



## April 2019 Meeting - Roy Tokunaga, Orchid Grower from Hawaii

Roy Tokunaga, an orchid grower from Hawaii, shared some wonderful tips for success with Dendrobiums:

Best growers have several things in common.

- The media pH is between 5 to 7.
- Media is low in salt deposits.
- Pest and disease absent.
- Humidity near 70-80%
- Good aeration.
- Avoid extremes of temperature and moisture. Thick leaved Orchids need a 10 – 30 degree differential in night and day temperatures. The stomatas will never open without the differential. Crassulacean Acid Metabolism CAM .
- Nutrition is in balance with light, temperature, plant type
- Media: bark, perlite, peat
- pH buffered with fine dolomite (without dolomite, pH is below 4.0 in three months, 1/4 teaspoon per 4" pot)

### Water Quality

How is your water? It may be the most important nutrient that we do not monitor for its content. Total dissolved minerals, pH, and alkalinity are strange factors to consider. They are critical for the end result as we try to grow the perfect Orchid. Best article: What's in Your Water? By Jack and Cari Peters, Orchids Magazine, May, 2012.

### Fertilizer

Choices: Peters 20-10-20, Cal-Mag 15-5-15, Peters 10-30-20  
Michigan State 13-3-15, Peters 20-20-20

Fertilize weakly weekly.

Nitrogen: Urea, ammonia, nitrates

Phosphorus 2% to 40%

Potassium 1% to 20%

### Flower Boosting Summary:

- Roots and environment perfect.
- pH must be 5 – 6.
- Humidity 70-80%

- Low salts in media
- Provide as much light as plants will tolerate with lots of aeration.
- Use high calcium fertilizer one month before spike formation. Use at rate of half teaspoon per gallon per week with 1/8 teaspoon micro nutrient package.
- Extra phosphorus does not help. See “Without High Phosphorus” by Jan Szyren, Orchids, June, 2003.
- Low nitrogen helps. Ammonia and urea will favor vegetative growth at the expense of flowers. Nitrates ok.

#### Roy's Secret Potion:

On mature plants, just before the spikes appear, apply calcium type fertilizer like Peter's Cal Mag Special, at ½ teaspoon per gallon with a micronutrient package like Miller's Microplex, at 1/8 teaspoon per gallon. Apply weekly until spikes and flowers appear for a maximum of 3 months.

If it does not work, need to run diagnostics as something needs to be fixed.