Cover: In a Texas cotton field, time domain reflectometry (TDR) probes are installed to monitor seed bed soil water content during germination, just one of multitudinous applications of soil water sensors in agricultural, hydrological, and environmental research. This issue’s special section will focus on comparisons, calibrations, and evaluations of soil water sensors in an effort to delineate the progress and problems of current sensor design, leading the way to future designs that are less susceptible to common interferences of soil bulk electrical conductivity, large surface area, and temperature dependence. In the upcoming paper, “Time Domain Reflectometry Laboratory Calibration in Travel Time, Bulk Electrical Conductivity, and Effective Frequency,” Steven R. Evett, Judy A. Tolk, and Terry A. Howell present a new method of TDR calibration that utilizes TDR system data to incorporate effects of bulk electrical conductivity without separate measurements of soil temperature.