

AN AGRIBUSINESS PERSPECTIVE

The Recruitment and Education Of College of Agriculture Students

R. J. Hildreth

The recruitment and education of college of agriculture students is an issue receiving significant attention. A number of groups and individuals are giving attention to human capital development for agriculture.

In January, 1984, then Secretary of Agriculture, John R. Block, held a Secretary's Challenge Forum on the theme, "Investing in Brain Power: Keeping U.S. Agriculture's Competitive Edge." In framing the challenge, Block called for stronger ties among academia, industry and government to assure adequate human resource development. "Agriculture has become a highly technological and scientific based industry," Block said, warning that "Perhaps we have been drawing upon these advances without giving enough support to strengthen our human capital base for the future."

At the same conference Max Lennon, then Vice President for Agricultural Administration, The Ohio State University, pointed out that in order to keep the agriculture system competitive, recognition must be given to economic issues, social issues and political issues, as well as the technical issues. Lennon said: ". . . on the one end of the spectrum we have farms — farms that produce crops, farms that produce livestock. We also have small agribusiness such as grain elevators, banks, restaurants. On the other end of the spectrum we find molecular biological opportunities that relate to technology, as well as technologies that will emerge from physical sciences. Thus, if the technologies are to be completely and effectively delivered, the modern college of agriculture must bridge all of the gaps between the farming enterprise or the agribusiness and the most basic research opportunities — no small task when one is aware of the rapidly changing biological scene."

Agribusiness Interest

My remarks are directed to agribusiness interest in human capital development for agriculture. I speak as an observer of the interaction of agribusiness and higher education in agriculture over a period of two decades, not as an agribusiness person.

To illustrate the interest and concern of agribusiness, let me cite the ideas of Dale Wolf, Group Vice President - Agricultural Chemicals, of the DuPont Company, as stated in a forthcoming article in the 1986

Hildreth is Managing Director of the Farm Foundation, 1211 W. 22nd St., Oak Brook, IL 60521. This invited paper was presented at the 32nd Annual NACTA Conference, Ridgetown Ontario, June, 1986.

Year Book of Agriculture. "The globalization and increasing impact of American agriculture have important implications to students of the food and agricultural sciences. No other industry can compete with agriculture in terms of diverse career opportunities. And no other industry offers a broader, more complex array of challenges to the best and the brightest seeking involvement in key domestic and world issues." Dr. Wolf points out the challenges in biotechnology and genetic engineering, but also points out that career opportunities in agriculture are by no means limited to the laboratory. He cites a study conducted by the USDA in 1986 which revealed that of the 49,000 annual employment opportunities for college graduates in the food and agricultural sciences, 33% are in the marketing, merchandising and sales sectors. He points out that there is a need for college graduates in the food and agriculture sciences and cites the USDA study which predicted that the annual average demand for college graduates in the food and agriculture sciences would exceed the available supply by 10%. He points out that in several areas the short-falls are more severe. For example, the annual demand for marketing, merchandising and sales representatives exceeds the supply by 17%. Demand exceeds supply by 16% for scientists, engineers and related specialists, as well as for managers and financial specialists. Industry has a self-interest in recruiting the brightest and best to food and agriculture science curriculums. Their ability to financially succeed is importantly dependent upon attracting adequate supplies of human capital which are innovative, creative and well trained.

Many agribusiness firms compete in world markets. Should they fall behind in attracting high quality human capital, their future is not bright. Investment in human capital is as important as investments in physical capital in staying competitive in world markets. Agribusiness firms realize that recruiting and developing outstanding human capital is important to the well-being of farmers they buy from or sell to, to non-farm consumers they sell to, as well as to stockholders and employees.

International Aspects

R. M. Hendrickson, Vice President of Pfizer Inc. and President of the firm's Agriculture Division, brings out another issue of agribusiness' interest in international aspects. In a 1984 speech at an AAAS Symposium he made the point that with the advancing technology in the U.S. and increasing agriculture production in the world, the U.S. must develop outlets

for that production or face the unpleasant consequences of constant surpluses. He states, "The 'third world' seems to be the most viable potential market for our food and fiber. We could feed hungry people, while they could absorb our excess production. But that raises new and even more difficult problems — how to develop the necessary purchasing power and distribution systems?" He goes on to state; "I have suggested that this scenario presents both a challenge and an opportunity for U.S. agricultural education." Agricultural education needs to take the lead by infusing knowledge and technology in the 'third world', and by developing working relations with leading institutions in the social and political sciences. He suggests the appropriate role for agribusiness is not to take the lead in increasing third world markets, but helping American agriculture to maintain its competitive edge as a partner providing strong support (financial support — program support — moral support).

