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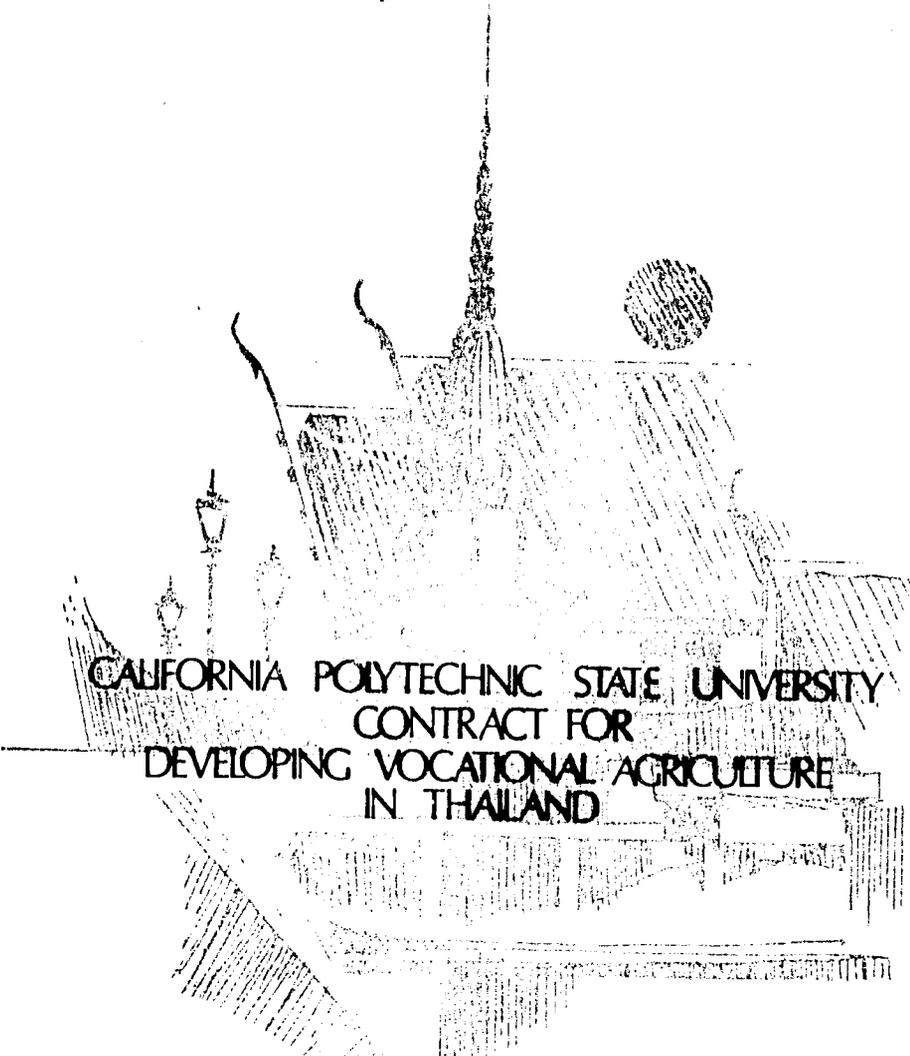
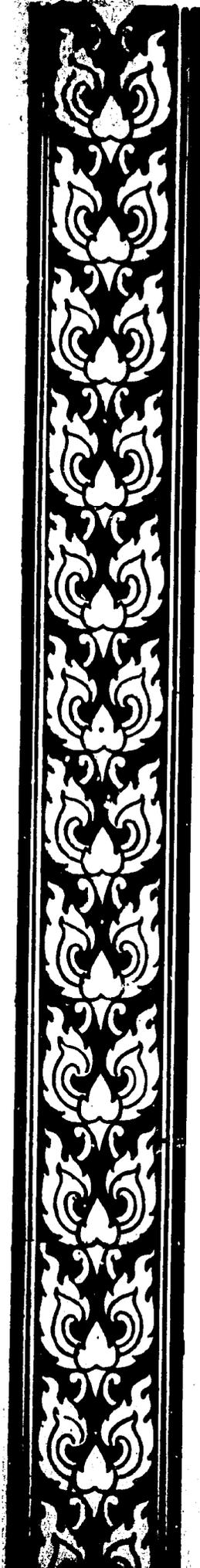
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# Terminal Report

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30 June 1973



CALIFORNIA POLYTECHNIC STATE UNIVERSITY  
CONTRACT FOR  
DEVELOPING VOCATIONAL AGRICULTURE  
IN THAILAND

Report NO. 19

Contract AID/fe-308

Reference Center  
Room 1656 NS

Agency for International Development



Loan for  
Improvement of Vocational Education

*TERMINAL REPORT*

*30 June 1973*

*CALIFORNIA POLYTECHNIC STATE UNIVERSITY*

*USAID CONTRACT TEAM AID/fe-308*

*F O R*

*THE IMPROVEMENT OF VOCATIONAL AGRICULTURE EDUCATION*

*I B R D LOAN PROJECT*

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*TERMINAL REPORT  
CALIFORNIA POLYTECHNIC STATE UNIVERSITY*

*CONTRACT FOR  
DEVELOPING VOCATIONAL AGRICULTURE  
IN THAILAND*

*REPORT NUMBER 19*



## **INTRODUCTION**

*The Royal Thai Government in its desire to improve agricultural production in Thailand, negotiated a loan to improve vocational education from the World Bank, this is known as the LIVE Project.*

*A major portion of that loan was used to provide ten vocational agricultural schools and technical agricultural colleges with modern buildings and equipment. Some of the funds were used to provide technical assistance in the field of vocational education.*

*California Polytechnic State University, through a contract (AID/fe-308) with the United States Agency for International Development, has for the past six years been working in Thailand with the LIVE Project, giving technical assistance to strengthen and expand vocational agriculture education.*

*This report is made to reflect the scope of the work undertaken under the contract, the major contract objectives identified, the goals pursued, the accomplishments realized, and team recommendations relating to the future of vocational agriculture education in Thailand. The information is presented in summary form in an attempt to make it brief. This is the nineteenth, and final report to be made as a part of the requirements of the contract under which this work has been conducted. More detailed information on specific areas of work might be found in one of the previous progress reports.*



## PREFACE

Vocational Agriculture in Thailand has enjoyed the active participation of A.I.D. for a period of time exceeding twenty years. At present this direct identification with the program is being terminated with this project which has involved California Polytechnic State University for the past six years beginning January 1, 1967 and terminating September 31, 1973.

Though this report will deal primarily with the activities of the vocational agriculture schools during the term of the contract, it will also reflect considerable attention on the good work done by many AID specialists, Thai teachers, and officials in previous years. Former participants who were sent to the United States for their training early in the AID program have provided the foundation for leadership and administrative direction. This work has often been overlooked, and has usually been on a low key at the school level.

In reporting the progress of vocational agriculture it would be well to acknowledge the person who provided the original rationale for U.S. involvement with vocational agriculture in Thailand. In 1950, Dean Knowles Ryerson, College of Agriculture, University of California made an in-depth study of the needs of Thailand for research and agricultural education.

Dean Ryerson recommended that Kasetsart University be given substantial assistance to provide the higher level of agriculturists needed in administration and research in Thailand. This has been done and Kasetsart University graduates are active in all phases of agriculture administrative and research work throughout the country. They also provide the core for leadership activities in vocational agriculture in the lower, secondary, and the technical college level.

Of special interest was his recommendations to further develop and expand the vocational agriculture schools of the country to provide the lower and middle level of trained manpower needed for research, teaching, government, and agriculture business. He had with him a young graduate from Cal Poly, Mr. William Kirkpatrick, who was a specialist in Agriculture Engineering and who later returned to the campus to head up the AID Participant program. Their study took in to account the fact that under the Thai school system it was not likely that many farm boys would enroll in vocational agriculture. However, they visualized that in spite of this it would provide the important middle manpower for agriculture needed.

The soundness of their recommendations can be measured in several ways. Some of these are:-

1. A.I.D. has actively supported vocational agriculture in Thailand for over twenty years.
2. The number of schools has grown from three or four to the present number of twenty nine -- five of them on the college level (2 year).
3. Thailand has invested a higher percentage own money in relation to its GNP in vocational agriculture than any other country in the world, including the United States.
4. A six year observation study made by the Cal Poly Team members show that well over 60% of all the graduates of vocational agriculture schools (average per school) take agriculture oriented positions. Most of these positions are outside Bangkok.

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## SUMMARY OF ACCOMPLISHMENTS

The accomplishments of vocational agriculture in Thailand during the L.I.V.E. Project is represented by the progress made by people -- in this case the directors, headmasters, and their faculty. In many cases the advisors of California Polytechnic State University served as catalysts and the Royal Thai Government invested many millions of Baht to provide the most modern facilities and equipment available. The successes or, as in some cases, the lack of success at the schools, can only be measured in terms of the productive effort of the many dedicated Thai teachers.

The "Summary of Accomplishments" presented here must therefore be regarded as a reflection of the progress made by Thailand and their "professionals" in agriculture education. Cal Poly and the Agency for International Development (U.S.O.M.) were privileged to be co-workers in providing a portion of the leadership needed.

As a prelude to presenting a few of the items that might be considered as major accomplishments it should be pointed out that most of the objectives and goals set for the project have been completed and even surpassed. There are a few, however, that could not be realized largely because of budget problems encountered by both the R.T.G. and U.S.O.M. These were understandable, and accommodation was made by the Team for these changes. It should be understood that these items are not discarded; instead, they now must be considered as long range objectives rather than immediate programs. Two of these are the irrigation systems for the schools and the correction of farm shop installations.

**ACCOMPLISHMENTS:**

1. Compilation of equipment lists. Assistance with specifications and review of the L.I.V.E. Project buildings. A survey was made and a conference was held with each school before recommendations for revisions were made.
2. The need for land development work at each of the agriculture schools (all 27) was presented in 1968. U.S.O.M. and the R.T.G. provided funds and equipment to smooth, and/or level each of the schools in preparation for the installation of an irrigation system. To date four schools have been completed and extensive work done at three others. It should be understood that in addition to the land clearing and smoothing activities this work also includes the construction of water storage facilities and road work.
3. Land use studies for each school had to be made before plans for field use and smoothing requirements could be determined. This work involved the making of cropping plans and constituted the major work of the two farm management specialists for the first four years of the project.
4. Following the land development activities and the farm planning work Cal Poly provided an irrigation specialist to formulate an irrigation plan for each of the ten project schools. This work has been completed and is being held by the Ministry of Education for completion in the future as money is made available.
5. As the equipment arrived at the schools it was necessary to take the "workshops" to the schools. For three years a major activity of the

Cal Poly Team and their Thai colleagues was to provide "on school" sessions giving assistance with the equipment and its use. Most of these workshops were of one week duration; a total of 112 were provided for the project schools.

6. Three curriculums were revised during the contract tour. It was determined early in the period to make curriculum evaluation and revision a long term program and involve every vocational agriculture teacher in the country in the process of evolvement. In the case of M.S. 4, 5 and 6, five workshops were conducted in addition to seminars conducted in each of the schools. A pilot program was conducted at Bangpra and revisions made accordingly before being introduced. In the case of the technical college curriculum several workshops were conducted. One was sponsored by F.A.O. It is satisfying to note that the teachers are already pointing out major revisions that are needed, thus curriculum revision will be an ever occurring process.
7. Instructional Materials were developed in large number by both the Thai colleagues and Cal Poly Team members. In addition, the campus supplied the research capability to screen the material that was available in the United States and appropriate for use in Thailand. At the close of the project over 8,750 items of instructional material was distributed ranging from text books and material authored by Cal Poly and Thai colleagues to one page "Beat the Drum" agriculture hints for current consideration.

8. In 1967 when the L.I.V.E. Project started it was a rare event when a vocational agriculture student was admitted to one of the universities. As a result, and partly through the efforts of a study and pilot program conducted by the Head of Agriculture Education of California Polytechnic State University, sixty students were accepted at Chiangmai University. In addition, Kasetsart University has been accepting graduates of the technical colleges for the past five years and to date have accepted 187.
9. Khon Kaen University has held several meetings with the Thai colleagues and will institute a program to accept the graduates of the technical colleges as soon as their student "problems" ease a little.
10. The rapid growth and acceptance of the F.F.T. program will be a milestone in the history of vocational agriculture in Thailand. Its continued growth and future success is now assured. The Ministry has provided funds for its administration and promotion activities. Two major events occurred the last few months of the project. The first was the conducting of the first National Public Speaking Contest and the second was the publishing of the first National F.F.T. Magazine.
11. Midway in the project the Cal Poly Campus contracted to recruit and train Peace Corps volunteers for vocational agriculture and other programs in Thailand. It has been an excellent program and has provided a "right hand" for much of the work under way. To date eleven schools have been involved and 19 volunteers have assisted

with the program.

12. Workshops and seminars are of course the key to keeping instructors up to date and to insure uniformity in quality instruction. Workshops were conducted during each vacation period with increasing numbers each year. Many special workshops were provided during the school year. To date, twenty-seven one-week workshops have been conducted; attended by seven hundred teachers. Professional credit has been provided by California Polytechnic State University for most of these workshops.
13. Livestock and poultry in the vocational agriculture schools have been materially improved because of better management practices. These improvements were supported by improved housing and the new equipment provided by the L.I.V.E. Project.

The decision of the Department of Vocational Education to use locally developed breeding to establish their school dairy herds was a wise one, and it has relieved the schools from starting research breeding projects for which they are not qualified. Hopefully, the schools will continue to expand their herds without too much cross breeding.

14. The schools received many new and strange pieces of farm machinery. Most of them were somewhat complicated to operate and to adjust. Considering the qualifications of the teachers and the nature and diversity of the equipment, it is satisfying to note that most of the schools are maintaining the equipment and are assisting the fellow teachers in its use.



Teacher Actively Participate in Workshops

## MAJOR CONTRACT OBJECTIVES

In order to review and to evaluate the accomplishments of the work conducted under the Cal Poly Project in Thailand (AID/fe-308) it might be helpful to establish the major objectives of the contract.

The contractor gave priority to the efforts directed toward the improvement and expansion of the vocational agricultural education program. The technical advice and assistance to be rendered by the team of advisors was broadly defined in the operational plan of the contract. Teacher training was one of the areas of work identified. The others dealt with supervisory, guidance, and counseling of the Vocational Education Department; assistance in organization and management of schools administration and school farms; development of instructional materials; and development of liaison between the Ministry of Agriculture and the Agriculture Education Division.

In order to establish guidelines to accomplish the overall objectives the contract directed that a work program be prepared early in the life of the project. This program was to be mutually acceptable to the Ministry of Education and USOM. Such a work program was developed through the cooperation of these two agencies, working with Bangpra Agricultural College, and the Cal Poly Team members.

This work program was divided into two main objectives. The first objective was "To Develop Bangpra Teacher Training College to Train qualified Agricultural Teachers". The second objective was "To Strengthen Vocational Agriculture in Thailand to Meet the Demands for Farming and Specialized Skills".

For each of these objectives a number of goals were assigned, with suggested ways and means of accomplishing them. Assessment of the effectiveness of the implementation of this work program would appear to be one valid method of determining to what extent the major objectives of this contract have been accomplished.



Farm Planning Seminar

OBJECTIVE I

DEVELOP BANGPRA AGRICULTURAL TEACHERS COLLEGE



The production of a greater number of qualified teachers is the focal point of this objective. The major effort for the first years of the contract period was the development of the facility for teacher education in agriculture at Bangpra Agricultural College. The Cal Poly Team and their Thai colleagues focused upon the development and refinement of teacher education facilities and methodology. The theory

upon which this program is structured, therefore, is that agriculture education can be improved and developed by competent, well oriented teachers of agriculture.

#### A. DEVELOP BANGPRA COLLEGE FARM

The problems of developing the Bangpra College Farm to be a model for other vocational agriculture schools has not been an easy one. It is recognized that it not only has the poorest soil of any of the schools but it also has one of the smallest farm areas. Despite planning it had to be recognized that a well balanced program which provided enough diversification to meet the instructional needs, could not at the same time, support the livestock needed in a teacher training college.

The first step was accomplished by making a farm plan that would satisfy the department and would provide for maximum student use of the limited land. This was followed by land leveling and land smoothing work that accommodated modern farm machinery.

