



*(l to r) Chris Ambuul and Mike Sanders of S&S Grove Management Services with Dr. Joe Morse and an unidentified worker in an avocado grove this summer*

# UCR Researcher Spends Career Focusing on Avocado & Citrus

By Tim Linden

**J**oe Morse readily admits that his original academic leanings were toward engineering and away from entomology was a simple case of rebelling against his dad.

Roger Morse was an entomology professor at Cornell University in Ithaca, New York, for more than 40 years, specializing in bees. It was where Joe grew up. “We were both Type A personalities and there was a lot of friction when I was younger,” said Morse.

He initially shied away from entomology and received a B.S. from Cornell in electrical engineering. However, it didn’t take Morse long to recognize the genetic pull of the insect world, and he did do his graduate work in the field of entomology, receiving both a masters and doctorate in that discipline from Michigan State University.

The year was 1981 and he had been advised by colleagues and professors to begin the job-searching process because it typically took a handful of efforts to hone inter-

view skills and land a job at the right university. By this time, Morse and his father saw eye to eye and he looked forward to following his father’s professorial path.

In fact, Dr. Roger Morse was among those who encouraged Dr. Joe Morse to apply to the University of California at Riverside when a position opened up as the younger Morse was finishing up his doctorate. “It was the second job I applied for and I didn’t think I would get the job. In fact, I ended up accepting it, thinking I might change my mind because there was another job in Colorado that I really wanted that was supposed to open up.”

The other job never did materialize and Dr. Morse has spent the last 34 years in Riverside with no regrets.

He was hired as an assistant professor and spent 20 percent of his time teaching and 80 percent researching.

He started his research career on citrus thrips and remained in the pursuit of solutions to that problem through

the 1980s and well into the '90s. "In June of 1996, a local Pest Control Adviser (PCA) brought me in to consult on what he thought might be citrus thrips on an avocado tree."

Though it looked very similar to a citrus thrip, Morse identified it as an avocado thrip, and thus began a new chapter in his research life. In fact, as he starts the process of wrapping up a very successful teaching and researching career in academia, Morse said he has spent virtually all of his work life "focused on applied and fundamental research dealing with the management of arthropod pests of citrus and avocados in California." He has specialized in the areas of integrated pest management, invasive species research, applied biological control, parasitoid behavior and ecology, insectary rearing of natural enemies, the acute and sub-lethal impact of pesticides on both target pests and non-target organisms, modeling and computer simulation, and pesticide resistance.

He also has pursued an interest in international agriculture and has been involved in citrus and avocado pest management and/or cooperative projects with researchers and industry personnel in Arizona, Florida, Hawaii, Texas, Argentina, Australia, Brazil, Chile, Cyprus, Egypt, Israel, Japan, Mexico, and New Zealand,

As the 2015 school year at UCR was coming to a close in

June, Dr. Morse, who became full professor years ago, was beginning to pack his bags for what will be the next two chapters in his research career. "I'm starting a one year sabbatical and then I will come back to UCR for one year before retiring."

He is quick to point out that the public perception of a sabbatical being a vacation is inaccurate. It must be approved by the dean and it must have academic value. Dr. Morse's proposal includes a minimum of six research papers – three on avocados and three on citrus. He spends 50 - 55 hours a week on research and teaching which leaves very little time to write. "This might be my last chance to work on these papers."

He has lots of data that he needs to get published before he retires. He does not want his work to be lost. The sabbatical will allow him to do so. He said the uninterrupted time allows him to devote four or five hours at a time on writing, which is what he needs to accomplish the task. Though he has published many articles and papers, he has a lot of work left to do, including work on perseia mites, avocado thrips, a specific weevil issue with avocados and preventive ideas on stopping the scale on Mexican avocados from infesting California groves. "I have a list of projects to do. When I finish the first six, I have others that will keep me busy."

For the past year, he also has been involved on polyphagous shot hole borer (PSHB) work. While he won't be involved in that effort on a day to day basis while on sabbatical, he will still be available for consulting purposes. And he plans to again work on solutions during his final year on campus for the 2016-17 year. Morse said PSHB is a difficult problem because it does involve two different species and the location of the pest makes it difficult to treat.

But it is the type of long term research that Morse and many of his ilk have thrived on for decades. He said any task actually involves the solving of many sub-problems throughout the process, which makes it interesting and fulfilling, even if it is a multi-year project.

Dr. Morse is not sure what retirement holds for him, but he suspects it will include a move out of California. "I grew up in a green environment and California, around Riverside, is a little too brown for me. I am going to check out Thailand (where a sister lives) in January of 2017, and the East Coast and Seattle also are possibilities." 🥑



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