THEME:
International Agricultural Education
Agricultural Education In Development

Acuted to enjoying the bounty of an affluent society with shelter, food and comforts; we seldom have reason to scholarly consider those with less. Going about our daily job of conducting teaching activities gives us little time to consider how one might be an effective model for helping people in other countries.

Programs designed to aid the agricultural development of developing countries have not focused typically upon agricultural education. Authors in this issue relay some of the concerns which need to be addressed to facilitate the development of agricultural education.

International Youth Week provides a unique medium for focusing attention upon youth around the world. The attention given to hunger should provide an ideal opportunity to highlight the need for agricultural education.

To help facilitate the development of agricultural education, the Association for International Education (AIEA) has been formed. The Theme Editor, Burt Swanson, is Chairperson of the group. AIEA invites your membership. The objectives of the group are enumerated in the article by Thuemmel.

Expedite To Share

The Cameroon conference may help to focus renewed attention upon agricultural education not only in Africa but in other places as well. Teachers may well have an opportunity to elect to become involved in international activities. The years of experience we have gained through vocational agriculture may be of benefit to developing countries. Experience and training in working with youth organizations, SOR programs, adult programs, and providing practical instruction in agriculture could be valuable assets.

Numerous people have noted how communications, transportation and technology have made the world smaller. Agricultural educators will soon see the effect of the shrinking. The contributions made to American agriculture by agricultural educators have been noted by others. This expertise, so valuable in U.S. development, may also be of worldwide benefit.

Serving Rural Youth Around the World

This issue spotlights the beginning of International Youth Week, which is being celebrated around the world in 1985. It is also a good time to reflect on agricultural education's role in serving rural youth around the world and particularly in developing countries. However, before considering agricultural education's contribution and potential to agricultural development overseas, it is useful to briefly review this role in the agricultural education of the United States and other industrialized nations.

Agricultural and extension education have made an important contribution to agricultural development in North America and Europe. In the United States, vocational agriculture programs in schools provided technical and managerial skills that rural young people needed to succeed in farming and, more recently, in agriculture.

Agricultural extension built on this educational foundation by providing the up-to-date technology and information farmers needed to increase production and farm income. Rural youth programs developed the leadership and organizational skills rural people required to form farm organizations, such as cooperatives, promote agriculture and improve rural living.

As agricultural education and other rural youth programs have been initiated in many developing countries, they have frequently been organized in different ways and

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Serving Rural Youth Around The World

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they have received few resources, both from national govern- ments and from donors, such as the U.S. Agency for Interna- tional Development (AID), as well as from non-governmental organizations. Agricultural education for the rural youth in many African countries is still in its infancy. However, it is evident that this area is receiving increased attention, both from the governments and from international agencies. The importance of agricultural education for the rural youth cannot be overemphasized, as it is a crucial component in the development of sustainable and equitable societies.

Stop-Gap Measures

In terms of approach, agricultural education programs have been developed as a reflection of quite different educa- tional systems and traditions. These programs tend to be academic rather than vocational in approach, and students and parents frequently see education as the best vehicle to leave farming and even rural areas. This approach and these attitudes contribute little to the broader goals of agri- cultural and rural development and, in some cases, detract from these goals.

In terms of resources, agricultural education programs in general and rural youth programs in particular, have not fared well in most developing countries. The concern with achieving national food self-sufficiency and avoiding unemployment in agriculture has led to government programs that are not well supported. Most of these stop-gap measures are too little attention to the future and the need to invest in quality agricultural education and rural youth programs. Many poorer nations appear to be mortgaging their future capac- ity to produce food by failing to invest in their rural youth today.

Rural Youth

The central proposition of this issue is that rural youth are a very important and valuable national resource. It must be recognized at the policy level within both national governments and donor agencies that the future ability of a nation to feed itself rests on the shoulders of its rural young people. However, for this next generation of farmers to ef- fectively utilize improved agricultural technology, and thereby increase agricultural production and farm income, will require agricultural education investments today that will develop their technical, managerial, and leadership skills.

Theme Emphasis

To convey this message, this issue has been developed around three main ideas. The focus will be on International Youth Year and the opportunity to focus attention on the importance of rural girls and boys around the world. Agricultural educators, we clearly understand the importance of improving the agricultural skills and knowledge of rural young people, but this perspective needs to be repeated and highlighted with our students, their parents, and in the communities where we live. Therefore, International Youth Year provides us with an opportunity to celebrate and highlight some basic values that are central to our profession.

The second major theme deals specifically with the situa- tion confronting rural youth in developing countries and some positive examples from Asia, Africa and Latin America, as to how agricultural education is responding to those needs. Clearly the task ahead in these countries is large, but there are some valuable lessons being learned to increase the effectiveness of these agricultural education programs.

The final theme revolves around the general theme of “getting involved.” Many agricultural educators are al- ready involved in international youth activities. For exam- ple, Teacher Educators from 22 U.S. universities par- ticipated in a major African Agricultural Education Con- ference in Yarsunde, Cameroon in July 1984. A report on this conference is included in this issue.

Another dimension of this final theme is the fact that some of our approaches, that we take for granted in the U.S., may need to be modified for the different conditions of other countries. Two articles explore different ways of implementing agricultural education programs under these different conditions. The final article suggests one mechanism whereby agricultural educators in the U.S. (and beyond) can get involved in and learn more about in- ternational agricultural education programs and opportu- nities.

International agricultural education is both an oppor- tunity and a responsibility for our profession. Agricultural educators have made an important and significant contri- bution to the development of rural people and agriculture in the U.S. And we must do more. According to the teaching, it is political stability and national survival in developing nations.

Countries that cannot feed themselves are a threat to world peace, to say nothing of the immense human suffering that is present today and growing more serious by the day in many nations, particularly in Africa.

Agricultural education is part of the solution to this problem of increasing agricultural production. As profession- als, we need to do whatever we can to assist our col- leagues abroad to build and strengthen quality agricultural education programs for their rural youth.

FFA Celebrates International Youth Year

During 1985, most nations around the globe will be celebrating International Youth Year. The thirty-fourth U.N. General Assembly voted in 1979 to designate 1985 as the International Youth Year (IYY). The themes chosen for IYY include Participation, Development and Peace.

Participation in the life of a nation is important for all, and especially important for the young. If they are to help form the society in which they will live their adult lives, young people need a voice first in youth organizations, as offered through structured programs such as FFA, and later a voice in national life. Education and information, from a wide range of sources and perspectives, are necessary to the exploration of future possibilities. It is crucial that youth have access to all sources of information, and that they be allowed the possibility to travel across political borders to study and to explore further their interests. We provide this opportunity to FFA members through programs such as Work Experiences and a variety of Travel Seminars made available by the organization.

Worldwide Understanding

Youth of the World have a vital stake in development. Both the developed and developing societies need to in- crease their economic growth to improve the lives of their citizens. With world population continuing to grow, agri- cultural productivity must also continue to grow through- out the world. If any major groups in the world society are left out of the development process, they are likely to face poverty, misery and despair. The development process which is central to human development must include all segments of society, and certainly an important role must be played by today’s youth who will live and manage the future.

FFA members must be aware not only of the develop- ment process used in community development and the Building Our American Communities program in FFA, but also and more generally of the information and access to the develop- ment process worldwide. Programs such as the Peace Corps, U.N. Volunteers, and a variety of religious organiza- tions offer opportunities for FFA Alumni to become in- volved. FFA’s own USAID-funded project in Panama of- fers the same kind of opportunity to FFA members who are interested in working with and helping young people in developing countries.

