

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



Water quality:

- ▶ Minerals
- ▶ Microbes
- ▶ Contaminants

**The World Health Organisation has published international standards for drinking water, although it emphasises that rigid standards cannot be set, the criteria here should give you a useful guide.**

In reading the table opposite, it should also be remembered that many of these maximum levels relate to the effects of various constituents on attributes such as colour or taste. For example, Magnesium levels of greater than 150ppm may impart a 'Flat' taste to the water, but (except in the case of

extremely high levels) should not cause any health concerns.

Iron, Copper and Zinc may be derived from metals in the plumbing used to carry the water.

The level of Calcium and Magnesium (together with carbonate levels) are an indication of the degree of water hardness.

Nitrate is an important indicator of potential health risks as high levels may be an indication of contamination. If the sample is likely to have any biological contamination, Nitrate tests should be combined with those for *E. coli* and Total Coliforms.

	Guideline Concentration
Calcium	100ppm
Chloride	<250ppm
Copper	1ppm
Iron	0.3ppm
Magnesium	30-50ppm
Manganese	0.05ppm
Nitrate	<10ppm
Phosphorus	0.5ppm
Potassium	10ppm
Sodium	30ppm
Sulphate	250ppm
Total soluble salts	500ppm
Zinc	<5ppm

If the water is intended for bottling and sale to the public, biological and heavy metal tests are also strongly recommended. The table opposite may provide some guidelines for potential contaminant items.

	Maximum Concentration
Mercury	0.001ppm
Cadmium	0.005ppm
Selenium	0.01ppm
Arsenic	0.05ppm
Chromium	0.05ppm
Lead	0.05ppm
Molybdenum	0.07ppm
Fluoride	1.5ppm
Antimony	10ppm
Nickel	50ppm
<i>E. coli</i>	0 per 100ml
Total Coliforms	<10 per 100ml

**Note:** The guideline and maximum concentrations given here are taken from information provided by the World Health Organisation and other international sources. They relate to either health or acceptability (taste, odour, colour, staining, etc.) thresholds – whichever ever is the lowest.

**More information:**

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

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

**Guidelines for Drinking-water Quality**, 3<sup>rd</sup> Edition. [www.who.int/](http://www.who.int/)

If you have any other questions, please contact us on (03) 97016007, or email: [services@swep.com.au](mailto:services@swep.com.au)