

say nothing of the numerous phases of research work in all agricultural fields.

The saying "that nature never remains static but is ever changing", is more than amply demonstrated with the phenomenal changes which have taken place in agriculture in the past two decades. The result has been that the curriculum for an agricultural degree today is much more scientific than previously, and from present indications will become more so in the years ahead.

Therefore, a student planning on a career in the agricultural fields must have a much broader training in high school in the sciences such as mathematics, chemistry, biology and physics to meet successfully the requirements of the present day degree curriculum.

Science is being emphasized to a much greater degree in the high schools today than in the past, which in turn will provide students much better prepared for college. A degree in agriculture which at one time was considered largely practical training is today more scientific and technical.

As to the field of specialization, the student has a wider choice than ever before. Many of the products used in agriculture and many of the occupations in industries allied to agriculture did not exist as recently as ten years ago.

The statement has been made that there is less future in agriculture today than formerly. The ever increasing millions appearing on the globe today will have to be fed. Since agriculture is our main source of food, an increased efficiency resulting in more production per acre or per animal unit will be imperative to produce sufficient food to meet the world's needs. While we today consider our agricultural surpluses a problem, the time will come in the not too far distant future when such surpluses may be considered a blessing. As long as people have to be fed there will be a need for agriculture.

The areas in agriculture from which a student may select a field of specialization are today much greater than ever before. Further, a student who has a flair for selling will have little difficulty in finding remunerative employment. A student who majors in agri-business will be well equipped to meet the requirements for employment in a wide range of the fields of agriculture.

On the other hand, should a student be interested more in research work, the opportunities are as unlimited as the fields of specialization. Since additional acres of good land are limited (unless developed by expensive irrigation sys-

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With the emphasis which is presently placed on college education, justification is often questioned by parents and students as to the high costs involved in obtaining an education. Certainly there are many specific returns which cannot be measured or valued in monetary terms. Recognition is made of values such as increased levels of understanding and utilization of current happenings, cultural improvement, a more informed citizenry as well as a general feeling of accomplishment and an increase in productive ability.

After considering these rewards, there still remains the problem of limited funds available at the time a son or daughter is ready to embark on a college career. Should we take funds from other desired uses and add to part-time work earnings in order to assure the student essential amounts to complete this objective? Can we afford this outlay even though expenditures for necessities are presently very limited? How much money is required for a year of college attendance?

For some years an experiment has been conducted in beginning agricultural economic classes to determine expenditures students make while attending college. During this study each student is asked to calculate costs including: fees, books,

A View of | COSTS and RETURNS | of a College Education

supplies, room, board, clothing purchase and maintenance, recreation, transportation, personal (haircuts, beauty shop, etc.), insurance, and other incidental expenses.

First a student may determine the cost of each hour of college credit by using the total cost of all items above in comparison to the total credit load. Applying the cost per credit hour to a total of 124 hours required for a B. S. Degree, an estimate of the total investment for a degree is visualized.

Second, the total costs determined above may be used to ascertain the costs per hour of classroom attendance. Students taking part in this study indicated an average cost per hour of classroom attendance to be \$2.13 for fall semester 1964 and \$2.39 for fall semester 1965. In comparison, students had costs of \$1.62 per hour in fall 1960.

According to estimates by the National Educational Association, the life income for college graduates averages \$103,000 more than for those who receive only high school training. Based on these estimates and results of student inquiries, the fall 1965 students can invest ap-

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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

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What should be the relationship between a teacher and student in a teaching-learning situation? Should it be that of master-slave, benefactor-suppliant, autocrat-subject, elected official-elect, 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.

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