A recent statement of purpose from the International Youth Year booklet is worth noting: “For the first time in history, youth throughout the world have borne the brunt of fighting in war, and have a special interest in promoting peace.”

JANUARY, 1985

THE AGRICULTURAL EDUCATION MAGAZINE

By Leroy Garbage

We must recognize that peace has two definitions, one negative and one positive. The negative definition of peace is simply the absence of war during a particular period of time. While this is the most common peace found in his- tory and is desirable, a positive peace, where the condi- tions that might lead to war are not present, is the sort of peace we hope for. So far, the objec- tive of world peace has eluded every generation. But to- day’s youth, who are expressing this desire around the globe, must help us all to rededicate ourselves to this quest for peace.”

Conferences

International Youth Year will be a part of FFA’s interna- tional activities during 1985. Several international con- ferences related to youth and agriculture will be held, and FFA will be represented. The province of British Col- umbia in Canada will convene a meeting in Vancouver, and Jamaica has invited FFA to attend an April 1985 Inter- national Conference on Youth and World Youth Festival of the Arts. The Kingston meeting, with 1200 youth in atten- dance, will for the first time bring together the succeeding generations from democratic societies from all corners of the world.

FFA participation in the Fifth World Congress of Young Farmers, in November, 1985 in Christchurch, New Zea- land, will highlight IYY. One of the goals of New Zealand Congress is to be for the all members, both young farm- ers, future farmers and rural youth. The official delega- tion will include the 1984 Star Farmer and Star Agribusiness- man.

Increased emphasis on youth exchange will be FFA’s ma- jor effort for IYY. With the cooperation and support of the U.S. Information Agency, many more FFA members and youth from cooperating overseas organizations took part in the 1984 programs — a substantial increase over pre- vious years. In August, FFA received a grant from USAID which will allow for an expanded youth exchange program for 1985.”

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FFA Celebrates International Youth Year
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members to visit Thailand during the 1985 National FFA Convention. It is expected that continued support will be received from USA for Canada, Japan, France, West Germany, the United Kingdom and Italy.

Chapter Activities
During the year-long celebration of IYY, FFA Chapters are encouraged to become more knowledgeable about the world around us. Here are some activities that could be considered:

1. Invite an exchange student to talk to the chapter.
2. Have a working WEA participant speak at the annual banquet.

3. Correspond with a rural youth group in another country.
4. Help to sponsor a chapter member on a WEA program.
5. Host an inbound WEA participant.
6. Help to sponsor a chapter member on an agricultural travel seminar.
7. Donate funds to assist the FFA development project in Panama.
8. Set up an IYY or WEA display in a store window.

FFA advisories and chapter officers are encouraged to contact the National FFA Center for ideas, materials, and sources of information to help them participate in the celebration of International Youth Year. FFA has the opportunity and the challenge to play a significant role in spotlighting agricultural youth during IYY.

THEME
International Youth Year: Opportunities and Benefits

Your vocational agriculture program and FFA Chapter have a unique opportunity through participation in special activities during the International Youth Year. This is a special year to elevate our ideals, deepen our tolerance, strengthen our determination, share our technologies, build new bridges of understanding and shape a future of freedom, peace and prosperity that can be shared by youth throughout the world.

Guidance for participation, programming ideas, and high visibility are available for chapters which elect to participate. This article will give you a brief background, share objectives and ideas, and be a source for more information.

The thirty-fourth United Nations General Assembly voted to designate 1985 International Youth Year (IYY). In so doing, the UN expressed its conviction that youth have energies, enthusiasm, and creative abilities to harness.

Goals

The year’s three major themes are Participation, Development, and Peace. The objectives are:

1. To gain, through education, hands-on activities, and personal development, a knowledge of problems and opportunities facing youth throughout the world, and particularly in the United States.
2. To use participatory knowledge in creating personal skills enabling proper self-development, social responsibility, and a willingness to devote personal initiative in the pursuit of better living conditions for people at home and abroad.

The participation of young people is obviously crucial to the success of the programs and activities we may adopt at the national, regional, state and local levels. Vocational agricultural students have unique understandings and talents which could play a vital role in increasing the understandings of the importance of agriculture to our American society. The success of the vocational agriculture program could be featured throughout the year in terms of:

- youth participation in decision making
- youth contributing as productive members of society
- gaining greater opportunity for employment
- strengthening the role of youth in families
- fostering cooperation among young people of all backgrounds
- important role of FFA in the life of our nation
- opportunities for international exchange of information
- developing and strengthening leadership skills
- importance of youth education with technology transfer
- understanding of world hunger and malnutrition
- appreciation of cultural heritage
- recognition of economic interdependence and crises
- community service and citizenship education

Vocational agriculture and/or FFA chapters should develop programs and projects during the year that can create opportunities for meaningful educational experiences. These programs could range from adopting a foster child through a Foster Parent’s Plan to international programs, hosting an agricultural student from a third world country, to conducting a seminar on rural youth migration to urban centers.

The following suggestions for local events and/or programs are listed to stimulate your thought process:

- sponsor international seminars/workshops on contributions/role of youth in the world
- develop programs/projects focused on world hunger, including observance of World Food Day (October 16th)
- encourage youth to seek careers in agriculture and its importance to world peace
- organize committees of youth representing community organizations to provide community services during the year, i.e., voter registration, health care, energy conservation, nutrition, sanitation, etc.
- strengthen farm-city relationships especially during National Farm City Week
- host foreign visitors, especially those with a special interest in agriculture
- supply speakers for civic organizations to illustrate youth contributions/needs
- develop outreach projects through existing international organizations like CCEs, Farmers of the Americas, Foster Parent’s Plan International, Youth for Understanding, Work Experience Abroad (WEA), International 4-H Youth Exchanges

Conclusion

This article has attempted to summarize the objectives, goals and purposes of the 1985 IYY observance in this country. The suggestions for local involvement are written solely to stimulate your participation in this unique opportunity—a year to elevate our ideals, deepen our tolerance, strengthen our determination, share our technologies, build new bridges of understanding and shape a future of freedom, peace and prosperity that can be shared by youth throughout the world.

For more information write IYY Commission, 1352 K Street, N.W., Suite 620, Washington, D.C. 20005 or phone 202/682-9040.

The Cover

School boys with a harvest of maize grown in their school garden in Berlin. Food is grown for consumption or sale in the market. (World Food Programme photo by J. Van Acker.)

1985 Themes

February
March
April
May
June

Vocational Agriculture and the Handicapped Student
Innovative Student Management Strategies
Using Microcomputers in Agriculture
FFA Conventions and Contests
The Supervision: Local, State, and National

July
August
September
October
November
December

Planning, Organization, and Time Management
Evaluation of Vocational Agriculture
The Teacher of Vocational Agriculture
Elementary and Pre-vocational Programs
Teaching Tips
Future Programs in Agricultural Education

1985 Themes

JANUARY, 1985

6

THE AGRICULTURAL EDUCATION MAGAZINE
There is growing concern that the youth of today are facing more complicated problems than those of their parents. To illustrate this point, here is a brief look at the situation of youth in the less developed world.

From the United Nation's direction, youth are classified as young men and women from age 15 through 24. However, in the following discussion, the term youth has been expanded to include the group of young people, male and female, married or single, from age 10 through 24. This is unrealistic to discuss a comprehensive approach to youth work without including the 10 through 14 year olds. The International Labour Organization (ILO) estimates that 50 million children under age 15 are at work and that about 11 percent of the 10 through 14 age group are economically active. Nearly 98 percent of the child labourers are found in developing countries.

