

By Tim Linden

## Tanzania Avocado Growers Exploring Potential with Help from UC Researchers

In the late 19<sup>th</sup> Century, German missionaries introduced avocados to Tanzania. Many of those trees have flourished and today non-commercial avocado trees are very much evident in this African nation. The evidence that avocados can grow in the country has no doubt led to a fledgling commercial Hass avocado industry.

Two University of California (UC) Cooperative Extension specialists, post harvest and horticulture expert Mary Lu Arpaia and entomologist Mark Hoddle, have collectively spent several weeks in Tanzania this spring helping avocado growers reach their potential. In fact, Dr. Arpaia was on her third trip to Tanzania since 2015 when she was interviewed by *From the Grove* in late May. She was visiting Tanzania again as part of the UC Global Food Initiative, a program designed to bring UC expertise to under-developed countries and help them become more self-sufficient and prosperous. In Tanzania, 69 percent of the population lives below the poverty line and 16 percent of children under five are malnourished. “One of the aims of the Global Food Initiative is to deploy UC’s best research and extension practices to address the key challenge of improving food production,” she said. “That’s why we went to Tanzania.”

Dr. Arpaia said there are two commercial companies currently growing Hass avocados in Tanzania and exporting them to Europe. The two UC researchers went to Tanzania, on a pro-



*Dr. Mary Lu Arpaia visited Tanzania twice this spring helping avocado growers become commercially viable.*

bono basis, to assist one of the projects in the southern part of the country. She said Rungwe Avocado Company planted 300 Hectares (ha) — (approximately 750 acres —) of the Hass variety in the southern highlands around Tukuyu near Lake Malawi, which is part of the border between Southwestern Tanzania, Zambia and Malawi.

The company parceled out 200 ha worth of the trees to almost 4,000 individual landowners, with the ranch sizes ranging from 10 - 15 trees to 1,200 trees. These farmers are known as “outgrowers” and they face some inherent challenges in becoming commercially viable. The acreage is at elevations rang-

ing from about 600 meters to 1,900 meters. There are 119 village communities involved and they have a tremendous amount of rainfall (3000 mm per year, or 118 inches per year) that can lead to fruit diseases.

The two specialists visited with growers, extension technicians, packing house managers and logistics experts. They identified production, pest management and fruit handling challenges faced by the fledgling avocado industry.

Dr. Hoddle examined the Tanzanian avocado trees and fruit and collected insect specimens. He said the insect damage was minimal at the time



*Avocados are grown at high elevations in Tanzania.*

of the first week long visit in March. In a report from that trip, he said: “That surprised me because of the insect biodiversity in Africa. There was little evidence of heavy leaf feeding. There was some evidence of fruit damage caused by insect feeding on the skin, but they don’t seem to have fruit boring weevils or caterpillars that we commonly see in parts of Mexico, Central and South America.”

Dr. Arpaia said in May that Dr. Hoddle was working with growers on issues pertaining to the False Codling Moth, and was also imparting information about beneficial insects. Because of the inordinate amount of rain, she said growers have to spray often to control fruit diseases and they have to learn how to manage that aspect of the farming operation. A main production challenge over and beyond the False Codling Moth is Pepper Spot, which is caused by the same organism that results in anthracnose. Anthracnose is the main cause of body rots in ripe fruit. “Fortunately in California, we have minimal problems with this disease,” she said.

During the trip in May, Dr. Arpaia was specifically working on canopy management and reviewing post-har-

vest protocols to identify ways to improve picking, handling, storage and shipping practices that would result in top quality fruit arrival in Europe. She said the fruit, after harvest, has to be shipped by land to Dar es Salam before traveling through the Suez Canal and arriving in Europe, via ship, four to five weeks later. The strategy is to educate the different village communities about the need for proper care of the trees and

fruit to maximize packout and exportable fruit.

Dr. Arpaia believes that Tanzania does have the ability to be part of the global supply avocado network. The Tanzania operation she is working at has a small packing shed, with a packing line and a forced air cooler.

She said, in fact, the viability has already been proven because the two avocado operations — Rungwe Avocado Company and the other avocado company, Africado, which was established in 2007 — are successfully exporting fruit to Europe. She added that anecdotally, Tanzanians are familiar with the avocado as it has been a “backyard” crop for more than a century. With increased production of the Hass avocado on a commercial basis, she believes avocados will be consumed domestically in greater numbers. In an earlier report, she offered: “We want to help them be better avocado farmers so the crop can be a greater contributor to the country’s economy. Boosting this industry will also give people all over Tanzania the opportunity to add nutritious avocados to their diets.” 🥑



*Dr. Mark Hoddle poses with some Tanzania avocado growers.*