MULTITEMPORAL COMPARISON OF LANDSAT TM DATA WITH IN-SITU REFLECTANCE MEASUREMENTS

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ABSTRACT

A set of 10 multedate Landsat TM Data acquired during the growing seasons of 1986-1988 has been analyzed to show the influence of phenological development on the spectral response of winter wheat and sugar beets and its natural variation in a strdy area located between Bonn and Dologne. The comparison of this data (TM-bands 1-5) with simultaneously measured spectral reflectance data, gathered by a high resolution spectro reflectometer (0,4-2,2 µm) documents the influence of several atmospheric effects. The interference of various atmospheric conditions such as haze, fog, cirrus, and cumulus clouds with the spectral response of vegetation is described and discussed.