NF506 Plant Disease Central Web Site (http://pdc.unl.edu)

Jim Stack

Follow this and additional works at: https://digitalcommons.unl.edu/extensionhist

Part of the Agriculture Commons, and the Curriculum and Instruction Commons
Plant Disease Central Web Site
(http://pdc.unl.edu)

By Jim Stack, Extension Plant Pathologist

Disease is a natural part of every crop production system. This is true for all crop species and for each type of production system; irrigated or rain-fed, conventional or conservation tillage, and continuous or rotational cropping. In any given year, the question is which diseases will occur in Nebraska’s field crops and at what incidence and severity. Many factors influence disease development in plants, including hybrid/variety genetics, plant growth stage at the time of infection, weather (e.g., temperature, rain, wind, hail, etc.), single versus mixed infections, and genetics of the pathogen populations. Variation inherent in these factors often makes disease prediction and diagnosis difficult at the early stages of disease on individual plants as well as at the early stages of an epidemic; however, many disease symptoms do become diagnostic at some stage of disease development and a reasonable level of confidence can be placed in diagnoses based on these symptoms.

To help producers, consultants, and other agricultural professionals diagnose and manage field crop diseases in Nebraska, the Plant Disease Central (PDC) web site was developed. The URL for this site is http://pdc.unl.edu/. The home page includes instructions on navigating the site under the “About This Site” link. A vertical banner on the left side of all pages on the site offers links to other pages within the site. Throughout the site readers will find e-mail links for sending questions and comments about the site or information related to disease outbreaks. The following offers a brief explanation of the major features and sections of the site.

Home Page

The Plant Disease Central home page features links to 1) pages for each of the major crops and their diseases in Nebraska; 2) a disease forecast page; 3) a hot topics page; 4) county update pages; and 5) the University of Nebraska’s South Central Research and Extension Center and the Institute of Agriculture and Natural Resources.

On the home page, as well as at other places throughout the site, Email links are included so viewers can send questions or comments regarding the PDC site or the occurrence of diseases in the field. Comments on the usefulness of the information and images for specific diseases as well as for the site itself are encouraged. Various pages within the site also include links to University of Nebraska publications (e.g., NebGuides, NebFacts, etc.), extension sites and publications from other Universities, or relevant government sites.

Major Crops Page

For each major crop, a web page lists the diseases commonly occurring in the crop in Nebraska. Each listing links to a page providing more detailed information and photos of the disease. This list is not intended to be a comprehensive catalog of all diseases that have ever occurred in Nebraska, but rather a list of the diseases most likely to be encountered regularly. Not all diseases occur in every Nebraska county and when possible the known or projected geographic distribution of the disease is given. Diseases will be added to each crop’s list as they become important and as resources allow.

Individual Crop Disease Pages

Each crop disease page provides information on the pathogen, the symptoms most often associated with disease development, conditions favorable to disease development, and the recommended procedures for disease management. The text links to images illustrating specific points in the content. A list of all images available for a particular crop disease is available with each image.

Disease Forecast Page

The disease forecast page will be updated regularly and will include information on disease occurrence and severity,
based on surveys in select counties. It will indicate which diseases to watch for as a result of the weather from the previous 7-10 days. Links to five county pages and the South Central Research and Extension Center farm provide updates on weather, crop, and gray leaf spot (GLS) development on corn at those locations.

**Hot Topics Page**

The hot topics page will include information on disease outbreaks, crop response to severe weather conditions (e.g., scorch symptoms, hail damage), or other phenomena that affect disease incidence and severity for select crops. This page will be updated as conditions warrant.

**Summary**

The most critical factor in profitable management of a plant disease is obtaining a correct diagnosis. In any given year, the question is which diseases will occur in Nebraska’s field crops and at what incidence and severity. Diagnosing plant diseases can be difficult at the early stages of disease development; however, for many diseases, there is a point when a reasonable level of confidence can be placed in diagnoses based on symptoms. The Plant Disease Central (PDC) web site was developed at [http://pdc.unl.edu](http://pdc.unl.edu) to help producers, consultants, and other agricultural professionals in the diagnosis and management of field crop diseases in Nebraska.