

Section 8 of 22 (8e - Graded Border Irrigation Application Efficiency Analysis – Example)

| Example analysis is for an alfalfa field irrigated with a Hi-Flow Turn Out (flow rate is 7.5 cubic feet/second (cfs)) | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------------|---------------------------------------|---------------------|--------------------|-----------------------|-----------------|-----------------|--------------------------------------|------------------|--------|-------------------|------------------------|------------------------|--------------------------------|---------------------------------------|-------------------------------|-------------------------|----------------------------------|--|-----------------|----------------------|
| Parameters Analyzed by NRCS Irrigation Program | | | | | | | | *Irrigation Program Analysis Results | | | | | | | | | | | | | |
| Border Width | Border Length | Area Irrigated | Slope (ft./100 ft.) | Soil Intake Family | Roughness Coefficient | Flow per Border | Net Application | Inflow Time | Deep Percolation | Runoff | Gross Application | Application Efficiency | | | | | | | | | |
| ft. | ft. | acres | % | number | n value | cfs | inches | hour(s) | inches | inches | inches | % | | | | | | | | | |
| 436 | 600 | 6.0 | 0.1 | 0.6 | 0.15 | 7.5 | 2.0 | 2.0 | 0.36 | 0.11 | 2.48 | 81 | | | | | | | | | |
| Enter producer's Site-Specific field parameters | | | | | | | | Irrigation Program Analysis Results | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| <p>NOTE: It is highly recommended that at least one or two field Irrigation Water Management (IWM) evaluations be conducted. IWM evaluations is crucial baseline information that is needed, in order to properly assess, plan and implement changes for obtaining increased IWM levels, crop yields and quality. The following variables are part of the IWM evaluation:</p> <table border="0"> <tr> <td>➤ Crop quality & yield</td> <td>➤ Irrigation Water Mgmt. skill</td> <td>➤ Irrigation scheduling & constraints</td> </tr> <tr> <td>➤ Soils (texture & structure)</td> <td>➤ Water supply & source</td> <td>➤ System Operation & Maintenance</td> </tr> <tr> <td>➤ Type of irrigation system/efficiency</td> <td>➤ Water Quality</td> <td>➤ Labor, Costs, etc.</td> </tr> </table> | | | | | | | | | | | | | ➤ Crop quality & yield | ➤ Irrigation Water Mgmt. skill | ➤ Irrigation scheduling & constraints | ➤ Soils (texture & structure) | ➤ Water supply & source | ➤ System Operation & Maintenance | ➤ Type of irrigation system/efficiency | ➤ Water Quality | ➤ Labor, Costs, etc. |
| ➤ Crop quality & yield | ➤ Irrigation Water Mgmt. skill | ➤ Irrigation scheduling & constraints | | | | | | | | | | | | | | | | | | | |
| ➤ Soils (texture & structure) | ➤ Water supply & source | ➤ System Operation & Maintenance | | | | | | | | | | | | | | | | | | | |
| ➤ Type of irrigation system/efficiency | ➤ Water Quality | ➤ Labor, Costs, etc. | | | | | | | | | | | | | | | | | | | |
| <p>Irrigation field notes (e.g., acres irrigated, crops, yield, water supply/quality, soils, system O&M, drainage, runoff, ponding, etc.):</p> | | | | | | | | | | | | | | | | | | | | | |

(*USDA-NRCS Surface Irrigation System Program was used for the above analysis)

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Agronomy Tech Note 76 (<http://www.nm.nrcs.usda.gov/technical/handbooks/iwm/nmiwm.html>)