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Featuring Agricultural Education Around The World

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The Agricultural Education Magazine

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The Cover

Field trips are much the same the world around as shown in this photo by Dr. J. B. McClelland.

Mr. Bahauddin, left, Agricultural Education Specialist and other visitors observe the operation of the newly-installed diesel powered pump which irrigates the 10-acre school farm at the Nandina Pilot High School in East Pakistan. Water is also supplied to approximately 40 neighboring farmers. An extra crop can be grown each year during the dry season.

From the Editor's Desk . . .

Our Responsibilities For International Education In Agriculture



Ralph J. Woodin

In this issue we salute those in Agricultural Education who have given of their time and talents to promote the well being of people in many parts of the world. Their achievements and their recommendations to others who may follow them should be carefully considered by our profession, for it seems likely that Agricultural Education will be an important export of our nation for many years to come.

Why should we as a profession be concerned with international programs in Agricultural Education? The answers are to be found in our concept of democracy, our national goals, in our foreign policy and in the unique contributions which our profession can make.

Over the centuries men have pursued the dream of a lasting peace among all nations of the world. In our own day, we have watched the development of an organized effort toward peaceful settlement of international differences through the United Nations. Imperfect as these efforts have been, they represent an important beginning in learning to substitute discussion for armed conflict.

Dr. William L. Langer lists the major objectives of the United States in world affairs as safeguarding our own way of life and at the same time promoting the

freedom, well being and progress of all mankind. These goals recognize the need for improving the economic conditions of nearly half of the world's population in the under developed countries from the standpoint of our humanitarian ethics as well as for the economic and political survival of western democracy.

The achievements of Agricultural Education in the United States is one of the greatest success stories of alltime in terms of translating research into increased food and fiber production. Our profession has much to export, in experience in teaching farmers to become efficient producers to the emerging nations of the world.

Vocational Education in agriculture seems to be a particularly useful type of education for many of the developing countries. We have a tradition for starting where people are and helping them achieve what they need. When we join our co-workers in Agricultural Education, those in the Land Grant Universities and in the Agricultural Extension Service in foreign service, our efforts may be even more productive.

We hope that this issue devoted to international education in agriculture will be a forerunner to a continuing discussion in the profession of the ways and means by which we can make our greatest contribution to the universal freedom, and well being of mankind. □

Ralph J. Woodin

Guest Editorial . . . HARRY W. KITTS, Teacher Education—University of Minnesota

New Developments In International Education Programs



Harry W. Kitts

More teachers of vocational agriculture should accept appointments in foreign service. In many countries, training in technical agriculture to produce adequate amounts of food and fiber is the most pressing problem today. Teachers of agriculture have the training and experiences in working with farmers that qualify them to offer this assistance.

Shifting Emphasis

Most developing countries have resources which can be developed to improve their agricultural production, economy and living conditions. Many of these same countries have highly trained people in various phases of agriculture. Excellent research has been conducted in plant and animal breeding, disease and insect control, and marketing and processing. These countries are in the same position as the United States prior to the passage of the Smith-Lever and Smith-Hughes Acts. They have a vast accumulation of technical information but

no adequate method of dissemination to the ultimate consumer, the farmer. The agricultural teacher can assist the farmers and demonstrate to the leaders of these developing countries the techniques of learning by doing.

Today emphasis is on the "know-how"—on improving instructional methods and demonstrating recommended practices. In this connection, it should be pointed out that the salaries of technicians are a much less costly type of assistance than a program including large quantities of supplies.

The consultant, or technician, who goes abroad should keep in mind that he is the catalyst to get action started and to help it continue. He must be careful on two points. First, he should work in such a manner that the action will continue after his influence is withdrawn. Second, he must realize he is the "foreigner with queer ideas." He himself may think their methods are odd, but he must remember that their leaders do not recognize these methods as unusual in their society. His position, in most cases, is to help the recipient adapt, not adopt, workable techniques. He must be aware constantly of local cus-

toms and traditions. For example, regardless of the value he places on the F.F.A. as a vehicle for developing leadership, he must recognize that such organizations cannot be viable in countries whose leaders do not approve of youth organizations in schools.

Learning By Doing

Training must be based on "learning by doing." The Extension Service in the United States has been successful partially because of a literate population and an abundance of printed materials. Similar results may not be achieved in a country where the farmer has received little formal education. The approach through vocational education is undoubtedly the best for a developing country because the "learning by doing" concept can be understood. By their own activities, teachers may demonstrate the dignity accorded to labor in the United States.

Most organizations working in international education recognize that the greatest effects of an educational program are achieved from work at the community level. At the state or national level, one can promote better training of teachers, expansion of educational facilities, and the development of instructional materials, and can conduct research. It will take several years, however, for the effects of these activities to reach the local community. Meanwhile, training or assistance can be given to the individual teacher or farmer with his daily and immediate problems. Teachers of vocational agriculture have the advantage of not being confined to the classroom or central office.

LETTERS

Sir:

The fact that thirty-seven volumes of the AGRICULTURAL EDUCATION MAGAZINE have been published without financial support, other than subscription bespeaks for the role of the publication among workers in Agricultural Education. The small response to the Editor's survey of readers should not be construed as lack of interest, for how many of us take the time to express opinions pertaining to professional materials, even upon invitation. The high per cent of responses from teachers would be expected since they constitute most of the subscribers.

Successful teachers of vocational agriculture are busy people who must budget their time. They are looking for new ideas and are interested in experience reports of other teachers. Off-hand one might be surprised that teachers rate research reports quite highly, yet teachers recognize that research and pilot programs are basic to the implementation of changing concepts in vocational education.

It would seem that readers appreciate rather direct treatment of problems which are presented; too they prefer not to be coddled since anyone who succeeds must be dedicated to his profession or occupation. Pictures tell a story and the extensive use of action prints, along with designs of various kinds, add effectiveness to copy.

It is quite obvious that personnel in Agricultural Education regard the Magazine quite highly, although the use varies considerably. Apparently some teachers discard copies after casual observation of incoming issues. Others search copy quite thoroughly for professional suggestions.

Most of my colleagues in teacher education maintain complete files of the Magazine and find much in the issues that is of interest to prospective teachers and graduate students.

G. F. EKSTROM
Teacher Education
University of Missouri

Sir:

I am a teacher of Vocational Agriculture in New York and have just completed my 22nd year of teaching. During that time I have always subscribed to the Agricultural Education Magazine and have enjoyed it very much. I have also had the honor of having several articles in the magazine that I wrote.

Now what I would like to say is by no means criticism of the magazine as I look forward to it each month and read it from cover to cover. I enjoy all the articles but am wondering if perhaps there could not be a space dedicated maybe each month or perhaps a special issue whereby some good teacher put in a copy of a lesson plan he used for present day teaching.

I think that some of us who have been around quite a while are out-of-date on many subjects especially in the newer fields of Agri-business and Ag. Mechanics. I would like to see a lesson plan on these topics that a teacher used and a good description of how he operated the plan. I myself still make use of a notebook and have students take down important decisions that are necessary to make in some operations and important notes relating to some special jobs we study. How do others do this job? How is discussion drawn

Serving Abroad

As various agencies adjust their approach to international education on a broader base, there will be an increased need for people dedicated to the service of mankind. Living in a foreign culture can be an enriching experience. Educational facilities may be limited in some geographic areas. To a large degree, the success of the Peace Corps is attributed to the fact that the Volunteer acquired a conversational knowledge of the language and that he lived in the community which he served and provided leadership and service at the doing level.

Foreign Students

Each year thousands of foreign students are enrolled in American colleges. Sending these individuals to the United States may be retarding the development of sound educational programs in their homelands. Except in special fields where facilities do not exist, countries should be encouraged to utilize their own facilities rather than sending students abroad. A greater contribution can be made to more individuals by having vocational agriculture teachers serve as consultants to these people in their own environment.

Regardless of conditions, vocational agriculture teachers have skills and abilities essential to international programs in agricultural education. They should consider the possibilities of employment with one of the many agencies engaged in international programs. □

out from the students? How is supervised study involved?

I think that perhaps an article along this line more often would be welcome. I realize that the same job may be done a different way in California than in New York but basically the method would help all teachers. I had the opportunity to have cadet teachers from Cornell work under me for 10 years and they often told me when we discussed the magazine how they wished there were more articles in it giving an example of a lesson plan that worked.

Thank you for listening to my thoughts and you may be sure that I am all for the magazine and I get some good ideas from it but thought perhaps this might be an added feature.

Sincerely,
JAMES ROSE,
Vo-Ag. Instructor
Cherry Valley, N. Y.

In our search for new ideas it is quite likely that we forget some basic teaching tasks. Thanks for calling this to our attention.—Editor.

Sir:

An overview of current trends in the all-day program is presented succinctly by Professor Garner in "Promising Patterns in High School Vocational Agriculture."

As I read this discussion one question was raised several times — How? Being one of those who is attempting to replan and redesign vocational agriculture so that it will provide the education needed currently, I am vitally interested in what others in the field are doing and the procedures used.

For example, how is the *extensiveness* and *variety* of agricultural occupations

Continued on page 292

Teaching Agriculture In One Of The World's Oldest Civilizations

GEORGE LUSTER, Teacher Education, University of Kentucky



Iran located in southwest Asia, occupies approximately 628,000 square miles in the Middle East. Situated near the cradle of civilization, Iran—Persia until 1935 when its name was changed—many years ago played glorious lead roles on the stage of world history. Following this period of world leadership, the people of Iran endured long, trying periods of conquest from both the East and West. Only in 1908 did the fortunes of Iran take an upturn due to the discovery of oil within its borders, less than 200 miles from the Persian Gulf.

Iran is bounded on the west by Iraq and Turkey, on the north by Russia, on the east by Afghanistan and West Pakistan, and on the south by the Gulf of Omar and the Persian Gulf. The entire country, except for a relatively small belt in the north around the Caspian Sea—the largest lake in the world, is semiarid. Vast areas of southern Iran have a very hot climate—among the hottest areas of the world. Excessive salt in the soil is a problem in agricultural production in most of the country, but especially in the south.

Unlike many underdeveloped countries of the world, Iran is not overpopulated. With only moderate improvements in agriculture, Iran could feed perhaps double its present population of around 21,000,000.

Improvement of agricultural production on a country-wide basis through education is, however, extremely difficult. Many conditions make this true, however, the following factors seem the most significant. First and foremost, the average edu-

Editor's Note: The Near East Foundation, a private philanthropical organization with headquarters in New York has a contract with the Ministry of Education to develop and operate Ahwaz Agricultural College. In this contract, the NEF is to provide three American educators at the College. The author was employed by the NEF as Co-Director of the College for two years—from September, 1962, to September, 1964.



The botanic garden at Ahwaz Agricultural College.

cation level of the people is extremely low. Most of the educated people live in the cities and larger towns, not in the rural villages. Second, the rural population of Iran is in widely separated, often remote, villages. Also, a small segment of the population is nomadic. Tribal people with strong customs and traditions make up some of the population. Third, the living conditions are not such in the villages that professionally trained people in education and agriculture will go there and live. Fourth, the mixture of nationalities living in Iran adds to the educational problems.

Secondary Schools Limited to Cities

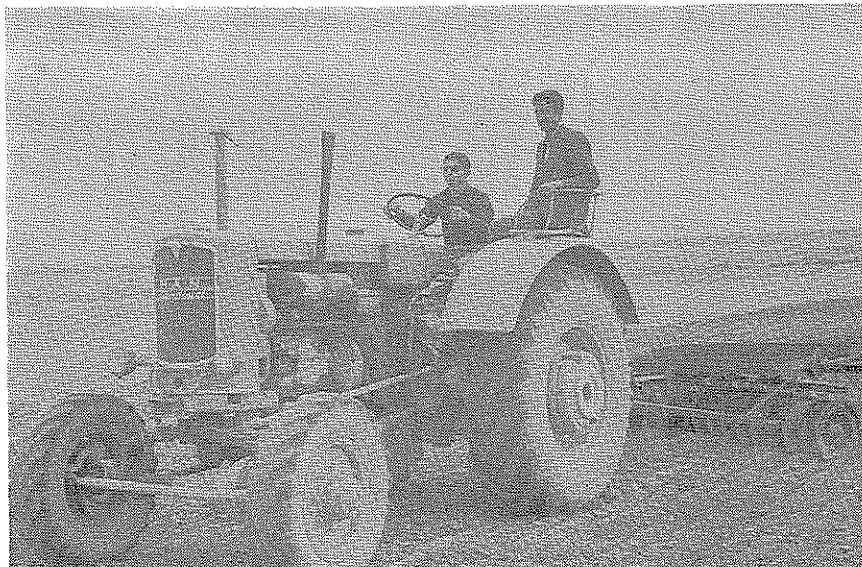
The opportunity for a secondary-school education in Iran exists almost entirely in the cities. For all practical purposes, an education at this level is impossible in the villages. Even in the cities, secondary schools are extremely crowded, however, families having sufficient income can make it possible for their children to complete twelve grades of education.

In most villages that do have schools, the maximum education possible is the sixth grade. In many villages, opportunities for education in school are not available or are even more limited than the sixth grade. The Shah recently ordered the estab-

lishment of the Literacy Corps, utilizing the young men in the army to teach in the villages. This program has much potential, but its success remains to be determined.

Iran is a rather large country, with villages situated in widely separated areas. The vast distances, along with the widely separated villages, make good roads and communications for all the villages extremely difficult and expensive. While good roads are being built, and communications are improving, it will be many years before these will reach all villages. These factors make the establishment, operation, and administration of village schools both difficult physically and expensive.

The villages differ greatly in size, but in many respects they are similar. Some villages are made up of fewer than 100 persons while others number their people in the thousands. For example, Molla-Sani, the village immediately south of Ahwaz Agricultural College, has a population of well over 2,000, while the village just north of the college is the home of about 300 people. Agriculture is the principal vocation of most villages. The larger villages have some industry (weaving cloth and rugs, making products from fronds of date palms, etc.). These villages may also have stores (shops). All villages have



A third-year student learning to operate a tractor with a disc attached.

about the same appearance. The living improvements in too many villages are meager, however, villages differ quite widely in this respect.

Teachers Avoid Village Life

Most of the villages do not make possible living conditions that competent persons professionally trained in education and agriculture consider adequate. For this reason, effective teachers are usually unwilling to live and work in the villages. As a result, many capable educated persons are without useful employment while the village people have to get along without educational assistance which they desperately need. It takes a person with an unusual degree of patriotism and missionary zeal to accept the hardships, poor pay, and self sacrifice necessary to work in underprivileged and remote villages.

Although the official language of Iran, Farsi—also called Persian, is spoken and understood in all parts of the country, in some sections and with some families other languages are predominant. In the northwest, Turkish is widely spoken. In the province of Khuzistan, in southwestern Iran, Arabic is the language used in most villages. (In these village schools the Persian language is taught as a class, so students can understand the other subjects—which must be taught in Persian.) In some local areas, tribal languages are used. In certain homes throughout Iran, families speak their native language, for example, Assyrian or Armenian.

The customs and traditions of some minority groups are quite different from the more typical Persians. This, while not an extremely serious problem, does make education more dif-

ficult.

Despite the problems in providing agriculture education in Iran, progress has been, and is continuing to be made. Several agricultural schools have programs to prepare persons to teach agriculture (either in high schools or by what we in the United States know as extension). These schools are operated at less than college level. All schools have farms and provide practice in agriculture, along with science and other information which are dealt with in the classroom. Typically, the students in these schools are graduates of the eleventh-grade agriculture secondary schools or they are persons who have taught in elementary or secondary schools. The duration of this program is usually three years.

Irrigation and Agricultural Education

The completion of several dams on the larger rivers in Iran, has made it possible for agricultural production to be more concentrated than had been the case before. Due to greater utilization of water, a large area around the newly completed Mohammed Reza Shah Pahlavi Dam has a very promising future for agricultural production. With more concentrated agricultural production, some of the limitations in providing effective agricultural education will be eliminated. It seems likely that along with more general education, effective vocational education in agriculture, will be provided in developing areas such as this one in Khuzistan, being served by the new dam near Dezful. In addition to water for irrigation, these dams provide electric power. This makes possible the improvement of living conditions in the

villages and more efficiency in agricultural production.

The foregoing has been based upon the observations of the writer after having worked in Iran for two years. The work of the author, however, was not directly related to elementary or secondary education. Neither was he involved directly in agricultural education of less than college level. Instead his work was that of Co-Director (working with an Iranian Co-Director) in the building, developing, and operating a four-year agricultural college to prepare students to work in agriculture in southern Iran. The curriculum was based upon the type of agriculture, and problems of agricultural production, which are typical of the hot, semiarid areas of southern Iran.

Ahwaz Agricultural College is located in the flat, hot, desert-like area of, Khuzistan, in southwestern Iran. The college is located on the Karoon River some 25 miles north of the city of Ahwaz. The college land, over 1,000 acres, is located between two villages—largely Arab in this section, as mentioned before.

