

# ***SDI in the Great Plains***

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## **What is SDI?**

SDI is subsurface drip irrigation. It is a method of irrigation where water is applied to the crop root zone below the soil surface by small emission points (emitters) that are in a series of plastic lines typically spaced between crop rows.

## **Why would we consider SDI for crop production in the Great Plains?**

The irrigation water source in the Great Plains is mainly the Ogallala aquifer along with some small alluvial aquifers and a small amount of highly contested surface water. Irrigation accounts for nearly 90-95% of the total water use. Though occupying a small percentage of the land area, irrigation has a significant effect on total crop production and economic stabilization of the region. Few people question that reductions in irrigation will be required in the future. SDI is one technology that can help to reduce water withdrawals from the aquifer while still maintaining high crop yields.

## **What are the short and long term implications of SDI adoption?**

SDI has not typically been used for crop production in the Great Plains because of its high investment costs. Most water planners and resource managers in the Ogallala region recognize that there will be no *magic bullet* that will remove all of the region's water problems. Instead there is a growing realization that it will take many tools working together to help avoid the significant disruption in the economies and societies grown accustomed to widespread irrigation use. SDI is just one of the many tools, but it is a tool that has a lot of pluses.