STORIES IN PICTURES

AMERICAN FARMER DEGREE CANDIDATES — Ralph Boller, Chairman of the Agricultural Education Department at The Ohio State University, shown congratulating its Agricultural Education majors who have been declared candidates for the American Farmer Degree by the Ohio FFA Association. They are Ken Siple, Arthur Arnold, Don Wagner, Dale Schudnich, Doug Lauffenburger, and Dick Flick. (Photo from Larry Swick, The Ohio State University)

DISTINGUISHED SERVICE AWARD — South Dakota State University President H. M. Blegen is shown receiving a Distinguished Service Award from the State FFA Officers in South Dakota. Blegen retired July 1, 1975, and is well known for his contributions to the FFA. (Photo from South Dakota State University)

STATE PARLIAMENTARY PROCEDURE CHAMPIONS — The Allen County (Indiana) Agricultural High School FFA Chapter had the first place team in the State Parliamentary Procedure Contest. Shown with the team are advisors Albert Cole, left, and J. W. Owen, right. (Photo from Albert Cole and J. W. Owen, Utica, Indiana)

THE AGRICULTURAL EDUCATION MAGAZINE

Theme—INTERNATIONAL EDUCATION Volume 48 Number 4 October 1975
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THE AGRICULTURAL EDUCATION MAGAZINE

October 1975 Volume 48 Number 4

Agricultural Development

Education in agriculture is but one of the components of agricultural development. Although education in agriculture is the primary means of fostering agricultural development by our profession and is extremely important, it alone cannot cause development in agriculture in the local school districts of the United States of America or in the countries of the world, regardless of their present level of development.

Agricultural research is essential to education in agriculture. That fact became evident at our land-grant colleges shortly after their establishment. Provision for experiment stations as a part of the land-grant colleges was the result of recognition that without useful and valid information to teach, efforts in education for agricultural development would be severely restricted.

Members of our profession need to be change agents who consider: the importance of incentive, capital, labor, mechanization, marketing, transportation, climate, land, land ownership, customs, government, and its agricultural policies, schools, and non-school institutions in attempting to bring about agricultural development. Without a knowledge of all the factors which can affect agricultural development, the agricultural educator cannot have the desired impact upon agricultural development.

Education for human development is not as related to education for agricultural development as the vocational agriculture teachers and teacher educators in the United States apparently believe. Actually, many poorly people development programs exist in vocational agriculture in which the impact of the student on agricultural development will be readily an Education for human development has become almost sufficient reason for agricultural education in wealthy countries. Such our resources in programs of agricultural education, and especially at the secondary level, cannot be afforded in poorer countries. Development of the individual is important, but the likelihood of that individual contributing to agriculture development will be given at least equal priority by teachers of agriculture.

Politics and customs which affect land use affect agricultural productivity. Who owns the land? Is it large landholders, the government or the tribe? A common problem in many countries such as Rhodesia and Zambia is that grazing land is held by the tribes and livestock owners are too small to keep trying to improve or maintain productivity of the land. Also, it is possible to make use of any improved input when such a land holding is too large for the benefit of the tenant farmer. A change agent in this setting has more to do than teach good agricultural practices.

(Concluded on next page)
Transportation is necessary to get extra produce to where it will be purchased and to get the bales and radios, and hopefully some fertilizers and seed, to the agricultural producers. The solution to a transportation problem might require something as extensive as the construction of a modern highway into the interior of the country by another national association, or as simple as arranging ship service for an island. The change agent cannot ignore a lack of transportation.

Agricultural labor is plentiful in underdeveloped countries but capital and credit are scarce. Technical assistants often fail to recognize this fact at first and place too much emphasis upon mechanization. That corn can be planted and harvested with stumps and logs in the field more economically because of the low cost of labor and the high cost of land clearing machinery and agricultural machinery is surprising to agricultural personnel and others in the United States.

A study of the economic aspects of problems is important before making recommendations. Recommended practices from Iowa State, for example, probably will not work in the new situation. Inadequate fertilizers cost more than the increased production which is expected, it cannot be recommended for use. The good change agent, however, would search for a source of less expensive fertilizer. The U.S. vocational agricultural teacher would think he certainly would be safe in recommending prevention of erosion, but volcanic soil can be the same for hundred of feet deep, and if some of the soil does not wash away the nutrients soon become too deep for the roots to reach them.