This agricultural college should make a great contribution to Iran in the years ahead. Although three other four-year agricultural colleges exist in the country, none can deal with the agriculture of the south, and its unique problems. The colleges of agriculture at Karadj, Tabriz, and Shiraz cannot deal with the production of dates, citrus fruits, or other specialized crops and livestock adapted to the climate and soil conditions of the south.

Selection of Iranian Students

There were many problems in developing a college of agriculture in this hot area some 75 miles from the Persian Gulf. One of the most fundamental shortcomings of higher education in agriculture at Ahwaz, as well as in the other colleges of agriculture, however, was the selection of students. As previously mentioned, the secondary schools are located in the cities, and a few larger towns. Thus, graduates of secondary schools in Iran do not have a background or firsthand interest in agriculture which is needed to secure maximum benefits from the teaching at the college.

There seem to be two possible solutions. One is to provide secondary education for the villages. This is difficult, and will require many years. The second, and this seems more

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Vocational Agriculture is on the Move in Taiwan

By O. DONALD MEADERS, Teacher Education, Michigan State University



O. Donald Meaders

Vocational education in agriculture at the secondary school level has made a major contribution to the development of the agricultural sector in Taiwan's economic development.

Data presented by Kao (3) clearly indicate that the growth and development of agriculture in Taiwan during the post-war period 1953-62 was outstanding. He reported "total agricultural production increased at an average growth rate of 4.9 percent per year . . . well exceeding the high population growth at an average rate of 3.5 percent per year." Kao attributed this improvement in agriculture to favorable government policy and cooperative efforts between farmers and various government agencies and organizations. Educational programs were implied as having favorable effects but no quantitative analysis of their effects was made.

A study made by Meaders and Others (5) indicated many of the graduates from the vocational agricultural schools had entered farming and non-farm agricultural occupations. They reported nearly forty percent of approximately 12,600 graduates studied were employed in agricultural occupations and less than three percent were unemployed at the time of the study in 1962.

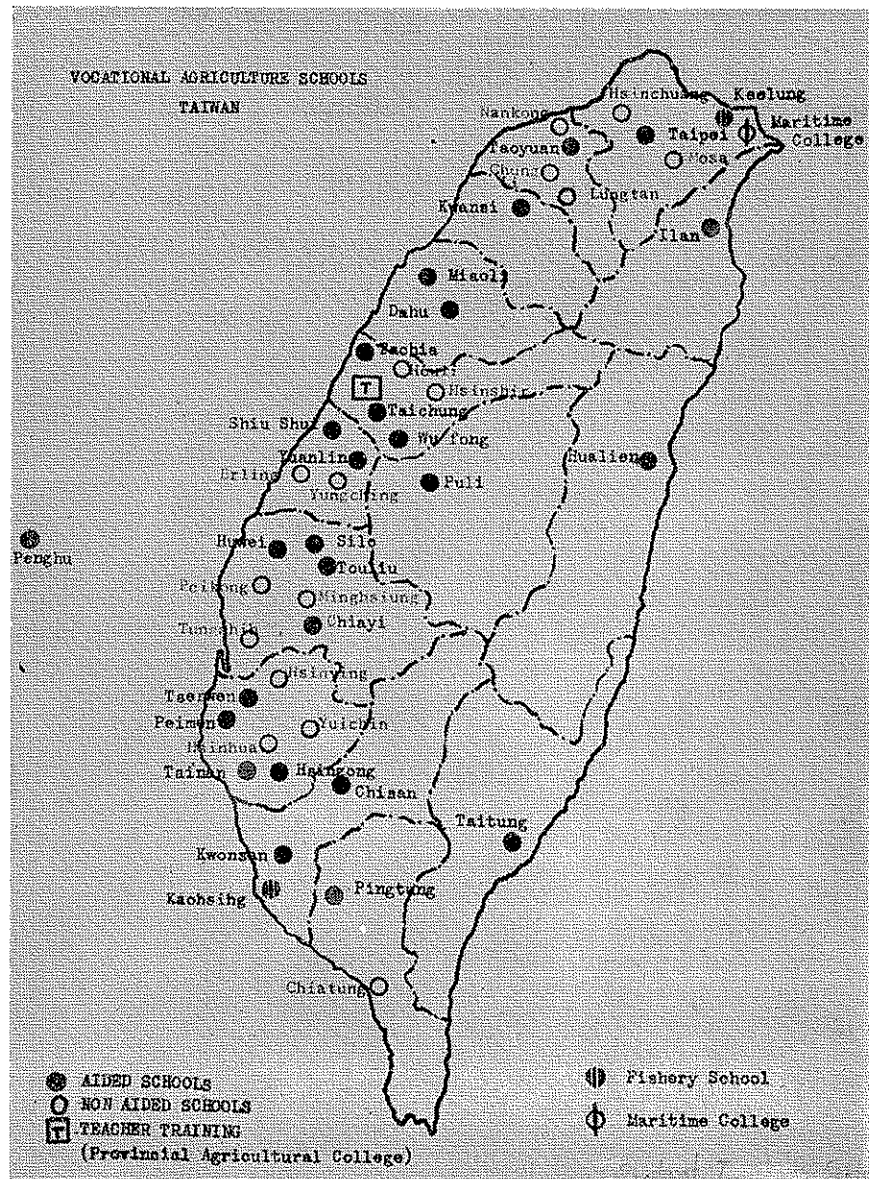
In the following paragraphs some measures for determining the level of development of the human resource in agriculture will be enumerated and illustrated; and a brief description will be given of the organization and nature of the vocational agriculture program in Taiwan as a means of supporting the hypothesis that vocational education in agriculture has made a major contribution to the development of agriculture in Taiwan.

Measuring Human Resource Development

Harbison and Myers (2) have suggested two major classifications of in-

dicators of human resource development: (a) Those which measure the quantity and quality of human capital; and (b) those which measure the gross or net additions to this quantity per year or over some other specified period of time. The indices chosen by Harbison and Myers to measure the level of human resource development were:

1. Percentage of active population in agricultural occupations.
2. Number of teachers at the first and second levels of education per 10,000 population.
3. Scientists and engineers per 10,000 population.
4. Physicians and dentists per 10,000 population.
5. Pupils enrolled at the first level of education as a percentage of the estimated population aged 5-14 inclusive.
6. Pupils enrolled at the second level of education as a percentage of the estimated population aged 15-19 inclusive.
7. Enrollment in third-level (higher education) as a percentage of the estimated population aged 20-24 inclusive.
8. Students enrolled in scientific and technical faculties as a percentage of the total third-level enrollment.
9. Students enrolled in faculties of humanities, fine arts and law as a percentage of total third-level enrollment.
10. Percent of population in age group 5-14.



Using these and some other measures Taiwan was classified by Harbison and Myers as being in the third level of development, i.e. one of the semi-advanced countries and considered to be "over the hump" in human resources development.

The indices proposed by Harbison and Myers help identify certain aspects of educational development for an entire nation. Some refinements through use of smaller geo-political areas within a nation are needed to measure the extent to which the educational attainments of those persons engaged in agricultural occupations (especially farming) are like or unlike the remainder of the population. Data bases on village, township or county levels might be used to determine the extent to which rural areas are served by schools, kind of schools, proportion of school-age population enrolled in school, and other factors. Some such comparisons are illustrated by the data in Table A which show that the proportion of the school-age children for grades 1-6 enrolled in school is the same in the rural counties of Taiwan as for the total province.

Educational Attainment in Taiwan

The educational attainment of the Taiwan population age 12 and over has been reported (6) in terms of those still enrolled in school and of those not in school. For the entire province in 1961 approximately 11 percent of the population age 12 and over was still enrolled in school. The proportion varied considerably from urban to rural areas as shown below:

Area	Proportion Male Pop. Age 12 & Over Still in School
Highly Urban—Taipei City	19%
Highly Rural:	
Changhwa Hsiangs	10%
Yunlin Hsiangs	9%

The educational attainments of those not enrolled in school showed even greater variation from urban to rural areas with the urban population having a much higher educational attainment, as shown in Table B on this page.

A much higher proportion of Taiwan's male population in urban areas, and especially in the city of Taipei, has graduated from junior middle schools or above than in the rural areas. At the lower end of the educational attainment scale, about one-fifth of the rural male popula-

TABLE A.

Three indicators of human resource development in seven rural counties in Taiwan.

Indicators	Seven Rural Counties*	Taiwan Total
1. % of employed male pop. age 12 and over engaged in agricultural (farming) occupations, 1961 data.	67.22	47.51
2. Pupils enrolled at the first level of education (grades 1-6) as a % of the est. pop. aged 6-12 inclusive, 1961-62 data.	94.9	94.9
3. % of pop. in age group 5-14, 1961 data.	28.2	27.6

tion age 12 and over, compared with one-twentieth of those in Taipei are considered illiterate. Although the educational attainments are much higher for the males living in the cities (perhaps due in part to more schools in the cities and to migration

to cities by those with the higher levels of education) there is a substantial proportion of those in the rural areas who are literate, and approximately 12 percent who have graduated from junior middle schools or above.

Many of the agricultural college graduates have taken jobs in agriculture but they represent about 12 percent of the professional and technical personnel in agriculture while about 88 percent are vocational agriculture school graduates (9).

60,000 Vo Ag Graduates

During the sixteen year period from 1947 to 1963 approximately 60,000 students graduated from the Taiwan vocational agriculture schools. If the findings reported by Meaders and Others (5) may be generalized, then one might expect to find approximately 24,000 of those graduates engaged in agricultural occupations

TABLE B.

Percent of out-of-school rural and urban Taiwan male population age 12 and over with various levels of educational attainment.

Population Groups	Level of Educational Attainment					
	College Grad.	Uni. or Middle School Graduates	Junior	Primary Graduates	Less than Primary Grads Literate	Illiterate
Province (N 3,014,606)	3.27	6.88	7.73	45.02	17.60	19.50
Urban Areas:						
Taipei City (N 330,767)	12.07	14.88	13.04	39.44	15.60	4.97
Four Large Cities (N 690,169)	8.83	12.61	11.43	42.28	14.77	10.06
Rural Area:						
Seven Rural Counties (N 1,228,937)	1.19	4.56	5.67	48.69	18.34	21.55



Fourteen outstanding young farmers from Taiwan were sent to Liberia during the fall of 1961 on a two-year assignment to help the farmers of Liberia increase their agricultural production. Thirteen were V-A school graduates and the other was a graduate of the Taiwan Provincial Chung Hsing University, College of Agriculture, Taichung, Taiwan. (Photo submitted by O. Donald Meaders).

with perhaps 18,000 of them in farming occupations.

The vocational agriculture school system which contributed to the educational attainments of these persons engaged in agricultural occupations should be described as another means of ascertaining some of the quality aspects of the educational attainments. Three measures of quality of the educational program are (a) qualifications of teachers, (b) the nature of the curricula followed by the students, and (c) the extent to which the graduates believe the vocational agriculture school training is valuable to them in their present occupations.

The secondary-level educational system in Taiwan consists mainly of public schools, financed and administered either by the provincial and/or county governments, all under the supervision of the Provincial Department of Education. Three separate systems of schools are provided: academic, vocational and normal. Students gain admittance by passing entrance examinations and paying tuition. Programs of instruction are operated at the junior middle school level (grades 7, 8, and 9), senior middle school level (grades 10, 11 and 12), and a few, especially some of the vocational agriculture programs span a five-year period (grades 7-11). In 1961-62 there were 41 vocational agriculture schools in Taiwan with an enrollment of about 25,000 students. Most of the schools were located in the rural areas as shown in the accompanying map.

The 41 vocational agriculture schools employed approximately 700 teachers. A study by Meaders (4) in 1961 of teacher qualifications and teaching assignments in five schools showed that approximately 60 percent of the agricultural teachers had regular teaching certificates based on a bachelor of science degree in agriculture or its equivalent. Approximately one-half of the teachers were teaching agricultural courses within either their major or minor fields of preparation.

Vo Ag Curriculums

The agricultural courses in the curricula for the junior vocational agriculture programs and the five-year programs were mainly comprehensive agricultural courses while the curricula in the senior vocational agriculture programs were specialized. The provincial vocational agriculture

schools offered students a choice of majors such as agronomy, horticulture, forestry, animal husbandry and veterinary science, agricultural products processing, and agricultural civil engineering.

The students in the senior vocational agriculture programs followed one of eight different curricula. Since the largest number of students were enrolled in and graduated from either the agronomy or comprehensive agriculture curricula, the agronomy curriculum will be used to illustrate the nature of the curricula (8). During the first of the three years the students spend 14 hours per week in agricultural courses and 20 hours per week in other courses such as Chinese, mathematics, English, and chemistry. During the second year the students spend 16 hours per week, and six hours per week during the third year, in general courses. During the second year 24 hours per week are spent on agricultural courses such as plant pathology, soils and fertilizers, genetics, field crops, and farm practice; thirty-two hours per week during the third year are spent on such courses as farm implements, farm management, biological statistics, meteorology, animal feeding, field crops, crop breeding and farm practice.

The Taiwan vocational agriculture graduates employed in agricultural occupations were found by Meaders and Others (5) to believe the agricultural courses were helpful to them in their present jobs. Also, nearly 80 percent of the graduates employed in agricultural occupations replied that the general (non-agricultural) courses were helpful in their present jobs.

Classes for Farmers

One additional measure is valuable to give a more complete picture of the program of instruction conducted by the vocational agriculture schools. Pai reported (9) that 34 of the vocational agriculture schools had conducted farmer training classes and that the schools and the Farmer Associations cooperated closely for planning, organizing, and conducting many of the classes. Meaders and Others (5) found that more than 70 percent of all the graduates in their study and nearly 75 percent of the graduates employed in agricultural occupations checked "Agree" in response to the statement "Vocational agriculture schools should offer classes to farmers." Ninety-two per-

cent of the graduates employed in farming were in agreement with the statement.

In summary, there appears to be evidence to support the conclusion that vocational education in agriculture at the secondary school level in Taiwan has made a major contribution to the development of the human resource in agriculture. The level of development of the farmers, agricultural technicians and professionals has probably contributed to the success of various government sponsored agricultural development programs. Additional information is needed from other countries to determine the extent to which the conclusion can or should be generalized for other far eastern nations. □

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In Egypt

the Agriculture



Louis M. Sasman

Teacher Tells

LOUIS M. SASMAN*, Former State Supervisor of Vocational Agriculture, Madison, Wisconsin.

Agricultural Education has been a part of the program of the Ministries of Education or Agriculture in Egypt for over 50 years. Its beginning coincided fairly closely with the beginnings of agricultural teaching in the secondary schools of the United States.

The program is provided through a system of Primary and Secondary Agricultural Schools located from Alexandria, on the Mediterranean, to Kon Ombo, nearly up to Aswam. The staff members of these schools are appointed by the Division of Technical Education of the Ministry of Education in Cairo. Many of the staff members are graduates of the Agricultural Faculty of the University of Cairo. Others are graduates of the secondary agricultural schools with supplementary training in the Higher Institutes of Agriculture.

These higher institutes are located at Kafr El Sheikh, down toward Alexandria, Moshtohor, a short distance from Cairo (the oldest of the secondary agricultural schools) and Minia, some 150 miles or so up the Nile from Cairo. All of these schools have as their administrators men who worked with the United States Operations Mission to Egypt and have

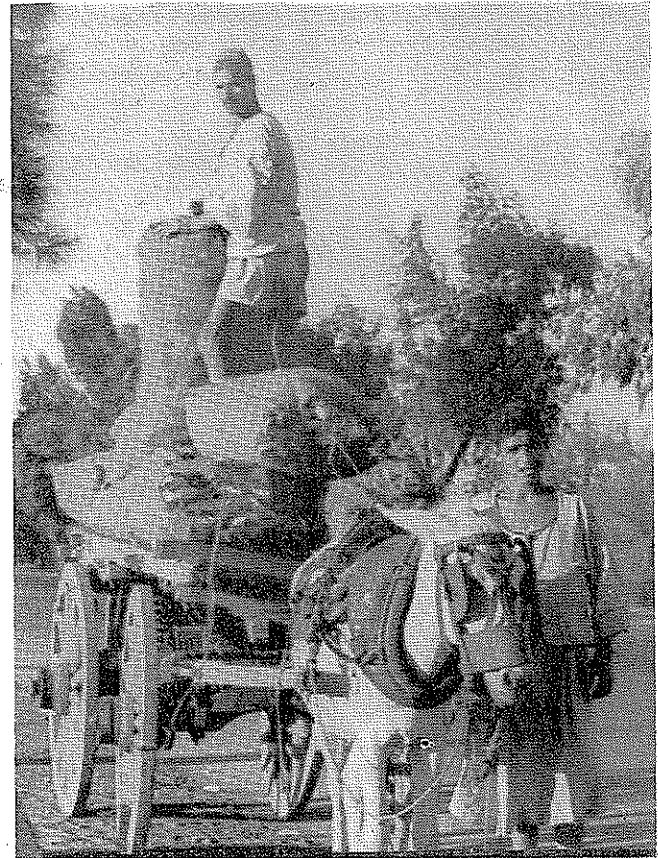
*Louis Sasman spent two years as an Agricultural Education Consultant to Egypt in 1954 to 1956.

spent from six months to several years in the United States. Two of them have their Ph.D. degrees.

