PROBLEMS ENCOUNTERED IN AN EDUCATIONAL PROGRAM IN BEEF PRODUCTION IN GEORGIA

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TABLE OF CONTENTS

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LIST OF TABLES

CHAPTER I

INTRODUCTION

Georgia has great potential for developing into a major livestock state. Due to many years of cultivation, the top soil has been depleted and many farms are converting from cropping systems to permanent cover crops and utilizing the forage produced for grazing animals. The production of beef cattle has consequently increased phenomenally during the past two decades.

There is a need for better understanding of the problems confronting the people primarily concerned in order to develop a sound educational program that will be effective in helping them solve these problems.

The shift from row crops to livestock, principally beef cattle, has found many farmers with a new enterprise for which they have not been equipped with adequate information and proper skills.

In many instances agriculture leaders, such as county agents and vocational agriculture teachers recognize the fact that they have not had the experience or educational background to assist the potential cattleman in establishing and managing beef herds.

Statement of the Problem

The central purpose of this investigation was to determine the problems in livestock production most common to each county and to determine the qualifications of the county agents to assist in solving these problems.

Due to the rapid increase in numbers of beef cattle and their economic importance in Georgia, it is necessary to probe the problem areas and determine the most serious problems in order to design an educational program in improved beef cattle production.

Due to the fact that record keeping and use of approved management practices seemed to be the factors most lacking in beef herds in Georgia, in 1956 a program of production testing was instituted. It is an organized system of determining the best producing individuals in each herd and using their offsprings as replacements while culling the lower producing individuals. It was suggested by Dr. R. A. Long, Head of Animal Husbandry Department, University of Georgia, that this system needed evaluating in order that consideration might be given to desirable changes and possible adoption of various adjustment factors.

Many county agents currently serving in Georgia received their degrees with majors in forestry, dairy, and agronomy, thus their background and experience in animal husbandry has been somewhat limited which may serve to restrict their effectiveness as a teacher and advisor to producers in solving livestock problems.

Purpose of the Study

The major purpose of this study was to identify the problems in improved beef production in Georgia in order to organize an educational program which would result in the production of more high quality beef, thus increasing the state income for this enterprise.

Cooperative extension work in agriculture and home economics assists people engaged in farming and homemaking to utilize more fully their own resources, and those available to them, in solving current problems and in meeting changing economic and social conditions. Through the educational

and service approach rural people are stimulated to make changes that result in more efficient production and marketing of farm products, conservation of natural resources, more comfortable homes, improved health, and more satisfying family and community life.[1]

Additional purposes were to determine, at least in part, answers for the following:

1. What are the nutritional problems confronting the Georgia cattleman?
2. What are the breeding problems confronting the Georgia cattleman?
3. What are the management and marketing problems confronting the Georgia cattleman?
4. In what skills do the county agents and vocational agriculture instructors need instruction in order to help the cattleman in their area to improve his herd?
5. What are other extension animal husbandmen in other states doing with regard to an educational program in beef production?
6. In particular, what is the nature of responsibility assumed by the extension animal husbandman in a beef cattle improvement program?
7. To what extent do other states utilize the state cattlemens' association in the beef cattle improvement program?

Need for the Study

The growth of the beef cattle industry in the state of Georgia has been tremendous since 1940. In 1940 there were 584,000 head of beef

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[1]Meridith C. Wilson and Gladys Gallup, Extension Teaching Methods (Extension Service Circular 495, 1955), p. 1.

cattle in Georgia, with a total value of $9,385,000.

In 1960 there were 1,184,000 head with a total value of $104,064,000.[2]

Even though the numbers and value are increasing, the state average evaluation is only 70 percent of the national average.

It is believed by many interviewed that Georgia's low national standing in evaluation of beef cattle is due to lack of use of approved management practices resulting in un-uniform, light weight calf crops being marketed in "off season" periods.

It is generally agreed upon by those interviewed that the quality and weight of the calves marketed in Georgia need to be improved.

At the present time there is no educational program of work for improvement of Georgia's beef cattle with well defined objectives.

It was hoped that by determining the critical problem areas confronting the cattleman and the knowledge and skills in which the county agents are deficient that an educational program could be planned by the extension agents and they in turn can assist cattlemen in up-grading their herds and developing greater skill, management, and marketing.

It was further planned that the results of this study would furnish information which will be useful in designing animal husbandry courses on the graduate level for county agents and vocational agriculture instructors.

Methods and Procedures

This study was begun by preparing two questionnaires. One was designed to determine the major problem in beef production in Georgia. The second purpose of this survey was to identify the skills with which the county agents needed to develop greater proficiency. This was felt necessary in

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[2]University of Georgia Statistical Reporting Service, May 1961.

order to implement an educational program in beef production in their respective counties. This questionnaire was mailed to 159 county agents with 136 returning it to the author.

A second questionnaire was prepared and mailed to the extension animal husbandman in the 50 states with 43 states responding. This questionnaire was designed to determine the methods used by other extension animal husbandmen in solving problems which may be in common with those existing in Georgia.

The information compiled is being used to organize an improvement program for Georgia beef cattlemen.

Scope of the Study

A total of 179 individuals were involved in this study. Of this total 43 were extension animal husbandmen from other states and 136 were county agents and assistant county agents.

The county agents were involved because of their important position on the county and local level as agricultural leaders and their knowledge of the local problems.

The author selected to survey the animal husbandmen of the other states because they shared with the investigator certain common problems. It seemed desirable to obtain information concerning their approach to solving common problems.

