Use of Remote Sensing Technology for Improved Crop Scouting

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A procedure was developed using remote sensing and GPS to compare directed field scouting with traditional field scouting methods. In traditional field scouting methods random sites are selected within a field to observe or identify problem areas but these random sites may not include some areas needing evaluation. One finds it difficult to cover the entire field area given economic and time constraints and it may not be possible to estimate the full extent of damage through visual methods of identification. Edge effects or areas between visually healthy and damaged crops may exist. An analysis was performed to compare differences between visual image interpretation and georeferenced scouting data. Ground reference data were collected to identify possible crop limiting factors occurring in the field. The image data were compared with combine yield monitor data to test if these differences were significant. This procedure has the potential for improved scouting methods and better management field crop anomalies.

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