Each of the secondary schools and most of the primary schools have a farm ranging in size from two to fifty or more acres. The extent to which these farms are actually used to provide training for the students varies with the philosophy of the administrator. The work on the farms is done by a laboring staff under the direction of a farm supervisor. In most cases, very little if any actual farm work will be done by the students. Such as is done, is performed under the immediate supervision of the farm foreman rather than under the direction of the instructor. At Kom Ombo, in Upper Egypt, some field work in sugar cane growing is practiced in co-operation with the sugar cane interests in that area.

Little Laboratory Work

The lecture method of instruction is most commonly used with occasional laboratory demonstrations by the instructor. There is very little laboratory work such as we have in vocational agriculture although there is some practice in the canning of fruits, fruit juices and vegetables and in the making of soft cheese. Some of the schools participate in the Spring Flower Show in



Sorghum canes being hauled to town.

Cairo and a number of them have school fairs of one kind or another. These fairs may include demonstrations by the beautiful and well-trained horses of the community.

There are very few texts or references such as we are accustomed to. Most of the schools have libraries but they are commonly locked and available to students only under close supervision. There is also commonly a display room where agricultural devices of the past and present are exhibited.

Many of the problems that trouble the program of Agricultural Education in Egypt are somewhat similar to those we have in the United States: For instance, we have some difficulty in securing the type of pupils we would prefer to have. In Egypt, schooling beyond the elementary school is a real privilege. Facilities and funds are so limited that secondary schooling is available only to a small percentage of the population. So, every one that can go to school for as long as possible. Enrollment in the secondary academic school is the highest goal. If these schools are filled or a student's grades are not quite high enough to qualify, attempts will be made to enroll in the agricultural or industrial schools. So there are some students in the agricultural schools who are there be-



Secondary Agricultural Students harvesting cane.

cause they are interested in agriculture; others are there because they could not enroll in some other school. However, being enrolled in an agricultural or industrial school is still a privilege as there are more who want to enroll than the schools can accommodate. So, those who are there must maintain a satisfactory standard; otherwise some others will take their places.

Developing programs of practical training is much more difficult than it is in this country. In the first place, physical work is done by the peasants. Consequently, teachers may *tell* pupils how to do certain jobs but they do not *show* them how. If that is done, it is done by the workmen. In addition, the farm work is done by the peasants so any contact with the farms is made with the farm owners or operators who, in turn, may

pass the information on to the peasants. An owner may have up to 50 acres but this may be farmed by a dozen families.

Overcoming Tradition

We, in this country, know something of the difficulty of overcoming traditions of a generation or two. In Egypt, the traditions go back for several thousand years. The experience of the peasants has taught them that government is oppressive. Consequently there is suspicion at the suggestion of new methods and new ideas much the same as there is in this country, only to a greatly increased extent. In addition, the schools have little means of maintaining contact with the surrounding community. In some areas, advisory committees have been established and progressive farmers look to the schools and the Ministry for

help and suggestions. The Ministry of Agriculture is developing an Extension Service that works through the schools and with land owners and farm operators in the communities. But the schools, for the most part, are largely isolated units and the paths of communication are narrow and strewn with obstacles.

Both the Ministry of Education and the Ministry of Agriculture in Egypt have many capable and devoted workers who are anxious to do all they can for the advancement of their country. Sometimes, the obstacles seem almost impossible to overcome but the schools are progressing, schooling is being brought to increasing numbers of the population, contacts between the schools and communities are being increased and farming practices are slowly but surely being improved. □

OLDEST CIVILIZATION

practical, is to provide pre-college education at the agricultural colleges for selected, intelligent, village boys who are sixth-grade graduates from the village schools. It may be possible that such a program will be approved by the Ministry of Education for Ahwaz Agricultural College in the future.

Unless village boys are prepared to go back to the villages and teach agriculture, it will be many years before up-to-date agricultural education practices will reach the remote villages of Iran.

With the vast oil reserves in Iran, and with forward looking leadership from the Shah and the Ministry of

Continued from page 270

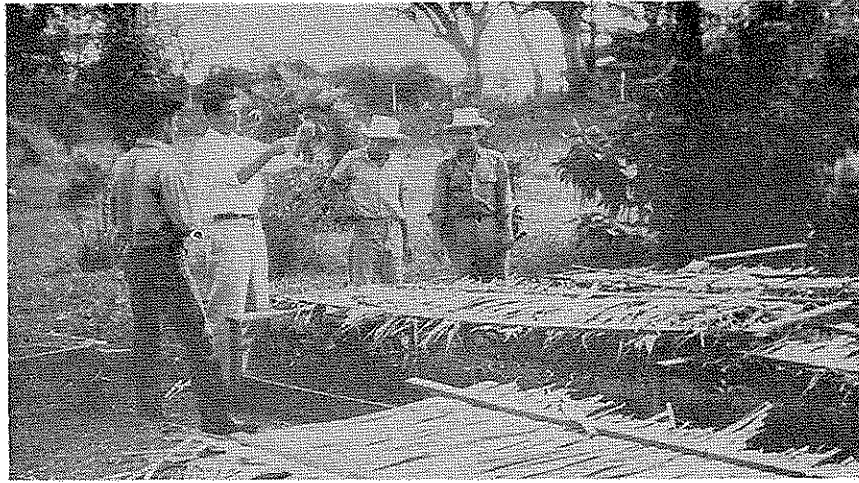
Education, programs of agricultural education should make rapid progress in the future. □



Students learning to adjust and operate a level. This is important in the proper planning of irrigation structures.

From Former Issues

In November, 1952, William Knight of Gaylord, Michigan, reported on a program for the wives of veterans and young farmers. He stated "The changes that have been brought about in many cases have been beyond our expectations. Several wives, who particularly despised anything rural, are now active in agricultural organizations in their communities. The husbands appreciate their wives' club. More than once, I have been told on a late afternoon visit, "I've got to hurry with the chores tonight so I can help the Mrs. get ready for her club tonight."



Agricultural Education In Central America and Panama

By HAROLD M. BYRAM, Teacher Education, Michigan State University



Harold M. Byram

A description of agricultural education in other countries should be viewed against the backdrop of socio-economic and general educational conditions prevailing in these countries. Many of the differences in programs of agricultural education between those of Central American countries¹ and those of the United States can be traced to the difference between these countries and our own.

In 1958 only 451,735, or half of the children of Central America who were old enough to enroll in the first grade, did so. Only half of these enrollees progressed to the second grade, and in 1963 only 17 per cent of the 1958 starters had completed a primary school education of six grades. Based upon previous survival rates it is predicted that from only one to four per cent would complete secondary school in 1968-69.² Thus, the chances of a farm boy progressing as far as the secondary school, and of having a secondary school available to him at all, let alone one providing instruction in

agriculture, have been small, indeed.³

The purpose of this article to describe the provisions of agricultural education in Central America and Panama, with emphasis on programs at the secondary and post-secondary level as they existed in 1963. Information includes data from documents made available to the writer while in Central America and during the current year; and from visits to schools made by him in Costa Rica, Guatemala, and Honduras as a consultant to IIME.⁴ These documents include the report on the survey of vocational agriculture in Central America written by IIME staff members for whom the writer served as consultant.⁵ The information on the program at Divisa, Panama was supplied by William Householder, graduate student at Michigan State University, who was an advisor in agricultural education for USAID/Panama from 1959 to 1962, and who spent the summer of 1964 in Panama conducting research.

Information on Central America in 1963 showed a total of only 12

³ A recent report of a survey in Latin America reveals that only two per cent of the secondary school population surveyed received systematic instruction in agriculture. (From Fernando Del Rio, "Agriculture Education in Latin America and Its Promise for the Future," *The Phi Delta Kappan*, 45:202-207, Jan., 1964.

⁴ IIME (Instituto de Investigaciones y Mejoramiento Educativo) is the regional educational research center in Central America, located at the University of San Carlos of Guatemala and operated jointly with Michigan State University.

⁵ "La Educación Agrícola en Centro America," Victor Ardon and Arnoldo Escobar (Guatemala: IIME, 1964)

¹ Central American countries refer to those of Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

² Karl T. Herford, et al., "A Plan of Public Expenditure for Education in Central America, Instituto de Investigaciones y Mejoramiento Educativo (IIME) Edificio Central, Ciudad Universitaria, Guatemala, C.A., mimeo, 39 pp., 1964, pp. 4-6.

schools of secondary level that were providing instruction in vocational agriculture. Seven of these were in Costa Rica, enrolling 428 students and taught by eight teachers. The other five were in other Central American countries, enrolling 560 students and taught by 70 teachers. The annual cost per student ranged from \$335 to \$1,512. These figures are in contrast with the average of \$127 for all secondary schools in Central America,⁶ and serve to underline the cost factor in current efforts at providing vocational agriculture at the secondary level in these countries. In all countries outside of Costa Rica vocational agriculture is in boarding schools. The number of teachers employed in these schools is accounted for by the fact that many of them teach science and general education subjects, and that due to low salaries many serve only part-time as teachers in these schools.

The level at which instruction is offered varies in Central America. In the Costa Rican schools where instruction is offered it is provided for grades 7 through 11. In El Salvador and Guatemala it is offered in grades 10 through 12. The secondary agricultural school in Honduras accepts students who have completed the six-year primary school and provides three years of instruction. The private school in Nicaragua provides instruction for grades 9 through 11.⁷

National Schools of Agriculture

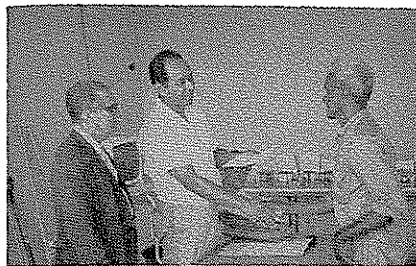
The governments of El Salvador, Guatemala, and Panama each maintain one national school of agriculture, financed and controlled by the national ministry of agriculture in each country. Nicaragua has a private school of agriculture and Honduras has a demonstration school financed jointly by the national government and SCIDE.

Guatemala

The National School of Agriculture of Guatemala is located near the town of Barcenas. It has been relocated twice since its founding, but has been in its present location since 1944. This three-year school is for boys who have completed the *prevocational* course (junior high school). These boys spend their forenoons in work on the school farm, the largest of its kind in Central America. Afternoons are spent in classes. Of the 31 teachers, 16 are full time and five

⁶ Herford, *op. cit.*, p. 4.

⁷ Ardon and Escobar, *op. cit.*, p. 75



The Vice Minister of Agriculture and the Director of the National Institute of Agriculture, Panama, present a diploma to the 1,000th graduate of adult-farmer classes. (Photo by Householder).

are part time. This boarding school enrolls 180 students who have won scholarships large enough to pay for the costs of instruction and subsistence. During the nine years prior to 1963 the school enrolled a total of 1612 students. Of the 514 graduates, 137 continued their education; 30 of these were graduated from a university in agriculture or veterinary medicine. Of the others, 70 became specialists in different branches of agriculture, 17 pursued advanced study out of the country and 20 were pursuing studies in agriculture or veterinary medicine at the University of San Carlos of Guatemala. Very few became farmers.

Guatemala has another school, the National School of Forestry located at Amatitlan. It is like the school of agriculture in its requirements for admission and duration of curricula. Since it is the only school of forestry in Central America, it could serve as a regional school. Other countries, however, are not well represented in the enrollments. The school year is comprised of 40 weeks of class work plus four weeks of field study in forestry camps. As in the national agricultural schools, the school days are divided, with a half day for work activities and a half day for classes. In 1963, the program was suffering from lack of dormitory facilities, and only forty students were enrolled.

El Salvador

The National School of Agriculture of El Salvador is located at San Andres. To be admitted, students must have completed the *Plan basico*, a relatively new three-year post-primary, or junior-high school program in which some practical arts subjects have been introduced. Three years of instruction are provided. Fourteen teachers provide instruction and supervision of the practical activities on the school farm, with time approximately equally divided between the two. In 1963, its 12th

year of existence, 120 students were enrolled. By 1962, 37 had completed the three years for graduation. This school, like other agricultural schools, is a boarding school. Enrollees are students who have won government scholarships. There are not enough scholarships and facilities available to accommodate all who would like to enter. Classroom instruction and work activities on the school farm are supplemented by field trips to agricultural businesses and industries and also by laboratories and shops.

Honduras

The school of agriculture in Honduras differs in several respects from the national schools in El Salvador and Guatemala. The *Escuela Granja Demostrativa* (demonstration farm school) is located at Catacamas in a fertile valley of northern Honduras. The school offers a three-year instructional program aimed at teaching practical agriculture. Since it enrolls boys who have only completed the six-year primary school, its graduates are not qualified to enter the national university without additional study. Although many of its graduates go into other work, 25 per cent of its graduates have entered farming.

The school at Catacamas is also unique in that the teachers are all employed full time and live at the school. In 1964, there were 109 students; since 1952, the school had graduated a total of 193 students with the title of *Perito agricola* (agricultural expert). The school had

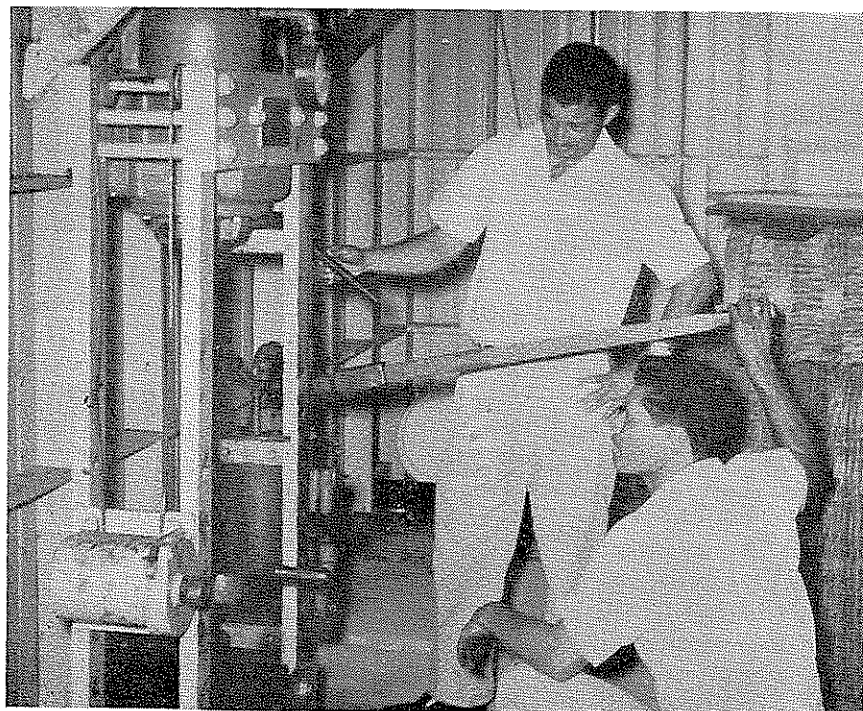
several student organizations, including a club called *Futuros Finqueros de Honduras* (FFH).

Panama

The National Institute of Agriculture in Panama is located near the village of Divisa. As a result of help from USAID and CARE and an agricultural business organization, boys have been helped to start and carry on production projects of their own on the school farm. The development of a student credit cooperative was of considerable assistance to boys who developed livestock projects. This is something virtually unknown in the Central American schools. Placement for farm experience on good Panamanian farms also was introduced during the 1960's. Started in 1942, the school enrolls 85 to 100 students annually and, by 1964, had graduated 457 boys. A follow-up study in 1964 revealed that most had entered government employment in agriculture or in agricultural business or industry. There were, however, about eight per cent who had gone into farming. These boys live away from home while they are in school, hence do not have the opportunity to build an equity in their own farm business.

Nicaragua

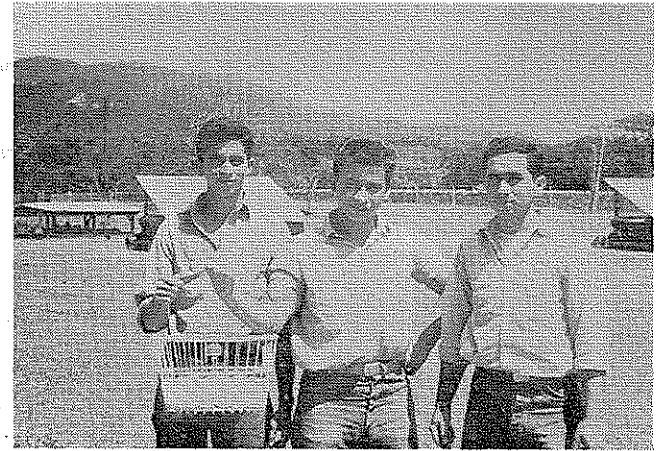
The one school in Nicaragua in which vocational agriculture is taught is the International School of Agriculture and Animal Husbandry. It is a private school located at Rivas, and is run by Dominican Fathers. It is a relatively small school, having a ca-



Teacher instructing young farmer in the school farm shop, Heredia, Costa Rica.



