C
Claremore, OK 74017
918/341-2023

November 19, 1991

Stan Pace
408 S. Stanley
Stillwater, OK 74074

Dear Stan:

Enclosed you'll find the rough draft of the first chapter of your thesis you sent to me. I've jotted in pencil changes or ideas that I feel are needed. These are my opinions, I advise you to use them only if you consider them worthy.

Your effort is potentially of value to those in educational fields similar to the extension service. I look forward to reviewing your end product.

Sincerely,

Bruce L. Peverley
Area Extension Livestock Spec.

BLP/ln
Encl.

COOPERATIVE EXTENSION SERVICE

OKLAHOMA STATE UNIVERSITY — DIVISION OF AGRICULTURE

1810 North Sioux Street, Room C
Claremore, OK 74017
918/341-2023

TO: Agricultural Agents

FROM: Bruce L. Peverley, Area Ext. Livestock Spec.

RE: Beef Plu$ Questionnaire

DATE: December 12, 1991

If you were involved in Beef Plu$, please fill out the enclosed form and return as soon as possible to:

Bruce L. Peverley
1810 N. Sioux St., Room C
Claremore, OK 74017

If you were not involved with any phase of the Beef Plu$ project, please disregard this questionnaire.

I greatly appreciate your help.

Thanks!

COOPERATIVE EXTENSION SERVICE

OKLAHOMA STATE UNIVERSITY — DIVISION OF AGRICULTURE

1810 North Sioux Street, Room C
Claremore, OK 74017
918/341-2023

November 12, 1991

Stan Pace
408 S. Stanley
Stillwater, OK 74074

Dear Stan:

Enclosed you'll find copies of the scripts used in the 5 Beef Plu$ programs available at this time.

These programs have each served as a day in-service to agents. In this day's training we 1) present the slide presentation, 2) review the subject matter, 3) hold a quesltion and answer session, and 4) present reference material.

Reference material has included primarily OSU Fact Sheets and other materials made available by in-service trainers (usually district or state staff). Because of the volume of material, I've not included it with the enclosed material.

A good contact would be Duane McVey, Payne Co. Agricultural Agent. Duane has served on Beef Plu$ committees and has been active in the Beef Plu$ decision making process. His phone number is 405/624-9300, ext. 24.

Sincerely,

Bruce L. Peverley
Area Extension Livestock Spec.

BLP/ln
Encl.
cc: Duane McVey

APPENDIX C

AGRICULTURAL AGENTS LETTER

January 15, 1992

Mr. Wayne Smith
County Ext. Ag. Agent
OSU Cooperative Extension Service
Courthouse
Coalgate, Oklahoma 74538

Dear Mr. Smith

As I mentioned in our telephone conversation earlier today I am doing a follow - up evaluation of the CES Beef Plus program that was conducted in the Northeast district.

Questionnaires were mailed out to Agents in the Northeast district shortly before Christmas through the district mailing. I was informed today by Bruce Peverly that several agents from that district had retired and others had relocated to other areas of the state. This is an effort to track down the remainder of agents involved with Beef Plus and increase the response percentage.

I have enclosed a questionnaire and would be most appreciative if you could complete it and return it to me.

I would also like to say thank you for your cooperation in this matter.

Sincerely,

Stan Pace

Enclosure

APPENDIX D

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Proposal Title: Follow-up Evaluation of the Cooperative Extension Service Beefplus Program

Principal Investigator: J. Key/R. Pace

Date: 12-1-91 IRB # AG-92-004

This application has been reviewed by the IRB and

Processed as: Exempt [x] Expedite [ ] Full Board Review [ ]

Renewal or Continuation [ ]

Approval Status Recommended by Reviewer(s):

Approved [x] Deferred for Revision [ ]

Approved with Provision [ ] Disapproved [ ]

Approval status subject to review by full Institutional Review Board at next meeting, 2nd and 4th Thursday of each month.

Comments, Modifications/Conditions for Approval or Reason for Deferral or Disapproval:

Signature: _____ Date: 12-16-91
Chair of Institutional Review Board

VITA 2

Robert Stanley Pace

Candidate for the Degree of

Master of Science

Thesis: FOLLOW-UP EVALUATION OF THE COOPERATIVE EXTENSION SERVICE BEEF PLUS PROGRAM AND ITS EFFECTIVENESS AS PERCEIVED BY COOPERATIVE EXTENSION SERVICE AGRICULTURE AGENTS

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Jackson, Mississippi, December 20, 1964, the son of Roger and Mariam Pace.

Education: Graduated from Lake High School, Lake, Mississippi in May, 1982; received a Bachelor of Science degree from Mississippi State University, Starkville, Mississippi in December, 1987, with a major in Animal Science; completed requirements for the Master of Science degree at Oklahoma State University in May, 1992.

Professional Experience: Farm background; Ranch Manager, Jackson Ridge Beefmasters, Bay St. Louis, Mississippi, March, 1988 to January, 1989; Assistant Manager, Cloverleaf Co-op, Vicksburg, Mississippi, April, 1989 to September, 1989; Ranch Manager, Jackson Ridge Beefmasters, Bay St. Louis, Mississippi, September, 1989 to December, 1990; full-time graduate student at Oklahoma State University, January, 1991 to present.