Review of Literature

Of the 43 respondent states only three reported no beef cattle improvement program, while thirty-nine of the forty-three states have a beef herd performance testing program.

USDA statistical report for 1960 stated that Georgia had 1,396,000 head of cattle in 1959 with value production of $67,526,000 which is 70 percent of the national average. It stated further that Georgia produced a 78 percent calf crop which can be raised considerably through the employment of better management practices.

Iowa's Beef Cattle Improvement Program will aim toward improvement of (1) carcass conformation, (2) rate of daily gain, (3) mothering ability of cows, (4) efficiency of feed use and reproduction efficiency of the herd.[3]

There have evidently been no previous studies of the educational phase of the beef cattle improvement program of the various states. Many other studies have been made which were concerned primarily with a single phase of technical information.

It was deemed necessary to accumulate data from all other states concerning activities and responsibilities of extension animal husbandmen in solving problems which are common to Georgia cattlemen.

It was recognized by the author that the method used in thsi thesis of identifying problems and formulating a problem solving procudure represents the extension method of helping rural people to help themselves.

The conduct of extension may be thought of as involving four reasonably distinct yet closely integrated stages. A brief description of each will help to clarify the place of methods in the extension teaching cycle.

STAGE 1. <u>A sound program meets the needs of rural people</u>. From the many things that might be done to advance the general aim of extension, it is necessary to select for extension's attention currently, and over a period of years, those problems which represent the significant needs

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[3]Iowa State University Bulletin AH 812, 1960, p. 1.

and interests of rural men, women, and youth. The extension program must be both practical of accomplishment and within the scope of the legislation applicable to the Cooperative Extension Service.

STAGE 2. An intelligent plan of action is basic. Once the problems have been identified and solutions agreed upon, the next stage in logical sequence is the development of the step-by-step procedure to be followed in putting the program into operation. This involves the setting of specific objectives, the seeking of cooperation from nonextension agencies, and the dividing of responsibility among extension staff members.

STAGE 3. Persistent, painstaking execution of the plan of action as outlined is necessary. A good plan of work presents the most effective way, considering all the circumstances, to accomplish the teaching objectives in line with the overall aim of extension. The carrying out of the teaching methods and related activities incorporated in the plan of work requires systematic, patient, and persistent effort on the part of the extension workers involved. Unless things are done at the scheduled time and in proper sequence, much of the advantage of the prepared plan is lost. Emergencies and miscellaneous duties must not be permitted to interfere with the agressive prosecution of the core program and plan developed to meet the needs of rural people.

STAGE 4. Evaluation of progress and accomplishments guides the way. Measurement from time to time to determine the progress made in carrying out the plan, and the extent to which program objectives are being reached, makes possible the adjustment of methods and activities to developing situations. Evaluation helps in the revision of the program at stated intervals to keep it abreast of the problems solved and the new problems arising. Evaluation is basic to improvement of the conduct of extension.[4]

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[4]Meridith C. Wilson and Gladys Gallup, Extension Teaching Methods (Extension Service Circular 495, 1955), pp. 1-2.

CHAPTER II

PRESENTATION AND ANALYSIS OF DATA

The primary objective of this study was to obtain conclusive information relative to solving problems having to do with an educational program of beef production in the state of Georgia.

The author felt that by obtaining information from county agents in their respective areas concerning specific problems and also surveying their capabilities in solving these problems that one would have a better prespective of the general situation.

It was further deemed of importance to study the methods and programs in action in other states in solving problems which may be common to those confronting the Georgia Extension personnel.

The author, after counseling with Dr. O. G. Daniel, Extension Project Leader, decided to survey the Extension animal husbandmen in each of the other states to determine what each considered a major or minor responsibility in his own field and in this way arriving at the scope of activities covered by the animal husbandman.

Data presented in this chapter was secured from questionnaires mailed to 49 Extension animal husbandmen in 49 other states. Of this number 43 were returned, which constituted a 87.7 percent return.

In addition questionnaires were mailed to 159 county agents. Returns from county agents totaled 136 or 85.5 percent.

In formulating the questionnaire mailed to county agents, the author attempted to ask those questions which would tend to define the critical

problems facing them in their effort to conduct an educational program for teaching the adoption of approved management practices and skills to cattlemen.

In formulating the questionnaire used in this study and mailed to Extension animal husbandmen of other states, the author attempted to ask those questions which would tend to (1) define areas of responsibility, (2) determine the most serious problems confronting the animal husbandman, (3) the respondents opinion of the most effective method of solving these problems. Inasmuch as many states have instituted a production testing program for beef cattle as an instrument to improve beef production, the author included in the survey questions about the history, scope, and methods of conducting the production testing program as an educational demonstration device.

Copies of the questionnaire schedules are to be found in the appendix of this study.

TABLE I

OPINIONS OF 137 COUNTY AGENTS AS TO THE NEED FOR INSTRUCTION ON "PLANNING THE BREEDING PROGRAM FOR A UNIFORM CALF CROP."

QUESTION To what degree is there a need for instruction concerning planning the breeding program for a uniform calf crop?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	104	76
Some Need	28	20.4
No Need	5	3.6
Total	137	100.0

Planning the breeding program for a uniform calf crop. The experience of animal husbandmen interviewed by the author confirm the findings of this survey in that one of Georgia beef cattleman's major problems is producing a uniform calf crop. Table I indicates that 76% of the county agents feel that the beef producers in their counties are in serious need of instruction in the importance of producing uniform calf crops from an economic aspect and instruction in methods and practices in producing calves which will be uniform in size and age at time of marketing.

