

ed in degree programs in the U.S.A. have not had exposure to practical agriculture as their American counterparts have generally had. If the foreign student trained in agriculture in an American institution is to be useful, the American college or university must deliberately and systematically build a practical agriculture training component into the program of studies of each foreign student. This practical training should be individualized to meet the specific need of each student.

Developing a Program

A program of studies of a foreign student is usually based on (1) an assessment of previous academic work completed, (2) an identification of remedial and prerequisite courses required, (3) required courses for the particular degree being sought, (4) the students' individual interests, and (5) perhaps also, the developmental goals of the students' home country.

If the foreign student is to be useful to his home country upon graduation, the assessment of previous work completed must also include an assessment of practical skill competencies and a determination of the students' home country job performance requirements, including the requirement for practical skill performance. The program of studies should then be planned to include not only the classroom training required for com-

pletion of the degree, but also these specific practical competencies required.

Several techniques could be used to accomplish the practical training required by foreign students. Systematic placement for part-time work on university farms of American universities could be used as one means of practical training. Summer or vacation placement or attachment to various agricultural agencies or commercial firms for supervised practical agricultural experience would also be appropriate. Another technique would be to place foreign students on carefully selected private farms where they might gain a feel for farming — a university might work through vocational agriculture departments in local high schools to arrange this kind of placement. The regular practical and laboratory training activities of well-taught college agriculture courses will likewise be useful.

Useful manpower for agriculture in developing countries can and should be one of the very important products of American universities in the decade and generation ahead. The key to success in this venture is a keen awareness of the nature of the need and a program of studies individually and systematically planned for each foreign agricultural student. American universities can measure up to this important task.

Educational Status of Blacks In U.S. Agriculture

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Abstract

Despite numerous problems, the 1890 land grant colleges have graduated a significant number of black baccalaureates in agriculture. Today job opportunities for blacks in agriculture are good, and a concentrated effort should be made to attract more blacks to doctoral degree programs in agriculture.

The 1890 Colleges and Universities

The historically black land-grant colleges have been the foci of black agricultural activity in education and development since 1890, and they have suffered severe constraints all the way from rigid segregation, separate but unequal, anticipated desegregation, and benign neglect, none of which has solved their problems. Nevertheless, they have kept the profession open to blacks and still supply a significant number of the black baccalaureates in agriculture. Since the enabling legislation (1), 1890 Land Grant Colleges have offered post-high school programs of agriculture, and many of them have offered the baccalaureate degree since the early part of the Twentieth Century (Table 1).

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Table 1. The 1890 Colleges Showing Dates Founded and the Dates First Baccalaureate Degrees were Offered²

	Date Founded	Offered the Baccalaureate
Alabama A&M University	1875	1939
University of Arkansas at Pine Bluff	1873	1929
Delaware State College	1891	1947
Florida A&M University	1887	1909
Fort Valley State College (Georgia)	1895	1945
Kentucky State University	1886	1929
Southern University (Louisiana)	1880	1922
University of Maryland, Eastern Shore	1886	1936
Alcorn State University (Mississippi)	1871	1871
Lincoln University (Missouri)	1866	1924
North Carolina A&T State University	1891	1925
Langston University (Oklahoma)	1897	--
South Carolina State College	1872	1924
Tennessee State University	1909	1922
Prairie View A&M University (Texas)	1876	1901
Virginia State College	1882	1943

In the late fifties, West Virginia State College gave up its land grant status and discontinued agriculture. In the early sixties, Kentucky State University discontinued agriculture but retained its land grant status. The Home Economics Department at KSU is the center of land grant activity.

Agriculture at the 1890 Land Grant Colleges varied considerably in past decades from institution to institution. The smaller institutions offered only agricultural education. Others offered agricultural education with options of concentration. Still others offered full degrees in animal science and plant science in addition to agricultural education. Depending upon circumstances, baccalaureate degrees were offered in horticulture and, less frequently, in agricultural economics. Before 1970 only one institution, North Carolina A&T State University, offered a degree in dairy manufacturing and continues to do so. Curricula are more varied since the infusion of new federal funds in 1971 (3).

Graduate work at the master's level is offered at twelve of the 1890 institutions (2). For agriculture the most frequently offered degree is the master's degree in agricultural education. The presence of substantial schools of education at these institutions and the demand by county boards of education for advanced work made the offering of such degrees plausible. Master's degrees in animal science and plant science are offered at most of the institutions. At least one institution offers the doctorate in entomology in cooperation with a neighboring institution.

