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PourThru Guidelines for Pansies

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Proper nutrition is essential for producing quality pansies. Pansies make a large contribution to the net profit of many greenhouse operations and should be included in a nutritional monitoring program. Sampling the root substrate pH and electrical conductivity (EC) with the PourThru extraction method is a quick and simple check of the crop's nutritional status.

Routine (weekly) PourThru sampling provides immediate clues about a crop's performance before deficiency or toxicity symptoms appear. Soilless root substrate pH values should be maintained between

5.4 to 5.8. Electrical conductivity values should be between 1.1 to 2.1 mS/cm during active growth.

A pH above 6.2 can lead to micronutrient deficiency problems, such as Boron (B) which appears as stunted growth or dieback of the apical meristem. Both excessively low and high pH's should be avoided. Routine PourThru sampling will help to detect unfavorable trends before nutritional problems occur. Figure 1 provides pH and EC ranges for pansies at various developmental stages. Charts for recording pH and EC values are also provided.

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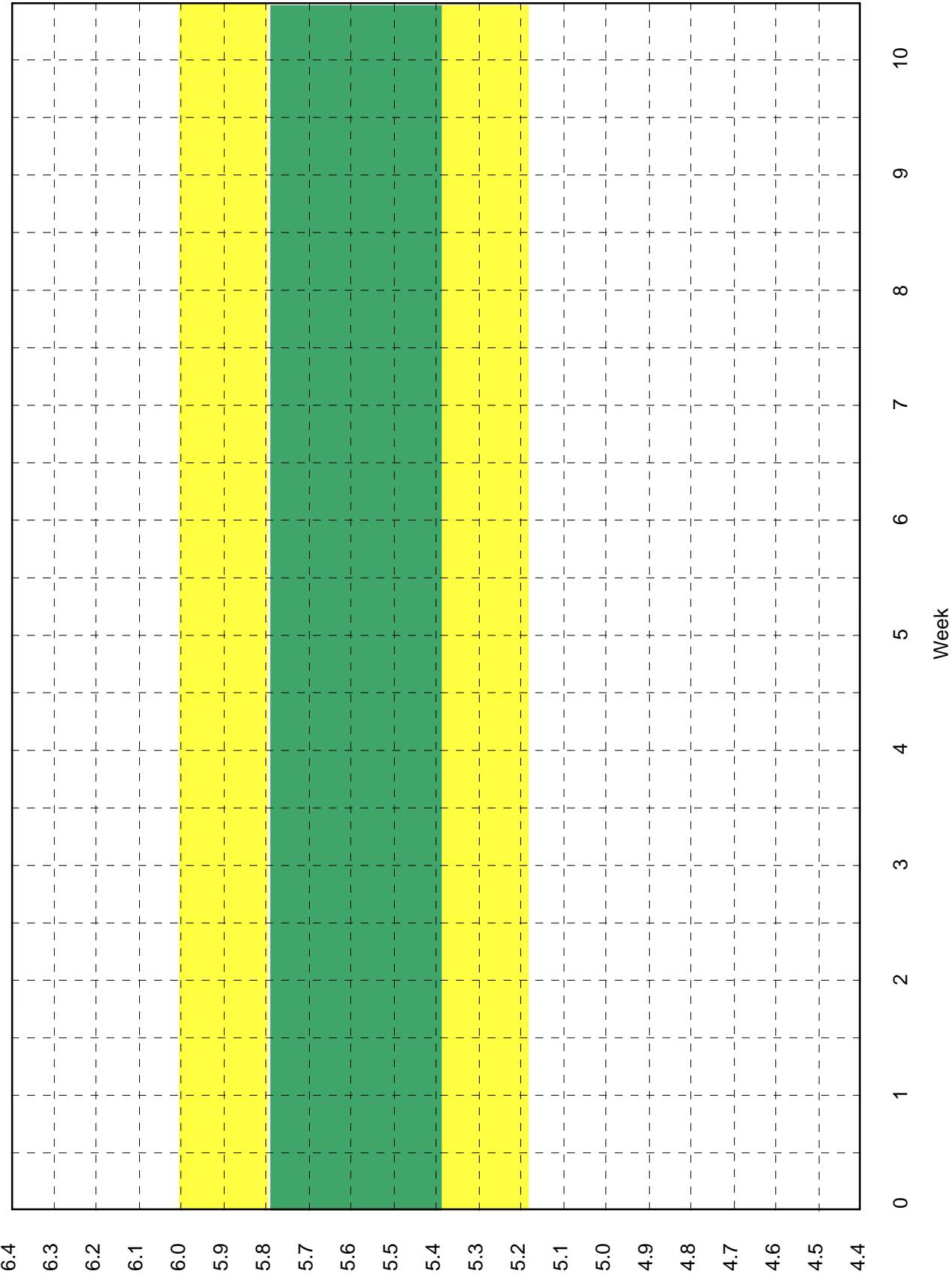


Figure 1. Suggested PourThru substrate pH and EC ranges for fall pansies grown in soilless substrate. These values are guidelines and adjustments should be made based on your growing practices.

		pH Range																			EC Range (mS/cm)																						
Category	Growth Stage	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6
Pansies	All Stages																																										
		Establishing																			Growing																						
		Finishing (Bloom)																			Pansies																						
Interpretation Key		Target Range (Optimal pH or EC range.)										Management Decision Range <i>(If sampling results determine that the pH or EC levels are outside of the target range, then take IMMEDIATE corrective steps to move pH or EC back into the target range.)</i>																			Danger Range <i>(If sampling results determine that the pH or EC levels are outside of the target range, then take IMMEDIATE corrective steps to move pH or EC back into the target range.)</i>												

PourThru pH chart for pansies.

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



PourThru EC chart for pansies.

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

Target EC Range: 1.1 to 2.1 mS/cm
Upper EC Decision Range: 2.1 to 2.3 mS/cm
Lower EC Decision Range: 0.9 to 1.1 mS/cm

