ity to complete four years of education, and a drop out should have received up-to-date information and experiences which will be of benefit to him.

As instructors, we should never assume that our instruction materials are such that they do not need revision. Various committee studies have shown that in developing our curriculum the ever changing local, state, and national demands of our student should be carefully considered. Rather than being just so many words or lectures, our instruction should be kept simple, up-to-date, and something our end product might be able to use regardless of whether he continues in school or takes employment before completion of a degree.

Another item I feel important is evaluation of our instruction. This may be a means to keep us current in our techniques. Various forms and numerous means of evaluation have been brought to our attention by our own committees. Many others are available; but regardless of what we use, regular evaluations should spur us on to continue to find ways to improve.

In a survey of the freshman class entering our department this fall, we asked them to answer the following question: "From an educational standpoint, what factor do you feel is most important to you as a student?" We received many answers; but, much to our surprise, the one answer we received from many students was: "An instructor who is willing to give me some of his time to help me to become a better student."

This answer was rather surprising to us, coming from freshmen students: however, I feel that the students who come to us today are seriously seeking to improve themselves and to acquire up-to-date knowledge.

Again we might add in conclusion, these students should be given more than just "bookknowledge." They will be forming attitudes, philosophies, and morals. Let's improve our instruction and our programs, never forgetting that this student may need more than just a classroom instructor. He may need a person who is willing to take another step to help him when he needs help.

Many other items could be listed which could help us to do a conscientious job in developing our end product. However, if we continue to improve the above mentioned areas, we will be helping the student a long way on the road to academic achievement and personal maturity.

# CHALLENGES

for Students of Agriculture

### GEORGE W. M. BULLION \*

Professor of Agricultural Economics Tennessee Technological University

Why does one need to study agriculture? This question is often present in the minds of individuals who don't understand that agriculture is a very exacting science. From generation to generation, people have understood agriculture to be only the enterprise of farming. The average member of society doesn't realize the importance of agriculture to a nation such as our own United States.

Agriculture in the modern day encompasses many facets because an understanding of each is necessary in order for one to grow food and place it in the hands of the consumers. The basic agricultural disciplines include animal science. dairy science, agronomy, horticulture, agricultural engineering, and agricultural economics. The study of agriculture draws heavily upon the areas of the physical, natural, biological, and social sciences.

**Farming**, as it is commonly conceived of, is only one small applied phase of the broad science of agriculture. Students of agriculture must be aware of the fact that they are studying the

\*See Page 99 for Biography

science which is to continue providing food for the ever increasing numbers of occupants of our nation and the other nations over the world.

As we view the opportunities for the student in agriculture, we need only to enumerate the labor needs of agriculture proper and agriculturalrelated industries. In actual farm production there are only seven million persons employed, and opportunity in this segment of agriculture is continually declining. Since 1950, the productivity of the farmer has increased. In 1954, one farmer supplied food for himself and 17 other persons; whereas in 1964 the farmer supplied food for himself and 32 other persons. Because of increasing productivity, labor has been released from farm production. The same trend will continue in the future.

The expanding opportunities are present today in the farm supply industries and the food processing and distribution industries. There are 7 million workers employed in the farm supply industries and 10-11 million employed in the food processing and distribution industries. Many of these positions require highly trained individuals with knowledge of many phases of agriculture to meet their exacting requirements.

Nearly 40 per cent of the entire labor force in the United States is employed in agriculture. For the college graduates in agriculture, there are approximately 15,000 openings becoming available each year. All of these openings are not attractive high paying positions, but many of them are very attractive jobs with a rewarding future. There aren't 15,000 college graduates in agriculture each year; so one's chance of obtaining the better positions is increased because of the limited granting of degrees and resulting lack of competition.

Students of agriculture need to re-examine their goals and purposes from time to time in order to prepare themselves better to meet the real challenges in modern agriculture. Before setting their goals upon completion of high school, each student probably asked himself, "Should I farm, enter another vocation immediately, pursue a college degree for another vocation, or pursue a college degree in agriculture". No doubt, the decision was to seek a B.S. in agriculture. When this goal is re-examined in light of broader knowledge the student can better prepare himself for the higher positions.

The goal of a B.S. in agriculture was a very wise and realistic goal. This goal was chosen because the individual was interested in agriculture. Each day the student explores new facts of the various phases of agriculture. New ideas are being presented as a means of stimulating the individual to greater heights as a professional worker in agriculture.

Agriculture isn't an easy science and the crip course that some have supposed. As a matter of fact, it can be very difficult to assimilate at the college level because the subject matter is as technical as any of the so-called more demanding sciences. Each teacher in the field of agriculture is faced with the task of attempting to stimulate the individual to greater heights as a student now, and as a professional workercitizen later in a rapidly changing technical system, the end of which no one at present can determine.

