

EXTENSION FUNCTIONS OF A VENEZUELAN UNIVERSITY
WHICH MAY ENHANCE AGRICULTURAL PRODUCTION
AND IMPROVE QUALITY OF LIFE FOR
FARMERS AND THEIR FAMILIES

By

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CHAPTER I

INTRODUCTION

During the last decade Venezuelan universities have realized the need for modifying and adapting their educational system in order to more adequately support citizens in meeting aspirations, needs and conditions presented by changing local, regional and national situations. Currently, universities are occupying a position of increasing importance and relevance. For example, the teaching function of the UNIVERSIDAD NACIONAL EXPERIMENTAL DE LOS LLANOS "EZEQUIEL ZAMORA" (UNELLEZ) Agricultural Production Faculty is attempting to work jointly with other university functioning elements in promoting agricultural improvement in research and extension services. These services are almost the sole responsibility of the Ministry of Agriculture and Livestock, and other autonomous institutes.

The influence area of the UNELLEZ covers four states: Apure, Barinas, Cojedes, and Portuguesa which form part of the Western plains, the Andes Cordillera and the North Cordillera of Venezuela. The four states include a surface area of 141.700 square kilometers (1). In Figure 1 a map of Venezuela depicts a clear illustration of this region.

For 1981 the Venezuelan population reached the 15,000,000 mark, this region having 800,000 inhabitants (2). The population distribution showed 46 percent rural and 54 percent urban. These percentages were quite different than the national distribution which showed that for the

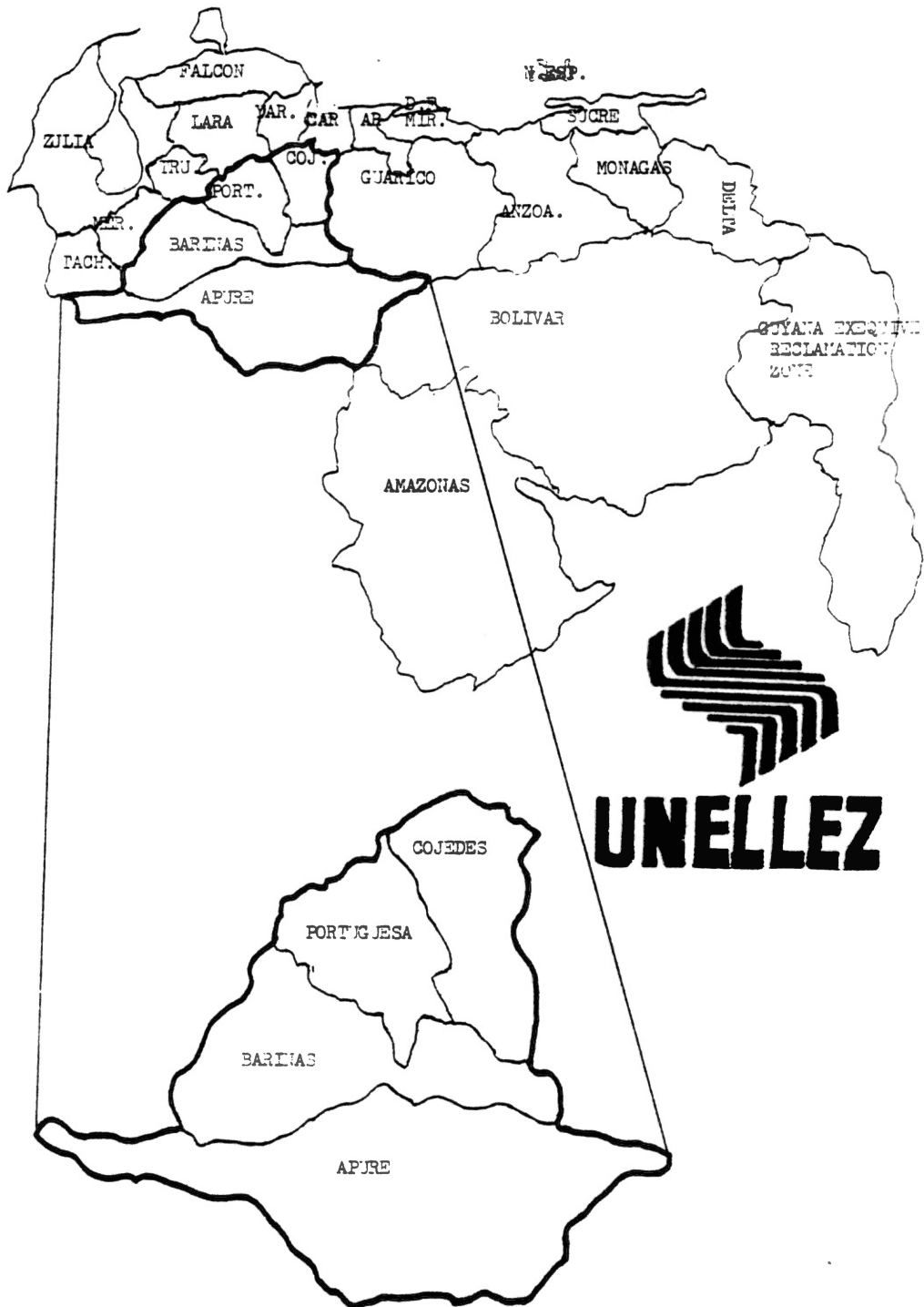


Figure 1. Map of Venezuela and of the Western Plains Region

total Venezuelan population only 17.23 percent is rural, with 83.77 percent urban (3). Its economy depends upon the agricultural sector.

The UNELLEZ has been created in order to contribute, in a decisive manner, to the regional and rural development of this important portion of the country, which together with the Zulian region conforms the fundamental and basic support at the present and future national agricultural development.

This research is a continuation of the Master's thesis in which its emphases were directed to determine possible adaptations in the functions of secondary agricultural education to enhance rural community development in Venezuela - developed in 1981 at this university (Oklahoma State University), from the stand point of looking toward the involvement of education in the enhancement of agricultural production and improvement of quality of life for rural inhabitants.

This rationale is apparent in the FAO/Danish Seminar on Long-Term Planning of Home Economics for Developing Countries in Denmark, June 1975, as recorded by Wilson (4):

The incalculable contribution of the countryside, and especially the young generations, to national progress and development cannot be made if they are denied the benefits of health, good education and the opportunities for advancement which are only possible in a flourishing rural economy (p. 1).

The importance of a clear focus on the university responsibility is drawn by Anderson (5):

. . . a major university has a responsibility to extend itself beyond the campus. The university is a resource that belongs to the people and it should be concerned with extending its service to every citizen. . . . Priorities must be established in terms of the needs of society (p. 108).

Statement of the Problem

In Venezuela the agricultural universities are more closely related to the Ministry of Education while the Experiment Stations and the Cooperative Extension Services are directly related to the Ministry of Agriculture and Livestock. Presently, there is no formal requirement for cooperation between the research and extension programs of the universities and those from the Ministry of Agriculture. It is of note that the Ministry of Agriculture has more than five extension agencies for bringing about development in rural areas. Each of them have their own programs, budget, and technicians, and mostly they work independently of each other.

The UNELLEZ Agricultural Production Faculty has been attempting to coordinate efforts in extension and research programs since the beginning of its academic activities in 1977. Furthermore, at the present time, there still exists no clearly delineated pattern of action by which this university can influence and contribute to the enhancement of agricultural production and village improvement among small farmers. An investigation of the status of the university extension programs would seem to be of value at this time.

Purpose of the Study

The major purpose of this study was to secure and analyze perceptions of (1) representatives of extension agencies, (2) administrators and faculty of the university, and (3) farmers, regarding the ways that a university, through maintenance of an extension program, can more effectively serve farmers and their families.

Objectives of the Study

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

1. To obtain perceptions regarding present effectiveness of university agricultural extension programs, but, in particular, by studying those programs where efforts are directed toward the improvement of agriculture, and including the quality of life of farmers and their families.

2. To obtain perceptions regarding improvements which are considered to be needed in university extension programs if progress is to be made in solving problems of (1) agricultural productivity and (2) enhancement of the quality of life for rural communities.

3. To formulate clear-cut recommendations as to actions and procedures which may insure more effective coordination among university and other programs of like nature.

Assumptions and Limitations of the Study

Assumptions

For the purpose of this study, the following assumptions were made:

1. Improvement of the UNELLEZ agricultural extension programs should contribute substantially to the goal of development of a stronger on-going agricultural production and farmers' quality of life in the region.

2. A better organization of the universities' structure and functions of its personnel will increase motivation of teachers to fulfill their extension responsibilities.

3. Farmers are willing to receive from the university, assistance directed toward the improvement of agricultural production and quality of life.

Limitations

The following limitations of the study were recognized:

1. This study was limited to a concern for the area of agricultural extension programs of the UNELLEZ faculty of Agricultural Production, located in Guanare City, Portuguesa State, Venezuela.

2. Further, the study was restricted to an area circumscribed by a radius of 50 kms from the center of the university (Mesa de Cavacas, Guanare City, Portuguesa State), which is being used as a pilot project for the university extension programs.

3. In terms of formal procurement of data, this study was limited to the perceptions of university administrators and teachers, extension agents, and farmers as to selected aspects related to UNELLEZ extension programs.

4. Since the project area study was located at a great distance from the United States, the problem of securing immediate communication and contact did impose somewhat of a constraint upon data collection.

5. Data and information collection were limited to that obtained through personal efforts of the researcher and the assistance of UNELLEZ administrators and teachers and personnel from "Crisanto Lacruz" High School in Agriculture (Escuela Tecnica Experimental de Agricultura) located in Guayabital, Biscucuy, Portuguesa State.

Procedures of the Study

The following steps were largely followed in terms of method and procedure, and directed toward accomplishing the purpose of the study:

1. A review of literature was made pertaining to agricultural extension, particularly that related to the United States and Venezuela.

2. A questionnaire was designed to administer to administrators and teachers of the Faculty of Agricultural Production of the UNELLEZ, as well as to extension agents working in the Ministry of Agriculture located in different towns which were encompassed by the University Agricultural Extension pilot project. In addition, the questionnaire was administered to farmers living in this same area. The nature of the questionnaire was such as to direct respondents to evaluate possible contributions which selected aspects of university extension programs might make toward successful achievement in rural development.

3. Collection of data was facilitated by the researcher's return for 45 days to Venezuela. Personal contact with a sizeable number of respondents was made.

4. Responses were collated and data were compared, analyzed and evaluated.

5. After analysis and further synthesis of data, conclusions were drawn and relevant recommendations were made.

Definition of Terms

Certain terms have special meaning as applied to the study.

UNELLEZ: A term which describe the name of the university: UNIVERSIDAD NACIONAL EXPERIMENTAL DE LOS LLAMOS "EZEQUIEL ZAMORA."

Vice-Rectorado: This term is used to designate a nucleus or faculty grouping which functions in a specific manner in each of the four states.

Rural Quality of Life: A term inclusive of items pertaining to enhancement of life and living conditions which is interdisciplinary in approach and embrace many areas of concern and development. It is particularly cognizant of the well-being of the people of the countryside and definitively includes the areas of: education, health, housing and public services, recreation, culture, family planning, sports and leisure activities, economic conditions to survive, public safety, transportation and supporting services (4, 25).

Agricultural Extension: This term refers to a service or system which assists farm people through educational procedures. Services rendered include improvement farming methods and techniques, increasing production efficiency and income, bettering their levels of living, and lifting the social and educational standard for rural life (13).

CHAPTER II

PRESENTATION OF BACKGROUND AND REVIEW OF LITERATURE

Introduction

The purpose of this chapter is two-fold: (1) to present selected background information and (2) to present pertinent aspects of a review of related literature. Further, included in the review that what are considered germane judgments and opinions of recognized researchers and scholars of Venezuela as well as the United States. The review encompasses five major areas: (1) Description of UNELLEZ history, organization and functions; (2) Constraints upon agricultural production and rural development in the western plains region, (3) Plans and commitments for agricultural and rural development of the Western Region of Venezuela, (4) Research exploring relationship between agricultural education and rural community development in Venezuela, and (5) Agricultural extension and the cooperative extension service.

History, Organization and Function of UNELLEZ

UNELLEZ, Universidad Nacional Experimental de los Llanos Occidentales "Ezequiel Zamora", is a university that functions as: (1) an experimental model and (2) a regional university system. This university was created by Presidential Decree no. 1178, the 7th of October of 1975, located in the Western plains of Venezuela with the purpose of

serving them through the formation of human resources, the scientific research, the impulse and optimization of agricultural activities and the cultural development of its inhabitants. Its action is directed to contribute in the social, scientific, economic and cultural transformation process of the states of Apure, Barinas, Cojedes and Portuguesa. This university makes its contribution to the national development toward the impulse of regional development (6).

UNELLEZ is not an urban university that expands its nucleus in other localities or regions, if not four universities in one, located in each of the state capitals and diverse centres of experimentation in distinct zones of regions. The activity of the UNELLEZ emanates through four areas of human activities: (1) Agricultural production, (2) Infrastructure and Industrial Process, (3) Planning and Regional Development and (4) Planning and Social Development. Each one of these areas is concentrated for its coordination in each of the state capitals and at the same time accomplishes its activities in the other states, as shown in Figure 2.

In addition, UNELLEZ attempts constantly to be at the service of the community; be this local, regional or national in its scope. The nature and function of the service that UNELLEZ is called upon to give is firmly based upon the impulse born of a commitment to development. As a result, it should be considered as a cultural, social and economic instrument which enables the cause of development because through earnest utilization of the scientific knowledge, the experimentation and the discovery of new methods, and implementation of new techniques. The guiding force is an orientation directed toward the accomplishment of a full human development. All services rendered are in conformity with

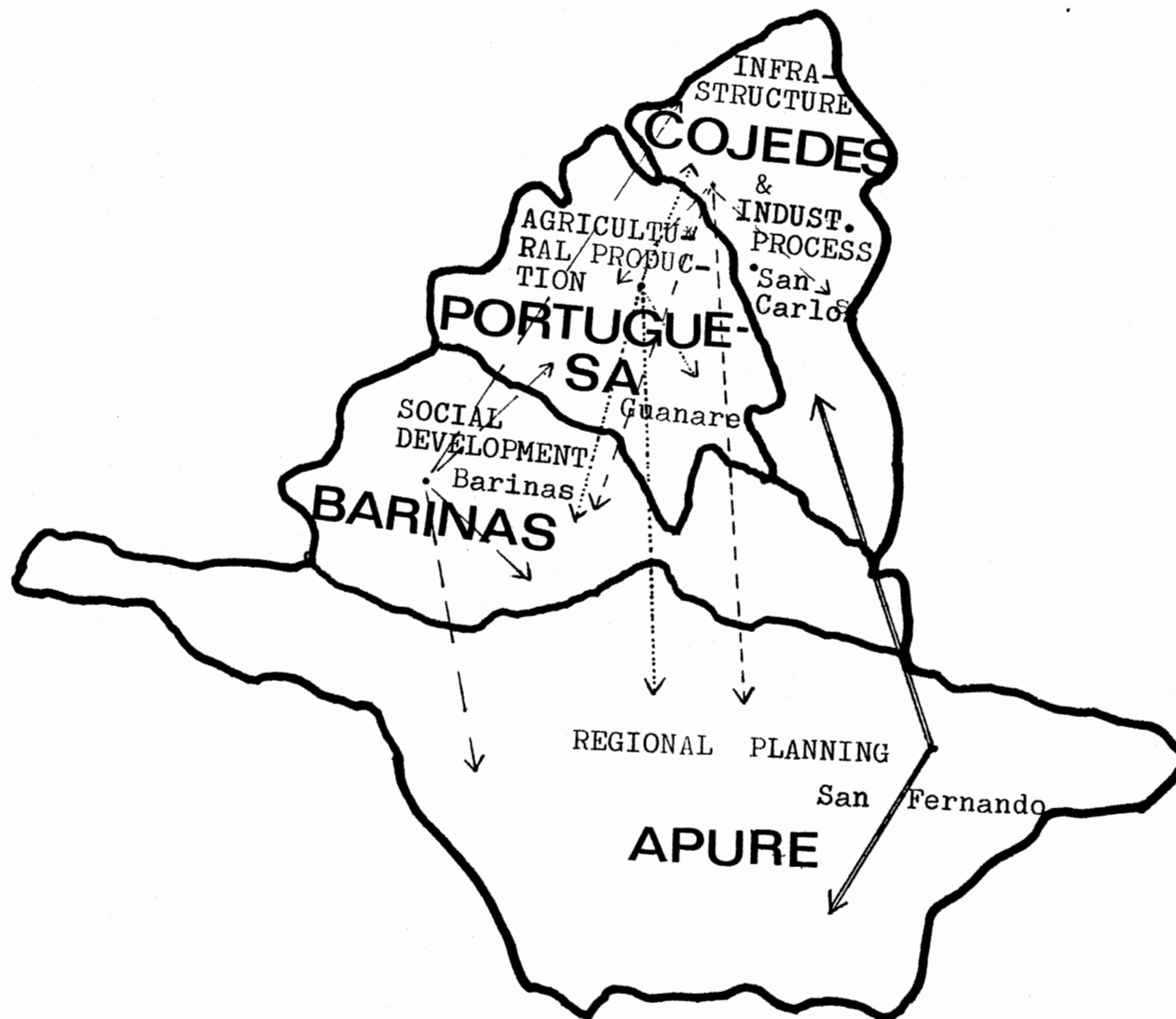


Figure 2. UNELLEZ Activities Through the Western Plains Region

concepts of regional needs and are in concordance with the National Plan (6).

At least in part, this description of the UNELLEZ characteristics are depicted in Figure 3. The structural organization of the UNELLEZ is illustrated in Figure 4.

Objectives of UNELLEZ

Officially assigned objectives of UNELLEZ appeared in the Gaceta Oficial Extraordinaria de Venezuela no. 2042 del 24 de Mayo de 1977 (7), functionally these constituted a group of fundamental objectives of and for the university. Briefly, stated the fundamental objectives include:

1. Contribute effectively to national development through a system committed to wise and efficient human and natural resources throughout the region.

2. Preserve and enrich the cultural heritage of the country and region carefully to consolidating, enhancing and embracing the spiritual values and the creativity, as these qualities are decrued with the capacity of the populace.

3. Promote growth among the university community members in order that learned concepts will be most worthy and fecund, and above all, fundamentally of maximum service to the nation.

4. Stimulate the talent and the incentive in order to achieve an own agricultural technology which may be congenial with that of other countries.

5. Contribute through advisement and assistance in planning in such a manner that economic resources invested or re-invested in the agricultural sector satisfy or exceed the officially programmed goals.

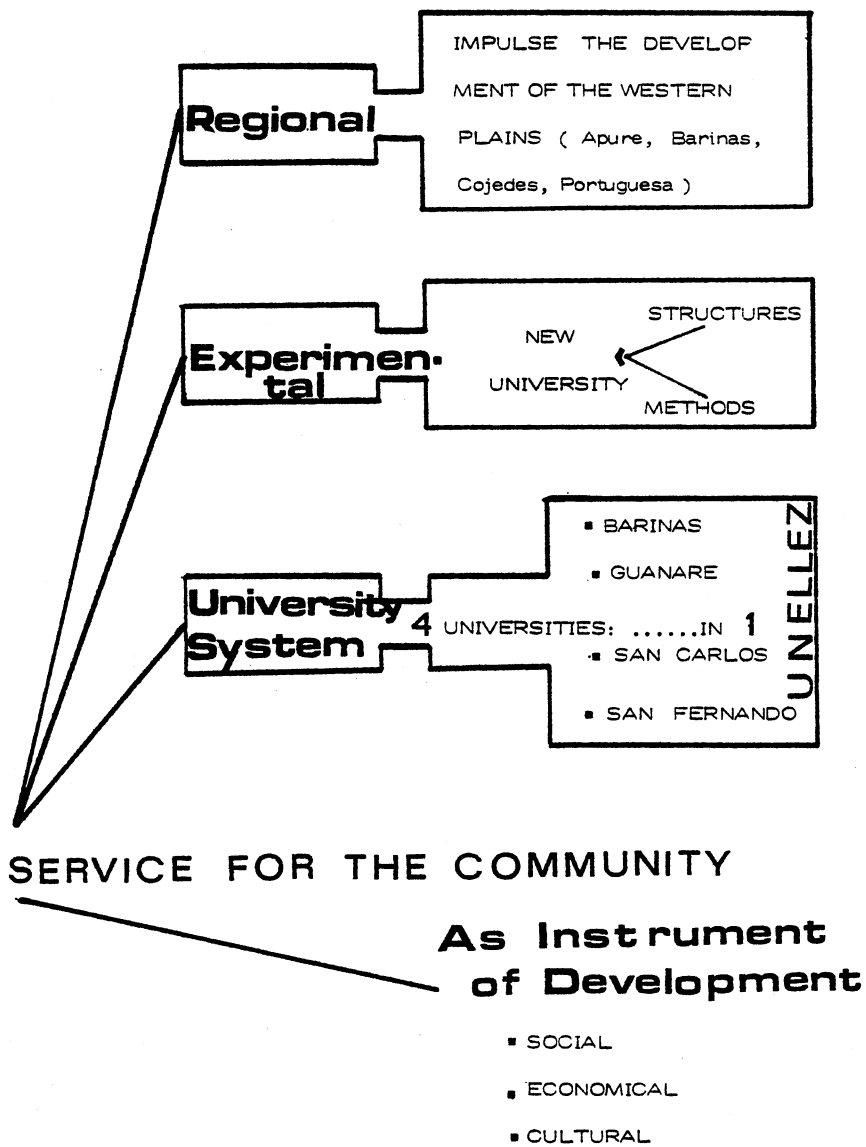


Figure 3. UNELLEZ Characteristics

6. Provide training at the technical level for direct increase in the productivity, while at the higher level research, instruction and planning, should be effectively contributing toward producing persons capable enough to provide leadership for the development of the agricultural sector.

