

Digitizing and Preserving Rare Images of Pathological Disorders of Grain Sorghum



GPDN Great Plains Diagnostic Network

Portal Home Portal Documentation

Send us your feedback!

NPDN Web Ring

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- NEPDN
- NCPDN
- SPDN
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GPDN Portal

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News

Great Plains Network Members: Diagnostic Labs for Plant Problems

Colorado State University

Bioagricultural Sciences & Pest Management
<http://www.colostate.edu/Depts/bspm/> E215 Plant Sciences Building Colorado State University Fort Collins, CO 80523-1177

South Dakota State University

Plant Science Department
<http://plantsci.sdstate.edu> Box 2108, PSB 113 - Jackrabbit Drive Plant Science Department South Dakota State University Brookings, SD 57007-1090

Oklahoma State University

Entomology & Plant Pathology
<http://entopl.okstate.edu/> 127 Noble Research Center (127 NRC) Oklahoma State University Stillwater, OK 74078-3033

North Dakota State University

Plant Pathology <http://www.ndsu.nodak.edu/plantpath/> Dept. of Plant Pathology PO Box 5012 North Dakota State University Fargo, ND 58105
Entomology <http://www.ndsu.nodak.edu/entomology/> 202 Hultz Fargo, ND 58105

Texas Tech University

Texas Agricultural Experiment Station in cooperation with Texas Tech University Texas High Plains Plant Pathology
<http://amarillo.tamu.edu/programs/plantpath/> 6500 Amarillo Blvd W., Amarillo, TX 79106

University of Wyoming

Plant Science
<http://www.uwyo.edu/plants/default.htm> Department 3354, University of Wyoming 1000 E. University Ave. Laramie, WY 82071

University of Nebraska- Lincoln

Plant Pathology <http://plantpath.unl.edu/Southeast> Research & Extension Center 448 PS University of Nebraska Lincoln, Ne 68583-0722
Entomology <http://entomology.unl.edu/> 202 Plant Industry Bldg University of Nebraska-Lincoln Lincoln, NE 68583-0816

Montana State University

Plant Science/Plant Pathology <http://plantsciences.montana.edu/> 119 AgBioScience, Montana State University, Bozeman, MT 59717
Animal and Range Sciences <http://animalrange.montana.edu/>
Montana State University, PO Box 172900, Bozeman, MT 59717-2900

Kansas State University

Plant Pathology <http://www.oznet.k-state.edu/plantpath/> Dept of Plant Pathology 4024 Throckmorton Plant Science Center, KSU Manhattan, KS 66506-5502
Entomology <http://www.oznet.k-state.edu/entomology/> 123 W. Waters Hall, Kansas State University, Manhattan KS 66506-4004

News Images



Astri Wayadande, Instructor at Insect Vector Workshop




citrus greening (image: FL Div of Plant Industry)



citrus greening (image: FL Division of Plant Industry)




PDIS – Plant Diagnostic Information System www.pdis.org



Plant Diagnostic Information System

The Plant Diagnostics Information System has been developed to facilitate plant diagnostic lab activities for a consortium of land grant institutions, state departments of agriculture and the U.S. Department of Agriculture. These labs provide services for plant disease diagnosis, plant identification, and insect identification. PDIS is a system of web and database applications designed to facilitate recordkeeping and communication needs of lab personnel and their customers.

SEARCH ?



Armyworm(*Pseudaletia unipuncta*) Tachinid Fly Eggs (*Archytas analis*)

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Plant Diagnostic Information System Version:3.2.2458.18424
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[PDIS Image Library Search Engine Links](#)

Dr. Larry Claflin

- International expert in grain sorghum
- Over several decades he traveled the world taking pictures of grain sorghum diseases
- He has thousands of slides of grain sorghum diseases
- He wants his slides to be preserved, viewed and used by other people after he retires

Benefits

- Important images are preserved in a digital format
- Allows others to view images for educational, informational, or research purposes
- A significant food security resource for researchers
- Creates a protocol for uploading images and metadata that could be used for other similar projects

Protocol – Five Steps

- Image selection
- Metadata
- Digitization
- Verification
- Evaluation of procedures