Summary

Agricultural development depends upon several factors, all of which the agricultural change agent must consider and, where possible, improve. Among the factors influencing agricultural development are: 1) agricultural research, 2) agricultural education, 3) land, i.e., land ownership, 4) capital and credit, 5) labor, 6) transportation, 7) markets, 8) mechanization, 9) government policies for agriculture, 11) climate, and 12) customs of the people.

A narrow approach to agricultural development theory courses in agriculture is inadequate to promote change. Change agents must consider the entire range of factors influencing agricultural development.

The choice between placing primary consideration on agricultural development or human development is clear when one realizes that failure of agricultural development will result in human starvation in many of the less developed areas of the world. Agricultural and economic development will pave the way for greater attention to human development.

Even in the rich and developed countries, education in agriculture must help the industry of agriculture as well as develop the people.

It is generally recognized that there is a direct relationship between the level of education and the degree of development found within any country. Various programs directed toward the agricultural sector must be concerned, either directly or indirectly with the education.

International Assistance in Agricultural Education

It is not sufficient for international aid programs in agricultural education to be connected with any one level of education in a developing country. Primary and secondary school agricultural programs must be supported by teacher training colleges. College level and university training and the university must rest firmly on a foundation of well educated manpower supplied by solid research and teaching programs.

All aspects of agricultural education and training, the teacher is the most important. Without sound training, the teachers, competent in their work and possessing the qualities which enable them to inspire those they teach, the system as a whole cannot function effectively, needs to be placed upon in-service educational facilities, textbooks and teaching materials. This is an area which invites interagency cooperation and partnership.

Too often agricultural education is viewed from the perspective which is narrow and short sighted. This myopic point of view leads to frustration and small programs not integrated into an overall plan of action. Determining the Need

Assistance programs in agricultural education should be formulated by individuals who have an intimate knowledge of the country and the project. This is a difficult combination to find in many developing countries and often times consultants must be called in to help define the problem and to write a project document outlining a course of action.

Even the best consultant is confined within the boundaries of what lies within his experience. The program developed by a consultant may look good on paper but fail when it is implemented. The good teacher is good at solving the problems he knows about the situation. The program must be able to assess its own needs and adapt to the people it is intended to serve. A comprehensive approach to a country's needs. Any project, no matter how small, should be designed in such a way that it can be amended and changed to meet current needs.

A Development Plan

A development plan is a necessity if a course of action is to proceed on a sustained basis. Clear cut objectives must be stated so that all levels of administration understand the purpose of a particular project. As President W. E. Duke at Cornell University would say, "If you're not sure where you're going, you're liable to end up some place else — and not even know it."

Agricultural educators are in the unique position of being able to combine the fight against illiteracy and poverty with the struggle to feed an ever increasing world population. It is a challenging role. If we do our job well, much can be done to improve the current situation in a shrinking world where countries tend to be more and more dependent upon each other.

In his book Beyond Good Intentions, Edgar Stoesz reminds us that rich nations do not have all the answers for less developed countries. Developing countries respect the contribution which can come from the more wealthy nations, but at the same time they have come to realize that rich-nation solutions do not necessarily match Third World problems. If there is ever a time for common sense to prevail it is when international cooperation is at stake.

Organization is the essential ingredient for any successful undertaking. A good teacher is organized and appears to do his job with ease. A good assistance program must be well organized.
VOCATIONAL AGRICULTURE
IN PONAPE

Raban S. Dayrit
Vocational Agriculture Specialist
Ponape District, Eastern Caroline Islands
Trust Territory of the Pacific Islands

The agricultural education program in Ponape is made up of two separate but closely related divisions: Vocational Agriculture in the Elementary Schools and Vocational Agriculture at the Ponape Islands Central School (PICS). The Ponape Education Division, a relevant recommendation was made by the South Pacific Commission's In-Service Training of Teachers in Elementary Agriculture (PONTEC). Without a qualified teacher to teach vocational agriculture, the program will have a difficult time getting started in school.

Vocational agriculture is emphasized in schools located in the main islands. It is not taught as a separate subject in schools situated on atolls but is integrated with such subjects as science and social studies.

This is an important factor that can determine the fate of the whole program in any school. We need the support of the school principal because of his role in class scheduling. The agriculture class should be scheduled in the last period of the day so the students can work longer in the garden if they have to and do not have to do housework in the classroom or do other dirty work. The community has to be involved because they could do much to discourage stealing from school gardens.

Children learn and retain more if they are taught by doing actual field work than by listening to classroom lectures. Because of this, our school garden becomes a very important component of the whole program. In Ponape, privately owned land is sometimes made available if a suitable area cannot be found in the school ground. Again, the support of the community is required in this case.