7. Assure that the attempted research be of an interdisciplinary nature in order to give maximum effort to any and all problems of the country and in particular those of the region relating to social or economic order specific to the sector.

8. Ensure that instruction given leads to the development of qualified professionals. It should be of such a nature as to encourage training at the superior technical level, and above all be sufficiently balanced concerning knowledge of theory and of practice (p. 6).

UNELLEZ Faculty Programs and Radius of Action

As described above, the UNELLEZ academical functions are decentralized in the following way: (1) Barinas, where the main offices are functioning as well as the Faculty of Social Development and General Services, (2) Apure, the Faculty of Regional Development, (3) Cojedes, the Faculty of Infra-structure and Industrial Process and (4) Portuguesa, the Faculty of Agricultural Production. The description of the UNELLEZ fields of study and its respective programs are shown in Table I.

Academic Organization of UNELLEZ Educational

Configuration of Objectives and Goals

According to an educational directory, developed by initial UNELLEZ authorities and available in Papeles Universitarios, Edicion Especial

TABLE I
UNELLEZ FIELDS OF STUDY

Fields of Study	Program	Faculty	Place (City)
1. Agronomic Engineering	Vegetal Agricultural Production	Agricultural Production	Guanare
2. Zootechnic (Animal Science)	Animal Agricultural Production		
3. Conservation Engineering	Renewable Natural Resources Conservation		
4. Agricultural Engineering	Infra-Structure and Mechanization	Infra-Structure and Industrial Processes	San Carlos
5. Agroindustrial Engineering	Industrial Processes		
6. Regional Planning	Regional Planning	Regional Planning and Development	San Fernando
7. Regional Administration	Regional Administration		
8. Developmental Sociology	Sociology of Development	Social Development	Barinas
9. Agricultural Economic	Agricultural Economic		

Source: Papeles Universitarios, Edicion Especial, No. 17, Caracas, 1979, p. 117.

(8), the learning pattern for a UNELLIZTA student will be implemented through the Gestal mind configuration with emphasis, particularly whenever possible, to the production world. This is justified in that it constitutes an initiation to his eventual professional career, through experiential activities consisting essentially of participation of well planned investigations related to day to day extension activities. Thus, the "hands on" experience will be a basic element of his developing learning and capability achievement. As a result, the university strives to integrate research, instruction and extension as in all encompassing cycles of permanent flow. The final goal that the UNELLEZ attempts to achieve is the improvement of agricultural production as well as concomitant improvement of the socio-economical level of rural population. In Figure 5 the educational configuration of the UNELLEZ is clearly illustrated.

Research as a Function of UNELLEZ

Functioning research is conceived as an activity directly related with the social environment as well as the agricultural production, thus, in such a manner that it is essentially dependent upon the planning of specific problems in both areas as a combination requiring adequate solutions.

The teaching process is always enhanced through research efforts, thus, the student should be in constant proximity with the latest findings and techniques developed in the field of his speciality. At the same time, attention must be given implementation mechanisms making possible widespread sharing of such advances by means of extension activities (8).

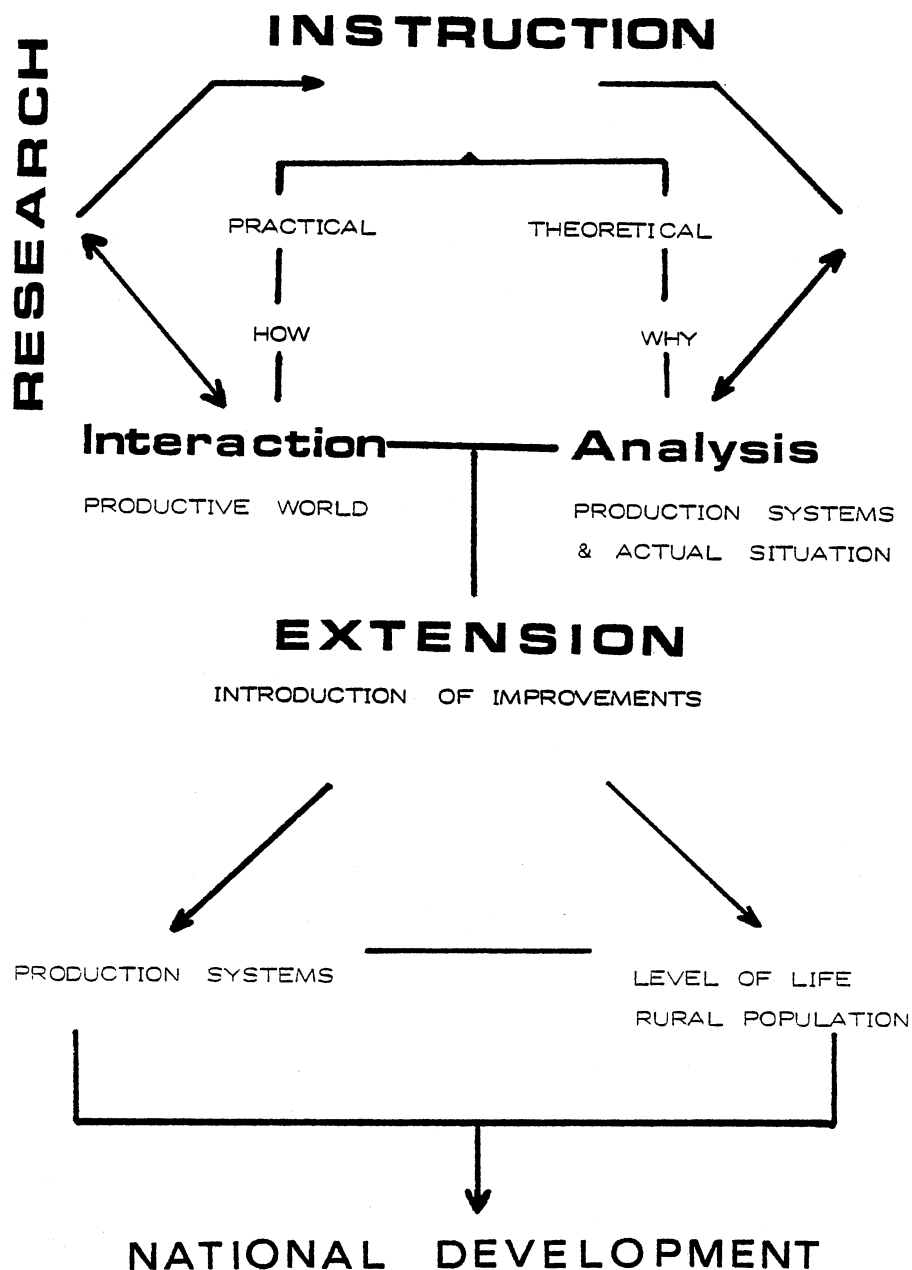


Figure 5. UNELLEZ Educational Configuration of Objectives and Goals

UNELLEZ Academic Module

The development of professionals proficient in each of the areas of production, teaching and research, as well as planning, is basic to the attainment objectives as conceived for UNELLEZ; therefore, it has established three levels: (a) technical cycle, (b) professional cycle and (c) post-graduate cycle (7). At the present time, the university is operating well within the first two cycles, and making some progress toward initiation of the third. In Figure 6 the academic module of UNELLEZ is depicted.

Extension Activities of UNELLEZ

The UNELLEZ extension activity is conceived as a very necessary link between the university and people and their social environment. Extension, therefore, is, in essence, the "arm" of the university by which it transmits results of investigations and findings and "reaches out" in productive communication and teaching. At the same time this makes it possible for the university to direct expressions regarding needs and wants from the people that live on and work the land. By doing so, the university contributes to valuable cultural diffusion in the many localities where it serves. Consequently, it has been deemed expedient to exercise two kinds of fundamental activities: (1) provision for non-curricular courses or non-formal educational activities and (2) cultural activities (8). Figure 7 shows the UNELLEZ extension activities.

According to Gomez (6):

A series of short courses that cover a great variety of areas of agricultural activity is implemented with the intention of

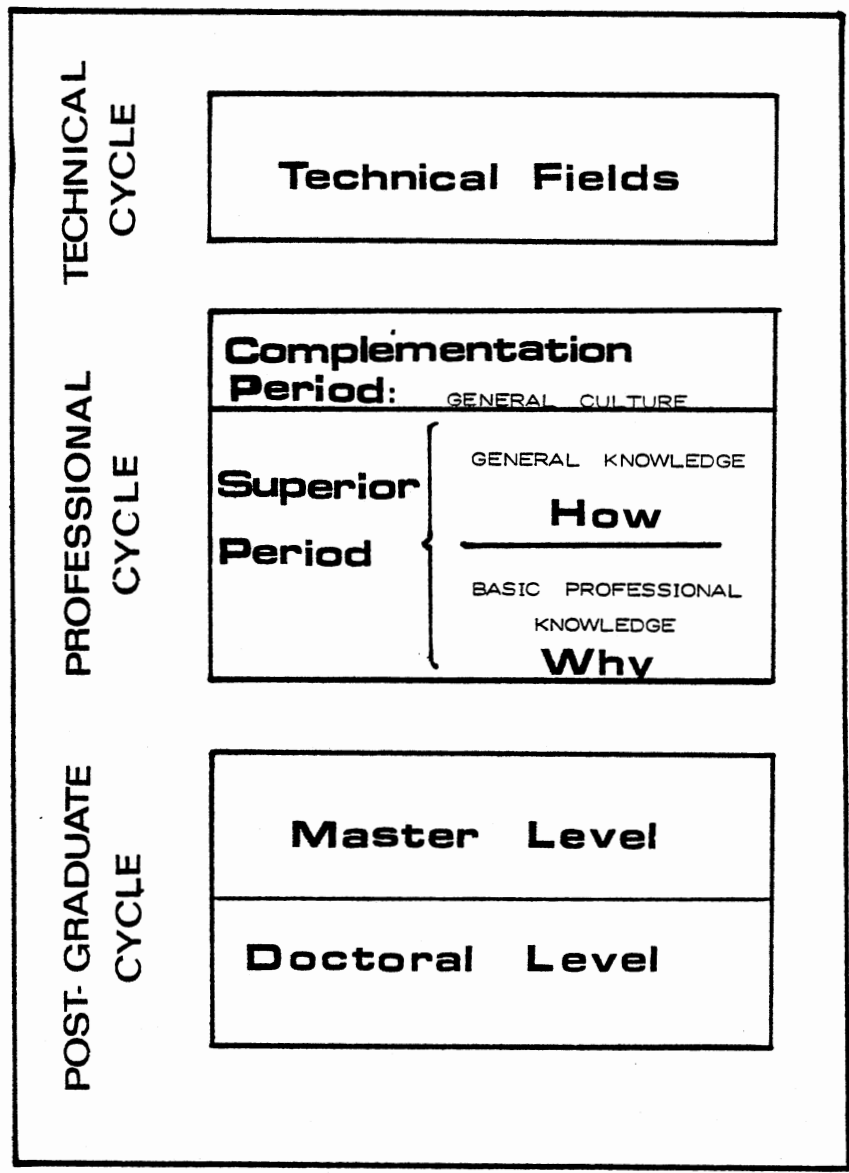


Figure 6. UNELLEZ Academic Module

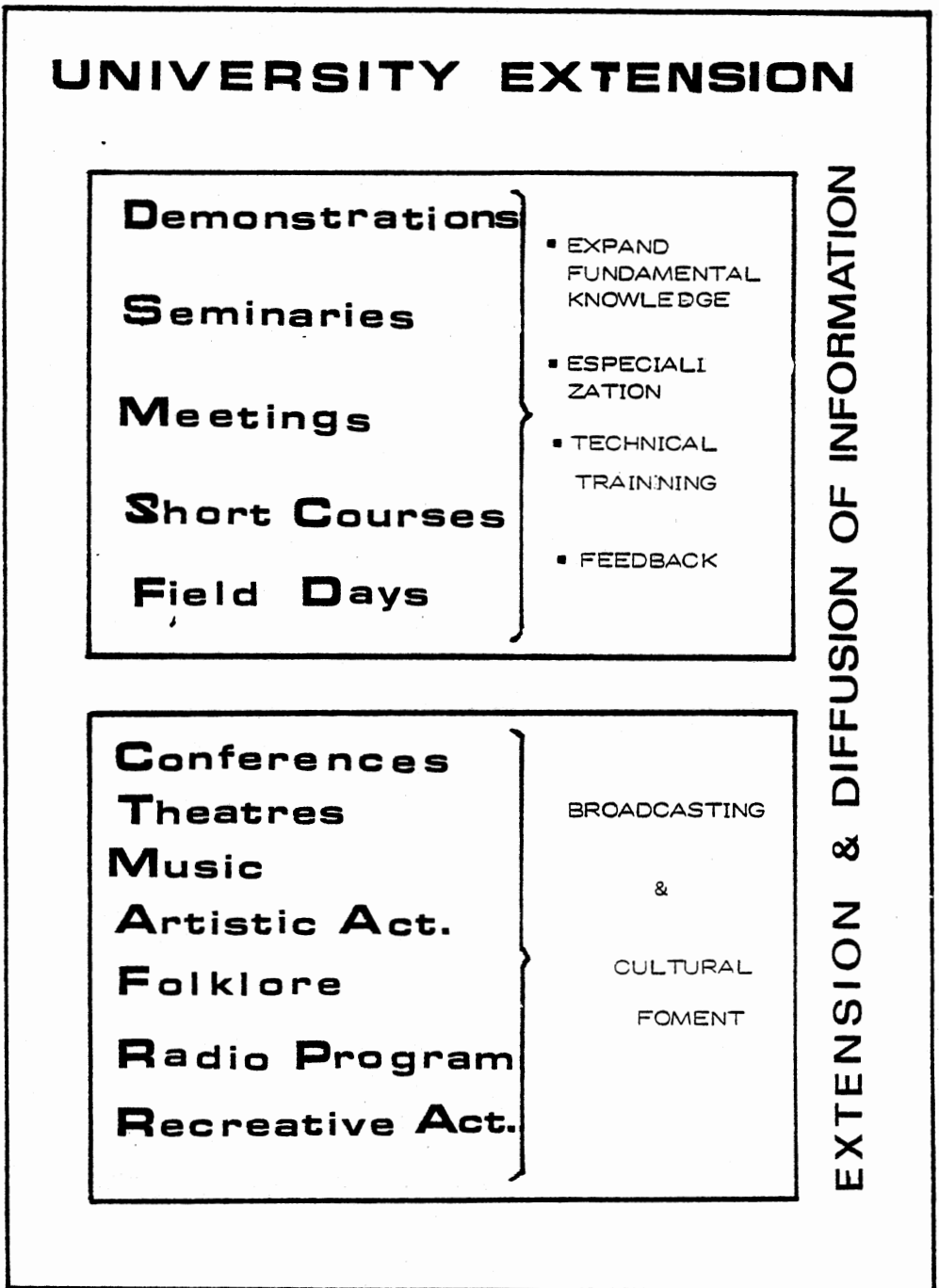


Figure 7. Extension Activities as Provided by the UNELLEZ

training personnel in their chosen area of labour. These activities include: Enhancement of specialized knowledge for farmers, technical job-training for farmers, diffusion of new technics and procedures in the various stages of the production. Also included are professional inservice training and seminars for extension workers at all levels (p. 69).

Constraints Upon Agricultural Production and
Rural Development in the Western
Plains Regions

It must be pointed out that after an exhaustive search the author must note a great shortage of reports of research in agricultural production and development in the region. Among the few found was a report by Bastidas (9), who was supported in his research effort by the UNELLEZ. This report, which was made in 1976, sought to identify the principal limitations for agricultural production in the region. A summary of his findings are presented as follows:

Education

There is a lack of orientation for improving the moral, intellectual, economic and physical condition of the country-side populace. According to Bastidas' findings, the lack of education was the problem constituting possibly the greatest constraint upon regional development.

Rural Manpower

Peasants or campesinos tend to migrate in ever increasing numbers to urban areas looking for better living conditions. This demographic phenomenon depletes the region of manpower, an indispensable factor in agricultural production. Consequently, agricultural entrepreneurs have great difficulty in securing needed labourers and those they do find are

very expensive.

Land Tenure and Ownership Limitations

For those farmers managing small and middle-sized farms the problem of land tenure is really crucial. In this region, slightly less than 40% of farms are cultivated by owners and these are often quite small. The bulk of the land, however, is leased from absentee owners who seldom visit the farm themselves. Such a system tends to exploit the land in favor of owners interested only in high monetary return. Most leases are to farmers of large and middle-sized farms with only a few to small farms.

Technical Assistance

Findings of the Bastidas study revealed that technical assistance is directed almost exclusively to small, largely subsistence farmers (peasants). The non-peasant sector also greatly needs the benefits of technical assistance in order to increase production of crops for market. Almost all professional agriculturalists as well as technicians live in the large cities. Only rarely do they live in the country. Conditions in the country are not considered conducive for desired family living. Consequently, before going to service local farmers, they have to stop by a main office, more often losing the best time to make visits. Other important problems are: (1) the instability of technicians, as they retire or change the position often before really becoming acquainted with potential beneficiaries; (2) they too often are prone to spend a disproportionate amount of time in administrative work and in meetings with executives and directors; and (3) the majority of farmers consider

themselves self-sufficient.

Financing

Financing for agricultural enterprise is made by state loan institutions and commercial banks. According to Bastidas, the major problems regarding agricultural loans are: (1) they are often not sufficient to cover the entire production cycle; (2) as a consequence of alleged administrative inertia and inefficiency, the producers often experience delay in the securing of loans. For these reasons and others, the agricultural sector suffers from chronic indebtedness.

Summary of Constraints

Quoting directly from Bastidas (9):

The ranking order for the major influencing aspects of limitations for agricultural development must be recorded as:

- I. Very important:
 1. Lack of effective education for farmers
 2. Lack of needed manpower
 3. Land tenure and ownership
 4. Agronomic aspects
 5. Limitations on communication and transportation
 6. Absentee landlords
 7. Technical assistance for major market producers
 - II. Less important:
 1. Farm production management
 2. Financing of production
 3. Difficulty for obtaining agricultural supplies
- (p. 108).

Felix Cordero Peraza (10), in a conference related to "Communication and Rural Development in the Western Region" stated that barriers exist to prevent the adoption of approved practices by farmers due to certain inadequacies: (1) Diffusion of agricultural innovations are quite often not adapted to the culture and environment of such regions. (2) The agricultural extension service almost exclusively adheres to a

pattern of "trickle down" communication (from top to bottom) with little or no input from potential recipients. (3) A crippling lack of coordination among the agencies with designated functions of investigation, diffusion and implementation. (4) The limiting situation brought about by a deficiency in vertical communication between and among change agencies and educational institutions. Shared planning and conferences on the training of technicians and/or extension workers is almost non-existent.

Plans and Commitments for Agricultural and
Rural Development of the Western
Region of Venezuela

An autonomous organization supported by the government of Venezuela is known by the acronym FUDECO, Fundacion for the Development of the Western Region of Venezuela (11). This body has recommended that the country make a number of commitments, a major portion of which they strongly suggest should be accomplished during the decade of the 1980's. A summary which includes those which would seem pertinent to this study are presented as follows:

1. Education to further literacy should be emphasized through training programs for both children and adults in basic communication skills. This should constitute a direct approach to reach a goal of increasing the minimum level of literacy for the population. Accompanying this major effort of the general literacy program should be additional efforts oriented to the modification of attitudes both toward productive activities and human development. Such a proposed educational system should, of course, be cognizant of motifs unique to the Venezuelan culture. Above all it should be firmly based upon a complete recognition

of needs and desires of the entire populace.

