

# IMPROVING IRRIGATION DECISION MAKING USING SOIL MOISTURE SENSORS

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The purposes of this presentation are to describe a model program used to educate county agricultural agents and growers on the basics of soil moisture sensor use for irrigation decision making, and to demonstrate the use of soil moisture sensors. County Extension faculty work with growers to help them grow crops more efficiently and more profitably. Growers look to these agents for information on, and guidance with, adopting new technologies that aim to conserve expensive inputs. Soil moisture sensors are used all over the United States to improve water use efficiency, but their cost, combined with a lack of information on their benefits and uses, can be barriers to adoption. To aid in adoption, demonstrations were conducted on-farm to explain the principles of soil moisture sensor use and give agents and growers hands-on experience with the technology. Irrigation schedules, handouts and displays were used to teach beginners how to interpret soil moisture sensor data for use in decision making. Trainings with 12 agents were conducted. The agents that participated in the training scored 25% higher on tests administered after the training compared to tests taken prior to the training. After the training the agents were given access to soil moisture sensors to use with growers on their farms. The agents used 22 sensors with 20 growers and nearly 80% of the growers that participated in the program purchased soil moisture sensors the following year. Many of the growers reported that the most meaningful benefit of the sensors was that it gave them “piece of mind”. Agents reported having more confidence with the technology and that having sensors provided them with more opportunities to interact with growers about all aspects of their operations.

**PRESENTER BIO:** Dr. Barrett is a Regional Specialized Agent for Water Resources in Northeast Florida. His primary focus is to help farmers increase input use efficiency through the adoption of best management practices including soil moisture sensors and precision agricultural technologies.