

Water for Lactating Cows

The water requirements of lactating cows depend upon:

- production level;
- dry matter (DM) intake;
- salt consumption;
- environmental temperature and humidity, and;
- ration moisture content.

The first four of these factors have been incorporated into an equation which can be used to estimate water intake, as follows :

$$\begin{array}{rclcl}
 \text{WATER INTAKE (litres/day)} & = & 15.99 & & \\
 + & 1.58 & \times & \text{DM intake} & \text{(kg/day)} \\
 + & 0.9 & \times & \text{milk yield} & \text{(kg/day)} \\
 + & 0.05 & \times & \text{sodium (Na) intake} & \text{(g/day)} \\
 + & 1.2 & \times & \text{weekly avg min temp} & \text{(}^\circ\text{C)}
 \end{array}$$

Ration moisture content influences the amount of water cows will drink in two ways:

- Wet feed intake increases as ration moisture level rises to about 45-50% and the amount of water consumed as part of the ration increases. This decreases the amount cows drink.
- Ration dry matter intake will decrease as rations get wetter. As indicated in the equation above, reduced dry matter intake results in lower water consumption.

The net effect is that total water intake will decline as ration moisture content increases.

for more information:

[Water Requirements of Lactating Cows](#), *Alberta Dairy Management*