

Liberty Hyde Bailey

March 15, 1858 — December 25, 1954

On Christmas evening, 1954, death came to one of Cornell's great men, the venerable Liberty Hyde Bailey, then ninety-six years of age. Most great men can be classified by the profession or field of activity whereby they achieved their greatness. This is not so easy with Liberty Hyde Bailey, for his greatness is due to his manifold contributions produced almost concurrently in many fields. To some persons, his renown is as a botanist, explorer and horticulturist; to others as an educator, administrator and rural sociologist; to a third group as an editor, lecturer and writer; while still a fourth group knows him best as a poet, philosopher and counsellor. He was all these things, and, moreover, he was a man of forceful character, personality and energy.

Bailey was a precocious son of the wilderness. Through his boyhood he traversed the forests about his father's farm in Michigan and learned early the ways of wild-life, of the plants and animals that composed it. He knew the migrant Indians, watched the slaughter of the passenger pigeon, and practiced the art of rail-splitting. His early knowledge of literature was limited, but being an avid reader, he knew well the Bible, Bunyan's *Pilgrim's Progress*, Milton's poems, Baker's *Exploration of the Nile Tributaries of Abyssinia*, and Darwin's *On the Origin of Species*, to mention a few. The first book he knew of botany was one by Asa Gray. It was from a country-school that he received the only formal instruction he ever had in grammar, Latin, and geometry; a one-room school from which he entered directly into college. From this background he became a leader in college life. Academically he stood at the top of his class, and as the first editor of the *College Speculum* he was prominent in directing the thinking of his fellow students.

Professor Bailey was a horticulturist by birthright and upbringing. His greatest activities in this field were during the last two decades of the nineteenth century—a time of great expansion in this country, when botanical research in the field of plant physiology had scarcely commenced and the pathology of plants was little known. It was a period when few if any horticulturists had received formal instruction in botany, and a period when sympathy from the botanist for the horticulturist's needs was conspicuously absent. Trained in botany under Beal at the Michigan Agricultural College and later associated with Asa Gray at Harvard, Bailey early was imbued with the conviction that horticulture must reflect the application of basic botanical knowledge.

After he came to Cornell from Michigan in 1888, Bailey's early horticultural papers dealt with physiological aspects of growth. During his first decade at Cornell, Bailey wrote twelve books on horticultural subjects, excluding those

on plant-breeding and genetics, and during the last years of this decade he planned and commenced his first horticultural encyclopedia. Bailey dominated the American field of horticultural books during this period. He preached and practiced a new horticulture. He held the conviction that horticulture must be an applied science based on pure biology, just as engineering was then accepted as an applied science based on the theoretical sciences of mathematics, physics, and chemistry. This innovation was unacceptable to some natural scientists, and this concept of horticulture has reached its present predominance largely by the dogged persistence and crusading of Bailey and his supporters. His founding, with S. A. Beach of the Geneva (N. Y.) Experiment Station, of the American Society for Horticultural Science in 1903, and his serving as its President for its first four years, did much to organize and bring recognition to a growing group of botanists that had become horticulturists.

Bailey was an evolutionist and plant-breeder, active in an era before there was knowledge of genes or genetics. He was also a taxonomist. As a plant-breeder, Bailey was an experimentalist, who made controlled crosses and kept accurate records, not only of his crosses but by placing in the herbarium vouchers of the plants concerned. It was his breeding researches in bramble-fruits, cucurbits, and grapes that led him in later years to intensive taxonomic studies of these genera. Four different books of his authorship were published on the subject before the turn of the century. In 1907 Dean Bailey established a Department of Experimental Plant Biology, which later he renamed the Department of Plant Breeding.

In his middle years, Dr. Bailey was active in the effort to bring the science of botany before students at the secondary school level. Six botany text-books were written by him between 1898 and 1909. In fact, one of his first books, *Talks Afield*, published in 1886, was a book of botany written for the understanding of the farmer, horticulturist, and non-scientist. He was an active leader in the founding in 1899 of the Botanical Society of America.