One gains an excellent general perspective of the 1890 institutions as a whole from the following statements:

"—there was essentially no commonality with respect to either the content or the level of program offerings" (especially in pre-WW II years). (2)

"In the growth and development of these institutions, it is noted that there is essentially no correlation between age and development, nor is there correlation between the rate of growth of the 1890 and 1862 institutions—" (2).

In 1975-76, plans were made by the Department of Health, Education and Welfare to repeal the 1890 Morrill Act as a move to save funds going both to the 1890 and 1862 colleges. This would have removed the legal land grant status of the 1890 colleges. Exclusion of these colleges from land-grant status would give the respective states the freedom to remove training programs in engineering, industrial technology, and agriculture — reducing the colleges virtually to liberal arts status. Fortunately such plans seem to have been cast aside for now.

It is an accepted truism in higher education circles that black youth tend more than other groups to circumvent training in the sciences or applied sciences. Removal of land-grant status of the 1890 colleges would eliminate a major source of such training and perhaps magnify the present problems.

The problem of the 1890 Morrill Act Colleges is only one more battle in agriculture in a long list which has been fought since the Emancipation Proclamation of 1863. Only a small fraction of the land owned by Southern blacks in 1910 is now owned by blacks (4,5). While the decrease in the number of persons owning family farms is a national phenomenon, there is no comparison between the percentage of land lost by blacks

and that lost by whites. Many blacks for a variety of reasons virtually were forced off their land (6).

In the pre-1954 era, blacks educated in agriculture were not employed in significant numbers. Through the persistent efforts of the Conference of Presidents of 1890 Morrill Act Colleges (7), the Extension Service gradually through the twenties, thirties, forties, and fifties, built a small, but recognizable, cadre of black extension workers, most of whom could not expect advancement except to the few supervisory posts held by blacks.

Vocational agricultural teachers were placed at the segregated high schools and were seldom given the equipment and resources to carry on top-notch programs. Among the few tangible spinoffs from the agricultural extension and teaching programs in the black community was the valuable youth leadership training programs of the 4-H Clubs and the New Farmers of America. A token number of blacks during this period were hired by the U.S. Department of Agriculture. They served admirably considering the constraints under which they worked. Many graduates of agriculture ended up teaching high school science or math, or became school principals. For the gifted, a college presidency, or the study and practice of medicine offered a few prestigious outlets for employment. Some joined the foreign service or served as agricultural missionaries.

Those who persevered to get advanced degrees often did so without help through assistantships or fellowships from the host institution. If they were lucky, they might obtain assistance from foundations known to provide educational aid for black people. More often, a black graduate student worked his way through graduate school just as an undergraduate might — in restaurants, hotels, and similar employment. Another useful device for the black agriculturist was going to summer school for a few summers, then spending one whole year away from the family to complete his studies. Complementing this situation, the host department many times did little to prod their black graduate students to excellence and often wondered why many black students themselves insisted upon it.

There is a strong legacy in this country, regardless of race or ethnic group, which places the professional agriculturist toward the bottom of the professional ladder. Few agricultural scientists of equal competence and prestige in their fields enjoy the national acclaim of a medical or biological scientist. The post-war era of plenty, surpluses, and the unpopular subsidies to farmers contributed to an already engrained ethic of disdain toward manual work or work remotely associated with hand work. One need but look at the shortage of auto mechanics, a highly paid professional skill, to obtain a measure of our society's disdain for manual labor.

In many important ways, the black community in America is a microcosm of the white community. Not only does it share this disdain for manual labor, but it has the unfortunate historical accident of having performed most of it in the "growing up years" of the na-

tion. Therefore, an agriculture college serving mainly the black community has a double handicap in obtaining students. More importantly, fellow academicians in the black college or university still carry in their subconscious the negative attitudes of their early years toward agriculture; thus academic agriculture is ever engaged in a continuous internal educational struggle. Adding to this attitude, which exists on virtually all campuses, predominantly black or predominantly white, is the fact that most academicians in other fields do not study professional agriculture at any level and thus are as ignorant of the societal base for scientific agriculture as any high-school dropout.

It was estimated in 1973 that there were approximately 2,600,000 farmers (8) in the United States, and about 120,000 professional agricultural workers (9). It was estimated that there were 38,000 black farmers, less than 3.0 percent of the total farmers (8); and about 1,000 black practicing professional agricultural workers (9). This is true even though job opportunities for blacks in professional agriculture in recent years are about four to one (opportunities for B.S. degree graduates).

