

Recruiting and Retention

Kenneth W. Reisch

I appreciate this opportunity to appear on your NACTA program and to talk with you about a topic which is critical to all of us - the expertise essential for a sound and progressive agriculture in our nation.

We are concerned about the declining enrollment in our agricultural programs nationwide. Enrollment in our land-grant colleges of agriculture has declined nearly 25 percent in the past five years. This, coupled with a shortage of agricultural scientists and an unusually high percent of faculty who are of retirement age, has created a national concern for the expertise needed to respond to the challenges of the next 16 years and on into the 21st Century. Many sectors are addressing the issue. Secretary of Agriculture John Block held a Challenge Forum on this topic early this year and a AAAS Seminar on "Shortage of Agricultural Scientists - Scenario for the Future" was held in New York on May 29, 1984. The Joint Council on Food and Agricultural Sciences has ranked the development of Scientific Expertise second only to Basic Biotechnology Research in eight national priorities for 1985.

Many of us have taken a renewed or new interest in recruiting and the competition is keen. A number of institutions are extensively involved in recruiting, but I believe we in agriculture have a different mission. I'd prefer to change the title of my presentation to "Enrollment Development" because I feel this better describes what we are about. We are interested in more than attracting or recruiting new students. Our mission is to meet the future expertise needs for our agricultural enterprise by developing our enrollments with highly capable students and retaining as many as possible through challenging and dynamic programs.

I doubt there is much "new" in recruiting which hasn't been tried by someone, but I do know that it is only recently we've begun talking about the importance of marketing principles in enrollment development. For years we've extolled the career opportunities in agriculture without really knowing the needs or desires of our customers, the prospective students. We are no longer in a seller's market and must work hard to enhance the perception of agricultural careers and to convince a population with fewer and fewer rural people that there are career areas that will satisfy their needs. This was best explained by a high school guidance counselor who said "In advertising

agricultural careers think of an apple which can be sliced two ways. You can continue to slice the apple in the traditional manner (horizontally) and emphasize departments or majors - agronomy, horticulture, agricultural economics, animal science, etc. - or you can address more familiar areas by slicing vertically - business, science, computers, marketing, finance, management, etc." With the latter technique we are featuring areas which are integral to agriculture and with which people can identify and see future opportunities. Marketing is the name of the game today, and we must get on with it. It is our task to continue to enroll the lifeblood of our programs, the vocational agriculture and agricultural background students, and also to attract those urban/suburban students who are now enrolling in engineering, computer science, pre-medicine, pre-law, etc. This is obviously not a simple task, and, with the diversity of agricultural enterprises in each of our states, we will take different approaches. However, the principles will be the same, and I hope that our enrollment development efforts in Ohio will aid you in your programs. In 1983, with the aid of a grant from the Higher Education Office in the USDA, we initiated a program with the following objectives:

1. To increase the number of students enrolling in the College of Agriculture at The Ohio State University.
2. To encourage high school graduates of higher academic ability to enroll in the College of Agriculture.
3. To enhance the enrollment of minority students in agricultural programs.
4. To initiate and evaluate recommended program components for eventual use as the base for a national model.

There are two distinct yet interrelated areas in which we are working. The first is the enhancement of the image or perception of agricultural careers and the second is the recruiting of highly capable students to our programs. The first area relating to the image of agricultural careers is very difficult to deal with; however, it is basic to our enrollment development efforts. We believe Ohio is an ideal state in which to study the marketing of careers and the development of a recruiting model because of some unique characteristics. Ohio is a metropolitan, industrial, and agricultural state with the lowest percent rural-farm population in the 12-state North Central Region. We rank about twelfth nationally in agricultural production and fewer than 10 percent of our graduates enter farming. We are a pivotal state located between the densely populated North East Region and the more rural and agriculturally oriented states to the west. The freshmen entering our college in Autumn 1983 had the following characteristics:

- 99% from Ohio
- 75% from small high schools

Reisch is associate dean of the College of Agriculture, The Ohio State University. This paper was presented at the 30th Annual Conference of NACTA in Pullman, WA, June 19, 1984.

- 31% female
- 64% born or raised on a farm
- 17% others with some farm experience
- 43% had been enrolled in high school vocational agriculture programs
- 75% had been involved in 4-H

This is the market we have reached in the past and my question to you is - Can we continue to meet the needs of agricultural expertise without reaching a greater market segment?

