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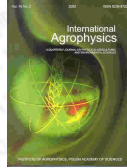
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Determining bulk electrical conductivity of soil from attenuation of electromagnetic pulse

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abstract Bulk electrical conductivity of soil, ecB determined using attenuation-based TDR measurements disagreed with reference data, ecB determined using the four-electrode reference method. To explain this discrepancy it was assumed that there exist more reasons other than the soil ecB that cause the pulse attenuation. Fitting a polynomial to the ecB (ecBT<sup>n</sup>) relationship made the TDR attenuation-based method applicable for the determination of the soil bulk electrical conductivity.

keywords soil electrical conductivity, soil salinity, time domain reflectometry

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