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RESPONDING TO THE WINDS OF CHANGE

By Edgar Persons

Change! What a contradictory phenomnal! Most people could name many things they would like to see changed, but few would volunteer to be the first changed. Change is discomfoting! Change pushes us into the unknown and most find no comfort in not knowing.

Yet, in spite of our natural resistance to change, some change is inevitable. Our task is to decide when change is good and when change is only being different; what things should be changed and what things should be left alone.

Agricultural education is not immune to change. Certainly the agricultural education of today is not the same as agricultural education of the 60's. But change has sometimes been only evolutionary while the forces that create or demand change have been revolutionary. The task we face is to respond to revolutionary influence in such a way that we preserve and protect those things that will not be made better by revolutionary change.

Agricultural education at all levels - elementary, secondary, post-secondary, adult and college - is under tremendous pressure to change and adapt, sometimes in revolutionary ways. Readers of this article could no doubt list many recent events that suggest some change should be considered in the way agricultural

education is organized, administered or delivered. Most readers could probably name several major efforts at the local, state or national level already underway to induce change. Some efforts like the recent study released by the National Academy of Science (1988) have evoked mixed reviews, with some acclaiming the recommendations as "on target and long overdue" while others express discomfort with suggested ventures into the unknown. The response is not unexpected. There have been mixed reactions of cheers and jeers to most recommended actions for change.

Teacher education in agriculture has not been untouched by pressures to change. This article will help define what some of the forces have been that have suggested change was needed, and report on the way in which Agricultural Education at the University of Minnesota has responded.

THE EARLY WARNING SYSTEM FOR CHANGE

One need not have been an astute observer to notice that the whole character of the agriculture sector was undergoing change. The structure of agriculture was in general upheaval (USDA, 1979, Land O' Lakes, 1981). The demographics of rural areas were changing

too rapidly to comprehend; (State Dept. of Ed., 1982) A once affluent and rich farm sector was caught in the grips of financial crisis (Public Agenda Foundation, 1987) and familiar reports to the nation about the condition of education, such as the Nation At Risk, left a perception that education was in need of major restructuring.

Agriculture, the industry served by teacher education in agriculture, was undergoing dramatic and revolutionary change. Education, the vehicle for responding to change, was under severe criticism.

The most persistent pressure to change teacher education was generated by the Holmes Group. This group of Deans of Colleges and Schools of Education deliberated on what might be done to strengthen teacher education in light of the criticism leveled at public education. It was the Holmes Group report (1986) that would come to guide and shape the programs of teacher education at the University of Minnesota.

RESPONDING TO THE CHALLENGE

It was clear from the messages of the Dean of the College of Education that teacher education at the University of Minnesota would be modified to conform more closely to the recommendations of the Holmes Group. Each unit preparing teachers for licensure in Minnesota was instructed to prepare a plan for changing teacher education. The goal was to have each program change from preparation at the B.S. degree level to licensure at the post B.S. level. Prospective teachers would be expected to already have a B.S. degree in a technical specialization or liberal arts field prior to admission to the College of Education licensure program. Entrance requirements would be raised and new rules formulated for obtaining the necessary teaching competencies.

For the majority of programs in teacher education, this new set of

expectations could be accommodated. Applications for admission in some fields already far outstripped the enrollment limits previously imposed. At least one licensure field already had a post B.S. program in place. But even for those fields where the plan could be accommodated, there was a tremendous amount of work required to reorganize courses, adjust program management and attend to the many details of making a transition from one form of program to another.

In vocational education, the task seemed insurmountable. There was no surplus of either applicants or graduates. The market share of some programs such as agriculture was large (Persons and Legried, 1987), suggesting that a major shift in teacher preparation could result in serious supply disruption for the agricultural industry and for Minnesota schools. Vocational agriculture teacher preparation was a monopolistic responsibility of the University of Minnesota, and thus there were certain responsibilities to the people of Minnesota that were not necessarily shared by all other teacher education programs. But perhaps the greatest obstacle was the fear of the unknown. Only one state, California, had recent experience with a 5 year or post B.S. teacher education program. Washington had abandoned their 5 year plan in favor of a 4 year degree almost 20 years ago. There was no established "general model" to guide program design.

Agricultural education was scheduled to begin its new teacher education program in Fall quarter, 1989. In September of 1987 the agricultural education staff, by consensus, agreed to modify the agricultural teacher education program and to implement the change in Fall quarter, 1988; a year ahead of the planned implementation. Responding not unlike teachers of agriculture, the staff concluded that if there was a job to be done, even one that was unpleasant, it may as well be done quickly so that the

benefit of doing it, if any, could be obtained sooner.

THE PROCESS

If you want to know something, ask. And ask they did! The staff of the Division of Agricultural Education first put together a rough model of a modified agricultural education program and then asked - what do you think about it? What should be changed? Will it work? Will the graduates be competitive? Will the program be able to compete with others?

The staff began by asking Minnesota teachers of agriculture and administrators about the proposed plan through a series of focus groups. Since California institutions were the only ones with 5 year agricultural education programs, they were also queried - both teacher educators and teachers - about the feasibility of the plan. Current students selected because of their understanding and experience with the current teacher education plan were also asked to respond. Administrators of the College of Agriculture, itself beginning a major curriculum revision, were questioned about feasibility and relevance to their own plans. As the agricultural education plan was molded into shape, the administration of the College of Education, along with other units within the Department of Vocational and Technical Education were kept informed and asked to provide feedback about the proposal.