The 7th graders are given classes in crop rotation in basic agriculture. The children are taught the importance of agriculture, plants and plant growth, farm and fertilizers, pests, diseases and their control, and harvesting and marketing of vegetables. In the 8th grade, the children are given lessons in the cultural requirements of different kinds of vegetables that are presently grown on Ponape and those with proven potential in Ponape. A lesson on a particular kind of vegetable consists of soil requirements, variety, preparation, fertilization, cultivation, pests and diseases, harvesting, and marketing. It should be noted that all recommendations on the culture of these crops are based on personal experiences of the different agricultural teachers in the district and from results of replicated trials at PICS farm.

It is important that vegetable crops of proven value that are easy to raise be grown at the beginning of the program so that the students will experience success in their first try in crop production. Crops such as sweet potatoes, taro, taro, sweet corn, banana, cabbage, and green onions are emphasized in the elementary agriculture program. Plants that require more intensive care are taken up in the later months.

Production requirements like seeds, fertilizers, and chemicals are given free to schools. Produce from the school gardens is either sold to the school kitchen or sold to teachers or to the farmer's market. Part of it is given to students to take home. Proceeds from sales range from $5.00 to $25.00 from each school last year.

The children are also encouraged to have individual home garden projects. There has been a lot of enthusiasm for these projects and the responses from the parents and community leaders have been very encouraging. There are about 75 boys and girls in 20 elementary schools involved in the vocational agriculture program this school year. Future plans include the inclusion of goats and poultry production, and vocational herbicides.

We have had respite and setbacks the first year, but they are insignificant in comparison to the progress and success the program has so far achieved.

United States Vocational Agriculture Program in Ponape Islands Central School, vocational agriculture consists of classroom lectures and field laboratory period totaling 1,080 hours per year. PICS offers four vocational agriculture courses.

To introduce students to the vocational field, each male student at PICS is required to take a semester of vocational agriculture and a semester of trades and industry. The first year agriculture program includes introduction to the different fields of agriculture and a more advanced discussion of vegetable production.

(Continued on next page)
Vocational agriculture in Ponaune

The senior year is divided into two general courses. The first semester includes principles of animal husbandry and consists of such topics as animal nutrition and animal breeding. The second semester is the study of swine production and includes such practical skills as castration, ear notching, judging, slaughtering, piggy house construction and management of swine. PICS farm has a small scale hog house to support the swine production program.

The courses in the junior and senior years are elective courses. Students enrolled in vocational agriculture I take four courses which deal with instruction on soils and soil nutrients, fertilizers and fertilization, entomology, plant pathology, and crop husbandry. The course also deals with the production, marketing and economics of different commercial crops such as: cabbage, broccoli, pepper, black pepper, and tomatoes. With the construction of the poultry house, poultry production will be taught in the junior year. Vocational agriculture in the senior year deals with the operation and repair of small farm machinery, tools and farm equipment. Construction and maintenance of farm buildings are also studied.

This school year, PICS has a one semester course on vegetable gardening for girls which deals with instruction on production, harvesting, and cooking of vegetable plants. Forty girls are presently enrolled in this course. PICS farm totals seven acres, 1/2 acres of which are devoted to vegetable production. The rest of the area is planted with permanent crops such as: coconut, citrus, bananas, papaya, and black pepper. The farm includes a 10 x 10 foot log house, a 300-layer poultry house, compost bin, and farm machinery including a combination classroom and supply room, at present, construction of a two-classroom agriculture building is under way.

The agricultural program at Kuseni Island High School is available to all male students from the first to the fourth year in high school. Every male student is required to make a minimum of one quarter of vocational agriculture during his freshman year. Classroom instruction during the first year in vocational agriculture consists of basic theories and concepts of agriculture in general.

The sophomore year is divided into one semester of Introductory Corps Science and one semester of Poultry Science. In the Introductory Corps Science class, the students are given introductory lessons in botany, soils, plant physiology, fertilizers, plant pests, insecticides, plant diseases, crop husbandry, and marketing of produce. In the Poultry Science class, the students are taught the basics of egg and poultry production. Emphasis is put on breeding selection, parasite and disease control, poultry housing. These classroom discussions in both Introductory Corps Science or Poultry Science are supplemented by laboratory or field practices.