TABLE II

OPINIONS OF 136 COUNTY AGENTS AS TO THE DEGREE OF NEED FOR ENCOURAGING USE OF PUREBRED BEEF SIRES.

QUESTION To what degree is there a need for encouraging the use of purebred beef sires?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	62	45.5
Some Need	45	33.2
No Need	29	21.3
Total	136	100.0

Encouraging the use of purebred sires. Forty-five percent of the 136 respondents indicated a serious need for encouraging the use of purebred sires in the beef cattle herds in Georgia. According to personal interviews with the county agents by the author and added notes on the comments section of the survey, the majority of the respondents felt that the need was to emphasize the use of "proven purebred sires" rather than just purebred sires with no performance record.

TABLE III

OPINIONS OF 114 COUNTY AGENTS OF THE DEGREE OF NEED FOR "ENCOURAGING CATTLEMEN TO USE ADEQUATE NUMBER OF BULLS FOR SIZE OF COW HERD

QUESTION To what degree is there a need for encouraging cattlemen to use adequate number of bulls for optimum number of cows?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	54	47.3
Some Need	50	43.8
No Need	10	8.7
Total	114	99.8

Encouraging the use of adequate number of bulls. Inasmuch as many cow herds in Georgia are small it is readily recognized that many respondents would not feel that the bull to cow ratio is a serious problem. However, the respondents who indicated in their opinion it is a serious problem are from areas of a concentration of larger size operations.

Many of the respondents who feel it is a major problem indicated that the low bull to cow ratio is a factor in herds where there is low percent calf crops and lack of uniformity in the age of calf crops.

TABLE IV

OPINIONS OF 136 COUNTY AGENTS AS TO THE DEGREE OF NEED FOR AN EDUCATIONAL PROGRAM ON PLANNING A WINTER FEEDING AND PASTURE PROGRAM

QUESTION To what degree is there a need for instruction concerning planning a winter beef herd feeding and pasture program?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	110	80.9
Some Need	22	16.2
No Need	4	2.9
Total	136	100.0

Planning a winter feeding and pasture program. The seriousness of the problem of wintering the cow herds in Georgia is emphasized by the fact that 80.9 percent of all respondents considered this a major problem and indicated in added comments on the survey that beef cattlemen are in serious need of instruction on winter feeding practices. Many cattlemen do not make adequate preparation in the spring and summer by storing adequate supplies of hay and other feeds. On the basis of remarks made by county agents during personal interviews, it is evident that many cattlemen plan on fall temporary supplemental grazing. Consequently, in the event weather conditions prevent growth of temporary grazing, beef producers are found with inadequate supplies of roughages and concentrates.

In the opinion of many respondents, there is a need to implement a program of instruction regarding the use of adequate proteins in the wintering of brood cow herds.

TABLE V

OPINIONS OF 136 COUNTY AGENTS AS TO THE DEGREE OF NEED FOR INSTRUCTION OF CATTLEMEN ON PLANNING A PASTURE ROTATION SYSTEM

QUESTION To what degree is there a need for instruction in planning a pasture rotation system in beef herd management?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	91	66.8
Some Need	38	27.9
No Need	7	5.1
Total	136	99.8

Planning a pasture rotation system. According to workers at the Georgia Agricultural Experiment Station, rotation of grazing from one pasture area to another is a key factor in the control of internal parasites.[1] Due to a high per acre stocking rate cattle are concentrated to such an extent that internal parasites become a major problem.

Production of winter forage may be doubled by proper rotation of grazing herds.[2]

It is evident by analysis of Table V that in the opinion of the county agents (66.8 percent) this is a problem presenting a most serious aspect which should be given major consideration in designing a program of instruction in beef production.

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[1] Dr. H. Cirodia, Parasitologist, Georgia Experiment Station, personal interview, September 19, 1960.

[2] Mr. Ralph Johnson, Head of Extension Agronomy Department, University of Georgia, personal interview, 1960.

TABLE VI

OPINIONS OF 136 COUNTY AGENTS AS TO THE NEED FOR INSTRUCTION IN FEEDING BALANCED RATIONS TO FEEDER STEERS

QUESTION To what degree is there a need for instruction on feeding balanced rations to feeder steers?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	71	52.1
Some Need	34	25
No Need	31	22.7
Total	136	99.8

Feeding balanced rations to feeder steers. The Extension Animal Husbandry Department, of which the investigator is a staff member, receives numerous requests for balancing simple rations for feeder steer operations and 4-H Club steer projects. The fact is pointed out that there is a serious need for instruction in nutrition and feeding balanced rations. This statement is substantiated by the data shown in Table VI which makes known the opinions of 136 county agents, 74.5 percent of whom feel that they are in serious or some need of instruction on balancing rations.

TABLE VII

OPINIONS OF 135 COUNTY AGENTS AS TO THE NEED FOR INSTRUCTION ON DISEASE AND PARASITE CONTROL

QUESTION To what degree is there a need for instruction on control of disease and parasites?	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	72	53.2
Some Need	61	54.1
No Need	2	1.0
Total	135	99.3

Control of disease and parasites. Economic losses from disease and parasites in United States may well have exceeded 500 million dollars on all class of livestock in 1954. In this evaluation was included 1.5 million head of cattle and 2.5 million head of calves.[3]

Although there is no accurate information as to the economic losses due to internal and external parasites and disease in Georgia, it is estimated to be in the millions of dollars by Dr. Charles Dobbins, Extension Veterinarian. Inasmuch as 53.2 percent of the respondents deemed a disease and parasite control program a serious need, it is being considered as worthy of inclusion in the beef production educational program.