Bailey's principal contributions to botanical science were his taxonomic studies, contributions for which his academic training well equipped him. In 1886 he was a member of a botanical survey-party in Minnesota. For several decades in middle life Bailey was an acknowledged authority on the American sedges (*Carex*) and his photographing of type specimens in European herbaria in 1888 was pioneer work of that nature. His first *Carex* study was published in 1884, his last in 1900.

Following his *Carex* studies and a few early papers on the systematics of cultivated blackberries, over two decades passed before he was able to resume taxonomic work. From 1923 to 1949 he published over one hundred scientific papers. These were mostly extended papers, concerning revisions of genera. Bailey became a specialist in the systematics of the palms and the blackberries. He also published revision of such genera as *Vitis* (the grapes),

Brassica (the cabbages and kales), Cucurbita (the pumpkins, squashes), Hosta (the plantain-lilies), and horticultural monographs of lesser botanical import on Dianthus, Delphinium, Campanula, and the gourds.

His renowned interest and work in the palms is alleged to have had its beginning in an occasion in 1910 when Mrs. Bailey teased him while they were in Jamaica, for not knowing the kinds of palms in the gardens of Kingston. His collection of palms began in 1917, and extensive trips for this purpose were made for many years before he wrote his first paper on them in 1930. He lived to see his palm herbarium become one of the best in the world. His studies of Rubus in North America covered a life-span of effort and culminated in a thousand-page monograph of the genus, completed in 1945. It is the only work of its kind for the genus in this hemisphere, and serves as a monument to his endeavor. By 1935 his private herbarium of 125,000 specimens and library of 3,000 volumes reached proportions beyond his ability to maintain and perpetuate. He and Mrs. Bailey gave them to Cornell University as the Liberty Hyde Bailey Hortorium, an institution devoted to studies on the systematics of cultivated plants.

For a generation he was remembered as a great teacher, of the 1880's and 1890's. He exerted an influence not only on his students but on the hundreds of persons who in turn became pupils under them. As a teacher he not only carried his zest and vigor to the classroom, but he changed the approach and emphasis in teaching. Whereas he had found it to consist of a formal lecture augmented literally by formal parades to visit and view the activities of the university farm as conducted by hired hands and foremen, he rejected this routine and substituted for it the laboratories, inside and outdoors, where the professor mixed with his students while demonstrating a principle or setting up a planned experiment in which they took part. Today, this is commonplace. Sixty years ago, it caused comment and some consternation, Bailey lectured on the merits of his teaching procedures, defended from the rostrum and through the press the teaching of agriculture as a science, and its place as a technology at the graduate level in a university.

On the retirement of Isaac P. Roberts in 1903, Bailey became the second Director of the College of Agriculture, financed largely by the University (whose funds for the College were supplemented by federal monies). Long before this he had been active throughout the state and worked for the day when Cornell's College of Agriculture should be largely state supported and become the New York State College of Agriculture at Cornell University. This goal was achieved in May 1904. For the next decade his major contributions were those of an administrator. During this period he set up many new departments: Experimental Plant Biology (but later coined for it the new name of Plant Breeding), Soils, Plant Pathology, and Ornamental Horticulture. A department of Plant Physiology was founded by him which, early in 1913, he expanded into a balanced Department of Botany. Following his change

of the name domestic science to home economics, there was his successful effort in 1912 to get University faculty approval for his promotion of a woman, for the first time in Cornell history, to the rank of full professor (in home economics). The Department of Home Economics within the College of Agriculture he had established in 1907.

As an administrator he was a leader in New York state in the establishment of agricultural extension courses for men and women on the farm. This was before federal support was authorized for the work. He convinced state officials in 1905 that agricultural courses taught in high schools throughout urban and rural New York state should be accepted by the Board of Regents and given equal academic recognition with other high school subjects. Two years later the College of Agriculture voted to accept agriculture as an entrance subject, thus placing vocational agricultural work on a par with other entrance subjects. Early in his career Bailey announced his plan of life, wherein he proposed to divide it into three parts and to spend twenty-five years in preparation, twenty-five in earning a livelihood, and twenty-five in using his abilities as he chose. This was no idle pronouncement on his part. Despite the urging of his faculty and students that he remain, Bailey resigned from the College, in July, 1913.

