Poinsettias

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Hummert International
Poinsettias

- History
- Varieties
- Scheduling
- Growing Media
- Vegetative Growth
- Water
- Nutrition
- Height control
- Flowering
- Pests of Poinsettia
Poinsettia History

- Joel Roberts Poinsett, first U. S. ambassador to Mexico
- Shipped cuttings of the native Mexican plant to his Greenville, South Carolina greenhouse
- Propagated the plants and sent them to friends and botanical gardens around the country (1828)
- Hometown of Greenville, South Carolina
Paul Ecke Sr., Jr., III

- Control 70% of the domestic market and 50% of the worldwide market (2008)

Encinitas, California
Variety Selection

Early varieties
- Freedom
- Prestige
- Fisher/Syngenta

Medium varieties

Late varieties
- Be carful

Eckes Freedom Red

Prestige Red
Non-rooted Poinsettia Scheduling

Variety selection
Planting date
Desired Height

Natural short day
Schedules

Pots size

Pinch (98%) or no pinch (2%)

Number of plants per pot
<table>
<thead>
<tr>
<th>Pot Size</th>
<th>Plants per Pot</th>
<th>Pot Date</th>
<th>Pinch</th>
<th>Start Short Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 inch</td>
<td>3</td>
<td>7/25</td>
<td>8/25</td>
<td>9/20</td>
</tr>
<tr>
<td>7 inch</td>
<td>2</td>
<td>8/5</td>
<td>9/5</td>
<td>9/20</td>
</tr>
<tr>
<td>6 inch</td>
<td>1</td>
<td>8/15</td>
<td>9/15</td>
<td>9/20</td>
</tr>
<tr>
<td>4 inch</td>
<td>1</td>
<td>9/5</td>
<td>9/25</td>
<td>9/20</td>
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</tbody>
</table>
Growing Media

• Buy the best
• pH 5.8 to 6.5
• Some growers use composted pine bark
Propagation of Cuttings

- High quality finished crop begins with the stock plant
- Schedule is important
- Date is determined by when you want to market them
- Usually July & August
- 4 weeks to develop a well-rooted cutting
Poinsettia Cuttings Options

- **Cuttings**
  - Takes 5 to 10 day to form callus

- **Callus cuttings**
  - Takes 5 to 10 days for root initiation

- **Rooted cuttings “Oasis wedges”**
  - Key is to keep wedges wet until root penetration into soilless media ~ 7 days
Rooted Oasis Wedge Cuttings
Vegetative Growth

- Primary goal is to build foundation of the blooming plant
- Root penetration
- Proper pinching
  - 1st week September
- Controlling elongation
- Reaching target height
Water

• Responsible for leaf expansion
• Responsible for Stem elongation
• Wet – Dry Cycles
• Couch potato
Nutrition

- Nitrates
- pH
- Temperature and sunlight
- Avoid High Phosphorous
- **Magnesium** deficiency (chlorotic on leaf edges)
- **Calcium** (black ring around leaf edges)
- Use Cal-Mag fert
Poinsettia Growth Phases

• Propagation – Sticking to root initiation
  – low EC & **10 to 150 ppm N** after roots initially appear

• Initial Growth – Transplant to 2 weeks after pinch
  – **100 to 150 ppm N**

• Rapid Growth – 1 inch per week
  – **200 to 300 ppm N + Ca, Mg if needed**

• Flowering – bracts expanded, flowers develop
  – **100 ppm N**
Height Control
Pinching

Timing

Program pinch
Pinch height
Height Control

Graphical tracking
Growing journal
Weekly pictures
Start of short days
Pinching
Watering
DIF
Growth regulators
Graphical Tracking
ecke.com

6 to 6.5 inch pot
DIF

“Plant height was much more strongly dependent on the difference between day and night temperature than on the absolute value of either (Karlsson et al, 1989).”

To explain the effect she coined the term DIF

Day temperature regulates photosynthesis

Night temperature regulates respiration

Hormone development

Maturity
Temperatures

- 65 F air temperature at night
- 75-85 F air temperature during day
- Cooler mornings
Growth Regulators

Cycocel/B-nine - Until Oct 10
Late Bonzi drench - Be careful
Photo Sequence
Prestige Early Red - spray
Cycocel halo
Small Bracts
The Role of Short Days

**Flower initiation**

Must be more than 12 hours of dark

For early varieties Sept 12
For others Sept 20
For schools

Probably the best variety is Prestige because of its early finishing time
Poinsettia Pests
Insects

Excellent crop for IPM

Monitoring great tool for learning

Marathon is safe and effective

REI = 12 hours
Whiteflies
WF TR Program for schools
<table>
<thead>
<tr>
<th>Stage</th>
<th>Day 1</th>
<th>Day 7</th>
<th>Day 14</th>
<th>Comments</th>
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<tr>
<td>Adults</td>
<td>Space Mix Preclude TR &amp; Tame/Orthene TR</td>
<td>Tame/Orthene TR</td>
<td>Space Mix Preclude TR &amp; Tame/Orthene TR</td>
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<tr>
<td>Immatures</td>
<td>Ultra-Pure Oil</td>
<td>Prelude TR &amp; Ultra-Pure Oil</td>
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<td>Do not apply Ultra-Pure oil if plants are in bloom</td>
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<tr>
<td>Eggs</td>
<td>Ultra-Pure Oil</td>
<td>Ultra-Pure Oil</td>
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<td>Do not apply Ultra-Pure oil if plants are in bloom</td>
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Fungus
Gnats
Yellow Sticky Cards
Disease

Use environmental controls first

Temperature

Air Flow

Fungicides have long REI
Scab
Botrytis