

## CASE STUDY: Nalo Farms

Dean Okimoto

Location: Waimanalo, O'ahu

### Farm Description

Nalo Farms is a small highly diversified farm that produces salad greens and herbs, primarily using organic production techniques, specializing in farmer-chef markets. It is located on 4 acres of land, at 200 ft. elevation, with 30-40 inches of rainfall/yr.

**Soil:** The dominant soil is Waialua clay, 2-6% slope. Soils are moderately well drained occurring on alluvial fans. Runoff is slow and the erosion hazard is slight. Soil workability is slightly difficult.

In 1983 Nalo Farms principally grew herbs, producing between 10,000-12,000 lbs/month shipped to the mainland. In 1989 fusarium wilt hit and they were losing whole crops. Nalo Farms began working the Roy Yamaguchi (well known local chef and advocate for locally grown food) field testing salad greens for restaurants for about six months. Roy took Nalo Farms under his wing and went out on the road giving demonstrations to other island chefs about locally grown produce. The first year Nalo Farms worked with about 20 restaurants ~ now they work with over 100. "Nalo Farms" is the pro-

duction farm. "Local Island Fresh Edibles" is the distribution business operated by Dean Okimoto. Produce from Oahu and Maui is distributed through LIFE.

### Products

- Mixed salad greens (70% of business) and herbs.
- Seven (7) types of lettuces and eight (8) types of other greens (arugula, pepper cress, red mustard, tatsoi, etc);
- Corn and pea sprouts;
- Basil (Thai, Italian sweet, opal), rosemary, thyme.

When designing salad mixes, Dean takes into account the plant's nutritional value, texture and color. His approach is similar to those of California wine growers. As grapes vary in flavor from site to site, so do vegetables. Dean has found that Waimanalo produce has a unique, zestier flavor that he can match and market to chefs. He attributes the unique soils and climate of Waimanalo to giving his produce unique attributes. Based on his experience, the same produce grown on Maui does not have the same spicy flavor.



*Nalo Farms grows herbs and salad mixes for Oahu local restaurants.*



### Overview of Sustainable Techniques Used

*Diversity – in plants, product line, sources of income*

*Soil amendments - compost and greensand*

*Use pest resistant cultivars*

*Transplanting*

*Sanitation*

*IPM – scout daily for insects, spray only when needed (with organic products) and not on a regular basis (to avoid building tolerance)*

*Crop rotation*

*Managed irrigation rates – water only when plants are stressed*

*Organic practices – although not certified use as many organic practices as possible*

### Labor

Employees: 24 between the two businesses. The business is very labor intensive: all production is done by hand. They try different tools to increase employee productivity/ reduce production time.

### Soil Quality Improvements

Compost at pre-planting. Used to use locally available Unisyn compost (anaerobically digested food waste, hi N) which was an outstanding product. Compost use resulted in large reduction of nematode problems.

Greensand/silica sand to each field as silica source for crop and to improve soil structure, drainage.

Calcium carbonate for pH, calcium

### Seed

Seeds from Sun Organics, Johnny's – varies with seed price

### Planting

Use transplant plugs for red lettuce, lola rossa, red oak leaf lettuce, red ina (for expensive seeds)

Broadcast: arugula, tatsoi

May customize seed mix (spicy with regular) for some customers

### Nutrient Management

Growpower Plus

Growpower Flower and Bloom  
EM

Bokashi

Trace minerals

### IPM Program

Farm manager scouts fields every morning. Workers are trained to observe and report insect presence/damage. Generally use neem-based products and botanical soaps when have a problem.

### Insect Pest Control

Thrips (on rosemary) – neem based product

Spittlebug (on rosemary) – pyrethrum based product

Aphids

Cabbage looper (in lettuce) – BTs

Webworm - BTs

Ants – diazinon in walkways and rimming fields (looking for a suitable organic alternative to diazinon)

### Nematode Control

Not a problem since they use compost and the crop cycle is short.

### Plant Disease Control

Phytophthora problem (on rosemary)  
Fusarium wilt (basil) – plant fusarium-resistant CTAHR basil variety

### Weed Management

weed block fabric – advantages: decreases labor costs, increases moisture, reduces need for irrigation, disadvantages: when too much rain holds in too much moisture (dealing with by bedding up more), larger plants (basil, rosemary) must be cut to remove the cloth.

### Time to Harvest

·3 weeks for lettuces, spicier greens

·4-5 weeks for red lettuces

·Cut a bed 2 times in summer, up to 5 times in winter

### Post Harvest

Working with Davis Fresh Technologies (CA) to improve product quality and consistency, reduce losses and prolong shelf life possibly by building a chilling and storage facility for their product line.

### Plant Diversity

Farm has high level of crop diversification.

Advantages: a wider range of products makes it easier to market to hotels and restaurants

*Advice for Growers on selling to Chefs and Restaurants...*

*(1) Don't focus on the amount you sell to a chef, focus on the relationship you have with the chef. Try and make the relationship work. Much of your business may come later from referrals or if that great chef moves on to another larger restaurant or hotel.*

*(2) Product quality must be excellent, always.*

*(3) Product consistency must be excellent, always. If your chef has to find other products, you lose. Nalo Farms grows and cuts extra salad mix to be sure they can meet and satisfy their customers' demands.*

Disadvantages: difficult to keep up and grow so many things, deal with problems associated with each crop

How do you decide what to grow?

·Research "new and different" greens by watching cooking shows on the mainland, if haven't heard of it try to locate and try it out

·Ask chefs on the mainland about what is currently new and popular

### Marketing Strategies

·Farmer-Chef marketing

·Events

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*The sweet flavor of corn sprouts adds to the mix.*