

## Pothos: Identification, Selection, and Propagation

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### CULTIVARS AND USES

Pothos or more correctly, *Epipremnum aureus* 'Gold' (syn. *Scindapsus aureus* 'Gold Pothos'), a native to the Solomon Islands, is one of the staple plants in the United States indoor houseplant trade. This is due primarily to its colorful variegated leaves, durability, and versatility. Additional cultivars include: 'Marble Queen', 'Green Queen' (a sport of 'Marble Queen'), and 'Leilani' (a sport that I developed from 'Gold' Hawaiian strain) and *Scindapsus pictus* 'Argyraeus' (syn. 'Satin Pothos') from Indonesia and the Philippines.

*Epipremnum aureus* can be used as a cascading or hanging plant, a groundcover, or climbing plant. The leaf form most commonly seen is actually the juvenile form of *E. aureus*. The adult or mature form of the leaf is quite large, often more than 2 ft long and split similarly to the leaves of *Monstera deliciosa*, split-leaf philodendron.

### SELECTION

Variation in leaf coloration and form can result not only from selection, but also in response to light intensity, temperature, and possibly daylength. I have worked the last several years to select and develop what I consider to be a superior strain of the Hawaiian strain of golden pothos. First, I had to define what I considered to be desirable leaf characteristics. I decided to select for medium-sized more rounded and thicker leaves. After I had a sizeable inventory of the desired leaf type, I began to select for leaves showing outstanding yellow or gold markings. However, as I built up my inventory of high-color stock, I noted most of the color disappeared during the shortest days of the winter months—December and January. I then started selecting for plants that kept their high-color look during the winter. This is a slower process since I can only do it once a year. I am presently building my stock of those plants and will probably not be releasing any until 1996.

Further selecting, that could and should be done, is for:

- Internode length—I prefer the short internode.
- Rapid growth of the plants.
- Leaf orientation on the stem.

The development of the 'Leilani' strain of the Hawaiian gold pothos has been a simpler process since they all were developed from a single stem and have a shorter history of development. I haven't observed the variability I observed in the Hawaiian strain. One characteristic that I think is interesting is that it occasionally produces a single small dot or eye of yellow on the leaves.

In general, my experience has been that the Hawaiian Leilani strain has superior vigor to the extreme of occasionally pushing itself out of a 6-inch pot due to a vigorous root system.

### PROPAGATION

The normal cutting used in propagation is a "leaf-eye" cutting, discarding the tips. Pothos can be easily propagated without disease problems if the following rules are

followed:

- Plant only clean stock, free of leaf and vascular diseases.
- Do not break the leaves when moving plants from one location to another. We use boxes as opposed to plastic bags.
- Never let the leaves dry out; this, at the very least, delays rooting.
- Plant in a light, airy mix that drains well.
- Provide a soil temperature of between 65 to 75F.
- Prevent desiccation of the leaves by: 1) providing a high humidity environment, 2) covering the cuttings with a light cover such as wetted newspaper or 3) providing a light mist of water.
- Groom the propagation material periodically and remove any infected cuttings and soil.
- Start with disease-free media.

#### **General observations on propagating pothos.**

- Leave enough of the vine stem above the leaf to act as a means of holding the cutting when planting.
- The new stem from a leaf eye cutting generally grows away from the leaf at a slight angle to the right or left.
- There is variation in rooting and growing time related to the position of the leaf on the vine.

### **GROWING-ON**

The important considerations in growing-on pothos are temperature, light, and disease control.

**Temperature.** Pothos loves it hot, 85 to 90F day temperatures and 65 to 70F at night are ideal for pothos as long as there is adequate humidity. Lower temperatures slow the growth rate (increase production time) and decrease the color. At temperatures below 60F, small off-color leaves are produced.

**Light.** Foot candles between 3500 and 4500 produce the best color on the leaves. High light intensities will burn or bleach the leaves. Lower intensities will decrease the leaf color.

**Disease.** The most common diseases of pothos are root rots. These are caused by infested soil through poor soil handling, poor watering methods, and contamination from other plants or benches.

The principle pathogens affecting pothos are *Rhizoctonia*, *Pythium*, *Phytophthora*, and *Erwinia*. Smog can cause stippling and yellowing of the older leaves. The Hawaiian strain of pothos, in particular, tends to produce small leaves after being repeatedly cut back. This can be corrected by transplanting to a larger pot or top dressing with dolomite lime and single superphosphate.

**Fertilizer.** Pothos seems quite tolerant of a wide range of pH, salts, and fertilizer levels. However, it seems to do best at moderate to high levels of fertilizer.

**Technical Assistance.** Soil and Plant Lab, Santa Ana, California; Dutch Growers, San Marcos, California; Mountain View Nursery, San Marcos, California

### **REFERENCE**

EXOTICA - A.B. GRAF 1973 Edition.