World Wide Trend

The data in Table 1 shows a projected increase in the numbers of youth between 1980 and the year 2000. The most striking figures relate to the expected increase in urban centres as compared to the rural areas. This is a very real concern to educators and planners.

It is estimated that 80-90 percent of the world's population growth will occur in low income countries where there are already food shortages, massive rural-to-urban migration, inadequacy in housing, health care and education, and high unemployment, particularly among youth. The following is a brief examination of the situation confronting youth in the three major regions of the developing world.

Africa

Regional data shows some variation, but the situation is critical in every location. In 1980, Africa's total population was estimated at 470 million, with 71.1 percent living in rural areas. With an annual growth rate of over 3 percent, the continent's population will increase to over 850 million by the year 2000. In 1980, there were 101 million rural youth from the ages 10 through 24, which represented 21.5 percent of the total population. In the year 2000, there will be an estimated 152 million rural youth from the ages of 10 through 24 or 17.8 percent of the total population. The percentage of youth in the rural areas is decreasing, but the absolute numbers are continuing to rise at an alarming rate. Looking ahead, in Africa alone, there will be over 300 million young people to educate and prepare for the future between 1985 and the year 2000.

Rural youth constitute the largest sector of the youth population in Africa. They are confronted with problems such as: lack of amenities, social services and educational facilities; isolation and lack of opportunities; food shortfalls, inadequate health care and education; and high unemployment, particularly among youth. The following is a brief examination of the situation confronting youth in the three major regions of the developing world.

A realistic look at the rural/urban youth distribution across Southern Asia shows a similar pattern to that of Africa. Table 1 shows urban youth numbers will increase by 105.5 percent or an additional 330 million by the year 2000, while rural youth will increase by 13 percent or 45 million more in the same period of time.

Participation are the 1983 Asia and Pacific Regional Meeting for the International Youth Year noted that youth constitute the largest component of the population and that has tremendous implications in terms of manpower planning and utilization. The extent to which youth can be absorbed into society constitutes an enormous challenge to governments.

The scope of the statement on agriculture could also be extended to other sectors of rural development. In order to facilitate the involvement of rural youth in development activities, organizational structures are required to relieve the isolation of youth and involve government and non-governmental organizations. At present, such organizations find it difficult to reach a large number of youth, but also to initiate and reinforce the cooperation between youth and adults.

The urban youth population in Africa will nearly triple from 45 million in 1980 to 123 million by the year 2000. These are staggering figures for the people in charge of educational planning and economic growth.

Africa is already beset by drought, famine and unemployment. There is worse to come if these millions of young people are not educated for productive employment and are left to cope with an impossible situation as young adults. The key issue is government recognition of the problems and the need to implement specific national policies to meet the need.

Southern Asia

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Unemployment and underemployment continue to remain as serious problems and the persistence of rural unemployment and the related migration to urban centres are serious problems in every country. The subject of vocational training for rural youth was explored at length and the problem of the lack of meaningful industrial development outside the capital cities was discussed in each regional meeting. Recognition of the problems and subsequent action are priority areas of concern for those dealing with rural youth programmes.

A recent FAO sponsored study cited the need for increased cooperation among existing agencies serving youth and a continuing need for governments to recognize the value of vocational and leadership training through both formal and non-formal education. The essential role of parents who understand the goals of youth programmes and who support youth activities was also stressed. The implications here are that there is perhaps too little being done to explain the benefits of effective programming for youth. Too often a "Youth Programme" is viewed as a luxury that is not a basic societal need.

Latin America

The Latin American data from Table 1 are even more startling. From 1980 to the year 2000, the proportion of youth aged 10 to 24 will increase by 200,000, or only one-half of one percent in the rural areas, but in the urban centres, there will be an increase of 66.1 percent, from 77 million to 128 million. Urban dwellers will continue to apply pressure for low food prices, that are disincentives for increased agricultural production. Land reform issues have to be addressed along with providing incentives for rural people to continue in agricultural production work. Young men and women of child bearing age are continuing to migrate to the urban centres, a fact that compounds the population pressure in the cities.

The Latin American regional meeting on International Youth Year stressed that, although the percentage of the total population living in urban areas in increasing very rapidly there is still an increase in the absolute numbers for the rural sector. This increase in rural population should be a reason for concern and a stimulus for finding ways to more effectively employ rural people in jobs related to agriculture.
The percentage will drop to just over 52 by the year 2000. It is clear that for the foreseeable future, over half of the population in the more developed regions of the world will be under 25 by the year 2000.

Youth programmes in the less developed countries are going to have to be designed to meet a set of criteria quite different from the more developed nations. Creative approaches are going to be a necessity.

References


Youth Information Bulletin 04 (9), Department of International Economic and Social Affairs, Centre for Social Development and Humanitarian Affairs, Vienna, 1983.

Vocational Agriculture Helps Rural Youth: Japan and Taiwan

Vocational education in agriculture has been and is a part of the plans for strengthening agriculture in both Japan and Taiwan. The programs have provided rural youth with career opportunities which otherwise would not have been possible. And, in both countries, youth programs associated with vocational agriculture have been a part of the methods used to motivate youth to higher achievements in agriculture.

During the last part of the nineteenth century, when Japan was pushing to create a modern nation, schooling was one of the means used. The modern educational system in Japan has its roots in the Fundamental Code of Education of 1873 (1.26). During the 20-year period 1890-1910 the apprentice schools which were started for the traditional industries were soon upgraded to vocational schools. They included some apprentice schools in agricultural subjects such as tobacco production and sericulture (2.22-23). This early beginning with organized instruction in the science and practice of agriculture was a beginning of government policy to utilize formal schooling as a means to achieve modernization.

On the other hand, formal agricultural education in Taiwan had its roots established during the period 1895-1920, the beginning of the 50-year colonization of Taiwan by the Japanese. In 1905 and 1915, the study and practice of agriculture was introduced in the primary (common) school curriculum.

"Agriculture, taught in rural schools, was intended to cultivate respect for manual labor and to teach work habits, as well as to give practical information about soil cultivation, livestock, sericulture, and tree and fish farming."

By O. Donald Meaders

(Journal of the Japan Society for the Promotion of Science, April 1950)

Japan

The public educational system in modern Japan includes vocational education in agriculture. The six years of elementary and three years of lower secondary school education are compulsory for children between ages six and fourteen. These levels are part of the 6-3-3-4 school system which was established after World War II (4.4).

Agriculture is taught as a vocational subject in the upper secondary level schools. In 1980 there were about 230 separate agricultural schools which enrolled approximately 374,200 students, or 3.8 percent of the total student enrollment in upper secondary schools.

In Japan, the agricultural programs in the upper secondary school are divided into two kinds: Future farmer programs which include agriculture (crops), horticulture, livestock production and sericulture (silkworm and silk production), and agribusiness programs which include food processing, agricultural machinery, forestry, and rural living.

Taiwan

In Taiwan, the introduction of agriculture into the primary schools of the early 1900's was followed by an emphasis on vocational education starting around 1918-23. The reader is reminded that the period of World War I and the years immediately following were marked by major socio-political changes in many countries around the world. Vocational agriculture was introduced at the lower secondary (junior high school) level. In 1919, there were six agricultural schools with a total of 151 pupils. 40 percent of the objectives of this instruction was to "integrate Taiwanese into the colonial economy's rapidly growing industrial, (agricultural) and commercial sectors" (3.68).