Training of Blacks in the Plant, Animal, and Food Sciences

There were 1,851 undergraduates enrolled in agriculture in the predominantly black institutions in Fall 1975 (3). All of these persons are not black, but the breakdown of these figures by ethnic groups is not readily available. It is reasonable to assume that practically 90 percent are Afro-American students.

As of 1973, in a survey made by President Morrison of Alabama A&M University (10), these institutions were graduating 294 students with B.S. degrees in agricultural education, plant and soil sciences, animal sciences, agricultural economics, and horticulture, and a few in food technology or biochemistry.

Based on my experience as a faculty member with two of these institutions and working with the others through the U.S. Department of Agriculture, I estimate that roughly 10 percent — 30 of these persons — will go to graduate school. Another 5 percent will go into military service as commissioned officers. The bulk of the graduates will go into federal service (Soil Conservation Service, Farmers Home Administration, Forest Service, and to a lesser extent, the Agricultural Stabilization and Conservation Service, Agricultural Research Service, and Animal and Plant Health Inspection Service). The remainder will go into industry in sales or food plant work or state government work. About 2 percent will return to profitable farms owned by their families.

Let us do a little analysis here. As for graduate school, there are fifty 1862 (First Morrill Act) Colleges offering advanced degrees which are open to these 10 percent or 30 graduates. Assuming that graduates remain in agriculture and do not pursue graduate degrees at their home institutions, their numbers will be quite dispersed, because there is barely enough for each curriculum area in agriculture, to say nothing of the graduate schools in

the fifty land-grant colleges. Thus, black graduate students in agriculture from 1862 Colleges are barely visible on any one 1862 campus or in any one department. One can truthfully say that it was concentrated effort when two black graduate students and one black faculty member were in one agricultural department in the late sixties at one 1862 institution.

As for American black undergraduates in agriculture enrolled in 1862 institutions, I have no figures to present.* One can assume that in the fifties, the numbers were nil or none. In the early part of the sixties, one can assume a slight increase. In the late part of the decade, under stimulation by the Federal Government, enrollment, if counted, probably would have numbered under a hundred for the whole nation. Presently, as a result of my contact with Deans of Resident Instruction, I am confident that there are a few hundred enrolled throughout the United States. I estimate there are 2,500* black undergraduates enrolled in agricultural disciplines at this time in the United States. This represents 3 percent of the 98,519 undergraduates in agriculture enrolled in the United States during Fall 1977.

Table 2 shows that after a substantial 37 percent surge in undergraduate enrollment in 1974-75, there was an equally dramatic leveling off of enrollment in agriculture at the 1862 institutions between 1975 and 1977. The historical underfunding of resident instruction by the respective states probably has had the greatest impact on enrollment (3). The almost continuous litigation in the last decade involving public colleges in certain southeastern states relative to the achievement of racially-non-identifiable educational systems (12, 13, 14) has affected the predominantly black colleges out of proportion to their being the **cause** of the situation. One can speculate that the large number of agriculture students who enrolled in the fall of 1975 were affected just enough to discourage enrollment by other prospective students. Another plausible explanation is that the 1975 surge represented a catch-up by agriculture relative to the growth of the remainder of the units in respective universities during the sixties and early seventies. Of course, the new research and extension funds made available in fiscal 1972 would by 1975 have had an encouraging effect on agricultural enrollments. However, if this were the only factor, one would have expected reasonably significant increases to continue.

Opportunities in Agriculture

When I first entered agricultural administration as a Dean in 1969, it did not take long to discern the tremendous demand by industry, government, and education for minority students. An internal analysis by the University Placement Bureau showed that the baccalaureate graduate in agriculture from Florida A&M University had an average of four jobs to choose from (15). In fact, the demand by industry, the Federal Government, and education was such that we could hardly place any agriculture graduates with the Florida State Department of Agriculture and related agencies due to their relatively

Table 2. Undergraduate Agricultural Enrollment at Fifteen 1890 Institutions, 1963; 1972-77
(From 1975, 1976 and 1977 Annual Reports, Dr. Louis Thompson, Iowa State University)