The planned irrigation system is to be developed sometime in the future, but the college has made maximum use of its present water storage capacity. Sprinkler irrigation on much of its upland vegetable ground is presently being practiced.

Double and triple cropping has been a common practice. The college has shown wisdom in its planning by expanding the ornamental horticulture and landscaping capability of the college as large areas of land are not needed for this activity.

The college has exercised leadership in introducing the production of new crops such as asparagus and rice. These crops assist the

DEVELOP BANGPRA COLLEGE FARM



Practical Laboratory Experience



Improved Farm Practices are Demonstrated

community as well as the other vocational agriculture schools by showing examples of better crops.

B. DEVELOP INSERVICE TRAINING PROGRAMS

The Department of Vocational Education has recognized the need for inservice training and has provided the funds and trained personnel for several workshops each year. Most of these workshops were held at Bangpra. Those that were not held at Bangpra (for technical reasons) were organized and administered by Bangpra personnel. This has put a continuing burden on the college staff because the attrition rate for Cal Poly colleagues has been high. As the better qualified staff were promoted to important administrative positions in other schools and in M.O.E., additional personnel found it necessary to assume greater responsibilities, sometimes responsibilities that were new to them. In recent years the College has found that a good answer to the problems was to call in other faculty from the other schools in the country, especially the Technical Colleges.

A summary of the workshops and conferences conducted during the contract period as follows.

WORKSHOPS

1968

Name	Place	Dates	No.
Curriculum & Lesson Plans	Bangpra	March 18 - April 12	15
Tractors & Farm Machinery	Bangpra	April 16 - 27	24
			<u>39</u>

1969

Name	Place	Dates	No.
Crops	Bangpra	(April - May) 1 week	30
Farm Mechanics	Bangpra	(April - May) 1 week	20
Dairy	K.U.& Thai Danish	(April - May) 1 week	10
Poultry	Bangpra	(April - May) 1 week	10
Curriculum(4-5-6)	Mae Jo		33
Curriculum Work T & I	Bangkok	(April - May) 1 week	<u>30</u>
			133
<u>1970</u>			
Ag. Mech. Welding and Shop Layout	Bangpra	(April - May) 1 week	20
Crops	Bangpra	(April - May) 1 week	20
Livestock (feeds)	Bangpra	(April - May) 1 week	20
Farm Management	Bangpra	(April - May) 1 week	20
Core & Related Subject Workshop	Bangkok	March 25 - April 2	15
Curriculum, Syllabus	Nakorn Pathom	(April - May) 1 week	<u>10</u>
			105
<u>1971</u>			
Farm Mech. (Shop Installation)	Ladkrabang	(September '71) 1 week	20
Curriculum Revision	Bangkok	(April - May) 1 week	30
Course Revision(4-5-6)	Mae Jo	(April - May) 1 week	35
Administration Travel Seminar		(April - May) 2 weeks	55
Academic Teachers	Bangkok	(April - May) 1 week	<u>20</u>
			160

1971

Name	Place	Dates	No.
<u>1 week on school workshops</u>			
Crops	11	M/Wk Travel	85
Agriculture Mechanics	15	School Contacts	105
Animal Husbandry	11		
Farm Management	11		
Supervision	13 (1-2 days)		

<u>1972</u>		(Feb. - March)	
Curriculum Workshops	Mae Jo	1 week each	40
Lesson Plans	Bangpra		
Technical Curriculum	Bangpra	5 weeks	10
Directors Workshop	Bangkok	1 week	15
Headmasters	Bangkok	1 week	25
F.F.T. Advisor Workshop	Mae Jo	1 week	<u>30</u>
			120

1972

1 week on school workshops

Crops	9	M/Wk Travel	45
Ag. Mech.	3	School Contacts	86
F.F.T. Supervision	17 (1 - 2 days)		

Name	Place	Dates	No.
<u>1973 (½ year)</u>			
Directors	Bangpra	1 week	14
F.F.T. Advisors	Bangpra	1 week	30
Regional Workshop	Phitsanuloke	1 week	110
Returning Participants	Ladkrabang	1 week	<u>60</u>
			214

SUMMARY

Workshops M.O.E. one week

27 - attended by 711 teachers.

On-School Workshops

112 - Most of which were of one week duration.

C. DEVELOP A TEACHER TRAINING CURRICULUM

The new Teacher Training Curriculum is a revision and an improved version of the one used from 1957 to 1968. Note should be made that it was explained in-depth in Report Number 10 submitted April 1, 1970.

The new curriculum was developed in order that classroom and laboratory time could be more adequately used. In addition, the practice teaching period was extended from 30 days to 60 days, and the student evaluation and measurement method changed from the percentage system to the credit system. Since then the increasing number of teaching candidates have forced the college to make some further revisions.

SUMMARY

Workshops M.O.E. one week

27 - attended by 711 teachers.

On-School Workshops

112 - Most of which were of one week duration



WORKSHOPS



Private Enterprise Cooperates with Vocational Education

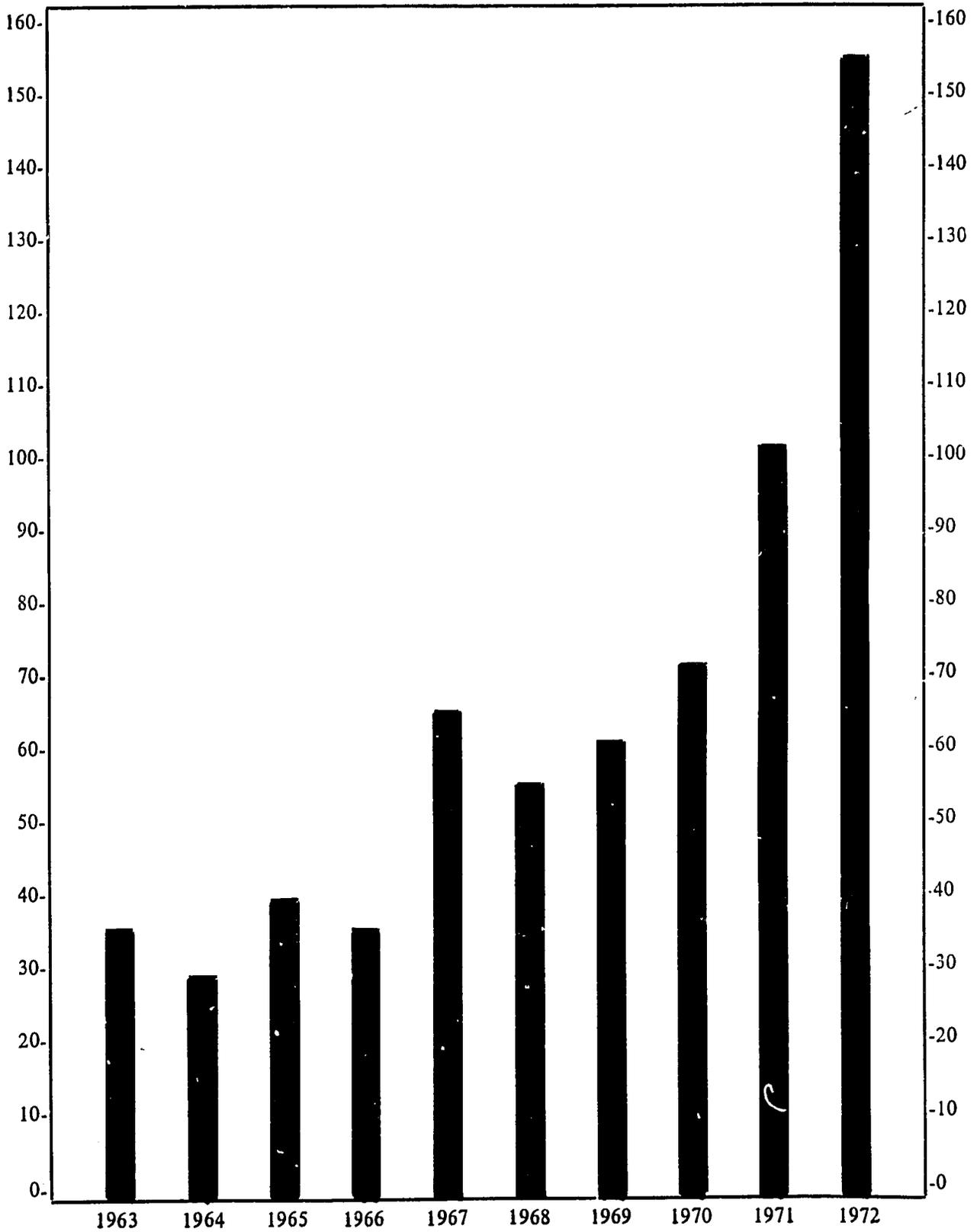


Current Instructional Topics are Explored by Teachers

The new required subjects include 42 subjects and 93 units. This has been adjusted and it is now used on a semester basis. Because of this change all requirements are now divided into four sections as follows:

- |    |   |                  |
|----|---|------------------|
| 1. | 12 subjects in core and related -----       | 22 units (23.7%) |
| 2. | 20 subjects in technical agriculture -----  | 49 units (52.7%) |
| 3. | 9 subjects in education -----               | 20 units (21.5%) |
|    | plus one elective -----                     | 2 units (2.1%)   |
| 4. | Agriculture field work -----                | 12 units         |
|    | (but separate from curriculum requirements) |                  |

BANGPRA AGRICULTURAL COLLEGE  
TEACHER TRAINING GRADUATES



TEACHER TRAINING



Supervised Laboratory Instruction



Organized student activities are becoming an important part of the Vocational Agriculture Program

#### D. DEVELOP EXTRA CURRICULAR PROGRAMS

Bangpra has established itself as the leader in providing extra curricular activities for its students. Every student has the opportunity to participate in educational and recreational activities outside the classroom. In addition they get further leadership experience in organizing, promoting and hosting many activities that involve every student and thousands of outside visitors each year.

Bangpra has more active clubs within the framework of its student body organization than the other schools. They are active, they hold regular meetings, and they conduct well planned activities.

In 1973, The Rotary International gave a charter to the Rotaract Club. This is the only vocational agriculture college given this honor and the college received international recognition at the "charter" ceremony.

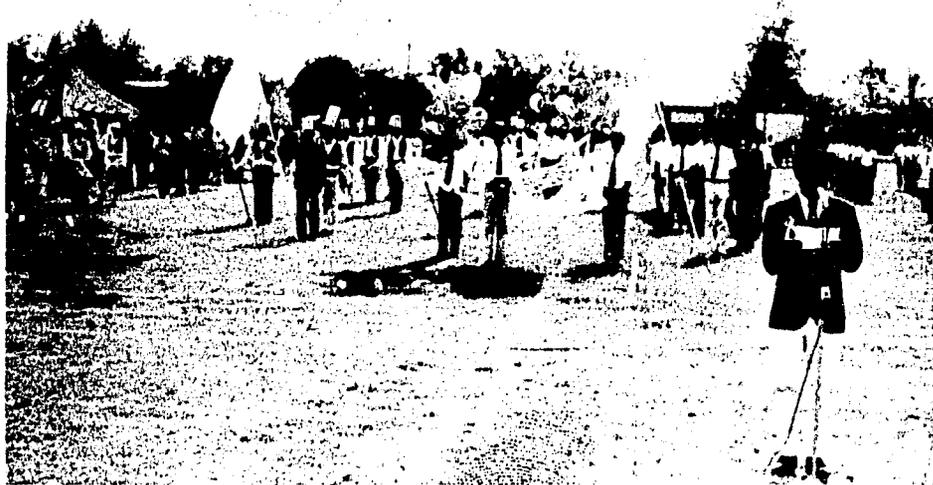
The Clubs are active with many functions at the college but possibly their greatest achievement has been in what we would identify as community service activities. A few of these are as follows:

1. Because Bangpra is one of the most convenient colleges to visit, the students are given the opportunity to host over three thousand elementary, secondary and college students per year. These large numbers are broken down into smaller groups and given a conductor. Some groups require feeding and housing at the campus.
2. Several local Wats are landscaped and much of the maintenance work is provided by the students. Many hundreds of hours of work go into this activity.
3. Local fairs require the active participation of the students several times each year.
4. The school band is asked to provide entertainment for many

local functions. Often this provides a good source of income for the student organization.

Summary of Student Body Clubs:

<u>Name</u>	<u>No. Members</u>
English	30
Ornamental Horticulture	70
Animal Husbandry	60
F.F.T.	60
Rotaract	62
Nature	25



Games Day at Bangpra

### E. DEVELOP COUNSELING AND GUIDANCE PROCEDURES

The college has developed application procedure for candidates for Teacher Training at Bangpra Agriculture College. Formerly, when the college conducted classes in M.S. 4, 5 and 6 the transition to Teacher Training I was somewhat informal. Only those few students who transferred from other schools needed very intensive screening.

Now, however, as all of the candidates must come from outside schools it has been very important to institute a selection procedure that not only insures the college getting the best candidates, but a procedure that is also thorough and fair to the applicant. The present selection system involves:-

1. Written examination, six hours
2. Interviews, (20 minutes each) 2 days - by a committee of twelve staff members.

In 1970 the Headmasters from the cooperating teacher training schools were invited to the campus for a one-week seminar to establish the evaluation and progress criteria for the student teachers. A Student Teacher's Handbook was also developed.

The increasing number of graduates from Bangpra College has placed a burden on the college supervising staff. This has no doubt weakened the effectiveness of the student teaching program. Last year teachers were in cooperating schools. In order to accommodate the increasing numbers of students it was necessary to restrict the cooperating schools to the Central areas rather than to continue to assign to the more desirable outlying rural areas. In addition, a reduction in supervising manpower has reduced the amount of supervision received. The college is at present making proposals that will help with this problem.



Individual Supervision Is Provided Teacher  
Training Students on and off Campus



Thai Officials with Future Farmer of Thailand Advisors

OBJECTIVE 2

STRENGTHEN VOCATIONAL AGRICULTURE TO MEET  
THE FUTURE DEMANDS FOR AGRICULTURE SKILLS

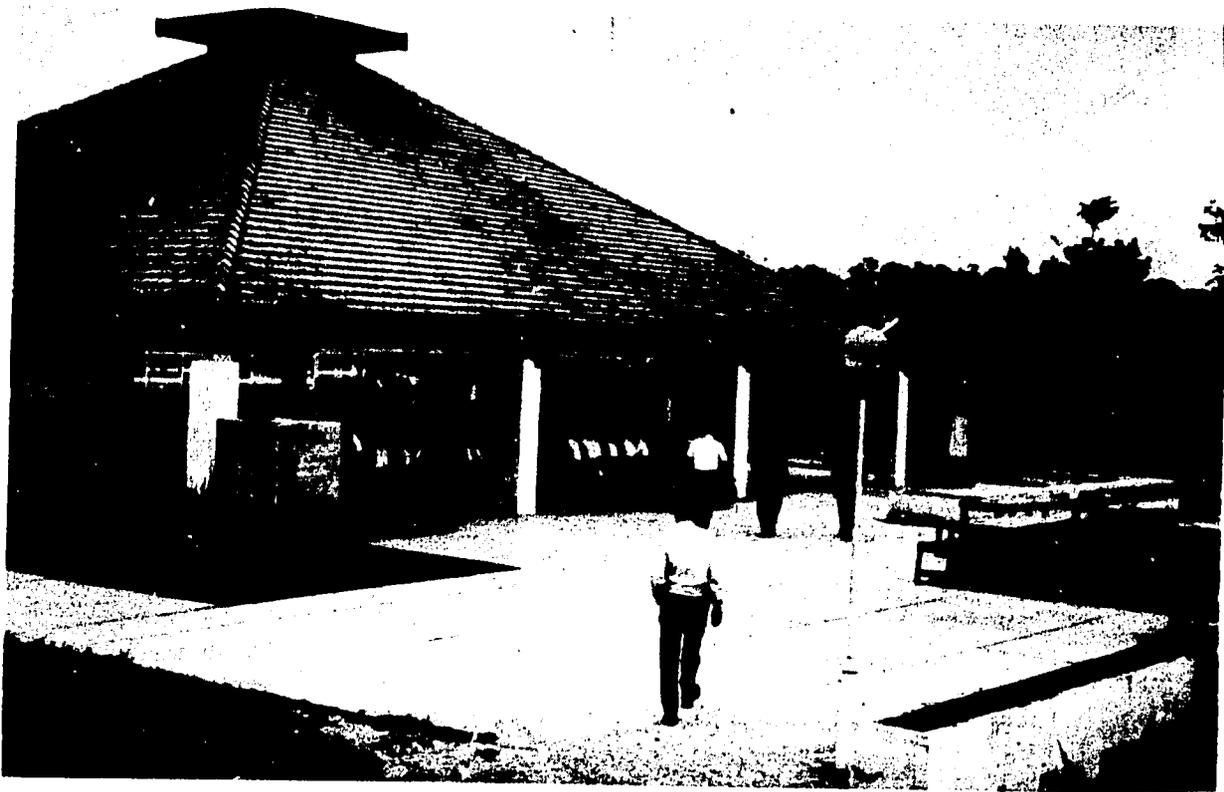


An attractive campus is being developed at most schools

The attention of the Cal Poly Team and their colleagues was directed toward the development of all of the schools in the LIVE Project. Stress was placed on the training of skills as well as theory in order to supply Thailand with competent agriculturalists. Thailand is contributing a significant portion of its national budget for the improvement of agricultural education. This challenge and opportunity will only be met with functional school farms and relevant

teaching programs, so vital to the growth and development of Thailand.