During the third year, vocational agriculture at Kuseni Island High School consists of one full year of Corps Science or one full year of Swine Science. The students who choose Corps Science as their specialty are given more advanced and comprehensive lessons and practice in crop production. Cultural requirements of vegetable crops that are of economic importance to the island of Kuseni are given emphasis in this course. For example, learning the basic principles of vegetable production is covered in this course. This course also teaches students how to take advantage of the soil and water resources available on the island.

Practical skills in this field are learned during laboratory periods at the beginning of the school year. During the senior year in vocational agriculture, the students are given more advanced lessons in their field of specialization. Included also are these lessons are the marketing and economics of different crops and animals. The Kuseni Island High School farm consists of a 10 acre field, one pigsty, one poultry house, two sheltered greenhouses, and one partially finished machinery shed. At present, these areas are located on private land. Better facilities and a larger farm area will be available when the new school site is completed. At that time the new school site will be available about two years from now.

The whole vocational agriculture program in the public schools in Ponaune District has been very successful. Children who have had training in vocational agriculture are in the elementary grades and are better and advance faster in agriculture than those children who have not had this training. They are also better equipped to make the transition from the elementary schools. High school graduates with agriculture as a major field of study and who are not post-high school training and studies in agriculture and other closely related fields are more likely to continue vocational agriculture teachers in our elementary schools who started training in agriculture during their high school days are doing a very commendable job teaching the subject in grade school children. Recently, we have been getting more academically inclined students enrolling in vocational agriculture in the two high schools of the district. All of this can only mean that the vocational agriculture program is doing its part in the District Education Department's effort of trying to give more relevant and useful educational training for the Primary school children in the public school.

[Editors' Note: This article was published in the Michigan State Agricultural Education (Fourth Quarter, 1974). Volume XXIII, Number 1, pp. 30-31, 34-35, William L. Walker, Associate Professor, Cooper for Christian Higher Education, University of Michigan, Ann Arbor, Michigan, here. The author is well qualified to provide a fresh perspective on the educational program in the Ponaune District. His experience in the field of agricultural education has been extensive and varied, having taught both at the high school and college levels. He is an active member of the faculty of the University of Michigan and has contributed several articles to the Michigan Education Journal.]

In-Service Training Programs

The primary objective of the educational phase of the United Nations

[Concluded on page 8]
Ag Educators Give Assistance in Korea

Milo J. Peterson
Agricultural Education University of Minnesota

...the day of instant miracles has passed. Sadly, however, the day of the "instant expert" persists.

Many readers have served a variety of duty tours in foreign lands. One is tempted to mention names, but the list would be endless. However, the seems appropriate to remember the contribution of the latter. Harry W. Atkins of the Indiana State Department of Education is an educator and one who can see peace as well as armed conflict.

This report will concern itself with a specific project in a specific country, the Republic of Korea. The Republic of Korea encompasses about the same area as Indiana, but the similarity ends there. The Republic has a population of 33 million with a population density of approximately 400 people per square mile. Indiana has a population density of 144 people per square mile.

Compared to Minnesota with an area of about 80,000 square miles and a population density of 48 people per square mile, Minnesota could be seen as a marked contrast. This, in itself, suggests the necessity of "cutting the chaff to fit the particular" approach used by educators as well as any other enterprise.

WHY ARE WE HERE? It may seem redundant to ask the question "Why are we here?" but it is appropriate. This is especially true in Korea because of its economy rooted in agriculture. Seoul, the capital city, has a population of over 10 million people. Much of the country consists of rice fields and urban centers to accommodate the urban center city. Attitudes are diffracting, and abundance is an accompaniment. However, the status of agriculture is a major contributor to migration from the cities to the countryside in the Republic of Korea is giving high priority to improving farm income and the level of living in rural communities. The New Village Movement is a major part of the Five Year Plan that has been initiated. Unfortunately, this is in total harmony with the community school philosophy on which the vocational agricultural program of the United States is founded.

The education of the International Bank for Reconstruction and Development (World Bank) Project, which finds its corresponding halfway around the world during the vocational agricultural chapter in an environment so different from the U.S.A. that one has to live it to understand it. Nevertheless, there seems to be a universal common philosophy among the various people and a universal shared set of principles and objectives. The problems arise in the area of practice, putting the philosophy into action, which is always something to be worked on and important step in the process.

At this point in time, Minnesota (or any other state in the U.S.A.) is not as strong and active as in many cases the problem. Our prime focus on being a model for a basic ingredient of rural development is to strengthen and improve the vocational agricultural program at the state level, and to do it in the best way. This includes the training and development of the adult population, and the reinforcing of the leadership role.