[3] A. V. Nordquest and C. H. Pals, USDA Yearbook, 1956, p. 11.

TABLE VIII

OPINIONS OF 135 COUNTY AGENTS AS TO THE NEED FOR INSTRUCTION ON CASTRATION OF BULL CALVES

QUESTION Rate as to degree of need for instruction regarding age of bull calves at time of castration:	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	91	67.4
Some Need	29	21.4
No Need	15	11.2
Total	135	100.0

Castration of bull calves. Due to the lack of a controlled breeding program in many herds in Georgia it is not surprising that 67.4 percent of the respondents regard the castration of bull calves a serious problem, according to Dr. O. G. Daniel. Dr. Daniel further points out that many cattle operations are small and lack facilities for proper handling of calves, thus many calves go to market as bulls resulting in lower market price and economic losses to cattlemen.

TABLE IX

OPINIONS OF 134 COUNTY AGENTS REGARDING THE NEED FOR INSTRUCTION ON MARKETING OF CALVES

QUESTION Indicate the degree of need for instruction on planning to market calves for greatest return prices:	County Agents Indicating: Number	Percent
DEGREE OF NEED		
Serious Need	101	75.38
Some Need	25	18.65
No Need	8	5.97
Total	134	100.00

Marketing calves. The fact that Georgia beef cattle are evaluated at only 70 percent of the national average is credited to a great extent to poor marketing practices and substandard facilities which results in lower prices. This fact is further substantiated by the practice of cattle buyers of purchasing calves in Georgia and exporting them to out-of-state areas to realize 3 to 5 cents per pound profit.

Lack of proper grading, sizing, and sorting into uniform lots contributes to the lower per head evaluation of Georgia beef cattle as is evidenced by the Extension Service Demonstration Feeder Calf Sales for 1960. In these sales cattle were weighed, graded, and sold in uniform lots which resulted in an increase of 2 dollars per hundred weight or 8 dollars per head more than was received for comparable cattle sold in the respective area and at the same time.*

*Georgia Extension Service Demonstration Feeder Calf Summary, September 1960.

TABLE X

OPINIONS OF 135 COUNTY AGENTS AS TO THE DEGREE OF NEED FOR INSTRUCTION IN ASSISTING THEM IN DEVELOPING GREATER PROFICIENCY IN THE VARIOUS SKILLS WHICH ARE ESSENTIAL IN THEIR CARRYING OUT AN EDUCATIONAL PROGRAM IN BEEF PRODUCTION IN THEIR COUNTIES

QUESTION Rate in order of degree of need those skills in which you feel you need to develop higher proficiency:	DEGREE OF NEED						Number Reporting	Cumulative Rating
	Serious Need		Some Need		No Need			
SKILL	Agents Indicating		Agents Indicating		Agents Indicating			
	No.	Percent	No.	Percent	No.	Percent		
Castrating	35	25.9	37	27.4	63	46.6	135	13th
Dehorning	45	33.2	43	31.8	47	34.8	134	11th
Vaccinating	41	30.5	38	28.3	55	41.0	134	12th
Drenching	45	33.5	41	30.5	48	35.8	134	10th
Trimming feet	64	47.3	41	30.3	30	22.2	135	7th
Spraying for insects	49	37.0	46	34.8	37	28.0	132	8th
Grading feeder cattle	106	85.4	11	8.8	7	5.8	124	2nd
Balancing ration	97	74.5	21	16.1	12	9.2	130	4th

TABLE X (continued)

Selection of beef cattle	103	76.2	23	17.0	9	6.6	135	3rd
Coaching judging team	118	91.4	10	7.7	1	0.7	129	1st
Grooming steers for show	92	68.1	29	21.4	14	10.3	135	6th
Teaching showmanship	96	71.1	24	17.4	15	11.1	135	5th
Applying for registration of purebred animals	41	34.6	36	25.5	64	45.3	141	9th

Skills in which the county agents need instruction in becoming more proficient in order to implement an educational program in beef production. Because of the low percentage of the county agents who majored in animal husbandry it is understandable that many would recognize that they lack knowledge and skills necessary in order to be an educational leader in the field of beef production.

In organizing an educational program with long time objectives the respondents indicated in personal interviews that most response may be obtained in working through the youth groups. This is further substantiated by 91.4 percent of the respondents indicating a serious need for instruction in coaching judging teams.

The increased interest in the "On-The-Farm Performance Testing Program" is reflected in the respondents desire for instruction in grading feeder calves which was rated as second 85.4 percent indicating serious need in an educational program in beef production.

It is the author's opinion that the increase in number of requests received by the county agents from farmers for assistance in selection of foundation breeding stock and herd bulls has resulted in the county agents desire for more instruction in selection of beef cattle. Seventy-six percent of respondents indicated a serious need for such instruction.

An increase in the number of small feed lot operations on family size farms has resulted in additional requests for county agents assistance in planning balanced rations to be fed to commercial type feeder steers. Seventy-four percent of the respondents indicated a serious need for instruction in balancing rations.

The increased interest in 4-H and FFA Club steer feeding projects has had a definite effect on the need for providing instruction in balancing rations. It will be noted also that these skills were rated 5th and 6th

respectively in order of need. Seventy-one percent of the respondents indicated a serious need for instruction in teaching showmanship, while 68.1 percent desire instruction in teaching fitting and grooming show steers.

