

Distance Diagnosis through Digital Imaging

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The *Distance Diagnosis through Digital Imaging System* at the University of Tennessee, Agricultural Extension Service will allow text based information and digital images to be submitted from county Extension offices for rapid diagnosis by resource professionals at the Plant and Pest Diagnostic Center, in Nashville. County Extension faculty are trained to submit plant disease or pest images and information using digital cameras, microscopes, computers and the internet. The system uses conventional software and hardware proven to be effective and reliable.

Imaging stations have been distributed geographically in county Extension offices across Tennessee. Additional stations will be placed in other counties as funding becomes available. *Distance Diagnosis* will reduce diagnostic turn-around time from an average of four days to one day when compared to sending physical specimens through postal mail. Digital images of plant disease, insect and weed pests can be uploaded to the *Distance Diagnosis* web page and diagnosed within one hour in emergency situations. Diagnostic responses will be provided on the internet, or by phone, FAX or email.

Project Benefits

- . Agribusiness enterprises that depend on timely pest identification, save money as they are able to respond quickly to emerging disease, insect or weed outbreaks.
- . County Extension agents will strengthen their diagnostic skills and become more valuable resources in their communities.
- . A library of images is currently being constructed and will serve as a crop pest profile reference library. This will be available as an educational resource for Extension agents, undergraduate and graduate students, farmers, nursery workers, landscapers, golf course superintendents, pest management professionals and master gardeners.
- . *Distance Diagnosis* utilizes the expertise of faculty located across the state. These faculty members work with various disciplines and their expertise helps improve accuracy and efficiency of diagnostic responses.

Special arrangements will be required for individuals, consultants or commercial organizations requesting disease diagnosis or pest identification on large numbers of samples. Charges will need to be determined in advance of these submissions.

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