THE PROJECT. As previously indicated, this project is financed by the World Bank loan to the Korean government. The Project has been developed through the efforts of several officials, including one chief educational consultant and one each in the areas of economic development, social, health, and commercial activities. In Korea, educational activities are under the direction of the Ministry of Education and the Ministry of Agriculture, Forestry, the Provincial Governor, the Minister of Agriculture and Forestry, the Provincial Governor, and the President of the Ministry of Agriculture and Forestry. The Ministry of Agriculture and Forestry is responsible for organizing and administering the program with the Ministry of Education providing the budget.

BENEFITING From the education of the adult population, the Ministry of Education, the Ministry of Agriculture and Forestry, the Provincial Governor, and the President of the Ministry of Agriculture and Forestry are responsible for organizing and administering the program with the Ministry of Education providing the budget.

The event was a vocational agricultural program of the first magnitude and proved to be a significant step forward.

The in-service training program for the teachers of agriculture is well organized and utilizes an all-star cast of outstanding professionals, many of whom are internationally known. The program also is a tremendous one for the one hundred and fifty teachers who attend. The teachers attend the annual in-service program for eight hours a day, five and one half days a week for eight weeks during July and August.
Some Implications for International Ag. Ed. in the U.S.

Benton K. Bristow, Professor
Department of Agriculture
Illinois State University

In today's world, probably every

course taught in our high schools

and colleges should have an interna-
tional dimension. Those who work

in agriculture education must also take

this into consideration. We are inter-

dependent. We no longer have the

luxury of ignoring the needs of the

rest of the world. We must learn to

live with one another.

The idea is not new. It is a concept

that has been around for a long time,

but it hasn't been fully applied. There

is a need for more emphasis on

international understanding. Our

students need to learn about other
cultures and their way of life.

Some students are already doing

this through study abroad programs

or other means. However, there is

still a lack of interest in this area.

The future of agriculture depends on

our ability to work together.


even more important than the

technical aspects of agriculture.

We need to be able to appreciate

the different cultures and ways of

living in order to work effectively

with one another.

Foreign Students Arrange Farm Tours and Course Credit

by Mark Patton, Winston Huyne, and Martin Limbinder

What do foreign agricultural students want to know about agriculture in the United States? Well, for one thing, they would like to learn more about the process of information dissemination through universities, the extension service, high schools, area vocational schools, and the media. With this in mind, the three authors were invited to give two-hour lectures each on the adoption diffusion process of technology transfers and the structure of the extension service in Iowa. Interpretation of the concept that were introduced came during our joint field trip when a very cooperative county extension agent related his work to the students.

The hosts of our experimental seminar on the transfers of technology came from an earlier ISU program called the Extended Civic Participation Program (ECPP). ECPP experimented with four Es of learning — introduction, interpretation, involvement, and internalization — in packaging off-campus learning experiences for foreign students. With these four Es in hand, we began laying the groundwork for our seminar to relate applied agricultural development in Iowa to selected foreign students at ISU in various fields of agriculture — from cultural economics to veterinary medicine.

Several students and staff of the university and a local vocational school served as hosts for the students. The students were introduced to agricultural development projects in Iowa. The seminar was designed to provide an overview of the Iowa agricultural system and to introduce the students to the concepts of agricultural development and extension.

The seminar began with a presentation on the history of agriculture in Iowa. The students then had an opportunity to visit local farms and examine the practices used on them. The seminar ended with a discussion of the future of agriculture in Iowa and the role of the seminar in helping to develop future leaders in agriculture.

The seminar was a success, and the students were able to gain a better understanding of the Iowa agricultural system and the role of extension in promoting agricultural development. The seminar was a wonderful experience for the students and the instructors, and we look forward to continuing this program in the future.
Continued: Agricultural Education in the Kingdom of Tonga

Tom Becker
Agriculture Instructor
Hanga Agricultural College
Kingdom of Tonga

Tonga is situated in the South Pacific approximately 1,100 miles northeast of Auckland, New Zealand. It is the capital of a kingdom made up of about 100 islands ranging from 0.13 square miles in the main land, Tongatapu Island, to 100 square miles. The bulk of the population is in the main island group, the southern (Tongatapu and Eua), the central (Ha'apai) and the northern (Vava'u). The distance between the southern and northern groups is 400 miles.