We must recognize that many influences impact on a young person's decision to attend college and their decision on career choice. I believe that it is significant that the 17 and 18 year-olds which comprise our primary source of students have grown up in the space age. July 20, 1984 marks the fifteenth anniversary of our astronauts landing on the moon and the words spoken by Neil Armstrong "A small step for man, a giant leap for mankind". Not only was this a marvelous scientific endeavor but the barren moon landscape called attention to our environmental resources and the fact that our planet is truly a space ship. The efforts in space heralded a renewed interest in the environment, and programs in our colleges of agriculture and enrollments grew to unprecedented levels until 1977-78 when they began to decline. Since that time the interest in careers relating to the environment and agriculture has waned and the urban/suburban students who constituted a significant portion of the increase are no longer enrolling in our programs. During this period of enrollment decline however, there has been no diminishing of the emphasis on science, computers, and high technology. Although these are all components of our agricultural programs, we have failed to effectively compete with engineering, administrative science, medicine, and law in developing a professional modern image. There is also some concern among our peers that we have not kept pace with technological change and that our curricula may not be up-to-date and as dynamic and challenging as they should be. This, coupled with surpluses, financial programs in the industry, drought, and other negative aspects have created an image problem which will take considerable effort to overcome.

In contrast to any negative aspects which might exist, there are many positive factors which create a very bright future for agricultural careers. The U.S. food and agricultural industry employs 23% of the workforce, accounts for 20% of our gross national product and has significant impact on our nation's balance of trade. Our nation has led the world in agricultural productivity and in research and development which have resulted in our high standard of living and international leadership. This leadership is threatened today because of the potential decline in expertise which is essential to the keys to future growth and progress -- research and education.

A 1980 USDA study conducted by Dr's. Jane Coulter and Marge Stanton on "Graduates of Higher Education in the Food and Agricultural Sciences: An Analysis of Supply/Demand Relationships" predicted an annual agricultural college graduate shortfall of 13 percent during the 1980's and beyond.

As a result of this study, the Resident Instruction Committee on Organization and Policy of the National Association of State Universities and Land-Grant Colleges in coordination with the American Association of State Colleges of Agriculture and Renewable Resources and with input from several commercial organizations developed a Position Paper entitled, "Human Capital Shortages: A Threat to American Agriculture". This Position Paper recommends three initiatives which must be activated to assure the manpower needed for the future of agriculture. The three initiatives are:

1. Attracting highly capable students to enroll in agricultural programs.
2. Strengthening programs in our agricultural colleges.
3. Developing a data base to improve forecasting of manpower supply/demand.

At Ohio State, we initiated an enrollment development program to address the first initiative, that of attracting highly capable students to enroll in our colleges of agriculture. A number of pilot programs were launched and a Comprehensive seminar was to bring together individuals from a variety of resource groups to study the problems, discuss solutions, and provide recommendations for marketing strategies to enhance our recruiting program. The participants in the seminar included representatives from a variety of resource groups who can impact on the recruiting process. The groups involved were:

- Ohio Academy of Science Director
- High School Guidance Counselor
- High School Science Teacher
- Vocational Agriculture Teacher
- County Extension Agent
- College of Agriculture Faculty
- College of Agriculture Student
- College of Agriculture Administrator
- College of Agriculture Administrators from other regions of the country
- Agriculture Alumni
- Industry Personnel Administrator
- Industry Marketing Administrator
- Office of Higher Education, USDA

Dr. Wayne Talarzyk, Chairman of the Faculty in Marketing, College of Administrative Science at Ohio State, was the keynote speaker and discussed

"Strategic Marketing." Utilizing his guidelines, the seminar participants divided into six discussion groups relating to different target audiences. These were the campus community, guidance counselors, community opinion leaders, science teachers, urban students and parents. Each group assessed the environment relating to these target groups and developed marketing recommendations for each audience. These are summarized as follows:

Campus Community

1. Improve the image of agricultural programs.
2. Develop agricultural courses with university-wide appeal.
3. Encourage agriculture students and faculty to become involved in university-wide activities.
4. Schedule a campus-wide career/job fair.
5. Be certain that best instructors are used in beginning courses.
6. Provide information for University College (OSU entry college) counselors.

School Guidance Counselors

1. Work to enhance the image/perception of agricultural careers.
2. Provide up-to-date career literature.
3. Utilize student agricultural ambassadors to contact counselors.
4. Make available high quality visual aid presentations.
5. Enlist the aid of county extension offices for contacts.

Community Opinion Leaders

1. The image of agricultural careers must be enhanced with this group.
2. Establish a Speaker's Bureau for meetings.
3. Utilize local media for news on students, awards, etc.
4. Secure support of agricultural industry and provide tours for organizations.
5. Enlist the aid of county extension offices for contacts.

Science Teachers

1. Upgrade teacher knowledge and awareness of agricultural issues.
2. Provide modern audio/visual presentations and career literature.
3. Provide faculty resources for science classes.
4. Become involved in state science fair programs.
5. Enlist the aid of agricultural industry in presenting awards for science fair projects.

