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EC03-1884 Wheat Disease Profiles I

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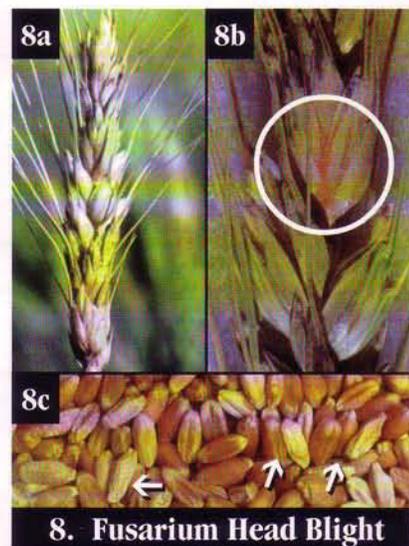
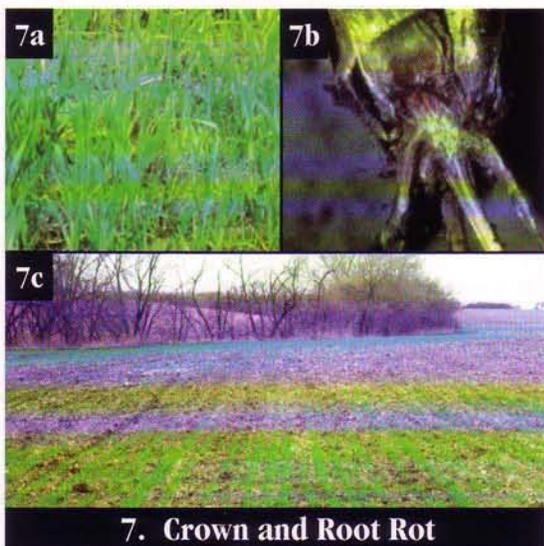
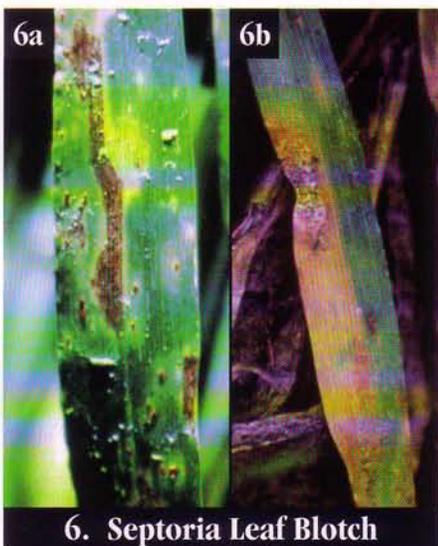
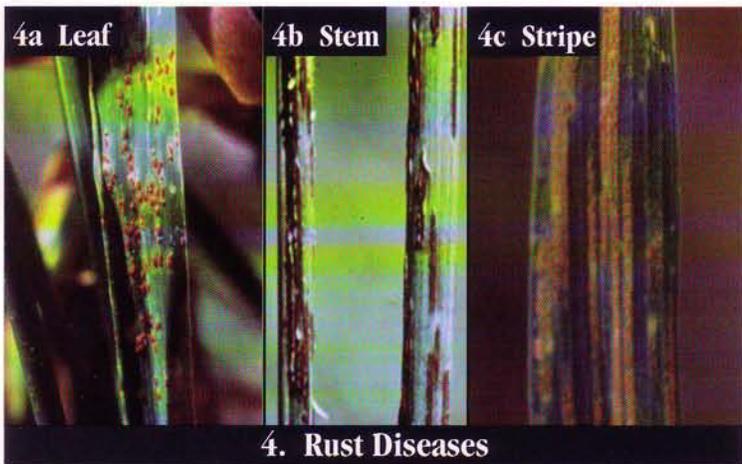
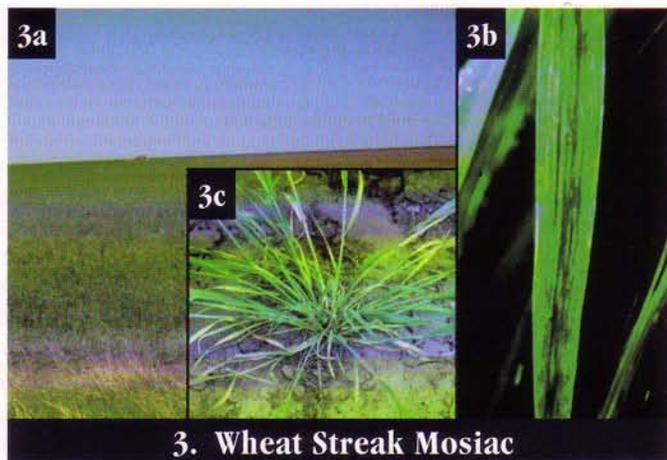
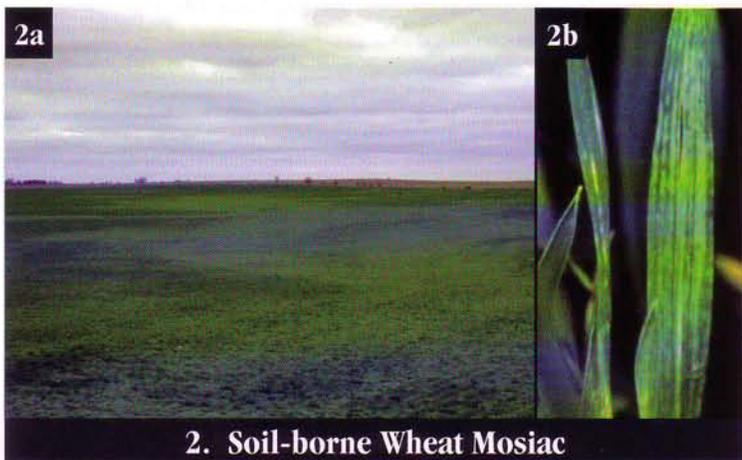
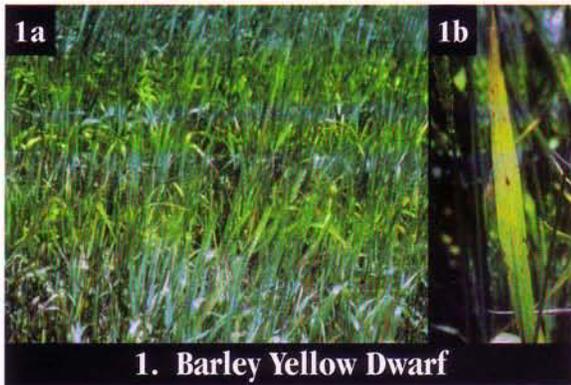
Watkins, John E.; Harveson, Robert M.; Stack, James P.; Giesler, Loren J.; and Chaky, Jennifer L., "EC03-1884 Wheat Disease Profiles I" (2003). *Historical Materials from University of Nebraska-Lincoln Extension*. 1540.

