

LONG DISTANCE DIAGNOSTICS USING DIGITAL CAMERAS

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Introduction

Opportunity exists to enhance Extension educational efforts across a variety of field crops through expanded use of digital photography. Potential applications include, but are not limited to, growing season problems in grain, forage and horticultural crops. Benefits include time savings in problem diagnosis, increased user and client understanding, and an expanded library of digital photos for educational use. Funding was received during the spring of 1999 to explore the use of digital cameras for diagnosing field crop problems. UW-Extension Self-Directed Team(s) Grain, Forage and Horticulture are cooperating in this project.

Methods

Funding allowed for purchase and placement of cameras and necessary software in 6 counties. Sony Digital Mavica (MVC-FD 91) cameras and MGI PhotoSuite SE software were selected.

Prior to submission, photos were edited for sharpness and contrast with the name of the photographer, county and date placed on the photo. Photos were then attached to an e-mail message and sent to interested team members. Text in the e-mail message described the problem and, if desired, asked for a designated campus-based specialist to diagnose the problem and provide recommendations. Specialists were asked to send their response to all interested team members. Photos and responses were archived for future use.

Results and Discussion

A survey of participating agents and specialists suggests the following after a single growing season of use.

1. Digital camera photos are of value to most in increasing their understanding of field crop problems. Additional benefits include an "early alert" on developing problems and a mix of diagnostic opinions.
2. Submission of actual plant disease samples for lab analysis is still necessary for positive diagnosis in many cases.
3. A single crop diagnostic website with available background information on each problem is needed.

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4. Needed is a submission process which will automatically post, route and archive problems and recommendations.
5. Digital photos need to become an integral part of describing a production season.

Observations to date suggest a positive beginning for this project. Digital cameras appear to have been successfully introduced as a tool to enhance diagnosis and instruction of field crop problems.

For growing season photos taken during the year 2000 growing season, consult the Distance Diagnosis Home page at <http://max.uwex.edu/ces/ag/distancediagnosis/>

References

Brown, E.A., and R.D. Hamilton. 1998. Distance Diagnostics: Implementation and Uses. Agronomy Abstracts.

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