

Errata for the Ruminant Nutrition System: An Applied Model for Predicting Nutrient Requirements and Feed Utilization in Ruminants Second Edition

Page 77

Third paragraph. “If a 550-kg steer was consuming 2.5 times its maintenance requirement of a forage with 62% of TDN_{1x} and 57% of NDF, it would have a discount of **6.77%**, resulting in a TDN_{2.5x} of **57.8%**⁽³⁵⁾.”

Note #35. “ $D_{2x} = 0.073 - 4.051 \times (2 - 1) + 0.05 \times 80 \times (2 - 1) + 0.093 \times 27 \times (2 - 1) - 0.0002 \times 80 \times 27 \times (2 - 1) = 2.101$; thus, $TDN_{2x} = 80 \times (100 - 2.1) \div 100 = 78.3$. $D_{2.5x} = 0.118 - 15.809 \times (2.5 - 1) + 0.195 \times 62 \times (2.5 - 1) + 0.298 \times 57 \times (2.5 - 1) - 0.0025 \times 62 \times 57 \times (2.5 - 1) = 6.77$; thus, $TDN_{2.5x} = 62 \times (100 - 6.77) \div 100 = 57.8$.”

Page 126

First paragraph. “A typical feed’s FA is comprised of lauric acid (**C12:0**; dodecanoic acid), myristic acid (**C14:0** = tetradecanoic acid), palmitic acid (**C16:0** = hexadecanoic acid), palmitoleic acid (**C16:1** = **hexadecenoic** acid), stearic acid (**C18:0** = octadecanoic acid), oleic acid (*cis*-9, **C18:1c** = octadecenoic acid *cis*), elaidic acid (*trans*-9) and vaccenic acid (*trans*-11) (**C18:1t** = octadecenoic acid *trans*), linoleic acid (**C18:2** = octadecadienoic acid), linolenic acid (**C18:3** = **octadecatrienoic** acid), arachidic acid (**C20:0** = eicosanoic acid), and arachidonic acid (**C20:4** = **eicosatetraenoic** acid)...”

Pages 419, 420, and 422

Equations [17.6], [17.10], and [17.28] were incorrectly represented. The correct equations are:

$$Ca_p = \begin{cases} 0.02456 \times e^{(0.05581 - 0.00007 \times t) \times t} - 0.02456 \times e^{(0.05581 - 0.00007 \times (t-1)) \times (t-1)} & t \geq 190 \text{ d} \\ 0 & \text{Otherwise} \end{cases} \quad [17.6]$$

$$P_p = \begin{cases} 0.02743 \times e^{(0.05527 - 0.000075 \times t) \times t} - 0.02743 \times e^{(0.05527 - 0.000075 \times (t-1)) \times (t-1)} & t \geq 190 \text{ d} \\ 0 & \text{Otherwise} \end{cases} \quad [17.10]$$

$$Na_M = \begin{cases} 0.038 \times FBW & T_c \leq 25^\circ\text{C} \\ 0.038 \times FBW + 0.001 \times FBW & 25^\circ\text{C} < T_c < 30^\circ\text{C} \quad \text{Lactating animals} \\ 0.038 \times FBW + 0.005 \times FBW & T_c \geq 30^\circ\text{C} \\ 0.015 \times FBW & T_c \leq 25^\circ\text{C} \\ 0.015 \times FBW + 0.001 \times FBW & 25^\circ\text{C} < T_c < 30^\circ\text{C} \quad \text{Otherwise} \\ 0.015 \times FBW + 0.005 \times FBW & T_c \geq 30^\circ\text{C} \end{cases} \quad [17.28]$$