application of thought to the merits and differences between the animals or materials being judged. Persistent practice in evaluating judging classes is a sure way to sharpen the mind to a keen sense of detecting difference.

We must not overlook the fact that aside from being a motivating factor, of sound educational value on their own, judging activities have played no small part in the total training of our agriculture graduates which permits them to secure suitable jobs. Many of the livestock buyer trainees, as well as seasoned buyers, are in their present jobs due in some part to the training they received on livestock judging teams. The student with experience in soil judging finds the Soil Conservation Service more interested in his application. Meats, dairy, wool and all the other areas in which judging contests are held provide training that industry looks upon with favor when interviewing prospective employees.

The Professor of Agriculture In The Expansion of Knowledge

by

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Colleges and universities across the country are literally bursting at their seams. Unprecedented enrollment rates are forcing larger classes, closed circuit television, audio-tutorial systems, and other new innovations for imparting knowledge. This mass production of teaching has led to an impersonalization of the role of the teacher in the profession. More and more of the teacher's job is being done by assistants, either student or mechanical.

These vast hordes of students may cause us to change our methods and techniques, but we have essentially the same mission as always — to expand knowledge. This expansion of knowledge will take several forms.

First, we will be called upon to develop new knowledge through research. Whether he likes it or not, the college teacher of today cannot divorce himself from research. The increasing complexity of our society demands that we must continuously look for new and better ways of doing things. In agriculture, this means that we must develop basic rearch in the sciences and apply the research to agricultural programs.

Research has been lauded by administrators and government agencies. Promotion and salary increases have been geared to the number of printed pages of highly technical articles a person has turned out. However, many other kinds of research are needed for the college teacher. We should, in fact we must, develop new and better ways of teaching if we are to serve the ever increasing number of students in our classes. We cannot afford to stay with the old and standard techniques. If the university professor is not doing teaching research, he is soon obsolete.

The second major responsibility of the college teacher of agriculture in the expansion of knowledge is to interpret the research results of others. Many undergraduate students, and even some professors, claim that the scientific and professional journals are too technical. I think it is not the fact that the journal articles are too technical, but the important points of the research may not be known or appreciated by the undergraduate student. It is up to the professor to take points from individual research articles and synthesize them into an integrated pattern that makes sense to the student.

The individual agriculture teacher must read the professional journals and convert the current work from many fields — not only agriculture, but physics, biology, medicine, political science — into a meaningful package for his students. The ag teacher must not be — he cannot be — any less a scientist than those in the "basic" fields. Although he may not be doing plant physiology research, he must be able to understand it and apply it to crop production.

The third major role of the college professor in the expansion of knowledge is that of communication of ideas. Although he may be constantly working to develop new knowledge and is interpreting that developed by others, if he cannot communicate both the technical information and the philosophy behind it to the students, he should not be in the classroom. Let me be quick to point out that the responsibility of the professor is not simply in communicating technical facts and philosophies. He must in some way communicate ideas to his students and give them the enthusiasm to carry the ideas through to projects. He must teach them to be able to think for themselves, to organize material, and to develop thoughts that are their own. If a professor is not turning out students that are greater than he is in his profession, then it is my guess that he is a poor teacher.

The college professor has a responsibility to others outside his classroom. In his expansion of knowledge, he must extend what is known beyond the edge of the campus. Not only should his students benefit from his research and teaching effort, but laymen, industry, and others should also benefit. He should not forget that within the structure of our society, the university is the primary source of knowledge and it is up to him to be able to impart this knowledge to all levels of the community.

It is imperative that the college or university professor be in a position of leadership as far as knowledge is concerned. Regardless of whether the course is in agriculture or art, if the professor has to take his students to business or industry to teach them his subject, he is not living up to his responsibilities. Let me be quick to say that I do not mean that a teacher cannot utilize business and industry in field trips in order to demonstrate to the students how to do certain things, but if he takes his students to a feedlot or a factory and cannot say that this

is an example of an application of the principles developed in my university or some other leading university, then we as university teachers are not filling our need. It is on the university campus where ideas, regardless of how impractical they may sound, can be investigated, tried, and developed. If the university has a unique role, it is in the area of the expansion of knowledge and this expansion of knowledge must of necessity mean that the university accepts leadership in both developing and imparting knowledge.

