

Table 5.10 Water quality guidelines for livestock watering (mg/L, unless otherwise stated)

Parameter	Guidelines	Comment
<i>Major ions and nutrients</i>		
Calcium	1,000.0	
Nitrate-N	30.0	30 (horses), 40 (cattle), 60 (sheep)
Nitrite-N	10.0	
Sulfate	1,000.0	
Total dissolved solids	3,000.0	(Table 5.12, below)
<i>Trace elements</i>		
Aluminium	5.0	
Arsenic	0.5	
Beryllium	0.1	
Boron	5.0	
Cadmium	0.01	
Chromium	1.0	
Cobalt	1.0	
Copper	0.5	0.5 (sheep), 1.0 (pigs, poultry), 5.0 (cattle)
Fluoride	2.0	
Lead	0.1	
Magnesium		(Table 5.13, below)
Mercury	0.002	
Molybdenum	0.01	
Nickel	1.0	
Selenium	0.02	
Uranium	0.2	
Vanadium	0.1	
Zinc	20.0	

Table 5.12 Total dissolved solids concentrations for drinking water for livestock (mg/L)

Stock	Desirable maximum concentration for healthy growth	Maximum concentration at which good condition might be expected	Maximum concentration that may be safe for limited periods
Sheep, dry feed	6,000	13,000	**
Beef cattle	4,000	5,000	10,000
Dairy cattle	3,000	4,000	6,000
Horses	4,000	6,000	7,000
Pigs	2,000	3,000	4,000
Poultry	2,000	3,000	4,000

** level depends on type of feed

Table 5.13 Magnesium and TDS concentrations in drinking water for livestock

Category	Guideline	Comments
1	TDS below 5,000 mg/L Magnesium below 600 mg/L	Suitable for sheep & cattle of all ages
2	TDS of 5,000-10,000 mg/L Magnesium below 600 mg/L	Generally unsuitable for lambs, calves and weaners. Caution needed with lactating stock if unaccustomed. Suitable for dry, mature sheep & cattle.
3	TDS of 10,000-15,000 mg/L Magnesium below 600 mg/L	Suitable for dry, mature sheep. Caution needed if unaccustomed.
4	TDS above 15,000 mg/L Any magnesium level	Generally unsuitable for all stock
5	Any TDS level Magnesium above 600 mg/L	Generally unsuitable for all stock