Agricultural education in Taiwan since 1950 has undergone many changes but it remains a strong, integral part of the educational system. The lower secondary (junior high) schools for vocational agriculture have been phased out; the number of upper secondary schools for vocational agriculture have been adapted to the specialized agriculture of the school areas: two junior colleges of agriculture and two colleges of agriculture (with graduate courses) (3.4). In 1974, there were nearly 2,000 graduates from all three levels, compared with only 1700 in 1955 (5.128). In 1983, there were about 20 upper secondary schools with vocational agriculture curricula.

In Taiwan, the vocational agriculture curricula include: food processing; animal husbandry and veterinary medicine; farm machinery; forestry; agricultural civil engineering; horticulture; farm business and comprehensive agriculture; sericulture; and rural homemaking. More than 50 percent of the students are in the first three curricula; food processing, animal husbandry and veterinary medicine, and farm machinery (5.33).

In both Japan and Taiwan, the vocational agricultural programs are a part of the rural and urban agriculture curriculum.

The vocational agriculture schools in Tokyo serve students interested in poultry, horticulture and dairy. In Taiwan, a study by Meaders and Hu reported that 52 percent of the vocational agriculture students came from farms, and 47 percent from rural and city non-farm residents (5.34).

The programs of agricultural education in Japan and Taiwan are integral parts of their extensive educational systems. In both countries the agricultural curricula are a reflection of the importance of agriculture with industrial education. Agriculture represented 4 percent of the GDP (Gross Domestic Product) in Japan (1960) and 7.4 percent of the GDP in Taiwan (1982). Enrollments in agricultural courses/curricula as a percentage of the total school enrollments were also between 4% and 7% as shown in Table 1. (More recent data were not readily available for both countries.)

Table 1. Enrollments at Upper Secondary, Junior College and University Levels, Total and in Agriculture, 1971

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of</td>
<td>School</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total No. Enrolled</td>
</tr>
<tr>
<td>Upper Secondary</td>
<td>37,000</td>
<td>5.4</td>
</tr>
<tr>
<td>Junior Colleges</td>
<td>257,260</td>
<td>1.3</td>
</tr>
<tr>
<td>Universities</td>
<td>1,468,518</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Source: See references (6.1) and 7.26-33, 104-112

Youth Organizations

Vocational youth organizations have been a part of the vocational agricultural programs in Japan and Taiwan. The FTU (Future Farmers of Japan) was established in 1950. It continues as a strong youth organization for boys and girls who are students of vocational agriculture. Its three goals of leadership, social character, and scientific character have provided a focus for promoting agricultural education. It is an organization authorized by the Ministry of Education, has local chapters, state associations and the one national association.

In the late 50's, Taiwan agricultural educators established a youth organization and modeled it after the 4-H program in the United States. However, the 4-H organization has been very effective for helping motivate students to achieve leadership, cooperation and community service. The organizations in each school, with leadership from the Provincial Department of Education and the Council for Agricultural Planning and Development (former known as the Council for Agriculture), have involved many vocational agriculture students in skill contests, demonstrations, public speaking, and community service activities as well as individual and cooperative production projects.

The graduates from the vocational agricultural programs have entered farming, become technicians in government and agricultural organizations, become agricultural extension agents, and in many ways. Perhaps the most obvious role for agricultural development has been their work as agricultural extension agents. About 50 percent of the agents in Taiwan and 60 percent of the agents in Japan are reported to be high school vocational agriculture graduates (6.9,308).

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How You Gonna Keep 'Em Down On The Farm?

There is a crisis in Africa. Food production per capita is declining at about the same rate that the population is increasing. Many believe that production is declining because there is a dearth of trained agricultural scientists generating innovations to improve the unique conditions of Africa's agriculture. Others are consumed with creating favorable price policies or strengthening the linkages between research and extension. All of these efforts are important, but there is a fundamental problem that surpasses all these.

The Problem

Farming is perceived by the majority of African youth as tedious, a boring vocation that dominoes one to a life of subsistence living and societal citizenship. But, it is under the shoulders of African youth that future gains in agricultural productivity rest. They are not only tomorrow's farmers, they should be today's as well.

Schools, which are supposed to inspire and educate youth to become better farmers than their parents, actually exacerbate the problem. Lest we forget that one year African graduates had to say about his educational experience in agriculture (1):

"We respected nothing and nobody, and in turn no one respected us or cared two hoots about us. We had all 'finished' school and yet we had no work... if we had no work we thought, it was not because we were bad but because there were no jobs. Tell us to go back and work on our parents' farm — to go back to the land, as the politicians' cliché ran — and we would say: 'Look here Sir, if we wanted to be peasant farmers, we would not have waited a full ten years (school learning to read and write. If we are to be farmers at all), we don't simply want to weed a piece of land and plant yam or plantain or cocoyam or cassava or vegetables on it in the topsy-turvy way we've seen our fathers do for years, but which barely gives them enough food to live on, let alone bring them money. No, Sir! Ask us: 'But do you know any better way of farming than your fathers?' Our answer would be a big 'NO!' Our teachers had no specialized training in agriculture. How could they teach us agriculture? They just gave us a plot to plant things on. And the things grew... Anyone can do that!"

Unfortunately, for most African youth a formal education at the primary and secondary levels leads to an assumed expectation that literacy not practical agricultural training, will lead to full employment.

This assumption is shared by many of the students' parents who expect their children from agricultural chores as long as the children study. It is the peasant farmer's shared hope that the best educated of their family will bring honor and more wealth to the entire family — the future belongs to industrial development not peasant farming.

Emphasizing Agricultural Education

The disparity between expectation and fact are frightening. There are not enough jobs in the cities for the rural youth who migrate there with no vocational training. The industrial economies are underdeveloped and agriculture and natural resources will contribute approximately 60 percent of the gross national product of most African countries. Migration of African teenage school-leavers to the cities is not a happy picture. Many stop in Abuja or anywhere else. Perhaps the rate could be reduced, but this is unlikely unless farming is perceived as desirable by primary and intermediate school graduates. It is essential that Africa's primary and intermediate rural schools emphasize agricultural education, demonstrating acceptable and efficient farming methods to achieve food self-sufficiency.

Swanson (2) pointed out that two types of agricultural skills are transferred as farmers move from subsistence to modern farming: technical and allocative competence. Technical competence refers to practical skills and knowledge, which may include some understanding of the basic principles involved. Allocative competence refers to management skills and knowledge to make choices between different practices, processes, and inputs consistent with available resources. Acquiring both types of competences is the job of formal educational systems i.e., in a formal classroom and laboratory setting.

In Africa, this education should begin at the primary level because less than 20 percent of Africa's children ever enter secondary school. (3). There are educational programs in Africa that emphasize practical education in agriculture that includes allocative and technical competencies in the local curriculum. Cameroon and Swaziland are good examples of what can be done to inspire and educate rural youth to be successful in farming careers.

The Cameroon Program

In Cameroon, two different colonial educational systems existed prior to 1967, one based on the British, the other on the French educational systems. Neither was practical, both emphasized rote learning of the three R's based on culturally-biased and unrealistic examples. Since 1977, IPAE/Buea, an institute of education with a rural orientation, has been busy with teacher education and curriculum reform in four major curriculum classifications: English language, arts and crafts or village technology, and environmental studies, which includes (a) agriculture and (b) traditional/social systems (4). These programs are conducted for a six year primary school course in the English-speaking primary schools near Buea, which is in the southern part of the country.

