

force team is brought together again to revise and update the packets on the basis of their combined experiences and student inputs.

10. Following this revision we make the courses available to other land grant colleges who want to use them in their classes. Before these faculty members are given the materials they are required to go through a three day workshop following the step-by-step procedure in developing a packet and using it in teaching-learning. In following this procedure each user becomes an involved participant in the further development and improvement of the course materials.
11. This year we are inaugurating the finishing step in the development process. Each participating faculty member is being asked to select one or two packets of material for further development during the year. He will concentrate on these packets to develop the best teaching materials he is capable of devising to assist students in effectively achieving the performance standards set in the objectives for the packet. By concentrating on one or two packets and using the resources of his university in preparing the best materials they are capable of developing and forwarding these to a regional center for reproduction and distribution we can have the best teaching-learning materials ever developed for a single course. This procedure imposes no burden on any one faculty member or university in developing materials, yet makes the best of all of them available to teachers and students in the region.

This process can have a tremendous effect upon the program of instruction in the colleges of agriculture and can influence the university's approach to learning as we involve faculty members in the systems approach. College of agriculture faculty members are suddenly finding themselves in positions of leadership in their universities as they move to a systems approach in learning.

The Project Director's Role

Our office serves as catalyst in the development of these courses. We have provided leadership, coordination and modest financial support for the development, revision, duplication and distribution of materials. Someone has to be in a position to devote time and effort to initiating and following up such coordinated team efforts. Such a person needs to be in a position to obtain administrative support from the participating colleges, make decisions and provide modest support for the task force teams.

In Summary

Agriculture is in a major transition in which changes will develop rapidly. Use of a systems approach in planning for many of the opportunities which the transition will bring will be essential. Such a system applied to teaching-learning can use all known educational technologies in capitalizing on the use of the 5 senses (seeing, feeling, tasting, smelling and hearing) of students in learning. It is limited only by the imagination, initiative and resources of the participants. Students can and do contribute to developing and improving learning materials. We are finding that use of the individualized systems approach allows the teacher time to do what he can do best in helping students learn, namely:

1. Diagnose learning difficulties.
2. Interact with students on 1-1 basis or in small groups.
3. Inspire and motivate.
4. Identify and encourage creativity and self-direction.

A systems approach to teaching-learning is quite a departure from the procedure of hiring a faculty member in late summer and telling him that he will teach the course in the fall term and will have to develop the content and carry on the other duties of his job simultaneously.

The example I have given you represents a type and scope of the kinds and magnitude of transitions that you can expect to make during the '70's if you are to effectively prepare students for careers that are being created by the production-people-oriented programs in agriculture.

Transition in Higher Education in Agriculture will occur at an increasingly rapid tempo. Many of the careers of today will not be available in the '80's, therefore, the speed with which you make transitions will determine in large measure those programs which will be effectively educating agriculturists for the next decade.

The opportunities provided by transition to people oriented programs in agriculture are so great that they will require cooperation of institutions, private organizations, businesses and industries, governmental agencies at all levels, rural and urban peoples.

As we begin to make changes towards a people oriented agriculture it is obvious that we need imaginative and creative people. Agriculture will need the best people it can get in rural development, off-farm segments, governmental organizations and agencies, institutions, urban planning and development, consumer interest related to food and fiber and environmental quality. Colleges of agriculture are the chief sources of supply.

There is little doubt that this decade will be full of excitement. We are committed to service a great American public. As Earl L. Butz, Secretary of Agriculture, recently said in a meeting in Atlanta, "Our greatest challenge - our greatest need - our greatest opportunity of all - will be to develop people who can carry forward the mission of agriculture and rural America triumphantly."

PEACE CORPS AND AGRICULTURE

Dr. Edward H. Holmes*

The history of the relationship between Peace Corps and Agriculture reveals a constantly expanding number of requests from Host Country governments and a growing gap between needs and fulfillment.

The year in which Peace Corps started (1962) we had 9.2% of our Volunteers in Agriculture, 73.1% in Education and 23.7% in Community Development. In 1972 the comparable figures were 31.2% and 4.2%. However, while the percentage of requests for agricultural Volunteers had risen from 4.9% in 1969 to 16.5% in 1971

our applications from B.S. Agriculture graduates had only risen from 2.7% in 1966 to 7.7% in 1971. We are running about half of the requested numbers of B.S. graduates in Agriculture.

At the same time that the number of persons being requested for agriculture has risen so rapidly, the job categories into which they would be placed have escalated in skill requirements. We have seen a remarkable change from the original "90 day wonder," AB generalist, "pig, poultry, rabbit and backyard garden" types to very sophisticated skills, as a Ph.D. Citrus Virologist or M.S. Irrigated Rice Research or Agronomy, Agricultural Economist, Salt Water Fish Biologist, Livestock Produc-

tion, Veterinarian, Range Management, FARM Resettlement Advisor, Parks Management, etc.

Added to the problems created by these escalating technical skills are the complexities of personal and experience categories that must be considered in matching an applicant to a requested assignment. If we make an overlay of these requirements: "Single, male, (65% of Agriculture requested B.S. degree with some experience, speaks French and has no history of health problems, available in June for training and willing to serve in Francophone Africa," we can peel off potential candidates by percentages with each requirement. How many unmarried males will you graduate in

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May who speak French, have a B.S. degree in Forestry, are in good physical and emotional health and want to take off to Niger for two years in Peace Corps? From an original figure of 25 graduates you would move down toward five eligibles and two interested from whom we might get one application. In the final process of selection, invitation and training we could lose that one.