Farmers learning chemical control of weeds at the National Institute of Agriculture, Divisa, Panama (Photo by Householder)



Students on the poultry farm of the Pan American School of Agriculture, Zamorano, Honduras.

capacity of about 80 boys, who must have completed two years of *Plan basico* prior to entrance. By 1963, there were 276 graduates of this school. Each received the title, *Perito agricola*.

These, then, are the secondary schools of vocational agriculture of the boarding school type, combining instruction and practical experience on school farms. In some of these, however, certain Latin American traditions of general public education appear to have been inherited. These include part-time teachers, proliferation of courses, much dependence upon lectures, emphasis on examinations and, in one school (Guatemala), the requirement of a thesis for graduation. All of these schools combined had by 1963 been producing only an average of 216 graduates per year. When it is remembered that only a small minority of these graduates enter farming it can readily be realized that these countries have yet to develop vocational agriculture to the place where it will be important in the preparation of future farmers.

Costa Rica, a Contrast

By way of contrast, Costa Rica has embarked on a program that should reach a much larger proportion of youth interested in agriculture. In 1963, there were six five-year, secondary schools in which departments of vocational agriculture had been installed. These departments are financed 50-50 by Costa Rica and USAID. A representative school is located in Liberia.

The school at Liberia had 107 enrolled in agriculture in 1963 after four years of operation. Agriculture is elective and the classes include some pupils from town as well as

from the farms. Bus transportation is furnished by the government and proves to be of material aid in promoting regular attendance in school. The school day is not divided as it is in the schools of agriculture previously described; however supervised practice has been carried on almost exclusively on the school farm. A modern classroom and farm mechanics shop constitute the instructional facilities, supplemented by the school farm.

Costa Rica also has one private school of agriculture at San Carlos, Alajuela, administered by Benedictine Fathers.

Post-High School Education

A unique program of adult-farmer education has been developed and conducted at Divisa, Panama, at the National Institute of Agriculture. Realizing that the school was barely "scratching the surface" in farmer training, the administrators of the school, in 1961 expanded its facilities, and organized and offered short courses to adult farmers. Two dormitories, kitchen, dining room for 50 people, and two classrooms were built with funds provided by USAID/Panama.

The first short course was attended by 20 owners of small citrus fruit farms and ran for five days. Five other courses were conducted in rapid succession. The school has a capacity of about 500 trainees per year in short courses ranging from three to ten days, according to Felix Aguila, director of the center.

By the end of the three-year period, September 1, 1961 to September 1, 1964, 78 courses had been given, with an aggregate enrollment of 1,131, or nearly 15 per course. A course in rice, corn, and bean cul-

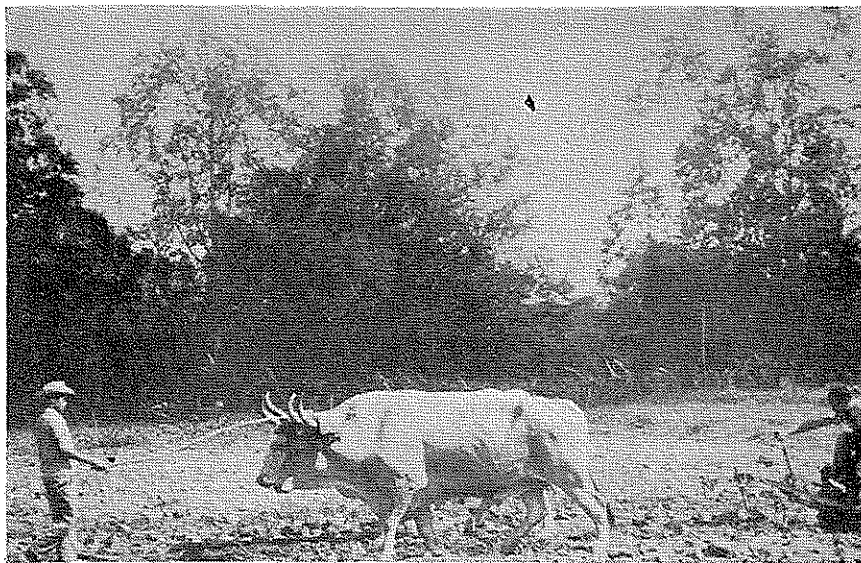
ture was given 20 times; one on home gardening 14 times; use of agricultural equipment, 11; apiculture, 10; and use of ox-drawn equipment, 9. Other popular courses were fruit and vegetable production, citriculture, applied nutrition, broiler production, and showmanship; five other courses were given once each. Certificates for successful course completion are given to the young or adult farmers at the end of each course. The program of farmer education is probably having a greater impact on farming practices than most secondary school programs. Even so, the numbers of farmers who could benefit from this instruction is probably many times the number who already have received it.

Zamorano

The visitor to Central America who is interested in seeing an advanced school of agriculture—other than one which is a part of a university—would do well to visit the Panamerican School of Agriculture at Zamorano, Honduras. This school was originally financed by the United Fruit Company to prepare young men for technical and business positions in agriculture.

Scholarships are given to outstanding graduates of secondary schools in Latin America. The entering students are rigidly screened by examinations given by faculty members who go to the sending countries to interview students.

Faculty members for this school are recruited from several countries, and their education compares favorably with Central American university professors of agriculture. The large farm is well equipped with machinery, buildings, and livestock. Instruction and modern practical exper-



Learning to operate ox-drawn equipment, an improved practice, on the school farm at Catacamas, Honduras.

ience are provided students in every phase of agriculture important in Latin America. Judged by U.S. standards for high quality education in agriculture and school organization, no school has yet been seen by the writer which excels Zamorano. The record of placement has been phenomenal, i.e., over 95 per cent of the graduates were employed in agricultural occupations.

Central America had another post-secondary school of agriculture in 1963. It was called the National Agricultural School of Nicaragua. It has since become a part of the University of Nicaragua.

Higher Education in Agriculture

The Universities of Costa Rica, of San Carlos, of Guatemala, of Nicaragua, and of Panama each have a *Facultad de Agronomia* (college of agronomy) or school of agriculture. The contribution of these university departments to the agricultural economy and to the economic and social welfare of the masses of farmers could be greatly increased if modern practices were placed in effect.

These universities do not have an adequate supply of farm-boy graduates from which to recruit. Of the students they do get, many—perhaps half—require 10 or more years to complete work for their degree if indeed they do complete it, since they are only part-time students because of financial handicaps.

Some university professors of agriculture conduct research studies, but the closely-built trinity of “teaching-research-extension” found in colleges of agriculture in the U.S. is practically non-existent in Central

America and Panama. The research and extension programs typically are administered by the respective governments in these countries. University program are almost exclusively limited to instruction. Moreover, there is no direct contact between these instructional faculties and the national secondary schools maintaining programs of vocational agriculture. Of the 78 teachers of agriculture in secondary schools of Central America in 1963, only 12 possessed the degree *Ingeniero agronomo*, and only seven others held university degrees. Furthermore, none of these universities has provided undergraduates with professional education for teaching. Thus, the universities cannot be said to be the source of qualified teachers of vocational agriculture; they provide little in the way of in-service education for them.

One other institution of higher education should be mentioned. This is the Inter-American Institute of Agricultural Sciences located at Turrialba, Costa Rica. IICA is not exclusively a Central American institution; rather it serves all of Latin America through its agricultural research and its program of graduate study in agriculture. Its impact is primarily on faculties of agriculture in universities, on agricultural research stations, on agricultural extension services, and on governmental bureaus and agencies in agriculture.

What of the Future?

The directions which these countries will be able to take will depend on the extent to which many basic needs are met. One of these needs is to increase the holding power of ele-

mentary and secondary schools. A new program of university teacher education for secondary schools is needed. More schools and roads—to bring students to them—need to be built. Financial support for education should be increased. Ministries of education which do not now have responsibility for agricultural education either should have this responsibility given them. Coordination of research, extension, and teaching should be brought about. More schools available to rural youth need to be provided in which instruction in vocational agriculture can be given.

In spite of occasional pessimistic reports from the region there are many hopeful indications for the future development of Central America. The Central American Common Market is winning approval. The lowering of tariff walls, common currency, common tax laws, and free interchange of labor are being planned. Central American educational leaders are studying common problems. The regional studies of secondary and higher education by IIME soon will be published and, it is hoped, acted upon. A human resources study is expected to be completed soon. The Inter-American Committee for Agricultural Development (CIDA) has been developing a plan for surveying secondary and higher education in agriculture, as well as research and extension in Latin America, with consultation from several mid-western universities. The plan of this study includes Central America and Panama.

Meanwhile, the U.S. Government, through its technical assistance program, through its help in the Alliance for Progress, through several U.S. universities working under contracts or foundation grants are assisting in the study of needs and existing programs. Knowledge about the development and use of instructional materials in agriculture, about the development and use of supervised practice programs, and about other procedures learned through years of experience in the U.S. is being shared with educators of the region.

The people of Central America and Panama place a high value on education. With the right kind of help and encouragement they should be able to chart a future course in education which could help all of them to become rapidly developing nations. □

Both Sides

The F. F. A.-Failing Future America?

L. R. LAJEUNESSE, Teacher of Vocational Agriculture, Cosa Mesa, California



L. R. Lajeunesse

The word farmer, like it or not, is a much maligned noun. In the understanding of the average person, it bears an unhealthy onus. Farmers are, to Mr. and Mrs. Urban America, a rather ignorant lot of uncultured boors complete with bib-overalls, straw hat, and mono-syllabic drawl. Declaim it, resent it for its unfairness, and ponder the injustice of stereo-typing, but accept it for a fact. No additional comments are required in the face of the unhappy truth that farmers themselves have incorporated the word into their lexicon of derogatives. Such expletives as "Dumb Farmer" and "he bought the farm," in reference to the unfortunate individual who goofed badly, do not add anything to the reputation of an organization which uses the word in its title.

This is one of the reasons why those of us living and working in the great metropolitan areas are finding the job of selling the Future Farmers of America to the highly sophisticated high school youth therein a monumental task.

Thirty Years and Still No Change

The F.F.A. has not changed its organizational format, its dated ritual, or its outmoded and restrictive National Program since its inception in 1928. Vocational Agriculture Instructors have leapt chasms and crevasses in the last 30 years to bridge the gap between the landslide of developing Agricultural technology and the application of that technology. The same type of forward thinking has not been applied to the updating of F.F.A. activities and organization. The F.F.A. has been lost in the shuffle. It does not satisfy the needs of the types of agriculture programs which are now being offered by force of circumstance in the urban areas of the United States. Even now, the observant inquirer will find a truly

rural environment in very few places. The magnificent achievement of the REA in bringing electrical power and its consequent communication aids like radio and television to most of the nation's farms has changed the character of our farmers and their youth. They are no longer uninformed, nor are they encased in a cracker-barrel shell of placid rurality. One result of this burgeoning awareness has been to garb even our farm youth in a sugar-coating of sophistication. These young people cast a frowning eye on some of the time-worn symbols which underpin the Future Farmers organization.

Recent revision of the enabling act which provides the monies for our Vocational-Agriculture Program will expedite the badly needed changes in our Vo-Agr. curriculum; but unless some action is taken with the organization which is the prime teaching tool of most of our agriculture instructors, we will remain frustrated. Agriculture teachers in rural areas will do well to look closely at the situations and problems facing their colleagues in the urban complexes. They are experiencing now what will be the norm in fewer years than one might think. Look around your own stamping grounds for the facts of urbanization. Escalating land values, increasing school tax loads, housing tract development, speculation in land; all are characteristic of the stupendous population explosion which will gobble land and resources at an ever increasing rate.

Failings of FFA

An enumeration of the failings of the Future Farmers organization as both a teaching vehicle and as a mechanism by which those intangible but vital mores of character development, scholarship, service, cooperation, and thrift, follows. These are, of course, opinions only. But they are opinions which seem to be general among instructors of Vocational Agriculture in urban situations. They are:

1. The very name of the organization.

No young person today wants to associate himself with a function which, by very name, casts aspersion upon his intelligence; and being "not square" is the end-all of American youth. We either have to change the public's interpretation of the word "farmer" or change the name of the organization. The latter course appears more feasible.

For two strong reasons it is no longer wise for Vocational Agriculture to use the word "farmer" in the title of its most publicized organization. Most obviously, we are not merely training farmers. In point of fact, if our program were evaluated on this point alone, the record would show a low success record. The other strong argument lies in the fact that the public image of Vocational and General Agricultural Education is gleaned mainly from the Community Service and publicity functions of the F.F.A. The balance of the Vocational Agriculture curriculum is submerged beneath the eye-catching activities of the F.F.A.; and to label everything we do with the misnomer, "Farmer," does not make good sense.

It is simply not wise for agriculture instructors to promulgate such an image and impression. Without making mountains of explanation, the agriculture instructor cannot acquaint a casually interested person with all of the ramifications of the agriculture program. The individual gropes over the surface, spots a word, a characteristic, a few facets, generalizes on the whole and makes a decision about the program which may or may not be (and usually is not) accurate. The importance of presenting a proper image is underestimated, by too many of us. Making use of stereotyped words, like farmer does little to help the situation.

2. The verbose and quaint language of the ritual.

The ritual implemented by the F.F.A. is almost pious in its language. While no one can take exception to the ideas and ideals expressed in the ceremonies, they do require updating. Even a casual pe-

Continued on page 289

of the Issue

The FFA-as New as Tomorrow

W. J. KORTESMAKI, State FFA Executive Secretary, St. Paul, Minnesota



W. J. Kortesmaki

It will be 61 years ago next April that Henry Ford pushed his first tin lizzie from his workshop for the first road test. He called his car "Ford." Twenty years later the car was referred to as 'Model T', but the name stayed the same—*Ford*. Today, although claims are made that the car rides quieter than a Rolls-Royce, it's the 1965 Ford.

The Future Farmers of America organization's constitution, purposes and ceremonies were adopted at the Baltimore Hotel in Kansas City over thirty-six years ago. The site of the charter meeting has disappeared while the organization, with few internal amendments, has continued to grow and has provided ample opportunity to affiliated State Associations to expand and to develop leadership, citizenship and other vocational-related 'learning by doing' experiences.

In addition to activities for local chapter members the State FFA Association conducts outdoor activities at the State FFA-FHA camp. For the past fifteen years the State FFA officers have conducted a goodwill tour. A State FFA Foundation was organized in 1953.

A Dynamic Program More Necessary Than A Changed Name

Having had an opportunity to participate in FFA activities as a member for five years, as a district adviser for nine years and as State FFA executive secretary for 18 years, I have found that there is very little need for drastic changes in Future Farmers of America if its activities enlist the creative and imaginative talents of the entire membership. The efforts of FFA advisers have not been hampered by an obsolete organization when statewide FFA activities, as carried on in Minnesota and other states, continue to provide an excep-

tional opportunity for its members to express themselves in the areas of cooperation, brotherhood, leadership, citizenship, scholarship, thrift, improved agriculture and service.

We need more youth organizations dedicated to putting into practice constructive vocational and citizenship objectives. Citizenship and brotherhood are not learned. They come about through practicing them in FFA's charitable drives, People-to-People programs and community service activities. The present FFA rituals, by-laws, ceremonies and purposes, although they need modern interpretation and application, do not limit FFA participation in a wide scope of activities.

The name "FFA" has transformed the meaning of the word 'farmer' from a stigma of pre-FFA days to a status symbol. The 'Learning by doing' and 'Living to serve' activities now conducted by progressive chapter advisers do more to 'sell the public' on the 1963 Vocational Act objectives than would the change in its name.

These action activities are the most vivid possible proof that agriculture is more than farming and, in this age of overabundance of labels and nicknames, what we *do* is far more important than what we *call* ourselves.

I will attempt to show that FFA in Minnesota like most states has been making adjustments as it advanced during the past thirty-four years in its statewide activities. I maintain that we have kept pace with the times — whether in spite of or because of our organization's name. Let me offer a few highlights of the Minnesota FFA in Action record as evidence:

Corn For Camp Courage

Over 200 Future Farmer chapters since 1953 have contributed about \$100,000 to Camp Courage making it possible for over 1500 crippled youngsters to attend summer rehabilitation camp.

Self Help

Since January, 1963, over fifteen truckloads of reconditioned farm machinery have been shipped overseas to emerging countries.

Small Hand Tools to Congo

Hundreds of hoes, saws and shovels were collected and reconditioned for shipment to the Congo by Future Farmers.

Anti-smoking Resolution

Thousands of Future Farmers received first-hand experience in conducting anti-smoking educational programs before secondary and elementary school groups. The delegates at the 1964 State FFA Convention passed a resolution unanimously endorsing and supporting an intensive campaign on harmful effects of smoking.

Safety

Kernel of Corn for Safety

Thousands of Future Farmer members in Minnesota are carrying a grain of corn in their pockets to remind them to be safe while driving a car or a tractor. This statewide safety 'gimmick' was kicked off a couple of years ago.

Slow-moving Vehicle Emblem

Several thousand slow-moving vehicle emblems have been installed by Future Farmers since this statewide traffic safety project was launched. The safety programs have been a part of the State FFA Program of Work each year since 1930. New safety programs have been added while old ones have been dropped or changed. The newest addition has been the home fire drills.