Image selection – Dr. Clafin



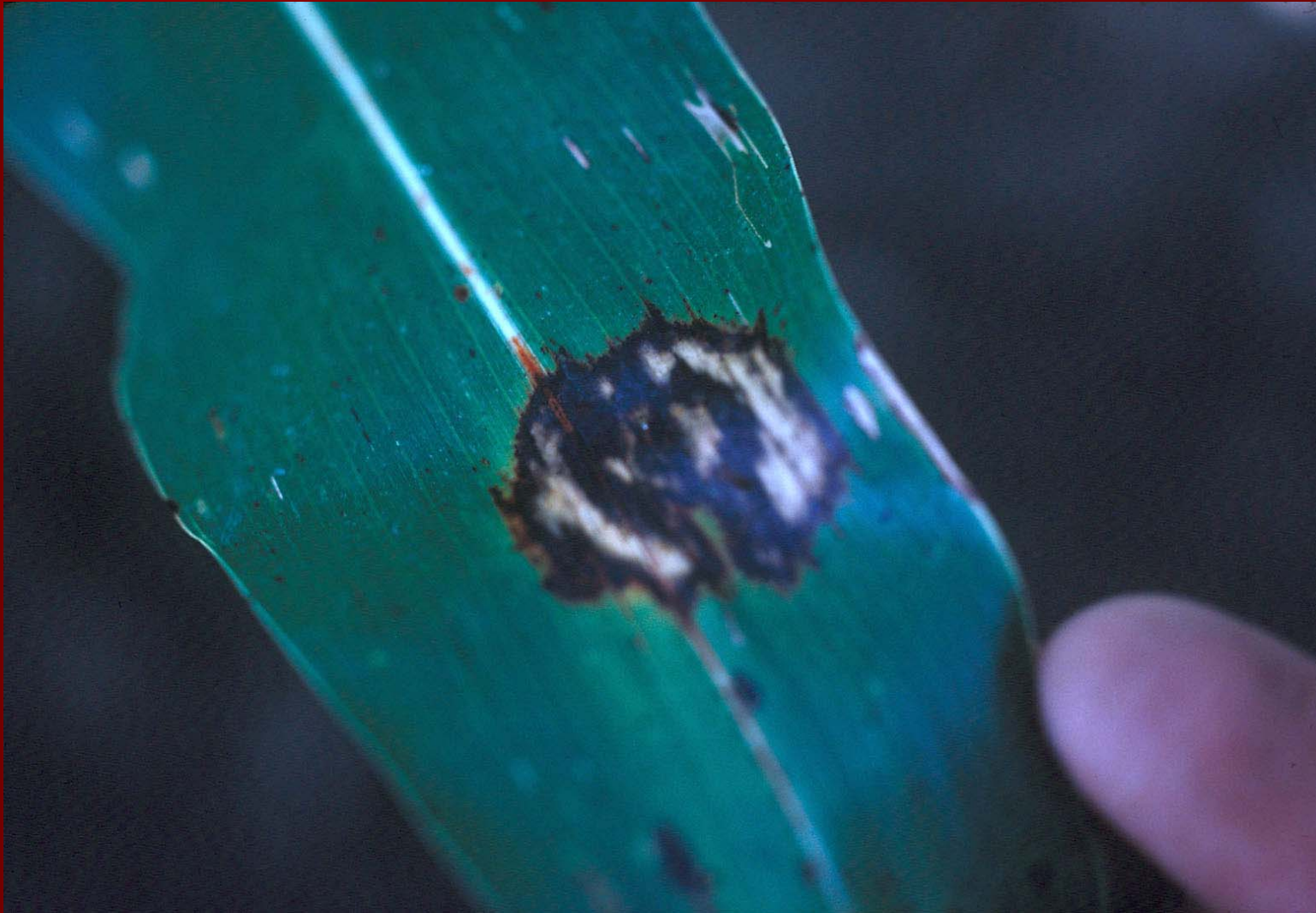
Metadata – Dr. Claflin

- Corresponds to PDIS metadata fields
- Location – Country, state, county
- Photographer and institution
- Date
- Taxonomic & common names of host and disease/pest
- Keywords
- Description of image
- Additional resources – Not used for this project
- Image