The Ministry of Education and Bangpra Agricultural College have the responsibility to assist the schools by providing leadership, adequate budget, and competent teachers. The responsibility for local development, however, has rested with the local headmaster and his staff. Together they have provided the leadership to make the changes in their school that have contributed to the improvement of Vocational Agriculture instruction. As the contract period was phased to extend one additional year the Cal Poly Team made every effort to expand their program of assistance to include all of the vocational agriculture schools.



Cafetorium at Project School

A. ASSIST IN THE DEVELOPMENT OF L.I.V.E. BUILDING PROGRAMS AND EQUIPMENT LISTS FOR PROJECT SCHOOL TEACHING FACILITIES

The Cal Poly Team spent the first two months of their tour in Thailand working in Bangkok in a day to day relationship with the architect from Japan and with the Department of Vocational Education Architect. The team concentrated mainly on the evaluation of the design and specifications of the agriculture facilities. The architects did not have an agriculture background and the team was somewhat hampered by their lack of experience in tropical agriculture.

To offset this we made an agriculture survey of each of the schools and conducted an in-depth presentation of the tentative plans to each of the schools. The recommendations that we felt warranted consideration were submitted to the Ministry Architect for transmittal. Some of the recommendations were considered but it must be acknowledged that much was lost in the "three country" communication block (U.S. - Thailand - Japan).

During the construction phase, efforts were made to observe the quality as well as the practical aspects of the construction. Many recommendations for minor changes were made, most of which would not add to construction costs. We found, however, that the Thai have very strict laws that do not permit what we in California call "change orders", and unfortunately most of the suggestions could not be made. Fortunately, almost all of these items could be corrected rather easily by the schools after the buildings were turned over to the schools.

One change that the team requested, and was able to secure, was somewhat amusing, and was corrected during construction. It seemed that

in order to insure a more aesthetic roofline with other buildings the architects specified that a swine barn be built one meter below the surrounding ground level. This example is given to show the cooperative relationship that existed with the L.I.V.E. Office, as they responded promptly to this request.

It can be observed that the agriculture buildings were constructed with Japanese specifications as guidelines, and are somewhat over built. The Thai since have designed their own buildings that are not only more functional but considerably more economical.

U.S.O.M. provided one technical advisor to assist with the ordering of farm machinery. The U.S.O.M. direct hire persons worked in this office and the Cal Poly Team assisted in making the entire list of agriculture equipment. They screened it with the Thai colleagues and with some of the agriculture schools. The services of the Team members were again required when the specifications of each piece of equipment had to be made to insure uniformity for world wide bidding.

The Cal Poly Team was asked to assist with the inspection as deliveries were made and the distribution procedure established.

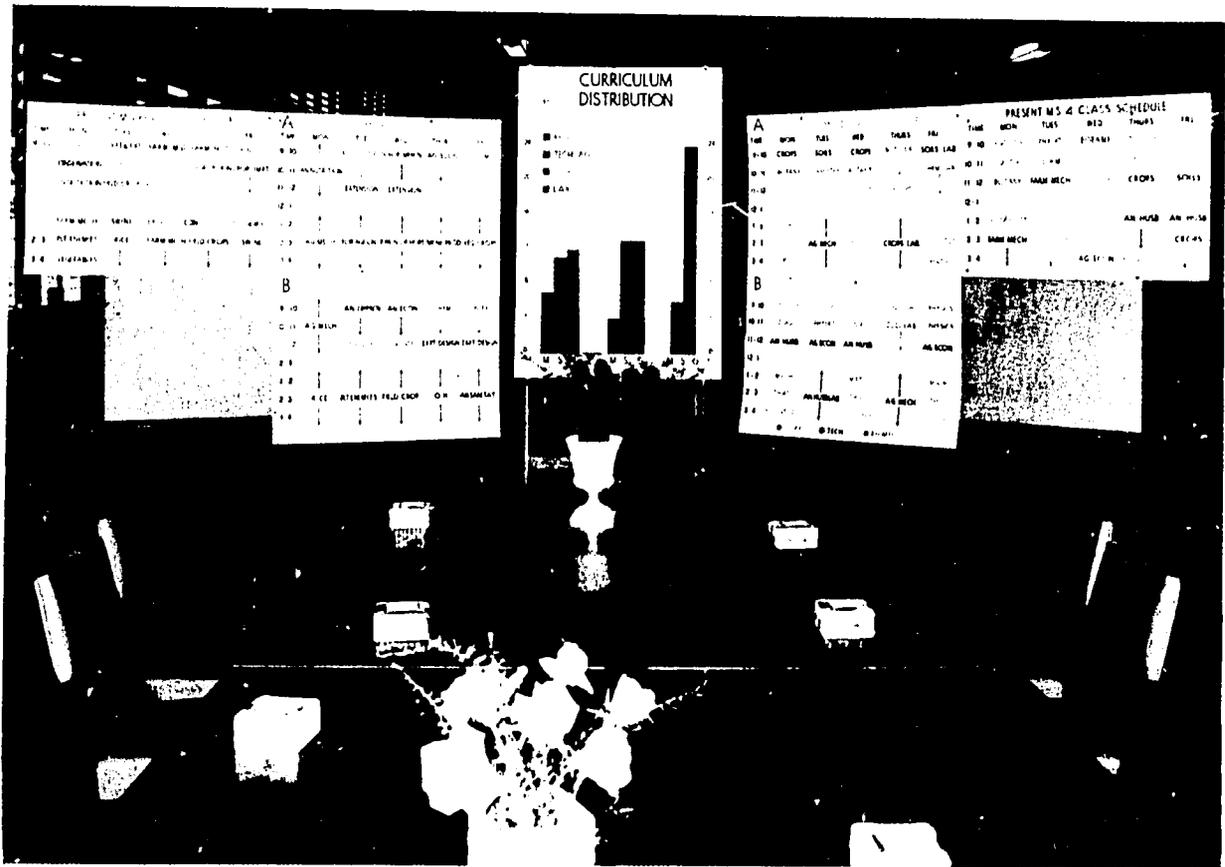
## B. STUDY THE CURRICULUM AND MAKE REVISIONS

The goal of studying the curriculum and making revisions to include practice as well as theory has been successfully pursued throughout all phases of the six year project. Not only is it true that extensive work has been done in curriculum construction, but of equal importance is the fact that an interest and a desire is present to continually examine, revise and up-date the curriculum that is being used.

This project has been concerned with curriculum development and revision in three areas. One area, M.S. 4-5-6 in vocational agriculture; a second area, technical agricultural college; and a third area, teacher training in agriculture at Bangpra Agricultural College. All three have had recent revision, and all reflect many of the principles of good planning that are basic to their particular curriculum objectives.

It is especially gratifying to be able to report that the M.S.4-5-6 curriculum, after having been tried in the L.I.V.E. School, is considered desirable for the use in all vocational agriculture schools. The technical agriculture college curriculum, revised in 1972, represents a major departure from the past. It employs the principle of offering classroom and required on-the-job laboratory instruction that is an outgrowth of current field surveys of the community to be served. From inputs of agri-business concerns as well as government agencies the curriculum is directed toward meeting the needs of the prospective employers of the college graduates. The two-year teacher training curriculum was most recently revised in 1968. Further revisions are being considered at this time. The practical laboratory work relating

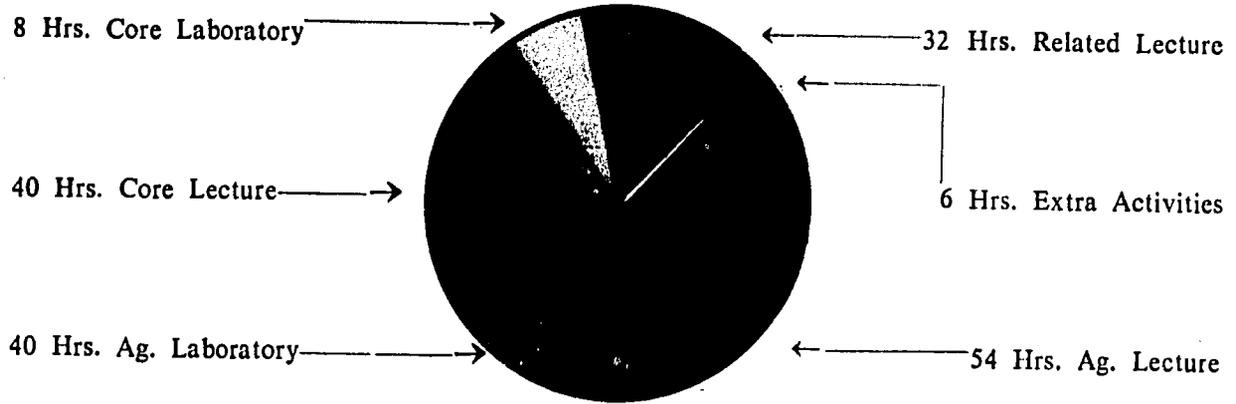
to the classroom instruction is one of its strengths. The education section of the curriculum offers excellent on-campus preparation for teaching, while the sixty days of required practice teaching had proven itself by establishing a good record for the teacher training program.



Curriculum Workshop

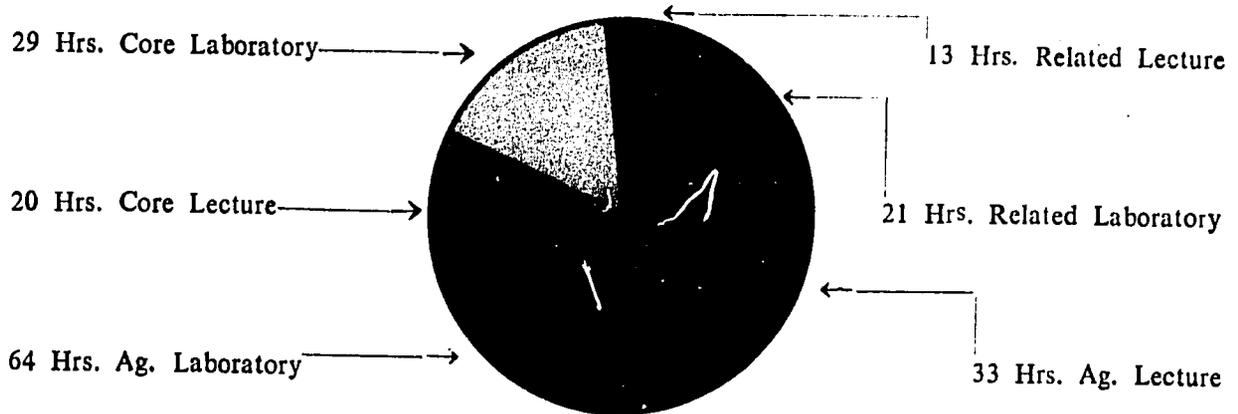
**M. S. 4-5-6 CURRICULUM**  
**INSTRUCTIONAL TIME DISTRIBUTION**

**FORMER TIME DISTRIBUTION**



**180 HOURS TOTAL**

**PRESENT TIME DISTRIBUTION**



**180 HOURS TOTAL**

### C. IMPROVEMENT OF ADMINISTRATION AND ORGANIZATION

Two different types of educational institutions are involved in the Cal Poly Project - Thailand. There are specialized vocational agriculture high schools - (M.S. 4-5-6 grades), and specialized technical agricultural colleges ( years one and two). Generally, in practice, there has been little difference between the organization and administration of the two schools. The efforts of the team have been directed primarily in two directions. One, to plan and manage school farm activities with the aim of improving the farm productivity and as a source of practical data to be used in the instructional program. The other effort was concerned with the administrative organization of the technical colleges and the assignments of responsibilities within that organization.

All the project schools have a school farm plan to follow and they are being used in the development work going on at each campus. Such plans are especially important as irrigation is incorporated into the farm activities. Detailed management plans and various kinds of records have been introduced to each school with demonstrations and suggestions for their use in instructional programs.

Two workshops have been conducted by the technical colleges dealing with administrative organization. Proposals have been presented and discussion conducted where consideration was given to administrative staff organization and duties of the designated personnel. A publication has been produced and presented for discussion and revision dealing with efficiency of utilization of class and laboratory space. Although

this has not been an area of general concern in the past this is a subject that is attracting more attention in educational circles.

The actual practices implemented in the schools of this project as a result of the Team efforts in the area of administration and organization are not readily noticeable or measurable. Because of the nature of the subject it is not expected that major or sweeping changes would be made in the relatively short duration of this project.



Discussion on Administration

D. STUDY THE POSSIBILITY OF DEVELOPING EVALUATION PROCEDURES TO TEST APPLICATION AS WELL AS THEORY

The first requirement in developing evaluation procedures in the schools is to transfer the responsibility for tests and examinations from the Ministry of Education in Bangkok to the individual schools. Even though there is general agreement that this is a desirable move it must be carefully considered and all the ramifications weighed with care. As simple and desirable as such a change appears to the "advisor" from the United States it must be recognized that to teachers who have never assumed any of these responsibilities in their entire working career, such a change is not always considered as enthusiastically as might be expected. In spite of the general acceptance of the U.S. policy and instructional methods in schools of all levels the method used in Thailand does not serve two important functions that should not be overlooked. They are:-

1. The making of a national examination in Bangkok provides uniformity and sets standards for the entire country.
2. By using careful security measures they insure that "cheating" activities are reduced to a minimum, and that pressures and temptations for favors tend to be fewer in number.

Because of these considerations the Ministry of Education has established the policy of giving an increasing responsibility to the classroom teacher over a period of years thus phasing into the new system.

### E. DEVELOP TEACHING AIDS & MATERIALS

In excess of 8,750 individual items of instructional materials have been distributed by the Team to the L.I.V.E. agriculture schools and the non-project vocational agriculture; a total of 27 schools have been served to some extent in this distribution.

Through on-campus funds approximately 50% of the items were secured from United States sources. This was the source of textbooks, wall charts, bulletins, miscellaneous visual aids, and laboratory supplies. The remainder of teaching aids were developed and published by Team members and Thai counterparts. Time did not permit all printed materials to be translated into Thai. Many publications were of sufficient technical nature, or were illustrated sufficiently well that they served a useful purpose even though they were distributed in the English version.

There is evidence that if financial resources are available to the schools they can and will continue to produce many helpful teaching aids. There is a desire on the part of both Cal Poly Team and Thai educators to maintain a relationship that could be source of data and examples of teaching materials. This would encourage the continuing production of teaching aids similar to those that have been developed during this project.

Many of the teachers have developed special abilities in the preparation of instructional materials that are especially adapted to the needs of this country. Time and funds should be made available for this important service to vocational agriculture.

