

Discrimination of Weed Anomalies Using Spatial Techniques

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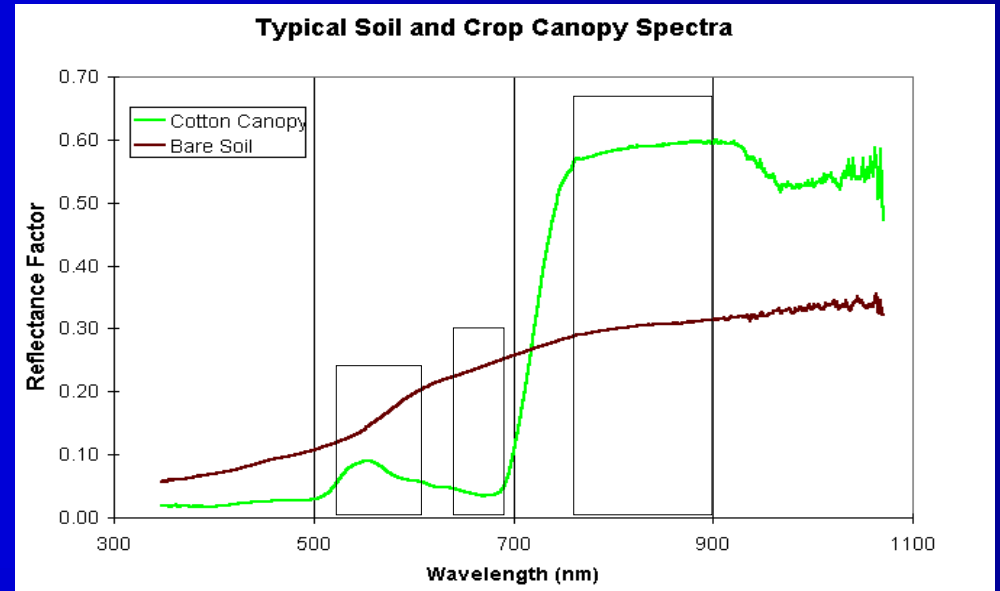


Objectives:

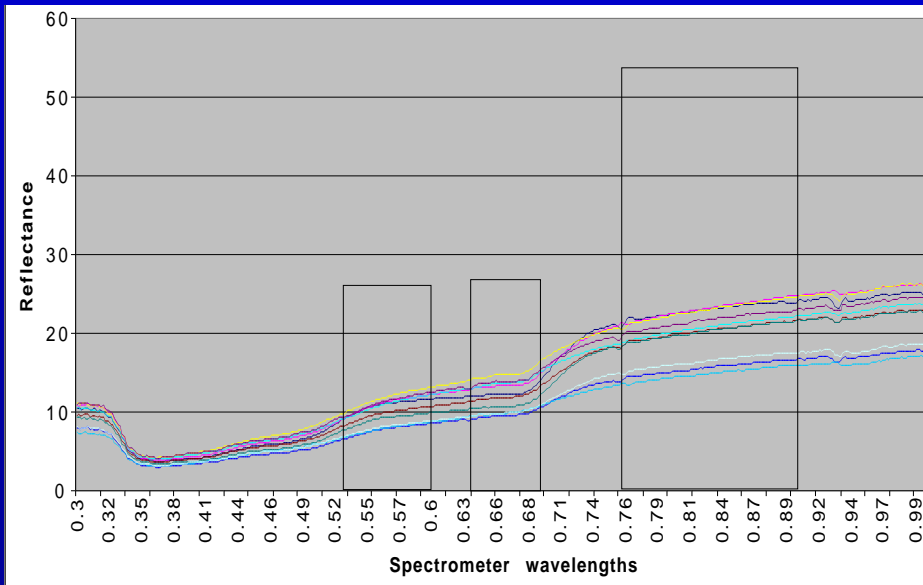
To develop a standard method for identification of weed areas in cropland fields during the early development of corn and soybean crops by utilizing the spatial technologies of remote sensing.

- To relate spectrometer data to weed populations and crop yield for corn and soybean crops
- To relate multispectral image data to weed populations and crop yield for corn and soybean crops
- To identify image data bands that best correlate with weed concentrations

