

William Vere Cruess, Food Technology: Berkeley

1886-1968

Professor Emeritus

William Vere Cruess had an important influence upon the beginning of a new discipline, food science and technology. During the 61 years he was associated with the University, he devoted himself to the economic utilization of surplus fruits and vegetables, to training students in the principles and practices of commercial processing of fruit and vegetable products and to overcoming current problems of spoilage. He attracted students from almost every continent and the accomplishments of both his domestic and foreign students testify to his teaching ability. His relations with students were both paternal and informal, and he took particular interest in helping them solve their personal problems. He selected a staff of young men well trained in the basic sciences, some of whom also had practical experiences of commercial food plant operation, and with them, established a teaching and research program emphasizing principles rather than practices, science and technology rather than art. He was scrupulous in recognizing the contributions of his students, assistants and junior staff.

William Cruess' devotion to and interest in the welfare of the crop producer was inherent since he was born on a farm near San Miguel, California on August 9, 1886, and worked both on his father's and neighbor's farms. He earned his way through school and graduated with the B.S. degree in chemistry from the University of California in 1911. In 1917 he married his charming and devoted wife Marie Gleason Cruess,

his constant companion and true helpmate for the rest of his life. In 1931 he received the Ph.D. degree from Stanford University.

He published over 400 articles in farm periodicals, in trade journals, in professional and scientific journals, in the California Agricultural Experiment Station publications, and five books which he wrote on such subjects as Home and Farm Food Preservation and Commercial Fruit and Vegetable Products. The latter, first published in 1924, was revised three times and was translated into Spanish and Russian. All these publications attest to his research and service activity.

He very early applied microbiological principles to the recognition and control of spoilage and to the development of fermented products such as pickles, wines, etc. He introduced the successful production of lactic fermented green olives in California and devoted many years to the continued investigation of production problems and development of new and improved olive products. His interest in olive processing began in 1920 and continued until his death on March 13, 1968. His first publication on olive processing appeared in 1923 and his last in 1965.

He and one of his devoted colleagues, Arthur W. Christie, in order to overcome the periodical losses suffered by farmers from rain damage during sun drying, established the technology of fruit dehydration. He recognized the need to develop new uses and improve the economic outlets for dried and dehydrated fruits. He was also interested in the improvement of canned fruits and vegetables, developed new products and found new uses for standard products. He pioneered in developing the utilization of fruits in production of fruit juices and fruit beverages and their bases (concentrates, sirups, etc.). He was one of the first investigators in the U. S. to use freezing storage for preservation of fruits and fruit products.

His contributions to enology were recognized by awards from the American Society of Enologists, France and Italy.

His contributions to food processing were recognized by the 49'er award from the canning industry and awards from California Associations of Fig and Peach Growers, Prune and Apricot Growers, Olive Growers and Raisin Growers.

He began his work in food technology, under the direction of Professor Bioletti, as early as 1910, by investigation of the basis of several principles of wine-making. His active participation in wine research ceased in 1918 when the Prohibition Amendment was passed, but was resumed in 1933 when the 18th amendment was repealed. He and his colleagues were instrumental in re-establishing the California wine industry.

He and his colleague, Christie, early enlisted the assistance of Professor A. F. Morgan in investigating the effect of sun drying and dehydration on nutritive value of fruits, and this led to similar investigations on other methods of processing.

Dr. Cruess, however, not only distinguished himself as the founder of a Department of Food Technology at Berkeley but also was instrumental in developing the professional society of food technologists. He was privileged to receive the first Nicholas Appert Award of the Institute of Food Technologists in 1942 and the Babcock Hart Award in 1955. He founded the Northern California Section and served as its first chairman, and was the national president in 1944. He was a member of the editorial board of several professional and trade publications.

William Vere Cruess continued his professional work even after his retirement in 1954. Since then, he and his collaborators published over 70 articles, including the fourth edition of his *Commercial Fruit and Vegetable Products* in 1958, the revision of his *Principles of Wine Making* and its publication with M. A. Amerine as *The Technology of Wine Making* in 1960, again revised in 1967.

He was awarded an honorary LL.D. by the University of California at the commencement at Davis in 1960. The first building to house the Department of Food Technology was erected at Davis largely through his efforts in 1951 and was

named in his honor. His portrait painted by his devoted wife, Marie Cruess, an accomplished artist, and unveiled at his retirement in 1954, hangs in the entry to this building.

His memory will be kept alive not only by his far-flung honors but by the devotion of his former students and friends and by the consumers who enjoy the popular and nutritious fruit products that he and his colleagues introduced to the American dietary. His kindness, modesty, sincerity and warm human rapport have rarely been equalled in our academic world.

M. A. Joslyn G. Mackinney A. F. Morgan