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AGRICULTURAL EDUCATION AROUND THE WORLD

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Vocational education is receiving increasing emphasis in many foreign countries in an effort to accelerate economic growth. In southeast Asia there is a longing for peace and the desire to divert money now committed to military preparedness to the more deeply held desire to modernize their traditional, low-productivity, agrarian societies. There is a conflict whether agriculture or other sectors of society should be developed first. Countries have developed an improved highway system only to find they do not have an overabundance of goods to transport. Countries which have developed hydroelectric power find that they do not have industry to utilize the power. Countries which promoted industry find that the mass of their agrarian population does not have the purchasing power to absorb industrial output. Many of the countries are predominantly rural. There is a food shortage in many instances, thus agriculture is receiving emphasis in the development program. If there is to be a market for industrial products or an outlet for electrical power, the rural population must have the necessary purchasing power. Asian countries are overcoming enormous obstacles of unstable government, growing population, low educational level and a lack of capital for development. Most countries have received external aid to enable their people to acquire the necessary skills. Socio-economic development comes from an active desire by the people. It cannot be imposed from the outside, it must arise from the cultural patterns of the country.

Immediately after World War II, Japan made radical changes in her educational organization patterning after programs in the United States. Today the trend is to return to the prewar pattern. Teachers are technical agriculture majors. Education departments, as such, are being discontinued. Agricultural high schools have

abandoned the integrated course of study and returned to the subject matter centered approach.

The Prefectural Farm Management High School at Hamamatsu, southwest of Tokyo, is the largest high school (grades 10-11-12 equivalent) of its type in Japan. About half the students live in the dormitories; the others commute to school from their homes.

The three-year curriculum is organized to provide approximately 40 hours per week of instruction with somewhat more academic emphasis in the first year and increasing emphasis on agricultural subjects thereafter.

The staff includes 14 instructors in technical agriculture and 13 in related academic subjects with 6 assistants to supervise field and laboratory work. Students work on the school farm from 6:00 to 7:40 A.M. and 3:30 to 5:30 P.M. Classes are conducted between 8:30 A.M. and 3:30 P.M. with compulsory study hall from 7:30 to 9:30 P.M. The school operates 5½ days a week with a four-week vacation in the summer and 2 two-week vacations in winter and spring.

A conference between students and their parents and a school representative is prerequisite to admission. Students must be sons of large landholders and are accepted only after the parents agree to the boy's return after graduation to reorganize the home farm according to recommendations growing out of the training. The school farm of 240 acres is completely mechanized. Dikes have been removed and all small plots combined into 15 acre fields or larger. Land is tilled by tractors varying from 4 h.p. rota-tiller type to larger 4-wheel machines. The dairy, poultry and swine enterprises are mechanized with milking parlor, pipeline milker, gutter cleaner, silo unloader and auger feeder. Students do field work under the supervision of the classroom instructor

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who works closely with the farm manager and school officials in charge of livestock, crops and marketing. In 1966 all graduates returned to their home farms and indications were for similar placement of this year's graduates.

The principal of this school is aware of the social problems involved in not accepting students from less favorable home environment or those who planned to enter related occupations. However, the primary objective of his school is to train students to be operators of commercial farms. There are sufficient applicants from commercial farms to keep the school running at capacity. He takes the position that the education of students with other objectives is a responsibility of other schools. He believes an agricultural school should instruct only in those practices recommended for economic commercial farming. Students attending his school will not learn to prepare land with the hoe or harvest rice by hand as has been the custom of their forefathers. The student attending this school learns modern methods.

In Sendai, northeast of Tokyo, students in another agricultural school do not attend classes at school during the spring semester of their third year. They live at home and conduct projects to become established in farming with crops and livestock enterprises during the growing season rather than delay until after June graduation. The program has not been successful, especially for the student who did not plan to be a farmer and sought outside employment immediately. These students only received 2½ years of vocational training. Students who returned home in the spring too frequently worked unsupervised since the shortage of teachers and travel funds limited the number of visits to the homes.

It is difficult to teach democracy as we know it in the United States. The Future Farmers of Japan, FFJ, is not too strong. Its program of activities is not as varied as that found in the FFA. Members receive only limited experience in student activities and self-government.

