

THE CHANGING MISSION

The University Agricultural Schools In Response to the World Food Situation

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Abstract

Agricultural institutions have been concerned with feeding the world's people for a long time and especially so in recent times. Technological advancements developed at agricultural educational and industrial institutions, coupled with hard work by American farmers, have made possible enormous food and fiber productivity that is the envy of the world. This capability must be inculcated into the programs of our international friends so they can feed a much greater number of their own people. To assist in accomplishing this, we in the agricultural schools and colleges must inform, motivate, instruct, inspire, stimulate, and produce a continuous crop of international agriculturalists. This we must do if we are to meet the changing mission of our agricultural institutions to help feed the world's people.

Surely one of the missions of agricultural schools and colleges, including land-grant institutions, is to help produce food for the world's people. Agricultural institutions have been concerned with feeding the world's people for a long time and especially so in the recent two decades. The word "changing" in the title of this paper implies more the intensity of change rather than the direction of change which must also be adapted to meet new challenges.

American Agriculture's Concern for Fellowmen

People in agriculture, whether they are farmers, educators, or students have a basic attribute — that of concern for their fellowmen. The hard work of one American farmer, aided by technological advancements developed at agricultural educational and industrial institutions, now produces food and fiber to feed and clothe more than 52 people. This productivity is three times what it was only 20 years ago. In the past 10 years, livestock production per man hour increased 60 percent, crop production increased 49 percent, and the average yield per acre increased about 20 percent.

The productivity record of American agriculture is unmatched anywhere else in the world. It is a major inflation fighter and is a major factor in maintaining a favorable balance of trade which is vital to our economy. Obviously, if we are to offer significant assistance in

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meeting world food needs, the economy of the United States must be sound and remain so.

Educate the Whole Person

For agricultural education programs to help effectively in alleviating the world food situation it would be well to review the primary purpose of such programs. If this objective is met, the graduates of such programs can more effectively help solve world food problems. What capabilities or attributes should a recipient of a bachelor of science degree in agriculture possess? What should our agricultural academic programs attempt to accomplish in preparing young men and women for a world that is hungry?

The recipient of a bachelor of science degree in agriculture should be capable of independent judgment and should have a sense of social consciousness and social perspective. The agriculture graduate should be professionally competent in one or more major areas with adequate training in subsidiary specialties and related sciences, and capable of continued development both professionally and as an individual.

The essential elements in the development of a degree candidate would include the following:

1. **Training and practice in the communicative skills so that the graduate can transmit ideas clearly and effectively in both oral and written form.**
2. **Study experience in the social sciences to enable the graduate to take an effective part in the political, social, and cultural activities of the community, state, nation, and of the world.**
3. **Fundamental training in the biological and physical sciences to enable the graduate to use effectively the present techniques of these sciences, and techniques that may be developed in the future.**
4. **Knowledge of the fundamental concepts of business and economics which will permit the graduate to interpret physical factors in value terms both now and in the future.**
5. **Adequate orientation in the various facets of agriculture so that the dependence of each on the others is clearly evident.**
6. **Sufficient professional training so that the graduate may effectively perform, with a minimum of on-the-job training, the duties of either management, production, supervision, or instruction in one or more specialized fields of agriculture.**

The standard by which the qualities of an agriculture graduate may be judged is the satisfactory completion of a curriculum designed to achieve these ends. In the final analysis, the faculty, particularly those instructors in each course offered, must establish the level of competence desired.

Education — A Lifelong Experience

The main opportunity, indeed responsibility, of schools and colleges of agriculture is to provide learning experiences that will enable the graduate to continue to learn and think clearly about a wide array of problems, both for his farm or business and the whole world in which he lives. Production agriculture and agriculture in general are increasingly in the mainstream of political and economic life. In a recent address, Dr. R. J. Hildreth, Director of the Farm Foundation, said, "The graduate needs to have an understanding of the forces that shape the political and economic environment of the United States and the world. Farming in the Corn Belt now and in the future will be greatly influenced by the food habits of the residents of Bangladesh, the political and economic decisions of the Mideast oil countries, the contract between the food chains and the Chicago butchers' union prohibiting sales of cut meat after 6:00 p.m., and the stresses and strains within the European Economic Community, as well as by floods in the spring and early frost in the fall."