State	Undergraduate Women									
	1963	1972	1973	1974	1975	1976	1977	1974	1975	1977
Alabama	61	114	164	192	251	258	264	11	11	20
Arkansas	70	75	79	73	95	107	120	3	15	12
Delaware	16	76	91	82	133	165	118	3	14	20
Florida	49	97	106	110	156	167	188	10	27	35
Georgia	38	75	72	118	258	165	165		3	4
Louisiana	60	130	134	135	150	134	184	5	10	26
Maryland	33	50	62	61	67	47	41		7	6
Mississippi	50	196	210	203	231	232	170	8	10	16
Missouri	31	66	57	38	54	62	63		10	10
North Carolina	467	82	82	135	157	157	206			11
Oklahoma	22	20	16	20	26	27	17			1
South Carolina	34	10	5	5*	5*					
Tennessee	100	131	86	86	119	167	153	5	13	
Texas	90	123	91	96	84	46	94	6	6	8
Virginia	90	28	61	70	65	79	81	8	6	6
Total	1,211	1,273	1,316	1,424	1,851	1,813	1,864	69	132	175

Average (1976) for all land grant colleges 1,444

Average (1976) for non-1890 Colleges 1,851

Average (1977) for 1890 Colleges 133

non-competitive level of remuneration. My concern for some years was that this high demand was temporary and that the bubble would burst. However, the situation remained reasonably constant throughout my five years of tenure, and my contacts since then have shown that little if any abatement has begun.

Integration of the secondary schools actually increased opportunities in agricultural education. This was in a large measure due to the changing character of vocational agriculture in the high schools as well as the changing social situation. In the early seventies, recruiters from industry for agriculture majors at many 1890 Colleges far exceeded the number recruiting at some of the 1862 institutions at the present time. A significant problem was persuading some graduates to take jobs in the North and West where the major recruiters in industry originated. The recession of 1974 did increase the number of industry recruiters at that time.

Graduate School enrollment in a special program funded by the Rockefeller Foundation at the University of Florida obviously increased, temporarily at least, the proportion of minority agriculture students going to graduate school from most of the 1890 colleges.

Opportunities in the federal service seemed always to be there despite significant numbers of minority graduate going into government service in the previous year. Employment of blacks by the Soil Conservation Service has been quite significant.

What is the significance of these comments to NACTA readers? First, in the interests of a more harmonious society, efforts to recruit native minorities should continue and be strengthened. Secondly, the valuable resource represented by agriculture at the 1890 Institutions should be considered an integral component of such efforts. Third, the 1890 programs should be strengthened. Fourth, the idea advanced a few years ago by the Agriculture Science Council of the Southern Region Education

Board concerning a concentrated effort to attract blacks in larger numbers for doctoral degrees in agriculture should be further pursued. (16)

References

1. The 1890 Morrill Act. Signed by President Benjamin Harrison, August 30, 1890.
2. Mayberry, B.D. 1976. *Development of Research at Historically Black Land Grant Colleges*. Bicentennial Committee of Research Coordinators.
3. Seals, R. Grant. 1977. "View of the 1890 Institutions" in *Impact of Enrollments and Student Body Composition on Academic Program Design and Delivery*. A RICOP Report.
4. Frazier, E. Franklin. July, 1957. *The Negro in the United States*. Revised Edition. New York: McMillan.
5. Lewis, T.T. 1972. Personal Communication. Florida A&M University, Tallahassee, Florida. 1972.
6. Griggs, Anthony. October, 1974. *How Blacks Lost Nine Million Acres of Land*. *Ebony Magazine*.
7. Orr, Clyde. 1959. *An Analytical Study of the Conference of Presidents of Negro Land Grant Colleges*. Ph.D. Dissertation. University of Kentucky, 1959.
8. Bureau of Census. 1974. *Statistical Abstracts of the United States*. U.S. Department of Commerce. Social and Economic Statistics Administration. Table 571, p. 364.
9. Estimates by the Author.
10. Morrison, R.D. 1974. *A Compilation of Statistics of the 1890 Land Grant Colleges*.
11. Johnson, Overton R. July, 1977. "Minorities in Agriculture and Natural Resources" in *Impact of Enrollments and Student Body Composition on Academic Program Design and Delivery*. A RICOP Report.
12. Winkler, Karen S. 1977. "Six Anti-bias Plans Thrown Out. HEW approved State Proposals are Inadequate, Judge Rules." *Chronicle of Higher Education*. vol. 13, no. 19: 4.
13. 1977. "Maryland NAACP Urges Merging University of Maryland Eastern Shore and Salisbury State College." *Chronicle of Higher Education*. vol. 13, no. 21:3.
14. Egerton, John. 1977. "Tennessee's Long-Running Desegregation Drama." *Chronicle of Higher Education*. vol. 14, no. 6: 6.
15. Cunningham, C.C. 1972. Personal Communication. Placement Officer. Florida A&M University, Tallahassee, Florida.
16. Author was member of Agricultural Sciences Council, Southern Region Education Board from 1971-74.