F. DEVELOP WORKING RELATIONSHIP WITH AGRICULTURE AGENCIES, GOVERNMENT AND PRIVATE, THAT WILL PROMOTE COOPERATIVE PROGRAMS WITH THE AGRICULTURE SCHOOL

Each of the vocational agriculture schools have some contact with the government agencies in their respective community. However, some of the schools and colleges have developed a relationship that was mutually advantageous to each and also joined with the other agencies in promoting all community activities. Some have been so successful that the school usually is asked to provide the facilities for most of the important community activities, and thus have become identified as the community center. This has been especially true in the project schools as they often can offer the most desirable community facilities for most locally sponsored events.

The goal has been to encourage other schools to develop this relationship and considerable progress has been made.

It was noted early in the tour that communities where there existed the greatest need for joint participation were often the communities that had the least contact with the schools. Through workshops and traveling seminars this has been changed to the point that it can now be concluded that each project school is active in its community. This provides a beneficial relation with government agencies as well as with private industry, especially with those companies that deal in agriculture products and services.

It is recommended that the vocational agriculture schools continue to explore the possibilities of being of greater service to the farmers in the local community.

G. ASSIST THE PROJECT SCHOOLS IN DEVELOPING A SCHOOL FARM THAT WILL PROVIDE FOR THE LEARNING OF MODERN AGRICULTURE SKILLS AND SERVE AS A MODEL FOR THE FARMERS IN THE COMMUNITY

The agricultural schools and colleges in Thailand, as well as their counterparts in U.S., are faced with a common problem ----- official misunderstanding of the true function of their farming operations. A few are:

1. Some officials still feel that school farms must always make money. They should farm intensively with the most profitable crop and support the school financially.
2. Many assume that all the agriculture teachers are highly qualified farmers and have time to teach a full time load and at the same time conduct a model farm operation that will be an outstanding example for the community.
3. They assume that students provide an adequate reservoir of skilled labor that is available for each of the farming operations as needed.

Every effort was made by the Cal Poly Team to put each of these considerations in the proper perspective in the light of the objective and goal of the project. After many meetings and workshops the following guiding principal, simply stated, were used as a basis for planning the farming operations.

1. Providing an instructional laboratory must be considered the primary goal of each school farm and must always be held uppermost in the planning of the agriculture operations. Once this principal is understood and adopted it follows that a good

instructional farm laboratory can provide the maximum benefits to the students, and also provide a profitable enterprise that can help support the instructional program.

Some crops or livestock operations may be marginal. There are always a few in each school that are not profitable but must be grown to provide experience for a well rounded instructional program. It is important to understand, however, that a good school farm operation is also almost always a profitable one. They seem to go hand in hand.

2. A teacher's primary responsibility is instruction. To expect that a teacher who has been trained in the profession of agriculture education is also a highly trained technician possessing the art of the "farmer" is often expecting a little too much.

It could be compared with the expectation that an auto mechanics teacher could build an automobile during his spare time. Fortunately, most vocational agriculture teachers have gained enough experience so they are competent agriculturists and can plan and manage good farm operations. It is true in the United States, as it is in Thailand, that a few do not possess these qualities even though they are often excellent instructors.

Because of the tropical climate, which accelerates most growing processes, the teacher - agriculturists often have difficulty in providing the necessary cultural operation at

the exact time that it is needed for instruction. As an example: If the corn must be weeded at the time that mid-terms are scheduled, the corn usually goes un-weeded (unless there are enough laborers available to do the work).

3. Vocational Training is very expensive. To fulfill the obligation of providing the experiences that are expected each hour of work should have an instructional objective. To do this it is carefully planned, class by class, week by week and year by year. Carefully done, it provides many hundred of hours of work experience that fits into a checker board schedule requiring long range planning and is revised as weather, crop, and school activities require.

Holidays, vacations, examinations, and many other interruptions often make the students unavailable for critical farming operation. If laborers are not available the crop has to suffer, and in some cases be abandoned.

The Farm Plan concept was introduced to each school in 1967 and 1968 in an effort to give the schools a means of planning their farming operations on a long range basis and in a more orderly manner. It included consideration of their expected improvements such as land leveling, clearing, grading, access roads, new building and the availability of equipment. The Farm Plan was directed so each crop was planned to fill a specific need in the instructional program and at the same time be economically supportive.

The yearly cropping program included the following steps.

1. Farm Map
2. Field use plan which included provisions for demonstrations, student project areas, livestock requirements and cafeteria needs.
3. Planned calendar of activities which considered the availability of student labor, and also included an emphasis on crops that could be considered "money makers" for the school.
4. Prepare budget to be presented to the school or college administrator to insure the availability of funds to support the planned cropping program.

It can be summarized that the concept of Farm Planning has been moderately successful in the project schools. A great deal of work remains to be done in this area. Considerable misunderstanding still exists as to the real function, or purpose of the school farm. This misunderstanding exists on all levels: Teacher, school administration, M.O.E. and the budget officials of the R.T.G.

The Cal Poly Team is of the opinion that most of the vocational agriculture schools are trying to farm too much land. It is recommended that they determine the optimum area needed for the instructional program; that they institute a community adult, or young farmer program whereby they lease to qualified young people in the farming community certain small sections of land that can produce a satisfactory income for the community youth. The school would hold some managerial control, would provide a minimum of instruction and would have the land available for the students to observe as a practical laboratory example. Each

school has competent personnel to administer such a program. It would develop a little additional income. But, most important it would give the school the appearance of a productive farm area.

H. STUDY THE POSSIBILITIES OF INCENTIVE PROGRAMS TO CREATE GREATER INTEREST BY STUDENTS AND TEACHERS IN AGRICULTURE

The Future Farmers of Thailand has been the recognized organization to provide interest and incentive for the vocational agriculture schools in Thailand. Several participants intraining at California Polytechnic State University were provided the opportunity for in-depth training in Future Farmer work on the State as well as National F.F.A. level. Upon the return of these participants to Thailand an intensive promotion program was initiated which was concluded by a one week workshop held in September, 1972 for selected prospective F.F.T. Advisors.

This promotion was followed by further work which included an F.F.T. exhibit and presentation at the Student Craft Fair on December 1, 1972. This was followed by an additional F.F.T. workshop held in April 1973 which was actively attended by representatives from each vocational agriculture school in Thailand. Briefly, the following progress can be reported.

1. Each vocational agriculture school in Thailand will (by the time this report is printed) have an active F.F.T. chapter organized, representing an estimated national membership of 1,350.
2. Each of the chapters can be considered as active. Their activities will include public speaking, community services,

as well as individual and chapter supervised farming.

Recreation and leadership activities are also a part of their program of work.

3. Regional meetings have been held. It is predicted that in the future the Technical Colleges will serve the function of providing regional leadership and of conducting regional competition and promotional activities for the vocational agricultural schools.
4. The first National F.F.T. Public Speaking Contest was conducted at Bangpra College on April 23, 1973 with six contestants participating. The Foremost Company of Thailand sponsored the contest and represents the first private company sponsoring a National Future Farmers of Thailand activity. The trophies were provided by the National F.F.A. Office, Washington D.C.
5. The first F.F.T. National Magazine was published and 2,000 copies distributed.
6. It is planned that the first National F.F.T. Officers are to be presented at the next Student and Crafts Fair held in December 1973.

It can be concluded that the F.F.T. program in Thailand is one of the strong accomplishments and that it will continue to grow in scope and quality. It is well accepted by M.O.E., the Department of Vocational Education, the school, the community, and especially (and most important) ----- the student. The incentive that the worthwhile activities provide can help generate quality instruction as well as develop leadership

abilities in the students.

The Department of Vocational Education has recognized that administrative assistance will be needed to provide coordination for the program on a National level. We are also assured that promotional assistance will be continued from the California Future Farmers and the National Future Farmers of America.

#### TEACHERS

Considerable effort has been expended in promoting interest in forming a professional organization for teachers in agriculture education work. The California Polytechnic State University sponsored Dr. Suraphol Sanguansri to attend and participate in the 1972 conference of the California Agriculture Teachers Association in order to provide additional background experience and information to support such an organization in Thailand. USOM also provided Dr. Suraphol an opportunity to visit Taiwan and Korea for further in-depth study of the professional associations of agriculture education in Asia.

Although the organization has not been formally initiated at this time, because of budget problems and lack of available promotional personnel, it is concluded that the increasing activities of the Future Farmers of Thailand will generate an informal organizing structure that will eventually provide a national professional organization. The primary responsibility of such an organization would be coordinating the activities of F.F.T. as well as other - instructional and administrative matters as might be referred to the Department of Vocational Education by personnel from the various schools and colleges.

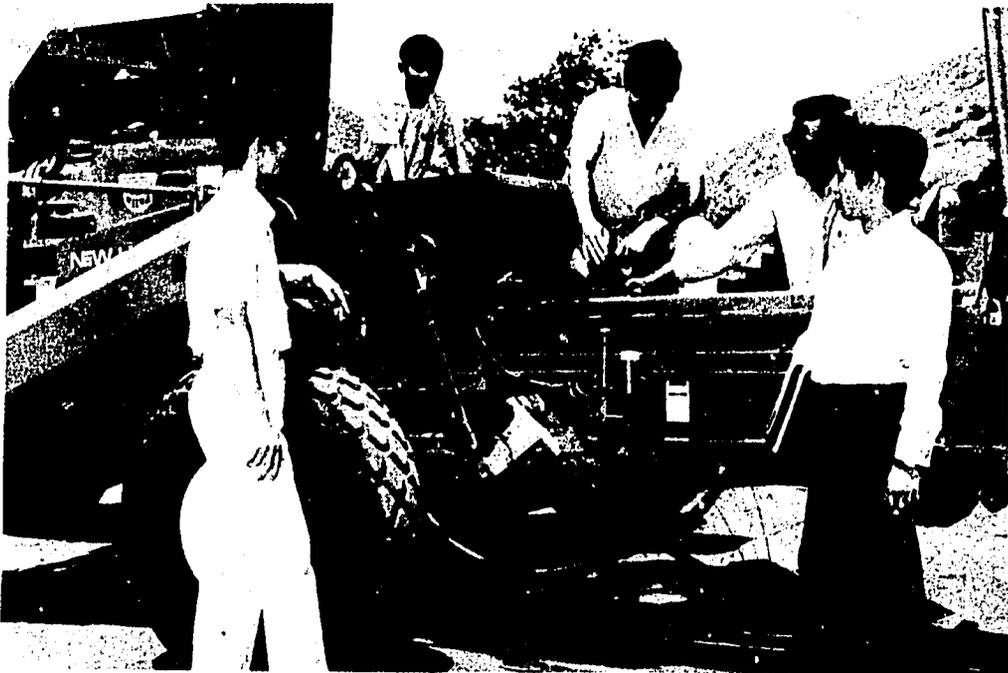
## SUPPORTIVE PROGRAMS

### A. PARTICIPANT TRAINING

It is generally agreed that overseas training has made an important contribution to this country over the past thirty years. Those teachers who studied in the United States have served well. When one is considering the total benefits of the participant program they should also identify and evaluate all those in the past who have had overseas training related to vocational agriculture education.

For this reason the Cal Poly Team has conducted a survey of all participants who have been overseas in the past thirty years, and who are now, or have worked, in vocational agriculture.

Shown in the map is the geographical distribution of these individuals as well as the technical area of their training



When They Return Participants Play Leadership Roles



RETURN PARTICIPANTS  
May 1973

No.	Name	Institution Attended	Degree & Major	Returned to work
1	Mr. Adul Wannajana	Okla. S. U.	M.S. Ag. Eng.	Kalasin
2	Mr. Ahnon Thientrong	Cal Poly S. U.	M.A. Ag. Ed. (Crop)	Mae Jo
3	Mr. Amnuay Pan-nga	Okla. S. U.	M.S. Ag. Ed. (Ag. Eng.)	Pathumthani
4	Mr. Anucha Siri	Okla. S. U.	M.S. Dairy	Mae Jo
5	Mr. Athon Prempirack	Cal Poly S. U.	M.A. Ag. Ed. (Ed.)	Surin
6	Mr. Banpot Chutima	La. S. U.	B.S. Gen. Ag. (Crop)	Mae Jo
7	Mr. Banyat Boonpal	Kan. S. U.	B.S. Ag. Ed. (Crop)	Chantaburi
8	Dr. Banyat Vimokesan	Ohio S. U.	Ph.D. Soils	Pathumthani
9	Mr. Banpote Theo-pradit	Okla. S. U.	M.S. Poultry Sc.	Bangpra
10	Mr. Boon Glomjoho	C.L.S.U. (Phil.)	B.S. Hort.	Mae Jo
11	Mr. Boonchuay Boontong	Cal Poly S. U.	M.S. Ag. Ed. (An. Hus.)	Nan
12	Mr. Boonchum Piadaeng	Cal Poly S. U.	M.S. Ag. Eng.	Nan (Bangpoon)
13	Mr. Boonlert Jugsurat	U. of Minn.	M.S. Ag. Ed. (Ag. Eng.)	Bangpra
14	Mr. Boontiam Chareonying	Okla. S. U.	M.S. Ag. Ed. (Crop)	Nan

No.	Name	Institution Attended	Degree & Major	Returned to work
15	Mr. Boonvat Chaiboon	Ludhiana, India	M.S. Entom.(Crop)	Nakorn Si Thammarat
16	Mr. Boworn Muangsuwan	C.L.S.U.(Phil.)	B.S. Ag.Ed.(An.Hus.)	Bangpra
17	Mr. Bura Karnjanasirm	Cal Poly S. U.	M.A. Ag.Ed.(Ag.Ext.)	Ladkrabang
18	Mr. Chaleo Meeamnach	Study Tour, Phil.	Cert. (E.T.C.)	Udon Thani (Ret.)
19	Mr. Chalerm Sukplung	Okla. S. U.	M.S. Ag.Ed.(An.Hus.)	Surin
20	Mr. Chalernpol Payattapin	C.L.S.U.(Phil.)	M.S. Ag.(Dairy)	Nakorn Si Thammarat
21	Mr. Chalernsakol Piriyaasakul	Okla. S. U.	M.S. Ag.Ed.(Crop)	Tak
22	Mr. Chamong Kosuwin	Cal Poly S. U.	M.A. Ed.(Adm.)	Chumphorn
23	Mr. Chamong Mahaphol	C.L.S.U.(Phil.)	B.S. Agron.	Srisaket
24	Mr. Chanai Yodpetch	C.L.S.U.(Phil.)	M.S.Hort.	Bangpra
25	Mr. Chanchai Rodanant	Okla. S. U.	M.S. An. Sc.	Chumphorn
26	Mr. Charn Cholpakdi	Study Tour, Phil&Tai	Cert.(S.T.C.)	Kalasin
27	Mr. Charoen Suwarojanawong	Florida S. U.	M.Ag. (Fruit)	M.O.E.
28	Mr. Charoon Sookasem	U. of Philippines	M.S. Ag.Ed.(Crop)	Cholburi
29	Mr. Chart Changmai-ngam	U. of Philippines	M.S. Ag.Ed.(Crop)	Trang
30	Mr. Chatri Bhodhison	C.L.S.U.(Phil.)	B.S. Ag.Ed.(Crop)	Udon Thani

No.	Name	Institution Attended	Degree & Major	Returned to work
31	Mr. Chawengsukdi Tadsri	C.L.S.U.(Phil.)	B.S. Agron.	Mae Jo
32	Mr. Chern Maneerat	Study Tour, Phil&US	B.A. (Law)	M.O.E.
33	Mr. Damrong Wongprom	C.L.S.U.(Phil.)	M.S. Ag.(Agron.)	Kalasin
34	Mr. Dejsak Yanakai	Col.of Panjab, India	M.S. Ag.(Econ.)	Nakorn Si Thammarat
35	Mr. Dhamnoon Boonthong	Cal Poly S. U.	M.S. Ag.Ed.(Crop)	Narativas
36	Dr. Dharm Tesna	Wis. S. U.	Ph.D. Ag.Ed.	Khon Kaen Univ.
37	Mr. Jim Nooyimsai	Mich. S. U.	M.S. Ed.	Nakorn Si Thammarat
38	Mr. Kamhang Yolao	U. of Philippines	M.S. Ag.	Srisaket
39	Mr. Kamjon Boonpang	Fla. State(Study Tour)	Cert. in Hort.	Mae Jo (Ret.)
40	Dr. Kavi Chutikul	U. of Illinois	Ph.D.(An.Hus.)	Khon Kaen Univ.
41	Mr. Khien Niam-iem	U. of N. Philippines	B.S. Industrial	Chantaburi
42	Mr. Khin Sriyapai	Study Tour, Phil.	A.S. in Ag.	Pathumthani
43	Mr. Khom Theungkaew	Araneta U.(Phil.)	M.S.(An.Hus.)	Suratthani
44	Mr. Kittipong Wuthijamrong	U. of C-Davis	M.S. Irrigation	Mae Jo
45	Mr. Komane Maneemarroat	Study Tour, Phil.	Cert. (B.Ed.)	Ayuthaya (Ret.)
46	Mr. Koonchorn Suwanakarm	Study Tour, Phil.	Cert. (E.T.C.)	Surin (Ret.)

