



IN MEMORIAM

Herman Jan Phaff
Professor, Department of Food Science and Technology
UC Davis
1913-2001

Dr. Herman J. Phaff died August 24, 2001 of complications from a fall while vacationing with his wife Diane in the Caribbean. He was 88.

Professor Phaff's impact on the fields of yeast ecology and taxonomy continues to this day through the scientists that he trained, the yeast culture collection that he developed and nurtured, and his numerous scientific publications.

Professor Phaff's curiosity about yeasts was initiated in the Phaff family winery in Winschoten, the Netherlands. He received his BSc degree in Chemical Engineering in 1938 from the Technical University in Delft where he wrote a thesis on pectin-degrading enzymes of fungi. His mentor and eminent microbiologist Albert J. Kluver encouraged him to continue his studies in the USA.

In 1939, he entered the graduate program in the Division of Fruit Products (later to become the Department of Food Technology) at the University of California Berkeley, advised by Maynard Joslyn and Horace Barker. During this period, he also worked as a research assistant under Emil Mraz, isolating and characterizing yeasts associated with dates and figs. This was the beginning of a life-long passion for yeast ecology and taxonomy. After completing his PhD thesis on pectic enzymes in 1943, he accepted a faculty position in the Department of Food Technology, which was still at UC Berkeley at the time. He remained in this department throughout his career, and transferred to UC Davis in 1951 when the department relocated.

Detailed summaries of Professor Phaff's research can be found in two of his publications, "My Life With Yeasts" (1986) and "Life with Yeasts during Retirement"

(1995). His early experience and research in applied food science were followed by more fundamental studies of yeast taxonomy, physiology and ecology. His studies of yeast ecology revealed basic principles of the role of yeasts in plant/insect/yeast habitats. He and his colleagues isolated thousands of yeasts throughout the world, expanding the existing departmental yeast collection from a few hundred strains to several thousand. His highly collaborative expeditions included travels to the Caribbean, Mexico, Argentina, and Japan, and several US states, including Alaska and Hawaii. In the 1960s, he pioneered the use of DNA-based methods for yeast taxonomy. Phaff published descriptions of dozens of yeast taxa. When Phaff died in 2001, there were 700 known yeast species, and he had named over 50 of them.

Phaff also studied yeast hydrolytic enzymes, the structure of yeast cell walls, and yeast pigments. His research at UC Davis resulted in more than 300 scientific publications, which are still highly cited today. His lasting impact is also felt through the many scientists he trained, who have gone on to become prominent world leaders in the fields of yeast ecology and taxonomy.

Professor Phaff's status as a world leader in his field was reflected through his frequent invitations to speak at international conferences, and his service on editorial boards of major scientific journals. He served as editor of "The Yeast Newsletter" from 1953 to 1988. Phaff received the UC Davis Faculty Research Award in 1969 and presented a lecture on the 'Changing Aspects of Yeast Systematics'. He was the Annual Lecturer for the American Society of Enologists (1973) and for the Mycological Society of America (1976). He was presented with the J. Roger Porter Award from the American Society for Microbiology (1984), the James F. Guymon Award of the American Society for Enology and Viticulture (1986), and the UCD College of Agricultural and Environmental Sciences Award of Distinction (2001).

His vision for a global community of yeast researchers led him to co-found the International Commission on Yeasts, which still organizes annual international conferences.

He amassed, nurtured, and catalogued a collection of thousands of yeast strains, most obtained through his own expeditions. This collection, the Phaff Yeast Culture Collection, is now the fourth largest collection of its kind in the world. Phaff's yeasts are utilized by researchers around the world in basic and applied fields such as comparative genomics, taxonomy, biogeography, and biotechnology.

He mentored nineteen PhD students, two MS students, and over 20 postdoctoral and visiting scientists from twelve countries. In 1980 his former students and postdocs honored him on his retirement with a special seminar at the Vth International Symposium on Yeasts (Vth International Fermentation Symposium) in London, Ontario, Canada and in 1995 a special issue of the Journal of Industrial Microbiology was dedicated to him by his students, postdocs and close colleagues in celebration of his 50 years of active research in yeast biology. As stated in this journal, "Many of us owe the success of our careers to his scholarship, teaching, professionalism, and, above all his deep friendship."

As a mentor, Phaff was a role model and a passionate advocate for his students and research associates, who were invariably admitted to his extended family. In 1996, the official dedication of the Phaff Yeast Culture Collection at UC Davis was attended by a large representation of the Phaff “family” from the world over.

Parallel to his passion for science, Professor Phaff was passionate about music and the arts. For several years after the Food Science and Technology department moved from Berkeley to Davis, he continued to travel with his cello to the Bay Area to rehearse with his string ensemble. He chaired the UC Davis Committee for Arts and Lectures and, as an accomplished cellist, was a founding member of the UC Davis symphony orchestra. In 1960, he became an honorary member of the UC Davis Music department.

His former students have organized several seminars in conjunction with yeast meetings to recognize his accomplishments and dedication to yeasts research. His vast knowledge, passion for yeasts and high standards impressed his students to excel and succeed, and their successes are defined by his mentorship and friendship. Herman J. Phaff was a shining light in the field of yeast systematics and ecology, a dedicated teacher, and a loving mentor.

Kyria Boundy-Mills
Marc-André Lachance
Sally Ann Meyer
Everett Bandman
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