

Healthy Soil & clean water =  
Healthy Crops & Pasture =  
Healthy Livestock & People



Water quality:

- ▶ Salts
- ▶ Sodium
- ▶ Magnesium

**Farm water quality is not always easy to assess. The same supply may be used for livestock, spray tanks and even irrigation.**

A test for the quality of water intended for fairly general use needs to cover only a few things, but the one set of results may need to cover many different uses.

The SWEP Farm Water test includes pH, EC, Calcium, Magnesium, Sodium, Potassium, Chloride, Carbonate, Bicarbonate, Copper, Zinc, Iron, Manganese. Due to the diverse uses, there are no desirable levels or comments included. Use the table here as a guide to how your water quality stacks up.

### Maximum Permissible Levels for Magnesium, Aluminium, Iron and Nitrate Nitrogen for livestock

	Horses ppm	Cattle ppm	Sheep ppm
Magnesium (Mg)	250	400	500
Aluminium (Al)	5	17	10
Iron (Fe)	1	1	1
Nitrate (NO <sub>3</sub> )	90	130	190

### Total Soluble Salt and Magnesium limits in water for livestock

Livestock	Total Soluble Salts (ppm)	Magnesium	
		ppm	me/litre
Poultry	3500		
Pigs	4500		
Horses	6000	250	21
Cows in milk	6000	250	21
Ewes with lambs	6000	250	21
Beef Cattle	10000	400	33
Adult sheep on dry feed	14000	500	42

**Note:** Magnesium Tolerance for Pigs and Poultry is unclear, but is likely to be less than 250 ppm.

### Guide to the number of irrigations with water of varying salinity levels, between leaching grains or irrigation with non-saline water

Total Soluble Salts (ppm)	Number of irrigations for crops of:		
	High Salt Tolerance	Medium Salt Tolerance	Low Salt Tolerance
640	no limit	15	7
1280	11	7	4
1920	7	5	2
2650	5	3	2
3200	4	2-3	1
3840	3	2	1
4480	2-3	1-2	Unsuitable
5120	2	1	Unsuitable

### More information:

**Water Fact Sheet #2a** – Water for Irrigation (Total soluble salts).

**Water Fact Sheet #2b** – Water for Irrigation (Dissolved sodium).

**Quality Aspects of Farm Water Supplies** . Government Printers Melbourne.

If you have any other questions, please contact us on (03) 9701 6007, or email: [services@swep.com.au](mailto:services@swep.com.au)