The approach to agricultural education in Tonga is one of "immersing oneself in the training." Education in agriculture is offered at the secondary school level as part of the formal education system at Tonga's rural government and church schools.

The Wesleyan Church operates the only post-secondary agricultural school in Tonga, Hanga Agricultural College, situated at the pristinely beautiful Wesley Village. The school is located on the island of Vava'u in the southern group. The college is funded by Tonga's mission station and supported by the Wesleyan Church. Students from 15 to 16 years of age from about 14 departments in addition to agriculture.

If a special course were to be offered, the inclusion of an international agricultural education in the course is an option. The course would need to be established for such purposes. Syllabus-based opportunities for students to take part in foreign department's extended studies abroad in various countries could be an option. This course could provide a great opportunity for students to learn about agriculture in a foreign country and to gain a better understanding of the agricultural context in Tonga.

The curriculum mainly consists of courses in agricultural subjects such as livestock, farm management, ento- pathology, and the sciences related to agriculture. The instruction is given in English, math, bookkeeping, and religious knowledge.

Teaching at a farmer-training school has many advantages over agricultural programs taught at the secondary level. The farm serves as a land laboratory. Classes are small and flexible. Group projects are taught using a teaching aid. In the classroom, students are more confident and less likely to be intimidated by their peers.

Outside the classroom, 400 acres. Hango offers a land laboratory and a farm services workshop which would be the envy of many agriculture instructors. No field trips are necessary. Farm and garden are easily accessible to the classroom.

With small classes, more individual attention can be given. Since only two classes are being conducted at any one time, the staff can be more flexible in adjusting the class schedule. An investigation can be performed with the entire class participating in classes may be cancelled so students can select and package banana for shipment.

Group projects, such as the cooperative, provide training in economics and management. Profits of a student's farm later make them more knowledgeable in teaching economics.

Finally, the instructors have more hands-on work with the students outside the classroom. They can observe and work with the students in many varied situations.

Although agricultural schools have many advantages, Mr. G. Bannard,3 former principal of N. Agricultural School, Fiji, feels the rural youth club approach has the greatest potential. He believes the club and the sciences related to agriculture are a valuable addition to school youth in rural areas. Mr. Bannard has studied different forms of education in Asia as an F.O.C. consultant. He lists the following advantages to rural youth clubs:

1. It takes place "in community." 2. It trains for a way of life. 3. Training for boys and girls. 4. Unit costs are low.

(Concluded on next page)
Hunger Solution in a Nigerian Girls' School

John U. Okezie
Dept. of Vocational Educ.
University of Nigeria, Nsukka

The idea of secondary students practicing agriculture in their schools seems to be creeping into this country, though in a small scale. At Amunora Girls' Secondary School, the members of the School's Young Farmers' Club have an extensive area under cultivation.

It is generally being viewed by a majority of the people in Nigeria that Amunora Girls' Secondary School is unique in its efforts to combat hunger in their school as well as in eliminating hunger in Nigeria.

The school is located near Minnie, Owerri in the East Central State of Nigeria. This area falls within one of the most densely populated regions of Africa.

Consequently, there is a remarkable degree of crop diversification in this area. Within this area, there exist some of the most spectacular examples of poor land at a result of reduced fallow. In addition, population density and the pressure exerted on available arable land has led to less productive farming activities. The population is almost entirely supported by agriculture. Since the school is situated in a rural community, the students are involved in farming activities.

Students of Amunora Girls' High School are currently raising rice on the boarding school farm, teaching them about the importance of self-sufficiency in food production. They have also started a small demonstration farm where they grow vegetables and crops. The students are taught how to plant, cultivate, and harvest crops, which helps them understand the importance of agriculture for food security.

The school has received much support from the local community and government agencies, which have provided seeds, tools, and guidance to the students. The students have shown enthusiasm and dedication in their agricultural activities, which has helped to increase the school's food production capabilities.

The school is an example of how education can be integrated with practical skills, particularly in agriculture, to address the problem of hunger and promote food security. It is evident that the students are learning valuable skills that can be applied in their future careers.
Leader in Agricultural Education:

J. ROBERT WARMBROD

by Ralph E. Bender*

Dr. J. Robert Warmbroad, Professor in Agricultural Education at The Ohio State University is a distinguished teacher, researcher, and scholar. He was recognized as such by the Ohio Agricultural Education Association in 1975. He is currently serving as the President of the Ohio Agricultural Education Association. He has received numerous awards and recognition for his work in agricultural education.