Agriculture during the last half-century owed much to Bailey the editor. Just as there was a lack of modern horticultural books when he came to Cornell in 1888, so also was there a comparable lack of books in other fields of agriculture. During the period of 1890-1940 he edited 117 titles by 99 authors from all over the country, covering subjects in agronomy, economics, botany, pomology, animal husbandry, dairy industry, soils and fertilizers, plant pathology, commercial floriculture, and home economics. In 1890, Bailey accepted the editorship of the popular monthly, *American Garden*. Again in 1901 he accepted the editorship of *Country Life in America*.

Bailey was a man of vigorous, direct, and driving personality, but he was also a man of aesthetic sensitivity—reflective, and considerate of his fellow man. The deeper qualities have appeared over the years in his poems and philosophical writings. Bailey's philosophical writings covered a wide range of topics; his best is acknowledged to be *The Holy Earth*, a book about man's debt to the earth, and the earth's goodness to man.

Students at the College during Dr. Bailey's twenty-five years as Professor and Dean remember to a man his personable and understanding affection for them as individuals. Sunday evenings his home was open to his students, who came and were inspired by his informal talks, recitations of poetry, and readings from such men as Poe, Whitman, Arnold, Lanier and Emerson. Later, as the group became too large, these gatherings became bimonthly "Assemblies" first in Barnes and later in Roberts Hall, patronized by students and faculty alike.

By many admirers, Dean Bailey has been thought of as a plant explorer extraordinary, but he never wrote of his travels, preferring to continue his researches than to devote effort to recounting his past. His travels after retirement were for scientific purposes, for observation and collection of plants. For the most part, the trips to the tropics were in quest of palms and to temperate parts for blackberries and their kin. His searches took him to every major island of the West Indies, southern Brazil and the upper Amazon, British Guiana, Venezuela and Colombia. He knew Mexico intimately and had collected several times in Panama. In 1917, while he and his family were in the Orient, he went inland to Honan in search of prototypes of cabbages and their relatives. On another occasions he collected in New Zealand, with stops in Tahiti, Fiji, and Raratonga. Many trips were made by him to European agricultural and botanical centers, the last in 1919. In December, 1949, when he fell and broke his upper leg in a New York bank, he had in his pocket a set of one-way airline tickets to Dakar, Leopoldville, and other points in tropical Africa.

Liberty Hyde Bailey was a great driving force, a rugged individualist who ruthlessly cut impeding fetters of regimentation and bureaucracy, and a man who had the capacity to develop his visions into reality. Basically, he was a humanist, always considerate of his fellow man, and of his improvement by a better knowledge and use of that which is science. He could be, and on occasion was, an egoist, a man of quick decision and action, intolerant of delay or procrastination, and one who often considered the overall significance of the result before measuring the cost of the achievement. At the same time, he was poetically and philosophically aesthetic, sensitive to the finer qualities of life, and a man who lived a life of high personal integrity.

Liberty Hyde Bailey was born March 15, 1858, in South Haven, Michigan, the son of Liberty Hyde Bailey, Sr., and Sarah Harrison Bailey. He was educated at Michigan Agricultural College, receiving his B.S. degree in 1882, his M.S. in 1886. On June 6, 1883, he married Annette Smith, who died in June 1938. They had two children, Sara Bailey Sailor (born June 29, 1887, died April 1936) and Ethel Zoe Bailey (born November 17, 1889) ; and two grandchildren, Annette Sailor Page and Samuel Sailor. Dr. Bailey died in Ithaca, New York, December 25, 1954. His name is commemorated by Bailey Hall and the L. H. Bailey Hortorium at Cornell, Bailey Hall at Michigan State College and the Liberty Hyde Bailey High School at East Lansing, Michigan, Bailey Hall at Morrisville Technical Institute, Morrisville, New York, and the Liberty Hyde Bailey Palm Glade at the Fairchild Tropical Garden, Coconut Grove, Florida. Portraits of him hang in Bailey Hall, Mann Library, and the Plant Science Buildings at Cornell, and in Bailey Hall, Michigan State College. A bust of him is at the Bailey Hortorium.

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