When you add to this the lateness of specific assignment information, the difficulties of translating the Host Country Ministry of Agriculture request into a recruiter's communication with a potential applicant who knows nothing about the country and has perhaps never been out of his home state, the "poor pay" image of Peace Corps and a host of general and often mistaken impressions of Peace Corps overseas service, budget problems, etc., you can begin to see the burdens under which Peace Corps and the Host Country have labored in their attempts to change the agricultural scene through the use of Volunteers.

In spite of all these adverse factors, however, Peace Corps has steadily attracted a higher percentage of skilled, degreed agriculturalists into overseas service. Sixteen Agriculture Colleges sent more than twelve degreed applicants to Peace Corps last year; twenty-three schools more than seven and forty-two schools more than five. Still Ag Degree requests went 50% unfilled last year.

Our great areas of requests are in Agronomy, Horticulture, Soils Science, Agricultural Engineering, Irrigation, and Range Management. We have Agricultural programs needing these skills and others in forty countries.

Several years ago Peace Corps decided to develop an Intern Program for Agriculture Schools in order to supplement the general recruitment program and to try to attract the more highly skilled persons the Host Countries were requesting. These programs would also provide a certain focus

and some pre-training attention to future assignments and skill development. They would also initiate language training where special skill was to be necessary in-country.

The number of these programs has grown from its origin to a total of ten in Agriculture, producing approximately 137 Agriculture degree Interns this year from an initial figure of 35 in 1970. We estimate the number in 1973 will be 175. (This approximately matches the number of general recruitment Agriculture degrees from all sources.) We expect to supplement these applicants in a new FARM Program and by efforts to recruit faculty for short-term assignments in addition to the use of more effective recruiting procedures being employed otherwise.

The Intern Programs have proven to be a valuable and fruitful source for Agricultural skills and a stimulus to other University students to apply to Peace Corps from schools where the programs have been developed. They have served as a means of involving the Faculty and Administration of Agricultural Colleges in the development of Peace Corps/Agriculture relationships. They have stimulated confidence among the Host Country Ministries of Agriculture that Peace Corps is willing and increasingly able to respond to their needs for skilled agricultural assistance.

What is the future of this relationship?

1) Intern Programs will not be expanded indefinitely. They are desirable only in circumstances where the number of requests for Agricultural skills for a particular country, in a narrow skill range, makes it possible to enlist all the needed applicants from one school. Because of all the aforementioned factors and others, the number of schools which can support a program (usually twenty to twenty-five Interns) and the number of countries which would be requesting a program is seriously limited.

2) Other means must be found to encourage more degreed Agriculturalists to

serve overseas in Peace Corps assignments which meet the needs of agriculture in the less developed world, offer professional experience and growth for the Volunteer and provide the University an avenue for enhancing the experience of its students and Faculty and enable Peace Corps to fulfill its commitments to a hungry world.

3) Peace Corps will be expanding its efforts in Agriculture throughout the developing world, as will FAO, World Bank, USDA, AID and international agribusiness. While the need for B.S. degree Agriculturalists will decline in the U.S. (the Labor Department predicts), the prediction for the less developed world reveals a constant expansion of need and consequent growth of opportunity for such persons in international agricultural development.

The projected requests to Peace Corps from Brazil, Zaire and the new countries inviting Peace Corps will double the existing needs.

4) Peace Corps will need increasing support from Agricultural Colleges to meet its needs. Whether involved with Intern or FARM Programs or general recruiting efforts on the campus or previously unaware or uninterested in Peace Corps type assignments, we seek your interest and invite your participation in our agricultural programs overseas.

We don't need to try to impress Deans and Faculties of Agriculture with the world's need for food but we do need to inform you of Peace Corps' role in assisting less developed nations in their struggle to provide food for burgeoning populations and to supplement the capital development that is necessary to build a viable economy.

Peace Corps stands as a gateway of opportunity in international agriculture for the Agriculture graduate. We need the assistance of NACTA in making the opportunities a real option for degreed Agriculture graduates.

ATTITUDES AND CHANGE

John Beeks,
In-Coming President, NACTA

It is a pleasure to speak with you today as the incoming president of NACTA. I count this a singular honor; of all the organizations to which I belong, NACTA is certainly one of my favorites. There are several reasons why NACTA has my high regard. First, it was my misfortune to study for my B.S. degree as a veteran of World War II. With that great influx of students, lack of qualified teachers, over-crowded classrooms and laboratories, there was a definite lack of good educational opportunities, and even a lack of knowledge of how to teach on the part of many instructors. I had just left the army, an organization for which I had no love, and found that they did a far better job of teaching than my State University. Even as a student, I recognized some of the reasons for this inadequate teaching. Needless to say, later, as a teacher I became interested in improvement of teaching, and my joining NACTA was an attempt to move in the right direction.

Another reason for my partiality for NACTA is watching it grow. I have had the opportunity of seeing this organization grow from a toddling youngster to full grown, vigorous maturity. I have watched it suffer many of the pains of growing up and

can only hope it will now function as it should to improve teaching. My third reason is the people in NACTA. In no other organization have I known so many of those responsible for the initial and continued success enjoyed by NACTA. These are hard working, straight thinking men truly dedicated to improvement of teaching agriculture. Such men are Dr. Alexander and Dr. Rawlins, and the others here at Middle Tennessee, who have worked long and hard in the preparation of this meeting. There are too many to name. I shall not begin listing all of those who are the builders; you know who you are. Please accept my thanks as my friends as well as colleagues.

Here we are another minority group gathering in an attempt to improve upon what now exists. What a typically human trait, and, of course, we should be gratified that it is typical. All of us have chosen to spend our lives teaching, or closely allied with teaching, in the hope that we might improve the lot of the new generations. We, in turn, hope that they will do their utmost for each succeeding generation. This is the human trait that separates us from the rest of the animal kingdom, that is, the concern