It is concluded by the author that as a result of the instruction presented in the district livestock schools by the University of Georgia Extension Animal Husbandry Department in two year period 1959 and 1960, the county agents have become more proficient in the skills in which the respondents indicated a lack of need. In the past two years these livestock schools for county agents were held under the direction of Dr. O. G. Daniel, Head, Extension Animal Husbandry Department, University of Georgia. It is interesting to note that the skills castrating, dehorning, vaccinating, and drenching, which according to data presented in Table X ranked 7th through 13th, were taught in these livestock schools. It would seem significant then that the respondents listed these skills as the least critical in so far as present need is concerned.

TABLE XI

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION A. To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in organizing and supporting a state beef cattlemens association?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	16	40
B. Is only included along with other services	16	40
C. Only occasionally	2	5
D. Is not a service rendered	6	15
Total	40	100

Assist in organizing and supporting a state beef cattlemens association. It is noted with interest that 80 percent of the respondents considered this as a major responsibility or included this along with other services rendered, while 5 percent only occasionally participated, and 15 percent do not include the activity with the cattlemens association as a service or responsibility.

Recognizing that 7 percent of the respondents have no state cattlemens association, makes it understandable that some would not recognize the supporting of such an organization as a responsibility.

TABLE XII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION B To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in organizing and supporting the state and local purebred beef cattle shows?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	8	20
B. Is only included along with other services	16	40
C. Only occasionally	9	22.50
D. Is not a service rendered	6	17.50
Total	40	100.00

Purebred beef cattle shows. Included in the questionnaire was a request for the respondent to express his opinion as to the best method of "motivating junior beef cattlemen to participate in beef projects." The most common answer was "through fairs, shows, and contests." This being the prevailing attitude it is understandable that 60 percent of the respondents regarded the support of beef cattle shows as a major responsibility.

TABLE XIII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION C To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent with the procurement and selection of purebred sires?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	4	9.75
B. Is only included along with other services	21	51.21
C. Only occasionally	16	39.02
D. Is not a service rendered	0	0
Total	41	100.00

Assisting the County Agent with the procurement and selection of purebred sires. The majority of the respondents indicated that assisting with procurement and selection of purebred sires is a service only included along with other services rendered. This attitude is in keeping with Extension policy which indicates that the roll of the specialist is educational in nature and services rendered should be aligned with a demonstration.

TABLE XIV

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION D To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in culling cow herd?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	16	39.02
B. Is only included along with other services	17	41.46
C. Only occasionally done	8	19.51
D. Is not a service rendered	0	0
Total	41	100.00

Assist in culling cow herd. The high percentage of respondents indicating this practice as a major responsibility may be due in part to the very active position the Extension Animal Husbandman fills in the production testing program. The specialist processes all the data accumulated on the performance tested cow herds, thus, he is placed in a position of assisting with the culling operation.

TABLE XV

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION E To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in selection of replacement heifers?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	19	46.34
B. Is only included along with other services	15	36.59
C. Only occasionally	7	17.07
D. Is not a service rendered	0	0
Total	41	100.0

Assist in selection of replacement heifers. The larger group of the respondents (46.34 percent) indicated that they do feel a major responsibility in assisting with the selection of replacement heifers. As was stated earlier, due to the active part of the Extension Specialist in processing data for On-The-Farm Performance Testing Program, it is assumed that he will play a major roll in interpreting the records and making recommendations for replacement females.

TABLE XVI

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION F To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in parasite and disease control?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	2	4.87
B. Is only included along with other services	18	43.90
C. Only occasionally	14	34.14
D. Is not a service rendered	7	17.07
Total	41	100.00

Assist in disease and parasite control. The reluctance of respondents to feel a major responsibility toward assistance with disease and parasite control is in part due to the fact that in most states the Extension staff includes both a veterinarian and an entomologist to assist with the disease and parasite control problem. However, in personal interviews, some respondents indicated the opinion that it should be a service rendered by the Extension specialist along with other services because of his close contact with cattlemen.

TABLE XVII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION G To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in planning the pasture program?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	2	5.0
B. Is only included along with other services	18	45.
C. Only occasionally	15	37.50
D. Is not a service rendered	5	12.50
Total	40	100.00

Assist in planning the pasture program. Inasmuch as the state Extension staffs have one or more agronomists as specialist it is felt by many respondents that this could not be considered a major responsibility but a service rendered along with other responsibilities.

TABLE XVIII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION H To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in planning for winter feeding of the cow herd?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	8	20
B. Is only included along with other services	21	52.50
C. Only occasionally	4	10.00
D. Is not a service rendered	7	17.50
Total	40	100.00

Assist in planning for winter feeding of cow herd. More than 72 percent of the respondents indicated this is a major responsibility or is a service performed along with other services. The survey conducted with the County Agents in the first part of this study regarding the condition in Georgia indicated 80.9 percent of the respondents felt that planning a winter feeding program was a serious problem which needed much more emphasis in an educational program.

TABLE XIX

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION I To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in planning beef cattle tours?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	10	25.64
B. Is only included along with other services	14	35.89
C. Only occasionally	9	23.07
D. Is not a service rendered	6	15.38
Total	39	100.00

Assist in planning beef cattle tours. Tours are valuable teaching aids from a demonstration aspect and can have strong educational implications. It is surprising to find 23.07 percent of the respondents have only occasional duties in this field and 15.38 percent do not consider tours as a part of their responsibility.

TABLE XX

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION J To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent with beef type demonstrations?	Extension Animal Husbandmen Indicating:	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	17	41.48
B. Is only included along with other services	13	31.70
C. Only occasionally done	10	24.39
D. Is not a service rendered	1	2.43
Total	41	100.00

Assist in beef type demonstrations. Type demonstrations are one of the most effective educational methods used by the beef cattleman, in the author's opinion. Over 73 percent of the respondents indicate the use of this type of teaching device. In interviewing respondents who only occasionally use the type demonstration method for teaching beef cattle type, the author found conflicting opinions regarding the importance of type. In the opinion of some respondents, type is being over emphasized.

