SMARTPHONE APPS FOR SCHEDULING IRRIGATION

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Proper irrigation scheduling provides many benefits to growers including optimal crop growth, better utilization of nutrients, higher yields, and reduced susceptibility to pathogens. Irrigation scheduling based on crop water needs has not been widely adopted in Georgia because reliable and easy-to-use scheduling tools are not available. Smartphone Apps are an emerging technology with great potential for helping growers improve water management efficiency as well as the overall profitability of the farm operation. Our project's goal is to make irrigation scheduling Apps available to growers to ensure that they benefit from the competitive advantage that this technology offers. The project has developed or is in the process of developing easy-to-use and engaging irrigation scheduling tools for cotton, blueberry, cotton, soybean, and three vegetables (cabbage, tomato, watermelon) as well as residential turf which operate on a smartphone platform. The Apps use interactive ET-based models, meteorological data from weather station networks or national gridded data sets, soil parameters, crop phenology, crop coefficients, and irrigation applications to develop irrigation scheduling recommendations. The Apps send notifications to the user when irrigation is needed, when phenological changes occur, and when rain is recorded. They operate on both iOS and Android operating systems. The Cotton, Turf, and Vegetable SmartIrrigation Apps have been released while the Blueberry and Soybean Apps are in beta testing. This presentation will describe how the Apps work and present data on their performance.

Program reference: 3.1.1