



## USDA-CSREES 2006 National Water Quality Conference

### [Water conservation for urban lawns using non-potable irrigation water](#)

Several options are available to reduce the amount of potable water used for landscape irrigation. First, potable water used for irrigation could be eliminated completely and replaced by effluent or low quality water that does not meet standards for human consumption. Municipalities generate significant amounts of sewage effluent water or often have poor quality groundwater sources available. The opportunity exists to utilize such waters as alternative irrigation sources if grasses are identified and selected that can tolerate both the climatic conditions for the area and salt accumulation in the soil. Second, adopting an efficient method of irrigation, such as subirrigation systems, could reduce water consumption, and third, a combination of all these measures could be used.

Research at New Mexico State University has investigated the use of cold and salt tolerant turfgrasses in combination with saline water and subsurface irrigation systems for turfgrass applications. In a randomized split-plot design, three water qualities (potable [0.6-1.2 dS/m], saline [3.1-5.0 dS/m], and 50/50 mix) were applied through two irrigation types (sprinkler and subsurface drip) to cool and warm season grasses. Data were collected for turfgrass establishment, root zone salinity build-up, and turfgrass quality. Results indicate that lawns can be established and maintained at an adequate quality with saline irrigation if salt tolerant grasses are used.

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