

Tables of optimal concentrations

Although the specific nutrient requirements for all container plants are not known, ranges are given in the table for plants grown outdoors or under shade, such as woody plants. Optimal ranges are presented and these should result in desirable growth for most plants; however, plant nutrient requirements can vary according to genera and other environmental factors so some judgment based on experience is best.

TABLE 1: Container substrate nutrition for woody ornamentals grown outdoors or under shade.

ANALYSES	RATING CATEGORY				
	Low	Acceptable	Optimum	High	Very High
pH	< 5.0	5.0 to 5.5	5.5 to 5.8	5.8 to 6.5	> 6.5
Electrical conductivity, dS/m	< 0.7	0.7 to 1.0	1.0 to 1.5	1.5 to 3.0	> 3.0
Nitrate-N, mg/L (ppm)	< 40	40 to 80	80 to 100	100 to 200	> 200
Phosphorus, mg/L	< 3	3 to 8	8 to 12	12 to 18	> 18
Potassium, mg/L	< 10	10 to 20	20 to 40	40 to 80	> 80
Calcium, mg/L	< 10	10 to 20	20 to 40	40 to 100	> 100
Magnesium, mg/L	< 10	10 to 15	15 to 20	20 to 60	>60

Plants of the Ericaceae (eg., azaleas) and salt-sensitive plants may tolerate only one half the electrical conductivity and may require only one half the levels of nutrients (nitrate nitrogen, phosphorus, potassium, calcium, and magnesium) shown in this table.

$$1 \text{ dS/m} = 1 \text{ mmhos/cm}$$