Leadership

Two of the oldest state-sponsored activities are the Public Speaking and Parliamentary Procedure contests. Creed speaking and F.H.S. (Firm handshake) are the two recent leadership training activities added to the state roll of 144 activities.

Forestry-Conservation

To show again that present ground

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Working overseas may mean that the technician will have to adapt to the use of primitive tools and methods of work as shown by these Iranian agricultural students building an irrigation reservoir on their school's farm.

So You Think You Want a Job Overseas!

JAMES E. CHRISTIANSEN, Teacher Education, The Ohio State University



James E. Christiansen

Has your secret yearning been to escape the trials and tribulations of teaching vocational agriculture and take an overseas assignment for two or three years? While the large fluctuating numbers of agricultural technicians serving abroad during the decade of the '50s have diminished somewhat, a steady demand for experienced people who are willing to work overseas still exists. Private organizations such as the Near East Foundation, Ford Foundation, American-Korean Foundation, American Friends of the Middle East, CARE, and various church groups; and governmental agencies such as the United States Agency for International Development (AID), which is the successor to Point IV and ICA, and the Food and Agriculture Organization (FAO) of the United Nations are often looking for qualified personnel to participate in programs of agricultural, educational, and community development in the emerging nations of the world. These agencies want

Editor's Note: James E. Christiansen, the author of this article, served in Iran as a technician in agricultural education for the Near East Foundation from 1961-1963. Prior to that time, he had taught vocational agriculture in Arizona for seven years. He is currently working for a Ph.D. degree in agricultural education at The Ohio State University

personnel possessing the same general prerequisites. Can you qualify?

Professional competence and practical experience in a given field are normally the first qualifications which a person believes necessary when considering an overseas position with one of these organizations. These are important considerations, and rightly so, for it is an insult to a nation's people to have a strange American come along among them to provide leadership through demonstrations of technical know-how and assistance if he has neither the professional background nor the practical experience necessary to be effective; and it certainly does not help American prestige or reputation either.

However, let us assume that you can qualify for one of these foreign service positions because of your experience and technical competence as a successful teacher of vocational agriculture. You still must be able to answer "yes" to the following twelve questions if you expect to be successful and happy in your new work:

1. Does the rest of the family, particularly your wife, concur with you 100% in the proposed undertaking?

Family cooperation and a healthy mental outlook which includes zest for living and an adventurous spirit are indispensable to a person's success in any foreign service position. A person cannot do his best if everyday when he comes home he finds that the children are unhappy or that his wife meets him at the door accus-

ingly with complaints that the electricity failed, with tearful details of the latest feud with the servant over washing clothes, with news that the sewer smells, and with gripes about the oppressive heat; perhaps she is dejected merely because she was out-bargained four times in the local bazaar.

2. Will you take the time and effort to do the necessary homework about your new home before you go?

The more you and your family know about the culture, economics, history, geography, and customs of the country before you arrive, the easier it will be for you to adapt your living habits and the fewer "cultural shocks," frustrations, and disappointments will you encounter.

3. Can you leave home without regrets?

The more you worry about home and family in the United States, the more likely you will become homesick and unhappy in a foreign country. Some tinges of homesickness and desires for the normal accustomed activities and familiar routines or surroundings of the U.S.A. are natural and will occur however.

4. Do you look on an overseas job as an opportunity to learn yourself as well as to assist and teach others?¹

5. Do you possess a sense of social service and dedication to your job to the extent that you are willing to work hard and can be challenged to accomplish goals you never would have thought possible?

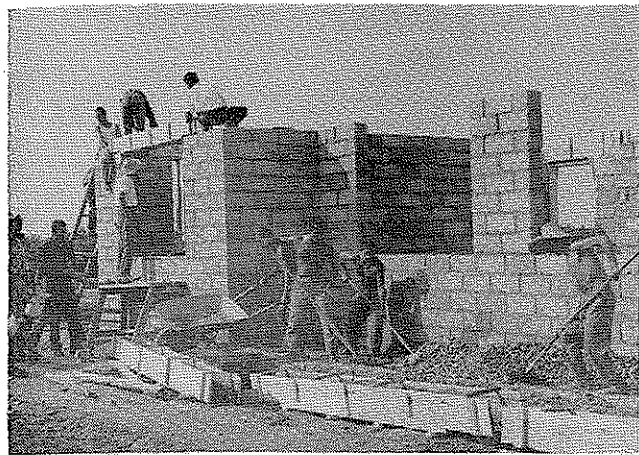
As pointed out by Dr. Harold Allen, it is difficult to find applicants for overseas positions who can answer "yes" to this question.²

6. Can you understand that you will be viewed as a stranger in a foreign country?

The practical implication is that you must be accepted by your national counterparts before your own work will bear fruit. Your new colleagues must be convinced themselves that you have workable ideas and technical know-how before accepting your suggestions. You will find that this often takes what seems like an exceedingly long period of time. In other words, you can make sugges-

¹ Harold B. Allen, *The Type of American Suitable for Work in the Middle East*, New York: Near East Foundation, 54 East 64th Street, New York 21, New York, 1957, p. 4.

² *Ibid.*



The technician must often work toward gradually combining old ways with new technology as illustrated by the use of traditional hand labor to dig foundation trenches and the use of cement blocks made in a locally built one-man operated block machine. The building under construction is a new school in northern Iran.

tions, assist and work with others, but you usually cannot force the adoption of what seems to be a sound practice. Often your suggestions and demonstrations must be accepted and thought of as having originated with the nationals with whom you are working. To put the shoe on the other foot, how would you feel if an expert from Basutoland came to tell you how to improve your adult farmer class instruction?

7. Will you remember that you remain a foreigner in another culture who is looked upon as possessing advantages the natives do not enjoy?

Even if you had to hock the family jewels to buy that extra pair of shoes you believed you needed in your baggage, in the eyes of many of the people you will meet, you must be rich; how else could you have gotten there? After all, the average man on the street in Damascus cannot come to Omaha or Phoenix. Then too, the open-handed spendthrift habits of some of your selfish and shortsighted American predecessors also will have put the stigma of being a "rich American" on you. Besides that, the very clothes you wear, the mannerisms you exhibit, and the attitudes you display make you stand out in the eyes of the natives as a foreigner. Therefore, it will be necessary for you to conduct yourself discreetly and modestly.

8. Are you willing to take the time and effort necessary to develop a working knowledge of the native language?

Even though English is spoken by somebody almost everywhere in the world today, that person may not be around to translate when you are attempting to explain why sodium nitrate fertilizer should not be applied

to clay loam soils possessing a pH of 8.5. He probably will not be around when you and the family attempt to find out which road goes to Khorramabad either. A person who is sincerely attempting to speak and learn the native language will make mistakes, some of them embarrassing, but he will earn greater respect, be appreciated more, attain greater satisfactions, and in general will find the tasks of communicating and living more pleasant. Incidentally, a side benefit is that knowing the language will help you check the accuracy of your official interpreter's translations.

9. Are you willing to put aside preconceived notions about the nature of your new job and put forth your best efforts in doing whatever your work may require?

You must feel that there is a genuine need for your skills, but do not be too disappointed if your national counterparts appear not to want your abilities. Role perceptions of all people concerned may differ very often, and the American technician must be perceptive enough to realize these differences exist and flexible enough to adapt himself to fill the particular role in which he can be most effective.

10. Are you willing to forego thanks from the people whom you have helped?

As pointed out by Raper, "People who benefit from technical assistance are seldom in a position to be grateful. Rather, they are usually aware that they are making technical headway belatedly, and they may therefore tend to be somewhat on the defensive."³

11. Are you willing to accept the good things, overlook the bad aspects, and not criticize unduly a different culture?

Definite reasons may exist for be-

havior patterns which are different from those with which we are accustomed because of different historical, social, economic, and cultural backgrounds and stages of development.

12. Are you interested in a foreign service position even though contrary to popular opinion: (a) you will not get rich, (b) you cannot get away from it all, and (c) you may not enjoy being conspicuous as a big frog in a small puddle?

If you have to answer any part of the question "no," you had better stay home as you will not be happy otherwise, and the nationals with whom you are working will not be happy with you either. While overseas positions often pay as well as or sometimes better than comparable stateside positions, they are not "get rich quick" gold mines. If you want to start a new life and leave personal, job, and family problems behind by going overseas, you probably will become a bigger failure than if you had stayed at home. While you may enjoy being in the limelight, if you are a person who continually seeks it, you will be more effective remaining at home also.

Therefore, if you have the technical know-how, the necessary practical experience, and can answer "yes" clearly and firmly to the twelve questions above, you should have little difficulty qualifying for specific positions with organizations undertaking development programs in emerging nations around the world. □

³ Arthur Raper, *Some Points for Consideration of Technicians Working With Villagers*, Washington 25, D.C.: Orientation and Counseling Branch, Career Development Division, Office of Personnel, International Cooperation Administration, 1960, p. 9.



Henry Ross

When You Visit a Tunisian Farmer

HENRY ROSS, Coordinator, Tunisia Program, Texas A. and M., University

Mohamed Djarboribi, a Tunisian farmer offered the shade of his luxuriant olive tree as protection from the August sun to the visitor from Texas A&M University. This farmer had been told that the American was a professor of agriculture who had come to Tunisia to study the farming methods of Tunisian farmers. He was also told that his farm had been selected as being one from which much could be learned. This was a true statement which served as an implied compliment. Mohamed Djarboribi told this story about his background and farming operations:

Mohamed had served for a number of years as a soldier in the French army. After Tunisian independence in 1956 from France, he spent a lot of time looking for an opportunity to settle on some land which would hold some hope for him to become a land owner. A man who owned land in the interior of Tunisia was found. There was a house and well on the place. The owner was interested in getting more land into olive tree cultivation. Young olive trees require a lot of care in their first few years of growth so the owner offered Mohamed the house and well and about six acres of adjacent land to grow vegetables on a share-cropper basis. The owner would set out young olive trees on the land and the tenant could then intercrop the olive orchard with vegetables. Mohamed reported that in a little over two years time he and his family had produced and sold enough tomatoes, onions, squash, cucumbers, and chili peppers to provide a living for his family and at the same time save enough money to buy and pay for six acres of undeveloped but productive land.

He did this by a great amount of very hard work. The family had dug by hand a system of channels to move water from the well to all plots on the six acres. A set of pulleys were rigged up on which a camel could be hitched for lifting water from the well. The water table was about 40 feet below the surface. The camel

driver, camel, and one water tender in the field would apply about 15,000 gallons of water in a day.

The owner has a Ford tractor which is available for heavy jobs such as land-breaking and seed bed preparation. All other cultivation is done by camel or hand labor.

Identifying Mohamed's Problems

The American visitor asked Mohamed what he planned to do with the six acres of raw land which he had purchased. He said that as soon as he could save enough money to dig a well and build a house that he would move onto his land where he could have a larger share of what he produced. He thought that this could be done in two or three years. When asked about difficulties and hardships he was meeting, he responded by saying that he was having trouble at times with his perishable tomatoes in getting them to the best possible market. He also mentioned that insects were causing trouble. He was not too sure about having the best varieties of seeds for his area and felt the same about his use of fertilizers.

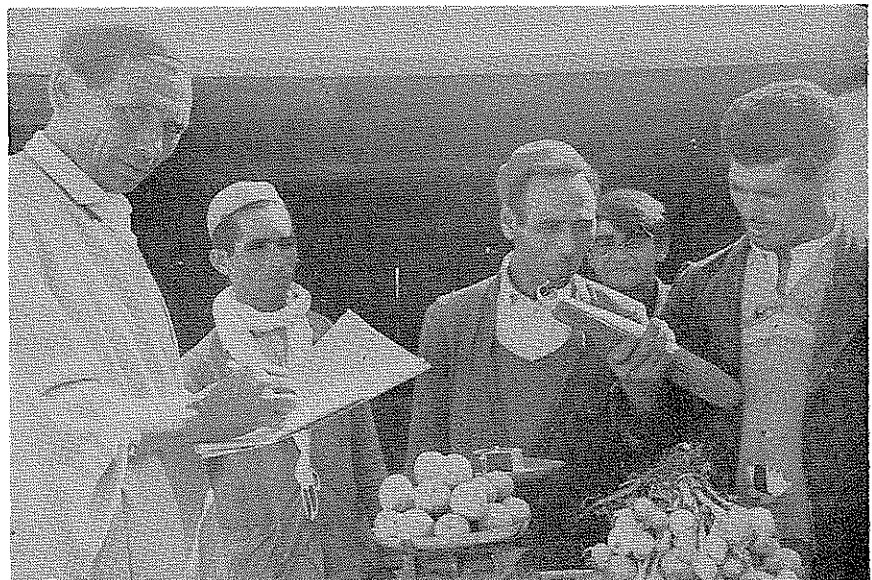
In preparing to leave, the American professor told Mohamed that the Government of Tunisia was building

a new type agricultural college at Chott Maria near Sousse and that his university would be assisting in its development. Also, that he hoped Mohamed's sons would some day enroll in this college. The Arab farmer thanked the American for coming to visit with him.

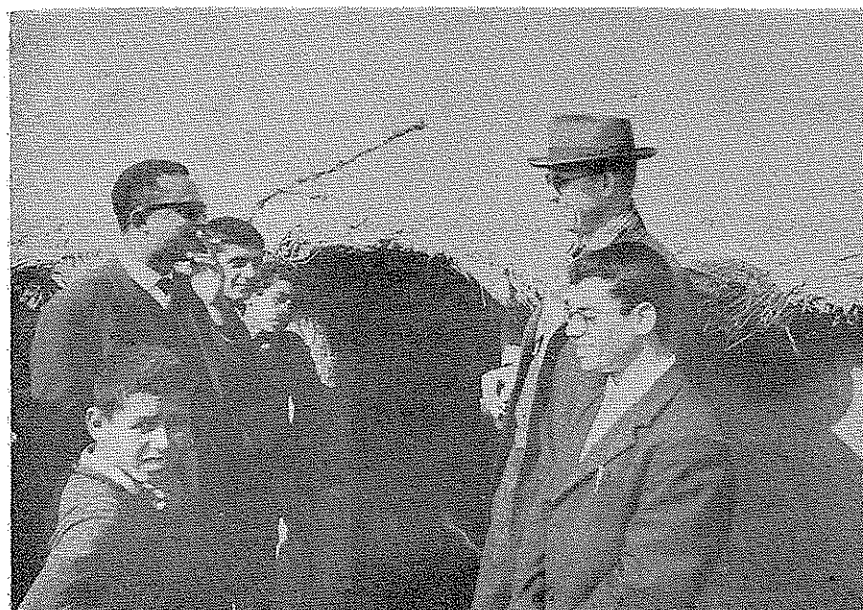
A Landlord's Point of View

The landlord saw the American professor at his tenant's farm. He came over to see what was taking place. When he learned that the American was studying Tunisian agriculture from the farmer's standpoint, he insisted that he also have a visit. So the American went with him to his house. The headquarters consisted of a compound with several fairly large dwellings in it, a large barn, equipment and machinery sheds, livestock quarters, a small orchard and vegetable garden. The general appearance would be what you would expect on about a one-thousand acre farm in Arizona, New Mexico or West Texas.

This Arab farmer was producing wheat and olives. His problems were that his four cows had not calved in about eighteen months. The wheat was maturing with a lot of imperfect heads—no grain.



Hedi Mekki, (left) President, and other officials of the Ain Errahma Agricultural Production Unit Co-op supervise the weighing of vegetables to be sold at that unit's consumers' co-op (June 1964)



Students visit a traditional house, made of earth, that is typical of the homes that most members inhabited before joining the agricultural production unit co-ops, and a modern brick house like the members now inhabit in the modern housing units in the co-op community villages. Jean Maillet, Chief Agriculturalist for the Enfida Improvement Project; P. B. Hall, Cooperative Education Advisor for the Texas A and M University; and Khemais Chelly.



Young trees in Tunisian orchards and in reforestation projects must have water hauled to them during the dry season every year until the trees are three or four years old. Members of the Cehgarnia Agricultural Production Unit Co-op are filling their mule drawn tank carts for the delivery of water to a young olive orchard. (June 1964)

Eight other Tunisian farmers were visited. From an analysis of the responses from the ten farmers, some generalizations were made about Tunisian agriculture which would be useful in planning an educational program designed to help Tunisians develop Tunisian agriculture.

Needed Farm Improvements

As a result of these studies, it was assumed that the following needs existed in Tunisia among the farmers.

1. Some means of keeping informed about the available services and assistance being supplied by private and government agencies.
2. Improved livestock program to insure increased production of meat, milk, and eggs.
3. Insect and disease control.
4. Improved use of water.
5. New sources of credit.

6. Improved use of fertilizers.
7. Improved seed.
8. Improved marketing facilities.
9. Development of rural leadership for agricultural development.
10. Demonstrators of new and improved farming practices.
11. Agricultural information published in Arabic based on Tunisian farm conditions.
12. Research on simple problems such as variety testing, water utilization and livestock feeding.
13. Organizations of farmers on community level for supporting community development effort such as schools, cooperatives, etc.

