

that our present program has removed the incentive for work. I believe that labor is so basic to man's welfare that he cannot shirk it with impunity. On the walls of the Neurological Institute of New York City is the following:

A prescription:

If you are poor, work.

If you are rich, work.

If burdened with heavy responsibilities, work.

If you are happy, work.

If sorrow overwhelms you and friends betray you, work.

If your dreams are shattered and hope is gone, work.

No matter what ails you, work.

Work will cure both mental and physical afflictions.

In speaking of the gift of work, L. E. Sissman says, "Work — the subduing of concrete or abstract materials to your will and expertise — is immensely satisfying, one of the three or four things that can certify your value as a human being, that can challenge you to grow, that can ensure your immortality, however humbly."

What of the danger of over-work? The longer I live the more I am convinced that it is not the work that hurts us but rather the fear of it, the fretting about it, and the frustration of failing to do

it satisfactorily. There is nothing more restful at the end of a hard day's work than the sense of accomplishment that comes from a job well done. On the other hand, there is nothing more tiring at the end of an idle day than the consciousness of having accomplished nothing. It has been truly said, "To work at the things you love, or for those you love, is to turn work into play and duty into privilege."

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INTERNSHIPS IN AGRICULTURE

by

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Introduction

Agricultural colleges have always tried to provide challenging opportunities for some practical work experiences that parallel classroom lecturing, either on or off campus.

As an example, at the turn of the century Cornell required that no student be given a Bachelor of Science degree in Agriculture until he had passed an examination in the practice of Agriculture. The practice requirement at Cornell has undergone considerable change since that time. In a report in 1965 it was stated that each student in Cornell's College of Agriculture was required to present evidence of an acceptable practice or work experience of approximately thirteen weeks. The experience could be either a farm experience or another type of practical experience appropriate to the student's field of specialization.

Similar statements appear in other college and university catalogues and other university documents relative to practical work experiences as a part of the requirements for the Bachelor of Science degree in the various agricultural areas; however, there is considerable variation in the manner in which these requirements can be fulfilled. Some colleges and universities have discontinued the across-the-board work requirement for all students. It would appear that the background of the students enrolled, the general nature of world affairs and economic conditions, employers' needs, university administration attitude and policy are among some of the factors that would influence the concern for practical training as a part of the requirements for a bachelor's degree. Dr. Sterling Wortman, in a paper presented to the Division of Agriculture, National Association of State Universities and Land Grant Colleges at Columbus, Ohio on November 14, 1967, stated that perhaps Colleges of Agriculture at this time should consider building into agricultural education something comparable to an internship in medicine. He further suggested that these internships should require realistic involvement in the diagnostic-treatment aspect of agriculture — not just time spent laboring.

In an address before the Agricultural Education Division of the American Vocational Association meeting in New Orleans in December of 1970, Dr. Alvin Bertrand, Professor of Rural Sociology, Louisiana State University remarked, "One of the more serious charges leveled at Education in recent years is that it has not reacted to social change."

Speaking before the same group, Dr. Leon Minear, Director, Division of Vocational-Technical Education, U.S. Office of Education, charged that "Schools are not adjusting to changes in society" and that "many programs still resemble the seven liberal arts of ancient Greece."

These are serious indictments and must not be dismissed lightly by those of us charged with responsibilities in program development. Are we more concerned with the process or the product? Are we willing to break with tradition and seek new ways to introduce our students to the world of work?

Congress has shown considerable concern in this area by appropriating significant sums to be used in funding Exemplary Programs and Projects, designed to stimulate new ways to create a bridge between school and earning a living for secondary and post secondary students.

It is difficult, if not impossible, to meet the practical needs of an increasing number of college students enrolling in the various curricula who lacked a background of farm experiences. Of equal concern is the farm student with only a specialized, single enterprise experience, such as dairying or beef production. These students have little or no knowledge in the areas of crop production or other animal enterprises.

Recent advances in automation and technology have also pointed to the desirability of persons entering the various agricultural occupations and professions and receiving practical work experience prior to employment. More experiences are necessary than can possibly be provided in laboratory courses on the college or university campus.