2. Health and Nutrition: The implementation of a network of integrated medical services which function effectively at different levels through medical centers at both local and regional locations and which complement each other is urgently needed. Actions strongly directed toward achieving such a goal will most effectively and efficiently utilize physical, human and economical resources.

In nutrition, implementation of educational programs directed toward achievement of an understanding of the content of an adequate nourishing diet and creating a desire to acquire habits which ensure healthy living is greatly needed. Such an educational effort should be mindful of the need for diets of the poor to be economically possible of attainment.

3. Efficient and Effective Use of Resources by Organizations: Recognizing the plethora of duplication and over-lapping of services by a multitude of institutions and organizations, a grassroots movement should be introduced and encouraged to coordinate efforts and services. Such a program might be attempted through joint efforts of the universities of the region. Seminars and conferences might be developed to which representatives of different organizations are invited. The great need is for development and application of a methodology of systematic evaluative investigation of development programs which might encourage greater understanding of and knowledgeable assessment by the public sector.

Development, particularly rural development, cannot be deduced without careful consideration of the agricultural development aspects. In rural areas, planners must be cognizant of the social and economic

development activities of the campesino. Perhaps a foremost need is for improvement of the availability of loans for the agricultural sector. Also greatly needed is establishing programs of technical assistance accompanied by more direct loans to small and middle-sized farmers. Furthermore, the implementation of agricultural insurance as a farmer's protection factor, in order to accelerate the adoption of adequate technologies is almost a mandate for rural development. Finally, revitalization of the "Agrarian Reform" process, begun over 20 years ago, is greatly needed. This program of reform should be somewhat revised in order to concentrate priority for service to poverty-stricken areas. Particularly, any and all programs of rural development call for action restructuring programs to emphasize actual involvement at both the planning and implementation stages of the affected population.

Certain portions of a paper, article I, prepared by Hernandez (12), Ley de Reforma Agraria Venezolana, are presented as pertinent quotes:

The present law has a major objective, the transformation of the Agrarian structure of the country, and the incorporation of the social-economic and political development of the population of the nation by means of a replacement of the present exploitive latifundista system by a more just system of tenure and ownership. Such a system, first of all must be based upon equitable distribution of land resources, more adequate organization of the agricultural loan program. Various aspects of assistance programs must be integrated for farmers in order that the land and its usages constitute essentially a benefit for the men that work it. Basically, in order for man to achieve his economic stability, land reform must become the formulation of their progression in achieving social well-being and constitute warranty of their basic rights of dignity and liberty (p. 3).

Research Directed Toward Determining Relationship
Between Agricultural Education and Rural
Community Development in Venezuela

The researcher completed a Master's thesis in 1981 entitled "Possible Adaptations in the Functions of Secondary Agricultural Education in Order to Enhance Rural Community Development in Venezuela". In the conclusions drawn from this research (25) the following would seem relevant to the present study:

1. The selected specific strategies for achievement of integrated or balanced rural community development, as related to education, are:
 - (a) professional preparation of rural teachers. In order to best prepare them for their role in education, particularly effectiveness in promoting rural community development, it is most essential that "tyro" teachers be carefully guided into more complete identification with the postulates of the rural sector;
 - (b) the possible need for revision of curricula of secondary agricultural education to be descriptive of much more than a simple rearrangement of courses or change in requirements for given subjects. This may well be needed in order to more readily incorporate such essential elements of rural community development into the educational program;
 - (c) making the school serve as an instrument to achieve integrated development within the community;
 - (d) expanding role of the Vo Ag teachers in bringing about the improvement of the rural community.

2. Rural community development will prosper to a considerable extent dependent upon the willing and ready participation of individual leaders within the community who choose to voluntarily assume numerous responsibilities. Such leaders serve as a "catalytic agent" inspiring

both professional workers and fellow citizens to effort on behalf of community development.

3. Rural and community development must consider the interdependence of all developmental sectors. These sectors include not only agriculture and industry but also transportation, trade, credit, health, education, culture, sport and leisure activities.

4. Programs of balanced rural community development is divided into two major thrusts: (a) improvement of the quality of life, and (b) improvement of agricultural production and marketing.

5. Accomplishment of "Agrarian Reform" is absolutely essential to successful rural community development. Incentives must be provided, but such provision must be within the context of the complete economic and social milieu of the rural sectors.

Agricultural Extension and the Cooperative

Extension Service

Agricultural Extension Concepts and

Characteristics

Agricultural extension has been described as a system of out-of-school education. The meaning of "extension" has been described by many leaders in this field.

According to Maunder (13):

Agricultural extension is a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living, and lifting the social and educational standards for rural life (p. 22).

This definition includes the whole environment in which a farmer

lives and cooperates as a legitimate field for extension activity. It is not restricted to farmer-contact work, but includes extension research, training, liaison, and information work as integral parts of the agricultural extension system.

Fay (14, p. 17) states the following: "Agricultural Extension strives to bring the farmer knowledge and help that will enable him to farm more efficiently and to increase his income."

Extension is more than an organizational chart and a paid personnel. It consists of the living relationships between the people who carry it on and the individuals who benefit by direct and indirect participation (15).

The concept that the broader function of extension work is to help people solve their own problems through the application of scientific knowledge is now generally accepted. According to Savile (16)

The aim of all extension work is to teach people living in rural areas how to raise their standard of living, by their own efforts, using their own resources of manpower and materials, with the minimum of assistance from governments. By encouraging local leadership and a spirit of self-help, extension develops civic pride and the progressive growth of the community (p. 3).

In the final analysis, the ultimate objective of Extension is increased income and improved living conditions for the people it serves. It is the conviction of many Extension educators that "helping people help themselves" is the philosophy upon which Extension work has been built. The philosophy of an organization is its "value framework." When individuals commit themselves to act accordingly, the result is that these values are aimed at in the educational program.

According to Boone (17):

The philosophy of Extension is that people must be assisted

within a democratic framework. This philosophy reflects the firm conviction that people adjust to change most rapidly in a democratic environment in which self-expression, self-direction, and self-improvement are encouraged (p. 6).

The Smith-Lever Act of 1914 (18) that led to the establishment of the Cooperative Extension in agriculture and home economics in the USA summarizes Extension's major functions as:

. . . to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same. . . . All differentiation of extension education involves change; changes in the knowledge of things known by the people (p. 3).

Some characteristics of the cooperative extension system in the USA (19) are:

1. The federal, state, and local governments cooperatively share in its financial support and program direction.
2. It is administered by the land-grant university as designated by the state legislature through extension director.
3. Extension programs are non-political, objective, and based on actual information.
4. It provides practical, problem-oriented education for people of all ages. It is designed to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
5. It utilizes research from university, government, and other sources to help people make their own decisions.
6. More than a million volunteers help multiply the impact of Extension professional staff.
7. It dispenses no funds to the public.
8. It is not a regulatory agency, but it does inform people of

regulations and of their options in meeting them.

9. Local programs are developed and carried out in full recognition of national problems and goals.

10. The extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.

Historically, in the USA, Extension's role as a change agency has contributed a great deal in bringing about economic and social change in rural life. In the opinion of Pound, (20, p. 11) Extension Service was "the vehicle for adding culture and sophistication to rural life". Pound (20) went on to say that the Extension Service was the agency that:

(1) Took the pump out of the farm kitchen and replaced in with a tap of running water; (2) traded the outhouse in on ceramic bathrooms; (3) gave the farmer a system of record-keeping which made a businessman of him; (4) took the farm housewife out of bonnets and denim skirts and put her in heels and nylons; (5) changed the food pattern of rural people from simple dishes of bread, meat, and potatoes to the same variety and spice of city life; (6) took the knocks of timid knees and made many farm youth or adults able to stand up and speak in public with poise and effectiveness (p. 12).

From the foregoing background, it is evident that the primary concern in Extension Service is educational in nature aiming at effecting desired change in people's behavior. It is recognized, however, that these changes can be made only through changes in knowledge, skills and attitudes. Desired changes in farming practices, for instance, can be achieved only through changes in people, either in terms of what they know, what they do and how they think. It has been suggested by Maunder (13) that:

The changes in behavior of rural people that make them adopt new practices and search for new ideas to improve agricultural production is resulting in the changes of their knowledge. In order to change behavior of many people extension must first change their attitude toward change, to cause them to question traditional practices and to realize that they have the power

to improve their own social and economic situation (p. 4).

Agricultural Extension Objectives

Objectives have been defined by Kelsey (21) as the expressions of the ends toward which our efforts are directed. Objectives means "a directional movement." It should be kept in mind that not all people need or desire to go in the same direction or equal distances. Directions have varying degrees of importance to different people. In extension, we must be prepared to offer opportunity for people to move in various directions.

Pender (22) classified the extension objectives to be (a) educational, (b) economic, and (c) social. The first includes changes in knowledge, changes in skill and changes in attitude. Economic objectives have to do with material changes such as increased crop yields, improved soil fertility, etc. These are the objectives emphasized in many countries to the exclusion of social objectives which include, among other things, improved health and development of cooperation. Social objectives may be considered the ultimate results to be achieved partially through attainment of economic objectives.

According to Maunder (13) the objectives of extension work in the United States are:

- (1) To increase the net income of the farmer through more efficient production and marketing and the better use of capital and credit;
- (2) To promote better homes and a higher standard of living on the farm;
- (3) To develop rural leaders;
- (4) To promote the mental, social, cultural, recreational, and community life of rural people; and
- (5) To improve the educational and spiritual life of rural people (p. 85).

According to Tyler (23), extension has as its primary purpose educational goals rather than merely the increase of material production of

agriculture. Unless human beings (farmers, their wives and children) are changed as a result of extension work, the major purpose of extension will not have been achieved. Furthermore, a good educational program is one that is aimed more at human values than at material values. The purpose of extension should be more to improve the quality and satisfactions of living than to develop skills of production, important as full production is.

A good objective in extension is one that will provide possible direction for large numbers of people to move some distance. Extension must help people define the directions in which they want and need to go, then provide assistance to them in traveling in those directions. This is really the essence of extension work.

Scope and Responsibilities of Extension Service

Agricultural Extension Services are established for the purpose of changing the knowledge, skills, practices and attitudes of masses of rural people. It is the function of extension service organizations not only to establish a system of harmonious internal relationships but also to establish complimentary rather than competitive relationships with all other institutions, services and organizations contributing to progress in the rural community. Whether directly involved or not, an extension service should be concerned with all aspects of the welfare of rural people. But it should keep in mind that its role is educational and its program should compliment so-called action or administrative programs of other agencies, and cooperate to the extent deemed feasible and mutually agreeable in other educational programs (13).

Maunder (13) states:

Although programs may vary in detail from service to service, all extension services have areas of common interest. These areas of responsibility can be identified as:

1. Agriculture production
2. Marketing, distribution and utilization of farm products
3. Conservation, wise use, and development of natural resources
4. Management on the farm and in the home
5. Family living
6. Youth development
7. Leadership development
8. Community improvement
9. Public affairs (p. 57).

The scope of these areas of responsibility also vary between services. Logically, programs must reflect needs and priorities of the people with whom they work. This does not, however, negate the fact that extension personnel must be aware of the total scope and responsibility of their service. In addition, it is as important as the National Administrative Unit to which the extension service is attached (i.e., Ministry of Agriculture) and the rural people should be adequately informed as to the scope and responsibility of extension. Only in this way can a cooperative and understanding relationship evolve and support an effective extension program.

Agricultural Extension Methods

Based upon the needs and interests of the rural people, extension teaching requires no rigid pattern or curriculum. Every situation needs a special set of teaching tools which are more suitable for the problem to be solved.

The extension worker is a teacher in the way he must have first-hand knowledge of the needs and the ways to supply the farmers with this education. He also should anticipate the different teaching situations with which he will be faced. Basendewa (24) stated it clearly:

Success in bringing about desired changes in behavior with farmers frequently depends on the extension worker's skill in arranging the best learning situation and in using the most effective methods of teaching in that situation (p. 33).

This success is never guaranteed unless an effective communication is established between the extension educator and his clientele. In the communication process, four components should be carefully considered:

1. The communicator or "sender": the extension worker, instructor, . . .
2. The message to communicate: which creates changes in mental, emotional and physical behavior.
3. The channels or methods of communicating the message: newspapers, radio, television, meetings, demonstrations, . . .
4. The receiver: the target population, community, group or individual.

These means and methods of communication of information, knowledge and skills are almost the same everywhere, however their effectiveness and applicability differ from people to people and from area to area depending upon the socio-economic structures, religions, traditions, level of literacy and, above all, the integrity of the individual as a learner.

Different extension teaching methods are most effective in varying situations and at different stages of adoption process. All people do not learn at the same speed; some may be at the stage of trying a new practice and want to know the details of how to do it when others are barely aware of the practice or just becoming interested. For these reasons, use of a variety of teaching methods is most effective.

The end result of all education is to bring about desirable changes in human behavior. Whether the extension worker is attempting with an

individual or with a group to develop an awareness of a problem or of steps in its solution, the effectiveness of his efforts will be strongly influenced by his choice of teaching methods. He must have a thorough knowledge of the capabilities and the limitations of each method and its adaptability to varying situations (15).

The "teaching methods" that are universally used were listed in the U.S.D.A. (14) circular #495.

1. Individual Methods

Farm Visits
Personal Letters
Result Demonstrations
Telephone Calls

2. Group Methods

Demonstration Meetings
Leader Training Meetings
Lecture Meetings
Conference and Discussion Meetings
Tours

3. Mass Methods

Bulletins
Leaflets
News Stories
Circular Letters
Radio
Television
Exhibits
Posters (p. 4).

Being aware of this variety of methods, the extension worker has to select the most appropriate way of persuasion which "fits" the situation and meets one or several of his learner basic needs: security, response, new experience and recognition.

The extension worker then has a great task to accomplish in order to achieve the goals which make the essence of extension education.

Summary of the Literature Review

It can be concluded from the studies reviewed that:

1. The UNELLEZ functions as an experimental and regional university, located in the Western plains of Venezuela. The activity of the UNELLEZ develops through four areas of human activities: (a) Agricultural Production, (b) Infra-structure and Industrial Process, (c) Planning and Regional Development and (d) Planning and Social Development. Among the Objectives are: (a) Contribute Efficiently to the national development through the national and productive profit of the human and natural resources of the region, (b) Contribute through the advisement and opportune planning in such a manner that the economic resources invested or to be invested in the agricultural region sector overtake or overcome the programmed goals, (c) Ensure that the instruction leads to the development of a qualified enough professional. Consequently, it will encourage a training at superior technical level sufficiently balanced concerning knowledge of theory and practice.


2. Functioning research is conceived as an activity directly related with the social environment as well as the agricultural production, thus, in such a manner that it is essentially dependent upon the planning of specific problems in both areas as a combination requiring adequate solutions.

3. The UNELLEZ extension activity is conceived as a very necessary link between the university and people and their social environment. Consequently, it has been deemed as expedient to exercise two kinds of fundamental activities: (a) provision for non-curricular courses or non-formal educational activities and (b) cultural activities.

4. The major influencing aspects of limitations for agricultural and rural development of the Western plains region are: (a) Very important: lack of effective education for farmers, lack of needed manpower, land tenure and ownership, agronomic aspects, limitations on communication and transportation, absentee landlords and technical assistance for major market producers and (b) Less important: farm production management, financing of production and difficulty for obtaining agricultural supplies.

5. Plans and Commitments for development of the Western region include: (a) improvement of education, (b) health and nutrition, (c) efficient and effective use of resources by organization, (d) revitalization of the "Agrarian Reform" process.

6. Programs of balanced rural community development are divided into two major thrusts: (a) improvement of the quality of life, and (b) improvement of agricultural production and marketing.



CHAPTER III

METHOD AND PROCEDURE

The major purpose of this chapter was to describe population parameters, sampling procedures, the instrument to be used for data collection and the methods of analysis to be used.

Population

The location of the study population was restricted to the geographical zone or area in which the influence of the Vice-Rectorado of Agricultural Production of the Universidad Nacional Experimental de los Llanos Occidentals "Ezequiel Zamora", the acronym of which is UNELLEZ, was deemed most predominate. This faculty is located in Guanare City, Portuguesa State, Venezuela. In addition, the study was further restricted to an area circumscribed by a radius of 50 kms from the center of the university campus (Mesa de Cavavas, Guanare City), which is being used as a pilot project for university extension programs. Within the area thus circumscribed, three groups of respondents were selected: (1) university teacher-administrators (Vice-Rectorado of Agricultural Production), (2) extension agents working and living in the area and (3) resident farmers constituted the population for this study.

Sampling Procedure

As shown in Table II for (1) the university personnel category,

respondents were selected by random sampling among 94 teacher-administrators. The sample thus taken, consisting of 47 individuals, constituted 50 percent of the total population; (2) the extension agent category respondents were also selected through random sampling among the 55 agents serving in the designated area. The final sample of 22 represented 40 percent of the total in the group.

TABLE II
TARGET POPULATION PARAMETERS AND SAMPLING

Population Category	Target Population	Sampling Number	%
University Personnel	94	47	50*
Extension Agents	55	22	40*
Farmers	300	45	15*

*Percentage of target population in each respondent sample category.

Finally, (3) the Ministry of Agriculture furnished the names of a target population of 300 farmers living in the area. A random sampling totaling 45 accounted for 15 percent of the total individuals in the farmer's group.

Instrumentation

Because of the relative difficulty of using other means, the researcher used a combination of submitted questionnaire and interview

techniques to collect data.

A questionnaire was designed primarily to secure perceptions from selected respondents regarding the relative effectiveness of both present and future extension programs of UNELLEZ, particularly as these programs may be directed toward the promotion of agricultural productivity and enhancement of quality of life for rural dwellers.

The basis for the development of the instrument was a "Model for a Balanced and Integrated Rural Community Development" as designed by the researcher and presented in his Masters thesis (25). The approach for this model is divided into two major thrusts: (1) Improvement of the quality of life and (2) Improvement of the agricultural productivity and marketing. In Figure 8 is shown a diagrammatic concept of the model.

Data Collection

In January 1982, the researcher returned for 45 days to Venezuela and personally delivered the questionnaires to the department heads of the UNELLEZ. The university heads took as their department quota one-half of their employed faculty. The first and the consecutive people coming to their office after an established time were given the questionnaire until the one-half quota was filled. To determine respondents for the agricultural extension personnel each of three extension administrators serving in the area were given questionnaires and delivered them in like manner, to the first 40 percent of their employed personnel to enter the office.

Collection of data from farmer respondents was accomplished with the assistance of teachers from "Crisanto Lacruz" High School in Agriculture (Escuela Tecnicos Experimental de Agriculture) located within the

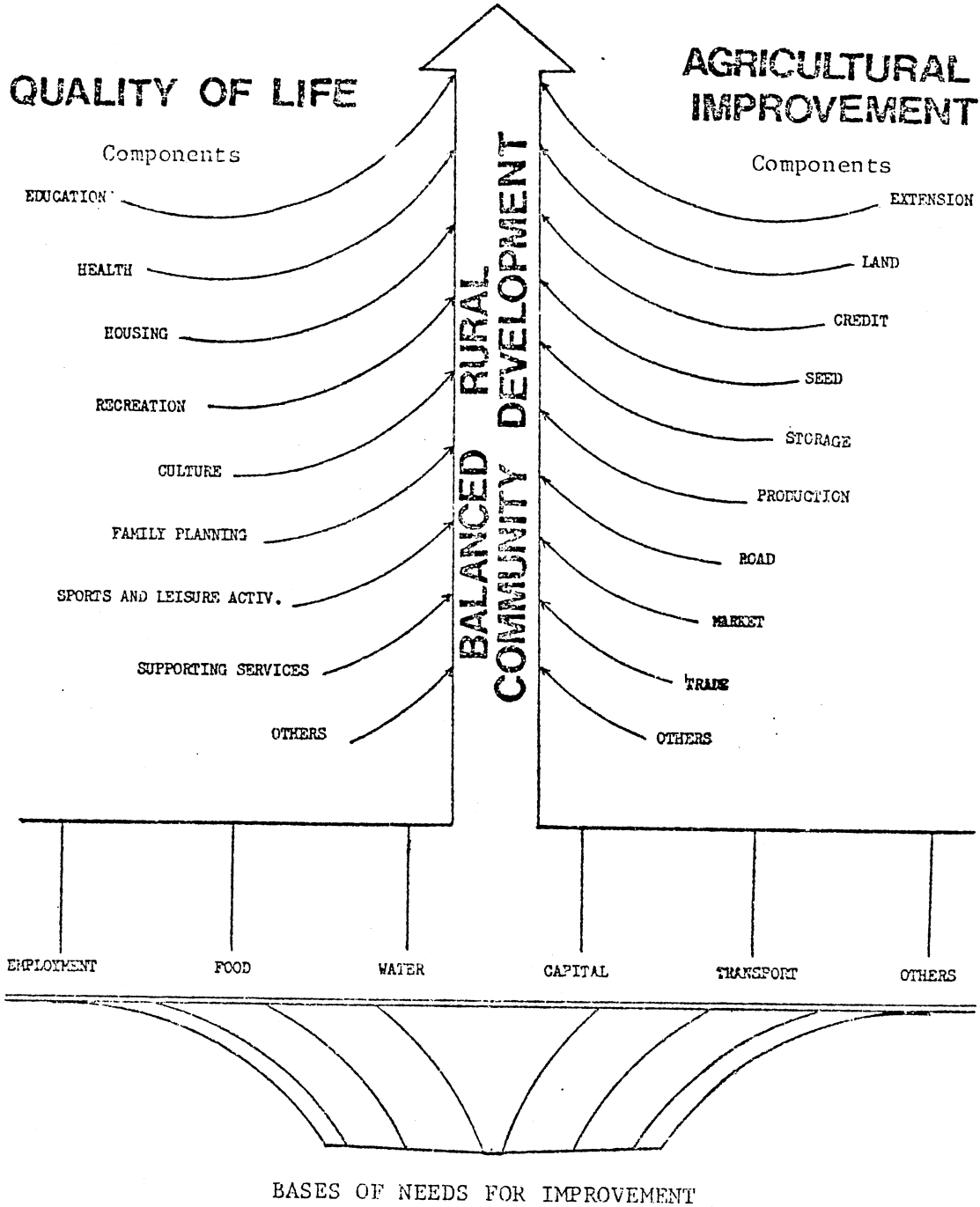


Figure 8. Schematic Presentation of the Concept of Balanced and Integrated Rural Community Development

designated area for study, and where the researcher had expert experience three years as instructor-administrator. Each of three teachers from the school took one of opposite roads leading out from the university and selected for interview every tenth farmer in terms of their location along the respective road. Interviews were made until the designated quota was satisfied.

