WILL E. EDINGTON, DePauw University

SCOTT VERNE EATON

Liberty, Indiana November 7, 1885 Valparaiso, Indiana February 16, 1963

Few of us realize the tremendous and important role that a deficiency or excess of some chemical plays in causing ill health or other weakness in all living things, animal and vegetable. This is an age of vitamins, food supplements, hormones, fertilizers, antibiotics, vaccines, etc. Thousands of scientists: chemists, physicians, veterinarians, botanists, bacteriologists, horticulturists, physiologists, nutritionists and others in hundreds of great university, industrial and commercial laboratories, hospitals and medical clinics, are searching for causes and effects of deficiencies and excesses of nitrogen, calcium, phosphorus, potassium, sodium, sulphur, fluorine, iodine and many other elements and chemical compounds in humans, animals and plants.

Scott Verne Eaton was a plant physiologist who devoted the major part of his scientific and professional life to the study of the effects of deficiencies and excesses of certain chemicals on the growth and metabolism of plants. He published numerous papers in the Botanical Gazette, Plant Physiology, and other journals on the growth and chemical composition of a plant deprived of a needed chemical element, such as sulphur in the soybean, sunflower, black mustard and tomato, potassium and phosphorus in the sunflower, boron in a number of plants, and others. His work was done in the botanical laboratories of the University of Chicago where he spent thirty years in research and teaching, mainly in the Graduate School where he offered courses in Plant Chemistry, Microchemistry, and Plant Production, and directed research work of students in his field.

Scott V. Eaton was born on a farm near Liberty, Indiana, on November 7, 1885, one of four brothers whose ancestors settled on this farm before Indiana became a State. Following the completion of his public school education he entered Earlham College where he received the A.B. degree in 1908. After several years of teaching Latin in a high school of which he was also assistant principal, he enrolled in the University of Chicago in 1912 and received the M.S. degree in Botany the following year. He then served four years in Washburn College, Topeka, Kansas, as an instructor and assistant professor of botany. He then spent the year 1918-1919 as an assistant plant physiologist in the Maryland Experiment Station. He returned to the University of Chicago in 1919 as a graduate student and assistant in botany, received the Ph.D. degree in Plant Physiology in 1920, was made an instructor in 1921 and an assistant

professor four years later. He was promoted to an associate professorship in 1949 and retired in 1952 as an Emeritus Associate Professor of Botany.

Following his retirement he and Mrs. Eaton secured them a home two miles from Valparaiso, Indiana, where he had an acre of land and he devoted much of his remaining years to developing a small orchard of various kinds of dwarf fruit trees, cultivating perennial plants and flowers, and working in his vegetable garden. Throughout his professional life he and his family spent many summer vacations in the Rocky Mountains in Colorado, and later in the far Northwest where one of his two daughters had her home.

Dr. Eaton was active in professional scientific societies. He early became a member of the American Society of Plant Physiologists and served this organization as its secretary-treasurer from 1926 to 1928, vice-president the following year and president in 1929-1930. He joined the American Association for the Advancement of Science in 1917 and was made a Fellow in 1921. He was also a member of the Botanical Society. He joined the Indiana Academy of Science in 1953 but he presented no papers before the Academy. Dr. Eaton was elected to Sigma Xi in 1918 and he was listed in American Men of Science.

He joined the Hyde Park Baptist Church in Chicago in 1922 and was active in its work, serving as chairman of the Board of Deacons and in other capacities. He remained a contributing member until his death.

Dr. Eaton died on February 16, 1963, in Porter County Hospital in Valparaiso, following an attack of coronary thrombosis and a stroke ten days earlier. He had lived a useful life as a churchman and an excellent and productive scientific worker and teacher.

THOMAS JAMES LANE

Merrill, Wisconsin May 1, 1906 Notre Dame, Indiana September 25, 1963

Five days after he had completed a year of sabbatical leave from the University of Notre Dame, spent in research in the Argonne National Laboratory, north of Lemont, Illinois, Thomas James Lane, C.S.C., was found dead from natural causes in his room in Corby Hall on the Notre Dame campus. Before going to Argonne he had been associated with Notre Dame's Radiation Laboratory and was directing two research projects of the Chemistry Department supported by the National Institutes of Health.

