Garden Mum
Summer Flowering

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Can we get black-clothed mums to resemble outdoor-grown mums?

Experiment

- Regal Cheryl Purple
- 5” pot
- Pinch and place at 4 photoperiods: 9/15, 11/13, 13/11 or 15/9 h days
- Trim to 3 stems per plant

Photoperiod Treatments

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**Key Assumptions**

Add your assumptions here.

### Photoperiods (civil twilight to civil twilight)

- **Minneapolis**
- **Philadelphia**
- **Charlotte**

#### Minneapolis

#### Philadelphia

#### Charlotte

#### Daylength (h)

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<th>Charlotte</th>
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### Photoperiods

- **Photoperiods**
  - All 13/11h for 6+ wks
  - 15/9h for 6 wks
  - 15/9h for 4 wk followed by 13/11h
  - All 9/15 & 11/13h
  - 4 wks at 13/11h
  - 2 wks at 15/9h

### Flowers per Node

#### Photoperiods

- 1
- 3
- 5
- 7
- 9
- 1
- 31
- 51
- 71
- 9

#### Node Position

- 1
- 3
- 5
- 7
- 9

#### Photoperiods

- All 13/11h for 6+ wks
  - Flowers per node
  - Node Position

- 15/9h for 6 wks
  - 15/9h for 4 wk followed by 13/11h
  - Flowers per node
  - Node Position

- All 9/15 & 11/13h
  - 4 wks at 13/11h
  - 2 wks at 15/9h
  - Flowers per node
  - Node Position
Conclusions

- Regal Cheryl Purple initiates flower at 15/9h but requires shorter days (13/11h) for development.
- Going from NI-lighting (long days) immediately to 9h daylength causes a rapid change from vegetative growth to reproductive development...and low flower count.
- Providing intermediate daylengths 13-15h for 6 wks before going to 9/15 to 11/14h dramatically increases flower count.
- No difference were observed between 9/15 and 11/13h daylengths.

Future Plans

- Can Florel applications overcome cool summer temperatures to prevent crown budding?