

# Livestock Watering FACTSHEET




**BRITISH  
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## WATER QUALITY AND CATTLE



**Water  
Quality  
Matters**



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**IMPORTANCE OF WATER QUALITY TO CATTLE**

Water is the nutrient required most by cattle. Water accounts for 50-80% of an animal's weight and is involved in every physiological process. Feed intake is directly related to water intake. There are many factors which affect water intake, and also many compounds in surface and well water which can affect livestock performance and health.

Cattle can tolerate poor water quality better than humans, but if concentrations of specific compounds found in water are high enough, cattle can be affected. Most factors affecting water quality are not fatal to cattle. Cattle may not show clinical signs of illness, but growth, lactation and reproduction may be affected, causing an economic loss to the producer.

Most common water quality problems on the Prairies associated with surface water are:

- Blue-green algae (cyanobacteria)
- Bacteria, viruses and parasites
- Sulphates
- Dissolved solids (TDS).

Some water quality problems associated with groundwater are:

- Sulphates
- Dissolved solids (TDS)
- Nitrates
- Iron and manganese.

Other parameters that may be of concern are:

- Taste and odour
- Temperature
- pH/alkalinity.

**WATER CONSUMPTION**

The following table outlines water requirements for cattle.

Table 1: Water Requirements for Cattle

Air Temperature	Water Requirements (water / kg dry matter feed intake)
> 35 C	8 - 15L / kg
25 - 35 C	4 - 10L / kg
15 - 25 C	3 - 5L / kg
-5 - 15 C	2 - 4L / kg
- 5 C	2 - 3L / kg

(adapted from: Effect of Environment on Nutrient Requirements of Domestic Animals, 1981, National Research Council)

The water requirements in Table 1 should be adjusted within the ranges in the following ways:

- 1) Good quality feed, lactating cows and high growth periods of an animal's life cycle increase feed intake.
- 2) Lactating cows - Increase water consumption by 75%.



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This publication contains excellent information which may be of assistance to you. It is available in [PDF format](#) as a free download directly from the Prairie Farm Rehabilitation Administration (PFRA) website. PFRA is a branch of Agriculture and Agri-Food Canada. An [html version](#) is also available on the website.