



Livestock Watering

SULFATE

Sulfate in water used for livestock should not exceed 1000 mg/L. Higher concentrations of sulfate can be tolerated, but loss in production should be anticipated. High levels of sulfate can cause diarrhea in young animals.

SALINITY (TOTAL DISSOLVED SOLIDS)

The concentration of total dissolved solids (TDS) in water used for livestock watering should not exceed 3000 mg/L. Water with higher TDS concentrations can be used but the type of livestock and their age must be considered. See the following table:



| TDS, mg/L | Suitability for Livestock |
|------------|--|
| <1000 | Relatively low level of salinity; excellent for all classes of livestock |
| 1000-3000 | Satisfactory for all classes of livestock and poultry, but some loss in productivity should be anticipated; may cause temporary and mild diarrhea in livestock not accustomed to them or water droppings in poultry |
| 3000-5000 | Satisfactory for livestock, but may cause temporary diarrhea or be refused at first by animals not accustomed to them; poor waters for poultry, often causing watery feces, increased mortality and decreased growth, especially in turkeys |
| 5000-7000 | Can be used with reasonable safety for beef cattle, sheep, swine and horses; avoid use for pregnant or lactating animals and dairy cattle; not acceptable for poultry |
| 7000-10000 | Unfit for poultry and probably for swine; considerable risk in using for pregnant or lactating cows, horses or sheep, or for the young of these species; in general, use should be avoided, although older ruminants, horses, poultry and swine may subsist on them under certain conditions |
| <10000 | Risks with these highly saline waters are so great that they cannot be recommended for use under any conditions |

Surface Water Quality Objectives for Livestock Watering (values are in mg/L unless otherwise stated)

| | |
|------------------|---|
| Aluminum | 5.0 |
| Arsenic | 0.5 |
| Bacteria | In intensive and high density livestock operations only high quality water should be given to livestock. Very young animals are much more susceptible to problems from bacterial contamination than mature animals. For specific advice, consult your veterinarian. |
| Blue-green algae | Avoid waters with heavy growth of blue-green algae. |
| Beryllium | 0.1 |
| Boron | 5.0 |
| Cadmium | 0.02 |
| Chromium | 1.0 |
| Cobalt | 1.0 (cattle) 5.0 (swine/poultry) |

| | |
|-------------------------------|-----------------|
| Copper | 0.5 (sheep) |
| Fluoride | 2.0 |
| Lead | 0.1 |
| Mercury | 0.003 |
| Molybdenum | 0.5 |
| Nickel | 1.0 |
| Nitrate plus nitrite | 100 |
| Selenium | 0.05 |
| Sulphate | 1000* |
| Total dissolved Solids | less than 1000* |
| Uranium | 0.2 |
| Vanadium | 0.1 |

***See detailed information sheet regarding sulfate and total dissolved solids for livestock watering.**

CONTACT

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