In 1963 the Ministry of Education of Thailand prepared a detailed plan for manpower and educational development based

on a study by a joint Thai-U.S. commission of the education and human resources of Thailand. About the time of the study, compulsory attendance was raised from grades 4 to 7. Where 78 per cent of the children formerly left school after grade 4, there is a large increase in the number continuing through grade 7. Although increasing emphasis is being given to vocational training, enrollment is declining at the lower levels. Vocational agriculture has been discontinued in grades 8-9-10 but a post high school program (grades 14-15) has been developed at 4 regional technical institutes. The educational level of the Thai labor force, while rising, is still quite low for a country at Thailand's stage of development. Although the survey recommended increases in the proportion enrolled in vocational programs, too many Thais attempt to pursue the academic streams in hopes of acceptance at the University level. This desire is present in spite of the greater demand for middle level manpower than at the higher educational level. This demand for middle level manpower is stimulated by the increased growth in industry, transportation, communications, community development, food processing, commerce and service occupations. The major problems in agricultural education in Thailand are declining student enrollment, decline in qualified teachers and a loss of experienced teachers to other employment. Withdrawal of teachers from the secondary level is over three times the anticipated attrition rate. Most teachers leave the profession because of low economic status. In the past five years there has been a sharp rise in pupil-teacher ratio in vocational schools from 1:15 to 1:19 compared to a decline in academic secondary schools from 1:25 to 1:17.

The Thai government has increased its support of education. The Ministry of Education budget represented 0.6 per cent of the GNP in 1955 and 2.6 per cent in 1965. An analysis of the function of education in a country such as Thailand is complicated by the fact that people hold widely differing expectations. Each citizen is likely to have his own reasons for sending his child to school. The peasant farmer may send his child to school to learn to read, perhaps the first in the family to do so. The shop keeper may want his child to go to a trade school and learn a vocation. The rice farmer may be proud if his child finished primary school and thereby improves his chance of getting employment in the urban area during the off-season when the youth is not needed in the fields. The Muslim peasant may wish only that his son learn to read the Holy Koran. The businessman has a great faith in education and wants his child to receive as much as possible. He is apt to be more interested in general

education for his children because they will learn to earn as apprentices in his own or a friend's business. The civil servant may want his children to go as far as possible in school in order to prepare themselves for government employment where the salary scale is geared to the level of education attained rather than the job.

The Thai educational system is moving toward a co-educational system, and the boarding type of school is being eliminated as more school facilities become available in communities outside the large urban areas. The educational system is assuming many tasks previously assigned to the family, priests, employers and government officials. This change has placed a heavy, but rewarding responsibility on teachers to provide youth with the experience needed to live harmoniously in an independent nation and world.

The Thai student proceeds up the grade ladder in the secondary school system by passing a series of national examinations at three various stages equivalent to U.S. grades 7, 10 and 12 or 13. He must pass an examination for successful completion of the grade level. Quotas for admission to the higher levels are established to limit admission. Thus a student might be certified as having completed grade 10 but not be admitted to grade 11. Such a system places a tremendous emphasis on written examinations. Instruction is largely academic in nature rather than for the development of skills or the application of knowledge to problem solving situations. Since the better educational facilities have been in urban areas, a large proportion of students ascending to higher classes in the educational system are "city bred" and have little interest in agriculture. Students who rate high on these examinations are promoted through the academic ranks to become the doctors, lawyers and engineers while pupils of lower scholastic ability are shunted to the vocational stream. Students in vocational schools have a reputation as being dullards. Teachers strive for appointments to academic schools with the result the instructors in the vocational schools are considered "inferior" to their academic cousins.

The number of schools offering agriculture in the Philippines has increased steadily over the past 20 years with the sharpest rise from 52 to 82 schools in the last five years. The aims of agricultural education in the Philippines are: (a) development of agricultural skills and abilities, (b) development of knowledge and technical information in agriculture and (c) citizenship training. The major core of the activities of the Future Farmers of the Philippines (FFP), is training for good citizenship. Increased attention is given to out-of-school youth who need training in agriculture. The plan is to

train the greatest number of farm workers who could boost food production and farm income and raise the level of living in the rural areas.

The emphasis in the Philippines is to strive for selective enrollment in vocational agriculture to insure quality instead of quantity. They hope this will mean fewer dropouts and a higher percentage of graduates who will go into farming. Teachers are incorporating a guidance program and follow-up of students. Goals for advancement in vocational agriculture are: (a) improve and expand individual farming program, (b) make instruction in the related subjects more applicable to the vocational student, (c) increase production through improved farm practices and management, (d) prepare textbook and instructional materials, (e) intensify processing of agricultural products, (f) more adult and young farmer instruction during the summer, (g) opening a two-year post high school course in agriculture, and (h) upgrade quality of personnel.

The Philippines has a new four-year teacher education course with an increasing enrollment. In 1965 there were 1,126 students enrolled. These men were being trained for employment in secondary schools where four years of vocational agriculture are being taught and 1,713 teachers employed. All students in the agricultural colleges follow much the same curriculum the first two years. More technical agriculture subjects and more mathematics are included than under the previous training program.

