

CHARLES FREDERICK HOTTES (1870-1966)

G. NEVILLE JONES
University of Illinois, Urbana

This is a memorial to Charles Frederick Hottes, Professor of Botany, Emeritus, and former Head of the Department at the University of Illinois, who died at his home, 406 West Iowa Street, Urbana, at 8:20 P.M., on Friday, April 15, 1966. He was 95 years old.

Professor Hottes was born July 8, 1870, in Mascoutah, St. Clair County, Illinois, three years after the founding of the University of Illinois at Urbana. He was thus one of the oldest living faculty members of the early years. For nearly eighty years he had been affiliated continuously with the University from the time of his student days beginning in 1887, until his retirement in 1938, and to 1966 as Professor Emeritus.

He was a member of the class of 1891, University of Illinois, and was a Fellow in Biology 1894-95. He received his M.S. degree in 1895, and was an Assistant from 1895 to 1898. He went to Germany for graduate work in plant physiology, as there were no graduate courses in the subject offered in this country at that time. He received the degree of Doctor of Philosophy in Botany in 1901 at the University of Bonn. He studied there under the direction of Eduard Strasburger, one of the pioneers in the study of cell formation and cell division, who thus initiated

cytology as a special branch of science. Dr. Hottes returned to the University of Illinois as an Instructor, 1901-03. He was an Assistant Professor, 1903-13, and Professor of Plant Physiology, 1913-38. He served under Thomas Jonathan Burrell, who was succeeded after 1913 by William Trelease, who came here from the Missouri Botanical Garden at St. Louis. Both of these men were distinguished scholars and builders of science and Professor Hottes thrived with them. He was head of the Department of Botany from 1928 until 1938.

For half a century Professor Hottes taught botany to thousands of students. His practical contribution to the development of botanical science was made chiefly through his teaching rather than by research or writing. Although his principal interest was plant physiology, he taught general botany, plant cytology, and plant taxonomy with nearly equal facility. He filled the classrooms with enthusiastic and capable students. He was a lucid exponent of whatever subject he was lecturing about. His tone was loud and incisive, and his approach to his subject was straightforward, simple, and direct. He realized the need for studies of the physiological responses of economic crops, and many of his

graduate students went on to productive careers in applied fields. His design of growth chambers for the study of plants under controlled environmental conditions was appreciated and widely adopted.

From 1923 to 1938 Professor Hottes was a consulting plant physiologist to the Department of Agronomy, where he held a joint academic appointment. His membership in professional societies included the AAAS, Botanical Society of America, the American Society of Plant Physiologists, and the Illinois State Academy of Science. He was a 50-year member of the Urbana Lodge 157, AF and AM; Urbana Chapter 80, Royal Arch Masons; Urbana Council 19, Royal and Select Masters and Urbana Commandery 16, Knights Templar, and a life member of the Valley of Danville, Scottish Rite Consistory. He was a 40-year member of Kiwanis Club, a life member of Acacia fraternity, and member of Sigma Xi and Alpha Zeta honorary fraternities. He was an enthusiastic traveler and photographer. He traveled in Alaska, Canada, Mexico, and Central America, and made records on film. At the age of 72 he took a trip down the San Juan and Colorado rivers in an open boat.

Although Professor Hottes traveled a good deal he was not primarily a collector of plants. His chief contribution to systematic botany was

made through his classroom teaching, and his organization of the herbarium. While T. J. Burrill (1839-1916) and later, W. Trelease (1857-1945) had built up the botanical collections to about 100,000 specimens, it was Hottes who designed the first section of the herbarium at the University of Illinois and installed in 1922 ninety or more small metal cases in the relatively fireproof east wing of the Natural History Building. Since that time the herbarium has grown to include nearly half a million accessions.

Professor Hottes was an indefatigable gardener, and his home grounds reflected his interest in plants of all kinds. The unusual displays attracted and fixed the attention of passers-by over the years. He was a true naturalist. We have all benefited by the services he rendered to his science and to his University.

PUBLICATIONS BY C. F. HOTTES

1926. Coöperative research in plant physiology and agronomy. *Journ. Am. Soc. Agron.* 18: 60-68, f. 1-4.

1929. Studies in experimental cytology. *Plant Physiol.* 4: 1-30, pl. 1 + f. 1-4.

1932. The contribution of botany of Julius von Sachs. *Ann. Missouri Bot. Gard.* 19: 15-30, pl. 2.

1940. Personal recollections of Thomas J. Burrill and his work. *Illinois Alumni News* 18(5): 6-7, portr.

(with H. K. Wilson)

1930. Resistance of wheat to high temperatures under different methods of heating. *Journ. Am. Soc. Agron.* 22: 108-112.