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Dr. Jorge F.S. Ferreira has a BS in Agricultural Engineering (1983), MS in Tropical Fruticulture (1985), and a Ph.D. in Horticulture (1994) from Purdue University with emphasis in physiology and biochemistry of plant secondary metabolites. Dr. Ferreira worked as a plant physiologist for the (then) Southern Weed Science Lab in Stoneville, MS, where he developed technology used by the US Government to control illicit plants. He then worked as an environmental chemist for Agrevo, Aventis, then Bayer Crop Sciences. He taught plant biology at Southern Illinois University for two years, then joined the Appalachian Farming Systems Research Center in 2003.

Some of his past research, in collaboration with colleagues from Africa, Brazil, Denmark, Switzerland, and the USA, includes the use of plants and their extracts as potential sources of anti-parasitic and antioxidant compounds for livestock and humans. Some of the plant secondary metabolites he studied (**artemisinin**) are currently used to treat **drug-resistant malaria** and are being used to develop novel **anti-cancer compounds**.

Dr. Ferreira is known worldwide for the cultivation of Artemisia annua and the effects of presence/absence of roots, day length and flowering, abiotic stresses, and post-harvest handling on the production of artemisinin and antioxidants in A. annua. He has published extensively on the extraction and chromatographic analysis of artemisinin from plant and animal matrices (HPLC, GC, ELISA), and that of other secondary metabolites. His ELISA method for artemisinin was chosen for product development, and is currently sold by a company in the UK, while two of his publications show that HPLC-UV is suitable for quantification of plant metabolites and pharmaceuticals without chromophores.

Currently, Dr. Ferreira works for the US Salinity Lab in Riverside, CA. His research focuses on the physiological and biochemical responses of agricultural crops (such as strawberry and alfalfa) to salinity stress and on the potential use of biochemical markers to identify tolerance to salinity. He is particularly interested in antioxidants, sugars, and other compounds that may be produced in response to high levels of stress (in the form of ROS) triggered by salinity in water and soils.
Last Modified: 04/29/2013