

USE OF REMOTE SENSING TO DETECT HERBICIDE INJURY IN SOYBEAN. Kurt D. Thelen and Chad Lee, Assistant Professor and Extension Specialist, Department of Crop and Soil Sciences, Michigan State University, East Lansing, MI 48824.

Multi-spectral imagery was evaluated as a tool for detecting herbicide injury in soybean. Three methods of collecting canopy light reflectance data were utilized including a ground based sensor, an airplane mounted camera, and satellite images. Herbicide injury was induced by applying 0, 1, 2 and 4x rates of lactofen and imazethapyr. Normalized differential vegetation indices were linearly correlated with lactofen and imazethapyr application rate. Correlation coefficients ranged from 0.67 to 0.97. Cloud cover was problematic for collecting aerial and satellite canopy reflectance data and would likely be a practical limitation in the North Central Corn Belt.