Thomas James Lane was born in Merrill, Wisconsin, on May 1, 1906. At the age of fourteen he entered the Holy Cross Seminary on the Notre Dame campus on September 4, 1920, and received the habit on July 1, 1924. He continued his study at Notre Dame and received the A.B. degree in 1924. He made his final profession of vows on July 1, 1929, and he was ordained to the priesthood in Sacred Heart Church on the Notre Dame campus on June 24, 1933. He then enrolled in Catholic University, Washington, D. C., and received the M.S. degree in 1935. He spent the next five years as an instructor in chemistry at the University of Port-

land, Oregon, following which he returned to Notre Dame and completed the requirements for the Ph.D. degree which was conferred on him in 1942. He then returned to the University of Portland and remained there until 1945. He spent the next year at St. Edward's University in Austin, Texas, following which he returned to Notre Dame for a year as an instructor in chemistry. He then taught two years at King's College, Wilkes-Barre, Pa., as professor of chemistry, and spent the following two years at Stonehill College, North Eaton, Mass. He returned to Notre Dame in 1951 as an instructor in chemistry, was promoted to Assistant Professor in 1953 and Associate Professor in 1955, which position he held at the time of his death on September 25, 1963.

In his earlier years at Notre Dame Father Lane taught general chemistry. Later he taught advanced courses in chemistry on both the undergraduate and graduate level. At the time of his death he was teaching only on the graduate level, a course in Inorganic Chemistry Preparations, and he was directing four doctoral dissertations and had two post-doctorates working with him. Since 1955 he had been working on National Institutes of Health and Atomic Energy Commission projects. He was the author of about 50 research articles which were published in the Journal of the American Chemical Society, the Journal of Physical Chemistry, the Journal of Inorganic Chemistry, and other journals.

One of the highlights of his career occurred when he went to Europe in 1959 to attend the International Congress of Polarography held at Cambridge University in England on August 24 to 29, at which he presented a technical paper on "Thiourea, Alkyl Substituted Thioureas and Their Metal Complexes." The following month, on September 5 to 12, he attended the International Congress on Molecular Spectroscopy, meeting in Bologna, Italy.

He was a member of the American Chemical Society and was listed in American Men of Science. He joined the Indiana Academy of Science in 1961 and was known to only a few members of the Academy.

Father Lane was a sympathetic and kindly teacher who, however, insisted on rigor and serious study. His most effective work was done in directing the graduate study of students in his fields of study.

He completed his year of research at the Argonne Laboratory on September 20, 1963. On learning of his death five days later Dr. Herbert Hyman, Director of the Argonne Laboratory, sent a floral offering, a tribute "To a worthy colleague and valued collaborator and a gentle friend."

HAROLD MORRISON

McCordsville, Indiana May 24, 1890 Washington, D. C. March 11, 1963

The widespread public concern following the publication of Marine Biologist Rachel Carson's book, "Silent Spring," pointing out the dangers of the indiscriminate spraying of DDT and other insecticides and calling for government controls, led to the appointment of a U. S. Senate Committee to investigate the situation. It was brought out that the retail sale of agricultural insecticides and household insecticides and repellants in the United States amounts to one billion dollars annually. A Public Health Service toxicologist testified that DDT had been found in small amounts, for the most part harmless, in every meal analyzed in this country, and the President of the National Agricultural Chemicals Association testified that food abundance taken for granted by modern countries would quickly turn to famine without insecticides. Obviously entomology and entomologists play and will continue to play a fundamental role in the world economy. The U. S. Department of Agriculture, the great Land Grant Colleges and the great industrial chemical laboratories have made our country the world leader in agricultural production.

With the death of Harold Morrison on March 11, 1963, in Washington, D. C., the United States lost one of its great entomologists. He had long been an internationally known and consulted taxonomic authority on Coccoidea, pests more familiarly known as scale, mealy bugs, et cetera, which infest our forests, orchards, farms, gardens and plant life in general. In a report made to the Indiana Academy in 1953 by D. L. Schuder of Purdue University at least 73 species of this pest were known to exist in Indiana.