The Adult Education Division of the the Bureau of Public Schools in the Philippines is sponsoring instruction by radio. Broadcasts are made Monday, Wednesday and Friday from 4:15 to 5:15 P.M. The local teacher introduces the lesson, the class listens to the broadcast, the discussion questions are presented by the teacher, and the participants discuss the lesson. At the completion of the course, certificates are presented to those individuals who attended at least 75 per cent of the sessions.

Although not in the Agricultural Education Division, the Philippine Government has another program to serve farmers. The Farm and Home Development program attempts to get results from the college and experiment station to the farmers. This is a separate division of the college whose major responsibility is to disseminate information. The goal is to have a livestock specialist, a crops specialist, and a family and home management specialist in each county. This program has functioned for three years. Its success has been difficult to evaluate because of the loss or transfer of personnel, differences in the ability of staff members, variations in the types of farms, programs, weather, pests, insects and changes which might be attributed

to other influences. (One change contemplated is to rely more on mass media than on personnel and to saturate regions of the same types of farming or community interest rather than define the limits of activity by political boundaries.

Another development in the Philippines is an organization known as FACES. Formerly there were many separate organizations serving the farmer and often overlapping in their services and perhaps contradictory in their advice. The plan is to consolidate all these services in one office to provide interrelated services. The letters FACES stand for Farm Application, Commodities, Equipment and Services. Under the new setup a farmer would go to only one office to receive advice on production methods, secure loans for seed, fertilizer, fuel or other supplies and equipment as well as arrange for the sale of his produce through a marketing organization.

The West Pakistan Agricultural University at Lyallpur has established one of the few teacher training divisions at the college level in the Far East. Over 70 of the staff have returned from studies abroad which have led to Masters or Ph.D. degrees; 80 are still abroad pursuing studies for advanced degrees and more individuals are scheduled to study abroad in the near future. The teacher training program requires four years of technical agriculture for a Bachelor's degree and an additional year for teacher certification. This program is being abandoned due to a lack of enrollment. Students can obtain employment at higher salaries and often more favorable living conditions and a more rapid rate of advancement at the completion of their B.S. degree in other fields of agriculture. The proposed program plans to accept students of lower academic ability at the end of the 12th grade and enroll them in a three-year technical agriculture and teacher training program which will lead to a new degree of Bachelor of Secondary Education in Agricultural Education.

The Center for Cultural and Technical Interchange between East and West, more frequently referred to as the East-West Center or I.T.I., at the University of Hawaii, Honolulu, has served over 2,000 students, teachers, technical participants, conferees and specialists from colleges and universities, government, research organizations and the professions since its inception in 1960. About one-third of the participants are American, the remainder from Asia or the Pacific area. About one-fourth of the group are women. Programs have been offered in food production, government and communications, women's career development, health and medicine, and education as well as the assembly of one of the finest collections of contemporary Asian-Pacific material in the world. More than half of the material is in the vernacular language of Asia.

The Center also translates, compiles and publishes teaching and research aids to stimulate the flow of materials between East and West. Much of the training is practical rather than academic. The staff recognizes the problem of providing adequate field training activities and that of getting the individual to actually perform manual labor at the Institute and after his return home. The Institute is developing a program to offer more training away from the Hawaiian base utilizing experts from many countries and giving instruction at the level of application. Courses in banana culture are now being offered to plantation workers on their Pacific Islands rather than to the owners and managers at the University of Hawaii. Successful courses in swine production have been completed among the women in The Trust Territory where the women have the responsibility for the pigs raised.

Despite the national support given to vocational education in the development plans of many countries, parents and students do not wholeheartedly support vocational agriculture. Admittedly, many individuals will have to migrate from the farm areas and there is an expanding need for trained craftsmen as the trades and industry develops. But for many years, agriculture will be the major economic sector of the labor force. If production is to be increased, production agriculture and the many related processing and service occupations will benefit most readily from a cadre of trained workers.

As transportation and communication improve, many countries will have to evaluate their present system of offering vocational agriculture in boarding schools. This type of schooling is expensive and countries with limited resources will have difficulty expanding the program to meet their needs. Greater attention must be given to inclusion of vocational instruction in the comprehensive school to which students commute from their homes daily. The utilization of those school farms now in existence can be vastly improved. Too frequently the operation of the school farm, which should serve as an instructional vehicle to acquire skills and to demonstrate production practices, is operated by hired labor solely as a source of income with little or no correlation with the classroom teaching.

EDITOR'S NOTE: Dr. Harry Kitts has recently returned from a study trip which took him to Hawaii and throughout the Far East to observe the programs of Agricultural Education. The Visitor presents in this issue some observations of Dr. Kitts relative to Agricultural Education around the world. At the conclusion of his study of the Far East, Dr. Kitts returned to Minnesota by way of Italy, Brazil and Mexico. The visitor is pleased to present these comments by Professor Kitts.