Dr. Hildreth continues, "The basic output of undergraduate education should be the same in the future as in the past: motivated men and women who have been educated to think incisively and definitively and who can communicate effectively their conclusions and resolutions. Such persons will be able to operate effectively in an environment of change and to solve new problems."

In his concluding statement, Dr. Hildreth declared thoughts that are appropriate here: "We can take the easier path of reaction and adjustment to future events. Or we can take positive action to mold the future. Motivated and clear-thinking graduates of the colleges of agriculture can shape the future of agriculture with their new ideas. Since their inception, colleges of agriculture have tried to provide learning and motivation for those going into agricultural pursuits. The challenge now is to develop a curriculum which provides learning experiences and motivation that enable the graduates to function well in the world of agriculture where change, specialization, interdependence, loss of uniqueness of agriculture, and large organizations exist. Curriculum design is an 'art,' but an 'art' with a purpose. The purpose changes little over time, the content and context are ever-changing."¹

How can we help motivate our students to have greater concern for world or international agriculture? Today a great number of agriculturalists from the United States are working with agriculturalists from other countries in universities, agricultural development projects, experiment stations, extension services, and industry operations around the world. The rapid development and

expansion of agricultural institutions and industries abroad provide a great opportunity and challenge to the teachers of undergraduate agricultural courses in universities in the United States. This gives us the chance to become acquainted with crops, soils, and climates of the world, and the problems associated with food production in specific areas. We have the challenge — yes, the responsibility — to motivate and inspire our students to become involved in the world food problem.

Go Where the Action Is

The old saying "seeing is believing" applies to international learning. First-hand experience knows no substitute. What can more vividly impress the agriculture instructor with the enormity of the food and population problems than walking through a few of the hundreds of thousands of villages in India, observing food and eating habits, agricultural practices, and yields of food grains? First-hand impressions on the food problems in other world areas speak far more eloquently than reading about them.

We must confront our students with problems of agriculture on a global scale. Studies of land use and critical needs for research to increase yield and quality of food crops over the world must be designed into our curriculum programs.

International Training for Teachers

To help motivate students toward international agriculture, the teachers of agriculture must themselves have meaningful international experiences. Several possibilities present themselves:

1. **Travel-Study for Teachers.** Extended assignments abroad may not be possible, but shorter travel-study arrangements can be made, say, of two- to six-week periods. Sometimes sponsoring organizations can be found to subsidize such trips.
2. **Teacher Exchanges.** A good way for a teacher to learn the agriculture of another country is to engage in a teacher exchange between institutions of different countries. This contact may also encourage student exchanges between countries.
3. **Sabbatical Leaves.** Teachers may want to plan to study abroad during a sabbatical year. This may be an opportunity to work for agricultural institutes oriented toward various crops such as the International Rice Research Institute.
4. **On-Campus Activities.** The teacher should plan to sit in on courses taught on campus which deal with international relations, cultural anthropology, religions, cultures, and histories of foreign lands. Seminars can be developed to which are invited students and other teachers from foreign countries to discuss problems and solutions. Informal visitations in faculty homes by international students may be encouraged.

We as teachers of agriculture must inform, motivate, instruct, inspire, stimulate, and produce a continuous crop of international agriculturalists. If we are to meet the changing mission of our agricultural institutions we must internationalize our teaching.

¹ R. J. Hildreth, "Impact of Future Change in Agricultural Organization on Resident Instruction Programs," an address presented at Resident Instruction Section, Division of Agriculture, National Association of State Universities and Land-Grant Colleges meeting, Washington, D.C., November 1974.