Digitization - Scanning



Digitization - Correction



Digitization – Submitting Images



The screenshot shows a Microsoft Internet Explorer browser window displaying the 'Image Library Submission' page. The browser's address bar shows the URL: <https://intranet1.pdis.org/ImageLibrary/Submit2D.uplx>. The page header features the K-State Research and Extension logo and the text 'KSTATE RESEARCH AND EXTENSION'. The left sidebar contains a 'Main Menu' with links to 'PDIS Public', '< PDIS Homepage', 'My Account', 'My Support', 'Logout', and 'Help'. Below this is a 'Secure Comm' section with 'New Message', 'Unread (0)', 'Read (0)', 'Draft (0)', and 'Sent (0)'. Further down are 'NPDI Exercises' and 'Image Library' sections. The 'Image Library' section includes links for 'Image Search', 'Submit 2D Image', 'Submit 3D Image', 'Submit Version', and 'Rejected Images(30)'. The 'Agricultural Alerts' section includes 'Overview', 'Active AgAlerts', 'Search AgAlerts', and 'Login/Subscribe'.

The main content area is titled 'Image Library Submission' and contains the following sections:

- LOCATION PHOTOGRAPH WAS TAKEN**: A paragraph explaining that images are searchable by geographical region and providing hints for selecting country, state, and county. Below this are three dropdown menus: 'Country: United States', 'State: Texas', and 'County: Nueces'.
- PHOTOGRAPHIC CREDIT**: A paragraph explaining that the institution selected determines the copyright notice. Below this are three input fields: 'Institution: Kansas State University', 'Photographer: Larry Clafin', and 'Copyright: (c) Copyright 2006'.
- IMAGE SEARCH METADATA**: A paragraph explaining that users will most often use the following fields for finding images. Below this are several input fields: 'Date Taken: 06/01/1982', 'Common Name PEST: Gloeocercospora sorghi', 'Taxonomic Name PEST: Zonate Leaf Spot', 'Common Name HOST: Sorghum, milo', 'Taxonomic Name HOST: Sorghum bicolor', 'Keywords About photographic subject: sorghum,', and 'Photo Description: Corpus Christi, Texas: Zonate is common during wet periods.' There is also a 'Keyword List' button.

The browser's taskbar at the bottom shows the Start button, a Removable Disk (E:), Microsoft PowerPoint - [...], and Diagnostician Admini... The system tray shows the Internet icon and the time 2:28 PM.

Verification – Accepted/Rejected



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Image Library





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Image Details

Image Details

Status: **Accepted**

Dimensions: 1556 x 1139 pixels

Download:  
 



Host/Plant: [Sorghum, milo \(*Sorghum bicolor*\)](#)
Pest/Path: [Zonate Leaf Spot \(*Gloeocercospora sorghi*\)](#)
Description: [Corpus Christi, Texas: Zonate is common during wet periods.](#)

Institution: [Kansas State University](#)
Photographer: [Larry Clafin](#)
Location: [Nueces, Texas, United States](#)
Date Taken: [6/1/1982](#)
Submitted: [livia@ksu.edu](#) 5/31/2005

Image Use Statement (A) Images may be used without written permission by K-12 or higher education faculty and students in web pages, presentations and homework assignments. (B) Images may be used without written permission by United States federal, state and local governments in web pages, and presentations. (C) Image use not covered by above provisions may require written permission from the copyright holder and may require payment of royalties. (D) Use of images must be accompanied by photographer credit and copyright notice.

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Sorghum, Milo (*Sorghum bicolor*)
Zonate Leaf Spot (*Gloeocercospora sorghi*)
Photo By: Larry Claflin 8/15/2005 ID: 38228
Kansas State University
Great Plains Diagnostic Network
(c) Copyright 2005



Evaluation of Procedures

- Extra details added once the process was started
- Directions created for scanning & correcting of images, and for uploading of images to PDIS
- Worked with people at the PDIS to sort out any problems