

College of Agriculture & Life Sciences
Department of Horticultural
Science

PourThru Guidelines for Poinsettias

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The poinsettia is a staple in greenhouse floriculture production. As the top selling potted flowering crop, successful poinsettia production is a must. Proper fertility is essential for quality plants. Monitoring and managing the root substrate pH and electrical conductivity (EC) is critical for proper poinsettia nutrition.

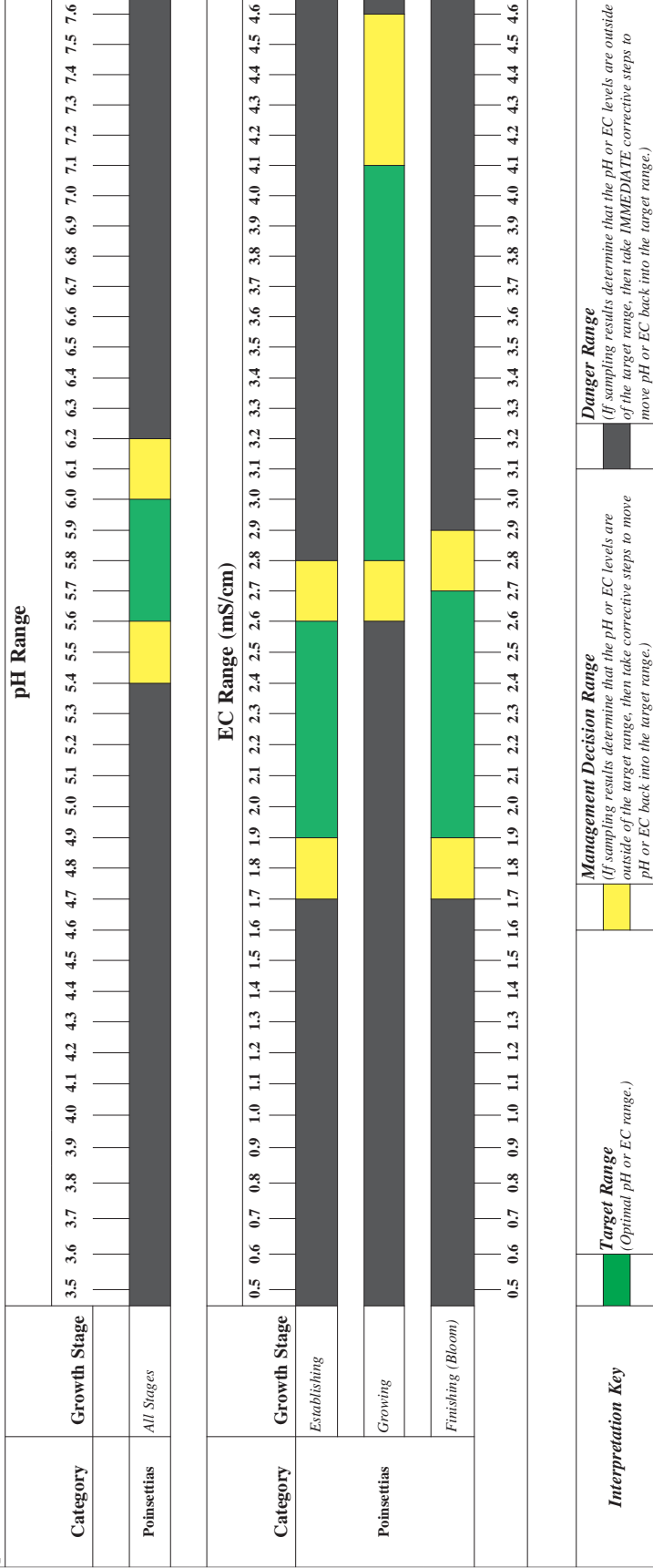
Routine testing (every 2 weeks) with the PourThru method is a simple and quick way to obtain pH and EC values. Optimum soilless substrate pH values for poinsettia are 5.6 to 6.0, while EC values should be between 2.8 to 4.1 mS/cm during active growth.

Low substrate pH can limit calcium availability for poinsettias. Calcium deficiency leads to marginal necrosis of newly expanding leaves or bract edge burn. High substrate pH, above 6.8, can lead to Iron (Fe) deficiency. Symptoms are interveinal chlorosis of upper leaves progressing towards complete leaf chlorosis and necrosis.