Urban Students

1. Enhance image/perception of agricultural careers with modern audio/visual presentations and up-to-date career literature.
2. Utilize student ambassadors in high school visits.
3. Provide scholarship support for high ability students.

4. Establish tours and visits to campus as well as tours of successful agricultural industries.
5. Use alumni role models to contact students.
6. Enlist the aid of county extension offices for contacts.

Parents

1. Enhance the image/perception of agricultural careers with modern audio/visual presentations and up-to-date career literature.
2. Personal contacts and phone calls from alumni should be encouraged.
3. Utilize the county extension office for contacts.
4. College should participate in high school career nights or job fairs.
5. Develop programs to bring parents as well as prospective students to campus.

As indicated, we've conducted some pilot programs in Ohio and these include:

Agriculture Ambassadors Program

The purpose is to bring College of Agriculture students in contact with high school students to inform them of opportunities in agriculture and to encourage application for admission and subsequent enrollment. The program originates with the College's Phalanx Service Club which recruits students for visitation to high schools as well as activities on campus. In 1983, visits were made to Ohio high schools during the Christmas break and plans are underway for visits in early September, 1984. The ambassadors contact prospective students, talk to high school counselors and school officials and deliver packets of career literature. This program provides an opportunity for College of Agriculture students to be actively involved in recruiting and enables our College to effect a person to person contact with prospective students.

High School Career/Job Fairs

These programs are scheduled in many urban high schools throughout the state of Ohio. Our objective is to increase the awareness of agricultural careers in these urban areas and to provide urban students with information about career opportunities. Our involvement to date indicates that we may not attract a large number of contacts; however, plans are underway to effect more attractive displays and the use of students ambassadors to talk with prospective and parents at our exhibit.

Science Expo

The first Science Expo was held in November, 1983 at the Ohio Agricultural Research and Development Center in Wooster, Ohio. High School science teachers from northeast Ohio and other areas of the state were invited to the

Research Center for a one-day program and tour designed to expose them to the agricultural sciences and the application of basic science to fields of study in food and agriculture. A series of 15 30-minute sessions were offered by research faculty, and science teachers were able to schedule a maximum of 6 sessions during the day. Not only did the OARDC faculty members provide the teachers with an interesting experience, but they also gave them ideas on material which could be used in their classes. This was a most successful program with an attendance of 68 teachers. Plans are underway for a similar program in November, 1984.

Three additional in-service workshops are scheduled for science teachers to tour food processing plants in three areas of the state, and high school science teachers and students will be invited to attend "Scholars Day" during the annual Farm Science Review Program in September.

Urban High School Guidance Counselor Lunch Meeting

This pilot program for an urban audience was scheduled to inform counselors on the importance of agriculture in our economy and the opportunities for high school graduates for exciting and diverse careers. A lunch meeting was scheduled for Franklin County (Columbus) high school counselors in November, 1983. The program opened with a brief discussion on the importance of agriculture and the supply/demand status of college graduates. This was followed by a presentation on the future of agriculture and career opportunities by Vice President for Agricultural Administration, Dr. Max Lennon. The session concluded with an extended discussion in which many of the counselors participated.

The counselors were visibly impressed by numerous career opportunities available for agricultural graduates. In addition to the positive impact on the counselors, they were impressed enough to provide several names of high ability high school students who were later contacted by our office.

Agriculture Day on Campus

The purpose of this program is to encourage students interested in our College to come to campus for a personal visit on the day of their choice to instill in them the atmosphere of high quality faculty and instruction and to promote the personal attention that students receive in our College of Agriculture.

An invitation is sent to each student admitted to the College of Agriculture as well as others ex-

pressing an interest in agricultural programs. They are invited to come to campus for a day wherein they are teamed with one of our students, attend classes, eat lunch in a campus dining facility, visit with a faculty advisor, and talk with one of our administrative group. Their parents are also encouraged to attend, and the parents are involved in a portion of the program. In 1983-84, 150 students participated in Agriculture Day on Campus and the responses were very positive. We believe this to be one of our most effective recruiting programs in that we have the opportunity to expose the prospective student to our College, its students, faculty, and programs. An additional feature of the program in 1984-85 will include a lunch for parents hosted by one of our administrative group or a faculty member.