Primary teachers learn how to use the curriculum using the problem solving teaching approach at the various teachers colleges that serve these areas. Students receive a practical laboratory experience from the beginning. Class one, i.e., first grade, raise flowers on school land, and this experience is related to simple classroom lessons on nature. Classes two and three are provided local, and other supplies for vegetable plots. Classes five through seven are provided additional land and supplies for a full laboratory, including vegetative, botanical, and animal research. Students are taught to market a marketable surplus, an orchard, and small livestock enterprises.

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How You Gonna Keep 'Em Down On The Farm? (Continued from Page 13)

Four other facets of the IPAR-Buea agricultural education programs are important: the “Grand Manual Award in Agriculture,” successor to the credit loan, farm loan, and farm scheme, and demonstration farms. The Grand Manual Award in Agriculture is awarded to the top primary and secondary schools based on their ability to demonstrate improved farming methods—a logical extension of classroom learning.

Provincial agricultural training is not new in Africa, but allowing rural youth to demonstrate new farming methods to the public and compete with adult farmers is novel and daring. Student teachers from the teacher education colleges participate as teachers and evaluators. The U.S. Agency for International Development (USAID) has supplied some of the rabbits and poultry to the schools that competed.

Third, the revolving credit loan farm scheme provided a source of funds for qualified schools to develop an agricultural laboratory. Schools may buy tools, seeds, nursery materials, and fencing materials and loans are repayable after the first two years of harvest.

Last, demonstration farms were established as pilot teacher education centers. Further expansion is planned. “Mille 17 Demonstration Farm” was established in the Southwest Province and serves as a laboratory for theory and practice in Environmental Studies. Students are introduced to measurement, accurate recording, and problem solving and farm management through a month of exercise that begin with simple farm experiments and lead to multi-enterprise analyses involving decision making based on the school farm records.

Again student teachers from nearby teacher education colleges practice, teach and evaluate the students’ progress. Further expansion of all phases of this program is planned for other Provinces. Farmers have assisted IPAR-Buea as advisors on curriculum revisions.

Programs in Swaziland

“Schools Agriculture” in Swaziland is aimed at improving attitudes towards agriculture, such as agriculture is viewed as a profitable and enjoyable way of life (5). Schools Agriculture does not try to train farmers, but students do acquire an appreciation for agriculture by getting their hands dirty.

In each school, a full range of practical facilities and equipment are available. Locally prepared curriculum materials and a trained teacher in agricultural education is also a support network to provide timely inputs for the projects and regular supervision and encouragement from a team of district supervisors. Learners are allocated approximately 50 percent to practical work and 50 percent to related classroom instruction. Every pupil in Standards 5 and 6, and up to eighth grade, grows their own vegetables in individual plots, keep layers or bokkie chickens for a year, and manage some form of larger livestock, pigs or cattle for one year. Pupils pay their expenses in the form of an agriculture fee and receive the profits as cash or credit toward further inputs.

Two independent evaluations of the program concluded that the Schools Agriculture was so successful in improving pupils’ attitude toward agriculture, however, it was not yet persuading them to go back to the land. Hopefully, as economic conditions improve so will their willingness to go back to farm. The most recent of these evaluations (1982) concluded that Schools Agriculture was unique and should be adapted and tested by other African countries. Togo, Nigeria, and Zimbabwe have expressed an interest in visiting the program in Swaziland.

Summary

From these two examples and others not discussed, there are six factors that could contribute to successful agricultural education programs for rural youth in African countries. They include:

1. Favorable national policies for the education of rural youth in literacy and vocational education, and support of the agricultural economy by government officials.
2. Sufficient funds to develop and utilize fully a school laboratory for agriculture. This sector has sufficient land adjacent to the school; water supply and/or storage capacity; enough seed, inputs, and tools for every student; financial credit for students to get started; and sufficient security measures (fencing, storage sheds, etc.) to avoid theft, storage loss, and vandalism.
3. Teachers trained in agricultural methods at all agricultural levels, beginning with the first year of school; regular in-service coursework for teachers to keep their skills up to date and new student teachers should practice teaching agriculture to real students.
4. Adequate support services for teachers including regular supervision and timely supply of inputs, e.g., seeds, fertilizers, and instructional materials.
5. If national examinations include agricultural science, the test questions must relate to the practical and theoretical lessons learned; marking schemes and teacher grades must reflect accurately the balance between practical skills and theoretical knowledge.
6. Involvement of parent and community groups to advise and assist schools with their planning, and the parts of the farm are needed. Both groups serve as excellent resources for technical advice, particularly for combining traditional farming methods and modern agricultural technology developed for improved farming practices.

References


The Theme

Objectives of Brazilian Technical Agricultural Schools

As teachers, many of you receive unexpected visits from former students. Recently, I met a former student of mine at the World Soybean Conference in Ames, Iowa. The former student graduated from a Brazilian technical agricultural school in which I taught and worked at as a Peace Corps Volunteer. This student told me of his interest to enter another agricultural university. Students who wish to enter a university must compete in a rigorous academic testing program. The reason is the small quota of freshmen spaces allotted for each curriculum.

During our visit, he told me that he had not been successful in gaining admission to higher education. However, he has been quite successful in the private sector, working as a farm manager of 10,000 hectares of the cerrado ecosystem. Cerrado is short shrub vegetation and, in the past, were the unimproved pastures of the extensive cattle production system. Today, his agricultural high school training has involved him in the decision making process of converting these cerrado lands into alternative livestock production systems, such as grain and intensive cattle rearing.

This unexpected encounter made me reflect on the important role Brazilian technical agricultural schools have in training their youth for a variety of agricultural occupations and for adulthood. A primary objective of these schools is to attract the agricultural/educational needs of youth (male and female) planning to enter middle level agricultural employment. Most schools are relatively successful in meeting this goal.

The Curriculum

Perhaps part of the reason for explaining this success involves the fact that these technical agricultural schools have many of the key components that would be found in vocational agricultural programs in the United States. For example, these Brazilian schools stress the importance of general knowledge in the sciences and humanities, practical demonstrations, field trips, group projects, and supervised practical work experience. All of these educational activities are part of the students’ training when, for example, third year students establish and maintain a coffee seedling nursery and market their nurtured seedlings to coffee growers. These schools are production and market oriented with a training process that emphasizes the practical skills required to undertake middle level agricultural employment.

The primary differences between vocational agricultural programs in the United States and those in Brazil reflect the fact that technical agricultural schools in Brazil are in an earlier, formative stage of development, while vocational agriculture in the U.S. has existed since 1917 and has evolved to reflect the needs of the agricultural sector for over time. Some of the important differences to be found in Brazilian technical agricultural high schools include the following: Brazilian students generally leave their families and take residence in dormitories and boarding homes within the immediate boundary of the school. A similar situation in some American states is the Superior National Training Act of 1951, or the Smith-Hughes Act in 1917. These schools were known as county schools in Wisconsin. Secondly, students who enter these Brazilian schools after eight years of primary education spend three years studying and working toward their diploma. The eleven-year program is not significantly different from the twelve-year program in the United States. More importantly, the educational systems provide education in agricultural subject at the secondary school level.

Thirdly, these technical agricultural schools are physically separated from other high schools in Brazil, which might offer an academic or vocational curriculum. Prior to the Smith-Hughes Act in the United States, a great debate occurred over whether to have vocational agriculture at a comprehensive high school or in separate schools, as is the case in Brazil. A key figure that influenced this final outcome was Eugene Davenport, Dean of the College of Agriculture at the University of Illinois. Davenport stated.

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Objectives of Brazilian Technical Agricultural Schools (Continued from Page 15)

I see no good and sufficient reason why a system aiming at a particular kind of efficiency should be cut off and separated from other systems aiming at other forms, particularly when human life is enriched in proportion to this capacity for achievement and enjoyment" (Davenport, 1969).