Both excessively low and high pH's should be avoided while maintaining appropriate EC levels. Routine PourThru sampling will help to detect unfavorable trends before nutritional problems occur. Figure 1 provides pH and EC ranges for poinsettias at various developmental stages. Charts for recording pH and EC values are also provided.

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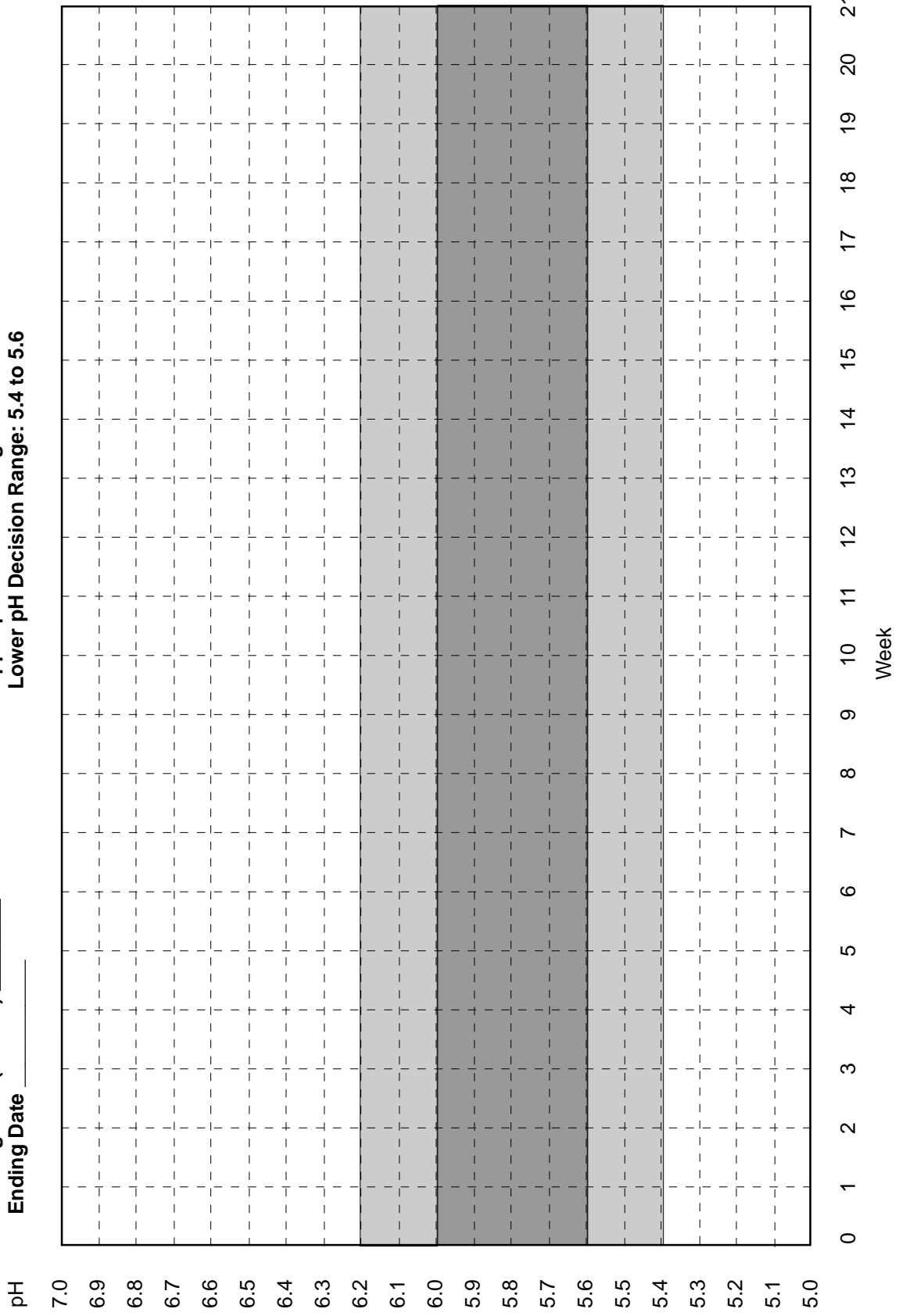
Figure 1. Suggested Pour/Thru substrate pH and EC ranges for poinsettias grown in soilless substrate. These values are guidelines and adjustments should be made based on your growing practices.



PourThru pH chart for poinsettias.