The cost involved in developing sufficient laboratory facilities would be prohibitive; and furthermore, colleges — due to geographic location — cannot engage in all types of plant and animal enterprises found in their service area, yet their program of training young men and women for various agricultural occupations should not be limited by this fact. Experience in a work environment enables the prospective student employee to apply classroom theory on the job under the supervision of skilled technicians and makes his transition from school to full-time employment less difficult.

Internship at Louisiana Tech

An internship program was initiated in the College of Agriculture and Forestry at Louisiana Tech in 1967, on a pilot basis, for students majoring in Agriculture-Business. In 1968

the program was formalized and expanded to include students in Agronomy, Horticulture, Animal Husbandry, Dairying and Wildlife Management.

Four objectives were outlined as a broadbased guide for the internship program. They are as follows:

- (1) to explore an occupational field in which the student has an interest, but very limited background, in much greater depth than can be provided in campus courses.
- (2) to provide the student with an opportunity to clarify some theoretical principles through acquaintance with practical application.
- (3) to increase in the student some greater sense of responsibility and also the development of some self-confidence, both of which are necessary for satisfactory job performance.
- (4) to provide the student with more references and contacts when seeking employment following graduation.

Nine semester hours of college credit, in a one-hundred-forty semester hour curriculum, are given for successful completion of one quarter (12 weeks) of internship activity. No other college courses may be taken while enrolled in the internship program. The University operates on a quarter calendar, yet gives credits in terms of semester units. The student must be placed with a college-approved agricultural business or agency that provides products and/or services within the field of agriculture. The cooperating agency must be recommended to the Director of the Internship Program by the professor who has the major responsibility in the subject for which training is sought. The selection of the cooperating agency demands very careful and thorough consideration.

A written agreement outlining the responsibilities of the cooperating business, the university and the student is drawn up and signed by all the involved parties. The sponsoring cooperating agency must agree to give the student trainee the opportunity to acquaint himself with all phases of the organization's operation and also to provide work opportunities in as many areas of the operation as possible. The co-sponsor also agrees to pay the student wages, which at least meet the minimum standard, in return for services rendered, to enroll the student in all insurance or compensation programs available to other employees, and to evaluate the student on a prescribed confidential form at the end of the training program.

The individuals within the employing organization must be willing to give possibly more than they will receive, particularly if measured in terms of immediate tangible returns. Even though the cooperating agency represents a specialized type of agriculture, it is expected that within the specialized field the student will be given the opportunity to acquaint himself or herself in an introductory fashion with the various facets of the operation. The student, likewise, understands that in order to get the most value from the opportunities afforded him, that much more than the conventional forty-hour work week might be necessary. Both the student and the employer must recognize and be willing to spend extra time in the limited span of twelve weeks.

The types of industries and agencies who have been receptive to the internship plan and where work programs have been successfully completed are: (1) a large cattle company (40,000 capacity) in the western United States whose primary purpose is to custom feed cattle; (2) a small cattle feed-lot (2,500-3,000 capacity) in the central part of the midwest whose primary purpose is also to custom feed cattle; (3) a cattle company in the southwestern United States who functions as an order buyer for individuals, feed-lot companies and others who need young cattle. The company handles approximately 1,000 cattle daily, or approximately 360,000 head annually; (4) an artificial breeding cooperative that owns a farm and operates in several states with dealer distributors in many other states and foreign countries; (5) an animal clinic that examines, treats, performs surgery on and boards all types of domestic animals and pets.

Other cooperating agencies have been Farm Co-ops, Commercial Banks, the Soil Conservation Service, Commercial Farm Businesses, Experimental Stations and Commercial

Orchards.

We are not limiting the internship program at Louisiana Tech to the few mentioned above: however those enterprises mentioned do represent ones typical of agriculture today and hopefully of tomorrow also, where volume production exists, and all the inherent problems associated with this mass production are possibly manifested. It is difficult to assimilate such laboratory experiences on most college campuses, and even if possible, it is doubtful that the student would become as deeply involved and approach the experience with the same degree of enthusiasm on the campus as compared with the off-campus opportunity.

