Section 9 of 22 (9o - Effluent Irrigation Guide)

<table>
<thead>
<tr>
<th>* Total pounds of N to apply/acre/yr.</th>
<th>Range of Effluent N concentrations in storage ponds (mg/l or ppm)</th>
<th>NOTE: Lab analysis is needed to determine actual ppm of N in effluent.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td></td>
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<tr>
<td></td>
<td>150</td>
<td></td>
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<tr>
<td></td>
<td>200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>250</td>
<td></td>
</tr>
</tbody>
</table>

Acre-_inches of Effluent needed to apply given pounds of Nitrogen

| * Actual Nitrogen applied should be based on Effluent and Soil lab tests, average annual crop yield and NMSU recommendations. |

**Example:** Corn Silage & Cool Season Grass (Pasture) Net Irrigation Requirements (NIR) in inches/yr

<table>
<thead>
<tr>
<th>Corn Silage (Las Cruces, NM)</th>
<th>Corn Silage (Roswell, NM)</th>
<th>Corn Silage (Portales, NM)</th>
<th>Corn Silage (Clovis, NM)</th>
<th>Pasture, Cool Season Grass (Roswell, NM)</th>
<th>Pasture, Cool Season Grass (Portales, NM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.0</td>
<td>24.0</td>
<td>24.0</td>
<td>20.0</td>
<td>35.0</td>
<td>31.4</td>
</tr>
</tbody>
</table>

**Example Calculation:**

- **Crop:** Corn Silage (Las Cruces, NM)
- **NIR:** 28.0”
- **N requirement:** 150 lbs. per acre (based on soil test/recommendations)
- **Effluent Concentration:** 400 mg/l of N (lab test)
- **Effluent needed:** 1.65 ac-in (to get 150 lbs. N)
- **NIR – Effluent needed:** 28.0” – 1.65” = 26.35” of irrigation water needed (plus the 1.65” of water in the effluent)

- **% Irrigation Water contributed by the Effluent:**
  1.65” ÷ 28.0” ≈ 6.0%
- **EC of Effluent:** 5.0 dS/m
  (5.0 dS/m x 0.06 = 0.3 dS/m - salts in effluent)
- **EC of Irrigation Water:** 2.0 dS/m
  (i.e., EC of water used for irrigation)
- **Total Salt content in the irrigation and effluent mixture:** 1.88 + 0.3 = 2.18 dS/m (EC)

**Enter Your Information:**

- **Crop:**
- **NIR:**
- **N requirement:**
- **Effluent Concentration:**
- **Effluent needed:**
- **NIR – Effluent needed:**

**% Irrigation Water contributed by the Effluent:**

- **EC of Effluent:**
- **EC of Irrigation Water:**

**Total Salt content in the irrigation and effluent mixture:**

**NOTE:** Total Salinity is based on a weighted calculation of irrigation & effluent (based on % mixture); EC = Electrical Conductivity in dS/m


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