Analysis of Data

Both statistical and analytical treatment was applied. Responses were made by individuals to a Likert-type scale and comparisons of response scores given by individuals mean scores as they constituted were made for the respective groups. The questions and statements on the questionnaires were so designed that respondents could easily indicate their views and judgments by checking the appropriate items on the survey form or writing short, concise answers (see Appendix A).

In order to analyze the data, the researcher used a response scales system which required the assignment of numerical values and establishment of response category limits. Table III shows these limits as they were established and used as basis for discrimination of category differences.

After thorough analysis and summary of findings, conclusions were drawn and recommendations were made.

TABLE III
SCALE OF VALUES APPLIED TO RESPONSE CATEGORIES
SHOWING ABSOLUTE LIMITS

Response	Numerical Value Assigned to Statements	Limits for Response Category
Great Deal	3	2.5 - 3.0
Some	2	1.5 - 2.49
Little	1	.5 - 1.49
None	0	0 - .49
Don't Know	-	

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to determine perceptions of (1) representatives of extension agencies, (2) administrators and faculty of the University, and (3) farmers regarding the ways in which the university can more effectively serve farmers and their families. In order to accomplish this identified purpose, certain specific objectives were formulated, as stated in the first chapter of this study (page 4).

In order to accomplish these specific objectives, responses were collected and collated. Further, this chapter constitutes an attempt to present selected findings and their analyses, using tables to facilitate such description.

Data Regarding Collection of Responses

As previously stated, the collection of data was facilitated by travel of the researcher to Venezuela for a 45-day period, January 15th to March 2nd of 1982. With regard to the responses returned, as evidenced by data shown in Table IV, the study was well supported by the more than 91% return from university personnel, 90% from extension agents and 86% from farmers.

TABLE IV
 RESPONSES RECEIVED FROM UNIVERSITY PERSONNEL,
 EXTENSION AGENTS AND FARMERS

Population Category	Target Population	Sampling		Returned	
		No.	%	No.	%
University Personnel	94	47	50*	43	91.49**
Extension Agents	55	22	40*	19	90.91**
Farmers	300	45	15*	39	86.67**

*Percentage of target population in each respondent sample category.

**Percentage of respondent sample return for each sub-category of respondents.

Responses With Regard to Selected Aspects
Associated With Agricultural Production

Data shown in Tables V through VIII present judgment of university personnel, extension agents and farmers as well as combined responses of these groups with regard to present emphasis and future emphasis needed for selected aspects associated with agricultural production.

University Personnel Responses

Findings presented in Table V show certain selected responses from university administrators and teachers. Regarding present emphasis, university personnel responses reveal that all items are between a mean score of .50 to 2.49 which evidences that as a group they judged present emphasis in this area to be at the levels of only "some" and "little".

Data shown in Table V show by means of a ranking in descending order, the following items as those which respondents considered to be presently receiving a level of "some" emphasis: (1) increase agricultural production and marketing, (2) rational use of the resource: land and (3) rational use of the resource: soil. Those items judged as receiving a present emphasis of "little" were, as per ranking, rational use of resources: (4) water, (5) seed/animals, (6) materials and equipment, (7) adequate loans. Ranking in 8th place and presently receiving "little" emphasis was: improved farm management; again, rational use of selected resources, all receiving a judgment of "little emphasis and listed according to ranking were: (9) agricultural supplies, (10) storage, (11) infra-structure, (12) markets, (13) agricultural roads and (14) transportation.

Considerable differences are to be noted when a comparison is made

TABLE V

JUDGMENTS OF UNIVERSITY PERSONNEL REGARDING PRESENT
EMPHASIS NEEDED FOR SELECTED ASPECTS ASSOCIATED
WITH AGRICULTURAL PRODUCTION

Total Responses	PRESENT										FUTURE															
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank		
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%				
43	10	23.26	18	41.86	8	18.60	2	4.65	5	11.63	1.72	1	39	90.70	0	0.00	0	0.00	0	0.00	4	9.30	2.72	1	1. Increase agricultural production and marketing.	
43	4	9.30	17	39.53	9	20.93	5	11.63	8	18.60	1.28	8	31	72.09	7	16.28	0	0.00	0	0.00	5	11.63	2.49	4	2. Improve farm management.	
																									3. Orient in the rational use of resources for production & marketing.	
43	7	16.28	14	32.55	12	27.91	3	6.98	7	16.28	1.42	4	a. Water	33	76.74	3	6.98	0	0.00	0	0.00	7	16.28	2.44	5	
43	7	16.28	20	46.51	12	27.91	2	4.65	2	4.65	1.70	2	b. Land (use)	35	81.40	4	9.30	0	0.00	0	0.00	4	9.30	2.63	2T	
43	15	34.88	9	20.93	9	20.93	3	6.98	7	16.28	1.67	3	c. Soil (testing)	35	81.39	3	6.98	2	4.65	0	0.00	3	6.98	2.63	2T	
43	6	13.95	14	32.56	10	23.25	3	6.98	10	23.25	1.30	7	d. Loan	24	55.81	9	20.93	2	4.65	0	0.00	8	18.60	2.14	10	
43	5	11.63	13	30.23	13	30.23	4	9.30	8	18.60	1.26	9	e. Agric. supplies	28	65.12	7	16.28	2	4.65	1	2.32	5	11.63	2.33	6	
43	5	11.63	18	41.86	7	16.28	5	11.63	8	18.60	1.35	6	f. Material and equipment	24	55.81	11	25.58	2	4.65	0	0.00	6	13.95	2.23	8	
43	4	9.30	9	20.93	9	20.93	7	16.28	14	32.56	0.91	11	g. Infra-structure	22	51.16	13	30.23	2	4.65	0	0.00	6	13.95	2.19	9	
43	3	6.98	11	25.58	12	27.91	9	20.93	8	18.60	1.00	10	h. Storage	21	48.88	9	20.93	6	13.45	0	0.00	7	16.28	2.02	11T	
43	2	4.65	9	20.93	9	20.93	15	34.88	8	18.60	0.77	13	i. Agricultural roads	19	44.19	11	25.58	4	9.30	2	4.65	7	16.28	1.93	13	
43	2	4.65	8	18.60	8	18.60	16	37.21	9	20.93	0.70	14	j. Transportation	21	48.84	5	11.63	6	13.95	3	6.98	8	18.60	1.84	14	
43	3	6.98	9	20.93	9	20.93	15	34.88	7	16.28	0.84	12	k. Market	24	55.81	4	9.30	7	16.28	1	2.33	7	16.28	2.02	11T	
43	4	9.30	19	44.19	9	20.93	3	6.98	8	18.60	1.37	5	1. Seed/animals	28	65.11	5	11.63	3	6.98	2	4.65	5	11.63	2.26	7	

TABLE VI

JUDGMENTS OF EXTENSION AGENTS REGARDING PRESENT
EMPHASIS AND FUTURE EMPHASIS NEEDED FOR
SELECTED ASPECTS ASSOCIATED WITH
AGRICULTURAL PRODUCTION

Total Responding	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
19	0	0.00	2	10.53	6	31.58	7	36.84	4	21.05	0.53	1T	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	1. Increase agricultural production and marketing.
19	0	0.00	1	5.26	7	36.84	6	31.58	5	26.32	0.47	3T	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	2. Improve farm management.
																									3. Orient in the rational use of resources for production & marketing:
19	0	0.00	0	0.00	9	47.37	6	31.58	4	21.05	0.47	3T	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	a. Water
19	0	0.00	0	0.00	6	31.58	9	47.37	4	21.05	0.32	14	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	b. Land (use)
19	0	0.00	0	0.00	7	36.84	8	42.11	4	21.05	0.37	13	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	c. Soil (testing)
19	0	0.00	0	0.00	8	42.10	6	31.58	5	26.32	0.42	6T	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	d. Loan
19	0	0.00	0	0.00	8	42.10	6	31.58	5	26.32	0.42	6T	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1T	e. Agric. supplies
19	0	0.00	0	0.00	8	42.10	6	31.58	5	26.32	0.42	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	8T	f. Material and equipment
19	0	0.00	0	0.00	8	42.10	6	31.58	5	26.32	0.42	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	8T	g. Infra-structure
19	0	0.00	1	5.26	6	31.58	7	36.84	5	26.32	0.42	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	8T	h. Storage
19	0	0.00	1	5.26	6	31.58	7	36.84	5	26.32	0.42	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	8T	i. Agricultural roads
19	0	0.00	1	5.26	6	31.58	7	36.84	5	26.32	0.42	6T	14	73.68	0	0.00	1	5.26	0	0.00	4	21.05	2.26	13	j. Transportation
19	0	0.00	0	0.00	9	47.36	5	26.32	5	26.32	0.47	3T	14	73.68	1	5.26	0	0.00	0	0.00	4	21.05	2.32	12	k. Market
19	0	0.00	1	5.26	8	42.10	5	26.32	5	26.32	0.53	1T	13	68.42	1	5.26	1	5.26	0	0.00	4	21.05	2.21	14	l. Seed/animals

TABLE VII

JUDGMENTS OF FARMERS REGARDING PRESENT EMPHASIS AND
FUTURE EMPHASIS NEEDED FOR SELECTED ASPECTS
ASSOCIATED WITH AGRICULTURAL PRODUCTION

	Total Responding		Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank		Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				No.	%	No.	%	No.	%	No.	%	No.	%		
39	2	5.13	1	2.56	5	12.82	2	5.13	29	74.36	0.33	1T			1. Increase agricultural production and marketing.	36	92.31	0	0.00	0	0.00	0	0.00	3	7.69	2.77	2T
39	1	2.56	2	5.13	6	15.39	2	5.13	28	71.79	0.33	1T			2. Improve farm management.	37	94.87	0	0.00	0	0.00	0	0.00	2	5.13	2.85	1
															3. Orient in the rational use of resources for production & marketing												
39	0	0.00	0	0.00	4	10.26	5	12.82	30	76.92	0.10	12T			a. Water	36	92.31	0	0.00	0	0.00	0	0.00	3	7.69	2.77	2T
39	1	2.56	0	0.00	5	12.82	4	10.26	29	74.36	0.21	4T			b. Land (use)	34	87.18	1	2.56	0	0.00	0	0.00	4	10.26	2.67	6T
39	2	5.13	0	0.00	4	10.26	4	10.26	29	74.36	0.26	3			c. Soil (testing)	34	87.18	1	2.56	1	2.56	0	0.00	3	7.69	2.69	4T
39	0	0.00	0	0.00	7	17.95	3	7.69	29	74.36	0.18	7T			d. Loan	33	84.62	0	0.00	2	5.13	0	0.00	4	10.26	2.59	12T
39	0	0.00	0	0.00	6	15.39	4	10.26	29	74.36	0.15	10			e. Agric. supplies	34	87.18	0	0.00	1	2.56	0	0.00	4	10.26	2.64	8
39	0	0.00	0	0.00	7	17.95	4	10.26	28	71.79	0.18	7T			f. Material and equipment	33	84.62	0	0.00	3	7.69	0	0.00	3	7.69	2.62	9T
39	0	0.00	0	0.00	7	17.95	4	10.26	28	71.79	0.18	7T			g. Infra-structure	32	82.05	0	0.00	4	10.26	0	0.00	3	7.69	2.56	14
39	0	0.00	0	0.00	4	10.26	6	15.39	29	74.36	0.10	12T			h. Storage	34	87.18	0	0.00	2	5.13	0	0.00	3	7.69	2.67	6T
39	0	0.00	0	0.00	5	12.82	5	12.82	29	74.36	0.13	11			i. Agricultural roads	33	84.62	0	0.00	2	5.13	0	0.00	4	10.26	2.59	12T
39	0	0.00	0	0.00	4	10.26	6	15.39	29	74.36	0.10	12T			j. Transportation	34	87.18	0	0.00	3	7.69	0	0.00	2	5.13	2.69	4T
39	0	0.00	0	0.00	8	20.51	3	7.69	28	71.80	0.21	4T			k. Market	33	84.62	0	0.00	3	7.69	0	0.00	3	7.69	2.62	9T
39	0	0.00	0	0.00	8	20.51	2	5.13	29	74.36	0.21	4T			l. Seed/animals	33	84.62	0	0.00	3	7.69	0	0.00	3	7.69	2.62	9T

TABLE VIII

COMBINED RESPONSES OF UNIVERSITY PERSONNEL, EXTENSION AGENTS AND FARMERS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR SELECTED ASPECTS ASSOCIATED WITH AGRICULTURAL PRODUCTION

Total Responding	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
101	12	11.88	21	20.79	19	18.81	11	10.89	38	37.62	0.96	1	1. Increase agricultural production and marketing	91	90.10	0	0.00	0	0.00	0	0.00	10	9.90	2.70	1
101	5	4.95	20	19.80	22	21.78	13	12.87	41	40.59	0.76	4T	2. Improve farm management	84	83.77	7	6.93	0	0.00	0	0.00	10	9.90	2.63	2T
													3. Orient in the rational use of resources for production & marketing												
101	7	6.93	14	13.86	25	24.75	14	13.86	41	40.59	0.73	6	a. Water	85	84.16	3	2.97	0	0.00	0	0.00	13	12.87	2.58	5
101	8	7.92	20	19.80	23	22.77	15	14.85	35	34.65	0.86	3	b. Land (use)	85	84.16	5	4.95	0	0.00	0	0.00	11	10.89	2.62	4
101	17	16.83	9	8.91	20	19.80	15	14.85	40	39.60	0.88	2	c. Soil (testing)	85	84.16	4	3.96	3	2.97	0	0.00	9	8.91	2.63	2T
101	6	5.94	14	13.86	25	24.75	12	11.88	44	43.57	0.66	9	d. Loan	73	72.28	9	8.91	4	3.96	0	0.00	15	14.85	2.39	8T
101	5	4.95	13	12.87	27	26.73	14	13.86	42	41.59	0.67	8	e. Agric. supplies	78	77.23	7	6.93	3	2.97	1	0.99	12	11.88	2.49	6
101	5	4.95	18	17.82	22	21.78	15	14.85	41	40.60	0.72	7	f. Material and equipment	72	71.29	11	10.89	5	4.95	0	0.00	13	12.87	2.41	7
101	4	3.96	9	8.91	24	23.76	17	16.83	47	46.54	0.53	11	g. Infra-structure	69	68.32	13	12.87	6	5.94	0	0.00	13	12.87	2.37	10
101	3	2.97	12	11.88	22	21.78	22	21.78	42	41.59	0.57	10	h. Storage	70	69.31	9	8.91	8	7.92	0	0.00	14	13.86	2.34	11
101	2	1.98	10	9.90	20	19.80	27	26.73	42	41.59	0.46	13	i. Agricultural roads	67	66.34	11	10.89	6	5.94	2	1.98	15	14.85	2.27	13
101	2	1.98	9	8.91	18	17.82	29	28.71	43	42.58	0.42	14	j. Transportation	69	68.32	5	4.95	10	9.90	3	2.97	14	13.86	2.25	14
101	3	2.97	9	8.91	26	25.74	23	22.77	40	39.61	0.52	12	k. Market	71	70.30	5	4.95	10	9.90	1	0.99	14	13.86	2.31	12
101	4	3.96	20	19.80	25	24.75	10	9.90	42	41.59	0.76	4T	l. Seed/animals	74	73.27	6	5.94	7	6.93	2	1.98	12	11.88	2.39	8T

concerning future emphasis needed for selected aspects associated with agricultural production. Findings as further revealed in Table V clearly show that university personnel definitely feel that much greater emphasis should be given to all 14 items. Whereas, in terms of present emphasis, three items received a rated judgment of "some" (a mean score of 1.50 to 2.49), the same items when adjudged in terms of future need receiving a rated judgment of great deal (a mean score of 2.50 to 3.0) of the remaining 11 items all receiving a "little" emphasis rating for present but a "some" rating for the future.

Extension Agent Responses

Data, as shown in Table VI, depict responses by extension agents, rating the same 14 items in terms of their judgments as to present emphasis given future emphasis needed. Judgment given by extension agents regarding present emphasis reveal that they considered all items as receiving either "none" or "little" emphasis. Those items expressed as to be at the level of "little" emphasis ranked in descending order are: (1-tie) increase agricultural production and marketing and rational use of the resource: seed/animals. In addition, considered as presently receiving a level of "none" emphasis are: (3-tie) improve farm management and wise use of resources: water and markets. All items ranked below are dependent upon rational use of resources for production and marketing, these are (6-tie) adequate loan, agricultural supplies, material and equipment, infra-structure, storage, agricultural roads and transportation, (13) soil and (14) land.

Data show in Table VI also present judgment of extension agents regarding these 14 items in terms of future emphasis needed for these

selected aspects associated with agricultural production. Further, data reveal dissimilar judgments when contrasted with that expressed for the present emphasis. One-half of the items were considered as needing a "great deal" of emphasis in the future. It is noteworthy that all seven items scoring in the "great deal" category tied for first place with a mean score of 2.53. The remaining one-half of the items were judged by extension agent respondents as needing "some" emphasis in the future.

Farmer Responses

Findings presented in Table VII show certain responses received from the farmer sample regarding their judgments as to present emphasis and future emphasis needed.

Responses collated for present emphasis reveal in a notable manner that farmers considered all 14 items as presently receiving a level of "none" emphasis. These items presented in descending order were: (1-tie) increase agricultural production and marketing, improve farm management; rational use of resources: (3) soil, (4-tie) land, market and seed/animals; (7-tie) agricultural loans, materials and equipment, infrastructure; (10) agricultural supplies; (11) agricultural roads: (12-tie) water, storage and transportation.

By contrast, farmer judgments regarding future emphasis needed were totally different as they felt that all these 14 items needed a "great deal" of emphasis.

Combined Judgments of the Three Groups of Respondents

Data presented in Table VIII provided an insight into the nature of

a combination of responses from the three groups (university personnel, extension agents, and farmers), both regarding present emphasis and future emphasis needed for selected items and aspects associated with agricultural production.

Data secured and collated as a combined grouping including all respondents reveal that, in terms of present emphasis, all items received a mean score situated between 0.0 and 1.49 which must be interpreted as a judgment of "little" or "none" emphasis.

Further, it may be of intent to know that those items which respondents considered as to be presently receiving "little" emphasis are:

(1) increase agricultural production, (2) rational use of the resource: soil, (3) rational use of the resource: land, (4-tie) rational use of the resource seed/animals and improve farm management; all items ranked below are as rational use of resources as follows: (6) water, (7) material and equipment, (8) agricultural supplies, (9) adequate loan, (10) storage, (11) infra-structure and (12) markets. In like manner, those items which combined respondents considered somewhat as presently to be at the level of "none" emphasis and ranked in descending order were both as rational use of the resources: (13) agricultural roads and (14) transportation.

Regarding future emphasis needed, combined responses as data shown in Table VIII reveal that all items earned a mean score of from 1.50 to 3.0. It was their judgment that all items must receive a substantially greater emphasis. This was deduced because of the preponderance of responses.