Harold Morrison was born in McCordsville, Indiana, 15 miles northeast of Indianapolis, on May 24, 1890. An only child, at the age of nine he and his parents moved to Indianapolis where he completed his precollege education and graduated from Shortridge High School where an outstanding teacher of science, Miss Rousseau McClelan, influenced him to continue his study in natural science, particularly entomology. Through contacts with President David Starr Jordan, of Stanford University, and the reputation of Dr. Vernon Kellogg as a professor of entomology, he entered Stanford. He remained there five terms and then transferred to Cornell University where he graduated in 1914 with the A.B. degree. At both Stanford and Cornell he excelled in the high jump and other track events in intercollegiate trackmeets. After graduation he returned to Stanford for a year of graduate study and received the A.M. degree in 1915. In 1910 he had become associated with the State Entomologist in Indianapolis as an assistant entomologist and except for the year of graduate study at Stanford he served the State until 1916. Also during this time he collaborated with Harry Dietz in the study and publication of two papers on scale insects. One of these papers, "The Coccidae or Scale Insects of Indiana," illustrated by R. E. Snodgrass, was comprehensive and was published by the State Entomologist's office, and established Morrison's reputation as an outstanding entomologist and authority on Coccidae.

In 1916 Mr. Morrison joined the U. S. Department of Agriculture as a plant quarantine inspector for the Federal Horticultural Board. The next year he became an entomological explorer in the Bureau of Entomology and Plant Quarantine. He spent the year 1919-20 in the West Indies collecting coccids and other insects. In 1920 he was made an assistant entomologist and the Bureau's scale insect specialist. He was promoted to associate entomologist in 1924, entomologist the following year and senior entomologist in 1928, which position he held until his retirement

in 1953. He was in charge of the Bureau's taxonomic investigations from 1928 to 1935. Because of the insistence of the then Director of Research of the Department of Agriculture Mr. Morrison took his wife and son and spent the year 1924-25 in Boston in order to complete a year of residence study for the doctorate at Harvard. He completed his thesis out of residence and received the Sc.D. degree in 1927.

After his retirement he was a collaborator in the Entomology Research Division and spent several hours a day in his office working on coccid material. However, his health began to fail several years before his death, and rapidly during his last year, and he entered the Washington Hospital Center on February 19, 1963. Three days later he suffered a severe stroke that caused his death on March 11, 1963.

During his long tenure in the Bureau of Entomology he was the author or joint author of 30 papers on coccoidea, 27 of which were systematic studies. All these papers are detailed and many of them comprehensive. His last published paper, "A Selected Bibliography of the Coccoidea," covering the literature up through 1955 and compiled with the assistance of Miss Alice V. Renk, gives a complete list of his taxonomic papers. Early in 1963 he and his wife, a Cornell trained entomologist, completed a supplement to the preceding work and submitted it for publication.

Dr. Morrison was a dedicated entomologist. His co-worker, Louise M. Russell, who prepared a Memorial for him for the Proceedings of the Entomological Society of Washington, states: "The eminence of Dr. Morrison as a coccidologist was recognized by coccid workers around the world. * * * He pioneered in the preparation of specimens for microscopic examination, and his contributions in this area have contributed immensely to the perception of morphological characteristics of scale insects and other microscopic arthropods. He was the first coccidologist to devise a classification of a family of the Coccoidea based on all available stages and instars of the insects."

Dr. Morrison joined the Entomological Society of Washington in 1916 and was its second vice-president in 1931. Also in 1931 he was one of the vice-presidents of the Washington Academy of Sciences. He became a member of the American Association for the Advancement of Science in 1917 and was made a Fellow in 1920. He was also a Fellow of the Entomological Society of America and a member of the Cambridge (Mass.) Entomological Club, the Canadian Entomological Club and Sigma Xi. He held honorary memberships in the Royal Spanish Society of Natural History and the Netherlands Entomological Society. He was listed in American Men of Science. He joined Indiana Academy of Science in 1910 and was made a Fellow in 1962. He joined the Cosmos Club in Washington, D. C., in 1924 and remained an active member and made frequent use of the Club's facilities until shortly before his death.

