

Biography of Dr. Hugh Popenoe  
Charles B. Heiser, Jr. Award.  
By Jay Bost

Dr. Hugh Popenoe was born in 1929 in Tela, Honduras into what I imagine as an economic botanist's dream. Being born a Popenoe into the world of agriculture, horticulture, archaeology, and ethnoecology was like being born a Kennedy into the world of politics. His father was Wilson Popenoe- the plant explorer, horticulturalist, and educator. Wilson had spent his late teens collecting date palms in the Middle East at the bequest of his father's nursery, West India Gardens in Altadena, California. Frederick Popenoe's West India Gardens is widely credited with birthing the California date industry. The nursery was also responsible for introducing a number of important avocado cultivars, including the Fuerte avocado- the most widely cultivated avocado until the cultivar Hass. Later, Wilson was brought under the wing of David Fairchild at USDA's Department of Plant Exploration, where he worked for nearly two decades. His most notable achievement during this time was his extensive exploration of avocado germplasm in the neotropics. He made wide ranging ethnobotanical observations, some of which are available in his classic book, the *Manual of Tropical and Subtropical Fruits*. While at USDA, Wilson Popenoe met and married Dorothy Hughes-- a specialist on African grasses, scientific illustrator, and future mother of Hugh Popenoe.

At the time of Hugh's birth his parents had settled temporarily in Tela, Honduras. Wilson was employed by United Fruit Company to found the Lancetilla Agricultural Experiment Station, which today is the Jardín Botánico de Lancetilla. Under Wilson's work, this research station eventually came to contain some 630 species of economic plants on 78 hectares. While clearing for the research station, numerous Mayan artifacts were uncovered. This led Dorothy into studying and publishing on Mayan archaeology.

Thus Hugh Popenoe was born into the heart of Mesoamerica, surrounded by botanical collections of economic plants and Mayan ruins and artifacts. His education was eclectic. He spent much of his youth at Zamarano, the Panamerican School of Agriculture in Honduras that Wilson Popenoe helped found and direct. Hugh recalls fondly his time tromping and exploring the forests surrounding Zamarano where he became quite familiar with the local flora and fauna. So much so, in fact, that he came to serve as a guide to visiting scientists. At this time, Hugh had no designs to enter university. However, encouragement from Archie Carr, one of the visiting scientists at Zamarano, led Hugh to enroll at University of California Davis where he obtained a B.Sc. in Irrigation. According to Hugh, he also pursued numerous interests outside of the sciences, figuring as long as he was enrolled at a flat rate he had better fill his schedule with as many subjects and courses as possible.

Upon graduation in 1951, Hugh worked briefly as a soil scientist in Thailand where you could say he met one of the loves of his life: the water buffalo. But his true affair with them would have to wait. He left Thailand and entered University of Florida (UF) in Gainesville where he carried out his doctoral work on the effects of shifting agricultural on basic soil properties in Guatemala, near Lago Izabel. He collaborated with Harold Conklin, exchanging visits between their respective field sites. His relationship with Dr. Conklin was undoubtedly influential on Hugh. In his dissertation, Hugh poignantly addressed milpa agriculture at a time when many other scholars dismissed it

as primitive and wasteful. His respect of traditional land management forms inspired his commitment of using science as a tool to explore land management strategies within their ecological and cultural contexts. He believed in finding the “useful concepts” of traditional management forms which could and should be applied towards developing more productive and sustainable agricultural systems to offset rising population pressures. Hugh’s dissertation concluded, “This study, which has surveyed many of the relationships between soils and shifting cultivation, has indicated certain beneficial, as well as detrimental, aspects of this type of land use. Basic data obtained in this investigation may be used to select the best aspects of present management practices for assimilation into more productive agricultural systems.” A similar philosophy has informed his career as a researcher, author, editor, and teacher.

Upon completing his doctoral degree, Dr. Popenoe went directly into teaching and administration. Since 1960 he has held varying appointments as professor in Soils, Botany, Agronomy, and Geography at UF while also fulfilling numerous roles such as Director of the Caribbean Research Program, the Director of the Center for Tropical Agriculture, Director of the Center for Aquatic Sciences, initiator and Director of the Sea Grant College Program, Director of International Programs in Agriculture, and one founder of the Organization for Tropical Studies. In 1964, he received an award from UF for “Professor of the Year in Agriculture”. Since 1970, he served on the board of Zamarano in Honduras where he has recently pushed for increasing the recruitment of students from indigenous communities. He was a scientific liaison between USAID and the International Institute for Tropical Agriculture in Nigeria and chaired the Joint Committee of Agricultural Research and Development of the Board of International Food and Development. He was the chairman or a committee member of 16 National Research Council publications, including, *Lost Crops of the Inca*, *Little Known Asian Animals with a Promising Economic Future*, and *Making Aquatic Weeds Useful*, and *Amaranth: Modern Prospects for an Ancient Crop*.

