Clarence Sterling, Food Science and Technology: Davis

1919-1996
Professor Emeritus

It is our sad duty to report that our distinguished colleague, Clarence Sterling, died on August 13, 1996. Fifty-one of his 77 years were spent in association with the University of California. Professor Sterling graduated from the Berkeley campus of the University of California with an A.B. in botany and forestry in 1940 and a Ph.D. in plant anatomy and morphology in 1944. Clarence taught at the University of Wisconsin and the University of Louisville before he returned to the University of California, Davis as an Assistant Professor of Food Technology and Assistant Food Technologist in the Experiment Station. He was promoted to Associate Professor in 1956, to Professor in 1960 and became an Emeritus Professor in 1981.

His primary research areas included plant anatomy and the microscopic, sub-microscopic and molecular structure of foods. He was also widely recognized as an expert in floral morphology and reproductive morphology of gymnosperms, roses and lilies. The impressive breadth of his research capabilities is shown by his membership and active participation in five graduate groups, namely food science, agricultural chemistry, botany, biophysics, and textiles. A major research strength was Clarence’s abilities as a stand-alone research scientist. He was the sole author in over half of his 165 research publications. This characteristic of being a stand-alone scientist is in stark contrast to the typical multi-authorship of most scientific works. Clarence’s efforts in the areas of plant morphology and the microscopic structure of gels is characteristic of the type of scientific work that can be carried out by a single dedicated scientist. Furthermore, his research was conducted with only modest financial resources, rarely bolstered by extra-mural funding. Other examples of Clarence’s breadth in research are to be found in the topics of his most cited papers. As early as 1964 Clarence reported on the crystal structure analysis of P-carotene. An example in the area of applied science was concerned with the effect of solutes and pH on the structure and firmness of cooked carrot. A study being continuously cited 27 years after its publication is on the crystal-structure of ruthenium red and the stereo chemistry of its pectic stain. Clarence’s research and other scholarly work was published in a wide range of journals. One-fifth of his publications are in the American Journal of Botany and one-third are in various food science journals.

In 1956-57, he was appointed a Guggenheim fellow and received a second Guggenheim award in 1963-64 for the crystallographic study of molecular structure at the University of Vienna. Also in 1956-57 he was awarded a Fulbright grant for advanced study at the Delft Technological Institute in the Netherlands.

Clarence's primary teaching responsibilities were in the course FST 113 on the structure of food materials. He also taught occasionally a graduate course, FST 213, on macromolecular gels. His courses were characterized by his dedicated scholarship and his thorough command of the topics in the courses. Clarence’s main strengths included quiet dedication to his research and his forthright discussion for example, in faculty meetings. Clarence served faithfully and well on many departmental, college, and University committees participating in many diverse areas of service.

Clarence was a member of the Botanical Society of America, the American Association for the Advancement of Science, the American Crystallographic Association, Sigma Xi, the Linnean Society of London and Phi Beta Kappa.
Clarence Sterling was the ultimate university scholar, a hard-working, quiet and unassuming professor, always seeking intellectual truths without pursuing acclamations or scrambling for awards or financial support. Yet he still gave his time and energy to support or dispute developments in his department and the University. His proposals were thus not always popular, but usually succeeded in more thoughtful considerations by faculty and administrators. He was a valuable and refreshing member of the faculty. In addition to his wife, Nora, he is survived by five children, Marjorie Stone of Menlo Park, Nathaniel Sterling of Palo Alto, Janet Sterling of Davis, David Sterling of Auburn, and Robert Sterling of Ashland, Oregon; and 12 grandchildren.

Robert Feeney Walter Jennings Aloys Tappel