He was critical, thorough, cautious and uncompromising not only in his own work but also in evaluating the work of others. He was a foe of all forms of waste and especially of government deficit spending which led him to be pessimistic about the future of the United States. He loved to work with machinery and mechanical devices. He designed and built a head rest that included a plaster cast for his forehead which enabled him to spend long hours comfortably examining coccid specimens through his binocular compound microscope.

Dr. Morrison inherited a farm near Indianapolis and he and Mrs. Morrison spent some time of their annual vacations at the farm where he examined and directed the work of his tenant. Following his death in March his body was laid to rest near Noblesville, Indiana, not far from his birthplace.

WARD JENNINGS RICE

Roachdale, Indiana February 21, 1890 Indianapolis, Indiana September 16, 1963

The Indiana Academy of Science has been very fortunate throughout this century to have had a number of prominent members and workers who belonged to the great Eil Lilly and Company organization. One familiar with the history of the Academy readily recalls names great in Academy history such as John S. Wright and Eli Lilly, Jr., who served as Presidents, and others who have supported the Academy both in the past and at the present. Such a member was Ward Jennings Rice who spent his entire professional career totaling 43 years as a bacteriologist and analytical chemist with Eli Lilly and Company. During the past thirteen years he had served the Academy as a Trustee of the very important Academy Foundation Committee and he was its Chairman at the time of his death.

Ward Jennings Rice was born at Roachdale, Indiana, on February 21, 1890. Following his graduation from the Roachdale High School in 1907, he entered Purdue University and received the B.S. degree in 1911 with chemistry as his major field of study. On June 1, 1911, he began his long career with Eli Lilly and Company. In 1926 he became Head of the Analytical Department, in chemistry, and four years later he was promoted to Director of Quality Control. He not only possessed considerable research ability but he was also an excellent administrator so that in 1950 he was made Executive Director of Control which position he still held at the time of his retirement in February, 1955.

For many years preceding his retirement Mr. Rice was an active member of the Combined Pharmaceutical Committee, a permanent committee of the American Drug Manufacturers Association and the American Pharmaceutical Manufacturers' Association, devoted to the standardization of pharmaceutical products. In this capacity he made many important contributions.

He was also very active in the work of the United States Pharmacopeia Convention, the organization that controls, revises and publishes the U. S. Pharmacopeia, most of whose work in the standardization of pharmaceutical products is done by committees and subcommittees, since the Convention meets only decennially. Mr. Rice served as Chairman of a subcommittee on the assay of digitoxin, a glucoside derived from digitalis, and the results of his work were published in various editions of the Pharmacopeia. He was also "instrumental in establishing pharmacopeial standards for Amobarbitol and other barbiturate products and

was responsible for the establishment of the standards for dosage forms of diethylstilbestrol which appear in the U. S. Pharmacopeia." Also the pharmaceutical industry recognizes the standards he set up for maintaining the quality of crude ergot from domestic sources. At the time of his retirement from Eli Lilly and Company he was a member of the Committee of Revision of the National Formulary and chairman of the subcommittee on cyclic compounds. Other than in the U. S. Pharmacopeia Mr. Rice did not publish the results of any of his scientific work.

Through the years he had been deeply interested in bird study and since 1907 he had kept a daily record of the birds he saw and identified. After his retirement he devoted much of his time to ornithology. He had long been a member of the American Ornithologists' Union, the National Audubon Society, the Indiana Audubon Society and the Indianapolis Society. He was also interested in travel, stamp collecting and working with fine varieties of iris.

Mr. Rice was a member of the American Association for the Advancement of Science, the American Chemical Society, the American Pharmaceutical Association and the Navy League. He was a member of the Second Presbyterian Church in Indianapolis, the Roachdale Masonic Lodge, and the Scottish Rite and Murat Shrine in Indianapolis. He joined the Indiana Academy of Science in 1940 and, following the death of Frank B. Wade in 1950, the Academy elected him as a Trustee of the Academy Foundation. He became Chairman of the Academy Foundation in 1957 and served conscientiously and efficiently in this capacity until his death.

Ward J. Rice was a tall, striking and impressive looking man whose hair in his later years became snow-white and contrasted sharply with his ruddy complexion. Although in his retired years he did not do much scientific work, nevertheless in his death in Indianapolis on September 16, 1963, the pharmaceutical industry lost an able and efficient scientist and the Academy a useful and valuable member.