Our Challenge

Our greatest challenge is to enhance the image or perception of agricultural careers with these various target audiences and the populace in general. This is a challenge and any significant change will be dependent on a concerted effort by many, including our institutions, the industry, state and federal agencies, and the media. We in our colleges of agriculture can aid in this effort by assuring that our curricula are modern and attractive, and that our brochures and other promotional materials are based on sound marketing principles. Our higher educational programs which, at one time, were predominantly production oriented have evolved to greater emphasis on business and finance management, and now will be moving into an era of increased attention to science and its applications. We must portray this in our literature and recognize the need for change in photographs and descriptions of careers since a low percentage of our graduates enter the production sector. Photos of workers on tractors, combines, or of animals and animal facilities should be replaced or supplemented with photos of scientists in laboratories, workers in processing operations, people in sales positions, farmers with computers, and other illustrations of the career areas in which our students will be working. This is not to demean farming which will remain the foundation of all that we do; however, farming or production is not a major placement area and the percent of graduates in our 4-year programs entering farming will probably not increase. At Ohio State we are attempting to alter the image of agricultural careers by developing career brochures which focus on general interest areas of prospective students. The first result of this effort is a career brochure, "If You Like Science," which depicts the scientific aspects of agricultural careers and indicates "Today's agriculture offers many opportunities for the person who has an interest in

science. Food and agricultural sciences make extensive use of the biological and physical sciences. Your interest in science is an excellent match for career opportunities in the food and agricultural sciences." We are planning additional brochures relating to Business, Plants, Animals, etc. Copies of the brochure "If You Like Science" are available from our College Office.

I haven't dedicated much of my presentation to "retention"; however, it begins the day the student indicates he or she is interested in an agricultural career. The actions we take after receiving information that the student is interested will have a profound effect on whether or not that student enrolls in the College. Therefore, retention deals with the environment and atmosphere of the campus, the personal attention the student receives, the challenging opportunities for Honors Students, early contacts with faculty advisors, the availability of scholarships and other financial aids, the presence of outstanding teachers, and the many things we do to make the student feel welcome and comfortable.

Basic — Human Capital

I believe the future is very bright for our colleges. Human capital is the basic resource necessary for the future of agriculture. The only deterrent to the success of our enrollment development programs will be our own inability to adapt to change and to learn from others who recognize the importance of marketing. We never stop learning and I always remember the statement of one of my professors which indicates the importance of lifelong learning. "So long as you think you're green, you'll grow. But as soon as you feel you're ripe, you may begin to get rotten."

It is up to us to create a new awareness among young people and their parents of the opportunities in agriculture, to stimulate their interest so they'll seek more information, to get them involved in our programs and to eventually close the sale (enrollment). Obviously, we are facing many problems in enrollment development; however, these equate to challenges and ultimately opportunities for us to bring about change and to make our programs as appealing as possible to the potential future leaders in agriculture.

I'm optimistic about the future since the world is getting smaller, and the importance of the U.S. Food and Agricultural Industry will not diminish. As mentioned earlier, we in our colleges of agriculture are interested in more than attracting or recruiting new students. Our mission is to meet the future expertise needs for our agricultural enterprise by developing our enrollments with highly capable students and retaining as many as possible through challenging and dynamic programs. There is a new generation being born every day, and we have the obligation of ensuring a bright and prosperous future for them.

IDEA SHARING SESSION

NACTA Conference

Use of Poster Presentations in NACTA Idea Sharing Sessions

John A. Forseth

At the 1984 NACTA Conference, posters were used in the Idea Sharing sessions for the first time. Eight attractive and very effective posters were presented. There was also an oral Idea Sharing session with nine 15-minute papers which was held concurrently with the poster session. Attendees had their choice of poster and oral sessions and most were able to view all of the posters and to hear several of the oral presentations.

Definition

A poster consists of a series of illustrations or separate pieces of varying sizes mounted on a poster board using push pins or thumb tacks. At the NACTA conference, each poster was scheduled for public viewing for a period of approximately 3 hours. At least one author of each paper tended his poster for 1½ hours to explain his "ideas" and answer questions. This period was designated by the conference organizing committee.

In many ways, a poster is a more effective way to share your ideas and techniques with fellow NACTA members than is an oral presentation. It facilitates more small group and one-on-one interaction and true "sharing." It allows an opportunity for more people to view your presentation than does a single 15-minute talk, especially when 3 or 4 concurrent oral sessions are held and attendees have to make a choice. It also lends itself to subject matter that may involve demonstration of a technique, a piece of equipment or of written materials.

Posters have been used at numerous scientific meetings for many years. They have become the most common and preferred method of presentation at the annual meetings of the Federation of American Societies for Experimental Biology. They are becoming increasingly popular at national and sectional meetings of the American Society of Animal Science. However, very few NACTA members had made poster presentations previously or were familiar with them. Therefore, participants in the 1984 NACTA Idea Sharing sessions were provided the following instructions and production guidelines for the preparation of an effective poster.

Forseth is Professor of Animal Sciences at Washington State University, Pullman, WA 99164-6320. He was Co-Chairman of the 1984 NACTA Conference Organizing Committee and Chairman of the Idea Sharing sessions for the program.