This list is not complete but it does suggest a few of the observable needs. A start has already been made by the Ministry of Agriculture of the Tunisian Government to supply these

needs. The great over-all need is for trained manpower to work with the farmers to help them in properly exploiting the existing manpower, climate, soil and water resources for the benefit of the rural people.

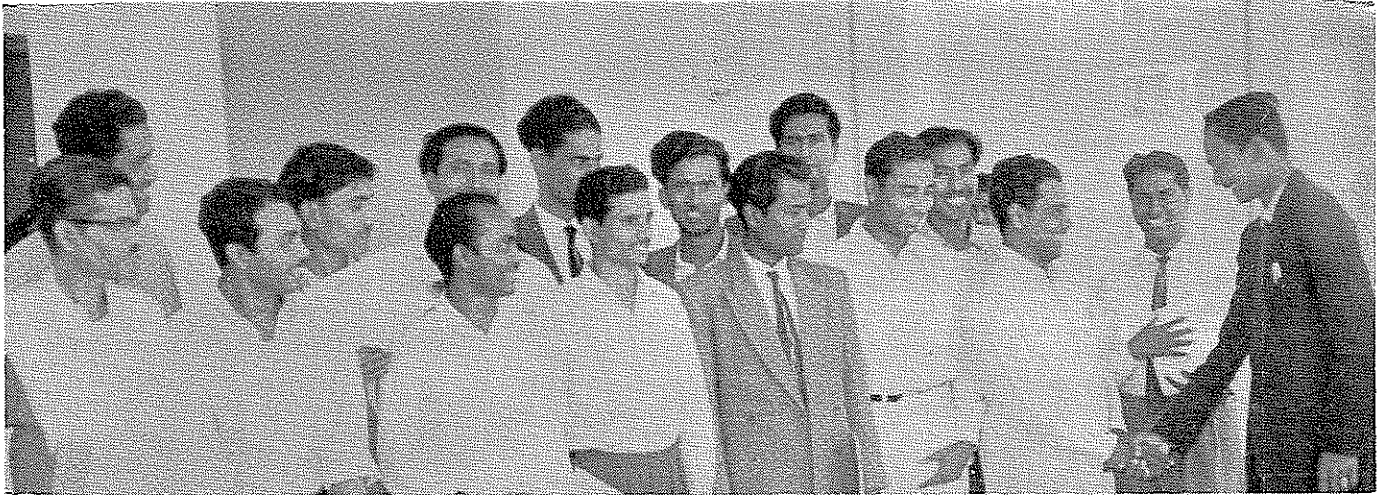
The Tunisian Government is allocating approximately fifty percent of its development budget to agriculture. In order to get proper utilization of this budgeted effort, they are expanding agricultural education at all levels as rapidly as possible. In the last five years they have advanced from only a few students in agriculture to over three-thousand today. In addition to the students of agriculture enrolled in Tunisian schools, they are sending men for training to France, USA, and other countries. At present there are thirty Tunisian students enrolled in Texas A & M University. When the men complete their training in the USA they will return to Tunisia to teach in the Chott Maria Agricultural College near Sousse.

A New Agricultural College

After two years of operation, the Chott Maria Agricultural College is having an impact on rural life and farming in the area. Monthly meetings of cooperatives, officials and members are held to discuss problems of the cooperative and its individual members. As a result of these meetings, farmers were taught how to drench sheep for intestinal parasites, improved varieties of vegetable seed have been distributed and fertilizer use result demonstrations have been observed.

Two applied experimental research projects have been started. The one commanding the most interest on the part of farmers was the tomato variety testing. Farmers are now asking for seed from some of the plots which were making the best production of quality tomatoes. The other research project has been set up to determine optimum plant nutrient levels of application for tomatoes at Chott Maria. Farmers are watching these tests with much interest.

This Chott Maria Agricultural College project is being built for the purpose of helping Tunisian farmers help themselves in developing Tunisian agriculture and rural life. The Tunisian people are interested, willing, and working toward this goal. A great responsibility rests upon American specialists in properly assisting, counseling, and advising in this worthy undertaking. □



The first 17 teachers of agriculture in public high schools in East Pakistan are being congratulated by S.M.A. Noor, Agricultural Education Specialist. They had just received certificates upon the completion of one year of training in agricultural education.

Teaching Agriculture In East Pakistan



John B. McClelland

By JOHN B. McCLELLAND, Teacher Education, Iowa State University¹

*Our school should not only be the center of intellectual life of India (pre-independent Pakistan and India) but the center of our economic life also. It must cooperate with the village around us, cultivate land, breed cattle, spin clothes, and tread oil from oil seeds.*²

The statement quoted above was made by the great Bengali poet Tagore who was awarded the Nobel prize in literature in 1913. The quotation shows that the need for improvement in education was recognized many years before the partition, in 1947, of British India into Pakistan and India.

However, little was accomplished toward changing the traditional, academic type of education until 1956. At that time, the Ford Foundation arranged and sponsored a University of Chicago Pakistan Education Project which provided assistance in making a survey and developing a

¹From 1957-60 Dr. McClelland served as Team Leader of a Stanford University — AID Project in the Philippines and from 1960-64 as Agricultural Education Adviser of the Ford Foundation sponsored University of Chicago Pakistan Education Project in East Pakistan.

²Robindranath Tagore. Cited by S.M.A. Noor in *Vocational Education in Agriculture in the United States and its Applicability to Rural East Pakistan*. (Mimeo-graphed). p. 17. Agricultural Education, Michigan State University, East Lansing, Michigan 1964.

program to improve the situation.

In 1957, as a result of the survey, plans were submitted for the establishment of an Education Extension Centre in East and West Pakistan. The centers were to develop an in-service training program for school personnel. The plans also provided for the establishment of approximately 20 pilot secondary schools in each wing.

The new agencies were to bring about improvement in the existing program of secondary education and to provide diversification and enrichment by adding science courses, agriculture, industrial arts, commercial work and home economics.

The Situation In Agricultural Education

The writer arrived in East Pakistan in the Fall of 1960 to serve as agricultural education adviser to the newly organized Education Extension Centre and the pilot schools. At that time, only one of the 1800 secondary schools in East Pakistan employed an agricultural college graduate as a teacher of agriculture. The 20 to 25 persons who were graduated annually from the only agricultural college at that time in the Province were badly needed in the Department of Agriculture and other agencies.

The Report of the Food and Agriculture commission in 1960 de-

scribed the great progress that had been made in Pakistan in recent years in the development of industries. However, according to the report, "Only agriculture lags behind and does not effectively share in development and progress."

This commission pointed out that, largely because of the low yields in agriculture, the average annual per capita income in 1958 of the farming population in Pakistan was \$40. The comparable figure for the nonfarming population was \$91 and for the entire population was \$51. This latter figure compares with a per capita income in the same year in Burma of \$48; in India, \$60; in Japan, \$272; in the United Kingdom, \$950; and in the U.S.A., \$2,094.

The report of the agricultural commission pointed out that information is available and also materials, such as fertilizer, that could bring about marked improvement in the agricultural situation. Because 85 per cent of employed persons in East Pakistan are engaged in agriculture, improvement in this sector of the economy is highly important.

East Pakistan has approximately the same land area as Florida but has a population of 50 million. *The Province has about twice as many farmers as there are in all of United States.* According to the 1960 census, the average land holdings of 6.5 million families was 3.5 acres. The crop area per capita was only 0.55 acres.

A Program To Meet the Needs

In 1960 St. Alfred's High School, which at that time was the only school in East Pakistan employing a teacher with training in agriculture, had organized high school classes and a young farmer class. The young farmers had a cooperative project of



Students at the Mohanganj Pilot High School in East Pakistan are harvesting the jute crop on their school farm. By using improved practices, they obtained a higher yield per acre than jute grown by the usual methods on adjoining farms.

cleaning, stocking and managing a fish pond. High school students and teachers at this school also had a cooperative store and cooperative savings and credit organizations. In addition to developing a school garden, the teacher supervised home projects of his students. This comprehensive program demonstrated what could be accomplished in an East Pakistan community by a qualified teacher of agriculture.

Workshops for Headmasters and Teachers. An important part of the program of the Education Extension Centre consists of conducting workshops for school administrators and teachers. These workshops were usually two to four weeks in length. An effort was made in these workshops to acquaint participants with the new objectives in education and to assist them in planning their new programs.

From 1960 to July, 1964, specialists on the Education Extension Centre staff, agricultural resource persons, and the agricultural education adviser held one or more agricultural sessions in nearly all of 22 workshops for headmasters and in 22 workshops for science teachers. These workshops were attended by 1,883 persons. In the agricultural sessions emphasis was placed upon agricultural activities, such as school gardening and student agricultural clubs, that could be undertaken with the help of local agricultural extension officers and other local resource persons.

Agricultural Workshops. From May, 1961 to July, 1964, the Education Extension Centre conducted 11 two-week agricultural workshops for 170 teachers who planned to introduce agricultural and gardening activities in their schools. These teachers were urged to give some attention in their science courses to the application of science to agriculture and also to the introduction of improved gardening and farming practices.

Follow-up surveys have shown that progress is being made. Even before teachers with special training in agriculture were available in the agricultural pilot schools, the Nandina Pilot School had grown an acre of rice that produced a yield three times higher than the national average. The Kalignj Pilot School grew a plot of rice that produced the second highest yield per acre grown that season in extension demonstration plots in the "thana" (similar to a U.S. county).

A One-Year Training Program in Agriculture. In 1962 Mr. S.M.A. Noor was appointed as specialist in agricultural education in the Education Extension Centre. He assisted the Director in recruiting science teachers who had B. Sc. degrees, for one-year training courses in agriculture at the National Development Training Institute (NDTI) near Dacca.

In this program, a course in methods of teaching agriculture was taught

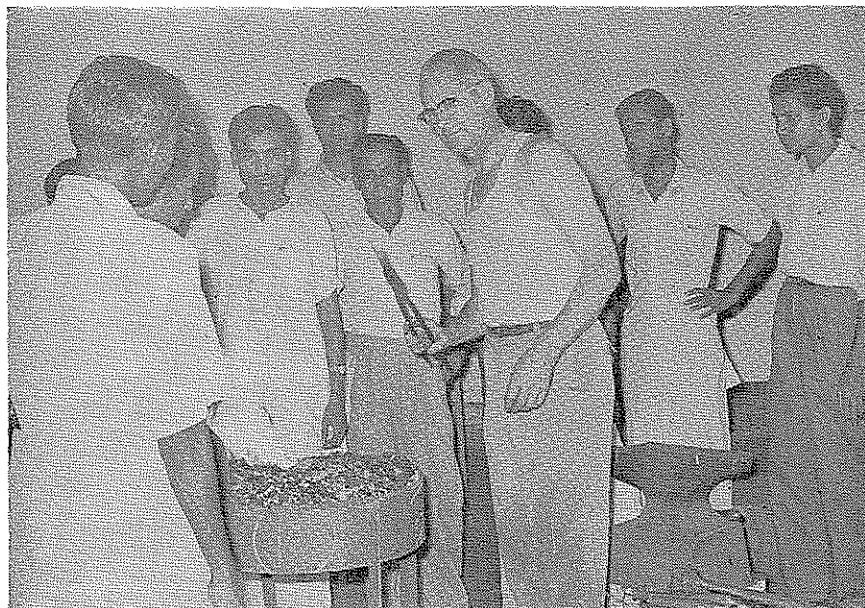
jointly by Mr. Noor and the agricultural education adviser. Mr. Noor was granted leave in 1963 for graduate work in agricultural education at Michigan State University. His replacement and two other persons with M.S. degrees in agriculture assumed some of the teaching duties at the N.D.T.I.

By July, 1964 two groups, a total of 30 teachers, had completed one year of training and returned to their schools to teach agriculture. A third group had started in the training program.

Agriculture in the Pilot Schools. Five of the trainees in the first group were from the five agricultural pilot schools. They returned to their schools in February, 1963 and are now teaching courses in agriculture. Agricultural courses are also being offered in the 25 additional schools which also have teachers with one year training in this field.

All of these 30 schools which are developing curricula in agriculture have land for small school farms or gardens. According to reports from three of the agricultural pilot schools 25 to 40 students in each school were conducting home projects. Similar supervised farming activities are being developed in the other 27 schools. The schools are organizing student agricultural clubs and several have started cooperative stores.

The three agricultural pilot schools which have small farms of three to



Neldon Taylor, Agricultural Education Adviser, West Pakistan Education Centre, is demonstrating how to temper a cold chisel at the 10th agricultural workshop of the East Pakistan Centre. Mr. Taylor, a former N.V.A.T.A. officer, was teacher of vocational agriculture and coordinator of agricultural education at the high school and junior college, Redding, California.



Mr. Ahmed, right, Agricultural Education Specialist in East Pakistan, and an instructor are observing the work of one-year agricultural education trainees who are learning to use Japanese-type, pedal-operated rice threshers. This method is more efficient than the use of bullocks to trample the grain. The rice was grown as a class project. Trainees also grew vegetables on individual garden plots. These men plan to organize similar projects with their high school students.

ten acres in size, each have a team of bullocks and some agricultural implements. Garden type tractors, which can be used in the small paddy fields, have been ordered for the agricultural pilot schools and other schools that are introducing an agricultural program.

A diesel-powered irrigation pump has been secured for the Nandina pilot school through the cooperation of agricultural officials. This pump shown in our cover picture supplies water from a river for the 10-acre school farm and for about 40 neighboring farms. By means of irrigation, an extra crop can be grown each year during the dry season.

Plans For Further Development

Through the cooperation of officials of the new Agricultural University at Mynmensingh and of the Department of Education, plans are under way for the development of a five-year curriculum in agricultural education and for the establishment of an agricultural laboratory school. This school is to include elementary and high school grades. It is to be used for observation and student teaching in agriculture.

University officials have indicated that they are willing to assist in the expansion of the one-year training program in agriculture for teachers who have not had training in that field. The present one-year training program at the N.D.T.I. will have to be continued and expanded if the need for teachers of agriculture is to be met in the immediate future.

Officials of the Pakistan Academy for Rural Development at Comilla have expressed their desire to continue to offer the valuable conferences which they have conducted in cooperation with the Education Extension Centre for the one-year trainees and for headmasters of schools introducing agriculture.

A plan has been sanctioned to introduce some workshops for primary teachers. These workshops are to be offered in cooperation with local agricultural extension officials who will provide follow-up assistance to teachers in developing school gardens and home project programs. Primary school teachers near Comilla who have received some help from a staff member and a Peace Corps Volunteer at the Academy, have developed excellent student agricultural clubs and gardening activities. □

FAILING FUTURE FARMERS

Continued from page 280

rural of the language brings home the fact that the tone and the content of the official F.F.A. ceremonies were written for a day and a social standard no longer extant. We are, in a word, "dated." The word "farm" or "farming" is mentioned five times in the aims and purposes, a matter of 12 sentences. The creed, adopted at the 3rd National Convention of the F.F.A. in 1930, uses the same words repeatedly; the ceremonials make use of words and phrases which are almost Victorian in vintage. One could not take exception to the aims and purposes of the F.F.A., only to the terms in which they are couched.

3. The statement of purpose which prohibits girls from membership in the organization.

Here again, the policy of the National Organization reflects an understanding of agriculture as it was 35 or more years ago. Women played a secondary role in all business; their lives were mostly pre-planned for them by the conventions of society. Education was considered a waste of time for rural American women. The women played only a passive role in agriculture. No one can deny that this is not so today. Of the 25 million people in the agricultural labor force, fully a third are women. The "gentler gender" plays an active part in all phases of modern agriculture.

Those of us in Agricultural Education have no business and no excuse for formulating and employing discriminating policies in a public and free education system. The restrictive National F.F.A. Constitution which specifically denies female membership is not only unjust, it is unconstitutional. The policy of the National F.F.A. demands revision, not only because of the changed position of the women in American agriculture, but also because of the changed nature of agriculture itself.

The determination to restrict membership in an organization which is touted to be an intra—not extra—curricular activity; with the female gender playing an important role in all phases of Agri-Business; it is only reasonable to make adequate provision for them.

Proposals for Improving FFA

First, let's give some serious consideration to the proposal to change the name of the F.F.A. One more

sued to a changed agriculture and a changing Agr. Education-Future Agri-Businessmen of America has been forwarded as a possibility. In the opinion of some Agriculture Instructors, it more correctly identifies the kind of student in Secondary Agricultural Education, and its initials form a digestible group—F.A.B.A.

Second, let's edit our F.F.A. manual, update its terminology, abbreviate and streamline the ceremonies, and delete at least some of the corn not found in the emblem.

Third, girls are here to stay, and much to the remorse of some tough old diehards in our profession, they are going to demand and get a more active role in F.F.A. activities. One solution to the impasse now faced by agriculture instructors with respect to girl membership is the simple expedient of the deletion of one word of Article IV, Section B, of the National F.F.A. Constitution. That word?—Male.