At the cattle company intern students have been observed to arise at 4:00 a.m. daily and work at the scales receiving cattle until 7:00 a.m., when office work with the computer and records was the official assignment for the week. Even after the office closed or the day of regular "cowboying" had ended, students reported that they were "allowed" to work with the hospital crew and thereby gain experiences in diagnosing and treating diseased animals.

All students who have participated in the internship program seemed to sense that there was much to learn and such a limited time to acquire this knowledge, and thus they worked both physically and mentally much beyond what they previously thought their capacity to be. It also has been gratifying to note that upon their return to the campus, a new and constructive outlook on academic pursuits prevails, where such matters as Krebs cycle, efficiency of feed utilization, marketing, public relations, report preparation, disease prevention, etc., are more than just requirements for graduation, but have real meaning in the world of work.

The mechanics of initiating and administering the program are quite simple. Faculty members within the department are responsible for selecting and recommending cooperating organizations. Prior to making the recommendation, a careful study is made to ascertain the professional attitude and capability of the cooperating agency. A faculty member also screens the student applicant on the basis of academic prerequisites, degree of emotional maturity, willingness and ability to accept responsibility. He registers the student in the prescribed courses designed for internship only. Extensive counseling is provided by the faculty member prior to departure for the twelve weeks' internship program. Sometimes students who have been involved in the same program previously also offer advice and recommendations to the trainee prior to his leaving the campus.

It is also the responsibility of the faculty supervisor to visit the student at least once during the quarter, to observe the student in the work environment and to consult with various levels of employers on the student's response. This visit is unannounced. Upon completion of the twelve weeks' program the faculty member, in cooperation with the employer, evaluates the student's performance and the faculty member is responsible for submitting the grades to the registrar's office at the scheduled time for reporting all final grades.

The student must receive parent's or spouse's consent to pursue the off-campus training program, and he also agrees to be governed by the same general discipline regulations that are in force for on-campus students. He is responsible for his living cost during the training period. It is recommended that the student maintain a written account of each day's activities in order that a thorough summary report can be prepared at the end of the training period. This report is graded on the basis of content, composition, accuracy, and neatness. It accounts for one-third of the grade, with the employer's report accounting for the remaining two-thirds of the grade.

Since the beginning of the program, forty-two students have successfully completed the internship program. One student returned to his home prior to completing his assignment; however, he did inform both his employer and officials at the college concerning his leaving the job.

Although only a limited number of students have

participated in the program during the past two years, it is our belief that the program has been received with favor by the student, the cooperating agency and the college

administration. It is our plan to continue the program with caution both in the selection of the participating student and the cooperating agency.

Analysis of Undergraduate Enrollment in the Department of Horticulture, University of Georgia, 1959-1969

by
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University enrollments throughout the country have been increasing for more than two decades. Undergraduate enrollment at the University of Georgia has followed the national trend (5). During the same period, agricultural colleges have generally experienced declining enrollments, but by 1965, the Commission on Education in Agriculture and Natural Resources reported that undergraduate enrollment in agriculture, nationwide, was increasing (2). Even with increasing enrollments, agricultural colleges are accounting for a smaller proportion of the total undergraduate population (2). Certain factors have been reported as contributing to this declining agricultural enrollment. These include 1) the poor image of agriculture in the minds of the general public, 2) the attraction to young people of the more glamorous basic sciences and professions, 3) poor teaching, 4) lack of interest by faculty in undergraduate students, and 5) failure by administration to emphasize and support student recruitment programs (1, 3, 4). Departments of horticulture, traditionally a part of and administered by colleges of agriculture, have experienced essentially the same enrollment problems.

The purpose of this paper is to identify trends in undergraduate student enrollment in the Department of Horticulture in relation to that of the College of Agriculture and the total University of Georgia.