Combined responses ranked in descending order as those items which respondents felt to be needed a "great deal" emphasis are: (1) increase

agricultural production and marketing; (2-tie) improve farm management and rational use of: (3) soil; (4) land and (5) water. From ranking order 6th to 14th were expressed as needing in the future a level of "some" emphasis and depicted in descending order were rational use of: (6) agricultural supplies; (7) material and equipment; (8-tie) loan and seed/animal; (10) infra-structure; (11) storage; (12) market; (13) agricultural roads and (14) transportation.

Responses With Regard to Selected Aspects

Which May Enhance the Quality of

Life for Rural Families

Data depicted in Tables IX through XII present responses of university personnel, extension agents, farmers and the combined judgments of these groups with regard to present emphasis and future emphasis needed which may enhance the quality of life for farmers and their families.

University Personnel Responses

Findings presented in Table XI show responses by university personnel to selected statements or items considered to be related to rural and community development.

Responses which are to be considered as directly related to present emphasis reveal that all items, except one, earned a mean score of from 0.50 to 1.49, which denotes that university personnel considered all items presently receiving a level of emphasis of "little". One item, number 8, which happens to be public safety, was judged receiving a "none level of emphasis since the mean score for this item was only .49.

Those items expressed as to have "little" emphasis, ranking in

TABLE IX

JUDGMENTS OF UNIVERSITY PERSONNEL WITH REGARD TO PRESENT
EMPHASIS OF FUTURE EMPHASIS NEEDED IN ORDER TO
ENHANCE QUALITY OF LIFE FOR RURAL FAMILIES

JOBY Responding	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
43	3	6.98	14	32.56	14	32.56	5	11.63	7	16.28	1.19	1	1. Education for children and/or adults.	35	81.40	4	9.30	0	0.00	0	0.00	4	9.30	2.63	1
43	3	6.98	13	30.23	11	25.58	7	16.28	9	20.93	1.07	5	2. Health (hygiene, health centers, etc.)	28	65.12	7	16.28	0	0.00	0	0.00	8	18.60	2.28	5
43	3	6.98	8	18.60	16	37.21	8	18.60	8	18.60	0.95	7	3. Housing and services (electric, water, etc.).	25	58.14	7	16.28	4	9.30	0	0.00	7	16.28	2.16	8
43	4	9.30	13	30.23	11	25.58	4	9.30	11	25.58	1.14	2	4. Economic conditions to survive (food, clothes, medicines, etc.).	29	67.44	8	18.60	1	2.33	0	0.00	5	11.63	2.42	2
43	4	9.30	11	25.58	14	32.56	5	11.63	9	20.93	1.12	3T	5. Roads, transportation.	25	58.14	8	18.60	6	13.95	0	0.00	4	9.30	2.26	6
43	3	6.98	7	16.28	9	20.93	9	20.93	15	34.88	0.74	8	6. Family planning.	25	58.14	10	23.26	0	0.00	0	0.00	8	18.60	2.21	7
													7. Recreation.												
43	1	2.33	11	25.58	20	46.51	3	6.98	8	18.60	1.05	6	7.1. Culture (cultural activities).	28	65.12	8	18.60	0	0.00	1	2.33	6	13.95	2.33	4
43	1	2.33	17	39.53	11	25.58	3	6.98	11	25.58	1.12	3T	7.2. Sports and entertainment.	29	67.44	7	16.28	1	2.33	0	0.00	6	13.95	2.37	3
43	1	2.33	5	11.63	8	18.60	8	18.60	21	48.84	0.49	9	8. Public safety.	18	41.86	10	23.26	3	6.98	3	6.98	9	20.93	1.79	9

TABLE X

JUDGMENTS OF EXTENSION AGENTS WITH REGARD TO PRESENT
EMPHASIS NEEDED IN ORDER TO ENHANCE QUALITY OF
LIFE FOR RURAL FAMILIES

Total Responding	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
19	1	5.26	3	15.79	4	21.05	6	31.58	5	26.32	0.68	1	16	84.21	0	0.00	0	0.00	1	5.26	2	10.53	2.53	4	1. Education for children and/or adults.
19	0	0.00	3	15.79	2	10.53	6	31.58	8	42.10	0.42	3T	15	78.95	2	10.53	0	0.00	1	5.26	1	5.26	2.58	2T	2. Health (hygiene, health centers, etc.).
19	0	0.00	1	5.26	4	21.05	6	31.58	8	42.10	0.32	7	15	78.95	2	10.53	0	0.00	1	5.26	1	5.26	2.58	2T	3. Housing and services (electric, water, etc.).
19	0	0.00	3	15.79	2	10.53	6	31.58	8	42.10	0.42	3T	15	78.95	1	5.26	0	0.00	1	5.26	2	10.53	2.47	5T	4. Economic conditions to survive (food, clothes, medicines, etc.).
19	0	0.00	3	15.79	2	10.53	6	31.58	8	42.10	0.42	3T	15	78.95	1	5.26	0	0.00	2	10.26	1	5.26	2.47	5T	5. Roads, transportation.
19	0	0.00	2	10.53	3	15.79	6	31.58	8	42.10	0.37	6	15	78.95	3	15.79	0	0.00	1	5.26	0	0.00	2.68	1	6. Family planning.
19	1	5.26	2	10.53	4	21.05	6	31.58	6	31.58	0.58	2	13	68.42	4	21.05	0	0.00	1	5.26	1	5.26	2.47	5T	7. Recreation. 7.1. Culture (cultural activities).
19	0	0.00	0	0.00	3	15.79	8	42.10	8	42.10	0.16	8T	11	57.89	4	21.05	0	0.00	1	5.26	3	15.79	2.16	8T	7.2. Sports and entertainment.
19	0	0.00	0	0.00	3	15.79	8	42.10	8	42.10	0.16	8T	13	68.42	1	5.26	0	0.00	1	5.26	4	21.05	2.16	8T	8. Public safety.

TABLE XI

JUDGMENTS OF FARMER RESPONDENTS WITH REGARD TO PRESENT
EMPHASIS AND FUTURE EMPHASIS NEEDED IN ORDER TO
ENHANCE QUALITY OF LIFE FOR RURAL FAMILIES

Total Responding	PRESENT										FUTURE																
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank			
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%					
39	0	0.00	1	2.56	3	7.69	6	15.39	29	74.36	0.13	9	1. Education for children and/or adults.	33	84.62	0	0.00	0	0.00	0	0.00	0	0.00	6	15.39	2.54	3T
39	0	0.00	3	7.69	4	10.26	3	7.69	29	74.36	0.26	1	2. Health (hygiene, health centers, etc.).	33	84.62	0	0.00	0	0.00	1	2.56	5	12.82	2.54	3T		
39	0	0.00	1	2.56	5	12.82	4	10.26	29	74.36	0.18	4T	3. Housing and services (electricity, water, etc.).	32	82.05	1	2.56	0	0.00	1	2.56	5	12.82	2.51	8		
39	0	0.00	1	2.56	6	15.39	3	7.69	29	74.36	0.21	3	4. Economic conditions to survive (food, clothes, medicines, etc.).	33	84.62	0	0.00	0	0.00	0	0.00	6	15.39	2.54	3T		
39	0	0.00	2	5.13	5	12.82	3	7.69	29	74.36	0.23	2	5. Roads, transportation.	30	76.92	0	0.00	4	10.26	0	0.00	5	12.82	2.41	9		
39	0	0.00	1	2.56	5	12.82	5	12.82	28	71.79	0.18	4T	6. Family planning.	33	84.62	0	0.00	0	0.00	1	2.56	5	12.82	2.54	3T		
													7. Recreation.														
39	0	0.00	1	2.56	4	10.26	5	12.82	29	74.36	0.15	6T	7.1. Culture (cultural activities).	33	84.62	0	0.00	0	0.00	1	2.56	5	12.82	2.54	3T		
39	0	0.00	0	0.00	6	15.39	4	10.26	29	74.36	0.15	6T	7.2. Sports and entertainment.	33	84.62	1	2.56	0	0.00	0	0.00	5	12.82	2.59	2		
39	0	0.00	0	0.00	6	15.39	5	12.82	28	71.79	0.15	6T	8. Public safety.	36	92.31	0	0.00	0	0.00	0	0.00	3	7.69	2.77	1		

TABLE XII

COMBINED RESPONSES OF UNIVERSITY PERSONNEL, EXTENSION AGENTS AND FARMERS WITH REGARD TO PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED IN ORDER TO ENHANCE QUALITY OF LIFE FOR RURAL FAMILIES

Total Responding	PRESENT										FUTURE													
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%		
101	4	3.96	18	17.82	21	20.79	17	16.83	41	40.60	0.68	1	84	83.17	4	3.96	0	0.00	1	0.99	12	11.88	2.57	1
101	3	2.97	19	18.81	17	16.83	16	15.84	46	45.55	0.63	4	76	75.25	9	8.91	0	0.00	2	1.98	14	13.86	2.44	3T
101	3	2.97	10	9.90	25	24.75	18	17.82	45	44.56	0.54	7	72	71.29	10	9.90	4	3.96	2	1.98	13	12.87	2.38	5
101	4	3.96	17	16.83	19	18.81	13	12.87	46	47.53	0.64	2T	77	76.24	9	8.91	1	0.99	1	0.99	13	12.87	2.48	2
101	4	3.96	16	15.84	21	20.79	14	13.86	46	45.55	0.64	2T	70	69.31	9	8.91	10	9.90	2	1.98	10	9.90	2.36	8
101	3	2.97	10	9.90	17	16.83	20	19.80	51	50.50	0.46	8	73	72.28	13	12.87	0	0.00	2	1.98	13	12.87	2.43	6
101	2	1.98	14	13.86	28	27.72	14	13.86	43	42.58	0.61	5	74	73.27	12	11.88	0	0.00	3	2.97	12	11.88	2.44	3T
101	1	0.99	17	16.83	20	19.80	15	14.85	48	47.53	0.56	6	73	72.28	12	11.88	1	0.99	1	0.99	14	13.86	2.42	7
101	1	0.99	5	4.95	17	16.83	21	20.79	57	56.44	0.30	9	67	66.34	11	10.89	3	2.97	4	3.96	16	15.84	2.24	9

descending order were: (1) education for children and/or adults; (2) economic conditions to survive (food, clothes, medicines); (3-tie) roads, transportation and recreation: sports and entertainments; (5) health, (6) cultural activities; (7) housing and services and (8) family planning.

Pertaining to future emphasis needed for selected aspects or items which express possible enhancement of life quality for rural families, university personnel seemed to feel in a noteworthy manner, that all items, except one, were to be considered as needing a level of "some" emphasis. However, the item concerning education for children and/or adults was judged as needing even greater emphasis with the mean score placing this item in the "great deal" level of category. This mean score of 2.63 was also sufficient to give it a first place ranking.

Items which university personnel respondents considered to be deserving a level of "some" future emphasis were ranked in descending order: (2) economic conditions to survive, (3) sports and entertainments, (4) cultural activities, (5) health, (6) roads-transportation, (7) family planning, (8) housing and services and (9) public safety.

Extension Agent Responses

Data, as depicted in Table X, reveal extension agent responses as judgments of present emphasis showing that only two items of the nine received scores 0.50 to 1.49, indicating a level of "little". The other seven items showing "none" as a category judgment indicate that, as a group, extension agents are somewhat skeptical of emphasis being received in this area of family life enhancement.

Those items expressed as presently receiving "little" emphasis, in

the ranking order of first and second places, are: education for children and/or adults and cultural activities. The remaining seven items were judged as presently receiving an emphasis level of "none, ranking 3rd to 9th: (3-tie) health, economic conditions to survive and roads-transportation, (6) family planning, (7) housing and services and (8-tie) sports and entertainment and public safety.

Data collated in Table X also show judgments of extension agents with regard to emphasis needed in the future. These judgments reveal that among the nine items for consideration, four were judged as needing future emphasis at the "great deal" level, this supported by data yielding mean scores from 2.5 to 3.0. The remaining five items were adjudged as needing future emphasis at a level of "some", with these items receiving mean scores from 1.50 to 2.49. The ranking order for those items which respondents expressed as needing a level of "great deal" of emphasis, ranked in descending order, were: (1) family planning; (2-tie) health and housing and services; and (4) education for children. Continuing with the same ranking order, those items considered to be needing "some emphasis were: (5-tie) economic conditions to survive, roads, transportation, cultural activities and (8-tie) sports and entertainment.

Farmer Responses

Findings presented in Table XI present responses received from farmers. Regarding present emphasis, respondents reveal in an unmistakable manner that all items were judged to be presently receiving emphasis which can only be described as "none". This is the only conclusion which can be deduced when faced with the mean scores of all and each item falling within the category 0.0 to 0.49.

Items ranked in descending order are found to be: (1) health; (2) roads, transportation; (3) economic conditions to survive; (4-tie) housing and service and family planning; (6-tie) recreation: cultural activities, and sports and entertainment, and public safety, and (9) education for children and/or adults.

Data shown in Table XI also present responses of farmers with regard to future emphasis needed in and among the nine items related to life quality. It is glaringly apparent that these judgments about future emphasis needs are directly in contradiction with those expressed about the present situation. Among the nine items, in terms of future emphasis needed, eight felt as deserving of an emphasis level of "great deal", with a mean score of from 2.5 to 3.0. Only one item considered to only deserve a level of "some" emphasis. This item occupied last place in terms of the ranking order, was roads-transportation.

The ranking, in descending order, for those items as needing a "great deal" of emphasis were: (1) public safety; (2) sports and entertainments; (3-tie) economic conditions to survive, family planning, cultural activities, education for children and/or adults, and health; and (8) housing and services.

Combined Responses of the Three Groups

Data shown in Table XII present a combination of all three groups of respondents, both regarding present emphasis and future emphasis needed in order to enhance quality of life for rural families.

Data collated and combined reveal that, in terms of present emphasis from nine items presented for consideration, seven were judged as presently receiving "little" emphasis and these, ranked in descending

order, are: (1) education for children and/or adults; (2-tie) economic conditions to survival and roads-transportation; (4) health; (5) cultural activities; (6) sport and entertainments and (7) housing and services. The remaining two items were considered by respondents to be presently at the level of "none" emphasis. These are: family planning and public safety.

Pertaining to future emphasis needed for enhancing quality of life for rural families, combined responses again reveal a higher concern about it. They considered that such emphasis for all items, except one, should be at the level of "some". However, the item concerning education for children and/or adults was judged as needing even greater emphasis with the mean score of 2.57, placing this item in the "great deal" category. This item was ranked in first place.

Items which combined respondents considered to be needing a level of "some" emphasis, ranked in descending order, are: (2) economic conditions to survive; (3-tie) cultural activities and health; (5) housing and services; (6) family planning; (7) sports and entertainment; (8) road-transportation and (9) public safety.

Emphasis Upon the Use of Selected

Extension Teaching Methods

Data shown in Tables XIII through XVI present judgments of university personnel, extension agents, farmers, and combined responses of these three groups regarding both present emphasis and future emphasis needed in the use of selected extension teaching methods.

TABLE XIII

RESPONSES OF UNIVERSITY PERSONNEL REGARDING PRESENT
EMPHASIS AND FUTURE EMPHASIS NEEDED FOR SELECTED
EXTENSION TEACHING METHODS

Total Responding	PRESENT										FUTURE															
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank		
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%				
43	7	16.28	14	32.56	13	30.28	4	9.30	5	11.63	1.44	5	40	93.02	3	6.98	0	0.00	0	0.00	0	0.00	0	0.00	2.93	1
43	15	34.88	18	41.86	4	9.30	1	2.33	5	11.63	1.98	1	35	81.40	7	16.28	0	0.00	0	0.00	1	2.32	2.77	4		
43	8	18.60	18	41.86	11	25.58	0	0.00	6	13.95	1.65	3	36	83.72	6	13.95	1	2.33	0	0.00	0	0.00	2.81	2		
43	4	9.30	18	41.86	7	16.28	7	16.28	7	16.28	1.28	7	36	83.72	6	13.95	0	0.00	0	0.00	1	2.33	2.79	3		
43	4	9.30	17	39.53	12	27.91	5	11.63	5	11.63	1.35	6	28	65.12	11	25.58	3	6.98	1	2.33	0	0.00	2.53	8		
43	5	11.63	19	44.19	11	25.58	4	9.30	4	9.30	1.49	4	29	67.44	13	30.23	0	0.00	1	2.32	0	0.00	2.63	6		
43	5	11.63	25	58.14	8	18.60	1	2.33	4	9.30	1.70	2	35	81.40	3	6.98	3	6.98	0	0.00	2	4.65	2.65	5		
43	0	0.00	11	25.58	9	20.93	13	30.23	10	23.26	0.72	9	28	65.12	8	18.60	3	6.98	1	2.32	3	6.98	2.40	11		
43	1	2.33	8	18.60	8	18.60	11	25.58	15	34.88	0.63	10	33	76.74	3	6.98	3	6.98	1	2.32	3	6.98	2.51	9		
43	1	2.33	13	30.23	9	20.93	8	18.60	12	27.91	0.88	8	33	76.74	4	9.30	3	6.98	0	0.00	3	6.98	2.56	7		
43	1	2.33	7	16.28	7	16.28	13	30.23	15	34.88	0.56	11	32	74.42	4	9.30	3	6.98	0	0.00	4	9.30	2.49	10		

TABLE XIV

EXTENSION AGENT RESPONSES REGARDING PRESENT EMPHASIS
AND FUTURE EMPHASIS NEEDED OF SELECTED
EXTENSION TEACHING METHODS

Total Responding	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
19	2	10.53	0	0.00	3	15.79	6	31.58	8	42.100	0.47	5T	18	94.74	0	0.00	0	0.00	0	0.00	1	5.26	2.84	1T	1. Demonstrations of improved farming, new methods, practices and technical skills
19	2	10.53	0	0.00	3	15.79	6	31.58	8	42.10	0.47	5T	18	94.74	0	0.00	0	0.00	0	0.00	1	5.26	2.84	1T	2. Individual visits with farmers
19	3	15.79	0	0.00	2	10.53	6	31.58	8	42.10	0.58	4	18	94.74	0	0.00	0	0.00	0	0.00	1	5.26	2.84	1T	3. Meetings with other farmers held by university extension workers
19	3	15.79	0	0.00	4	21.05	6	31.58	6	31.58	0.68	2T	18	94.74	0	0.00	0	0.00	0	0.00	1	5.26	2.84	1T	4. Field trips to model farms, pilot university centers, etc.
19	3	15.79	0	0.00	4	21.05	6	31.58	6	31.58	0.68	2T	14	73.68	4	21.05	0	0.00	0	0.00	1	5.26	2.63	6T	5. Radio programs
19	3	15.79	1	5.26	3	15.79	6	31.58	6	31.58	0.74	1	13	68.42	5	26.32	0	0.00	0	0.00	1	5.26	2.58	11	6. Newspaper articles
19	2	10.53	0	0.00	3	15.79	6	31.58	8	42.10	0.47	5T	16	84.21	1	5.26	0	0.00	0	0.00	2	10.53	2.63	6T	7. Short courses (extra-curricular)
																									8. Other means of diffusion:
19	1	5.26	1	5.26	3	15.79	6	31.58	8	42.11	0.42	8T	14	73.68	5	26.32	0	0.00	0	0.00	0	0.00	2.74	5	a. Circular letters
19	1	5.26	1	5.26	3	15.79	6	31.58	8	42.11	0.42	8T	14	73.68	4	21.05	0	0.00	0	0.00	1	5.26	2.63	6T	b. Magazines
19	1	5.26	1	5.26	3	15.79	6	31.58	8	42.11	0.42	8T	14	73.68	4	21.05	0	0.00	0	0.00	1	5.26	2.63	6T	c. Bulletins
19	1	5.26	1	5.26	3	15.79	6	31.58	8	42.11	0.42	8T	14	73.68	4	21.05	0	0.00	0	0.00	1	5.26	2.63	6T	d. Pamphlets

TABLE XV

FARMER RESPONSES REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS
NEEDED OF SELECTED EXTENSION TEACHING METHODS

Total Responses	PRESENT										FUTURE													
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%		
39	3	7.69	3	7.69	4	10.26	1	2.56	28	71.79	0.49	5	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	6T
39	6	15.39	2	5.13	2	5.13	0	0.00	29	74.36	0.62	2T	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T
39	7	17.95	0	0.00	3	7.69	0	0.00	29	74.36	0.62	2T	34	87.18	1	2.56	0	0.00	0	0.00	4	10.26	2.67	5
39	3	7.69	1	2.56	3	7.69	3	7.69	29	74.36	0.36	6T	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T
39	1	2.56	2	5.13	7	17.95	1	2.56	28	71.79	0.36	6T	33	84.62	0	0.00	0	0.00	0	0.00	6	15.38	2.54	11
39	5	12.82	1	2.56	4	10.26	0	0.00	29	74.36	0.54	4	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	6T
39	8	20.51	2	5.13	0	0.00	0	0.00	29	74.36	0.72	1	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T
39	1	2.56	0	0.00	4	10.26	6	15.39	28	71.79	0.18	8	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T
39	0	0.00	1	2.56	2	5.13	7	17.95	29	74.36	0.10	11	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	6T
39	0	0.00	2	5.13	1	2.56	7	17.95	29	74.36	0.13	9	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	6T
39	0	0.00	1	2.56	1	2.56	8	20.51	29	74.36	0.08	10	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	6T

University Personnel Responses

Findings presented in Table XIII show certain responses by university personnel. With regard to present emphasis, responses from university personnel reveal that all 11 items received a mean score in the range of 0.50 to 2.49. The mean score for the items was such that they reflected a judgment of either "some" or "little" present emphasis.

