

Species	Equations, $y$ : water intake (L day <sup>-1</sup> )	Authors
Dairy cows (Lactation)	$y = 15.3 + 2.52 \times \text{milk yield (kg day}^{-1}\text{)} + 0.45 \times \text{DM}^{\text{a}} \text{ content of ration (\%)} $ $y = 15.99 + 1.58 \times \text{DM intake (kg day}^{-1}\text{)} + 0.9 \times \text{milk yield (kg day}^{-1}\text{)} + 0.05 \times $ $\text{Na intake (g day}^{-1}\text{)} + 1.2 \times \text{minimal night temperature (}^{\circ}\text{C)} $ $y = 14.3 + 1.28 \times \text{milk yield (kg day}^{-1}\text{)} + 0.32 \times \text{DM content of ration (\%)} $ $y = -26.12 + 1.516 \times \text{average of environment temperature (}^{\circ}\text{C)} + 1.299 \times $ $\text{milk yield (kg day}^{-1}\text{)} + 0.058 \times \text{body weight (kg)} + 0.406 \times \text{Na}^{\text{b}} \text{ intake (g day}^{-1}\text{)} $	Castle and Thomas (1975) Murphy et al. (1983); NRC (2001) Dahlborn et al. (1998) Meyer et al. (2004)
Dairy cows (dry)	$y = -10.34 + 0.2296 \times \text{DM content of ration (\%)} + 2.212 \times \text{DM intake (kg day}^{-1}\text{)} + $ $0.03944 \times \text{CP}^{\text{c}} \text{ content of ration (\% of DM)} $ $y = 1.16 \times \text{DM intake} + 0.23 \times \text{DM content} + 0.44 \times \text{current temperature} + 0.061 \times $ $(\text{current temperature} - 16.4)^2 $ $y = 0.01 \times \text{body weight} + 0.32 \times \text{DM content} + 0.52 \times \text{current temperature} + 0.053 \times $ $(\text{current temperature} - 16.4)^2 $	Holter and Urban (1992) Tedeschi and Fox (2016) Tedeschi and Fox (2016)
Beef cattle	$y = -3.85 + 0.507 \times \text{average of environmental temperature (}^{\circ}\text{C)} + 1.494 \times $ $\text{DM intake (kg day}^{-1}\text{)} - 0.141 \times \text{roughage of ration (\% of DM)} + 0.248 \times $ $\text{DM content of roughage (\%)} + 0.014 \times \text{body weight (kg)} $	Meyer et al. (2006)
Heifers	$y = -5.206 + 0.038 \times \text{body weight (kg)} + 0.610 \times \text{average of environmental $ $\text{temperature (}^{\circ}\text{C)} + 0.098 \times \text{roughage of ration (\% of DM)} - 0.086 \times $ $\text{relative air moisture (\%)} + 0.530 \times \text{DM intake (kg day}^{-1}\text{)} $	Grabow et al. (2009)
Sheep	$y = 3.86 \times \text{DM intake} - 0.99 $	NRC (2007); Forbes (1986)

<sup>a</sup> Dry matter. <sup>b</sup> Sodium. <sup>c</sup> Crude protein.