Undergraduate Enrollment

Undergraduate enrollment at the University of Georgia increased 135% during the 10-year period 1959-69. During the same period, enrollment in the College of Agriculture increased 65% while that of Department of Horticulture increased 364% (Table 1). While the number of students in the College of Agriculture increased during the 1959 to 1969 period, they accounted for a smaller percentage of the total University undergraduate population in 1969 (6.0%) than they did 10 years previously (8.5%). In contrast, majors in Horticulture increased as a percentage of the total University undergraduate population from 1959 (0.2%) to 1969 (0.4%). Also, Horticulture majors accounted for 6.5% of the College of Agriculture enrollment in 1969; whereas in 1959, they accounted for only 2.4% (Table 1).

Horticulture Enrollment

Resident vs. non-resident: Prior to 1966, students indigenous to Georgia accounted for the majority of the horticultural majors (Table 2). However, beginning in the fall of 1966, non-Georgia residents became the dominant group. The percentage of non-resident students has continued to increase each year, reaching a high of 64% by 1969 (Table 2). While horticultural majors, since 1966, have been largely non-Georgia residents, students indigenous to Georgia comprise either the largest or the second largest segment of our enrollment (Table 3). Most out-of-state students come from New York State.

Field of Specialization: Students majoring in horticulture at the University of Georgia have four areas of specialization from which they can choose: 1) floriculture and ornamental horticulture, 2) pomology, 3) vegetable crops, and 4) general horticulture.

The distribution of horticulture majors among the various areas of specialization is shown in Table 4. The specialty of floriculture and ornamental horticulture has attracted the preponderance of horticulture majors during the past 10 years (72.5%). At no time has this specialty accounted for less than 60% of the horticultural enrollment. Among the students majoring in ornamental horticulture, 57% have been non-residents of Georgia.

Among Georgia residents selecting horticulture as a major, 65% specialized in ornamental horticulture (Table 5). This varied over the period 1960-1969 from a low of 50% (1960-62) to a high of 74% (1964-65). Of the New York residents majoring in horticulture, approximately 90% specialized in ornamentals (Table 6). The majority of non-Georgia residents, other than those whose home is New York State, also major in ornamentals (65%) (Table 7).

Students selecting pomology as their major accounted for about 15% of the departmental undergraduate enrollment with 38.5% being non-residents of the state (Table 4). Over the period covered by the data approximately 17% of the Georgia residents selected pomology as their field of interest (Table 5). Approximately 10% of the New York residents (Table 6) and 17% of the other non-resident students (Table 7) also selected this specialty.

Olericulture has attracted approximately 7.8% of the total horticultural majors with a preponderance of these students being Georgia residents (Table 4). In fact, about 7% of the Georgia residents choose to specialize in olericulture (Table 5), whereas no students from the state of New York have been enrolled in this specialty (Table 6). About 7% of the non-resident majors from states other than New York specialized in olericulture (Table 7).

The area of general horticulture accounts for the least number of departmental majors (4.3%) and most of these have been Georgia residents (63.6%) (Table 4). About 11% of Georgia residents (Table 5) and 11% of the non-resident students from states other than New York select this area of study.

Discussion

Undergraduate enrollment in Horticulture at the University of Georgia during the past 10 years has increased at a greater rate than the University as a whole and the College of Agriculture. As a result, horticultural majors in 1969 represented a larger segment of the total undergraduate University population and College of Agriculture enrollment than in 1959. Several factors possibly contributed to this growth in horticultural enrollment. First, recruiting programs conducted and supported by the Director of Resident Instruction within the state of Georgia and his efforts, particularly in New York State, has been instrumental in attracting students to the field of horticulture. Second, students transferring into horticulture from other departments and colleges within the University has elevated enrollment. And third, recruiting efforts by Extension personnel, faculty and horticultural majors are reflected by the increasing number of horticultural majors.

An imbalance exists in the percentage of out-of-state students enrolled as majors in horticulture. Prior to 1966-67, 50 to 77% of the horticulture majors were indigenous to Georgia, but by 1968-69 this percentage declined to 36% even though the number of Georgia residents increased. Greater emphasis should be placed on developing a coordinated recruiting program reach-

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