Objectives

However, the responsibility of Brazilian technical agricultural schools goes beyond the primary objective of occupational employment. These schools have additional objectives, which are similarly promoted by agricultural youth organizations such as the FFA in the United States. The second set of objectives for the Brazilian schools involves "developing character, training for useful citizenship, and fostering patriotism" (Phillips, 1980). The school's staff and the educational curriculum attempt to stimulate the intellectual, social, and moral development of the student for useful adulthood as Brazilians.

Another equally important objective, that is encouraged by Brazilian teachers, involves the student's physical and teamwork development (mind and body) through recreational activities. These group activities allow students to plan and execute group strategies as a cooperative group effort. These recreational activities also serve to uplift the morals and spirits of the students among students themselves and promote a positive student-teacher relationship. Brazilian teachers are aware of the important role these additional objectives play in the student's development for adulthood.

In summary, Brazilian technical agricultural schools seek to achieve many of the same educational objectives as vocational agriculture programs in the United States. However, there are also important differences which reflect, in part, the social, political, and economic environment of Brazil. As a whole, however, these Brazilian schools appear to be achieving their overall goal of preparing students for the world of work as demonstrated by my unexpected visit with a former student.

References


The Agricultural Education Workshop participants represented 20 African nations; 22 universities, as well as American and international agencies and organizations.

in the United States were numerous. Concerns about inequities in food pricing, lack of support mechanisms for rural families, policies which deny a fair return on investment to farmers and an inability to attract young people to agriculture as a profession were voiced throughout the workshop. While the concerns are similar, the degree of urgency is very different. As Dr. Solomon Ntor Gwe, Vice Minister of Agriculture of Cameroon, said in his opening remarks to the workshop:

"The food question... is the number one problem facing Africa today. It is a problem which we must solve urgently in order to save the lives of millions of our sons and daughters. Hunger, malnutrition and consequent diseases stare us straight in the face. Food, food, food is the outcry in many corners of the continent. Food importation and gifts of food by benevolent organizations are only temporary relief measures. Food self-sufficiency is the answer. The means to this end is agricultural development and there can be no real and effective agricultural development and there can be no real and effective agricultural development... except through agricultural education." (Ntor Gwe, 1984)

The problems are urgent, the concerns are real and Africa is looking to agricultural education for some solutions.

While participants at the workshop were cautious to avoid presenting agriculture as a panacea, they did see it as an essential element in any long-term solution to Africa's food problems. The conclusions stemming from each of the five areas discussed help define that element.

Additionally, the conclusions were formulated within the context of the local cultures, intercultural, generational, interdisciplinary, integrative approaches to agriculture education are essential. Thus, an overall understanding of agriculture is important enough to be taught to the general public, particularly those in the agricultural education program. Adult education. Deriving a need for programs at any level will inhibit success at other levels. In light of the previous generalization, priority should be given to those efforts which will have an impact upon basic education and skills development in agriculture. Programs should target (1) farm families for immediate impact on agricultural development and food production, (2) primary level students for long-term impact, and (3) agricultural professionals to develop the technology needed for increased food production.

Workshop Conclusions

The following conclusions are organized around each of the areas of concern discussed during the workshop. There is much overlap and interaction among the areas accentuating the importance of the continuum approach to agricultural education. The conclusions represent the general agreement of the participants reached in small group meetings and during the larger, total workshop meetings.

Agriculture in the General Education Curriculum

The situation in Africa's rural schools is such that those individuals who will become farmers rarely progress beyond a primary level education. This, teamed with evidence supporting the positive correlation between literacy and numeracy of farmers and increased food production, when there is access to appropriate technology, provides support for the introduction of agriculture concepts in the very earliest education programs. Infusing agriculture into the general education curriculum, especially as a part of primary science education, will enable the curriculum more relevant to the students, increase awareness of options in agriculture among youth, help improve the image of agriculture which is currently one of a harsh lifestyle to be escaped, and consequently reduce and reverse patterns of migration to urban centers.

There should be continuity in agricultural education from the primary level to the secondary levels and students should have applicable skills for a gainful livelihood at any stage on that continuum. Agriculture should be incorporated into the teacher education curriculum emphasizing theory, practices and attitudes relevant to food production and rural living as well as optimum methods for teaching those concepts.

Vocational and Technical Agriculture at the Secondary Level

Secondary schools in Africa are generally seen by rural youth as a means of escape from rural areas and farming. Until greater agricultural development occurs, increasing...
Catalyst For African Development

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The quality of rural life, there will be a limited demand for secondary vocational agriculture programs.

There is, however, a role for vocational agriculture programs in Africa. Where countries can make an investment in secondary agriculture programs. Those programs can:
- (1) provide high quality, motivated students to attend agricultural universities and become agricultural professionals;
- (2) provide trained individuals to fill technical positions in the agriculture sector; and
- (3) serve as an avenue for rural women to move into professional agriculture positions; and
- (4) as agricultural development proceeds, train students to be capable farmers with skills essential to the effective use of new agricultural technology.

Education in Africa is adapted from the colonial models which allowed little room for practical learning experiences. For agriculture programs in Africa to be successful, there must be a shift away from teacher-centered methods of instruction; school farm facilities and equipment for practical instruction must be made available or up-grade; and the lack of agricultural youth clubs must be remedied.

Higher Education in Agriculture

A total program package in higher education in agriculture for Africa should involve not only the training of professionals but also the building of institutions to continue training needed degree programs at U.S. universities help provide the seed for growth of African universities. The African universities themselves need strengthened linkages with other universities. African professionals need the support systems offered by linkages with others in their respective fields. A key to effecting such linkages is faculty exchange among African institutions, international organizations and U.S. universities.

The focus by African universities on practical, applied research based on local needs provides an essential input to the solution of Africa’s food problems. The integration of teaching, research and extension that exists in the U.S. Land Grant model is equally necessary in African institutions. This does not mean that the U.S. model should be closed in Africa but that an African hybrid should be developed to accommodate local culture, government, priorities, needs, and agricultural systems.

Women in Agricultural Education

Women’s roles in agriculture in Africa are becoming recognized more and more. Women produce 47 percent of the food in Africa but make up only 3.4 percent of the total agricultural personnel (FAO, 1984). In most sub-Saharan African countries, women are responsible for the production of food crops. However, educational programs and support systems for farmers do not always reach women.

The workshop participants supported increasing efforts to identify, highlight, and promote the contributions women in agriculture are making to development. The numbers of women must be increased in all agricultural professions from teaching to research to policy making levels. Cultural barriers must be identified and, where necessary, special methods developed to insure the delivery of information to women. Full integration and participation of women in training programs must be guaranteed in order to be effective.

Extension and Non-Formal Agricultural Education

Extension in Africa faces the constraints of: a lack of research based technology to extend; poorly paid extension agents who lack transportation, supplies, and other elements of a support system; inadequate numbers of subject matter specialists; and various bureaucratic and policy constraints. Top level government support is essential to the success of extension programs but the problem identification must be at the grassroots level to make extension the people’s program.

Extension agents should be educators and not have other responsibilities such as regulation enforcement and credit administration as they often do in Africa. Reward and incentive systems for extension worker should be reviewed and improved most African countries should be encouraged to provide job activities that involve both women and men in extension as professionals and as clients.

The rural model of Africa are in need of politically astute leaders to represent them in nations that are becoming quickly more and more and more influenced by urban areas despite the majority status of the rural population. The training of extension agents should include training in leadership and a focus of extension programs should be the development of leadership skills among women, men and youth.

