



## Water Quality for Greenhouse And Nursery Use

# FACT SHEET

	Upper Limit for Green house	Upper Limit for Nursery Use
PH	5.4-7.0 is acceptable	5.4-7.0 is acceptable
Alkalinity	2 meq / L	2 meq / L
Carbonates (CaCO <sub>3</sub> )	100 ppm	100 ppm
Bicarbonates (HCO <sub>3</sub> )	122 ppm	122 ppm
Hardness (Ca + Mg)	150 ppm (CaCO <sub>3</sub> a)	150 ppm (CaCO <sub>3</sub> )
Electrical Conductivity		
For plug production	0.75 mmho / cm	
For general production	1.0 mmho /cm	2.0 mmho / cm
Total Dissolved Salts		
For plug production	480 ppm	
For general production	640 ppm	1,280 ppm
SAR Sodium Absorption Ratio	4	10
Sodium	69 ppm (3 meq / L)	69 ppm (3 meq / L)
Chloride (Cl)	71 ppm (2 meq /L)	71 ppm (2 meq / L)
Total Nitrogen (N)	10 ppm (.72 meq /L)	10 ppm (.72 meq / L)
Nitrate ( NO <sub>3</sub> )	44 ppm (.72 meq / L)	44 ppm (.72 meq /L)
Ammonium (NH <sub>4</sub> )	10 ppm (.56 meq /L)	10 ppm (.56 meq / L)
Phosphorous (P)	3 ppm (0.03 meq / L)	3 ppm (0.03 meq / L)
Phosphate (H <sub>2</sub> P <sub>04</sub> )	3 ppm (0.03 meq / L)	3 ppm (0.03 meq / L)
Potasssium (K)	10 ppm (0.26 meq . L)	10 ppm (0.26 meq / L)
Calcium (Ca)	0– 120 ppm (0-6 meq / L) is normal	0–120 ppm (0-6 meq / L) is normal
Magnesium (Mg)	0-24 ppm	0–24 ppm
Sulfur (S)	20-30 ppm (.63-.94 meq /L) 60-90ppm is suggested for most plants	20-30 ppm (.63-.94 meq /L) 60-90ppm is suggested for most plants
Aluminum (Al)	0-5.0 ppm	0-5.0 ppm
Boron (B)	0.5 ppm	0.5 ppm
Copper (Cu)	0.2 ppm	0.2 ppm
Iron (Fe)	0.2-4.0 ppm	0.2-4.0 ppm
Zinc (Zn)	0.3 ppm	0.3 ppm
Manganese (Mn)	1.0 ppm	1.0 ppm

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**Water Quality Standards for the Greenhouse and Nursery Crops**

<b>Quality</b>	<b>Electrical Conductivity EC x 10<sup>-3</sup> (millimhos)</b>	<b>Total Soluble Salts</b>	<b>Sodium Content (%salts as Na)</b>	<b>SAR</b>	<b>PH</b>
Excellent	0-.25	175	20	3	6.5
Good	0.25-0.75	175-525	20-40	3-5	6.5-6.8
Permissable	0-75-2.0	525-1400	40-60	5-10	6.8-7.0
Doubtful	2.0-3.0	1400-2100	60-80	10-15	7.0-8.0
Unsuitable	>3.0	>2100	>80	>15	>8.0