



Reducing the Environmental Impact of Irrigation

By Pat McGrane

The 2002 Farm Security and Rural Investment Act (the farm bill) caused significant water savings, especially through sprinkler irrigation.

Written for "Rainmakers: A Photographic Story of Center Pivots"



A special distribution within the Environmental Quality Incentives Program was added to install "water savings" practices in agricultural operations, specifically on irrigated cropland.

This distribution is called the "Ground and Surface Water Protection" program. In 2002, it was pilot tested and developed in the eight states that overlie the High Plains Aquifer in the central U.S. Since that first year, the program is available nationwide.

This is one of the newest major programs offered through USDA that provides targeted cost-share dollars (authorized at \$60 million per

year through 2007) to landowners to convert from less efficient water systems to more efficient systems.

While there has been a few subsurface drip irrigation systems installed using these funds, converting from gravity or flood surface irrigation to sprinklers has been the most requested change. For example, in the first three years of the Ground and Surface Water option, nearly 1,000 pivot systems have been installed in Nebraska alone. Demand on cost-share funds have been averaging four times greater than the number of dollars available.

The Natural Resources Conservation Service, who administers EQIP, provides the financial and technical assistance during these conversions. NRCS

specialists and engineers make the recommendations of needed changes to the landowner and review the irrigation company's designs to ensure they meet soil intake



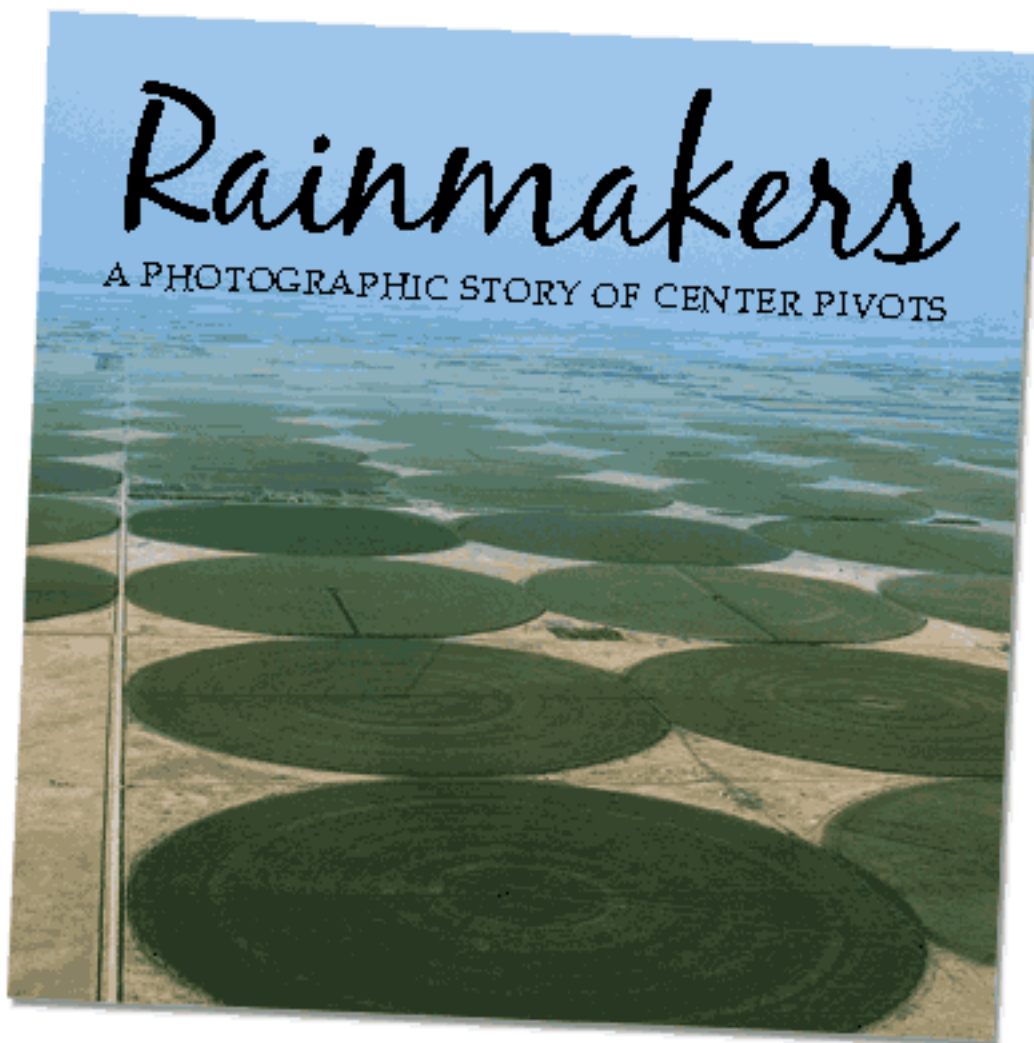
rates, pumping levels and other good water management standards.

The program offers landowners, who have irrigated four of the previous six years, options like:

- ♦ cost share funds for conversion from gravity/ surface irrigation to new sprinkler irrigation (purchasing of the sprinkler system cost share amount varies by state). In Nebraska, end guns are not eligible and dump valves are not allowed;
- ♦ cost share funds must for irrigation water management (irrigation scheduling, soil moisture monitoring) and flow measurement devices installed;
- ♦ cost share for nozzle packages on existing systems;
- ♦ sub-surface drip irrigation systems;
- ♦ other water savings practices established by NRCS in each state, developed with the State Technical Committee.

Kearney County Nebraska landowner Virgene Lundstrom, with her operator, and working with NRCS, recently converted from an open ditch system to a pivot. NRCS projects there will be 17-19 inches per acre of water saved, or not pumped, with this conversion. Lundstrom indicated a desire to get better yields, save water, increase the land value and cut costs as her motivation to entering an EQIP contract.





"Rainmakers: A Photographic Story of Center Pivots" is available for purchase directly from The Groundwater Foundation and at speciality bookstores nationwide.



The Groundwater Foundation is a nonprofit organization dedicated to educating and motivating people to care for and about groundwater. Contact us at 1-800-858-4844, info@groundwater.org or visit us online at www.groundwater.org.