In addition to this rich academic career, Dr. Popenoe has demonstrated a personal commitment to experimenting with alternative land management strategies. He became the first person (or so he thought) in the 1970’s to import water buffaloes from Thailand into the United States. He built a sizable herd and began spreading buffalo and information about them around the country. These animals founded the dairy herds that are active today in California and Vermont, and other states are currently organizing dairies based on his stocks. He founded the American Water Buffalo Association, of which he is the current president, and is active with the International Buffalo Federation. Only recently he learned that he was, in fact, not the first to introduce water buffalo into the U.S. They had been present on one plantation near Charleston, South Carolina previous to the Civil War. These animals were all either killed and eaten by Union troops or herded to central park in Manhattan, New York and then to the zoo, where they were never heard of again. In 2008, Dr. Popenoe donated two young buffalo to Middleton Plantation, a living museum on the site of the original plantation. Thus his visit to Charleston is a pilgrimage on the water buffalo trail, in addition to his presence here at the SEB 2009 conference.

Through his academic and practitioner work, Dr. Popenoe has been to nearly every tropical country in the world. He has taken extensive photographs of ethnoecology in action, with an eye for, as he put it in his dissertation, “the best aspects of present

management practices for assimilation into more productive agricultural systems". Added to the photographs already taken by his father, his slide collection offers a truly unique and valuable window into historical ethnobotany of various regions. For students who are fortunate to enroll in his courses, "Ethnobotany" and "Tropical Soil Management", he offers an unparalleled exposure to world agriculture and land management systems through his photographic records of the world. For students who take advantage of his open door policy in his office, Dr. Popenoe can be found from 6:30am until 3 or 4 in the afternoon and he is always willing to converse, exchange ideas, suggest literature, lend books from his impressive library and recall contacts from around the world. During his career he has chaired or sat upon about 300 student committees, including those of many current Society of Economic Botany members. He actively advises the UF Ethnobotany Society which began as the Ethnobotany Society in 1993 following a visit by Dr. Richard Schultes to UF. Many influential SEB members such as Drs. Will McClatchy, Michael Thomas, and Michael Bond were once a part of this society as students.

I was fortunate to become Dr. Popenoe's graduate student by meeting one of his doctoral students, Hector Castaneda, at the 2005 SEB meeting in Fort Worth, Texas. Little did I know how rich and unconventional my graduate studies would be through my experiences with Dr. Popenoe. As part of my research assistantship duties, I became president of the Ethnobotany Society and manager of the Ethnobotany Society Garden on campus. At this garden, we experiment with crops and alternative resource management techniques that we learn through Dr. Popenoe's teaching. Among some of our activities, we fertilize the garden with local bat guano as people do in Vietnam, plant rice paddies like the Balinese, use *Leucaena* trimmings and water buffalo manure in our composts, and inoculate shitake mushroom logs. Every Friday we celebrate our weekly garden work with water buffalo burgers that are donated by Dr. Popenoe. We have planted pigeon peas, chaya, winged beans, vetiver grass and large gourds at his urging, thus exposing ourselves and other students to lesser known plants with great promise for sustainable agriculture. Ethnobotany Society members have also worked on his ranches to learn about water buffalo and pasture management, as well as about old fickle Belarusian tractors. Each semester, at his invitation, we descend on his home for a barbeque and tour of his water buffalo herds and conservation projects of sand hill ecosystems. Lately he has led us into the stinky business of cleaning buffalo tripe and rendering water buffalo fat.

Dr. Popenoe has facilitated field trips for the UF Ethnobotany Society to ECHO (Educational Concerns for Hunger Organization) in Ft Meyers, Florida, Fairchild Botanical Garden, where his cousin, John Popenoe, was once director, as well as other research institutions in Florida. Indeed, a reference from Dr. Popenoe is a powerful entrée for Ethnobotany Society members. His recommendations have enabled many of us to initiate collaborations with institutions and individuals nationally and internationally. The high regard in which he and his family are held is impressive.

To me, Dr. Popenoe represents an old breed of economic botanist and ethnobotanist. One who is less concerned with methodologies, quantitative analysis and refereed publications and more concerned with discovering and promoting underutilized plants and management techniques. By keeping his hands in the soil and upon plants and animals, he advocates practicality and is averse to profuse academic theorizing. His herd of water buffalo and his old experimental plantings of bananas, avocados, tumeric,

dahlias and winged bean attest to this. Dr. Popenoe's long career- principally less as a researcher and more as a communicator, administrator, facilitator, and mentor, have rendered him as an enormous asset to UF. Senior professors express amazement when I inform them that Dr. Popenoe is my advisor and still accepting students, as he was frequently on their own committee decades ago. Dr. Popenoe's continued work and dedication are all the more impressive and inspiring given his extreme modesty. His generosity in all forms has been the most enriching part of my graduate student experience. I am certain that my sentiments about Dr. Popenoe are echoed by any other students and professionals who have been fortunate enough to have contact with him.

To Dr. Popenoe-- a heartfelt congratulations from all of your students and peers, on receiving the first Charles B. Heiser, Jr. Mentor Award of the Society for Economic Botany.



Dr. Hugh Popenoe with a student member of the Ethnoecology Society of UF at the society's experimental garden on campus.