Throughout his statements on this issue he makes the point that there is the need not only for the transfer of biological and physical technology but also for the interrelationship with social, economic, and political aspects of increasing markets for American agricultural products.

Characteristics

Graduates of Colleges of Agriculture are seldom criticized for not working hard. In some ways this is their major positive attribute in addition to good technical training. The importance of this characteristic was brought out by a study conducted by Korn Berry International, an executive search firm, and the UCLA Graduate School of Management reported in the May 6, 1986 issue of *The Wall Street Journal*. The study concludes that people who get to the top really love what they are doing and work very hard. The executives who have moved up work longer hours and take shorter vacations than the managers in a similar study conducted in 1979. However, it is not enough for graduates to love what they are doing, to work hard and to be technically trained. There are other skills that are necessary to achieve success in agribusiness firms which are often complex large systems.

Agribusiness firms have expressed the need for more than hard working, well-trained graduates. Informal conversations and, from time to time, formal statements by agribusiness leaders express the need for graduates able to communicate clearly, work well with people, receive motivation and motivate others with a broad perspective of how their jobs, their units, and their firms fit into the larger picture. Most of the serious criticism of graduates of Colleges of Agriculture are about employees who have too narrow a perspective and lack communication and human interaction skills.

Agribusiness units, especially those who are part of larger firms, have a real and intense desire to in-

crease the number of minorities and women hired. A number of motivations exist for this desire: affirmative action policies in the larger firm, dealing with customers who are minorities or women, a concern that they are missing some of the brightest and best if they do not consider minorities and women as employees, as well as a humanitarian concern on the part of individuals and the firms for increasing the well-being of minorities and women. The increase in the proportion of women among College of Agriculture students in recent years provides more opportunity for hiring of women. However, there has not been a similar increase in minorities, and there is a concern for recruiting minorities among the brightest and best of all students.

If Colleges of Agriculture are going to provide the human capital desired by agribusiness firms, it is important to recruit the brightest and the best, as well as adjust their programs of education. I recall a Council of Education study of some two decades ago which revealed, universities with outstanding students have outstanding graduates, no matter the size or prestige of the education institution. The prestigious "Ivy League" schools have distinguished graduates mainly because they have distinguished entering students. Thus it becomes important to recruit very good entering students.

Career Image Impact

The image of careers in agriculture has a significant impact on the ability to recruit the brightest and the best. There is some evidence on how careers in agriculture are viewed. A 1985 Gallup Survey shows that the general public views farming as an important industry, yet farming was the first choice of only 6% and last choice of 16% of the sample when asked to rank ten occupations. The same respondents, when asked about farming as a career for their children, placed it on a par with military careers and only ahead of truck driving in desirability.

A survey of high school students' attitudes toward agriculture as a major and as a career was conducted by the UC-Davis College of Agriculture and Environmental Sciences and reported in the March-April, 1986 issue of *California Agriculture*. The survey indicated that the high school students were relatively unaware of the wide range of availability of careers in agriculture. While they recognized the importance of agriculture for food production, they did not associate it with food processing, distribution, sales, international trade or its supporting industry. Nor did they think of other careers related to agriculture such as resource management, the fiber industry, biotechnology and genetic engineering. They viewed a career in agriculture as involving outdoor activities, natural, and healthful hard work. They also thought that agriculture careers were masculine, independent, safe, blue-collar and boring.

Conclusion

Colleges of Agriculture, faculty and administration, need to give attention to the recruitment of the brightest and best. Ten very bright, able students may be more important to the future well-being of the agriculture industry than twenty average students. Scholarship programs with emphasis on potential, such as the Jonathan Baldwin Turner Program at the University of Illinois perhaps need to be increased. Faculty may well need to give more attention to the image of careers in agriculture they project as they come in contact with potential students, their parents and others who influence them.