TABLE XXI

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION K[1] To what degree do you consider it the Extension Animal Husbandman's responsibility to assist the County Agent in organizing demonstration feeder calf sales?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	13	33.33
B. Is only included along with other services	6	15.38
C. Only occasionally	10	25.64
D. Is not a service rendered	10	25.64
Total	39	100.00

TABLE XXII

QUESTION K[2] To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in grading calves at feeder calf sales?	Extension Animal Husbandmen Indicating: Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	12	31.57
B. Is only included along with other services	7	18.42
C. Only occasionally	8	21.05
D. Is not a service rendered	11	28.94
Total	38	100.00

Assist in organizing feeder calf sales and grading feeder calves. In an analysis of chart XXI and XXII the larger group of respondents considered organization of feeder calf sales a major responsibility while the smaller of the four groups indicated that they included this service along with others rendered. Over 50 percent of the respondents indicated they either performed this service only occasionally or not at all. In certain states the State Departments of Agriculture perform this service which frees the Extension Animal Husbandman from the responsibility.

TABLE XXII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION L To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in judging junior beef cattle shows?	Extension Animal Husbandmen Indicating	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	14	35.00
B. Is only included along with other services	12	30.00
C. Only occasionally	9	22.50
D. Is not a service rendered	5	12.50
Total	40	100.00

Judging junior beef cattle shows. Sixty-five percent of the respondents indicated they considered it a major responsibility to assist in judging junior beef cattle shows or that it was a service rendered along with other services.

Thirty-five percent either rarely render this service or not at all. It is assumed by the author that the 12.50 percent that do not consider this service their responsibility are assigned to certain specific duties such as full-time duties with On-The-Farm Production Testing of Beef Cattle.

TABLE XXIII

DUTIES PERFORMED BY THE EXTENSION ANIMAL HUSBANDMAN IN THE BEEF CATTLE IMPROVEMENT PROGRAM OF THE RESPECTIVE STATES

QUESTION M To what degree do you consider it the Extension Animal Husbandman's responsibility to assist in teaching and demonstrating management practices to junior members?	Extension Animal Husbandmen Indicating	
	Number	Percent
DEGREE OF RESPONSIBILITY		
A. Constitutes a major responsibility	15	38.46
B. Is only included along with other services	14	35.89
C. Only occasionally	7	12.94
D. Is not a service rendered	3	7.69
Total	39	100.00

Teaching and demonstrating management practices to junior beef cattlemen. The 74.35 percent of the respondents considering participation in teaching and demonstrating management practices to junior cattlemen either as a major responsibility or included along with other services rendered indicated the strong feeling regarding the importance of the educational program with youth. Many respondents indicated in added comments that teaching management practices through the youth is effective also in reaching adults.

In many instances it may be possible to teach adults, especially parents, by utilizing activity with youth through various demonstration projects.

CHAPTER III

SUMMARY AND CONCLUSIONS

As was stated in the beginning of this study, the major purpose was to identify and verify the problems which are considered by workers as commonly encountered in the production of beef cattle in the state of Georgia. It was a further purpose to determine ways and means used in other states in solving problems which are common to all states and to determine the area of responsibility of the Extension beef cattle specialist in assisting with these solutions.

In this portion of the paper is presented a summary of the study and findings as well as conclusions and recommendations directly related to the problem.

It is the writer's sincere hope that these findings may be of value to many of those engaged in the educational field of beef production.

SUMMARY

As was stated in the scope of the study, 159 counties in the state of Georgia were surveyed. In each of the counties the county agent and assistant county agent, where present, were the respondents.

In addition surveys were sent to the 49 states in which case the Extension beef cattle specialist was the respondent. Forty-three states returned complete questionnaires.

Of the 159 counties surveyed, 136 of the surveys were returned. These completed surveys formed the basis for evaluating this study.

The following is a list of counties from which responses in the form of requested opinions and judgments were received, which formed in part the basis for conclusions and recommendations found in this study:

Appling	Clinch	Fulton	Laurens
Atkinson	Cobb	Gilmer	Lee
Bacon	Coffee	Glascock	Liberty
Baker	Colquitt	Glynn	Lincoln
Baldwin	Columbia	Gordon	Lowndes
Banks	Cook	Grady	Lumpkin
Barrow	Coweta	Greene	McDuffie
Ben Hill	Crawford	Gwinnett	McIntosh
Berrien	Crisp	Habersham	Madison
Bibb	Dade	Hancock	Marion
Bryan	Dawson	Haralson	Meriwether
Bulloch	Decatur	Harris	Miller
Burke	Dekalb	Hart	Mitchell
Butts	Dodge	Heard	Monroe
Calhoun	Dooly	Henry	Morgan
Camden	Douglas	Irwin	Murray
Candler	Early	Jackson	Muscogee
Carroll	Echols	Jasper	Newton
Catoosa	Elbert	Jeff Davis	Oconee
Catham	Evans	Jefferson	Oglethorpe
Chattooga	Fannin	Jenkins	Paulding
Cherokee	Fayette	Johnson	Pickens
Clarke	Floyd	Jones	Pike
Clay	Forsyth	Lamar	Pierce
Clayton	Franklin	Lanier	Polk

