

Irrigation Quality

Recognize the problem

Irrigation with impure or poor quality water will have a negative effect on the soil properties and, ultimately, on crop fertility and yield. The constitution and concentration of salts in water can have negative effect on soil.

Background

Farmers use irrigation water without following the scientific guidelines. Total salt concentration is the most important standard for judging the irrigation quality. Irrigation scheduling should be based on the water requirement of the crop.

Management

The suitability of irrigation water is based on the classification and concentration of salts in water.

C1 low salinity	-	suitable for most soil
C2 medium salinity	-	suitable with moderate drainage
C3 high salinity	-	unsuitable under restricted condition
C4 very high salinity	-	unsuitable

- Drain excess water from the field
- Use gypsum (to measure soil moisture) along with land treatments
- Use green manures and crop residues to develop the physical properties of soil

Irrigation in eastern Uttar Pradesh.
(Photo by IFPRI (CC BY-NC-ND))



The recommendations in this factsheet are relevant to: India



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