At almost every meeting where teaching is discussed, we say that we must develop leadership in our students. Leadership is one of those illusive subjects that cannot be taught, it must be demonstrated. It is a good chance that very few leaders will come out of a follower institution. Nor will leaders be developed by professors who are themselves behind in their profession.

In the entire process of the expansion of knowledge, the university professor has a responsibility to his students, to his profession, and to the world. His first responsibility is to his students and I think that the first responsibility to those students is to impart knowledge to them. He must make certain that the material that he teaches is correct, that it is current, and that it has meaning to all those in the classroom. He must also be certain that this knowledge will challenge them to go beyond what he is teaching in the classroom and to seek out new information and to develop their own ideas. Any teacher who is so egotistical as to think that he presents in his lectures a major portion of the information learned in a course had better re-examine his techniques. If all the students are learning can be found in his lecture notes, both he and the students are doing a poor job.

The college professor in today's agriculture, has a dual responsibility. First, he must train students to do a specific job. This job may be the running of a farm, the raising of beef cattle, or the management of range lands. Whatever the specific profession, the teacher has the responsibility to the student to make certain that he has the specific tools of his trade and that he knows how to use them.

However, far more important than the strict technical part of his college work, his education must go beyond that of a technical agricultural training program. Agricultural students must be educated. It is not enough to teach a student how to increase crop production, we must also challenge him to see how that increased crop production can help the starving peoples of the world. The student of agriculture, or any other person who calls himself a college graduate, must be aware of the needs, not just of his restricted area, but of the world.

One of the most desperate needs in agriculture today is to develop a concern in today's agriculture student for the problems of the real world. We have a generation of college students in liberal arts today who are largely issue-oriented and concerned with the problems of poverty and hunger and war. Far too often our agricultural students simply want to know how to grow a better cow, or how to make more money on the forty acres back home. We cannot expect students from rural, provincial, backgrounds to get excited about the problems of world hunger, the needs for developing an agricultural base in emerging nations, or other problems of world citizenship, unless we as teachers are excited about them.

Today's college teacher also has a responsibility to his profession. He has a responsibility to make certain that the information that he is presenting is scholarly in nature, and accurately reflects the work of the hundreds of others in his particular profession. He has a responsibility to relate the work developed by other professional men to his particular subject matter area. But he also has the responsibility to his profession to call to its attention ways in which it can better serve the educational process. It is the college teacher who plays a key role in keeping the various facets of any professional organization together and on the straight and narrow course.

The college teacher today has a responsibility far beyond the needs of his particular campus. He has a responsibility to society in general and to the world at large. First, he must anticipate the needs of the world. If we are really to serve the educational process, we must look down the road ten, twenty, thirty, fifty years, and anticipate what is needed. Once we anticipate this, we must lead in the developing of knowledge necessary to fulfill those needs.

We must keep our students, ourselves and our administrators working on problems not only of today's agriculture, but those of twenty years hence. Any teacher who is simply putting out the fires of today's agricultural industry is already obsolete.

Today's teacher of agriculture is in a unique position. By virtue of the fact that he is a member of the academic community, he is thrust in a position of leadership in the knowledge-mill. He must live up to the responsibilities of any other learned man. Some of these I have outlined above. But the professor of agriculture has an even greater responsibility. He must bridge the gap between the ivory tower and the pragmatic tiller of the land. He has a responsibility both to his profession and to the industry he serves to keep the research problem oriented and geared to fit a specific need. He cannot, and should not, criticize the so-called "basic scientist" who seeks knowledge, simply for knowledge's sake. He cannot, and should not, criticize the farmer who wants a better way to kill a weed. But he can, and in fact he must, bridge the gap between the two. Today's professor of agriculture cannot afford to be any less a scientist than anyone in the basic fields of chemistry, physics, mathematics, etc., but he must also have his feet on the ground and his hands in the soil, and a knowledge of what is needed in agriculture.