No.	Name	Institution Attended	Degree & Major	Returned to work
47	Mr. Kraisri Saengjam	Miss. Study Tour	Cert. (B.S. Ag.)	Bangpra
48	Mr. Kraisri Manit	Bied U. (Phil.)	B.S. Agron.	Udon Thani
49	Mr. Lek Panyom	C.L.S.U. (Phil.)	M.S. An. Hus.	Ladkrabang
50	Mr. Lerson Suwanit	Araneta U. (Phil.)	M.S. An. Hus.	Mae Jo
51	Mr. Luen Subhabhakdi	Study Tour, Phil.	Cert. (E.T.C.)	Nan (Ret.)
52	Mr. Manus Kitnukoon	Okla. S. U.	M.S. Ag.Ed. (An.Hus.)	Kalasin
53	Mr. Maneechot Areesamarn	Holland, Poultry	Poultry Cert.	Ladkrabang
54	Mr. Nakorn Prasetsilp	Study Tour, Phil.	Cert. (B.A. Law)	Pathumthani
55	Mr. Narong Chantranimit	C.L.S.U. (Phil.)	M.S. Agion.	Nan
56	Mr. Nitee Chotigajumroon	C.L.S.U. (Phil.)	M.S. Ag.Ed. (Crop)	Petchburi
57	Mr. Niyom Srinoparat	La. S. U. & U.P.C.A.	M.S., Ph.D. Ag.Ed. (Crop)	M.O.E.
58	Mr. Nopakoon Siriwan	Cal Poly S. U.	M.A. Ag.Ed. (Crop)	Bangpra
59	Mr. Nopadol Kaewjamroon	Israel	Cert. (S.T.C.)	Pathumthani
60	Major Pian Chansuebsri	Cal Poly S. U.	M.A. Ag.Ed. (Adm.)	Nakorn Si Thammarat
61	Mr. Pinit Tancho	Indonesia Weeds	Cert. (B.S. Ed.)	Bangpra
62	Dr. Panit Tinnimit	Mich. S. U.	Ph.D. (Dairy)	Nakorn Si Thammarat

No.	Name	Institution Attended	Degree & Major	Returned to work
63	Mr. Pit Ngao-gao	C.L.S.U. (Phil.)	M.S. An. Hus.	Korat Tech.
64	Mr. Pittha Bunnag	Okla. S. U.	M.S. Ag.Ed.(Crop)	Ladkrabang
65	Mr. Pleung Uraipongse	Fla. S. U.	M.A. Ed.(Ed. Sc.)	Mae Jo (Res.)
66	Mr. Pot Prombutra	Cal Poly S. U.	M.A. Ag.Ed.(Crop)	Bangpra
67	Mr. Prachum Netsuebsri	Deulaschuk Kempen	Cert. in Ag.Eng.	Pathumthani
68	Mr. Prajagsin Homchan	U. of Philippines	M.S. Ag.Ed.(Crop)	Ladkrabang
69	Mr. Prajuab Thong plaew	Cal Poly S. U.	B.S. Ag.Eng.(Irr.)	Bangpra
70	Mr. Pramuan Karnjanawong	Cal Poly S. U.	M.S. Ag.Ed.(An.Hus.)	Tak
71	Mrs. Pranee Sawangwat	Araneta U.(Phil.)	M.S. Ag. Econ.	Phitsanuloke
72	Mr. Pranote Kulprasoot	Cal Poly S. U.	B.S. (Ag. Eng)	Nan
73	Mr. Prasert Yommoraea	C.L.S.U. (Phil.)	B.S. Hort.	Chantaburi
74	Mr. Prasong Vorayos	Texas A & I	M.S. Ag.Ed.(Hort.)	Mae Jo
75	Mr. Prateung Tuancha-em	C.L.S.U.(Phil.)	B.S. Agron.	Kalasin
76	Mr. Prawat Yanachai	Cal Poly S. U.	M.S. Ag.Ed.(Hort.)	Chantaburi
77	Mr. Prayong Kalaton	Kan. S. U.	M.S. Ag.Ed.(Ag.Eng.)	Kalasin
78	Mr. Preecha Gergrajang	Cal Poly S. U.	M.S. Ag.Ed.(Crop)	Nan

No.	Name	Institution Attended	Degree & Major	Returned to work
79	Mrs. Preeya Ketudat	Cal Poly S. U.	M.A. Home Econ.	Mae Jo
80	Miss Ratana Harnjirakarn	Cal Poly S. U.	M.A. Ag.Ed.(Hort.)	Nan
81	Mr. Rath Chollumpee	Utah State	M.S. Poultry	VE/M.O.E.
82	Mr. Rakkiet Kaochumnong	Kan. S. U.	M.S. Poultry Sc.	Surin
83	Mr. Sa-ard Bhodipan	Cal Poly S. U.	M.A. Ag.Ed.(Farm Mgt)	Buriram
84	Mr. Sabai Ko-slanan	Okla. S. U.	M.S. Ag. Eng.	Nakorn Si Thammarat
85	Mr. Samarn Srisawad	Araneta U., Phil.	B.S. Ag.Ed.(Crop)	Korat
86	Mr. Samran Meesorn-iem	C.L.S.U. & Cal Poly	M.S. Ag.Ed.(Irri.)	Pathumthani
87	Mr. Samran Setasuban	Netherlands	Cert.Poultry(D.V.M.)	Bangpra
88	Mr. Samrit Wongpanya	Iowa S. U.	M.S. Swine	Chantaburi
89	Mr. Sang Suriya	Study Tour, Phil.	Cert.(E.T.C.)	Prachinburi
90	Mr. Sa-ngad Sukhasem	Kan. S. U.	M.S. Ed. Ag. (Ext.)	Korat
91	Mr. Sa-nguan Kaewmoragot	Kan. S. U.	M.S. Ag.Ed.(An.Hus.)	Cholburi
92	Mr. Sataporn Bunyaman	Araneta U., Phil.	M.S. Ag. Ed.(Crop)	Ladkrabang
93	Mr. Sermphol Buangsoon	Okla. S. U.	M.S. Ag.Eng.	Surin
94	Mr. Shom Songtipya	C.L.S.U., (Phil.)	B.S. Ag.Ed.(Crop)	Ladkrabang

No.	Name	Institution Attended	Degree & Major	Returned to work
95	Mr. Sin Panpinich	Study Tour, Japan	Cert. B.S.(Ag.Ed.)	Pathumthani
96	Mr. Sinuan Bangliang	Study Tour, Phil.	Cert.(E.T.C.)	Resigned
97	Mr. Somchai Feungkorn	Study Tour, Japan	Cert. (B.S. Ag.)	Cholburi
98	Mr. Somkid Nilsaeng	U. of E. Phil.	B.S. (Eng.)	Nakorn Si Thammarat
99	Mr. Sommart Phochareon	Denlaschule	Cert. in Farm Mech.	Pathumthani
100	Mr. Samorn Tripong	Okla. S. U.	M.S. Ag.Ed.(Crop)	Surin(Deceased)
101	Mr. Sompetchara Wanasiri	Study Tour, Phil.	Cert. (E.T.C.)	Kalasin
102	Mr. Sootserm Pansuwan	Study Tour, Japan	Cert. (AS in Mech.)	Kalasin
103	Mr. Sorasit Saengprasert	Georgia S. U.	B.Ed.	Ayuthaya
104	Mr. Sripol Vitayasukdi	Study Tour, Phil.	Cert. (B.S.)	Nan
105	Mr. Sunit Mangkang	Cal Poly S. U.	M.S. in Ag. Ed.(Crop)	Nakorn Si Thammarat
106	Mr. Sumparn Asakit	Okla. S. U.	M.S. Hort.	Ladkrabang
107	Mr. Sunan Tongdee	Cal Poly S. U.	M.A. Ag. Ed.(Ag.Eng.)	Bangpra
108	Mr. Sunhajit Thapanadilok	Study Tour, Japan	Cert. (B.S. Ag.)	Ratchaburi
109	Mr. Sunit Pannaborn	Okla. S. U.	M.S. Econ.	Nakorn Si Thammarat
110	Mr. Supote Totrakoom	Okla. S. U.	M.S. Soil Chem.	Phitsanuloke

No.	Name	Institution Attended	Degree & Major	Returned to work
111	Mr. Suraphol Herabat	Cal Poly S. U.	B.S. Ag.Eng.	Bangpra
112	Dr. Suraphol Sanguansri	Okla. S. U.&Cal Poly	M.S.. Ph.D. Ag.Ed.	Bangpra
113	Mr. Surat Koonphol	Okla. S. U.	M.S. Ag.Ed.(Soil)	Bangpra (Res.)
114	Mr. Sushai Siriwudti	Okla. S. U.	M.S. in Hort.	Chantaburi
115	Mr. Sutas Hongprapas	Okla. S. U.	M.S. Ag.Ed.(An.Hus.)	Nakorn Si Thammarat
116	Mr. Sutep Puratenon	Netherlands	Dip. Tropical Ag.	Pathumthani
117	Mr. Sutin Huayrerai	Okla. S. U.	M.S. Ag.Ed.(Ag.Eng.)	Mae Jo
118	Mr. Suvit Pongwithayanugrit	Okla. S. U.	M.S. Ag. Econ.	Surin
119	Mr. Suwachara Saengprasert	Study Tour, Phil.	Cert. (S.T.C.)	Ayuthaya(Ret.)
120	Mr. Tamnoon Rittimani	Okla. S. U.	M.S. Ag.Ed.(Crop)	Phitsanuloke
121	Mr. Tanit Malisuwan	Cal Poly S. U.	M.S. Agron.	Mae Jo
122	Mr. Tawatchai Sootjavit	Okla. S. U.	M.S. An.Hus..	Nan
123	Mr. Tawee Wethatham	Study Tour, Phil.	Cert. (B.S.)	Mae Jo
124	Mr. Thamnoon Singkaselit	Study Tour,Phil&Tai	Cert. (S.T.C.)	Surin (Deceased)
125	Mr. Thamnong Suwapanich	C.L.S.U. (Phil.)	M.S. Agron.	Srisaket
126	Mr. Tawil Bua-ngam	Cal Poly S. U.	B.A. Ag.Ed.(Crop)	Bangpra

No.	Name	Institution Attended	Degree & Major	Returned to work
127	Mr. Thera Kantasa	Study Tour, Phil.	Cert. (B.A. Law)	M.O.E.
128	Mr. Thongchai Suwatmekin	C.L.S.U. (Phil.)	M.S. Ag. Ed. (Ed.)	M.O.E.
129	Mr. Trakansuck Sarasophon	La. S. U.	M.S. Ag. Ed. (Soil)	Ayuthaya
130	Mr. Tripol Chawchit	Tenn. S. U.	M.S. Dairy	Phitsanuloke
131	Mr. Udom Chandrasiri	Mich. S. U.	M.A. Counseling	Bangpra
132	Mr. Udorn Sawangwat	Araneta U., Phil.	M.S. Agron.	Phitsanuloke
133	Mrs. Unchaliga Kanchanawong	Cal Poly S. U.	M.S. Ag.Ed. (Hort.)	Tak
134	Mr. Vinai Kratuengan	Cal Poly S. U.	M.S. Ag. Eng.	Pathumthani
135	Mr. Vinich Chotsawang	Cornell U.	Study for Ph.D.	Nan
136	Mr. Vipata Boonsri Wangsai	Okla. S. U.	M.S. Ag.Ed. (Econ.)	Mae Jo
137	Mr. Vithan Santi	Study Tour, Phil.	Cert. (E.T.C.)	Nakorn Si Thammarat (Ret.)
138	Mr. Wallop Chutiwat	Araneta U., Phil.	M.S. An. Hus.	Lampang
139	Mr. Weerapan Chotiwanith	Okla. S. U.	M.S. Soil Chem.	Phitsanuloke
140	Mr. Watt Pahulrat	Study Tour, Phil.	Cert. (E.T.C.)	Korat (Res.)
141	Mr. Wibul Panyawannasiri	Tokyo	Cert. (B.S.)	Chumporn
142	Mr. Wijit Somsuan	Okla. S. U.	B.S. Ag. Ed. (Ag. Eng.)	Bangpra (Res.)

No.	Name	Institution Attended	Degree & Major	Returned to work
143	Mr. Winai Panusan	Cal Poly S U	M.S. Hort.	Nan
144	Mr. Witaya Boachalern	Okla. S U.	M.S. Soil	Ayuthaya
145	Mr. Withaya Kanthawichai	Mich. S. U.	M.S. Poultry	Surin
146	Mr. Yanyong Sidhichai	Kan. S. U.	M.S. Ag. Econ.	Mae Jo

## B. UNIVERSITY SUPPORT

The Agency for International Development recognized the value of campus back-stopping when they negotiated their first contract many years ago. It has been an underlying justification for "university contracts" through the years and it is generally agreed that to be successful a contract must enjoy the active support of its "campus", especially in the technical areas. Logistic support alone is not sufficient.

The California Polytechnic State University, School of Agriculture, has direct authority over the technical phases of the Thailand Contract, and supervision of the team members involved. As a result the departments of the "school" are in direct contact with the corresponding team members in the field.

The campus has been involved with many requests for major assistance. The Agriculture Education Department has been asked for material, research time in the library and follow up time for information on equipment, seeds and plant material. The office of International Education coordinated this service and provided the financial assistance as needed. The campus was provided a one-half position that was staffed in the Agriculture Education Department for five years of the contract period for this service. The response for assistance in every instance was prompt and productive.

From Thailand the requests for assistance came from Team members and later in the program very often came directly from Cal Poly Alumni who had taken their graduate work at the campus. This relationship,

although informal in nature, is the most important one because it is likely to continue after the close of the project.

### C. PEACE CORPS

Under the direction of U.S.O.M. the Cal Poly Team has been requested to cooperate with the Peace Corps program in Thailand in the vocational agricultural schools. The team members have assumed an advisory role, and have assisted the Peace Corps in supporting the individual volunteers and giving them such logistic support as could be justified under the provisions of the Cal Poly contract. It was understood that no administrative authority was assumed for any part of the Peace Corps program; however, the team assisted the Peace Corps Volunteers in the same manner they would any Thai teachers and in many ways gave them backstopping support that could not be provided by the Peace Corps headquarters.

The team has worked with at least fifteen Peace Corps Volunteers assigned in vocational agricultural schools of this country. Most of the assistance has been to supply educational materials for instruction in crops and farm mechanics. Most of the farm mechanics help has been assistance in the operation and maintenance of farm machinery,

The joint efforts have made for very productive results and the volunteers have been able to multiply and extend the service that our contract hoped to promote within each school. Because of their U.S. training they were in a position to demonstrate with confidence many of the basic agriculture education principles we wanted to introduce but lacked local teaching personnel to carry forward in the actual teaching

technique and procedure. This has been a rewarding, productive relationship that has been helpful to the schools and appreciated by the Thai teachers.

