### Dietary Nitrate Intake Worksheet for Ruminants

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
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</thead>
<tbody>
<tr>
<td>Daily Intake</td>
<td>% Moisture</td>
<td>% Dry Matter</td>
<td>Lb DM Intake</td>
<td>Lb Feed Water</td>
<td>Feed NO3-N Content</td>
<td>Content Factor</td>
<td>mg of NO3-N Intake</td>
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<tr>
<td>As Fed</td>
<td></td>
<td></td>
<td>Daily Water Content Factor Intake</td>
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**Calculation:**

\[ \text{Lb Test} \times 100 - \frac{B \times A \times C}{100} \times A \times B \times \text{PPM} \times \frac{D \times F \times G}{.454} \]

A. Feed Item

<table>
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<tr>
<th>Feed Item</th>
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Feed Total _______ _______ ______

B. Drinking water contribution

- Expected intake
- Feed water (Total E)
- Drinking water (I-J)
- Mg NO3-N from drinking water:

\[ K \times \text{Water NO3-N as ppm or mg/l} \times \frac{.454 = L}{\ldots} \]

\[ \ldots \times \ldots \times .454 = L \]
Dietary Nitrate Intake Worksheet for Ruminants (continued)

C. Total mg NO₃-N intake daily  (M)
   Total H + L
   _____ + _____ = M

D. NO₃-N content of total diet as % DMb  (N)
   (M/454,000) ÷ Total D x 100
   ______ ÷ _________ = _____ (N)

E. Adjustment of ration to control NO₃-N content of dietb
   Desired level in TRDM, including water: _____%    (P) — see Table 8 for guide
   Assumed desired level in this example _____    (P)
   Current content (N)  (Q)
   Content to be reduced (R)
   Q - P = R

   Amount to be reduced  (S)
   D x R/100 = S

   Difference in content of NO₃-N of high and low forage  (T)
   High forage (F) - Low forage (F)/10,000

   Lb forage dry matter to be exchanged  (U)
   S ÷ T/100 = U

   New high NO₃-N forage DMI  (V)
   (Old) D - U = V

   New as fed amount of high forage
   V ÷ C/100

   New low NO₃-N forage DMI  (W)
   (Old) D + U = W

   Restriction on single meal dry matter intake for high NO₃-N foragec: — see Table 4
   Maximum intake = _____/cwt BW  (X) — from Table 4
   Single meal max in lb FDMI  (Y)
   Max x cwt BW = Y

   Comparison
   Y vs V—If daily amount V is greater than Y, it must be fed in more than one meal.

Choose a desired risk level of NO₃-N in total ration dry matter that enables removal of silages or haylages at a rate that prevents molding and heating in the silo. When this is not feasible, it may not be possible to feed the high nitrate forage.

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aSee Table 7 for expected water intakes.
bSee Table 8 and the text for interpretation
cSee Table 4 for possible need for maximum single meal intakes for forages containing 1100 ppm NO₃-N or higher