**First Irrigation**

- Typically the Most Inefficient
- Little Moisture Depletion
- Low ET
- Limited Root Penetration
- Rough Soil Surface
- Clods
- Residue

**Typical First Irrigation**

**Cutoff Ratio**

- Calculation to help balance Runoff and Deep Percolation
- Equals = Average Advance Time Divided by Set Time

**Average Advance Time**

- Half of the Rows have made it through.
- 12 hour set Time
- Half of Rows Through in 9 hours
- CR = 9/12 = 0.75
### Recommended Cutoff Ratios
NebGuide 97-1338.

<table>
<thead>
<tr>
<th>System</th>
<th>Sandy Soils</th>
<th>Loamy Soils</th>
<th>Clayey Soils</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Reuse</td>
<td>0.50</td>
<td>0.70</td>
<td>0.90</td>
</tr>
<tr>
<td>With Reuse</td>
<td>0.20</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>Blocked Ends</td>
<td>0.70</td>
<td>0.85</td>
<td>0.95</td>
</tr>
</tbody>
</table>

### Application in Field

- **If Observed CR is More Than Target**
  - Open Fewer Gates Next Set
  - Encourage Faster Advance Times
- **If Observed CR is Less Than Target**
  - Open More Gates Next Set
  - Encourage Slower Advance Times