Another crucial element to success lies in the appropriate choice of methodologies in extension. Emphasis should be on result demonstrations and farm consultations. The technology and concepts disseminated through extension must be based on applied research. Local leadership, possibly in the form of advisory committees, should be sought and harnessed for design and implementation of projects.

Summary

The U.S. Agency for International Development sponsored the Yaounde workshop with an objective of providing an opportunity for the exchange of ideas among African and American agricultural educators. The Agency plans to incorporate many of the conclusions from the workshop into an Africa Bureau Agricultural Education Assistance Strategy which is currently being developed.

Workshops, however successful they are, have a way of ending on a bitter-sweet note. Enthusiasm is high but there is usually a concern for what will happen after the enthusiasm dies down. To truly count the Yaounde workshop as successful, there must be continued effort in including more interested professionals; to maintain contact with workshop participants; and to act on workshop conclusions and recommendations. The work is just beginning and the list of African and American educators is far from complete. If you want to be involved and kept up to date on future agricultural education efforts in Africa write to the authors.

References


THEME

A New Model For International Agricultural Education

Millions of dollars have been invested in aid for interna- tional agricultural education. USAID, World Bank, FAO, other developed nations and many foundations, to name a few, have invested in improving agriculture in developing countries. Has the success rate? Has the money been invested? Have all avenues of development strategy been explored? Perhaps now is the time to objectively examine previous answers to these questions and to propose a viable role for vocational agriculture in international development.

The United States has experienced the most dramatic increase in agricultural technology and production in the history of mankind. Agriculture created much of the capital that allowed the nation to industrialize and develop. The strength of the United States is dependent upon our agricultural strength. Systematic agricultural education is an important factor in this development.

The nation can point to four major contributors to quality agricultural education. These are the Land Grant College, experiment stations, cooperative extension, and vocational agriculture. Each have their own strengths and weaknesses. Collectively they have created a vision and model for all of the world to emulate.

What Have We Exported?

Since the late 1940's USAID, and its predecessors, have supported the establishment of vocational and colleges, experiment stations and extension services in the developing world. On fewer occasions, vocational agriculture has been introduced to the developing countries. Why hasn’t the agriculture in the developing nations moved more

By Clifford L. Nelson

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Rural volunteer workers prepare fields for planting crops as part of the World Food Programme food distribution project in Chada. (World Food Programme photo by A. Grod.)
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International Agricultural Education
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ciently affluent parents to assure opportunity for quality primary education. Could this mean that the U.S. vocational agriculture model as exported also may not be viable?

What Are The Problems With U.S. Models?
International agencies are seeking new insights and strategies for aid to spur agricultural development. One must remember that the legislation creating the U.S. system was developed and enacted between 1906 and 1920. It was developed through the political process of give and take which reflected the concerns of Congress and their constituents of that time. U.S. conditions today are signifi-
cantly different.

What were the conditions that encouraged the Morrill, Hatch, Smith-Lever and Smith-Hughes legislation? The U.S. was an agrarian society with the majority of the people living in rural areas. There was a relative surplus of labor in the rural areas that was needed in the cities for industrial development. There was a special need to develop technology and mechanization in the rural areas to free manpower. Two of the major pieces of legislation were passed during the time of war when manpower de-
mands were even greater.

The level of education and sophistication of the Ameri-
can farmer has consistently been above the rest of the agri-
cultural world. When extension and vocational agriculture were introduced, most farmers were literate enough to utilize bulletins, farm magazines and newspapers. Also many rural children had comprehensive high schools available and the opportunity to attend. Thus extension and vocational agriculture had the opportunity to reach their clientele through many of the same methods still used today. Most of the students at Land Grant colleges studied agriculture as it applied to the farms and farms were prominent in rural areas. Many of the graduates returned to live in rural com-

What Should Be Examined?
Vocational agriculture model is one that should be examined in another light and be considered for export to the developing world. One of the objectives of vocational agriculture is that the classes are taught in rural areas to the children of farmers and the farmers themselves through adult programs. Another essential of vocational agriculture is teaching for application at the students’ home. The third essential is that there is leadership de-
velopment instruction to assist the rural people to develop their skills as effective future citizens.

What modifications to the American model should be considered before export? Vocational agriculture in the U.S. is found at the secondary level. Perhaps in the develop-
ing world it could be introduced in primary school. In the developing world, many more students have opportunity for primary education. High school education for all youth does not exist and is prohibitively expensive for most developing nations.

Teaching materials could be developed at primary level that would teach students to read in books concerning ap-
proved agricultural practices. Mathematics problems could be based upon agricultural skills, such as determining

In the United States today is rapidly developing an international perspective. This trend is in response to the ever increasing problems presented by a global agriculture and a global concern for reducing poverty through agricultural and rural development. As a nation, the United States is concerned with maintaining a strong base for agricultural production and trade; also with promoting democracy and stability through development assistance projects worldwide.

However, as a profession, agricultural and extension education has until recently remained primarily a domes-
tically oriented field of specialists with only a few in-
dividuals venturing overseas from time to time on foreign assignments. This could very well change, though, with the recent formation of a new professional association—the Association for International Agricultural Education (AIAE).

Why AIAE Was Formed
Many developing countries are striving to develop adequate agricultural and extension education programs and institutions. In some nations, the importance of agricul-
tural education is still poorly understood and is given low priority. In others, the importance of human resource development is understood, but these countries lack agri-
cultural educators who can plan and effectively implement appropriate developmental programs at all levels.

With the above in mind, the Association for Interna-
tional Agricultural Education was established by a group of 32 internationally oriented agricultural educators and development specialists on February 3, 1984, near Kansas City, Missouri. The group chose the following motto for its new organization: “A professional association commit-
ted to strengthening agricultural and extension education programs and institutions in developing countries.”

AIAE’s primary function is to provide a professional as-
sociation and network of agricultural educators (vocational agriculture teachers, teacher educators, extension personnel, state specialists, and others) who share the com-
mon goal of improving and strengthening agricultural edu-
cation programs and institutions, especially those in the
devolving countries.

Objectives of AIAE
The AIAE has developed an organizational brochure to disseminate information about the Association and to pro-
mote membership enrollment. Some specific objectives of the AIAE are to:
1. More clearly articulate the role of agricultural educa-
tion in developing countries.
2. Develop state-of-the-art papers on agricultural edu-
cation in developing countries.
3. Establish a continuing dialogue within the profession on international agricultural education on a global scale.
4. Establish a continuing dialogue between AIAE and donor agencies for international agricultural development.
5. Establish a roster of professionals in agricultural education education who can provide the expertise needed to assist funding agencies and developing nations to plan and im-
plement agricultural education programs and institutions.
6. Evaluate the programs which will have an impact on programs in developing countries.
7. Improve the skills and knowledge of professionals who want to work in international agricultural education.

The AIAE seeks to serve as a catalyst for action in associating agricultural educators around the world so that these individuals can bring their collective expertise to bear on the problems of human resource and agricultural devel-

Continuing in February...

Vocational Agriculture and the Handicapped Student

By William L. Thuemmel

THE AGRICULTURAL EDUCATION MAGAZINE

Cameroon participants share ideas on agricultural education.

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The Association for International Agricultural Education: Professionals With Passports

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international development organizations, such as the Society for International Development, which are primarily concerned with world development in general (rather than agricultural and rural development in particular). Also, most domestic agricultural and/or vocational associations in the United States, such as the American Vocational Association and its agricultural affiliates (AATEA-NASA-EVATA), while encouraging international activities, are mainly concerned with state and national matters.