Pulaski	Seminole	Terrell	Walker
Putnam	Spalding	Thomas	Walton
Quitman	Stephens	Tift	Warren
Rabun	Stewart	Towns	Wayne
Randolph	Sumter	Troup	Webster
Richmond	Talbot	Turner	Wheeler
Rockdale	Tattnall	Twiggs	White
Schley	Taylor	Union	Wilkinson
Screven	Telfair	Upson	Worth

The following is a list from which responses in the form of completed questionnaires were received, which formed in part the basis for conclusions and recommendations found in this study:

Alabama	Indiana	Nevada	South Dakota
Arkansas	Iowa	New Hampshire	Tennessee
Arizona	Kansas	New Jersey	Texas
Alaska	Kentucky	New York	Utah
California	Maryland	North Carolina	Vermont
Colorado	Massachusetts	North Dakota	Virginia
Connecticut	Michigan	Ohio	Washington
Delaware	Mississippi	Oklahoma	West Virginia
Georgia	Missouri	Oregon	Wisconsin
Hawaii	Montana	Pennsylvania	Wyoming
Illinois	Nebraska	South Carolina	

CONCLUSIONS

An analysis of data compiled from completed survey schedules returned from the various counties showed a remarkable correlation in judgments and opinions. Conclusions were found to be both interesting and logical, however, and the investigator felt justified in presenting a number of conclusions.

The following conclusions were considered as basic findings of the study:

1. It was definitely concluded that planning a breeding program is a major problem in producing uniform calf crops.

2. Encouraging the use of purebred sires was not considered a major problem with only 45.5 percent of the respondents indicating a serious need for such. However, it is agreed that the availability of good purebred sires presents a greater problem.

3. Only 47.3 percent of the respondents indicated a serious need for encouraging the use of adequate number of bulls. Thus, it is concluded that this is only a moderate problem which will be eliminated when other management practices are taught and good purebred sires are made available.

4. More than 80 percent of the respondents definitely identified the winter feeding and pasture program as a major problem.

5. Following a pasture rotation system is considered a basic essential in highly concentrated cattle operations. Ninety-four and seven tenths percent of the county agents indicated an opinion that there is either some need or serious need for emphasizing this practice in an educational program of beef production.

6. Over 50 percent of the county agents stated that there was a need for continued instruction in nutrition and balancing rations in short courses and livestock schools.

7. Ninety-eight and three tenths percent of the county agents indicated that there is either some need or serious need for additional instruction on disease and parasite control.

8. There is a serious need for information to be disseminated to the farmers and cattlemen regarding the importance of castration of bull calves at an early age.

9. It is concluded that there is a serious need for an educational program in marketing calves. The majority of the county agents and cattlemen interviewed were of the opinion that there is a need for a well organized group of cattlemen to assist in planning and sponsoring feeder calf sales and other events which would assist the cattlemen in securing greater returns.

10. It is significant that 91.4 percent of the county agents were of the opinion that there is a serious need for instruction in coaching judging teams and 85.4 percent indicated a serious need for instruction and information in grading feeder calves.

11. A majority of the Extension livestock specialists agreed that they considered it a major responsibility to assist in organizing and supporting a state cattlemen's association.

12. According to the majority of the responding Extension livestock specialists, organizing and supporting purebred beef cattle shows should be considered as a secondary responsibility.

13. The majority of the responding Extension livestock specialists regarded assisting the county agent in the selection of purebred foundation breeding stock as a secondary responsibility and only occasionally done.

14. A majority of the respondents regarded assistance in culling cow herds a major responsibility along with assistance in the selection of replacement heifers.

15. It is concluded that assistance in disease and parasite control, in so far as the Extension livestock specialist is concerned, should be considered a secondary responsibility.

16. The majority of the respondents considered planning the winter pasture program as a service only occasionally rendered or a service not performed.

17. Contrary to the thinking of the author, the majority of the Extension livestock specialists regarded planning for winter feeding of the cow herd as a secondary responsibility or a service not rendered.

18. It was concluded that tours, field days, and type demonstrations are teaching devices and should be considered a major responsibility.

19. Assisting with feeder calf sales where there is educational value, should be considered a major responsibility.

20. It was established by those submitting schedules that the judging of junior beef cattle shows and teaching and demonstrating management practices should be considered a major responsibility by the Extension livestock specialist.

RECOMMENDATIONS

Additional research is needed regarding problems encountered in beef production.

It is the thinking of the author that the county agents and vocational agriculture instructors are in a position to be the greatest influence in helping to solve the problems discussed in this thesis. It is further recognized that they are in need of more technical information. The county agents and vocational agriculture instructors are in need of instruction and practice in developing proficiency in certain skills.

It is recommended that the University of Georgia Extension Livestock Department continue the use of the newly instituted beef cattle short courses with the county agents in the field. It is further recommended that the short courses emphasize the skills in which the county agents are lacking.

It is also recommended that the Animal Husbandry Department at the University of Georgia design a resident summer short course on the graduate level for the county agents and vocational agriculture instructors in which beef cattle selection, feeding, and management will be emphasized.

It is the opinion of the author that county cattlemen's associations organizing into one state association will provide an organization through which knowledge of skills and management practices may be disseminated.

It is further recommended that the now existing demonstration feeder calf sales be increased in number and coordinated to enable a better series of scheduling, and standardize the rules and regulations. There should be a stronger promotion program promoting the quality and quantity of the calves. The buyers and sellers should be made aware of the advantage of utilizing the feeder calf sales in purchasing and buying.

It is also recommended that the On-The-Farm Performance Testing Program be promoted and expanded.

