

Irrigation System Operation – Advice from a Farmer and Irrigation Engineer

Abstract: A sound approach to management of irrigation systems that utilize recycled water employees a combination of irrigation scheduling (hydraulic loading) and nutrient management (nutrient loading). Practical operation of irrigation systems while protecting water quality will be discussed from the perspective of a farmer and engineer. Crop requirements for water and nutrients, especially Nitrogen and Phosphorus, will be shown as the primary decision points for system operation. Considerations and potential issues related to salts in the applied water will also be discussed.

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Professional Background: After growing up on a small grains and potato farm in Eastern Idaho Bruce earned a BS in Agricultural and Irrigation Engineering from Utah State University and a MS in Civil Engineering from the University of Idaho. After a couple of years with the Corps of Engineers in Seattle District's Reservoir Control Center he returned to the family farm where he was part of the operation for five years. He then joined the NRCS in Idaho as an engineer, spending 10 years as Idaho's State Irrigation Engineer. For the last 3 years he has been NRCS Idaho's State Conservation Engineer where he is responsible for all engineering activities in the state.