Almost every week some adjustments were made to the plan; changed admission criteria, different courses, modifications in implementation, recruiting procedures, program names, etc. But in April, 1988, the plan that up to then had been fluid began to gel. New courses were defined, syllabi prepared, bulletin copy finalized and program sheets for admission and monitoring drafted. In May of 1988 the College of Education Committee on Educational Policy accepted the plan for

implementation in Fall quarter, 1988. The plan is now being implemented.

THE PRODUCT

Several strong messages heard during the development process had major influence on the design. Three firm messages were:

1. Maintain a B.S. level program to remain competitive.
2. Design your own B.S. feeder program for the post B.S. degree to supply some of the post B.S. participants.
3. The post B.S. program must culminate in an advanced degree.

With these three mandates from the advisors within the profession, the Agricultural Education Division has implemented the following three programs in Agricultural Education.

Option I - B.S. Agricultural Education Specialization

The agricultural education specialization is a B.S. level program for persons who plan to teach agriculture, horticulture, agribusiness, food systems, natural science, agriscience, mechanized agriculture or adult farm management education in public schools. When the degree is coupled with the appropriate work experience, holders of the degree can obtain a license to teach at the secondary, post-secondary and adult levels. Students must earn 198 credits to complete this degree.

Option II - B.S. Agriculture Development Specialization

The agriculture development option is also a B.S. level program. It requires 192 credits for graduation. Graduates may seek any kind of position in professional agriculture in extension work, local and international development, professional careers in sales and marketing, financial management, farming or any other career where education in agriculture and the fundamentals of education would be useful. However, unlike graduates of

Option I, graduates of the Agriculture Development specialization are not eligible for a teaching license where a degree in agricultural education is a prerequisite. A key to the utility of this degree option is a strong emphasis on experiential education. Up to 20 credits of work in technical agriculture and agricultural business can be earned through structured experiential learning obtained after the student is enrolled in the program. By carefully managing the study program, students in this option should be able to complete the degree in 3 1/3 full years of study utilizing the summer periods to engage in experiential learning courses.

The top graduates in this degree (those with a GPA of 2.8 or above) are eligible for admission to the post B.S. program.

The Post B.S. Program

The post B.S. program leading to licensure is for persons who already have a degree in some field of technical agriculture or agriculture development (Option II). When coupled with appropriate work experience post B.S. students after one year of study are eligible for a teaching license. If they are employed as teachers after licensure and they complete their first teaching year while enrolled in the beginning teacher mentorship program, they can, with the completion of an integrating paper, earn the M.Ed. degree. This is an attractive option for persons who are convinced that they wish to teach.

There are special admission requirements for this degree. Applicants must already hold a B.S. degree in a technical agriculture field and have completed course work in plant sciences (10 cr.) soil science (4 cr.) animal science (8 cr.) agricultural economics/agricultural business (10 cr.) and agricultural engineering technology (6 cr.).

Applicants must be good students with a GPA of 2.8 or better in their B.S. study. They have to complete the Miller

Analogies Test and submit to a personal interview by the post B.S. admission committee.

All post B.S. students take the same courses in agricultural education in the same sequence. They enter and graduate together.

The post B.S. program is the only totally new agricultural education program. Both Option I, Agricultural Education Specialization and Option II, Agriculture Development Specialization, are modifications of programs that existed before program redesign.

Table one provides some measure of how the B.S. degree options compare.

Both of the B.S. degree options are characterized by an increase in communications and the liberal arts and a decreased emphasis on the physical and biological sciences. While there has been a reduction in the technical agricultural component of Option I, the requirements are also more flexible with a greater emphasis on agricultural business.

In Option II, the technical component is stronger at the expense of the education category. Although the number of credits in the education area has actually been increased, 20 of the credits are in experiential learning courses where the primary emphasis is on technical agriculture and agricultural business. Graduates of Option II, Agricultural Development Specialization, should be highly competitive in the non-teaching job market and should be strong candidates for teaching licensure education under the post B.S. degree plan.

NEXT STEPS

An important next step will be to evaluate if the changes implemented in fall, 1988, have improved agricultural education at the collegiate level or have only made it different. As the programs are implemented, students will be carefully observed to determine if the

Table 1.

Old and New BS Degree Program Comparison

	Old B.S. Licensure Program Qtr.Cr.	Old Non- Licensure Program Qtr.Cr.	New Option I AgEd Special Qtr.Cr.	New Option II Ag Develop. Special. Qtr.Cr.
Total Credits Required	203	192	198	192
Communication, Language & Symbolic Systems	22	22	29	29
Physical & Biol.Sci.	40	40	20	20
Individual & Society	*14	*14	**18	**18
Lit.Human.& Fine Arts	8	8	12	12
Gen. & Supp. Courses	19	0	18	5
Agricultural Educ.	31	23	33	***32
Technical Agriculture	80	80	64	64
General Electives	--	12	4	12

*Includes micro & macro economics

**Does not include micro & macro economics

***Includes 20 credits of experiential education

characteristics they develop and the skills, knowledge and attitude they display are a better match with the attributes needed in beginning teachers. It will be in a sense like shooting at a moving target since it is likely that the agricultural education programs as we now know them at the secondary level will also have changed. However, there is hope that the redesign has been sufficiently bold so that the agricultural education graduates will have enough lead on the moving target to connect squarely with needs. There is evidence from the National Academy study and from the futuring work already accomplished by the MVAIA that the Agricultural Education program will produce the right kind of product for work in schools and in the broader agricultural industry. Time will tell.

If you are interested in receiving more information about the agricultural program at the University of Minnesota drop a line or call the Agricultural

Education Division and ask for a copy of the new degree plans. Address your requests to:

New Degrees
Agricultural Education
320 Vo-Tech. Ed. Bldg.
1954 Buford Ave.
St. Paul, MN 55108
Or call: (612) 624-2221

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