

Water Conservation in Rice Production by means of Mechanized Irrigation Technology

A water conservation method with great global potential is on the verge. Since the mid-1970's, rice farmers have been striving to achieve greater profitability while conserving water.

In 1999, Brazilian rice farmer Werner Arns and agronomist Herbert Arns put 24 years of surface flooding behind them; they began to successfully grow rice via mechanized irrigation with a Valley center pivot.



Since then, the center pivot has allowed the Arns to conserve water, ultimately leading to increased water savings by 50% and decreased production costs. Use of the Valley center pivots in the Arns' 1600-hectare fields allow for multiple crop rotations and a switch to minimum tillage crop production.

In order to duplicate the Arn's success, Valmont is currently leading research efforts. In the past year, Valmont has partnered with RiceTec, a technology-based rice company. RiceTec is screening their hybrids under center pivot irrigation. Researchers at the Missouri Delta Research Center have also begun experiments with a Valley center pivot in order to test rice farming methods; these may significantly reduce the water required for rice production. In addition to efforts in the US, Valmont is continuing to work with the Arns in Brazil and have begun to cooperate with the Brazilian research group Embrapa.

Valmont (2009) New Ag International, News Review, March 2009 Edition, p. 14.