Teaching Excellence

Warmbroad was one of the first professors in agricultural education to receive the Distinguished Teaching Award. He has received this award on several occasions. His teaching excellence has been recognized by his students and colleagues.

Teaching Style

Warmbroad's teaching style is known for its engaging and interactive approach. He encourages active learning and critical thinking among his students. His classes are known for their high level of student participation and engagement.

Research Contributions

Warmbroad is also a highly respected researcher in the field of agricultural education. His research has focused on various aspects of agricultural education, including curriculum development, pedagogy, and teacher preparation. He has published numerous articles and books on these topics.

Influence on the Field

Warmbroad's work has had a significant impact on the field of agricultural education. He has influenced the development of new curricula and teaching methods. His contributions have helped shape the direction of the field and have inspired many educators.

Career Highlights

Warmbroad has had a distinguished career in agricultural education. He began his career as a teacher and has since held various positions in the field, including at the University of Illinois and the University of Connecticut. He has also been the recipient of several awards and honors for his contributions to the field.


dating back to the early 1970s. He has also been involved in various professional organizations, including the American Association of Agricultural Education and the National Association of Agricultural Educators. He has served as a member of the board of directors for these organizations.


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A Survey of Salaries and Working Conditions of Vocational Agriculture Teachers in the U.S.

Throughout the United States there has been a shortage of vocational agriculture teachers for the past ten years. There have been a few states in which more students have been qualified to teach vocational agriculture than there were positions open in their home state. However, those that qualified in these states have been reluctant to leave their home states. At the same time, in the states where there has been a shortage of vocational agriculture teachers, some departments (1966; 1967) have had to close each year.

Some of the graduates might have been more willing to leave their home state and teach vocational agriculture if they had access to salary and working condition information in the other states. Also, some experienced teachers who left the profession for reasons such as low salary or certain working conditions, might have been influenced to move to another state where these conditions better suited them and might have remained in the field of teaching vocational agriculture if they had access to this information.

The purpose of the study was to follow up a similar previous study and find the beginning salaries for agricultural teachers in the United States and the changes in working conditions that occurred during the past school year. Every state was surveyed except Alaska which does not have a vocational agriculture program.

Procedures

A questionnaire was developed which requested information on salaries, number of months on the job, teaching load, expenses, certificate renewal, and changes for the coming year. The questionnaire was sent to the department or agency which directed the vocational agriculture program in each state. If no reply was received, then the questionnaire was sent to the Agricultural Education Department of each state. The final return was 100 percent.

Major Findings

There was a variation on most of the items reported from state to state and even at times within a state. The length of employment varied in 90 percent of the states while 33 percent reported 12 months' employment and 4 percent reported 11 months' employment. Three types of salaries were requested: minimum, maximum and average beginning salaries for vocational agriculture teachers with a B.S. or M.S. degree.

Table I summarizes the minimum starting salaries for vocational agriculture teachers. The most frequent range for a beginning teacher with a B.S. degree was $700-$900 with 26 states or 33 percent reporting in that range. One state reported the minimum starting salary below $500 and one state reported it above $900. The most frequent beginning minimum salary range for teachers with a M.S. degree was $900-$1,100 which 17 or 22 percent of the states reported.

Table II shows the range of maximum starting salaries for vocational agriculture teachers. The most frequent range was $1,100-$1,300 with 17 of 39 states or 44 percent reporting in that range. Ten states or 26 percent reported paying above $1,300 in the range of $1,400 through $1,600. Eighteen states or 46 percent reported paying $1,000 or less for through $900 for a beginning teacher with the M.S. degree. Six states reported paying over $1,000 a month to teachers with the M.S. degree.

In comparison with the study which was completed last year where average salary salaries were used, the low range for a B.S. degree was $500-$550 compared to $500-$650 this year. Last year one state paid over $1,000 per month. This year two states did. The 1973-74 school year, the most frequent range was $750-$999 with 22 percent of the states reporting this range. During the 1973-74 school year 80 percent reported the same range. For 1973-74 school year 51 states reported changes in teaching load, certification, certificate renewal, travel expenses or fringe benefits in the past year. The greatest change reported from 17 states was an increase in travel expenses or per diem.

Thirty-five of the states reported that if there would be an increase in salary for the 1975-76 school year. The increase ranged from $200 to $1,000 or more.

