

Water quality guidelines

1dd/Sm=1mS/cm=1000mS/cm=600mg/l=600ppm

EC Range (mS/cm)	Usefulness of water
0-800	<ul style="list-style-type: none"> • Good drinking water for humans (provided there is no organic pollution and not too much suspended clay material) • Generally good for irrigation, though above 300mS/cm, some care must be taken, particularly with overhead sprinklers which may cause leaf scorch on some salt sensitive plants • Suitable for all livestock
800-2,500	<ul style="list-style-type: none"> • Can be consumed by humans although most would prefer water in the lower half of this range if possible • When used for irrigation, requires special management including suitable soils, good drainage and consideration of salt tolerance of plants • Suitable for all livestock
2,500-10,000	<ul style="list-style-type: none"> • Not recommended for human consumption, although water up to 3000mS/cm could be drunk if nothing else was available • Not normally suitable for irrigation, though water up to 6000mS/cm can be used on very salt tolerant crops with special management techniques. Over 6000mS/cm, occasional emergency irrigation may be possible with care, or if sufficient low salinity water is available, this could be mixed with the high salinity water to obtain an acceptable supply • When used for drinking by poultry and pigs, the salinity should be limited to about 6000mS/cm. Most other stock can use dup to 10,000mS/cm • High magnesium may be present in water of this salinity level and above causing stock health problems. It is recommended that a water analysis is conducted to check.
10,000 and above	<ul style="list-style-type: none"> • Not suitable for human consumption or irrigation • Not suitable for pigs, poultry or any lactating animals. Beef cattle can use water up to 17,000mS/cm and adult dry sheep can tolerate 23,000mS/cm. However it is possible that waters below these EC levels could contain unacceptable concentrations of particular ions. Detailed chemical analysis should therefore be considered before using high salinity water for stock. • Water up to 50,000mS/cm can be used to flush toilets provided corrosion in the cistern can be controlled.

Stock - Salinity tolerance levels

Limits for drinking water

		EC (mS/cm)	Mg/L (ppm)
Poultry	Production decline begins	3,100	2,000
	Maximum	6,250	4,000
Pigs	Production decline begins	3,100	2,000
	Maximum	6,250	4,000
Horses	Health/growth affected	6,250	4,000
	Maximum	10,900	7,000
Dairy cattle	Production decline begins	4,700	3,000
	Maximum	9,300	6,000
Beef cattle	Production decline begins	6,250	4,000
	Maximum	15,600	10,000
Lactating ewes, weaners	Production decline begins	6,000	3,800
	Maximum	10,000	6,400
Sheep, dry feed	Production decline begins	9,300	6,000
	Maximum	21,800	14,000

Production decline begins: desirable maximum salt concentration for healthy growth
Maximum: Maximum salt concentration that may be safe for limited periods

Fruit, vegetables, flowers Salinity tolerance levels

0-800EC (mS/cm) (0-500mg/L(ppm))	800-2,300EC (mS/cm) (500-1,500mg/L(ppm))	2,300-5,500EC (mS/cm) (1,500-3,500mg/L(ppm))
Avoid wetting leaves on hot, dry days	Avoid light, frequent watering and wetting leaves during daytime	Avoid wetting leaves Adequate leaching necessary
Fruit		
Passionfruit Strawberry Apricot Peach Plum Grape Grapefruit Orange Lemon	Mulberry Apple Pear Raspberry Quince	Olive Fig Canteloupe
Vegetables		
Lettuce Green beans/peas Carrot Celery Onion Radish Sweet corn Potatoes	Cabbage Cauliflower Broccoli Broad beans Tomato Sweet potato	Spinach Asparagus
Flowers		
Violet Primula Dahlia Begonia Azalea Camellia Magnolia Fuchsia	Rose Gladiolus Aster Geranium Zinnia	Stock Chrysanthemum Carnation Hibiscus Oleander Bamboo