Soybean Spectrometer Data

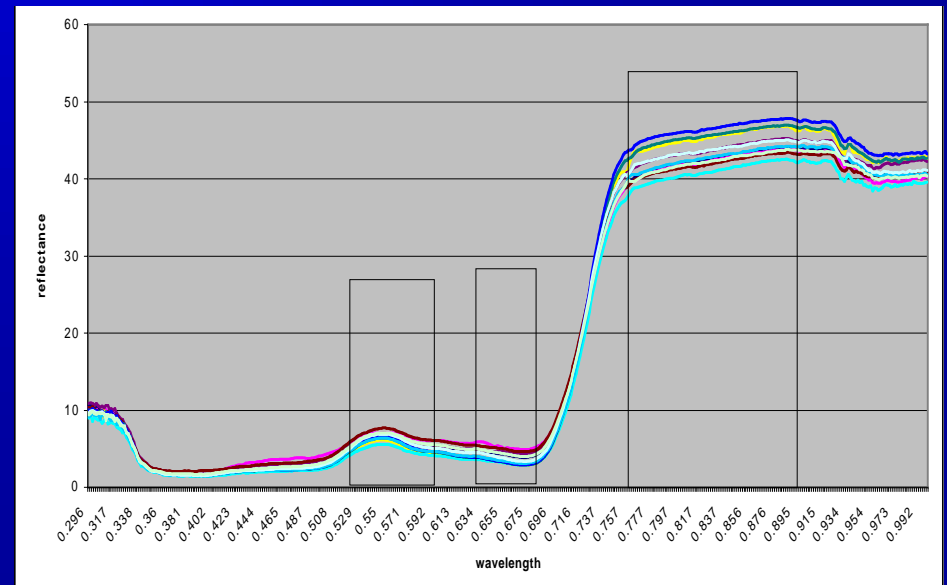


June 7 Observation Point 1



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July 11 Observation Point 1

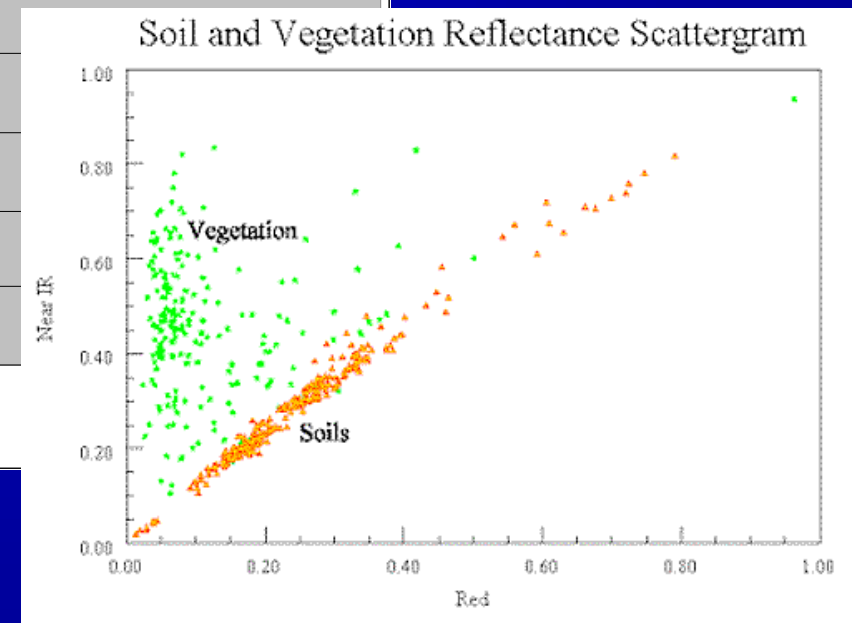
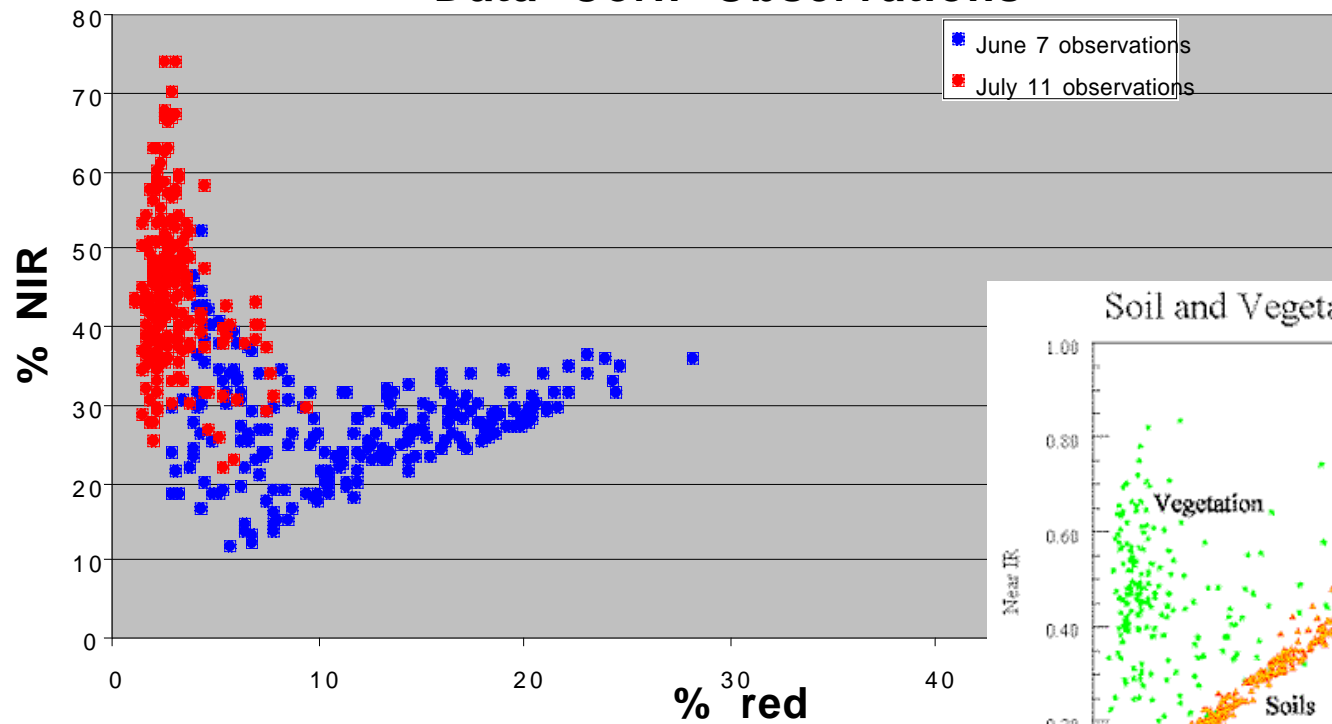


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Corn Plot Spectrometer Data

% Red and Near IR Reflectance

June 7 and July 11 Spectrometer Red and NIR Band Data Corn Observations



Summary and Conclusions

A procedure was developed to map weeds within a crop using NDVI type of functions.

Field spectrometer data and aerial images showed that weeds provide enough biomass for detection and mapping

Soil and vegetation patterns could be mapped separately.

Further work should be done on timely of data collection and on weeds in other geographic areas.