

## Collaboration between Grower and Research Organisations as a Mechanism to Improve Water Efficiency in Irrigated Agriculture

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**Abstract :** The uptake of research as part of the diffusion or adoption of innovation by practitioners, whether individuals or organisations, has been a popular topic in agricultural development studies for many decades. In the classical, linear model of innovation theory, the innovation originates from an expert source such as a state-supported research organisation or academic institution. The changing context of agriculture led to the development of the agricultural innovation systems model, which recognizes innovation as a complex interaction between individuals and organisations, which include private industry and collective action organisations. In terms of this model, an innovation can be developed and adopted without any input or intervention from a state or parastatal research organisation. This evolution in the diffusion of agricultural innovation has put forward new challenges for state or parastatal research organisations, which have to demonstrate the impact of their research to the legislature or a regulatory authority: Unless the organisation and the research it produces cross the knowledge paths of the intended audience, there will be no awareness, no uptake and certainly no impact. It is therefore critical for such a research organisation to base its communication strategy on a thorough understanding of the knowledge needs, information sources and knowledge networks of the intended target audience. In 2016, the South African Water Research Commission (WRC) commissioned a study to investigate the knowledge needs, information sources and knowledge networks of Water User Associations and commercial irrigators with the aim of improving uptake of its research on efficient water use in irrigation. The first phase of the study comprised face-to-face interviews with the CEOs and Board Chairs of four Water User Associations along the Orange River in South Africa, and 36 commercial irrigation farmers from the same four irrigation schemes. Intermediaries who act as knowledge conduits to the Water User Associations and the irrigators were identified and 20 of them were subsequently interviewed telephonically. The study found that irrigators interact regularly with grower organisations such as SATI (South African Table Grape Industry) and SAPPA (South African Pecan Nut Association) and that they perceive these organisations as credible, trustworthy and reliable, within their limitations. State and parastatal research institutions, on the other hand, are associated with a range of negative attributes. As a result, the awareness of, and interest in, the WRC and its research on water use efficiency in irrigated agriculture are low. The findings suggest that a communication strategy that involves collaboration with these grower organisations would empower the WRC to participate much more efficiently and with greater impact in agricultural innovation networks. The paper will elaborate on the findings and discuss partnering frameworks and opportunities to manage perceptions and uptake.

**Keywords :** agricultural innovation systems, communication strategy, diffusion of innovation, irrigated agriculture, knowledge paths, research organisations, target audiences, water use efficiency

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