Tropical Ornamentals and Tropical Floriculture

Many of the Ornamentals grown in the Temperate Zone have a Tropical Origin

Common Ornamentals

Ornamental Plants from Tropical America

- Poinsettia
- Leather leaf fern
- Anthurium
- Zebra Plant
- Caladium
- Marigolds
- Petunia
- Alstroemeria

- Oncidium orchids
- Philodendron
- Diffenbachia
- Heliconia
- Prayer plant
- Bromeliads
- Begonia

Ornamental Plants from South East Asia and Oceania

- Orchids
  - Dendrobium
  - Phalaenopsis orchids
  - Cymbidium
  - Vanda

- Hibiscus
- Pigmy Date Palm
- Impatiens
- Elephant Ears
- Ficus
- Pothos

Ornamental Plants from South East Asia

- Heliconia
- Begonia
- Zingiber Ginger
- Alocasia
- Banana

- China - Japan
  - Chrysanthemums
  - Easter Lilly
  - Rose
  - Hosta
  - Azaleas
**Ornamental Plants from Africa**
- Dracaenas
- Leather leaf fern
- African Violets
- Begonia

**Ornamental Plants from Temperate Zones**
- **North America**
  - Iris
  - Snapdragon
- **South Africa**
  - Gerbera daisy
  - Gladiolus
  - Begonia
  - Amaryllis
  - Geranium
  - Bird of Paradise
- **Europe**
  - Roses
  - Carnations
  - Pansy
  - Snapdragon
  - Tulips
  - Delphinium

**Tropical Floriculture**
Grow both Temperate and Tropical Species

**High Volume Cut Flower Imports (60% of USA imports)**

<table>
<thead>
<tr>
<th>Flower Type</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asters</td>
<td>China</td>
</tr>
<tr>
<td>Carnations (13%)</td>
<td>S/ SE Europe, S Russia</td>
</tr>
<tr>
<td>Mums (11%)</td>
<td>China</td>
</tr>
<tr>
<td>Gerbera</td>
<td>South Africa</td>
</tr>
<tr>
<td>Roses (36%)</td>
<td>China, Europe</td>
</tr>
</tbody>
</table>

**Source of Cut Flowers Imported**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Colombia</td>
<td>60%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>20%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>6%</td>
</tr>
<tr>
<td>Mexico</td>
<td>5%</td>
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<tr>
<td>Costa Rica</td>
<td>3.5%</td>
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<tr>
<td>Other</td>
<td>6.5%</td>
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Cut Flower Imports to USA (•) and Europe (○)

Tropical Cut Flower Production

- Major species are temperate climate species
  - Roses, carnations, chrysanthemums
- Advantages of Production in Tropical Zones
  - Excellent climate
    - Year round production
  - Less heating costs
  - Less expensive labor
- Many specialty species produced as well

Tropical Cut Flower Production
Flowers Produced in Hawaii

- Anthuriums
- Bird of Paradise
- Ginger
- Heliconia
- Orchids
  - Cymbidium
  - Dendrobium
  - Vanda
  - Oncidium
  - Phalaenopsis (potted)

Cut Flower Production
Banana, Ginger, and Heliconia

- Banana
- Musa
- Zingiber - Ginger
- Heliconia
Cut Flower Production
Banana, Ginger, and Heliconia

Plants are large

Cut Flower Production
Banana, Ginger, and Heliconia

Flowers are large

Cut Flower Production
Banana, Ginger, and Heliconia

Flowers are large

Export of Foliage

- Leaves for floral use
  - Palm leaves
  - Letherleaf fern

Palm Leaves
Phoenix roebelenii

Propagated by seed

Palm Leaves for Export
Phoenix roebelenii

Seeded in beds
Transplanted into pots
Palm Leaves for Export
*Phoenix roebelenii*

Leather Leaf Fern for Export
*Rumohra adiantiformis*

Leather Leaf Fern for Export
*Rumohra adiantiformis*

Nursery Stock
- Phytosanitary restrictions
  - No soil
  - Prevent of unwanted pests and diseases
- Propagation stock
  - Unrooted cuttings
  - Rooted cuttings
  - Corms, bulbs etc.
  - Small plants for finishing
  - Seed

Dracaena Airlayers for Export
*Dracaena marginata*
Dracaena Airlayers for Export
*Dracaena marginata*

Flower Seed Production

Seed Cleaning

Pollination

Nursery Trade Within Tropical Countries

- Any statistics on consumption?
- Many common crops
- Many tropical crops
Flower Market in Thailand

Tree Nursery in Thailand

Tree Nursery in Thailand

Tree Nursery in Thailand
Tropical Floriculture

Wide range of climates
Wide range of crops
Labor costs are lower

Potential is tremendous