Lastly, let's play down the down country, cracker-image and accentuate the positive facets of our program. We have them—many of them. The public-speaking and parliamentary-procedure functions of the F.F.A. are perhaps the most vital. The leadership training role performed by F.F.A. requires more emphasis. The excellent training in group cooperation, character development and community service demand increased recognition from the public.

Pull up, take a long look and cast your critical eye on your agriculture program. With an intra-curricular vehicle too dated in its content, too ritualized in its organization, and too old-fashioned in its image to work effectively for you, are you truly training Future Farmers of America, or are you Failing Future Americans? □

NOW AS TOMORROW

Continued from page 281

rules of FFA provide flexibility is the Minnesota FFA's wild fowl raising and releasing program. Over 10,000 wild strain mallard ducklings will be exclusively developed for FFA use by the State Conservation Department, U.S. Wildlife Service and game farms. Over 50,000 pheasant chicks will be raised and released by conservation-minded FFA members.

Tree Planting

Over 4 million tree seedlings were planted by more than sixty Future

Farmer chapters during the past five years. Annual plantings vary between 975,000 to a million tree seedlings. Evidence of a 'progressive' type of a program is the inclusion of screen tree planting by chapters to hide highway eyesores such as car graveyards, junk piles, dumping grounds, etc.

State Fair

Four- to five-hundred Future Farmers each year enter over 2,000 head of breeding livestock. Two blocks from the livestock barns is the livestock compound of mothers and young known as the Children's Barnyard. Over 250,000 Fair-goers visit the display each year. The new Education Building's booths and farm mechanics displays will meet the needs of boys who do not have livestock to display while the State Fair Crop Show attracts over 200 with grain, legume and corn samples.

Change of Pace

The 'Cow at the Elementary School' during June, the dairy month, reminds many that FFA is on the 'go'. The district, regional and state cow clipping contests make it possible for hundreds of Future Farmers to put into practice one phase of a quality milk program. □

SUBSCRIPTIONS INCREASE

The February circulation report of The Agricultural Education Magazine, shows 8,701 subscriptions mailed for February. This represents an increase of 41 over the same month in 1964. New foreign subscriptions received during the month went to Wolverhampton, England; Paris, France; Turrialba, Costa Rica; West Bengal, India; Kwadaso, Ghana; Rhodes, Greece; Bangkok, Thailand; Abu-Ghreib, Iraq; Moscow, U.S.S.R. and Shizuoka-Ken, Japan.

Business Manager, T. L. Faulkner, says that more teacher trainers than ever have taken advantage of student subscriptions to The Agricultural Education Magazine this year. The low rate of only \$1. per year is possible because the teacher trainer at each institution collects for all subscriptions and distributes the copies to members of his classes.

Men possessing minds which are morose, solemn and inflexible, enjoy in general, a greater share of dignity than happiness. —BACON

Training Agriculture Teachers in the Philippines

SOTERO L. LASAP, JR.,

Laboratory School, University of the Philippines



Sotero L. Lasap, Jr.

The Philippines is basically an agricultural country endowed with the climate and soil favorable to the growth of agricultural crops. Economists say that her industries will primarily depend upon agriculture as the main source of raw materials. Towards the desired agricultural development of the country, it is felt that there will always be an urgent need for competent vocational agriculture teachers to train present and prospective farmers in meeting the needs of agricultural economy.

The country has about a dozen agricultural colleges strategically located in different parts of the archipelago that train teachers of agriculture in both the elementary and secondary levels. Some of these are privately supported institutions. The agricultural teacher training program of the University of the Philippines is undertaken in the Department of Agricultural Education in the College of Agriculture at Los Banos. The program was initiated in 1929 by virtue of Legislative Act No. 3377, otherwise known as the National Vocational Education Act of the Philippines passed in 1927. To date, nearly two hundred students have undergone the teacher training program in the Department. Seventy-two finished the agricultural education course leading to a certificate in agricultural education while sixteen have obtained the Master of Science degree major in agricultural education. The certificate course, now elevated to the graduate certificate in agricultural education, was a program of study for one year opened to B.S.A. holders who did not have undergraduate teacher training but wanted to become vocational agriculture teachers.

Most of the school administrators and head teacher trainers of agricultural teacher training institutions in the country are products of the Department of Agricultural Education in the U.P. College of Agriculture.

The Undergraduate Program

The U.P. College of Agriculture students select their major field of study in the third year. Those who choose to major in agricultural education are required to have a grade point average of 2.5 or better during the previous period. In addition to the grade requirement, the applicants are screened by a committee composed of staff members of the Department who examine the prospective teachers of agriculture with respect to his background and farm experience, ability to communicate and other qualities of a good teacher of agriculture.

Women students may major in agricultural education. No less than thirty female undergraduates have obtained training under this program. As much as possible, however, women are not encouraged to major in agricultural education because the Bureau of Vocational Education shows very little interest in hiring women as teachers of vocational agriculture. Consequently, they seek jobs in extension work and in agricultural experiment stations.

Every year the College graduates an average of twelve student teachers who have been trained to become teachers of vocational agriculture. They should have completed a minimum total of 152 credit hours. About 22 per cent of these are in technical education and another 22 per cent in basic sciences. Only fifteen credit hours are devoted to mathematics and physics. They are also required to complete 4 credit hours in the humanities which include English, Spanish and some basic eastern and western philosophies. The rest are devoted to student teachers' professional education which comprise about 16 per cent of the total requirements for graduation with the degree of Bachelor of Science in Agriculture, major in agricultural education.

The undergraduate training in professional education is a three-stage program. During the first stage the student takes up courses in elementary and educational psychology, methods of teaching vocational agri-

culture, educational tests and measurement and a course in farm mechanics. The second phase is a six-week on-campus observation and practice teaching assignment while the third stage is an eight-week off-campus student training stint.

The On-Campus Training

On-campus training is done at the University of the Philippines Rural High School located inside the College of Agriculture campus. The U.P. Rural High School is a division of the Department of Agricultural Education, primarily designed as an initial training laboratory for students preparing to teach vocational agriculture. During the six-week observation and practice teaching on campus, student teachers gain their initial teaching experiences in vocational agriculture, farm mechanics and sometimes even in such related subjects as general science, biology, mathematics, chemistry and physics.

The Off-Campus Training

After the initial on-campus student teacher experiences, students leave for off-campus teaching in cooperating schools. Off-campus student teaching is done in any one of several selected cooperating agricultural high schools of the Bureau of Vocational Education. There are some eighty two of these schools in the country.

Each student teacher is usually assigned to several cooperating teachers who coordinate the work assignments of the student teachers. Under the guidance of the cooperating teachers, the student teacher is exposed to realistic classroom and field teaching situations. In most cases, the student teachers are given the opportunity to act as advisers to the local chapter of the Future Farmers of the Philippines. They may also be assigned to assist in supervising the school field projects. Student teachers are encouraged to participate in all the various academic and co-curricular activities of the cooperating teachers.

Many student teachers have expressed the opinion that a much longer student teaching period would be desirable for a more adequate and

realistic exposure to pre-service training in teaching of vocational agriculture. Serious consideration is currently being given towards making the off-campus student teaching period a full semester instead of only eight weeks.

In addition to student teaching experiences, agricultural education majors are also required to present seminar papers and to write on a special problem in agricultural education. Student teachers become members of the U.P. College of Agriculture college chapter of the Future Farmers of the Philippines and may be elected to membership in the Alpha Tau Alpha, professional agricultural education society. □

Nebraska Committee Tackles Improving Public Relations for Agriculture

J. T. HORNER
Teacher Education,
University of Nebraska, Lincoln



J. T. Horner

Interpreting agriculture to the total population was never more important. Many approaches to enlightening the public on the true nature of agriculture and its vital co-re-

lationship with other segments of our economy must be explored. For example, a local state and/or national Committee on Public Relations for Agriculture can be quite effective.

The stated objective of the Nebraska Committee on Public Relations for Agriculture is to create a broader, more accurate, and more sympathetic public understanding of agriculture, its accomplishments, and its importance to the economic and social structure of the nation. Specific objectives and responsibilities are:

1. To inspire, lead and give direction to the overall program.
2. To encourage, advise and in other ways assist local groups to organize and develop public relations activities.
3. To coordinate the activities of all groups and individuals willing to participate in the program.
4. To develop and maintain a central supply of materials from sources such as the Colleges of Agriculture, the U.S.D.A. and other sources.

I'm Planning to Teach Vocational Agriculture in the Peace Corps

GEORGE ROPP, Student in Agricultural Education, The Ohio State University



George Ropp

That was a year ago last summer when I visited eight countries in the company of 25 other Future Farmers of America from Ohio and ten from Minnesota. In three weeks we visited Belgium, France, Czechoslovakia, Hungary, Germany, Denmark, Scotland, and England.

Former President Eisenhower initiated the "People to People" program in hopes that, through personal contact, there will be better understanding and less likelihood of war between countries. Thus, as we visited cities and particularly farms, we talked with people and learned about their customs, agricultural methods, economics, and government. At each farm we discussed specific problems with the farmer or farm manager: crops, prices, and management. We were able to offer practical solutions based on experiences on our home farms, and, in turn, learned much from them. It was particularly interesting to com-

pare our free enterprise system in farming with the communist state farm and collective farm systems.

Not only did this trip convince me that agricultural education was to be my field, but also that I am going to spend a couple of years abroad with the Peace Corps when I graduate from O.S.U. That, too, is why I'm majoring in agricultural education, so that I can help those people better their lives.

Living on a 375-acre general farm, I have been interested in agriculture all my life. I studied vocational agriculture at Madison South High School in London, Ohio, where I was president of the F.F.A. chapter and received the State Farmer degree. This provided the opportunity for my participation in the tour. I am now a Junior at O.S.U. The European tour occurred at end of my freshman year and prompted me to declare my major in agricultural education my sophomore year.

I now plan to graduate from O.S.U. in the spring of 1966 and then teach agriculture in a foreign country for two years in the Peace Corps. Of course the pay won't be good and there may be very depressing moments, but the rewards and the experience will make it worthwhile and it may lead to further experience in foreign agriculture. □

5. To collaborate with agencies, groups, and all types of organizations in other states and of the U.S.D.A., with a view to development of similar programs.

The Committee involves leaders in agriculture, business, education and industry. It sponsors, among other things, a state-wide speakers bureau and F.F.A. Chapter P.R. Program of Work contest. The awards are certificates and plaques as well as tours for P.R. public speaking winners.

The efforts have partially explained

to the merchant on main street the complex nature of the operations in agriculture and the necessity for high quality education. Also the true story has been told regarding the great numbers and wide range of jobs in agriculture.

The initial Committee was appointed by the Governor, upon the recommendation of vocational agricultural and other agricultural leaders, who have served as backstage "spark plugs" and as consultants to the committee from its inception. □



The Administration Building at the Pan American School of Agriculture in Central Honduras.

Students From 15 Countries Enrolled in Pan American School of Agriculture

ARNOLD K. SOLSTAD, Department of Agricultural Engineering,
University of Minnesota, St. Paul, Minnesota



Arnold K. Solstad

Learning by doing is the motto of the Pan American School of Agriculture nestled in a deep valley of central Honduras.

A place where young men in Latin America are able to learn the science and skills needed in a modern tropical agriculture. My assignment was to organize and develop a farm mechanics program which would serve two basic purposes. First to teach the basic skills and knowledge and secondly to maintain and improve equipment on the school farm.

The idea for the School, born in the mind of the president and board of directors of the United Fruit Company some 25 years ago, maintained the objective of agricultural development. On seven square miles of property purchased by United Fruit with a wide range of soil types and ter-

rain from mountain slopes to a broad valley practically all the food needed for the 165 students and faculty is raised under modern conditions.

This is a post high school program with a student body from fifteen countries, young men who have proven their worth in competitive examinations. After three years of intensive study and work many obtain a degree with a final year in Florida or other schools. However, most return to their home country to work directly with agriculture, government, or in education or extension.

High academic and disciplinary standards are maintained to produce the leaders needed. Classes are held eleven months out of the year with each day scheduled with many events.

Rising time is at 5:30 A.M. and after a good breakfast in the large dining room, the students go to their respective tasks assigned. The first year students in horticulture where they raise the fruits and vegetables needed, second year students to field crops and third year students to ani-

mal husbandry. Our farm shop will draw students from all three groups. After lunch, formal instruction in the classroom begins at 12:20. Each student attends four one-hour lectures each day five days a week, while the morning work period is continued six days a week.

The students enjoy athletics which includes baseball, basketball, softball and soccer. A jukebox provides them with music from their home countries as well as some of the latest U. S. productions. The greatest privilege is to be able to take the bus to town on Saturday. With a proper conduct pass a student is able to leave the campus at 7:00 A.M. and return at 6:30 P.M. that evening.

Progress in agriculture is taking place fast in Latin America with everyone wanting to use the best methods for more production and more profit. Farmers want to know more about insecticides as well as new varieties of crops and fruit. They also want to know how to keep their equipment in order from the crawler tractor to small hand tools. We are in a position not only to trade goods, but to trade information and technical knowledge. □

LETTERS

Continued from page 268

taught in Agriculture I or II? Is it organized as a separate unit of instruction or incorporated into other units? A similar question is raised about classroom instruction for students who are receiving off-farm experience in agricultural occupations. How is the instructional program carried on? Are there separate classes for these individuals? What does the course of study include?

Although this article did not provide the answers, it did raise a number of questions. And, we must have a problem before we consciously seek a solution.

Sincerely,
J. C. ATHERTON
University of Arkansas
Fayetteville

Sir:

I read the article written by Ernest Tarone, "Fifteen Kinds of Teacher Problems," with great interest. I sincerely feel the two words used in the F.F.A. Creed seven times, "I BELIEVE," could easily solve the majority of those problems.

Too many of our instructors teach with skepticism on the future of agriculture. The atmosphere in the classroom, the school, and the community can be and usually is generated by that teacher. I believe there is a great future in agriculture, not only in farming but also in agricultural occupations off-the-farm.

To secure higher enrollment in the vocational agriculture program, one should develop a three-pronged program; (1) Convince the parents and students that

the terms 'farming' and 'agriculture' are not synonymous; (2) Convince the administrators (and counselors) that a good vo-ag program is not a hindrance to college bound students, that not all students will enter college, and that vo-ag CAN be vocational and train for future employment; and (3) develop a 365 day public relations program not as elaborate but as effective as that used during the annual F.F.A. Week.

It is amazing how many of those problems would disappear when this type of a program is implemented in a full-time department.

Sincerely yours,
SAMUEL STENZEL,
President, NVATA
Russell, Kansas

Sir:

The series of studies on "What Dairymen Need to Know" by Larry Lockwood and Clarence E. Bundy should be of great value to educators involved in the instruction of youth, young and adult farmers.

From my past experience of teaching and working with young and adult farmers in dairying the comparisons among groups in regards to the competency requirements for success were in line with the expected results of our area. It is my feeling though that the training in high school vocational agriculture classes would show up as increasing the competency needs of class members in Wisconsin since more time is devoted in instructional time on dairy.

The conclusion drawn by a man who has been out of school for sometime is usually to feel his somewhat outdated training is invaluable due to rapid changes in dairying, is correct in one sense, but the background should have equipped him in the knowhow of keeping abreast with needed technical information.

It would be interesting to see a similar series of studies completed in states where dairying is the number one source of income for farmers.

Sincerely yours,
GLEN HOLMAN
Teacher of Vocational Agriculture
Delavan, Wisconsin

Sir:

Not many of us would be too much in disagreement with the Guest Editorial by Walter T. Bjoraker for most assuredly there are many changes taking place in the agricultural occupations. This is certainly true of production agriculture. The Vocational Education Act of 1963 challenges us to provide training to meet the needs of individuals engaged in or preparing to engage in the agricultural occupations other than production agriculture.

The changes and new challenges mean that agricultural teachers have new needs and it means our teacher educators must revise and strengthen the content of their educational programs. In the future our agricultural instructors will be teaching more of the "why" and probably less of the "how." This is a must, not only in production agriculture but also in those agricultural occupations other than farming where a knowledge and training in agriculture is either essential or advantageous. This calls for additional training in basic science — biological and natural. The "how" of agriculture is subject to

constant and rapid change. What was a good method or skill a year ago is not necessarily good today. Our teachers must be taught to impart this flexibility and adaptability to these rapid changes. When both students and teachers know the "why," then the change to the new "how" becomes that much more understandable — that much easier.

In production agriculture more emphasis will be placed on farm management, farm business, operation, farm finance, marketing, farm mechanics, and public relations than in the past. Specialized fields such as ornamental horticulture, farm forestry, farm recreation areas, and turf and estate management will be due for more emphasis too. Our teacher education program must be revamped to meet these needs also.

Our teachers are going to have to have new knowledge as we move into training for the agricultural occupations other than production agriculture. The teacher must not only have an understanding and appreciation of the opportunities in these fields but also be knowledgeable in merchandising, salesmanship, business operation, human relations, guidance and counseling, and social science.

It would appear that Walter Bjoraker was telling us that the revision of our teacher education program is a must and that a herculean task lies ahead for all of us in revision of the teacher education program. He is telling us that these complex needs on the part of our teachers will probably necessitate more than a four year training period even with thoughtful, careful, and continuous evaluation of the training program and even with the employment of new methods, innovations and every bit of ingenuity at the command of agricultural teacher educators. I thoroughly agree.