In terms of ranking, the highest three positions falling in the "some" category, are: (1) individual visits with farmers; (2) short courses (extracurricular); and (3) meetings with other farmers held by University extension workers. The remaining eight items, ranked within the "little" category, are: (4) newspaper articles; (5) demonstrations of improved farming, new methods, practices and techniques; (6) radial programs; (7) field trips to model farms, pilot university centers, etc.; (8) bulletins; (9) circular letters; (10) magazines; and (11) pamphlets.

Regarding future emphasis needed for selected extension teaching methods as reported by University personnel, findings again reveal a high level of concern that in the future emphasis should be greatly improved. Therefore, all items earned a mean score of from 1.50 to 3.0, occupying the first nine positions in the ranking in descending order those as felt to be needing a "great deal" of emphasis, which are: (1) demonstrations of improved farming, new methods, practices and technical skills; (2) meetings with other farmers held by university extension workers; (3) field trips to model farms, pilot university centers, etc.; (4) individual visits with farmers; (5) short courses (extracurricular); (6) newspaper articles; (7) bulletins; (8) radial programs; and (9) magazines. And finally, those items considered needing only "some" emphasis in the future are: (10) pamphlets and (11) circular letters.

Extension Agent Responses

Data, as shown in Table XIV, reveal that judgments of extension agents as to present emphasis given to selected items of extension teaching methods.

It is most noteworthy to discover that seven of the total 11 items show a mean score of 0.0 to 0.49, which, in this study, is interpreted as "none". The remaining four items received only a slightly higher rating in terms of present usage, that of "little" emphasis.

Those four items judged by extension workers as receiving "little" emphasis and ranked in descending order are: (1) newspaper articles; (2-tie) field trips to model farms, pilot university centers, etc. and radial programs and meetings with other farmers held by university extension workers. Further, those items which were given mean scores classifying them in the "none" emphasis category are: (5-tie) demonstrations of improved farming, new methods, practices and technical skills; individual visits with farmers; and short courses (extracurricular); and (8-tie) magazines, circular letters, pamphlets and bulletins.

Additional data, shown in Table XIV, show present judgments of extension agents with regard to future emphasis needed for selected extension teaching methods. These data further reveal that it is the concern of extension agents that significantly greater emphasis in the future be given to these selected teaching extension methods. This is supported by the fact that all items earned a mean score above 2.50, which is a clear evidence that extension workers felt the emphasis should be as they indicated a "great deal".

Ranking, in descending order, for these items are: (1-tie) demonstrations of improved farming, new methods, practices and technical

skills, individual visits with farmers, meetings with other farmers held by university extension workers, field trips to model farms, pilot university centers, etc.; (5) circular letters; and (6-tie) short courses (extracurricular), radial programs, pamphlets, bulletins and magazines; and (11) newspaper articles.

Farmer Responses

Findings shown in Table XV present responses received from farmers regarding their judgments about present and future emphasis needed. Responses collated for present emphasis reveal that farmers considered all items to be at the level of only "little" and "none".

Those items which respondents considered to be presently receiving a level of "little", ranked in descending order, are: (1) short courses (extracurricular); (2-tie) individual visits with farmers, meetings with other farmers held by university extension workers; and (4) newspaper articles. While those items expressed as presently receiving a level of "none" emphasis are: (5) demonstrations of improved farming, new methods, practices and technical skills; (6-tie) field trips to model farms, pilot university centers and radial programs; (8) circular letters; (9) bulletins; (10) pamphlets; and (11) magazines.

Regarding future emphasis needed, farmer responses, as data shown in Table XV, noteworthy reveal that all items earned a mean score of from 2.50 to 3.0. It was their perception that all items must receive a substantially greater emphasis as they reported as to be needed in the future a level of emphasis of "great deal".

Farmer responses needing a level of "great deal" emphasis, ranked in descending order, are: (1-tie) individual visits with farmers, field

trips to model farms, pilot university centers, short courses, and circular letters; (5) meetings with other farmers held by university extension workers; (6-tie) demonstrations of improved farming, new methods, newspaper articles, magazines, bulletins, and pamphlets.

Combined Responses of the Three Groups

Data presented in Table XVI present a combination of responses from the three groups (university personnel, extension agents, and farmers) both regarding present emphasis and future emphasis needed for selected items of extension teaching methods.

Data secured and combined reveal that, in terms of present emphasis from 11 items presented for consideration, eight were judged to be presently receiving "little" emphasis and these, ranked in descending order, are: (1) individual visits with farmers; (2) short courses (extracurricular; (3) meetings with other farmers held by university extension workers; (4) newspaper articles; (5) demonstrations of improved farming, new methods, practices and technical skills; (6) radial programs; (7) field trips to model farms, pilot university centers, etc.; and (8) bulletins. The remaining three items, respondents considered to be presently at the level of "none" emphasis. These are (9) circular letters, (10) magazines, and (11) pamphlets.

Pertaining to future emphasis needed for selected extension teaching methods, combined responses again reveal the great importance of the extension teaching methods. They considered that such emphasis should be for all items at the level of "great deal" emphasis. These items, ranked in descending order, are: (1) demonstrations of improved farming, new methods; (2-tie) meetings with other farmers held by university

extension workers and field trips to model farms, pilot university centers, etc.; (4) individual visits with farmers; (5) short courses; (6) newspaper articles; (7) bulletins; (8-tie) circular letters and magazines; (10) pamphlets and (11) radio programs.

Responses With Regard to Selected Aspects

Related to Programming and

Implementation Techniques

Data shown in Tables XVII through XX present judgments of university personnel, extension agents and farmers, as well as combined responses of these groups with regard to present emphasis and future emphasis needed for programming and implementation techniques.

University Personnel Responses

Findings presented in Table XVII show responses by university personnel to selected statements related to programming and implementation techniques. Responses which are to be related to present emphasis reveal that all items are between a mean score of from 0.50 to 2.49 which evidences that, as a group, they judged present emphasis in this area to be at the level of only "some" and "little".

Data shown in Table XVII show, by means of a ranking in descending order, the following items as those which respondents considered to be presently receiving a level of "some" emphasis: (1) promote good working relationships with other organizations and institutions; (2) consider the study and analysis of agricultural situation prevailing in the university service area; (3) design of extension programs are based on needs, interests and problems of farmers; and (4) use community agency

TABLE XVII

JUDGMENTS OF UNIVERSITY PERSONNEL REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
43	15	34.88	12	27.91	1	2.33	0	0.00	15	34.88	1.63	3	35	81.39	3	6.98	0	0.00	0	0.00	5	11.63	2.58	2	1. Design of extension programs are based on needs, interests, and problems of farmers
43	7	16.28	15	34.88	3	6.98	4	9.30	14	32.56	1.26	7	33	76.74	1	2.33	1	2.33	0	0.00	8	18.60	2.37	7T	2. Design programs to solve problems based upon identified community needs
43	22	51.16	9	20.93	4	9.30	0	0.00	8	18.60	2.05	2	31	72.09	4	9.30	1	2.33	1	2.33	6	13.95	2.37	7T	3. Consider the study and analysis of agricultural situation prevailing in the university service area
43	12	27.91	9	20.93	4	9.30	3	6.98	15	34.88	1.35	6	31	72.09	4	9.30	3	6.98	0	0.00	5	11.63	2.42	4T	4. Develop research & technology projects specifically designed to assist farmers with low productivity
43	9	20.93	15	34.88	8	18.60	3	6.98	8	18.60	1.51	4	29	67.44	5	11.63	3	6.98	0	0.00	6	13.95	2.33	9	5. Use community agency organizations and resources
43	21	48.84	11	25.58	4	9.30	3	6.98	4	9.30	2.07		38	88.37	0	0.00	0	0.00	1	2.33	4	9.30	2.65	1	6. Promote good working relationships with other organizations and institutions
43	8	18.60	17	39.53	3	6.98	3	6.98	12	27.91	1.42	5	35	81.39	1	2.33	1	2.33	0	0.00	6	13.95	2.51	3	7. Make certain that people understand the true purposes of the extension program
43	3	6.98	8	18.60	11	25.58	5	11.63	16	37.21	0.84	8	32	74.42	3	6.98	1	2.32	0	0.00	7	16.28	2.40	6	8. Collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs
43	0	0.00	6	13.95	18	41.86	3	6.98	16	37.21	0.70	9	32	74.42	4	9.30	0	0.00	0	0.00	7	16.28	2.42	4T	9. Make certain that people are aware about developments in agricultural research
43	1	2.33	9	20.93	8	18.60	8	18.60	17	39.53	0.67	10	28	65.12	3	6.98	1	2.32	0	0.00	11	25.58	2.12	10	10. Use of committees of farmers and faculty to develop, implement and evaluate local projects

TABLE XVIII

JUDGMENTS OF EXTENSION AGENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

Total Respondents	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
19	2	10.53	0	0.00	0	0.00	8	42.10	9	47.37	0.32	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	2T	1. Design of extension programs are based on needs, interests, and problems of farmers
19	4	21.05	0	0.00	1	5.26	8	42.10	6	31.59	0.68	1	14	73.68	0	0.00	0	0.00	0	0.00	5	26.32	2.21	6T	2. Design programs to solve problems based upon identified community needs
19	4	21.05	0	0.00	0	0.00	6	31.58	9	47.37	0.21	10	14	73.68	0	0.00	0	0.00	0	0.00	5	26.32	2.21	6T	3. Consider the study and analysis of agricultural situation prevailing in the university service area
19	2	10.53	3	15.79	0	0.00	8	42.10	6	31.58	0.63	2	16	84.21	0	0.00	0	0.00	0	0.00	3	15.79	2.53	1	4. Develop research & technology projects specifically designed to assist farmers with low productivity
19	1	5.26	3	15.79	0	0.00	6	31.58	9	47.37	0.32	6T	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	2T	5. Use community agency organization and resources
19	1	5.26	3	15.79	3	15.79	6	31.58	6	31.58	0.47	4	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	2T	6. Promote good working relationships with other organizations and institutions
19	1	5.26	3	15.79	1	5.26	6	31.58	8	42.11	0.53	3	15	78.95	0	0.00	0	0.00	0	0.00	4	21.05	2.37	2T	7. Make certain that people understand the true purposes of the extension program
19	1	5.26	3	15.79	0	0.00	6	31.58	9	47.37	0.32	6T	11	57.89	0	0.00	0	0.00	3	15.79	5	26.32	1.74	10	8. Collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the program
19	1	5.26	0	0.00	4	21.05	6	31.58	8	42.11	0.37	5	14	73.68	0	0.00	0	0.00	0	0.00	5	26.32	2.21	6T	9. Make certain that people are aware about developments in agricultural research
19	1	5.26	0	0.00	3	15.79	6	31.58	9	47.37	0.32	6T	14	73.68	0	0.00	0	0.00	0	0.00	5	26.32	2.21	6T	10. Use of committees of farmers and faculty to develop, implement and evaluate local projects

TABLE XIX

JUDGMENTS OF FARMERS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS
NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

Total Respondents	PRESENT										FUTURE														
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%			
39	2	5.13	2	5.13	1	2.56	5	12.82	29	74.36	0.28	8	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	3T	1. Design of extension programs are based on needs, interests, and problems of farmers.
39	3	7.69	3	7.69	0	0.00	4	10.26	29	74.36	0.38	5	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T	2. Design programs to solve problems based upon identified community needs.
39	7	17.95	1	2.56	0	0.00	3	7.69	28	71.79	0.59	2T	33	84.62	0	0.00	0	0.00	1	2.56	5	12.82	2.54	8T	3. Consider the study and analysis of agricultural situation prevailing in the university service area.
39	5	12.82	1	2.56	1	2.56	3	7.69	29	74.36	0.46	4	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	3T	4. Develop research & technology projects specifically designed to assist farmers with low productivity.
39	4	10.26	1	2.56	0	0.00	5	12.82	29	74.36	0.36	6T	32	82.05	0	0.00	0	0.00	1	2.56	6	15.39	2.46	10	5. Use community agency organization and resources.
39	7	17.95	1	2.56	0	0.00	3	7.69	28	71.79	0.59	2T	33	84.62	0	0.00	0	0.00	0	0.00	6	15.39	2.54	8T	6. Promote good working relationships with other organizations and institutions.
39	4	10.26	1	2.56	0	0.00	5	12.82	29	74.36	0.36	6T	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	3T	7. Make certain that people understand the true purposes of the extension program.
39	9	23.08	1	2.56	0	0.00	0	0.00	29	74.36	0.74	1	34	87.18	0	0.00	0	0.00	0	0.00	5	12.82	2.62	3T	8. Collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.
39	3	7.69	0	0.00	1	2.56	6	15.39	29	74.36	0.26	9	35	89.74	0	0.00	0	0.00	0	0.00	4	10.26	2.69	1T	9. Make certain that people are aware about developments in agricultural research.
39	2	5.13	0	0.00	1	2.56	7	17.95	29	74.36	0.18	10	34	87.18	0	0.00	0	0.00	1	2.56	4	10.26	2.62	3T	10. Use of committees of farmers and faculty to develop, implement and evaluate local projects.

TABLE XX

COMBINED RESPONSES OF UNIVERSITY PERSONNEL, EXTENSION AGENTS AND FARMERS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

Total Responding	PRESENT										FUTURE															
	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank	Great Deal		Some		Little		None		Don't Know		Mean of all Responses	Rank		
	No.	%	No.	%	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%	No.	%	No.	%				
101	19	18.81	14	13.86	2	1.98	13	12.87	53	52.48	0.86	5	84	83.17	3	2.97	0	0.00	0	0.00	14	13.86	2.55	17	1	Design of extension programs are based on needs, interests, and problems of farmers.
101	14	13.86	18	17.82	4	3.96	16	15.84	49	48.52	0.81	7	82	81.19	1	0.99	1	0.99	0	0.00	17	16.83	2.47	6	2	Design programs to solve problems based upon identified community needs.
101	33	32.67	10	9.90	4	3.96	9	8.91	45	44.56	1.19	2	78	77.23	4	3.96	1	0.99	2	1.98	16	15.84	2.41	7	3	Consider the study and analysis of agricultural situation prevailing in the university service area.
101	19	18.81	13	12.87	5	4.95	14	13.86	50	49.51	0.87	3T	81	80.20	4	3.96	3	2.97	0	0.00	13	12.87	2.51	4	4	Develop research and technology projects specifically designed to assist farmers with low productivity.
101	14	13.86	19	18.81	8	7.92	14	13.86	46	45.55	0.87	3T	76	75.25	5	4.95	3	2.97	1	0.99	16	15.84	2.39	8	5	Use community agency organization and resources.
101	29	28.71	15	14.85	7	6.93	12	11.88	38	37.62	1.23	1	86	85.15	0	0.00	0	0.00	1	0.99	14	13.86	2.55	17	1	Promote good working relationships with other organizations and institutions.
101	13	12.87	21	20.79	4	3.96	14	13.86	49	48.52	0.84	6	84	83.17	1	0.99	1	0.99	0	0.00	15	14.85	2.52	3	7	Make certain that people understand the true purposes of the extension program.
101	13	12.87	12	11.88	11	10.89	11	10.89	54	53.47	0.73	8	77	76.24	3	2.97	1	0.99	3	2.97	17	16.83	2.36	9	8	Collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.
101	4	3.96	6	5.94	23	22.77	15	14.85	53	52.48	0.47	9	81	80.20	4	3.96	0	0.00	0	0.00	16	15.84	2.49	5	9	Make certain that people are aware about developments in agricultural research.
101	4	3.96	9	8.91	12	11.88	21	20.79	55	54.46	0.42	10	76	75.25	3	2.97	1	0.99	1	0.99	20	19.80	2.33	10	10	Use of committees of farmers and faculty to develop, implement and evaluate local projects.

organization and resources. Those items which respondents considered to be presently receiving a level of "little" emphasis are: (5) make certain that people understand the true purposes of the extension programs; (6) develop research and technology projects specifically designed to assist farmers with low productivity; (7) design programs to solve problems based upon identified community needs; (8) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs; (9) make certain that people are aware about developments in agricultural research; and (10) use of committees of farmers and faculty to develop, implement and evaluate local projects.

Findings depicted in Table XVII also provide judgments of extension agents regarding these ten items in terms of future emphasis needed for these selected aspects associated with programming and implementation techniques. Further, data again reveal dissimilar judgments when contrasted with that expressed for the present emphasis. Three items from ten were considered as needing a "great deal" of emphasis in the future. Those items, ranked in descending order, are: (1) promote good working relationships with other organizations and institutions; (2) design of extension programs are based on needs, interests and problems of farmers; and (3) make certain that people understand the true purposes of the extension programs. The remaining seven items were judged by university personnel respondents as needing "some" emphasis in the future. These items, presented in descending order, were: (4-tie) develop research and technology projects specifically designed to assist farmers with low productivity, make certain that people are aware about developments in agricultural research, (6) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs,

(7-tie) consider the study and analysis of agricultural situation prevailing in the university service area, and design programs to solve problems based upon identified community needs, (9) use community agency organization and resources, and (10) use of committees of farmers and faculty to develop, implement and evaluate local projects.

Extension Agent Responses

Data as shown in Table XVIII depict responses by extension agents, as they judged present emphasis of the same ten items associated with programming and implementation techniques. Responses reveal that only three items of the ten received scores 0.50 to 1.49, indicating a level of "little" emphasis. The other seven items were expressed to be at the level of "none" as a category judgment. Those items expressed as presently receiving "little" emphasis are, in ranking order of first, second and third, respectively: design programs to solve problems based upon identified community needs, develop research and technology projects specifically designed to assist farmers with low productivity, and make certain that people understand the true purposes of the extension programs. The remaining seven were expressed as presently having "none" emphasis and ranking in descending order are: (4) promote good working relationships with other organizations and institutions; (5) make certain that people are aware about developments in agricultural research; (6-tie) use community agency organization and resources; design of extension programs are based on needs, interests and problems of farmers; collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs; and use of committees of farmers and faculty to develop, implement and evaluate local projects; and

(10) consider the study and analysis of agricultural situation prevail-
in the university service area.

Data collated in Table XVIII also show judgments of extension agents with regard to emphasis needed in the future. These judgments reveal that among the ten items for consideration only one was judged as needing future emphasis at the "great deal" level (mean score of 2.53). This occupied the first place in the ranking and was: develop research and technology projects specifically designed to assist farmers with low productivity. The remaining nine items were adjudged as needing future emphasis at a level of "some"; these items received mean scores of from 1.50 to 2.49. Those items are ranked as follows: (2-tie) design of extension programs are based on needs, interests and problems of farmers; promote good working relationships with other organizations and institutions; make certain that people understand the true purposes of the extension programs; and use community agency organization and resources; (6-tie) make certain that people are aware about developments in agricultural research; use of committees of farmers and faculty to develop, implement and evaluate local projects, design programs to solve problems based upon identified community needs, and consider the study and analysis of agricultural situation prevailing in the university service area; and (10) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.

Farmer Responses

Findings presented in Table XIX show responses received from farmers. Regarding present emphasis, respondents reveal that they considered among the ten items only two as presently receiving a level of

"little" emphasis (mean score 0.50 to 1.49) and the remaining eight were expressed as receiving at the present an emphasis of "none" (mean score 0.0 to 0.49).

Items which respondents considered to be presently receiving a level of emphasis of "little", ranked in descending order, are: (1) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the program; (2-tie) consider the study and analysis of agricultural situation prevailing in the university service area; and promote good working relationships with other organizations and institutions, while those items expressed as receiving a level of "none" emphasis are: (4) develop research and technology projects specifically designed to assist farmers with low productivity; (5) design programs to solve problems based upon identified community needs: (6-tie) use community agency organization and resources and make certain that people understand the true purposes of the extension programs; (8) design of extension programs are based on needs, interests and problems of farmers; (9) make certain that people are aware about developments in agricultural research; and (10) use of committees of farmers and faculty to develop, implement and evaluate local projects.

Regarding future emphasis needed, farmer responses reveal that among the ten items, only one was expressed as needing a level of "some" emphasis (use community agency organization and resources) which occupied the last position in terms of ranking order with a mean score of 2.46.