#### D. SHORT TERM SPECIALISTS

Only about one third of the number of short term specialists authorized for the project were used. This was unfortunate, especially during the last two years when the team strength was reduced to three members one year and two team members the other. Excellent use was made of the few short term specialists that were recruited to assist with the Thailand Project. Summarized as follows:-

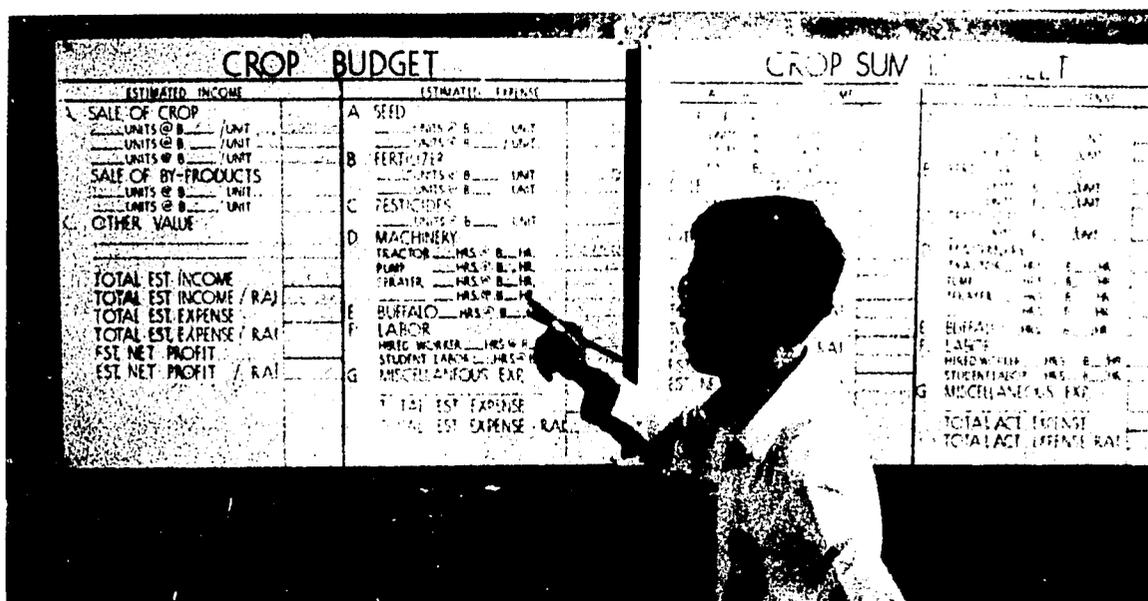
1. Workshop Specialist -- Two months (1968), Mr. Merson, former Department Head Agriculture Engineering at the campus assisted in setting up and conducting the first workshop of the project. He emphasized the Tractor Maintenance section, and in addition, assisted with the equipment specifications on the L.I.V.E. equipment.

2. Dr. J. Barron Wiley, Audio Visual Specialists, two months (1968), submitted a plan for an audio visual center to serve vocational education that was later established in Bangkok at T.A.W.E.S. In addition he conducted several workshops in the operation and use of audio visual equipment.

3. Mr. H.H. Burlingham, Former Head of the Agricultural Education Department of the campus, two months (1968), helped to initiate a pilot program of agriculture education at Chiangmai University. The program was designed specifically to accommodate the graduates from the technical

colleges in vocational agriculture. The program was successfully conducted for two years, then had to be postponed until some of the university's qualified staff returned from overseas training. Since the program was initiated at Chiangmai, Kasetsart University has initiated a very successful program in agriculture education. During the past five years they have accepted 187 graduates from these Technical Colleges. Many of these teachers had several years teaching experience prior to their admission. Recently, however, students have been accepted directly as graduates of the Technical Colleges.

4. Irrigation Specialist, John Merriam - 11 months (1969-1970). Developed detailed irrigation plans for each of the Project Schools. The soil conditions, rainfall, climate and instructional needs of each school was taken into consideration in the formulation of the report. A farm plan showing short-term cropping plans, as well as long range expectations for fruit trees, was defined. The Department of Vocational Education has on file a set of excellent plans for installation when funds will permit.



#### E. DIRECTOR'S TRIP TO CALIFORNIA

One of the recommendations of the inspection team from the campus that visited this project in Thailand in January 1972, was that Dr. Suraphol, Director at Bangpra Agricultural College, and colleague of the Team, be invited to participate in the June 1972 California Agricultural Teachers Conference at the California Polytechnic State University Campus.

For sometime the University has conducted an honors award program where deserving teachers of the faculty were given travel expense to a location where they had been able to make some significant contribution in the International Education Program. In the case of Dr. Suraphol, someone from a location where the International Education Program of the University was working was invited to come to the home campus.

Dr. Suraphol spoke to the California Agricultural Teachers Association meeting on the campus of the University. He had an opportunity to observe to summer conference program of this agriculture education organization. He met with Thai students attending the University, he conferred with former members of the Team in Thailand, and talked with several short term specialists who had worked on this project.

There are many benefits to be derived from such an exchange as this. Dr. Suraphol, through his leadership position in his country, can apply information and observations from the CATA Convention that directly supports objectives of the work program pursued by the Cal Poly Team in Thailand.

F. THE UNIVERSITY RECOGNIZES

In any program of this size and scope there always exists people who contribute either directly or indirectly to the success of such a program. Some are major contributions that have required a great deal of effort or money. Others are contributions that, however, minor, have had significant effect on the morale and enjoyment of the Cal Poly Team members during their tour in Thailand.

The common factor in each of these contributions mentioned is that they do not conveniently fit into the framework of this Terminal Evaluation or Final Report, regardless of their importance. For this reason the California Polytechnic State University wishes to recognize contributions made with minimum reference to priority and/or identification of names.

1. One of the strengths of this program was provided by the fact that the Director General, and Deputy Director General, of Vocational Education participated in the selection of each team member coming to Thailand. With only one exception, they personally interviewed and conferred in the selection process of each team member. This was done with a group of approximately thirty persons; several who were invited to apply. It is interesting to note that those persons selected were individuals requested to apply - none were selected that had not been invited to make application.

2. Each project has its tragedies and crises. Some have more than others. In the history of this project there was involved: One death,

three major surgeries, one heart seizure, a laminectomy and one major internal operation. This probably is much more than the average for such a project. But it should be mentioned that, depending on the seriousness and the nature of the crises, the concern and care extended by the Thai friends and colleagues was far beyond what one would expect in a strange land. The loving thoughtful care after a death resulted in one family coming back to finish their "job". After major surgery, one person stated, "I've had more visitors here and more flowers than I ever would have had in California".

The bright side of this recognition is the fact that the "team" responded by having two blessed events, and in addition by adopting two Thai babies to become members of their farang families in California.

3. The participation of the team wives was a major contribution to the success of the project. One Thai teacher made the comment "Why is it that the men do not teach but all of their wives do?" Each of the wives, in relation to their ability and availability, participated in the instructional and co-curricular program at the college. This participation ranged from assuming a full instructional load in English classes to giving individual English lessons to instructors preparing to go overseas. It varied from assisting in cataloging in the library to conducting a weekly farang - Thai kindergarten class. The results of this association made the team feel they were a part of the college, rather than guests using the school's facilities. This also resulted in many of the wives earning the customary student recognition of the short bow of respect - whereas the men did not usually rate such response.

4. The support and interest of USOM personnel in this project was one of genuine concern and support that was extended by all three of the Mission directors who personally visited the project. Thai office personnel went out of their way to assist with almost any request. This interest included logistic support for six years without one "hitch". It was extended to assistance with the trust fund accounting without the usual memos of recrimination so common in government work. Cal Poly is proud of the relations that have been maintained for six years with AID personnel in the Mission.

5. The hosting of official guests sent to Bangpra College by M.O.E., U.S.O.M. and the University provided many pleasant opportunities for the total Team to join with the College in entertaining and hosting. The wives were ready on short notice to host any group. They provided lunches for small groups, or cocktails and dinner for groups of thirty. Personnel, facilities and personal financials were always available for the good of the project. Records show that 364 functions were hosted where food was provided, entertaining a total number of more than 2500 people during the six-year period.

6. The relationship that has been established between the farang team members and the Thai colleagues has been far more personal than that usually exists between typical professional colleagues. It has been one that grows when people work together each day; travel together all over Thailand; and live next door and the children play together and yes, occasionally fight. This resulted in the building of a brotherhood that makes lifetime friendships.

7. Funds have been provided for the sponsorship of two scholarships for teachers to work toward their Master degrees. One scholarship is at Cal Poly, and the other at the University of the Philippines. These were provided as an expression of confidence in the vocational agriculture program of Thailand.

These are items that could be considered as "above and beyond the call of duty" that were so generously given by the Thai people, the USOM personnel, and the Cal Poly Team members working cooperatively for a common goal: The Improvement of Vocational Agriculture in Thailand.



## SUMMARY OF RECOMMENDATIONS

Following is a summary of the recommendations being made in this report.

1. Curriculum It is recommended that the non-project schools be authorized to use the new curriculum as planned. To have two systems, one of which is inferior, will result in the feeling that some schools, teachers and students are also inferior.

2. Future Farmers of Thailand This organization will need national coordination and a person to act as Executive Secretary should be designated. The Technical Colleges should play the role of regional centers for F.F.T. activities. Bangpra, in addition, should provide a regional function as well as provide national leadership.

Association on a formal and an informal basis should be continued with the California Future Farmers as well as with the National F.F.A.

3. Supervisory Unit An effort to start a coordinating body to provide the service function for the Vocational Agriculture Schools in Thailand should be started on an introductory basis at Bangpra. The personnel should receive their administrative authority from M.O.E. but should be headquartered at Bangpra. Later the staff should be expanded to serve on a regional basis at the other Technical Colleges.

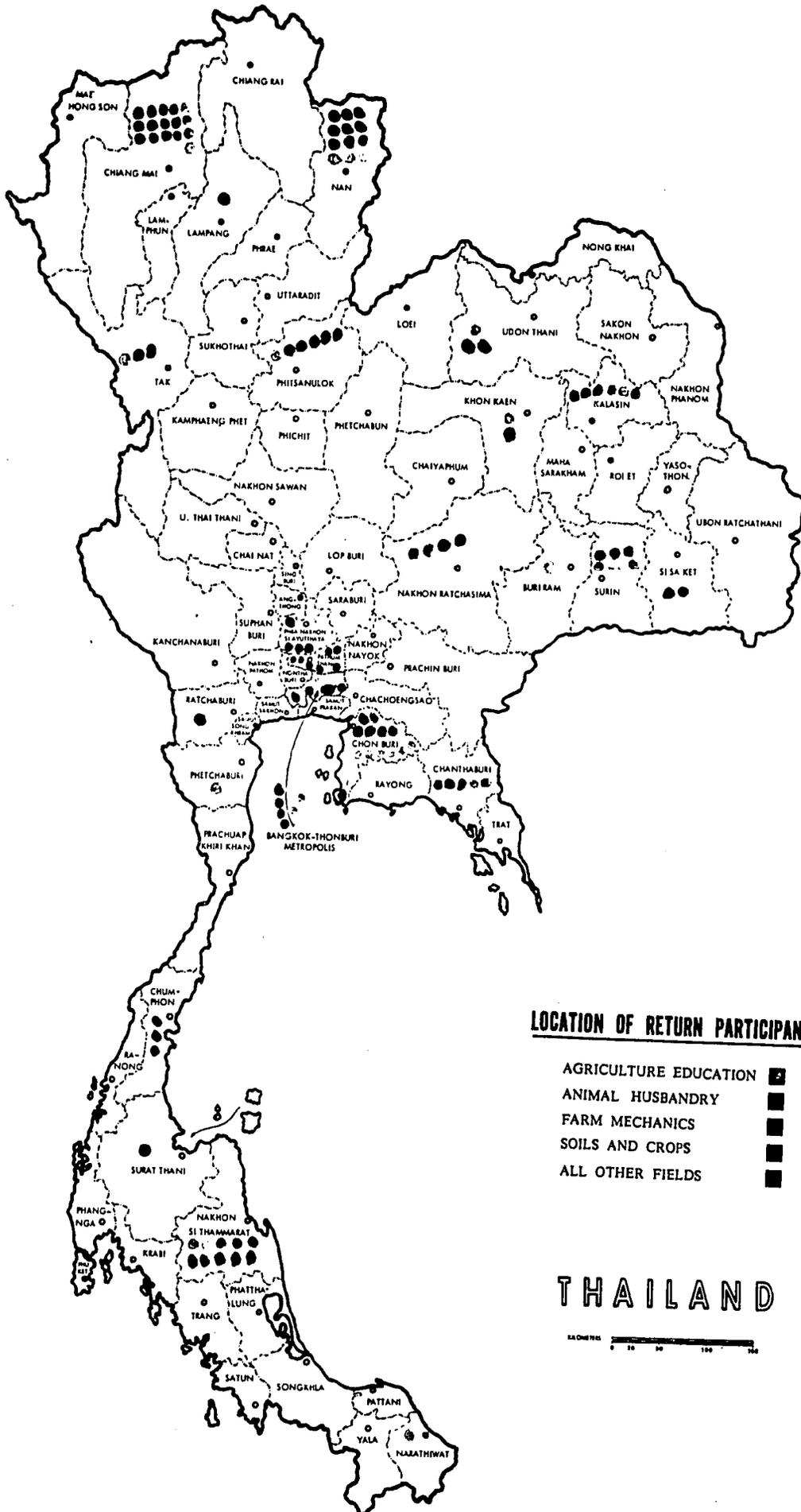
4. Relations with Cal Poly The continuing relation with the California Polytechnic State University is desirable from the standpoint of the University as well as vocational agriculture in Thailand. The relationships desired should be informal as well as formal. It may, in

some cases, involve a contract sponsored either by the U.S.A.I.D. or foundations. Important relations can be arranged on an informal basis, involving the exchange of teachers as well as students with only a minimum of official action from either government. Other possible involvement may include: scholarships to Cal Poly or other university; F.F.A. and F.F.T. promotion and exchanges; "sabbatical" teachers from Cal Poly working in Thailand; Thai teachers working at Cal Poly; research on a long range basis conducted on plant adaptability for hill tribe use; private industry (agri-business) participation in F.F.T. with financial assistance; foundation support for long range projects involving a continuing mutually beneficial relation between the University and Vocational Agriculture in Thailand.

5. Land Development and Irrigation The need for instruction in irrigation methods in the vocational agriculture schools should be promoted. The land development project should be continued as planned, and consideration for developing portions of the irrigation plans that were made for the ten project schools should be given priority consideration.

6. Additional Schools It is proposed that Thailand should extend its offerings in vocational agriculture in many provinces by adding the curriculum to existing schools. This method could expand the program without the necessity of providing new land and duplicating administration and instructional facilities. A pilot program is recommended.

7. Equipment Use Survey Much L.I.V.E. equipment in some schools is not being used and an equipment use survey would assist in identifying



those items which are not needed in some schools. It is recommended that these items then be made available to other schools.

8. Farm Planning Considerable progress has been made in planning cropping programs to meet the instructional needs of the schools as well as providing for the economic considerations involved. Rainfall, irrigation, market availability, geographic location, cafeteria needs are all items that must be considered and considerable work needs to be done. The Thai teachers who took their major work in Farm Management and Agriculture Economics should conduct workshops for selected teachers in each school.

9. Manpower Needs The need for graduates from vocational agriculture to serve the rural community is far greater than the number of positions made available for them each year by the government. Placement of graduates in government and agri-business positions is excellent at the present time but there is some concern that employment opportunities may not exist for them in the future. A manpower study specifically confined to the needs for vocational agriculture graduates on the secondary level as well as the technical college level should be made.

10. Workshops Numerous workshops have been conducted each year during the LIVE Project and the results have been impressive. The most important one this year was regional in make-up and involved all the teachers in the region rather than a select few who seem to be repeaters each year. It is desirable that provisions for workshops be budgeted well in advance and that planning for them be done at least one year in advance,

11. Land Use Most of the schools have more land than is needed for an instructional program. In most cases they endeavor to farm the excess land with somewhat limited success. It is felt that it would be advisable to make the excess land available for agriculture use in the community with the school retaining control and providing minimum instruction for its beneficial use.

12. Instructional Material Many thousand items of simple usable instructional material have been developed and distributed to the schools during the past six years. It is important that this service be continued and the logical headquarters for such service is Bangpra Agriculture College. Budget and staff should be provided.

13. Professional Organization Considerable effort has been spent to organize a national professional association that can provide a unified service for vocational agriculture. It is important that such an organization be created so Thailand can be represented at meetings with other countries in Asia at professional meetings where common problems in agriculture education are discussed and resolved. Thailand needs to be represented.