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Wheat Disease Profiles I

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Disease	Symptoms
1. Barley Yellow Dwarf <i>Barley yellow dwarf virus</i>	The yellowing in fields often occurs in patches that conform to patterns of aphid feeding (Fig. 1a). Leaf tips of affected plants are bright yellow and later may take on a reddish cast (Fig. 1b). Patches of bright yellow plants at heading are diagnostic. Symptoms are present from mid-spring to plant maturity.
2. Soil-borne Wheat Mosaic <i>Soil-borne wheat mosaic virus</i>	Field symptoms are light green patches often associated with low areas (Fig. 2a). Light green to yellow mosaic blotches are present on leaves (Fig. 2b). Symptoms are most evident from early spring until temperatures reach 70°F.
3. Wheat Streak Mosaic <i>Wheat streak mosaic virus</i>	Affected fields often show a yellow gradient from the field margin inward or a uniform yellowing over the entire field (Fig. 3a). Leaves have light green to yellow mosaic streaks (Fig. 3b). Plants with advanced symptoms are severely yellowed, stunted and rosetted (Fig. 3c). Symptoms are present from mid-spring through maturity. High Plains disease often occurs in association with wheat streak mosaic.
4. Leaf Rust <i>Puccinia triticina</i> Stem Rust <i>Puccinia graminis tritici</i> Stripe Rust <i>Puccinia striiformis tritici</i>	Leaf rust symptoms are circular, orange pustules that form on the upper leaf surface (Fig. 4a). Stem rust appears as brick red pustules with frayed margins on stems and leaves (Fig. 4b). Bright yellow-orange pustules arranged in linear stripes between the veins are symptomatic of stripe rust (Fig. 4c). The rust spores within the pustules rub off onto fingers. The pustules often turn black as the plants mature.
5. Tan Spot <i>Pyrenophora tritici-repentis</i>	Tan spot first appears on leaves in early spring as small, dark, oval spots with light centers and dark margins (Fig. 5a). These later develop into larger tan blotches with yellow borders (Fig. 5b). The presence of raised black fungal structures on straw from the previous wheat crop either in the same or adjacent field is diagnostic (Fig. 5c).
6. Septoria Leaf Blotch <i>Septoria tritici</i>	Leaf symptoms are elongate, tan to reddish brown, irregular-shaped spots surrounded by a yellow margin (Fig. 6a). Older lesions contain small, black fungal structures called pycnidia (Fig. 6b).
7. Common Root Rot and Crown Rot <i>Cochiobolus sativus</i> <i>Fusarium graminearum</i> <i>F. culmorum</i>	Affected plants tiller poorly, have smaller heads and appear spindly (Fig. 7a). Infected crowns, subcoronal internodes and roots are darkened and rotted (Fig. 7b). The presence of dead and dying plants in early spring is characteristic (Fig. 7c). Symptoms are often associated with winter injury.
8. Fusarium Head Blight (Scab) <i>Fusarium spp.</i>	The presence of one or more blighted spikelets in a wheat head after flowering is symptomatic (Fig. 8a). Often a salmon orange fungal spore growth forms at the base of spikelets or along the glume edges (Fig. 8b). Infected seed is light pink and shriveled (Fig. 8c).

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Elbert C. Dickey, Dean and Director of Cooperative Extension, University of Nebraska, Institute of Agriculture and Natural Resources.