The remaining nine items were judged by farmers as needing, in the future, an emphasis of "great deal", supported by mean scores of from 2.50 to 3.0; these items, ranked in descending order, are: (1-tie) design programs to solve problems based upon identified community needs,

make certain that people are aware about developments in agricultural research; (3-tie) develop research and technology projects specifically designed to assist farmers with low productivity, design of extension programs are based on needs, interests, and problems of farmers, make certain that people understand the true purposes of the extension programs, collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the program, and use of committees of farmers and faculty to develop, implement and evaluate local projects; (8-tie) promote good working relationships with other organizations and institutions, consider the study and analysis of agricultural situation prevailing in the university service area; and (10) use community agency organization and resources.

Combined Responses of the Three Groups

Data presented in Table XX provide a combination of responses from the three groups (university personnel, extension agents and farmers), both regarding present emphasis and future emphasis needed for selected aspects associated with programming and implementation techniques.

Data secured and collated as a combined grouping including all respondents reveal that, in terms of present emphasis, all items received a mean score situated between 0.0 to 1.49 which must be interpreted as a judgment of "little" or "none" emphasis.

Further, it may be of intent to identify those items which respondents considered as to be presently receiving "little" emphasis, these are: (1) promote good working relationships with other organizations and institutions; (2) consider the study and analysis of agricultural situation prevailing in the university service area; (3-tie) develop

research and technology projects specifically designed to assist farmers with low productivity, use community agency organization and resources; (5) design of extension programs are based on needs, interests, and problems of farmers; (6) make certain that people understand the true purposes of the extension program; (7) design programs to solve problems based upon identified community needs and (8) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.

In like manner, those items which combined respondents considered somewhat as presently to be at the level of "none" emphasis are: (9) make certain that people are aware about developments in agricultural research and (10) use of committees of farmers and faculty to develop, implement and evaluate local projects.

Regarding future emphasis combined responses as data shown in Table XX reveal that all items earned a mean score of from 1.50 to 3.0 which evidences that they reported all items as needing in the future an emphasis either of "great deal" or "some".

Combined responses, ranked in descending order as those items which respondents felt are needing in the future a "great deal" of emphasis, are (1-tie) design of extension programs are based on needs, interests and problems of farmers, promote good working relationships with other organizations and institutions; (3) make certain that people understand the true purposes of the extension program and (4) develop research and technology projects specifically designed to assist farmers with low productivity. Those items which were expressed as needing in the future a level of "some" emphasis, and depicted in descending order are: (5) make certain that people are aware about developments in agricultural

research; (6) design programs to solve problems based upon identified community needs; (7) consider the study and analysis of agricultural situation prevailing in the university service area; (8) use community agency organization and resources; (9) collection, analysis and interpretation of efforts to determine the strengths and weaknesses of the programs; and (10) use of committees of farmers and faculty to develop, implement and evaluate local projects.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to present a brief review of the study, including the design and pursuit of the research as well as a brief review of major findings. Also presented are conclusions and recommendations which are largely based upon analysis and summarization of data collected and upon observation and impressions resulting from the task of designing and conducting the study. Some mention is also made of findings resulting from (1) a review of literature and (2) personal experiences of the researcher both as a vocational agriculture teacher and administrator and visits in seven other nations.

Intent and Purpose of Study

The intent of the study was to determine the perception of (1) representatives of extension agencies, (2) administrators and faculty of the university, and (3) farmers regarding the ways that a university through maintenance of an extension program can more effectively serve farmers and their families.

Objectives of the Study

To achieve the purpose of the study, the following objectives were formulated and served as guidelines for designing and conducting the investigation:

1. To obtain perceptions regarding present effectiveness of university agricultural extension programs. In particular, those program efforts directed toward the improvement of agriculture as well as the quality of life of farmers.
2. To obtain perceptions regarding improvements which are considered to be needed in university extension programs if progress is to be made in solving problems of (a) lack of coordination and (b) limited joint implementation of services.
3. To identify areas of strong agreement or disagreement as to selected aspects of program improvement.

Design and Conduct of the Study

Following a review of previously completed research literature related to the problem, the major tasks involved in the design and conduct of the study were: (1) selecting the study population, (2) developing an instrument for data collection, (3) collecting data, (4) collating data, (5) analyzing the findings and (6) making recommendations for implementation of a University extension program in agriculture and rural community development.

The location of the study population was restricted to the geographical areas of influence of the Vice-Rectorado of Agricultural Production of the UNELLEZ; an area circumscribed by a radius of 50 kms from the center of the university (Mesa de Caracas), Guanare City, which is presently being used as a pilot project for university extension programs. The study population consisted of three categories of respondents: (1) university personnel, (2) extension agents and (3) farmers. For the university personnel category, respondents were selected by random

sampling techniques among 94 individuals, totaling a sample of 47. The extension agent category respondents were also selected by similar random sampling technique among 55 individuals with a final sample taken totaling 22. Finally, among the target population of 300 farmers a sample of 45 was taken using a modified random sampling procedure. Regarding responses returned, there was received within the respective groups a percentage return of each sample consisting of 43 (91.49 percent) of university personnel, 19 (90.91 percent) of extension agents; and 39 (86.67 percent) of farmers, thus providing a total of 101 (89.69 percent of combined sample) usable response questionnaires. Data so secured, collated, and analyzed provided the base from which finding of the study led to conclusions and recommendations made.

Summary of Findings Originating

From the Study Research

Agricultural Productivity

Among 14 selected items related more directly to possible increase in agricultural productivity there was found to be noticeable differences among and between the three groups. When mean scores given by the respective groups were transcribed into one of four categories (none, little, some, great deal) it becomes evident that farmers and extension agents are somewhat more adversely critical of present emphasis than are university personnel, as evidenced by a summary review of responses as shown in Tables XXI and XXII. The greater extent of a category difference between judgment regarding present emphasis and future emphasis needed, occurred among farmer respondents. When comparing farmer

TABLE XXI

COMPARISON OF MEANS AND RANKING GIVEN BY THREE GROUPS OF RESPONDENTS
REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR SELECTED
ASPECTS ASSOCIATED WITH AGRICULTURAL PRODUCTION

	University Personnel				Extension Agents				Farmers			
	Present		Future		Present		Future		Present		Future	
	Means	Ranks	Means	Ranks	Means	Ranks	Means	Ranks	Means	Ranks	Means	Ranks
1. Increase agricultural production and productivity.	1.72	1	2.72	1	0.53	1T	2.53	1T	0.33	1T	2.77	2T
2. Improve farm management	1.28	8	2.49	4	0.47	3T	2.53	1T	0.33	1T	2.85	1
3. Orient in the rational use of resources for production and marketing:												
a. Water	1.42	4	2.44	5	0.47	3T	2.53	1T	0.10	12T	2.77	2T
b. Land (use)	1.70	2	2.63	2T	0.32	14	2.53	1T	0.21	4T	2.67	6T
c. Soil (analysis) (test)	1.67	3	2.63	2T	0.37	13	2.53	1T	0.26	3	2.69	4T
d. Loan	1.30	7	2.14	10	0.42	6T	2.53	1T	0.18	7T	2.59	12T
e. Fertilizers & pesticides	1.26	9	2.33	6	0.42	6T	2.53	1T	0.15	10	2.64	8
f. Materials & equipments	1.35	6	2.23	8	0.42	6T	2.37	8T	0.18	7T	2.62	9T
g. Infra-structure	0.91	11	2.19	9	0.42	6T	2.37	8T	0.18	7T	2.56	14
h. Storage	1.00	10	2.02	11T	0.42	6T	2.37	8T	0.10	12T	2.67	6T
i. Agricultural Roads	0.77	13	1.93	13T	0.42	6T	2.37	8T	0.13	11	2.59	12T
j. Transportation	0.70	14	1.84	14	0.42	6T	2.26	13	0.10	12T	2.69	4T
k. Market	0.84	12	2.02	11T	0.47	3T	2.32	12	0.21	4T	2.62	9T
l. Seed/animals	1.37	5	2.26	7	0.53	1T	2.21	14	0.21	4T	2.62	9T
m. Other (write-in)												

TABLE XXII

SUMMARY OF JUDGMENTS OF THE THREE GROUPS OF RESPONDENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR SELECTED ASPECTS ASSOCIATED WITH AGRICULTURAL PRODUCTION

	University Personnel		Extension Agents		Farmers	
	Present	Future	Present	Future	Present	Future
	Emphasis		Emphasis		Emphasis	
1. Increase agricultural production and productivity.	Some	Great Deal	Little	Great Deal	None	Great Deal
2. Improve farm management	Little	Some	None	Great Deal	None	Great Deal
3. Orient in the rational use of resources for production and marketing:						
a. Water	Little	Some	None	Great Deal	None	Great Deal
b. Land (use)	Some	Great Deal	None	Great Deal	None	Great Deal
c. Soil (analysis) (test)	Some	Great Deal	None	Great Deal	None	Great Deal
d. Loan	Little	Some	None	Great Deal	None	Great Deal
e. Fertilizers & pesticides	Little	Some	None	Great Deal	None	Great Deal
f. Materials & equipments	Little	Some	None	Some	None	Great Deal
g. Infra-structure	Little	Some	None	Some	None	Great Deal
h. Storage	Little	Some	None	Some	None	Great Deal
i. Agricultural Roads	Little	Some	None	Some	None	Great Deal
j. Transportation	Little	Some	None	Some	None	Great Deal
k. Market	Little	Some	None	Some	None	Great Deal
l. Seed/animals	Little	Some	Little	Some	None	Great Deal

responses with extension agent responses it is of note that the same general pattern of response occurs with extension agents, but is not as compelling a difference. While university personnel responses also showed a similar pattern of belief that greater emphasis upon the adoption of measures that may increase agricultural productivity, overall this judgment was not expressed in as forcible a degree as was true of the other two groups.

Items descriptive of measures which all three groups judged should, in the future, receive a "great deal" of emphasis were: (1) increase agricultural production and productivity, (2) rational use of the resource: soil. Items descriptive of measures which two of the three groups judged should, in the future, receive a "great deal" of emphasis were: (1) increase agricultural production and productivity; (2) improve farm management, and rational use of the resources: (3) water, (4) land, (5) soil, (6) agricultural loan and (7) agricultural supplies.

Quality of Life

As shown in Tables XXIII and XXIV which present a summary review of responses related to emphasis for enhancing quality of life for rural families, there was found again a noteworthy difference between and among the three groups. For the present emphasis, extension agents and farmers expressed their judgment at a lower category than that expressed by the university personnel. However, for the future emphasis needed, extension agents and farmers more than university personnel, are willing to admit that university extension programs should be emphasized more toward the improvement of the quality of life in rural communities.

The only item descriptive of measures which all three groups judged

TABLE XXIII

COMPARISON OF MEANS AND RANKING GIVEN BY THREE GROUPS OF RESPONDENTS
REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED
OF SELECTED EXTENSION TEACHING METHODS

	University Personnel				Extension Agents				Farmers			
	Present		Future		Present		Future		Present		Future	
	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank
1. Education for children and/or adults	1.19	1	2.63	1	0.68	1	2.53	4	0.13	9	2.54	3T
2. Health (hygiene, health centers etc.)	1.07	5	2.28	5	0.42	3T	2.58	2T	0.26	1	2.54	3T
3. Housing and Services (elect, water, etc.)	0.95	7	2.16	8	0.32	7	2.58	2T	0.18	4T	2.51	8
4. Economic conditions to survive (food, clothes, medicines, etc.)	1.14	2	2.42	2	0.42	3T	2.47	5T	0.21	3	2.54	3T
5. Roads, transportation	1.12	3T	2.26	6	0.42	3T	2.47	5T	0.23	2	2.41	9
6. Family planning	0.74	8	2.21	7	0.37	6	2.68	1	0.18	4T	2.54	3T
7. Recreation												
7.1. Culture (cultural activities)	1.05	6	2.33	4	0.58	2	2.47	5T	0.15	6T	2.54	3T
7.2. Sports and entertainments	1.12	3T	2.37	3	0.16	8T	2.16	8T	0.15	6T	2.59	2
8. Public safety	0.49	9	1.79	9	0.16	8T	2.16	8T	0.15	6T	2.77	1

TABLE XXIV

SUMMARY OF JUDGMENTS OF THE THREE GROUPS OF RESPONDENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED IN ORDER TO ENHANCE QUALITY OF LIFE FOR RURAL FAMILIES

	University Personnel		Extension Agents		Farmers	
	Present	Future	Present	Future	Present	Future
	Emphasis		Emphasis		Emphasis	
1. Education for children and/or adults.	Little	Great Deal	Little	Great Deal	None	Great Deal
2. Health (hygiene, health centers, etc.)	Little	Some	None	Great Deal	None	Great Deal
3. Housing and Services (elect, water, etc.)	Little	Some	None	Great Deal	None	Great Deal
4. Economic conditions to survive (food, clothes, medicines, etc.)	Little	Some	None	Some	None	Great Deal
5. Roads, transportation	Little	Some	None	Some	None	Some
6. Family planning	Little	Some	None	Great Deal	None	Great Deal
7. Recreation						
7.1 Culture (cultural activities)	Little	Some	Little	Some	None	Great Deal
7.2 Sports and entertainment	Little	Some	None	Some	None	Great Deal
8. Public Safety	None	Some	None	Some	None	Great Deal

should, in the future, receive a "great deal" of emphasis was education for children and/or adults. While items descriptive of measures which two of the three groups judged should, in the future, receive a "great deal" of emphasis were: (1) education for children and/or adults, (2) health, (3) housing and services, and (4) family planning.

Extension Teaching Methods

Data shown in Tables XXV and XXVI present a summary of the three groups regarding present emphasis and future emphasis needed for selected extension teaching methods. Such data reveal that the differences between and among the three groups are only slight. This difference is concentrated only in the present emphasis, where university personnel expressed the need for "some" and "little" emphasis while extension agents and farmers expressed the need for "little" and "none". In regard to future emphasis needed, there was almost total agreement among the three groups. From eleven items, nine were judged as needing a "great deal" of emphasis.

Items descriptive of measures which all three groups judged should, in the future, receive a "great deal" of emphasis were: (1) demonstrations of improved farming, new methods, practices and techniques, (2) individual visits with farmers, (3) meetings with other farmers held by university extension workers, (4) field trips to model farms, pilot university centers, (5) radial programs, (6) newspaper articles, (7) magazines, (8) short courses, and (9) bulletins. The remaining two were judged by two of the three groups as follows: (1) circular letters and (2) pamphlets.

TABLE XXV

COMPARISON OF MEANS AND RANKING GIVEN BY THREE GROUPS OF RESPONDENTS
REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED
OF SELECTED EXTENSION TEACHING METHODS

	University Personnel				Extension Agents				Farmers			
	Present		Future		Present		Future		Present		Future	
	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank
1. Demonstrations of improved farming, new methods, practices and techniques.	1.44	5	2.93	1	0.47	5T	2.84	1T	0.49	5	2.62	6T
2. Individual visits with farmers.	1.98	1	2.77	4	0.47	5T	2.84	1T	0.62	2T	2.69	1T
3. Meetings with other farmers held by University extension workers.	1.65	3	2.81	2	0.58	4	2.84	1T	0.62	2T	2.67	5
4. Field trips to model farms, pilot university centers, etc.	1.28	7	2.79	3	0.68	2T	2.84	1T	0.36	6T	2.69	1T
5. Radial programs.	1.35	6	2.53	8	0.68	2T	2.63	6T	0.36	6T	2.54	11
6. Newspaper articles.	1.49	4	2.63	6	0.74	1	2.58	11T	0.54	4	2.62	6T
7. Short courses (extracurricular).	1.70	2	2.65	5	0.47	5T	2.63	6T	0.72	1	2.69	1T
8. Other means of diffusion:												
a. Circular letters.	0.72	9	2.40	11	0.42	8T	2.74	5	0.18	8	2.69	1T
b. Magazines	0.63	10	2.51	9	0.42	8T	2.63	6T	0.10	11	2.62	6T
c. Bulletins	0.88	8	2.56	7	0.42	8T	2.63	6T	0.13	9	2.62	6T
d. Pamphlets	0.56	11	2.49	10	0.42	8T	2.63	6T	0.08	10	2.62	6T

TABLE XXVI

SUMMARY OF JUDGMENTS OF THE THREE GROUPS OF RESPONDENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED OF SELECTED EXTENSION TEACHING METHODS

	University Personnel		Extension Agents		Farmers	
	Present	Future	Present	Future	Present	Future
	Emphasis		Emphasis		Emphasis	
1. Demonstrations of improved farming, new methods, practices and techniques.	Little	Great Deal	None	Great Deal	None	Great Deal
2. Individual visits with farmers.	Some	Great Deal	None	Great Deal	Little	Great Deal
3. Meetings with other farmers held by University extension workers.	Some	Great Deal	Little	Great Deal	Little	Great Deal
4. Field trips to model farms, pilot university centers, etc.	Little	Great Deal	Little	Great Deal	None	Great Deal
5. Radial programs.	Little	Great Deal	Little	Great Deal	None	Great Deal
6. Newspaper articles.	Little	Great Deal	Little	Great Deal	Little	Great Deal
7. Short courses (extracurricular).	Some	Great Deal	None	Great Deal	Little	Great Deal
8. Other means of diffusion:						
a. Circular letters.	Little	Some	None	Great Deal	None	Great Deal
b. Magazines.	Little	Great Deal	None	Great Deal	None	Great Deal
c. Bulletins.	Little	Great Deal	None	Great Deal	None	Great Deal
d. Pamphlets.	Little	Some	None	Great Deal	None	Great Deal

Programming and Implementation Techniques

Among the ten selected items related to programming and implementation techniques, again, there was found a remarkable difference between and among the responses of the three groups. As denoted in Tables XXVII and XXVIII, university personnel expressed their judgment that the present emphasis on programming and implementation techniques are receiving an emphasis of "some" and "little", while farmers and extension agents only expressed the "little" and "none" emphasis. For the future emphasis, again, the same pattern was present of increasing the category of judgment in a strong manner, but this aspect was not expressed by extension agents nor university personnel.

It is noteworthy to remark that no agreement was expressed in terms of judgments of emphasis needed at the level of "great deal" by the three groups of respondents. Therefore, no one item was judged at this level by the three groups, while items descriptive of measures by two of the three groups judged should, in the future, receive a "great deal" of emphasis were: (1) design of extension programs are based on needs, interests and problems of farmers, (2) develop research and technology projects specifically designed to assist farmers with low productivity, (3) promote good working relationships with other organizations and institutions, and (4) make certain that people understand the true purposes of the extension programs.

Summary of Major Findings From the Review of Literature

Briefly, the following statements are presented as pertinent findings developed from a review of literature:

TABLE XXVII

COMPARISON OF MEANS AND RANKING GIVEN BY THREE GROUPS OF RESPONDENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

	University Personnel				Extension Agents				Farmers			
	Present		Future		Present		Future		Present		Future	
	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank	Means	Rank
1. Design of extension programs are based on needs, interests and problems of farmers.	1.63	3	2.58	1	0.32	6T	2.37	2T	0.28	8	2.62	3T
2. Design programs to solve problems based upon identified community needs.	1.26	7	2.37	7T	0.68	1	2.21	6T	0.38	5	2.69	1T
3. Consider the study and analysis of agricultural situation prevailing in the university service area.	2.05	2	2.37	7T	0.21	10	2.21	6T	0.59	2T	2.54	8T
4. Develop research and technology projects specifically designed to assist farmers with low productivity.	1.35	6	2.42	4T	0.63	2	2.53	1	0.46	4	2.62	3T
5. Use community agency organization and resources.	1.51	4	2.33	9	0.32	6T	2.37	2T	0.36	6T	2.46	10
6. Promote good working relationships with other organizations and institutions.	2.07	1	2.65	1	0.47	4	2.37	2T	0.59	2T	2.54	8T
7. Make certain that people understand the true purposes of the extension programs.	1.42	5	2.51	3	0.53	3	2.37	2T	0.26	6T	2.62	3T
8. Collection; analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.	0.84	8	2.40	6	0.32	6T	1.74	10	0.74	1	2.62	3T
9. Make certain that people are aware about developments in agricultural research.	0.70	9	2.42	4T	0.37	5	2.21	6T	0.26	9	2.69	1T
10. Use of committees of farmers and faculty to develop, implement and evaluate local projects.	0.67	10	2.12	10	0.32	6T	2.21	6T	0.18	10	2.62	3T

TABLE XXVIII

SUMMARY OF JUDGMENTS OF THE THREE GROUPS OF RESPONDENTS REGARDING PRESENT EMPHASIS AND FUTURE EMPHASIS NEEDED FOR PROGRAMMING AND IMPLEMENTATION TECHNIQUES

	University Personnel		Extension Agents		Farmers	
	Present	Future	Present	Future	Present	Future
	Emphasis		Emphasis		Emphasis	
1. Design of extension programs are based on needs, interests and problems of farmers.	Some	Great Deal	None	Some	None	Great Deal
2. Design programs to solve problems based upon identified community needs.	Little	Some	Little	Some	None	Great Deal
3. Consider the study and analysis of agricultural situation prevailing in the university service area.	Some	Some	None	Some	Little	Great Deal
4. Develop research and technology projects specifically designed to assist farmers with low productivity.	Little	Some	Little	Great Deal	None	Great Deal
5. Use community agency organization and resources.	Some	Some	None	Some	None	Some
6. Promote good working relationships with other organizations and institutions.	Some	Great Deal	None	Some	Little	Great Deal

TABLE XXVIII (Continued)

	University Personnel		Extension Agents		Farmers	
	Present	Future	Present	Future	Present	Future
	Emphasis		Emphasis		Emphasis	
7. Make certain that people understand the true purposes of the extension programs.	Little	Great Deal	Little	Some	None	Great Deal
8. Collection; analysis and interpretation of efforts to determine the strengths and weaknesses of the programs.	Little	Some	None	Some	Little	Great Deal
9. Make certain that people are aware about developments in agricultural research.	Little	Some	None	Some	None	Great Deal
10. Use of committees of farmers and faculty to develop, implement and evaluate local projects.	Little	Some	None	Some	None	Great Deal

1. The UNELLEZ extension activities are conceived as a very necessary link between the university and people and their social environment. Consequently, it has been deemed expedient to exercise two kinds of activities: (a) provision for non-curricular courses or non-formal educational activities and (b) cultural activities.

