

## **Issues and Challenges of Demonstrating Water Saving Technologies to Non-English Speaking Farmers in Western Sydney, Australia**

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### **ABSTRACT**

The main focus of this study is to evaluate two innovative technologies, the Kapillary Irrigation Sub-Surface System (KISSS) and the Irrigation Water Recycling System (IWRS) to understand the concerns and issues of farmers while evaluating KISSS and IWRS under field situations for their potential to save potable water and protect the environment. The KISSS applies water directly to the root zone of plants with a minimum of water loss through runoff, evaporation and deep drainage. The IWRS collects irrigation and rainwater runoff from cropped areas during sprinkler irrigation and minor rain events and stores this within the farm for reuse in the next irrigation. A participatory approach was adopted in this study, involving a total of eight farmers and a number of other stakeholders. Many farmers were initially reluctant to get out of their comfort zone and consider IWRS or the KISSS irrigation system over their current overhead sprinkler irrigation system despite the potential water savings and environment protection. However, through demonstrations, particularly of KISSS showing faster wetting zone, uniform crop growth and water savings, several farmers were encouraged to evaluate and monitor either KISSS and/or IWRS under their farm management regimes. We report on some of the key lessons learnt when engaging farmers to adopt water saving technologies and we also relate difficulties encountered in the field to make the technology work.