Case Study 4

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Epipremnum aureum
Scindapsus aureus

- Family: Araceae
- Common Name: Pothos
- Foliage: Evergreen vines with stems green and striped with white or yellow
- Leaves: Heart shaped, variegated
- Flowers: Spadix surrounded by spathes
- Growing habit: indoor foliage groundcover, hanging or cascading, trailing or climbing

Warnings

- Toxic by ingestion, dermatitis, entire plant toxic
- Symptoms: Burning and swelling of lips, mouth, tongue, and throat. Diarrhea
- Toxic Principle: Calcium oxalate crystals
- Severity: Toxic only if large quantities eaten. Causes severe pain in the mouth if eaten! Skin irritation minor or lasting only for a few minutes

Facts

- Temperature: Minimum 50-55°F in winter
- Light: Well lit with little sun. Variegation will fade in poor light
- Water: Water liberally from spring to fall. Let soil dry out slightly between waterings. Water less often in winter; mist leaves frequently
- Plants may be repotted in spring if needed, but will prosper in original container for long periods of time

Special Problems

- Yellowing and falling out leaves; rotting stems
  - Cause: Overwatering, especially in winter. Pothos cannot survive in waterlogged soil
- Brown leaf edges; brown spots on leaf surface
  - Cause: Underwatering during the growing season. Allow soil to dry out during watering, but root ball should not be allowed to dry out
- Brown and shriveled leaf tips
  - Cause: Air too dry. Mist leaves frequently
- Curled Limp Leaves; rotting stems
  - Cause: Rapid cold air damage; keep above 50°F

Uses: Reportedly helps purify indoor air
Propagation: Cuttings
Insect and Disease Problems

- **Insects**: Caterpillars, Mealy Bugs, Mites, Scales, Thrips
- **Diseases**:
  - Bacterial Leaf Spot: Control: Eliminate water on leaves
  - Cutting Soft Rot: Control: Eliminate excess water, use of bacteriacides

Diseases

- **Bacterial Leaf Spot**: Control: Eliminate water on leaves
- **Cutting Soft Rot**: Control: Eliminate excess water, use of bacteriacides

Schedule

- **May/June**
  - Take 1½ inch stem cuttings with a node and an attached leaf
  - Buds break in 2-3 weeks
  - Keep temperatures between 70-90°F and humidity from 60-100%
  - Use fertilizer with N:P:K ratio 3:1:2 or 3:1:3
  - Maintain bright to moderate light (5000 ft. best); tolerates low but becomes less variegated with lower amounts of light

- **June/July**
  - Rooting occurs 3-4 weeks
  - Pot cuttings in 3, 4, or 6 inch pots

Cultivars

- Other than the golden variegated species, only one cultivar is commonly found
- ‘Marble Queen’ - mainly white leaves flecked or splashed with yellow, cream and green

Codiaeum Varieagatum

- **Family**: Euphorbiaceae
- **Cultivars**: Banana, Bravo, Icetone Red, Norma, Petra, Karen, Gold Dust

- **Most Important Cultivars**: Banana, Bravo, Petra

- **Optimum Light levels**: 3000-5000 fc, up to 6000-7000

Cultural Issues

- **Pest Problems**: Spidermites, Mealy Bugs
- **Diseases**:
  - Anthracnose
  - Crown Gall
  - Destroy Plant Material

- **Poor Color Development**:
  - Best color develops under bright light and cooler temperatures
  - Summer is toughest time for color development
Propagation

- Tip cuttings 3-6 inches
- Root within 4 weeks
- Propagation media 70-80°F
- Leaves root easily as well but will not produce apical bud

Fertilizer/Temperatures

- Fertilizer: Liquid should be a 3-1-2 ratio of N-P-K
- Temperature: 40-100°F tolerable for short periods
- Optimum growing temperature is 65-90°F

Spathiphyllum

- Family: Araceae
- Common Name: Peace Lily
- Cultivars: ‘Petite’
  - Additional cultivars: ‘Babyface,’ ‘Patrice,’ ‘Sonya’

Propagation

- Divisions or offsets
- Eye stem cuttings
- Tissue Culture
  - Most common is tissue culture and sold to growers as liners

Media/Nutrition

- Media: Good drainage and water hold capacity
- Generally a 1:1:1 ratio peat, perlite, and bark
- pH range of 5.8-6.5
- Nutrition: N-P-K of 3-1-2 applied as a slow release or liquid feed
- May be supplemented in media

Irrigation

- Keep media moist but not wet
- Can irrigate overhead or “ebb and flow”
- Plants watered overhead are more prone to diseases
Temperature
- Optimum: 68°F nights and 90 °F days
- Tolerates: 45 °F nights and 95 °F days
- Will not tolerate frost or freezing environments

Disease and Insects
- Diseases:
  - Myrothecium leaf spot and Pythium root rot are diseases that can be controlled
  - Cylindrocladium is a fungus that spreads quickly kills rapidly (sterilization)
- Insects:
  - Aphids, Caterpillars, Mealy Bugs, Scales, Thrips, and Whiteflies

Production Schedule
- Start with 10-14 week old liner
- Liners are commonly 72 cells per tray
- For a 6-7 inch pot requires 7 to 9 months
- Grow at light level of 1500-2500 fc
- BA is applied to produce branching and increase fullness of plant (liner)
- GA is used to force early or year round flowering (apply 8-15 weeks prior to sale)