The field of agriculture is very competitive, and success isn't guaranteed to everyone who strives. Good jobs are not just waiting around the corner for the asking. Not always will potential employers seek the student; frequently, the student will have to seek the potential em-Many of the good jobs may be years plover. away or possibly never secured unless one adequately prepares himself for the challenges and opportunities. Jobs are numerous in the field of agriculture, but they aren't all necessarily attractive jobs. Some of the jobs will be acceptable only to the individual who has no aspirations. It is our fond hope that all college students are loaded with aspirations.

Students set high goals, and they have high aspirations in the early days of their college career. The goals include a college degree and a good job. Many have thought that the good job comes with the college degree. Those who are entering the job market this year with their degrees aren't finding a pot of gold. They will have to work hard and pursue that rainbow to its ends.

Many of the students lower their goals and aspirations merely to receiving a college degree instead of attempting to excel in their academic work. They learn that the college degree can be very difficult to obtain, and excellence becomes too much to pursue. Some are satisfied to struggle through their college work and depend upon time to confer their degree. but even that does not work for some.

I have presented all of the above discussion to lead up to a few points which I feel that we all need to be reminded of occasionally. Success doesn't come easily and certainly not just because one receives a college degree. If there were only two keys to the door of success, they probably would be high goals or aspirations and hard, hard work.

Fortunately, some students have learned that grades won't come without work; and they must learn that neither will success in life. I feel that oftentimes a student who started with high goals weakens in his determination to excel in his academic work and then actually becomes content with mediocrity. It is true that everyone can't be the best, but this shouldn't keep one from trying to excel.

The doors to success in agriculture can be opened with good preparation and plenty of work. I would like to admonish each student to start thinking about the future and then prepare himself for the challenges which lie ahead. Very few students can say, "I can't work or try any harder". The 100-per-cent effort is seldom given but everyone has this capability.

For some students, their work and high aspirations should lead them into graduate schools at some university. Chances of reaching one's goals in life will be enhanced considerably with another degree. Besides, one needs this additional training in many areas in order to compete in a successful manner.

Students of agriculture must work hard just as did their forefathers who were the founders of our country. The field of agriculture is faced with problems at the present just as it was in the early days. The problems are of a different nature, but they can be overcome with high aspirations and serious application. The challenge belongs to the student of agriculture. It is an important responsibility to meet that challenge successfully.

-THE END-

proximately \$7,000 and anticipate increased earnings of over \$100,000. These comparisons make decisions as to investment alternatives somewhat more objective.

Costs revealed in these studies bring about a vivid demand of each student to be present, prepared, and alert for each class presentation in order to receive the maximum value on the investment he makes for each class period. When students actually recognize the amount invested, they are not so prone to "hope the prof. doesn't show".

Instructors also must recognize the sizeable investment made by a class of perhaps 30 students. The outlay is approximately \$1.50 for each minute of the class period when considering the cumulative expenditures for all students in the class. When an instructor compares these costs to a subjective evaluation of his class presentation, several items come under consideration. Some of these might be the following! Is the purpose of this presentation well defined? How relevant are specific points to this purpose? How much time will be used for stories which are unrelated to the subject matter? Is my presentation so organized that little or no time is wasted in getting materials, demonstrations or data before the class?

It seems at times there is sufficient evidence to justify students making the statement, "that class wasn't worth the cost!" Instructional staff members have a responsibility to examine the content of materials offered and the time required in presenting these materials.

# RELATIONSHIP OF PROFESSORS and UNDERGRADUATE STUDENTS

# in a Teaching Situation

### F. E. Beckett\*

What should be the relationship between a teacher and student in a teaching-learning situation? Should it be that of master-slave. benefactor-supplicant, autocrat-subject, elected officialelector. governor-governed, operator-machine, parent-child, or some other? Should there be a formal code of ethics that governs the behavior of the professor toward his undergraduate students?

Each teacher has a philosophy that governs his behavior toward his students. although he may not be able to put it into words. This philosophy may be the result of careful thinking and study or it may have "just grown".

This article is chiefly a review of the thinking of others on this subject of professor-student relationships.

The National Education Association covers the teacher-student relationship in their code of ethics (1). the pertinent portion of which is quoted below:

## PRINCIPLE I

Commitment to the Student We measure success of the progress of each student toward achievement of his maximum potential. We therefore work to stimulate the spirit of inquiry, the acquisition of knowledge and understanding, and the thoughtful formulation of worthy goals. We recognize the importance of cooperative relationships with other community institutions. especially the home.

In fulfilling our obligations to the student, we—

- 1. Deal justly and considerately with each student.
- 2. Encourage the student to study varying points of view and respect his right to form his own judgment.
- 3. Withhold confidential information about a student or his home unless we deem that its release serves professional purposes, benefits the student, or is required by law.
- 4. Make discreet use of available information about the student.
- 5. Conduct conferences with or concerning students in an appropriate place and manner.
- 6. Refrain from commenting unprofessionally about a student or his home.
- 7. Avoid exploiting our professional relationship with any student.

<sup>\*</sup>The author is professor and head of the Department of Agricultural Engineering at Louisiana Polytechnic Institute.