

*Please consider this collection of orchid culture recommendations and wisdom from HOS experts as a starting point.*

# General Orchid Culture

by Walter Tsuda



Orchids are one of the easiest families of plants to grow. If you follow a few basic rules, you can become successful in a very rewarding hobby.

## **Lighting and Shade**

Ideal lighting for maximum growth is a full day of unobstructed sunlight (away from buildings or trees) with a shade cloth of about 60% shade. Certain species may require more or less shade. Seedlings will benefit from more shade.

## **Temperature and Humidity**

In Hawaii we are blessed with near ideal temperatures for many tropical orchids (low 60s to high 80s). In the summer we need to avoid heat stress. To do this you can water in the morning. The evaporation will cool the orchids and increase humidity. Good air circulation will also keep the orchids cool.

## **Watering**

Watering is usually taken for granted and often misunderstood. It is imperative that over watering is avoided. Orchid roots need air as much as they need water. Allow the media to dry slightly, between watering.

**Watering rule:** When in doubt, don't water. After all, when was the last time you killed an orchid by under watering. When you do water, water heavily to flush the media of accumulated salts.

## **Air Circulation**

Orchids do not like stagnant air. Good air circulation will reduce fungal and insect problems. To accomplish this, do not overcrowd your orchids. Also remove plants and shrubs around and below your growing benches.

## **Proper Cultural Practices and Pesticide Use**

Practicing good culture will reduce your need for pesticides.

- A. Remove all dead and diseased plant materials. They can be a source of infection.
- B. Control weeds and pests in and around your growing area. Weeds and other plants in the collection often harbor insects.
- C. Watch your orchids carefully and take care of problems as they occur. Spot spraying of pesticides may be all that is needed. When using pesticides,

always wear protective clothing and always follow label directions.

- D. If you don't have protective clothing, there are many ready to use "soap" products on the market today that are safe for the applicator.

## Home Remedies

Mix your own alternatives to insecticides.

- A. A spray for spider mites, scales and white flies:
- 2-1/2 tablespoons vegetable oil
  - 2-1/2 tablespoons detergent or hand soap
  - 1 gallon water
- B. Boric acid mix for ants:
- 3 cups of water
  - 1 cup sugar
  - 3 teaspoons boric acid

## Fungicide

[Apply to protect leaves, stems and roots from rot; however, care in handling is important, for your sake as well as the plants. Follow the manufacturer's directions with these products.]

## Fertilizing

Twice a month.

- A. Water soluble type (Peters)
- 1) 30-10-10 high nitrogen for fir bark
  - 2) 10-30-20 blossom booster
  - 3) 18-18-18 general purpose for orchid feeding
  - 4) 15-16-17 general use

- B. Granular or powder

[The proportion of N-P-K — the nitrogen, potassium and phosphorus needed by a plant — can vary over a plant's stage of life. Timed release of nutrients is a feature for some products.]

## Taking plants out of compots

Soak plants for about 5 minutes in:

[Disinfectant/germicide] at 1/2 teaspoon per gallon — used against fungus, virus, bacteria, mildew, algae and for cleaning tools.

Vitamin B1, at 1/2 tsp. per gallon — reduces transplant shock and also promotes new root growth.

## Repotting

Repotting is essential for the health of your orchids. Even if inorganic media is used, the orchid must still be repotted.

Most orchids should be repotted every two years or so. Timing is critical; therefore a program should be implemented so that orchids that need repotting are done after they flower, and before they go back on the growing bench where they will be forgotten.

**Repotting rule:** It is always a good time to repot an orchid when the new roots are emerging from the new growth. Even if there are flower buds forming!

## Sanitation

Great care must be taken when orchids are handled or transplanted. To reduce chances of spreading viruses and fungal diseases:



*B/c. Prada Green Deluxe 'Pam'* received a Certificate of Recognition from HOS judges in 2016.

By the title, the white flowered *Dtps. Momilani Girl 'Travis'* received an Award of Merit in 2016.

- A. Flame shears
- B. Wash hands in soapy water
- C. Work on newspaper

These tasks must always be done before the next orchid is handled.

### **Potting Mix - Types of Media**

Almost all the different media work. It is best that each person experiments to find out what works best for the type of plant, their location and cultural habits.

- A. 3 parts fir bark (medium for bigger plants; fine for 2" pots)  
1-1/2 parts peat moss  
2 parts coarse #3 perlite
- B. #3 blue rock — excellent media for those who live in a high rainfall area. Also good for tall plants in windy areas that topple easily.
- C. Hapu'u (tree fern) fibers — excellent stability, longest lasting organic media, excellent growth.
- D. New Zealand sphagnum moss — best media to establish a young plant or to revive an old plant. Super growth.