2. The major influencing aspects of limitations for agricultural and rural development of the Western plains region are: (a) very important: lack of effective education for farmers, lack of needed manpower, agronomic aspects, limitations on communication and transportation, absentee landlords and technical assistance for major market producers; and (b) less important: farm production management, financing of production and difficulty for obtaining agricultural supplies.

3. Programs of balanced rural community development are divided into two major thrusts: (a) improvement of the quality of life and (b) improvement of agricultural production and marketing.

4. Rural and community development must consider the interdependence of all developmental factors. These sectors include, not only agriculture and industry, but also transportation, trade, loans, health, education, culture, sports and leisure activities.

5. Accomplishment of "Agrarian Reform" is absolutely essential to successful rural community development. Incentives must be provided, but such provision must be within the context of the complete economic and social milieu of the rural sectors.

6. Agricultural extension is a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their level of living, and lifting the social and educational

standards for rural life.

Conclusions

Analysis, syntheses and interpretation of the study findings prompt the investigator to formulate certain conclusions which are detailed below:

1. In general, it must be concluded that, in terms of activities related to agricultural productivity, judgments of respondents as to present emphasis reveal that both groups of farmers and of extension personnel judge emphasis preponderantly as receiving "none", while university personnel make a slightly different judgment in their assessment that these activities are receiving only slightly more than a "little" emphasis.

2. Again, in a general sense, it must be considered noticeable that, concerning activities for enhancement of quality of life, judgments as to present emphasis show the same pattern of response within the three groups. Extension agents and farmers apparently feel that this aspect, at present, is receiving an emphasis of only "little" or "none", as contrasted with judgments of university personnel, who assess the emphasis slightly higher, "some" and "little".

3. Again, in general, regarding activities for the implementation of extension teaching methods, farmers and extension agents are in apparent agreement that at the present, this aspect is receiving an emphasis of "none", contrasted with a slightly higher assessment of "little" by university personnel.

4. Continuing to view responses in general terms, it is clear that in assessing activities related to programming and implementation

techniques, farmers and extension agents tend to view present emphases as receiving "little and "none", while university personnel, again, are a bit higher in their assessment responding as "some" and "little".

5. In general, it can be concluded that all three groups of respondents, particularly extension agents and farmers, feel that, in the future, much emphasis is needed for implementing and maintaining practices to increase agricultural production and productivity.

6. In the same manner, it must be concluded that all three groups felt that somewhat greater emphasis should, in the future, be placed on programs which tend to enhance the life quality of rural inhabitants.

7. In addition, it is noteworthy that all three groups expressed the feeling that greater emphasis (almost total agreement of "great deal" emphasis) is a very real need for emphasis in the implementation-application of selected extension teaching methods.

8. It can be recognized that although use of effective programming and implementation techniques are most important for a successful extension program, no general consensus is apparent in assessments between the three groups, even though judgments of emphasis needed were at the "great deal" and "some" level by all three groups of respondents. No group indicated that for the future only "little" or "none" levels of emphasis were appropriate.

9. Of note, it must be concluded that of the three groups or respondents, farmers and extension agents were decidedly more enthusiastic about a greater need for future emphasis in both agricultural productivity and quality of life than were university personnel.

10. Finally, it must be recognized that each group clearly expressed themselves in favor of greater emphasis in the teaching and

demonstrating of all items and/or activities selected for the study. However, those items classified as agricultural productivity appeared to be slightly more favored in terms of future emphases than were items pertaining to quality of life.

Recommendations

1. An essential recommendation is that a greatly increased staff and faculty be secured to coordinate, administer, and evaluate, administer and evaluate on-going programs of university extension.

2. A second, but also very essential recommendation, is that a well-planned, more formal extension program, including both efforts in agricultural productivity and actions to enhance quality of life for farm families be carefully developed and implemented to the program now existing as listed in the university bulletin and on page 19 of this study.

3. It is strongly recommended that university officials explore the possibility of establishing a Department of Rural and Community Development which might function as a supporting agency for university extension activities in agricultural productivity and activities to enhance the quality of life for farm families.

4. It is strongly recommended that attention be given to findings of this study by university staff responsible for curriculum development and as soon as may be deemed feasible, to invite both representative farmers, Ministry of Agriculture Extension and other autonomous institutions.

5. Further it is considered very essential that carefully planned seminars and conferences be offered for voluntary participation of

present agricultural extension personnel serving under the administration and supervision of the Ministry of Agriculture and other autonomous institutions. In these conferences special effort should be made to explore ways in which university extension personnel and Ministry of Agriculture personnel may better coordinate their respective programs and perhaps develop plans for a number of joint activities.

6. Further, it is recommended that university offer short courses for personnel in vocational agriculture schools to be up-graded and increased.

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APPENDIXES

APPENDIX A

DATA COLLECTION INSTRUMENTS

F O R M A APERSONAL DIRECTIVO, DOCENTE Y TECNICO
DEL VICERECTORADO DE PRODUCCION AGRICOLA DE LA UNELLEZ

El cuestionario anexo tiene como propósito recabar información respectiva a los programas de extensión del Vicerectorado de Producción Agrícola de la UNELLEZ - Guanare.

La información será utilizada confidencialmente por PEDRO F. LACRUZ, estudiante de Doctorado en Educación Agrícola en los EE.UU., con fines netamente de investigación (Tesis Doctoral).

INSTRUCCIONES:

Por favor marque con una X, en el espacio correspondiente, la respuesta que se adapte a su situación.

SECCION I

1. Sexo:

 Masculino Femenino

2. Educación:

 Perito Agropecuario Técnico Superior Ingeniero Agrónomo o equivalente Maestría Doctorado

3. Cargo que desempeña:

 Vice-rector Jefe de Programa Jefe de Sub-Programa Jefe de Proyecto Jefe de Sub-Proyecto Otro, Nómbrelo _____

4. Años de experiencia con esta Universidad _____

S E C C I O N I I

OPINIONES ACERCA DE LA EFECTIVIDAD DE LOS PROGRAMAS DE EXTENSION AGRICOLA DE LA UNELLEZ,
RELACIONADOS CON LA PROMOCION DE LA PRODUCCION AGRICOLA Y EL MEJORAMIENTO DE LA CALIDAD DE LA VIDA DEL AGRICULTOR

I N S T R U C C I O N E S

En la columna de la izquierda, por favor, marque con una X su observación de acuerdo al énfasis que Ud. considere se le esté dando a cada aspecto con los actuales programas de extensión agrícola de la UNELLEZ.

En la columna de la derecha, por favor, haga lo mismo para el énfasis que a su juicio debería dársele en el futuro a dichos programas.

ENFASIS DE LOS PROGRAMAS

ACUALES

ENFASIS NECESARIO EN EL

FUTURO

MUCHO	POCO	MUY POCO	NINGUNO	NO SE		MUCHO	POCO	MUY POCO	NINGUNO	NO SE
					A. ASPECTOS RELACIONADOS CON PRODUCCION AGRICOLA					
					Los programas están/deberían estar dirigidos a:					
					1. Aumentar la producción y productividad agrícola					
					2. Mejorar la administración y manejo de la finca					
					3. Orientar en el uso racional de los recursos para producción y mercadeo					
					a. Agua (riego, drenajes etc).					
					b. Tierra (uso, etc)					
					c. Suelo (análisis)					
					d. Capital					
					e. Insumos (fertilizantes y pesticidas)					
					f. Materiales y equipos					
					g. Infra-estructura					
					h. Almacenaje					
					i. Vías agrícolas					
					j. Transporte					
					k. Mercadeo					
					l. Semilla/animales					
					ll. Otros _____					

ENFASIS DE LOS PROGRAMAS

ACTUALES

ENFASIS NECESARIOS EN EL

FUTURO

MUCHO	POCO	MUY POCO	NINGUNO	NO SE		MUCHO	POCO	MUY POCO	NINGUNO	NO SE
					<p>B. ASPECTOS RELACIONADOS CON LA CALIDAD DE LA VIDA Los programas están/deberían estar orientados a fin de contribuir al mejoramiento de los siguientes aspectos.</p>					
					1. Educación (facilidades para niños, jóvenes y adultos)					
					2. Salud (higiene, centros de salud etc).					
					3. Vivienda y Servicios (electricidad, agua, etc).					
					4. Condiciones económicas para subsistir (alimentos, vestidos etc).					
					5. Transporte, vías agrícolas.					
					6. Planificación familiar					
					7. Recreación					
					7.1. Cultura (actividades culturales)					
					7.2. Deportes y entretenimientos					
					8. Seguridad pública.					

C. METODOS Y TECNICAS DE EXTENSION

Para llevar a cabo los programas de extensión los técnicos de la UNELLEZ utilizan/deberían utilizar:

					1. Demostraciones (nuevos métodos y técnicas, prácticas agrícolas etc)					
					2. Visitas individuales a productores					
					3. Reuniones con productores agrícolas					
					4. Días de campo (en centros pilotos de la UNELLEZ, fincas modelos)					
					5. Programas radiales					
					6. Artículos de prensa					
					7. Cursos cortos (extracurriculares)					
					8. Otros: a. Circulares					
					b. Revistas					
					c. Boletines					
					e. Folletos					

ENFASIS DE LOS PROGRAMAS

ACTUALES

ENFASIS NECESARIO PARA EL

FUTURO

MUCHO	POCO	MUY POCO	NINGUNO	NO SE	D. ASPECTOS RELACIONADOS CON TECNICAS DE PROGRAMACION E IMPLEMENTACION. Los Técnicos de la UNELLEZ:	MUCHO	POCO	MUY POCO	NINGUNO	NO SE
					1. Diseñan los programas de extensión basados en las necesidades, in- terés y problemas de los agricultores.					
					2. Diseñan los programas de extensión para solventar los problemas de las comunidades, en base a las necesidades identificadas.					
					3. Consideran el estudio y análisis de la situación agrícola tomando en consideración el área de influencia de la UNELLEZ.					
					4. Desarrollan proyectos de investigación y tecnología orientados es- pecialmente a asistir productores con baja productividad.					
					5. Usan los recursos existentes en las organizaciones, organismos e instituciones de la región.					
					6. Promocionan y mantienen buenas relaciones con otras instituciones y organizaciones.					
					7. Hacen esfuerzos para que la población entienda el verdadero propó- sito de los programas de extensión de la UNELLEZ.					
					8. Coleccionan, analizan e interpretan la información necesaria para determinar los pro y los contra de los programas de extensión.					
					9. Mantienen informados a los productores de los progresos en inves- tigación agrícola.					
					10. Usan comités de productores, agro-técnicos y profesores de la - UNELLEZ para desarrollar implementar y evaluar proyectos locales.					

COMENTARIOS Y SUGERENCIAS:

TO: _____

The annexed questionnaire has as a purpose: collect information with regard to the UNELLEZ Extension Programs of the Vice-Rectorado of Agricultural production, located in Guanare City, Portuguesa State.

The information will be confidentially utilized by Pedro F. Lacruz, Doctoral student of Agricultural Education in the Oklahoma State University (U.S.), exclusively for his research (dissertation).

FORM A

(For Extension Agents)

EXTENSION AGENT PERCEPTIONS

Agency's Name: _____ District: _____

Organization: _____ State: _____

INSTRUCTIONS: Please check the appropriate blanks which apply to you.

Section I.

1. Sex

 Male Female

2. Education

 Vocational Agricultural High School Degree Baccalaurette Degree Master Degree Specialist Degree Doctoral Degree

3. Position Held, _____ Years of Experience _____

Agency Head _____

Extension Agent _____

FORM B

(For University Personnel)

UNIVERSITY ADMINISTRATOR AND FACULTY PERCEPTIONS

INSTRUCTIONS: Please check the appropriate blanks which apply to you.

Section

1. Sex

 Male Female

2. Education

 Vocational Agricultural high school degree
 College Degree : Diploma _____ B.S. _____
 Master Degree
 Specialist Degree
 Doctoral Degree

3. Position Held

 Agricultural Production Faculty Dean
 Agricultural Research Department Head
 Agricultural Extension Department Head
 Teacher
 Researcher
 Extension Worker
 Other _____

4. Experience

Years working with this University _____

PERCEPTIONS OF SELECTED RESPONDENTS REGARDING EFFECTIVENESS
OF PRESENT AND FUTURE OF UNELLEZ EXTENSION PROGRAMS IN
TERMS OF PROMOTING AGRICULTURAL PRODUCTION
AND QUALITY OF LIFE

Emphasis of
Present
Problems

Emphasis
Needed in
Future

<u>Instructions</u>														
Great Deal	Some	Little	None	Don't Know	<p>In the left column, please check with an "X" your judgment according to the emphasis you consider the UNELLEZ is given to each of the below aspects with presently functioning extension programs.</p>	<p>In the right column, please do the same for the emphasis that to your judgment should be given in the future to such programs.</p>	Great Deal	Some	Little	None	Don't Know			
					A. ITEMS PERTAINING TO AGRICULTURAL PRODUCTION (the programs are/should be directed to):									
					1. Increase agricultural production and productivity									
					2. Improve farm management									
					3. Orient the rational use of resources for production & marketing									
					a. Water									
					b. Land									
					c. Soil									
					d. Loan									
					e. Agricultural supplies (fertilizers and pesticides)									
					f. Material and equipment									
					g. Infra-structure									

Emphasis of
Present Pro-
grams

Emphasis
Needed in
Future

Great Deal	Some	Little	None	Don't Know		Great Deal	Some	Little	None	Don't Know
					h. Storage					
					i. Agricultural roads					
					j. Transportation					
					k. Market					
					l. Seed and/or animals					
					m. Other					
					B. ITEMS PERTAINING TO QUALITY OF LIFE (The programs are/should be oriented in order to contribute to the improvement of the following aspects):					
					1. Education (facilities for children and/or adults)					
					2. Health (hygiene, health centers)					
					3. Housing and public services (electricity, water, etc.)					
					4. Economic conditions to survive (food, clothes, medicines)					
					5. Transportation and agricultural roads					
					6. Family Planning					

Emphasis of
Present
Programs

Emphasis
Needed in
Future

Great Deal	Some	Little	None	Don't Know		Great Deal	Some	Little	None	Don't Know
					7. Recreation					
					7.1. Culture (cultural activities)					
					7.2. Sports and entertainments					
					8. Public safety					
					C. EXTENSION TEACHING METHODS (In order to carry out the extension programs UNELLEZ technicians utilize/should utilize):					
					1. Demonstration of improved farming methods, practices, etc.					
					2. Individual visits with farmers					
					3. Meetings with farmers held by university extension workers					
					4. Field trips to model farms, university, etc.					
					5. Radio programs					
					6. Newspaper articles					
					7. Short courses (extracurricular)					
					8. Other means of Diffusion					
					a. Newsletters					

Emphasis
of Present
Programs

Emphasis
Needed in
Future

Great Deal	Some	Little	None	Don't Know		Great Deal	Some	Little	None	Don't Know
					b. Circular letters					
					c. Magazines					
					d. Bulletin					
					e. Pamphlets					
					D. PROGRAMMING AND IMPLEMENTATION TECHNIQUES (The technicians of UNELLEZ):					
					1. Design the extension programs based on needs, interests, and problems of farmers.					
					2. Design programs to solve problems based upon identified community needs.					
					3. Consider the study and analysis of the agricultural situation prevailing in the university service area.					
					4. Develop research and technology projects specifically designed to assist farmers with low productivity.					
					5. Use community agency organization and resources.					
					6. Promote good working relationships with other organizations and institutions.					

Emphasis
of Present
Programs

Emphasis
Needed in
Future

Emphasis of Present Programs					Emphasis Needed in Future					
Great Deal	Some	Little	None	Don't Know		Great Deal	Some	Little	None	Don't Know
					7. Make certain that people understand the true purposes of the extension programs.					
					8. Collect, analyze and interpret efforts to determine the strength strengths and weaknesses of the programs.					
					9. Make certain that people are aware about developments in agricultural research.					
					10. Use committees of farmers and faculty to develop, implement, and evaluate local projects.					

APPENDIX B

CORRESPONDENCE


OKLAHOMA STATE UNIVERSITY • STILLWATER

 Department of Agricultural Education
 (405) 624-5129

74078

November 30, 1981

To: Dr. Pedro Jose Urriota
 Vice-Rectorado de Produccion Agricola
 UNELLEZ
 Carrera 3 No 16. Guanare
 Estado Portuguesa
 Venezuela

Dear Dr. Urriota:

I am most pleased to send you this report of the fine progress which Pedro Lacruz is making on research planned as a part of the doctoral thesis. His committee has now approved his research proposal and we would anticipate that very little modification will be needed, if any. The tentative title, "Extension Functions of a Venezuelan University Which May Enhance Agricultural Production and Improve Quality of Life for Farmers and Their Families" is quite indicative of the nature of the investigation being planned.

We have been very interested in the account which Mr. Lacruz has given us of the services rendered by your University and are most supportive of the services rendered to the rural inhabitants of your area. Consequently, we have attempted to direct Mr. Lacruz in selection of courses and provision of other educational experiences which will best fit him for working within a climate such as you maintain there. For example, we are scheduling him for intensive study of the planning and administration of Agricultural Research Experimental units. In addition, we are providing for directed study of curriculum and course of study development in Agriculture, both at the secondary and higher education levels. Of course, a considerable portion of his study will deal with Adult Education and the adoption of improved Agricultural practices.

We are very glad that Mr. Lacruz elected to come to Oklahoma State University for advanced studies. We have found him to be a very fine student, both from the standpoint of high academic achievement and practical application of knowledge gained. Furthermore, he is a very fine person to know and to claim as a friend.

If we can furnish you with further information, please let your desires be known.

Sincerely,

Robert R. Price

VITA

Pedro Felipe Lacruz

Candidate for the Degree of

Doctor of Education

Thesis: EXTENSION FUNCTIONS OF A VENEZUELAN UNIVERSITY WHICH MAY
ENHANCE AGRICULTURAL PRODUCTION AND IMPROVE QUALITY OF LIFE FOR
FARMERS AND THEIR FAMILIES

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Biscucuy, Estado Portuguesa, Venezuela,
February 23, 1953, the son of Ernesto Lacruz and Carmen Amelia
de Lacruz.

Education: Graduated from Escuela Tecnica de Agricultura High
School, Rubio, Estado Tachira, Venezuela, in July, 1970;
received the Profesor de Educacion Media in Agricultural
Education from the Instituto Universitario Pedagogico
Experimental, Barquisimeto, Estado Lara, Venezuela, in July,
1974; received the Master of Science in Agricultural Education
at Oklahoma State University, Stillwater, in July, 1981; com-
pleted the requirements for the Doctor of Education degree at
Oklahoma State University, in December, 1982.

Professional Experience: Four years teaching in Technical Agricul-
tural High School, 1971-1974; Director, (1) Circlo Diversifi-
cado de Agropecuaria "San Luis", 1975-76, (2) Escuela Tecnica
Experimental de Agricultura "Crisanto Lacruz", 1977-1979.

Organizations: Member of the Colegio de Profesores de Venezuela,
member of Asociacion Venezolana de Caficutores, Seccinal
Biscucuy, member of Phi Delta Kappa and member of Community
Development Society.