Some areas of expertise that agricultural educators can bring to the international agricultural development process through the AIAE include:

- Vocational agricultural education
- Rural youth programs
- Teacher education in agriculture
- Developing country manpower and training plans
- Conducting research and evaluation studies
- Planning secondary agricultural education institutions
- Conducting training programs in curriculum development, teaching methods, and related areas

Through improved networking and closer professional interaction with international development organizations such as the U.S. Agency for International Development, the World Bank, and the United Nation's Food and Agriculture Organization (FAO), AIAE members can expect to become better informed about the international dimension of their respective teaching opportunities for international assignments, and to collectively promote agricultural education as a central component in the agricultural development process.

The AIAE is a professional association. It is not an incorporated business or consulting firm intent on bidding on contracts for international development projects. Neither is the Association a "splitter group of rebel agricultural educators" bent on establishing an organization in competition with the traditional and long-established professional agricultural education organizations in the United States. In fact, most AIAE members are also active members of AATEA, NASA-EVATA, and/or NAVA and are expected to remain so. Most AIAE members consider their new Association to be a highly complementary organization to AATEA-NASA-EVATA.

Who Can Join AIAE?

All persons interested in promoting and sharing information about agricultural education as a basic component of agricultural development may join. Members may come from secondary schools, extension programs, universities, or other organizations such as foundations, government agencies, and private industry.

Three classes of AIAE membership are presently available—Regular Member ($10), Developing Country Member ($5), and Student Member ($3)—on an annual (July 1-June 30) basis. The Agricultural Education Magazine readership is invited to join AIAE. Applications for membership can be obtained from Mr. Lottie Cargill, AIAE Secretary-Treasurer, National FFA Center, P.O. Box 15160, Alexandria, VA 22309. Telephone: 703/360-3600.

Although the current AIAE membership consists mainly of U.S. agricultural educators, efforts are underway to recruit more agricultural educators from other countries so that the Association will become truly international in scope and perspective.

Reference:

Association for International Agricultural Education informational brochure.

THEME

Improving Agriculture In Developing Countries

By Israel E. Yahya and Gary E. Moore

If you were asked the question "How can the agricultural education in the United States help improve agriculture in developing countries?" what of the following would you select as the answer?

A. By bringing natives of other countries to the United States and training them to be vocational teachers.
B. By sending practicing vocational teachers to foreign countries and having them work with the people.
C. By sending U.S. teacher educators to foreign countries and having them train vocational teachers.

This question and several similar questions about improving agriculture in developing countries have recently asked to a group of agricultural educators who had been on international assignments. These agricultural educators had been involved in establishing training programs, secondary schools and colleges, and extension services in developing countries. Unlike agricultural scientists, who are trained in a specific discipline such as agronomy, agricultural educators possess a broad general knowledge of agriculture and also are educated in people technology.

Background Information

Teacher educators were asked to react to 91 statements about agricultural education in developing countries. The researcher was primarily concerned with what these teacher educators viewed as the major problems hindering agricultural development. He asked: "What is the training agriculture students should do to help alleviate these problems?"

Why Do Developing Countries Have Problems With Agricultural Development?

Seventeen possible reasons for underdevelopment in foreign countries were selected for the survey instrument. The three factors which were ranked the highest by the experienced teacher educators are discussed below.

Social stratification based on wealth and education was the most serious obstacle to the development process. In many developing countries there are two groups of people— the "haves" and the "have nots." As wealth societies remain stratified, some members possess large amounts of wealth and the others are landless. This system also underscores the role of financiers (money lenders) and the others that碉be and some become afflicted with the "white collar job syndrome," while the rest remain subsistence to the minimal, low-prestige occupations such as farming.

Low agricultural productivity per worker was the next most critical problem for development in these countries. Small farmers in developing countries are generally very hard workers who put in long days. Unfortunately, they often have to depend solely on muscle power. Knowledge of effective crop or animal production and improvement of farming implements such as the hoe could make a drastic difference in productivity.

Developing countries lack good and reliable transportation networks of roads, railways, and other systems. Because of this lack of infrastructure, there is poor distribution of inputs and marketing of agricultural commodities and other services.

What Should Be Done To Improve Agriculture In Developing Countries?

The teacher educators with international experience were presented with a list of 28 possible suggestions for improving agriculture in developing countries. The three factors they viewed as being the most important are listed below.

Governments need to design and implement long range programs to increase food production. Abundant and healthy food is the first precondition for ensuring an efficient and productive labor force. Progress in producing food in the developing world is so deplorable that hunger, starvation, and death appear to be the rule of life in many countries.

Developing countries need to improve their marketing

and distribution systems. With improved distribution networks food can reach the ultimate consumer who is usually the urban dweller. Equitable pricing of agricultural commodities is especially important for the urban dweller. Of what use is food that never reaches the final consumer? Or is it too expensive to be bought?

Realistic educational programs in agriculture must be designed and implemented. This view was stated third highest priority. Experienced teacher educators agreed that governments in developing countries need to prepare agricultural education programs for the practical minded persons for all levels of agricultural manpower. A disturbing trend of the past has been that theory was stressed with very little practical experience provided. As a result of this theory base-education, most graduates from agricultural schools do not have true marketable skills. Training needs to be characterized by an appropriate mix of both theory and practice.

How Can Agricultural Education Help?

Four factors were identified from a list of 14 possible factors as being the best ways for U.S. agricultural educators to help developing countries. The four suggestions were:

1. Involve more vocational agriculture teachers from secondary and postsecondary schools in international assignments. The teacher educators believed practicing vocational agriculture teachers could relate to the people and teach practical agriculture concepts.
2. Involve all agricultural departments in international development. One group alone cannot solve the problems of agricultural development in Third World nations. We need to involve agronomists, animal scientists, and agricultural engineers, and other agricultural educators to help developing countries.
3. Country extension agents should be involved in international development. Extension agents from the country level should be a part of a team to improve agriculture in developing countries. Like their agricultural teacher counterparts, they come into daily contact with agricultural problems. Since the educational system in many countries is not highly developed, there is a need to implement nonformal education programs similar to that conducted by county extension agents.
4. Implement the Supervised Occupational Experience (SOE) concept in developing countries. Agriculture in many developing countries is taught as a science or academic subject. The SOE concept would lead to improved agriculture in developing countries.

Conclusions

What does all this mean for Developing countries have serious problems and need help. The agricultural education profession cannot solve all the problems but could take the lead in solving SOE concept problems. The use of practicing vocational agriculture teachers on international assignments, the development of education programs emphasizing practical agriculture education, and implementation of the supervised occupational experience program would be a step in the right direction.
A 15-year old boy with the calf he is rearing as an individual project under guidance of the Young Farmers' Club of Savina, Rajasthan, India. (Government of India photograph, issued by FAO.)

Reafforestation campaign on the island of Sao Nicolau, Cape Verde Islands. School children are encouraged to grow plants which will be used in the fight against erosion. (FAO photo by B. Pollmeier.)

A boy carries newly picked cotton to be weighed near Bobo-Dioulasso, Upper Volta. (FAO photo by J. Van Acker.)

Farmer harvesting wheat in Pakistan. (World Food Programme photo by F. Mattill.)

Fourteen-year old twins building a poultry shelter in Rajasthan, India. (Government of India photograph, issued by FAO.)

Members of the Sisarma Young Farmers' Club (Rajasthan, India) gain practical experience in the maintenance of a mechanical water pump under guidance of the local youth leader. (Government of India photograph, issued by FAO.)