

Paul Singleton & Geoff Haines

Kula, Hawaii

Pacific Produce

Products: Hydroponic greens

Size of Operation: 170,000 plants

In Business Since: 1997

Farm Credit Partner: Farm Credit Services of Hawaii

Working with Farm Credit Since: 2012



Thoughts of Hawaii inevitably turn to the lush, green countryside, so it's surprising to learn that 80 percent of the food Hawaiians eat comes from outside of the state. This makes locally grown food all the more important, creating an opportunity for Paul Singleton and his partner Geoff Haines.

Their company, Pacific Produce, grows specialty lettuce including butter, red leaf, mini romaine and watercress – two million heads annually in their year-round hydroponic facility. The partners pursued hydroponics partly because Paul had experience designing soil-less growing systems, but also for **compelling business reasons: land prices in Hawaii are extremely high.** “We knew we’d need high yield and high value to compete with the large farms in California,” says Paul. “With hydroponics, we’re able to produce huge yields in a very small area.”

Those yields stem in part from the hydroponic process itself: depending on the product they fit 2 – 3 plants into each square foot; crop turnover is 10 – 12 times a year. They’re also able to harvest more than 95% of these plants, losing very few to disease, insects or malformation compared to soil-grown plants. The plants sit on the bottom of growing channels where a slowly moving film of plant nutrient solution bathes the roots. The solution is continuously monitored and adjusted to maintain nutrient concentration and pH at optimal levels, quite a challenge when dealing with 25,000 gallons that are exposed to the **elements: the hydroponic operation is completely outdoors.** “Hawaii has many microclimates, and we’re in a very **unique place with cool night temperatures, low wind and a lot of sunshine,**” says Paul. “The environment is ideal for lettuce.”

At harvest, plants are put directly into boxes or individual packages and put onto pallets in the field rather than first going to a packing shed. Pallets are vacuum cooled before being distributed to wholesalers in Maui and Oahu who sell to upscale restaurants and select retail outlets.

The high-quality of this locally grown food has led to increasing demand. “We have bigger demand than we have supply, so our immediate focus is on servicing our existing customers,” says Paul. They’re also expanding from their 70,000 square feet of bench space, and building an entirely new facility that will enable them to target even more customers. Farm Credit Services of Hawaii is financing this latest



expansion, the first time that the company has looked for outside funds. The business reasons, says Paul, are clear: "Farm Credit gave us good terms, reduced our risk, and minimized our monthly costs." But the main reason is the commitment and professionalism of their loan officer, Linus Tavares. "Once we met Linus, we ceased contact with other bankers."