14. Community Service The vocational agriculture schools in Thailand should continue to find ways of serving the community in which they are located. Only 4% of high school aged youth are enrolled in school; the vocational agriculture program needs a broader base of operation. As an example the vocational agriculture schools should be the community center for social meetings, recreational gatherings, free educational services for all ages and intrusts; the "meeting hall" for

all to help meet this needs for information, for entertainment, and for socializing. These services should be explored and expanded.

15. Participant Training Continued overseas training for selected teachers should be given priority. As vocational agriculture develops in technical ability to supply the manpower need for well qualified graduates the need for faculty with new abilities will occur. Specifically, it can now be predicted that many teachers should be trained in agriculture business and a survey of the needs should be undertaken. This survey should be followed with a curriculum workshop charged with the responsibility to make proposals for changes to accommodate the new needs of the agricultural businesses.

16. Farm Mechanics The Farm Mechanics program in the schools is not keeping pace with the farm mechanization of the country. As a group, the farm mechanics teachers are the least qualified of all the vocational agriculture teachers. The farm shops do not have enough power, and they are not properly wired. Additional training is needed and more funds should be provided for the care and maintenance of farm machinery. For this improvement program it is recommended that technical assistance and leadership be secured from existing incountry capabilities; specifically the Northwest Technical Institute The Thai-Australia Trade School at Cholburi, The Thai-German Agricultural Engineering Training Center at Pathumthani, and the Maintenance and Supply Department (M.S.D.). Working jointly with the vocational agricultural schools they have the ability to meet the instructional needs of these schools.

17. Facilities at Bangpra The schools of vocational agriculture should have a home. Bangpra should serve as the professional hub for the teachers of the system and in addition should be the center where most instructional materials are developed and continued. Consideration should be given to providing the facilities and staff for this function. Meeting rooms for workshops; audio visual facilities and funds for materials need to be provided.

SUPPORTIVE MATERIALS

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A. BANGPRA ADMINISTRATIVE STAFF

Dr. Suraphol	Sanguansri	Director
Mr. Udom	Chandrasiri	Assistant Director
Mr. Pote	Prombutra	Head, Academic Affairs
Mr. Songworn	Laprabang	Head, Student Affairs
Mr. Nopakoon	Siriwan	Head, Education Division
Mr. Sunan	Tongdee	Head, Agricultural Mechanics
Mr. Chanai	Yodpetch	Head, Crops Department
Mr. Samran	Satasuban	Head, Animal Husbandry

B. COLLEAGUES OF CAL POLY TEAM

Education/Administration  
Dr. Suraphol Sanguansri

Crops  
Mr. Nopakoon Siriwan

Agricultural Mechanics  
Mr. Sunan Tongdee

Coordinator  
Mr. Boworn Muangsuwan

OTHER PROJECT SPECIALISTS

C. FORMER TEAM MEMBERS:

Mr. Gordon Woods, Animal Husbandry, 1967-1969  
Mr. Richard Mosbarger, Agriculture Mechanics, 1967-1969  
Mr. Leo Scheuber, Farm Management, 1967-1969  
Mr. Carl Murry, Crops, 1967-1970  
Mr. Hal Carlton, Animal Husbandry, 1969-1971  
Mr. Raymond Rhodes, Farm Management, 1969-1971  
Mr. Donald Rodrigues, Crops, 1970-1972

D. FORMER COLLEAGUES:

Dr. Kavi Chutikul, Director of Bangpra, 1963-1967  
Mr. Sanguan Kaewmorakot, Head of Academic Affairs, 1960-1969  
Mr. Bunpote Teo-pradit, Head, Animal Husbandry, 1968-1970  
Mr. Nitee Chotikachumroon, Head, Crops, 1967-1971  
Mr. Surat Koonphol, Director of Bangpra, 1967-1971  
Mr. Thongchai Suwatekin, Head, Education Division, 1968-1973

E. CONSULTANTS FROM CAL POLY:

Mr. James Merson, Workshop Specialist  
Arrived March 11, 1968 for a two month tour

Dr. J. Barron Wiley, Audio Visual Specialist  
Arrived June 23, 1968 for a two month tour

Mr. H.H. Burlingham, Agricultural Education Specialist  
Arrived July 9, 1968 for a two month tour

Mr. John L. Merriam, Irrigation Specialist  
Arrived September 17, 1969 - August 15, 1970

Mr. Larry Rathbun, Project Specialist & Participant Training Advisor  
Arrived June 15-26, 1971

F. CAL POLY INSPECTION TEAMS:

Mr. Gene Brendling, Foundation Manager, California Polytechnic State University, San Luis Obispo, February 9 to 19, 1968

Mr. Donald Wilson, Chief, Bureau of Agriculture Education, Sacramento, February 9 to 19, 1968

\*\*\*\*\*

Dr. Robert Kennedy, President, California Polytechnic State University,  
San Luis Obispo, January 4 to 5, 1969

Mr. Howard West, Director, International Education, California Polytechnic  
State University, January 4 to 5, 1969

\*\*\*\*\*

Mr. J. Cordner Gibson, Dean, School of Agriculture, California  
Polytechnic State University, January 4 to 15, 1970

\*\*\*\*\*

Dr. Dale Andrews, Vice President, California Polytechnic State University,  
San Luis Obispo, December 13 to 22, 1970

Dr. Douglas Pierce, Director, International Education, California  
Polytechnic State University, San Luis Obispo, December 13 to 22,  
1970.

\*\*\*\*\*

Dr. Dale Andrews, Vice President, California Polytechnic State University,  
San Luis Obispo, January 8 to 16, 1972

Mr. Howard West, Associate Dean, Resources and Planning, California  
Polytechnic State University, San Luis Obispo, January 8 to 16, 1972

\*\*\*\*\*

Dr. Robert E. Kennedy, President, California Polytechnic State  
University, San Luis Obispo, March 25, 1973 - March 31, 1973

Mr. Robert E. McCorkle, Director, International Education, California  
Polytechnic State University, San Luis Obispo, March 23, 1973 to  
April 4, 1973

\*\*\*\*\*

#### G. PREVIOUS PROGRESS REPORTS

"PROGRAM OF WORK", October 1967

"REVIEW OF ACTIVITIES", January 1968

"LAND DEVELOPMENT, WORKSHOPS, AND PRIVATE INDUSTRY PROGRAMS", June 1968

"ANNUAL REPORT", July 1968

"SCHOOL FARM PLANNING", October 1968  
"TEAM REPLACEMENTS", January 1969  
"SUMMER WORKSHOPS", April 1969  
"ANNUAL REPORT", July 1969  
"COUNTERPARTS", October 1969  
"VOCATIONAL AGRICULTURE CURRICULUM", January 1970  
"TEACHER TRAINING PROGRAM", April 1970  
"ANNUAL REPORT", July 1970  
"ANIMAL HUSBANDRY", October 1970  
"ANNUAL REPORT", July 1971  
"PROGRESS REPORT", January 1972  
"ANNUAL REPORT", July 1972  
"PROGRESS REPORT", January 1973

#### SPECIAL REPORTS

"FARM TRACTORS WORKSHOP", 1968; Mr. Richard Mosbarger  
"AGRICULTURAL WORKSHOPS", 1968; Mr. James F. Merson  
"EXPERIMENTAL PLAN FOR AGRICULTURE EDUCATION", 1968; Mr. J. Barron Wiley  
"INSTRUCTIONAL MATERIALS PROGRAM", 1968; Mr. J. Barron Wiley  
"INSPECTION REPORT", 1968; Mr. Gene Brendlin and Mr. Donald Wilson  
"INSPECTION REPORT", 1969; President Robert Kennedy and Mr. Howard West  
"END OF TOUR REPORT", 1969; Mr. Carl Murry, Crops Specialist  
"INSPECTION REPORT", 1970; Mr. J. Cordner Gibson  
"IRRIGATION PLANS", 1970; Mr. John L. Merriam and Mr. Samran Meesorn-Iem  
"INSPECTION REPORT", 1971; Dr. Dale Andrews and Dr. Douglas Pierce

"SCHEDULING FARM EQUIPMENT", 1971; Mr. Donald McCann

"END OF TOUR REPORT", 1971; Mr. Raymond Rhodes

"AGRICULTURAL MECHANICS WORKSHOP", 1971; Mr. George McNeely and Mr. Mr. Donald Rodrigues

"INSPECTION REPORT", 1972; Mr. Dale Andrews and Mr. Howard West

"SUCCESSFUL PUBLIC SPEAKING", 1972; Mr. George McNeely and Mr. Boworn Muangsuwan

"STUDENT ORGANIZATION MANUAL", 1972; Mr. George McNeely and Mr. Boworn Muangsuwan

"LEADERSHIP TRAINING FOR FUTURE FARMER", 1972; Mr. George McNeely and Mr. Boworn Muangsuwan

"HOW TO USE PARLIMENTARY PROCEDURE", 1972; Mr. George McNeely and Mr. Boworn Muangsuwan

"WORK PERIOD", 1972; Mr. Warren Smith

"TWO-YEAR TECHNICAL COLLEGE ADMINISTRATIVE STAFF AND ORGANIZATIONAL PLAN", 1972; Mr. Warren Smith and Mr. George McNeely

"TURFGRASS IDENTIFICATION - A TEACHING UNIT", 1972; Mr. Nopakoon Siriwan, Mr. Donald Rodrigues and Mr. George McNeely

"LABORATORY MANUAL FOR WEED CONTROL", 1972; Mr. Warren Smith and Mr. George McNeely

"BEAT THE DRUMS", (30 Issues) 1972-1973; Mr. Warren Smith and Mr. George McNeely

"ESTABLISHING SPACE AND UTILIZATION STANDARDS FOR ORGANIZED CLASS INSTRUCTION", 1973; Mr. George McNeely

"IRRIGATION TEXT", 1973; Mr. Warren Smith, Mr. Boworn Muangsuwan and Mr. Kittipong Wuttijamnong

"FFT CHAPTER OFFICER HANDBOOK", 1973; Mr. George McNeely and Mr. Boworn Muangsuwan

"UNDERSTANDING FFT - A WORKBOOK", 1973; Mr. George McNeely and Mr. Boworn Muangsuwan

"INSPECTION REPORT", 1973; Dr. Robert Kennedy

I. INFORMATION ON 13 VOCATIONAL AGRICULTURAL SCHOOLS

1. Name of the school - Pranakorn Sri Ayutthaya Agricultural College
2. Changwat Ayutthaya, Amphur Ayutthaya, Tambol Pratoochai
3. Accessibility by car, train or boat all year round
4. Distance from Provincial seat 1 Km., about 2 Kms. from district office, and 75 Kms. from Bangkok by the highway
5. Nearby agricultural schools or colleges - Patumthani Agricultural College
6. Total area of the school 438-5 rai
7. Cultivated area-200 rai
8. Soil type - clay soil
9. Suitability for farming - Rice
10. Problem of soils or planting crops, and how to solve the problem - Topography problem
11. Water resource for farming - Yes
12. Soil survey and analysis - None
13. Kind of water resource - River, pond, water is available all year round
14. Utilization of water resource for farming by using irrigation system - Yes
15. Method of irrigation system - Pumping
16. In the case of no water resource can the college construct one - NA
17. Main occupation of the people in the region - Fishery, animal raising and rice plantation
18. Main crops grown in the region - rice

19. Other agricultural agencies in the area - Huntra Rice Experiment  
Station 5 Kms. away. Provincial Agricultural Agency and Agency  
for Pest Control 2 Kms. away  
Bangkhen Agricultural Experiment Station 60 Kms. away

\* Remark: Pranakorn Sri Ayutthaya Agricultural College deals in  
M.S. 4,5,6 and Certificate of technical vocational agriculture

1. Name of the school - Burirum Agricultural School
2. Changwat Burirum, Amphur Mueang, Tambol Isan
3. Accessibility - by car and by train - all year round 400 Kms. from Bangkok (by car) and 376 Kms. by train
4. Distance from provincial seat and District office 0.8 Km.
5. Nearby Agricultural schools or colleges - Surin Agricultural College
6. Total area of the school - 350 rai
7. Cultivated area - 205 rai
8. Soil type - Clay soil
9. Suitability for farming - rice, vegetables, orchard and ornamental horticulture plant
10. Problem of soils or planting crops and how to solve the problem - problem on soil quality - Solving by using barnyard manure, green manure and lime
11. Soil survey and analysis - None
12. Water resource for farming - Yes
13. Kind of water resource - Creak (huey Chorake'), water is available all year round.
14. Utilization of water resource for farming by using irrigation system - Yes
15. Method of irrigation system -- pumping water from the ponds (32 ponds)
16. In the case of no water resource can the school construct one NA
17. Main occupations of the people in the region -- production of rice, field crops, vegetables and raising animals

18. Main crops grown in the region --rice
19. Other agricultural agencies in the area: Burirum Plant Propagation  
Station 5 Kms. away

\* Remark: Burirum Agricultural School deals in M.S. 4,5,6 level and  
Elementary Teacher Training Certificate of Vocational  
Agriculture 2 year courses

1. Name of the school - Chaiyapoom Ag. School
2. Changwat Chaiyapoom, Amphur Mueang, Tambol Ponetong
3. Accessibility - by car or by train
4. Distance from Provincial seat and district office - about 1.5 Kms.  
(about 350 Kms. from Bangkok)
5. Nearby agricultural schools or colleges
6. Cultivated area - 172 rai
7. Total area of the school - 172 rai
8. Soil type - Clay soil
9. Suitability for farming - Orchard, rice and vegetables
10. Problem of soils or planting crops (if any) and how to solve the  
problem - soil fertility
11. Soil survey and analysis - None
12. Water resource for farming - Yes
13. Kind of water resource - Lam-Pa-tao stream from Dead-Tone Waterfall,  
and is available all year round
14. Utilization of water resource for farming by using irrigation  
system - Yes
15. Method of irrigation system - constructing weirs; and get water  
from distributing canal
16. In the case of no water resource can the school construct one - Yes
17. Main occupations of the people in the region - production of rice  
and vegetables
18. Main crops grown in the region - vegetables, rice, kenaf and  
cassava

19. Other agricultural agencies in the area: Station of Plant Propagation  
about 6 Kms. from the school

\* Remark: Chaiyap. Ag. School deals in M.S. 4,5,6 level and Elementary  
Teacher Training Certificate for Vocational Ag. 3 year courses

1. Name of the school - Chonburi Agricultural School
2. Changwat Chonburi, Amphur Sattahip, Tambol Nachomtien
3. Accessibility - by car - all year round
4. Distance from Provincial seat 64 Kms. and from district office 17 Kms. and 159 Kms. from Bangkok by the highway
5. Nearby agricultural school or college - Bangpra Agricultural College
6. Total area of the school - 330 rai
7. Cultivated area - 320 rai
8. Soil type - Sandy soil
9. Suitability for farming - field crops and orchard
10. Problem of soils or planting crops, and how to solve the problem - Problem on soil quality
11. Soil Survey and analysis - None
12. Water resource for farming - Yes
13. Kind of water resource - Creek, water is available all year round
14. Utilization of water resource for farming by using irrigation system - Yes
15. Method of irrigation system - Pumping water from the creek to the distributing canal
16. In the case of no water resource can the school construct one NA
17. Main occupations of the people in the region - farming
18. Main crops grown in the region - field crops (cassava, sugar cane, rice)

19. Other agricultural agencies in the area:

Hueypong Agricultural Experiment Station 50 Kms. away

Soil and water conservation Station 60 Kms. away

Sea Fishery Station 80 Kms. away

\* Remark: Chonburi Agricultural School deals in M.S. 4,5,6 level

1. Name of the school - Lopburi Agricultural School
2. Changwat Lopburi, Amphur Pattananikom, Tambol Dilung
3. Accessibility - by car - all year round
4. Distance from Provincial seat about 44 Kms. about 4 Kms. from district office and about 160 Kms. from Bangkok by the highway
5. Nearby agricultural schools or colleges Chiangmai Ag. College
6. Total area of the school 10,000 rai
7. Cultivated area - 500 rai
8. Soil type - Clay soil
9. Suitability for farming - field crops
10. Problem of soils or planting crops and how to solve the problem - lack of water is the problem
11. Soil Survey and analysis - yes by the Agricultural chemistry division
12. Water resource for farming - yes
13. Kind of water resource - pond, rain reservoir which cannot be used all year round
14. Utilization of water resource for farming by using irrigation system - yes
15. Method of irrigation system - pumping water from the reservoir to the storage then distribute for water underground
16. How to get water in the case of no water resource - Construct the reservoir or digging for water underground
17. Main occupation of the people in the region - production of field crops