The future is bright for graduates of Colleges of Agriculture. It is likely that the demand will be higher than the supply. But if Colleges of Agriculture are going to meet their opportunities of serving society, attention needs to be given to the recruitment and education of students by College of Agriculture.

Uses of Humour In Instruction

Michael E.J. Orme

The use of humour in instruction is as Canadian as Ukrainian summer sausage. The beginnings of Canadian humour, at least in the eyes of others, reside in the simple fact of our existence. Place names such as Medicine Hat, Moose Jaw, Saskatoon, Saskatchewan, Elbow, Wawa and Eyebrow, have prompted chuckles from jaded sophisticates, the world over. Moving east, locales such as Witless Bay, Funk Island, Ecum-Secum, Pugwash and institutions like the Toronto Maple Leafs (an amusing troupe of pantomimists), have prompted outright laughter.

But humour in Canadian society surely transcends the comedic potential of mere survival. There is a rich tradition of nonsense, wit and irony in our literature. Indeed, I would argue that the use of humour, particularly irony, has become one of the signal themes of Canadian arts and letters. To those who would dismiss this significant insight as unbridled speculation by a prairie kid who never entirely recovered from the sensory deprivation implicit in being raised in Saskatchewan and Alberta, let me tell you buster, my point of view has been semi-sanctified by the authors of the Canadian Encyclopedia. True, the encyclopedia was published in Edmonton, not Toronto. Thus, we can't take it as absolute truth. But at least it's revealed.

Examples of humour in the arts come readily to mind. Whether it be **poetry** (Earl Burney, Paul Hiebert,

Dennis Lee), **drama** (David French, David Finnereo, Erika Ritter, Linda Griffiths), **the short story** (Stephen Leacock, Roche Carrier, Clarke Blaise, Morley Torgov), **the novel** (Robertson Davies, W.O. Michell, Margaret Atwood), **television** (S.C.T.V., Seeing Things, David Steinberg, Rich Little), **film** ("Goin' Down the Road," "Paperback Hero," "My American Cousin," "Duddy Kravitz"), **radio** (Royal Canadian Air Farce, Old Rawhide, The Norm), **newspapers** (Slinger, Gary Lautens, Sondra Gottlieb), **music** (Nancy White, The Frantics), **painting** (William Kurelec) or **hockey** (Eddie Shack), Canadians have used humour to comment on gaps between the apparent and the real. Through humour we have been granted at least temporary relief from the weather, our national character, overheated public buildings and other major problems too fierce to mention.

This overview of the critical role of humour in the Canadian psyche, albeit too brief, is sufficient to indicate that we are standing on ground as firm as the Canadian Shield, when the time comes to analyze humour. Indeed, given our rich heritage, it seems not only Canadian, but almost patriotic to look at the uses of humour in instruction.

There are at least ten different ways in which one can use humour in instruction. These are listed below. Each is then briefly discussed.

- 1) To motivate
- 2) To build learner attention, listening and positive expectations
- 3) To help instructors and learners break free of constraints
- 4) To use intellectual play as a precursor to concept development
- 5) To develop group cohesiveness, confidence and identity
- 6) To effect learning
- 7) To create variations in pace and reinforcement
- 8) To enhance the desire to teach
- 9) To increase instructor credibility
- 10) To control your own folly

(1) To motivate: In order to understand why humour is an important motivational tool in the classroom, it is useful first, to consider the psychological determinants of attention.

Certain characteristics of a stimulus, experience, or teaching technique reliably cause students to pay attention. These characteristics determine selective attention. Their presence or absence in the classroom allows us to understand why students pay attention in one situation and not in another. Once these determinants of attention are known, we can then begin to devise teaching techniques that incorporate them. Events or stimuli that are characterized by **surprise** (the unexpected), **novelty** (short-term change; incongruity), **conflict**, **complexity** or **uncertainty** are arresting. They command attention. Whether or not one continues to pay attention to these kinds of events depends on the duration of the event, its intensity and how often it is repeated.

Orme is with the Ontario Institute for Studies in Education, University of Toronto. This invited paper was presented at the 32nd Annual NACTA Conference, Ridgeway College of Agricultural Technology, Ridgeway, Ontario, June, 1986.