The agriculture teacher should not have an inferiority complex because he is working in an area of so-called "applied sciences."

In order to apply the information developed by our colleagues in the other areas, we must be able

to communicate with them. We must be able to appreciate and to understand what they are doing. But we must also be able to appreciate and understand the needs of today's agriculture. And it is in this area that the agriculture teacher is unique.

In my opinion, today's best teachers of agriculture are those who dare to be both scientist and technician; and I maintain that it is this group of people that are the real prestige scientists of our time. Let us not short change our students and disgrace our profession by moving backwards into an area of technical how-to-chop-cotton-type programs, but move forward into the area of why chop cotton in the first place. Let us study the why and gear our thinking and research to the future. We must if we are to feed a hungry world.

The Very Poor Student And What He Can Get From One or Two Years of College

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The identification of the very poor student is a continuing process throughout his school career by teachers, peer groups, siblings, perhaps his parents, and more recently, counselors. This student may have been identified in this role so often and so long that he has been stereotyped. Most of us are aware of the many problems this student has faced during his relatively short life time, but what about the major problem he faces when a decision must be made concerning college entrance or joining the nations work force? The high school graduate immediately faces a society that expects him to enter college regardless of abilities or goals in life.

The parents of a very poor student in particular are aware of their own shortcomings and want their son or daughter to achieve a higher standard of living than they have, so pressure exerted for college entrance comes from all sides. These same parents know about some of the advantages of being a college graduate, but many have little or no concept of what is required to become a college graduate. Most of them do not even understand the problems of attending college. It is apparent that most parents of below average students do not realize the value of a total education because they accepted much less than desirable achievement during the grade and high school phases of their child's education.

The very poor student usually has less than a desirable attitude toward school, teachers, and his fellow students. He comes to college because others say he should, but doesn't have the resources to achieve a reasonable degree of success. This student, because of his past scholastic records, American College Testing Program, or college entrance examinations, is not only restricted as to which college or university he may enter, but he may have to enter as a special student or on condition or probation.

The fastest growing segment of higher education is the community or "Junior" college. The open door policy of most community colleges results in a heterogeneous range of abilities for entering students. The community college then finds itself in the position of having a higher proportion of the very poor students than normally would be found in a four-year institution.

There is an indication that a majority of below average students come from families that subsist on a below average income. Another consideration is that the number of children in this family will normally exceed that of an average family at the higher end of the economic scale. Larger families with a below average income find it very difficult to send their children to a distant university and may also experience considerable difficulty in meeting the expenses of a local college or university. State supported community colleges have relieved this financial burden in many areas; thus many below average students are enrolling in college because it is now within their means.

Merely recognizing the problems does not tell us what the very poor student can get from one to two years of college. It gives us an indication of some of the reasons why this student may not attend college or why he is not likely to succeed in a regular college curriculum.

The vocational-technical curriculums offered by the many new community colleges and some four-year colleges and universities are quite valuable for the academically poor student, especially if the reason for low achievement is other than low mental ability. It should be recognized at this point that the good students will usually get the best jobs in any vocational or academic field of study. For a number of reasons, usually known only to the student, he or she may be branded as very poor in one area and at the same time excell in another area.

Most colleges and universities have written in their catalogue the purposes of the college and objectives of a general education. The purposes and objectives are valid for all students as long as the administration and faculty believe in them and apply the criteria contained therein to all students regardless of their abilities. It would then be expected that the very poor student who is enrolled in the same institution of higher education as other students would be subjected to these goals and would have the following opportunities:

1. Enroll in suitable vocational-technical or semi-professional programs, thus fitting him or her for gainful employment.
2. Attend a core of general education courses and activities that will broaden and deepen the students cultural heritage and enhance an awareness of his responsibility as a citizen of his community, state, nation and world.
3. Learn to be an active and intelligent citizen in dealing with the interrelated social, economic and political problems.
4. To be advised, counseled, and guided by professional counselors and by the total faculty