Recommendations

Because of a record number of unfilled positions this previous year and the loss of more vocational agriculture departments due to qualified people leaving the field, the following recommendations were made:

1. A study similar to this one should be published each year to keep the information up to date.
2. The most frequent range is a list of minimum, maximum, and average starting salaries and working conditions for vocational agriculture teachers in their state and designate if the (Concluded on page 35)
SCHOLARLY WRITING

During a trip to India in January 1968 to December 1970 Warnholtz was Editor of The Agricultural Education Magazine. He has authored or co-authored four books published by the National Agricultural Education Division for the AVA Convention Proceedings Digest for each of the four years 1965-73.

Other Service to the Profession
During this past year Warnholtz was Chairman of the University Committee at Ohio State University for the purpose of developing a pattern for the next generation of comprehensive University-wide programs of graduate education in vocational education and chairmanship of the University Graduate Council and participation as a member of its Executive Committee. He chaired the Board of Directors of the National Centennial Committee for the development of programs and techniques for improving competence in faculty members. In addition to these services he has been an six college committees and five departmental committees.

Some of Warnholtz’s other services include being Educational Advisor for the Occupational Education Series of the Charles E. Merrill Publishing Company, consultant editor and secretary of the Winter Planning Board of The Agricultural Education Magazine, and serving as a research-secretary and chairman of the Research Committee of the Agricultural Education Division for the AVA from 1963-68. He has prepared papers at many regional and national meetings on the problems of higher education and vocational education. He has been a consultant to the Center for Vocational Education, Eastern Illinois University, and the University of Minnesota, and University of Georgia. Other activities include participating in the writing of books: Getting Information to Farm Families: Communication: Methods of All Agriculture. Formally with India has a special meaning for me, as I have worked with three of the Indian universities and two of the U.S. universities. It will be food memories to anyone who has been part of Indus development. Included in the book is a list of Hill S. staff members who worked in India, many of whom will be recognized as important as officers, as well as editors. Anyone interested in international education in any general, and the who and how of international cooperation, will find food here.

Roger Kstaghe
Coordinator Farm Co-op. Program Iowa Lakes Community College Emmetsburg, Iowa 50536


This book deals with the pig, which unlike other farm animals is well adapted to all kinds of climatic environments. Small animals possess a great capacity of tropical areas to produce large numbers of pigs. The book is divided into six main parts. The major portion of this book focuses on the single most limiting factor affecting swine production around the world—water. The other parts are broken down into energy and protein requirements for tropical areas, including rice, cassava, bananas, cane sugar, alfalfa and sorghum, grazing, cotton, feed and protein meals. For the U.S. hog producer, much of the discussion on common feedstuffs may be of little interest. The book is valuable information on the value of some high lysine corn, milo, soybeans, cottonseed, eggs, etc. The book is a valuable guide to feed for the pork industry. It is a valuable guide for the swine industry. It is a valuable guide for the swine industry.

The authors have included a study of the experiences of farmers from the United States and India and help in understanding the agricultural problems of the past part of the world. The authors have included a study of the experiences of farmers from the United States and India and help in understanding the agricultural problems of the past part of the world. The authors have included a study of the experiences of farmers from the United States and India and help in understanding the agricultural problems of the past part of the world. The authors have included a study of the experiences of farmers from the United States and India and help in understanding the agricultural problems of the past part of the world. The authors have included a study of the experiences of farmers from the United States and India and help in understanding the agricultural problems of the past part of the world.

W. F. B. Thau, University of Wisconsin, Madison, Wisconsin.
STORIES IN PICTURES

by Jasper S. Lee

SEMINAR ON INTERNATIONAL AGRICULTURAL EDUCATION — Martin McMillen, Virginia, is shown presenting a program on international agricultural education in Brazil to members of the Agricultural Education Society of Virginia Polytechnic Institute and State University. (Photo by Jasper S. Lee, Virginia)

EL SALVADOR TRACTOR DRIVING CONTEST PRESENTATION — Jack Schneek, former instructor at the National School of Agriculture in El Salvador, is shown presenting the first place trophy to Soms Villela, following the first annual Tractor Driving Contest at the National School of Agriculture in El Salvador, Central America. (Photo from Jack Schneek, Virginia Polytechnic Institute and State University)

FFA MEMBERS PARTICIPATE IN INTERNATIONAL CONTEST — Members of the Sun Belt Chapter (left) and FFA Dairy Cattle Judging Teams are shown at the National FFA Center prior to the California FFA Dairy Cattle Judging Contest in which they won third place. The coach of the team is Lee Pirtle, center. (Photo from National FFA Center)

Theme — COOPERATIVE EDUCATION IN AGRICULTURE