It is recommended that there be organized a Beef Cattle Improvement Association within the state cattlemen's association and that those who are presently cooperators on the Performance Testing Program become the charter members to form the nucleus of the Beef Cattle Improvement Association.

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APPENDIX A

Letters of Transmittal

Dear Sir:

We are at present in the process of evaluating our beef cattle improvement program in the state of Georgia.

We would appreciate getting as much information as possible from you about your state's beef cattle improvement program and particularly about your performance testing program.

We will appreciate any added information which the survey may not cover, and we are particularly interested in your opinions and suggestions.

A survey is being made of all of the states and when this information has been processed, it will be made available to you.

Your cooperation will be greatly appreciated.

Sincerely yours,

Orville K. Sweet
Extension Animal Husbandman

OKS:bb

Enc:

Dear Sir:

Early in December of last year you were mailed a survey from us in which we were attempting to gain certain information about your Beef Cattle Improvement Program. At present, we have not received your survey. In case it has become misplaced, I am enclosing another one and would certainly appreciate your filling it out and returning it to us.

This survey is being conducted in all fifty states, and we feel that there will be information which will benefit us all. You will be supplied with the summary of this information.

Sincerely yours,

Orville K. Sweet
Extension Animal Husbandman

OKS:bb

Enc:

TO ALL COUNTY AGENTS

Dear Co-Workers:

Enclosed please find survey designed to determine the problems which are confronting you in your county at the present time in beef cattle management.

We hope as a result of this survey we will be able to devote more time in assisting you with your most serious problems.

Please complete the questionnaire and return to me by November 29.

Sincerely,

District Agent - Chairman

Encl.

APPENDIX B

Questionnaire Sent Extension Animal Husbandmen

SURVEY OF EXTENSION BEEF CATTLE IMPROVEMENT PROGRAM

I. Does your state have a Beef Cattle Improvement Program? Yes__ No__

II. Duties performed or services rendered in Beef Cattle Improvement Program:

Check in appropriate column.

A - Constitutes a major responsibility.
B - Is only included along with other services rendered.
C - Only occasionally done.
D - Is not a service rendered.

EXTENT OF SERVICE RENDERED				
A	B	C	D	
___	___	___	___	1. Assists in procurement and selection of purebred sires.
___	___	___	___	2. Assists in culling cow herds.
___	___	___	___	3. Assists in selection of replacement heifers.
___	___	___	___	4. Assists in parasite and disease control.
___	___	___	___	5. Makes recommendations and assists in planning the pasture program.
___	___	___	___	6. Assists in planning for winter feeding of the cow herd.
___	___	___	___	7. Assists in planning beef cattle tours.
___	___	___	___	8. Assists in beef type demonstrations.
___	___	___	___	9. Assists in organizing feeder calf sales.
___	___	___	___	10. Assists in grading calves for sales.
___	___	___	___	11. Assists in organizing and supporting a state beef cattlemens association.

III. Purebred Beef Cattle:

	EXTENT OF SERVICE RENDERED				
	A	B	C	D	
1.	___	___	___	___	Assistance rendered in organizing and supporting the state and local purebred beef cattle shows.
2.	___	___	___	___	Assistance in judging the Junior Beef Cattle Shows.
3.	___	___	___	___	Assistance in judging the Open Beef Cattle Shows.
4.	___	___	___	___	Assistance in teaching and demonstrating management practices to junior members.

5. ____ How many Junior Fat Steer Shows do you have in your state that are open to state competition?

6. ____ How many county Junior Fat Steer Shows do you have in your state?

7. In your opinion what is the best method to motivate junior beef cattlemen to maintain high interest in beef cattle projects?

_____

_____

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APPENDIX C

Questionnaire Sent to County Agents

Date_____

County_____ County Agent_____

Survey of County Agents to determine the problem areas in an educational program of beef cattle production.

INSTRUCTIONS:

In front of each of the questions, please place appropriate number indicating the need in your area.

1. Indicates serious need
2. Indicates some need
3. Indicates no problem

I. BREEDING PROBLEMS:

(Rate the importance in your area (1, 2, and 3) the practices which are a problem to you in your educational program.)

___ A. Planning the breeding program for uniform calf crop.

___ B. Encouraging the use of purebred sires.

___ C. Encouraging the cattlemen to use adequate number of bulls for the size of the cow herd.

II. FEEDING PROBLEMS: (1, 2, and 3)

___ A. Planning a winter feeding and pasture program.

___ B. Planning a pasture rotation system.

___ C. Feeding balanced rations to feeder steers.

III. MANAGEMENT: (1, 2, and 3)

A. Disease and parasite control:

___ Lice	___ Grubs	Others:
___ Flies	___ Internal Parasites	_____
___ Ticks	___ Foul Foot	_____

___ B. Castration of bull calves at early age.

___ C. Marketing calves.

IV. SKILLS:

(Rate the importance (1, 2, and 3) of those skills in which you feel you need to develop higher proficiency.)

1. Serious need
2. Some need
3. No need

___ Castration

___ Dehorning

___ Vaccinating

___ Drenching

___ Trimming Feet

___ Spraying for Insects

___ Grading Feeder Cattle for Feed Lot

___ Balancing Rations

___ Judging Beef Cattle

___ Coaching Livestock Judging Team

___ Grooming Steers for Show

___ Teaching Showmanship

___ Applying for registration of purebred animals

VITA

Orville Kenneth Sweet

Candidate for the Degree of

Master of Science

Thesis: PROBLEMS ENCOUNTERED IN AN EDUCATIONAL PROGRAM OF BEEF PRODUCTION IN GEORGIA

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