Crop : Poinsettias
Starting Date (week 0) _____
Ending Date _____

Target pH Range: 5.6 to 6.0
Upper pH Decision Range: 6.0 to 6.2
Lower pH Decision Range: 5.4 to 5.6



PourThru EC chart for poinsettias.

Crop : Poinettias

Starting Date (week 0) _____

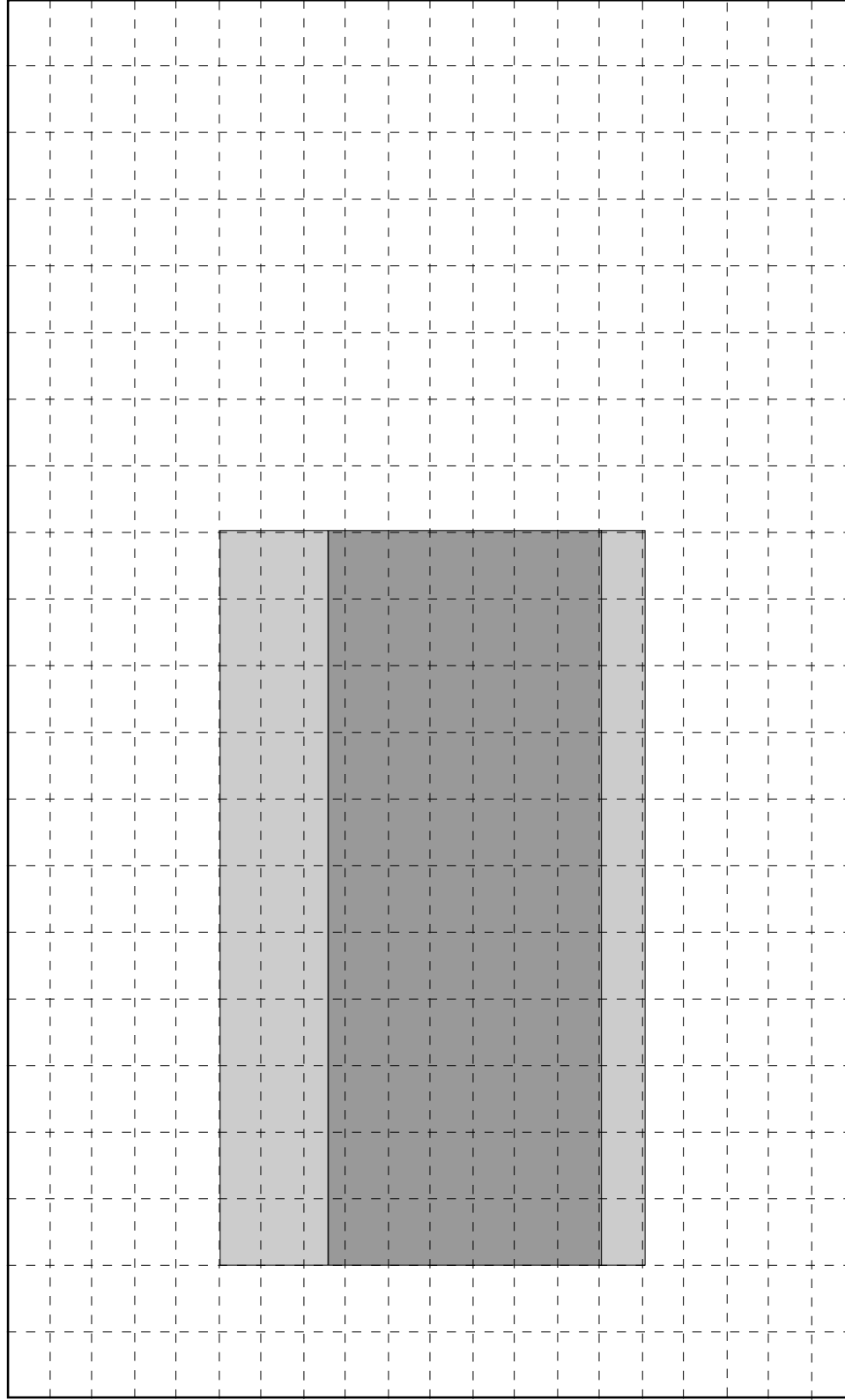
Ending Date _____

Target EC Range: 2.8 to 4.1 mS/cm

Upper EC Decision Range: 4.1 to 4.6 mS/cm

Lower EC Decision Range: 2.6 to 2.8 mS/cm

EC (mS/cm)
5.60
5.40
5.20
5.00
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Week