18. Main crops grown in the region - corn, sorghum, beans

19. Other agricultural agencies in the area:

Center for Youth training - (on campus)

Agricultural Station - 30 Kms. from school

\* Remark: Lopburi Ag. School deals in M.S. 1,2,3 level and the short course program

1. Name of the school - Nakornrajasima Agricultural School
2. Changwat Nakornrajasima, Amphur Seekeew, Tambol Ladbuakao
3. Accessibility - by car or by train - all year round
4. Distance from the provincial seat 50 Kms. from district office about 11 Kms. and 215 Kms. from Bangkok by the highway
5. Nearby agricultural schools or colleges - Chaiyapoom Ag. School
6. Total area of the school - 642.75 rai
7. Cultivated area 642.75 rai
8. Soil Type - clay soil, sandy soil, and loamy soil
9. Suitability for farming - field crops, horticultural crops
10. Problem of soils or planting crops, and how to solve the problem  
- None
11. Soil Survey and analysis - None
12. Water resource for farming - Yes
13. Kind of water resource - Creek; can not be available all year round
14. Utilization of water resource for farming by using irrigation system - Yes
15. Method of irrigation system - pumping water from Lamtakong
16. In the case of no water resource can the school construct one -  
Yes, will construct a weir
17. Main occupation of the people in the region - farming
18. Main crops grown in the region - rice, corn and castor beans
19. Other agricultural agencies in the area - Banmaisamrong Experiment Station - close to the school. Animal Nutrition Experiment Station,

**Pakchong - about 50 Kms. away from school**

**Pimai rice Experiment Station 100 Kms. away from the school**

**\* Remark: Nakornrajasima Agricultural School deals in Training  
Certificate for Vocational Agriculture**

1. Name of the School - Pratumthani Agricultural College
2. Changwat Pratumthani, Amphur Tanyaburi, Tambol Prachatipat
3. Accessibility - by car - all year round
4. Distance from Provincial seat and district office - 13 Kms., and from Bangkok 30 Kms. by highway
5. Nearby Agricultural schools or colleges - Ayutthaya Ag. College and Chao Khun Thaharn Ag. School
6. Total area of the school - 205.25 rai
7. Cultivated area - 205.25 rai
8. Soil type - Clay soil
9. Suitability for farming - rice
10. Problem of soils or crops, and how to solve the problem - problem of soil quality and soil acidity
11. Soil survey and analysis - yes by the Agricultural Chemistry division
12. Water resource for farming - Yes
13. Kind of water resource - canal, available all year round
14. Utilization of water resource for farming by using irrigation system - yes
15. Method of irrigation system - pumping water from Klong Rangsit
16. In the case of no water resource can the college construct one NA
17. Main occupations of the people in the region - production of rice and vegetables
18. Main crops grown in the region - rice, vegetables
19. Other agricultural agencies in the area: Rangsit Experiment Station 12 Kms. away

\* Remark: Pratumthani Ag. College deals in M.S. 4,5,6 level and the level of Certificate of Technical Vocational Agriculture

1. Name of the school - Pracheenburi Ag. School
2. Changwat Pracheenburi, Amphur Aranyapathet, Tambol Klong Nam-Sai
3. Accessibility - by train or by car all year round, about 298 Kms. from Bangkok
4. Distance from Provincial seat about 130 Kms., and about 17 Kms. from district office
5. Nearby Ag. schools or colleges - Chao Khun Taharn Ag. School
6. Total area of the school - 6,250 rai
7. Cultivated area - 1,644 rai
8. Soil type - Loam soil
9. Suitability for farming - corn, beans, coconut, and betel nut
10. Problem of soils or growing plants crops and how to solve the problem - drainage problem; need to level the land
11. Soil survey and analysis - only one point in front of the school (pH. 4.5) by Chemical Ag. Dept.
12. Water resource for farming - Yes
13. Kind of water resource-pond; volume about 10,800 cubic metres. Water is available all year round from the pond
14. Utilization of water resource for farming by using irrigation system - yes
15. Method of irrigation system - pumping
16. In the case of no water resource can the school construct one - yes, can construct a reservoir on the high land near Klong Yang (already got the permission from the cabinet)
17. Main occupations of the people in the region - production of field

crops such as corn, soybeans ect.

18. Main crops grown in the region - corn, soybean, cotton and rice

19. Other Ag. agencies in the area:

Bangkhen, Headquarter of Ag. about 300 Kms. from the school

\* Remark: Pracheenburi Ag. School deals in M.S. 1,2,3 level and special course for vocational ag. 3 year courses from M.S. 3

1. Name of the school - Ratchburi Agricultural School
2. Changwat Ratchburi, Amphur Potaram, Tambol Karcha-ngoom
3. Accessibility - by car all year round (except in rainy season)
4. Distance from provincial seat 31 Kms.; and 18 Kms. from district office
5. Nearby Agricultural School or College Chiangmai Ag. College
6. Total area of the school, - 8000 rai
7. Cultivated area - 200 rai
8. Soil type - sandy soil
9. Suitability for farming
10. Problems of soils or planting crops, and how to solve the problem
11. Soil survey and analysis - None
12. Water resource for farming - Yes
13. Kind of water resource - reservoir - volume capacity is about 20,000 cubic meter, water is not available all year round
14. Utilization of water resource for farming by using irrigation system - Yes
15. Method of irrigation system - pumping
16. In the case of no water resource can the school construct one - has been done
17. Main occupations of the people in the region-production of field crops, horticultural crops and dairy raising
18. Main crops grown in the region - rice, para-rubber, coconut
19. Other agricultural agencies in the area:
  1. Rice Experiment Station is 90 Kms. far away

2. Kohony Rubber Station and Research Center is 40 Kms. far away
3. Pest Control Unit is 64 Kms. far away

\* Remark: Ratchburi Agricultural School deals in M.S. 4,5,6 level

1. Name of the school - Srisaket Agricultural School
  2. Changwat Srisaket, Amphur Mueang, Tambol Nongkrok
  3. Accessibility - by car or by train - all year round
  4. Distance from Provincial seat and district office - about 2 Kms.  
And distance from Bangkok by train 515 Kms. and by car about 700 Kms.
  5. Nearby agricultural schools or colleges - Surin Agricultural College
  6. Total area of the school - 1,770 rai
  7. Cultivated area - 885 rai
  8. Soil Type - Sandy soil
  9. Suitability for farming - Field
  10. Problem of soils or growing plant crops (if any) and how to solve the problem - Soil fertility problem and can be solved.
  11. Soil survey and analysis - None
  12. Water resource for farming - yes
  13. Kind of water resource - Huay Poon Reservoir; can be used all year round
  14. Utilization of water resource for farming by using irrigation system - yes
  15. Method of irrigation system - using small canal of Kampiroon
  16. In the case of no water resource, can the school construct one - yes
  17. Main occupations of the people in the region - farming
  18. Main crops grown in the region - rice
  19. Other agricultural agencies in the area - Unit of Rehabilitation of the Bull and Unit of Animal Castration; Division of Livestock (in the school campus).
- \* Remark: Srisaket Agricultural School deals in M.S. 4,5,6 level and Elementary Teacher Training Certificate for Vocational Agriculture; two years courses from M.S. 3.

1. Name of the school - Songkhla Agricultural School
2. Changwat Songkhla, Amphur Ratapoom, Tambol Tachamuang
3. Accessibility - by car, train, boat and plane
4. Distance from Provincial seat 64 Kms.; from district office 1 Km. and 930 Kms. from Bangkok by highway
5. Nearby Agricultural School or College - Trang Agricultural School
6. Total area of the school - 250 rai
7. Cultivated area - 250 rai
8. Soil type - clay soil
9. Suitability for farming - Rice, Para-rubber, Coconut, Rambutan
10. Problems of soils or planting crops, and how to solve the problem - fertility
11. Soil survey and analysis - none
12. Water resource for farming - yes
13. Kind of water resource - distributing canal, water is available all year round
14. Utilization of water resource for farming by using irrigation system - yes
15. Method of irrigation system - distributing canal.
16. In the case of no water resource can the school construct one - pump from canal
17. Main crops grown in the region - rubber
18. Other agricultural agencies in the area -

Remark: Songkhla Agricultural School deals in M.S. 4,5,6 level

1. Name of the school - Trang Agricultural School
2. Changwat Trang, Amphur Mueang, Tambol Natam Nue
3. Accessibility - by car, train and airplane - all year round
4. Distance from provincial seat and district office about 13 Kms.
5. Nearby agricultural schools or colleges - about 70 Kms. from Nakorn Si Thammarat Agricultural College; and 145 Kms. from Songkhla Agricultural School
6. Total area of the school - 1,880 rai
7. Cultivated area - 441 rai (Developing area 500 rai)
8. Soil type - sandy soil, loam
9. Suitability for farming - rubber, orchard, coffee and field crops
10. Problem of the soils or planting crops (if any) and how to solve the problem
11. Soil survey and analysis - none
12. Water resource for farming - yes
13. Kind of water resource - Klong, creek, volume about 100,000 cubic meters (pond developed from nature) available all year round
14. Utilization of water resource for farming by using irrigation system - yes
15. Method of irrigation system - pumping and use method of delivery by gravity
16. In the case of no water resource, can the school construct one - use underground water
17. Main occupations of the people in the region - rubber production
18. Main crops grown in the region - para-rubber

19. Other Agricultural agencies in the area: Forest Station of Kao  
Chong National Park about 35 Kms. from the school

\* Remark: Trang Agricultural School deals in M.S. 4,5,6 level only

1. Name of the school - Udonthani Agricultural School
2. Changwat Udonthani, Amphur Mueang, Tambol Koodsra
3. Accessibility - by car - all year round
4. Distance from provincial seat and district office about 10 Kms.  
(by the highway Udorn - Nongkai)
5. Nearby agricultural school or colleges - Kalasin Agricultural School
6. Total area of the school 1,000 rai
7. Cultivated area 600 rai
8. Soil type - sandy soil
9. Suitability for farming - field crops
10. Problem of soils or planting crops, and how to solve the problem  
- saline soil; can solve this problem by using irrigation water
11. Soil survey and analysis - none
12. Water resource for farming - yes
13. Kind of water resource - Huey Nongdae; volume of water about  
1,000,000 cubic meters, available all year round
14. Utilization of water resource for farming by using irrigation  
system - yes
15. Method of irrigation system - construct a weir and use water from  
distributing canal
16. In the case of no water resource can the school construct one -  
not needed
17. Main occupations of the people in the region - farming (rice  
production and gardening)

18. Main crops grown in the region - rice, mango
19. Other agricultural agencies in the area: Soil and Water Conservation Center about 25 Kms. away; Animal Breeding Station (amphur Penn) about 27 Kms. away; Plant Propagation Center (Amphur Penn) about 27 Kms. away

\* Remark: Udornthani Agricultural School deals in Elementary Teacher Training Certificate for Vocational Agriculture and M.S. 4,5, 6 level

J. NUMBER OF STUDENTS AND STAFF MEMBERS  
AGRICULTURAL SCHOOLS/COLLEGES  
1972

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NO.	SCHOOL/COLLEGES	STUDENTS	STAFF	REMARKS
1	CHIENGMAI	699	55	M.S.5-6 = 281, Tech.Ag = 418
2	SURIN	512	50	M.S.5-6 = 192, Tech.Ag = 320
3	NAKORN.	585	40	M.S.5-6 = 310, Tech.Ag = 275
4	AYUTTHAYA	421	43	M.S.5-6 = 171, Tech.Ag = 250
5	PRATHUMTANI	264	44	M.S.4-6 = 201, Tech.Ag = 63
6	BANGPRA	371	43	M.S. 6 = 64, S.T.C. = 307
7	KALASIN	459	45	
8	CHANTABURI	245	31	
9	LADKRABANG	273	40	
10	CHUMPORN	360	30	
11	PITSANULOK	378	32	
12	NAN	330	37	
13	CHONBURI	284	24	
14	UDORNANI	338	21	M.S.4-6 = 229, E.T.C. = 109
15	CHAIYAPOOM	417	24	M.S.4-6 = 336, E.T.C. = 81
16	NAKORNRAJSRIMA	337	19	M.S.4-6 = 257, E.T.C. = 80
17	BURIRUM	246	23	M.S.4-6 = 246
18	SRISAKET	376	24	M.S.4-6 = 238, E.T.C. = 138
19	SONGKHLA	316	22	
20	TRANG	318	27	
21	RAJBURI	144	16	
22	TARK	312	14	M.S.4-6 = 251, E.T.C. = 61
23	PETCHBURI	67	13	
24	SURATTANI	70	8	
25	LUMPANG	113	8	
26	LOPBURI	112	11	M.S.1-3 = 112
27	PRACHEENBURI	105	12	M.S.1-3 = 100, Young Farmer=5
	TOTAL	8,479	826	

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M.S. = Maw Saw Level  
 Tech. Ag = Technical Agriculture  
 S.T.C. = Secondary Teaching Certificate  
 E.T.C. = Elementary Teaching Certificate

**K. HEAD MASTERS/DIRECTORS  
AGRICULTURAL SCHOOLS/COLLEGES  
1972**

NO.	SCHOOL/COLLEGES	HEADMASTER/DIRECTOR	QUALIFICATION
1	CHIENGMAI	VIPAT BOONSRI WANGSAI	B.S., M.S.
2	SURIN	CHALERM SUKPLANG	B.S., M.S.
3	NAKORN.		
4	AYUTTHAYA	AMNUAY WATANAWASIN	B.S., M. Ag.
5	PRATHUMTANI	BUNYAT VIMOKASON	Ph.D.
6	BANGPRA	SURAPHOL SANGUANSRI	B.S., M.S., Ph.D.
7	KALASIN	PRAYONG KALATON	B.S., M.S.
8	CHANTABURI	BUNYAT BOONPAL	B.S., M.S. (Ag.Ed.)
9	LADKRABANG	PITTHA BOONNAG	B.S., M.S.
10	CHUMPORN	CHUMNONG KOSUWIN	B.S., M.A.
11	PITSANULOK	THAMNOON RIDIMANEE	B.S., M.S.
12	NAN	BOONTIAM CHALERNYING	B.S., M.S.
13	CHOLBURI	SANGUAN KEOMORAKOT	B.S., M.S.
14	UDORNTANI		
15	CHAIYAPOOM	KRACHANG WONGVERAKUN	E.T.C., S.T.C., B.Ed.
16	NAKORNRAJSRIMA	SA-NGUD SUKASEM	B.S., M.S.
17	BURIRUM	SA-ARD BOTHIPAL	B.S., M.A.
18	SRISAKET	KUMHAENG YO-LAO	B.S., M.Sc.
19	SONGKHLA	VIROJ TANSUWAN	B.S.
20	TRANG	CHART CHANGMAI-NGAM	S.T.C., B.Ed., M.S.
21	RAJBURI	SUNHAJIT TAPANDILOK	ASSOCIATE in Ag.
22	TARK	CHALERMSAKOL PIRIYASAKUL	B.S., M.S.
23	PETCHABURI	NITEE CHOTIKAJUMROON	S.T.C., B.S., M.S.
24	SURATTANI	KHOM THEUNG-KEW	S.T.C., B.S., M.S.
25	LAMPANG	VALLOP CHUTIWACH	S.T.C., B.S., M.S.
26	LOPBURI	VIVIT CHAITAWORN	S.T.C., B.Ed.
27	PRACHEENBURI	SAENG SURIYA	E.T.C.

L. NUMBER OF STUDENTS AND EXPECTED GRADUATES  
 AGRICULTURAL SCHOOL/COLLEGE  
 1972

CURRICULUM	STUDENTS	EXPECTED GRADUATES
Tech. Ag.	1,326	460
S.T.C. (Ag.)	311	152
M.S. 4-5-6	6,158	2,014
M.S. 1-2-3	212	67
E.T.C. (Ag.)	469	212
Young Farmer	5	2
TOTAL	8,481	2,907

S.T.C. = Secondary Teaching Certificate in Agriculture

E.T.C. = Elementary Teaching Certificate in Agriculture