BERT L. BROWN
Director, Agricultural Education
State of Washington

Somewhere Today Is an Unknown Teacher and an Unknown Boy Who Will Change the World

Fifteen years ago, a short article of faith and inspiration written by Joy Elmer Morgan was featured in the National Education Journal. We are happy to be privileged to again present this to our readers—

Somewhere in a schoolroom today under the care of an unknown teacher is a child who in his own time, grown to maturity, will lead the world away from war and toward peace.

The affection planted in that child's life by wise guidance; the sense of right values with which he is constantly surrounded; the integrity and initiative that are fostered in his unfolding life will come to fruition in a mighty service to the human race.

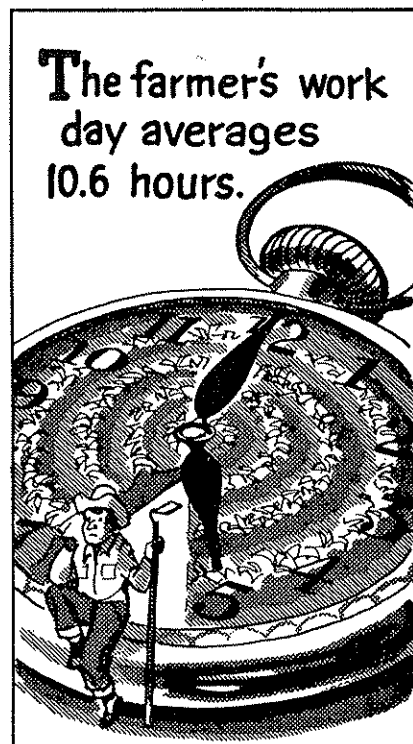
It is wise providence that no one can tell which of the millions of babies born in our country each year is to be this savior of tomorrow. We are done with king-children and their pampered training to maintain a class system. We want the children of the people, of all the people—rich and poor of every race and creed—to have their chance.

And when thru honest growth, proved merit, and wise leadership the pilots of tomorrow take their places at the helm, we want them to be surrounded and supported by their fellows likewise schooled in the simple and abiding principles of democracy.

With this purpose in this faith, the teachers of America carry on. This faith was good enough for the founding fathers who launched this ship of state in even more troubled seas than we now face. This faith has been good enough for the teachers and prophets of all ages who have understood the power of human aspiration and growth.

It is the faith of Jesus—the Golden Rule and the brotherhood of man. It is the faith that for 1900 years has held aloft thru good times and bad the torch of eternal truth. We renew our faith in this destiny of the individual human soul lifted by true teaching thru the leavening power of God's grace to nobility and wisdom.

This faith of the teacher—your faith and mine as we look into the eager faces of youth—is the hope of tomorrow, a hope that cannot fail. It is bigger than all the fears and partisanships of our time. Let us renew and deepen our faith. □



The farmer's work
day averages
10.6 hours.



INSECT PESTS OF LIVESTOCK, POULTRY AND PETS AND THEIR CONTROL. Rudolph Seiden, Springer Publications, New York, New York, 10010. pp. ix plus 161. Price \$4.00 in Linmaster cover, 1964.

This is a pocket reference book for people such as veterinarians, lay users, manufacturers and distributors who use insecticides. The book is essentially a dual dictionary. The first part is devoted to insect pests and the second to insecticides. Both sections are very well illustrated and cross referenced.

Teachers and students of vocational agriculture will find this a valuable reference book. It will be useful to students actively engaged in livestock production, to those in the farm supply business and to students at the 13 and 14 grade levels where more technical materials are appropriate for study.

RAYMOND M. CLARK
Agricultural Education
Michigan State University

NEW WAYS TO BETTER MEETINGS. Bert and Frances Strauss.

The Viking Press, Inc. Revised 1964. pp. vii plus 180. Price \$3.95
New Ways To Better Meetings was first published in 1951. The revised edition has been much expanded and up-dated. Principles of "member centered meetings" have been extended to the more efficient functioning of large scale, multi-level meetings.

The central theme of the book is that the group can solve a problem better than any one person in the group. The text explains techniques for accomplishing the task of problem solving through group action.

The book should be a valuable addition to FFA libraries as well as to the libraries of others interested in conducting better meetings.

Bert and Frances Strauss have wide experience in teaching, consultation work with government agencies both in the United States and abroad, and in working with large corporations, religious and educational groups on techniques for developing member centered meetings.

RAYMOND M. CLARK
Michigan State University

THE AUTOMOBILE ENGINE.

Prepared and published by the Training Department, Industrial Relations Office, Engine and Foundry Division, Ford Motor Company, Dearborn, Michigan. Distributed to high schools and colleges by the Educational Affairs Department, Ford Motor Company, Dearborn, Michigan.

This publication has been prepared for those interested in learning the general operating principles of the modern automobile engine. The terms used in describing these principles are non-technical; the names of parts, subassemblies and systems are those most commonly used by lay people.

The publication is divided into two parts. The first explains the fundamentals of a single cylinder, four-stroke cycle, internal combustion engine; the second, describes one of the several passenger car engines manufactured by the Ford Motor Company. A 102 frame color filmstrip accompanies the first part and a 97 frame color filmstrip accompanies the second part.

This teaching material should prove to be quite useful in driver training work, in automotive mechanics and in agricultural mechanics instruction.

Guy E. Timmons
Michigan State University

EXPERIMENTAL ENTOMOLOGY, Reinhold Publishing Corporation, 1965, pages xi + 176. Price \$6.50.

This book has been written as a laboratory companion to the Fox and Fox book "Introduction To Comparative Entomology."

The six chapters of the book are presented in a manner that will provide for study of morphology, systematics, genetics, physiology, behavior and ecology of insects.

Descriptive laboratory study procedure is used throughout the book and is written in a step-by-step manner which should make it easy to follow. A very good taxonomic key and directions for its use is included in the book. Illustrations that can easily be used accompany each section.

The approach used in writing the book is such that it can be adapted for use in departments of vocational agriculture and area vocational schools offering technician level

training or junior college and college programs.

ARLYNN D. ANDERSON
Michigan State University

FARM POWER AND MACHINERY MANAGEMENT, Donnell R. Hunt, Fourth edition. Iowa State University Press, Ames, Iowa. 1964. 274 pp., \$4.50.

The latest findings concerning the profitable and efficient use of farm machinery are contained in FARM POWER AND MACHINERY MANAGEMENT. The book combines basic engineering principles with the fundamentals of farm machinery operation. It is designed chiefly as a laboratory manual for students of vocational agriculture and agricultural engineering.

Recent machinery management developments have been incorporated into this thoroughly revised fourth edition. New material includes factors affecting performance capabilities of tractors and implements, descriptions of methods for obtaining optimum economic performance from farm machines, equations to determine implement size, equipment cost accounting methods, descriptions of new farm practices, and recently formulated data on machinery management. The manual is fairly well illustrated and contains exercises in each of the 14 chapters to emphasize the application of principle to practice.

The manual should prove to be an effective classroom tool.

Donnell R. Hunt is associate professor of agricultural engineering, University of Illinois.

GUY E. TIMMONS
Michigan State University

BRAKE, JOHN, et al., "Farm and Personal Finance." Published by Interstate Printers and Publishers, Danville, Illinois, 68 pp.

Publication of "Farm and Personal Finance" which was reviewed in the October 1962 issue of the Agricultural Education Magazine has been taken over by Interstate Printers and Publishers at Danville, Illinois. Teachers and others interested in use of this publication in their vocational agriculture classes are advised to contact Interstate for price and educational discounts.

RAYMOND M. CLARK
Professor
Agricultural Education
Michigan State University

News and Views of the Profession

Maryland Graduates Assume FFA Responsibilities

GEORGE A. ROBINSON
Graduate Assistant,
Cornell University



George A. Robinson

The University of Maryland, in cooperation with the National FFA Offices and Massey Ferguson, Inc., initiated in the Fall of 1962 a program to provide training primar-

ily for state FFA executive secretaries and those who would like to prepare for such positions.

In addition to the above, consideration is also given persons who are engaged in or wish to prepare themselves for other state staff positions in the FFA, such as FFA camp and/or recreational directors, editors and writers for magazines and publications, supervisors who have responsibility for FFA programs and other selected responsibilities.

The program has two main features. One of these is to provide an opportunity for graduate study. The other is to provide participating experience in the work of the offices of agricultural education and FFA in Washington, D. C.

A practical understanding of the FFA as well as many phases of vocational education are gained through observing and participating in the activities of the national offices. Visits to Government offices, national farm organizations, youth organizations, educational associations, et al., are included in the program.

The graduate study program was designed primarily for those interested in pursuing the Master of Science Degree. However, persons enrolled in the program are not required to work toward a degree. Of the two FFA Fellows who studied at the University in 1962-1963, and the four during 1963-64, one-half in each case were studying for a master's degree, while the remainder were doing work beyond this degree.

To the extent that related activities were not a detriment to their academic studies, participants have participated in such activities as the

Eastern States Exposition, the National FFA Convention, the North Atlantic Regional Conference, and the Ohio FFA State Convention. One key event was an evening spent with the National FFA Student Officers and National FFA Board of Directors as dinner guests at the National Grange headquarters.

The first year the program was in operation Massey Ferguson provided funds for two Fellowships. Last year the program was expanded to four Fellowships.

Readers may be interested in knowing what has happened to past FFA Fellows. From the first year group, Takumi Kono returned to his position as Assistant Supervisor and FFA Executive Secretary in Hawaii; and Ernest T. Cullen became FFA Executive Secretary and Assistant State Supervisor in his home state, Maryland.

The second year group was deployed as follows: Don Cockroft, Eaton, Colorado, became Assistant State Supervisor and FFA Executive Secretary in Arizona. Melvin Somers, Danville, Vermont, is principal at Chelsea, Vermont. Lloyd Wiggins, Stillwater, Oklahoma, is supervising an FFA Peace Corps project in West Pakistan. The writer, having first taught in Kansas before going to Grinnell, Iowa, is continuing graduate work at Cornell University. □

Ralph Wilson

Ralph "Prof" Wilson, long time Olathe Agriculture teacher and first Colorado FFA President died suddenly December 3, 1964.

It was while teaching in the early days of Vocational Agriculture that Wilson became well known through his work in agriculture and with agriculture clubs and FFA activities. He organized the first Ag Club in the mountain and intermountain region. Wilson was appointed the first president of the Colorado FFA Association and was presented a banner by Dr. Spanton. He and his FFA boys played a very active role in the formation period of the FFA.



N.V.A.T.A. News

James Wall
Executive Secretary
NVATA

Has a national officer attended your state conference recently? It is a policy of the NVATA that a national officer can visit state associations at NVATA expense once every three years. Additional visits can be made if the state association assumes the officer's expenses.

If your association has not been visited recently, it is suggested that you invite the NVATA vice president for your Region to attend your 1965 Conference. Invitations should be extended by the association and by the state supervisor.

If an officer is invited to attend your conference it is expected that he will be given a good "spot" on the conference program and will also have the opportunity to meet with the state executive committee.

* * *

The executive secretary, James Wall, represented NVATA at the Farmers Union Convention in Chicago, March 14-18. Outstanding speakers included: Kenneth Kennedy, National FFA President; Otto Kernner, Governor of Illinois; Herschel Newsom, National Grange Master; Richard Daley, Mayor of Chicago; Honorable Hubert Humphrey, the Vice President, United States of America; Walter Reuther, President, United Automobile Workers; J. Kenneth Galbraith, Harvard University; John A. Baker, Assistant Secretary of Agriculture, and Honorable Orville Freeman, U. S. Secretary of Agriculture.

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Sam Stenzel, NVATA President, and James Wall, Executive Secretary, met at Manhattan, Kansas, on March 27 to review NVATA activities and chart a course of action for the remainder of the year.

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A leadership conference will be held in each of the six NVATA Regions. In fact, the Region I meeting was held at Sunnyside, Washington, April 9-10.

Your vice-president will keep you advised of dates and plans for your Regional Conference. Every Association should plan to be well represented at their conference by association officers and members that may be able to attend.

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In the future, members of the "Thirty Minute Club" will receive certificates rather than cards. It is the responsibility of the state association to submit names of qualified members to the NVATA vice-president for the Region or to the person he has named to be in charge of the activity. Certificates should be presented during the state conference.

Stories in Pictures



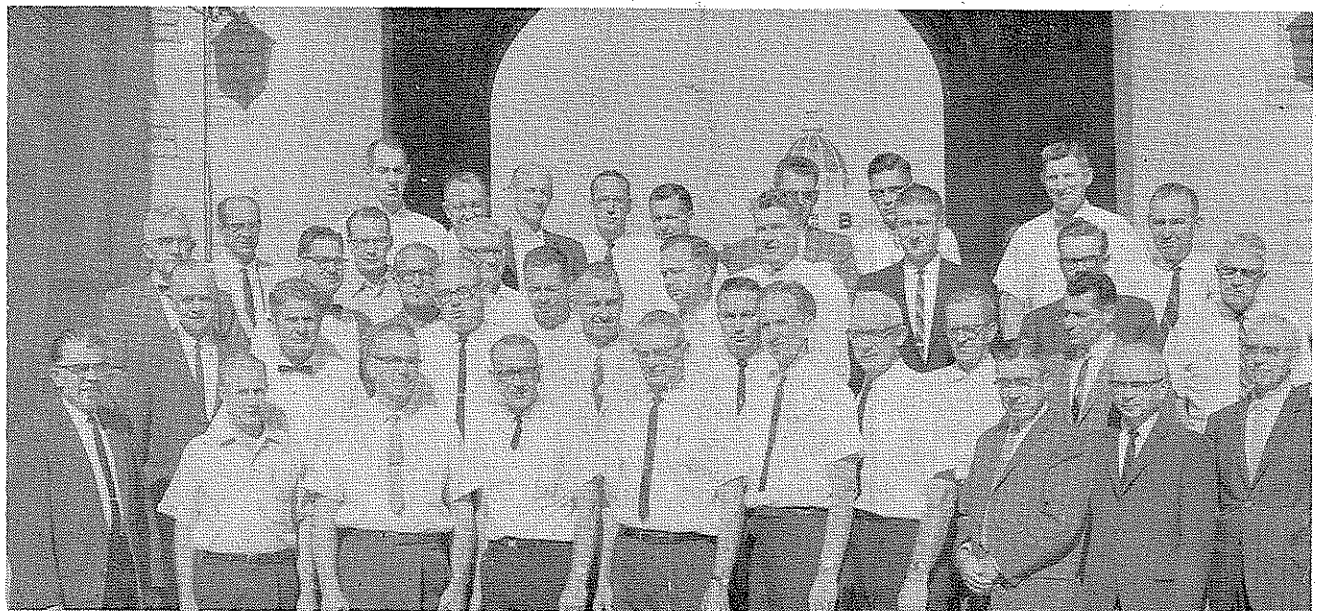
Both Tunisian and American Technicians are helping the farmers to make the change from traditional to modern farming methods. Hedi Jomaa, Field Agent for the Sousse Regional Cooperative Union, takes a turn behind the traditional camel drawn plow while the farmer takes a short break. Horticulture Advisor Bruno Quebedeaux is at right. (May 1964).



Members of adult-farmer class in Panama learning to test seed corn. (Photo by Householder).



Several members of the Canby Union High School vocational agriculture department, Canby, Oregon are shown digging and baling evergreen shrubs for marketing. Supervising the operation is Ray Reif, vocational agriculture instructor, and Ray Burden, former Canby FFA member, Oregon State University graduate in horticulture, now owner and operator of the Hazel Dell Nursery at Canby. The vocational agriculture students are participating in placement experience in nursery operation. L-R Jerry Rice, Greg Roussett, Ray Burden, Ray Reif, Bill Kraxberger, Mike Burns.



Participants at the Central Region Research Conference held at the University of Missouri on August 4-7, 1964. 1st Row L. to R.—Ralph Woodin, Robert Warmbrod, Ralph Benton, Edgar Persons, M. G. McCreight, Kenneth James, C. V. Roderick, Richard Wilson, Glenn Stevens, G. F. Ekstrom. 2nd Row L. to R.—Glen Strain, Forest Bear, Harold Binkley, Herbert Bruce, J. D. Harris, Herbert Brum. 3rd Row L. to R.—Harold Byram, James Horner, Harry Kitts, John Coster, Walter Bioraker, Duane Neilson, Howard Deems. 4th Row L. to R.—Curtis Weston, Harold Taylor, Donald Meaders, E. E. Clanin, Duane Blake, Bill Bingham, Carl Lamar. 5th Row L. to R.—Gerald Fuller, Paul Hemp, Alfred Krebs, Clarence Bundy, James Hensel, Robert Taylor, Earl Carpenter, C. A. Cromer. Absent from picture: Norman Ehresman, Russell Guin, Alan Kahlor, Roy Hickman, Windol Wyatt, Raymond Hagan, R. L. Hayward, Carl Humphrey, J. A. McKinney.