The Spice of Life, International Fruit Tree Association Trip to New Zealand

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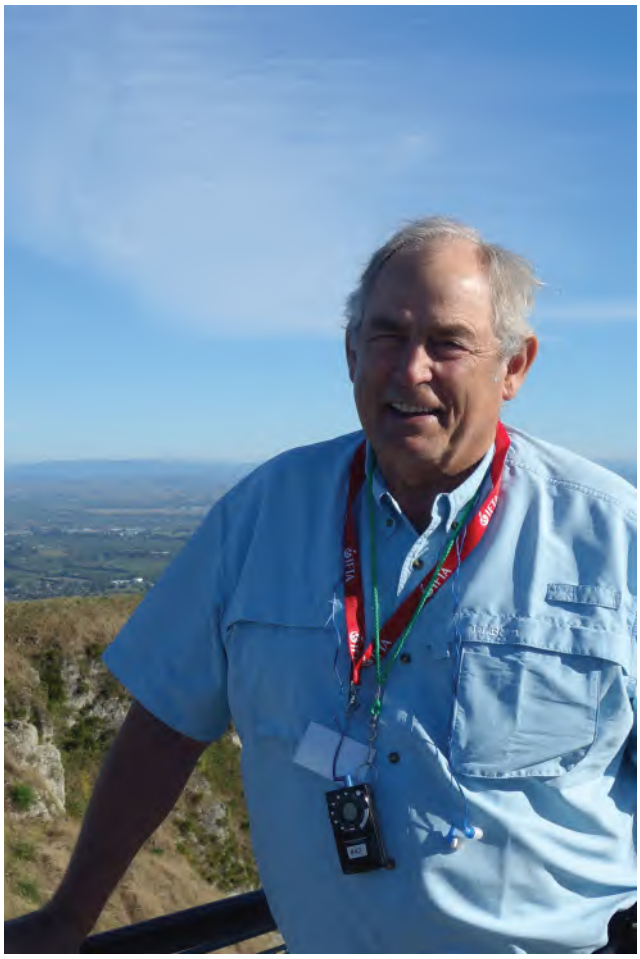
I am writing this as I return from an apple growers trip to New Zealand. That is what we do—go look at orchards. Annually, I meet with other apple growers to visit and analyze apple orchards around the world. This year the trip was in the southern hemisphere where we saw not only orchards, but Apples! Lots of apples—it is harvest time in New Zealand. We looked at how the trees were growing—height, row spacing, tree width, spacing between trees, the types of rootstock used—all sorts of fascinating things like that. Well, at least they are interesting to an apple grower, but this year there was an added treat. There were lots of different new varieties of apples. And varieties add spice to the life of a farmer. Different varieties of fruits and vegetable can differ in taste, color, shape, size, firmness, keeping qualities, texture—the list goes on. In the apple business, especially the wholesale export apple business of New Zealand, having a desirable apple variety to sell can make the difference between success or failure of an orchard.

New Zealanders (Kiwis) are leaders in the world in discovering and developing new apple varieties. The

find some by means of controlled cross breeding of two known varieties. The pollen of one apple is used to fertilize the flower of another apple. Usually this is done with a camel's hair brush. The seeds of the resulting apple are planted and the new trees are carefully observed. It is a slow, exacting process but, with luck, there is sometimes a great new apple variety. Other varieties occur either as a naturally occurring mutation of a fruit bud or as a mutation of a whole limb. The usually happens in the orchard of a grower who is sharp-eyed enough to realize what is happening and smart enough not to prune off the wood the next winter. After a year or two of observation, the grower contacts a tree fruit nursery to see if there is any interest in propagating the new apple.



New apples that I saw had names like galaxy, smitten, rockit, piqua-boo—well, Kiwis are better at growing than naming.

The apple growers group, the International Fruit Tree Association, last visited New Zealand 18 years ago.

New Zealand has a small population and must export all their apples—traditionally to Great Britain. The main apple was Cox's Orange Pippen which was a favorite of the Brits but not really marketable to anyone else. Taste buds are very regional. When we visited back then, the Kiwi apple industry was in trouble. Great Britain had joined the European union and lower cost apples from France and Germany had taken the New Zealander's market. The Kiwis were left with apples that were difficult to sell elsewhere in the world. In the last 20 years, they have rebuilt their industry with breeding and development of new varieties specifically chosen for the Asian markets which were relatively nearby, becoming more prosperous and hungry for apples. The taste buds of China, Korea, Japan, Vietnam and others are looking for apples that are large, red and very sweet.

As orchards were replanted, New Zealand adopted new techniques and new rootstocks. They learned how best to use their abundant sunshine and long growing season to advantage. Their shipping and marketing system is tops. Production is high, quality is excellent and profits are even better. Many of their new ideas ca e from our apple growers organization, the IFTA, which has been steadfast in the free exchange of information over the past 60 years. We fund research in better apple growing (I am the chair of the research committee) and hold annual conferences at fruit growing locations around the world. As visitors, we were met by very friendly Kiwi fruit growers. We shared a common passion and our histories have been their histories.

Farmers' excitement over new varieties does not stop with apples—far from it. Every farming endeavor is a constant search for better varieties. Not just food crops but all other farmed crops and animals (in livestock production, substitute "new breed" for "new variety").

And then there is the coconut. On the way home from my new Kiwi friends, Pam and I visited Mike and Angelina McCoy in Hawaii. We know Mike from when we served as Peace Corps volunteers 50 years ago. We were on a small Pacific island—smaller than my father's farm—in Micronesia called Satawal. Pam and Mike were teachers; I was an agricultural agent. I specialized in coconut culture—important because coconuts were the life sustaining crop of the island. One thing the islanders wanted was help with—you guessed it—new varieties. An improved variety can produce a better crop simply by virtue of its genetic makeup. Better coconuts (size, shape, weight, taste, etc.) can grow from the same sun, air, soil and water just by being a better

type of coconut.

The Satawal coconuts were small. When husked, the nut was about the size of a tennis ball. I was able to bring in a new variety that was not only a good growing plant, but which had a much larger coconut. When husked, they were larger than a large grapefruit. We set the nuts, which are really coconut seeds, out in a nursery and when they sprouted, we planted the best-looking ones. When I was there, we replanted about half of the island. Our three years' time in the Peace Corps came to an end before any results were visible. However, Pam and I were able to visit about 20 years ago—one week of travel in each direction. We attended the ordination of one of Pam's students as a catholic priest. The island had lots of coconut, large coconuts. As the trees that I had planted matured, the Satawalese took the nuts and replanted the rest of the island!! One of my happiest moment ever was when I overheard a visitor from another island ask "Where did the Satawalese get such large coconuts?"

We had such a nice visit in Hawaii with Mike and Angie and also three other returned Peace Corps volunteers who had served on the same small islands during the time we were there. We were last together 50 years ago.

It became time to head back to Terhune Orchards. One of the first crops that will be ready for picking are strawberries and I need them uncovered, weeded, fertilized and ready to grow. Later this year we will plant a new strawberry field and will include a terrific new variety, Rutgers Scarlet. It has big berries, nicely red and good tasting. They will be ready to pick in May of 2019. New varieties are the spice of this grower's life.

For more info on Rutgers Scarlet Strawberry see: https://news.rutgers.edu/news/better-tasting-strawberry-developed-rutgers-makes-its-debut/20150510 and https://www.youtube.com/watch?v=oJaIP8fC8mY Photo of Rutgers Scarlett strawberry from Peter Nitzsche.

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